



SPECIAL  
SECRETARIAT  
FOR WATER



MINISTRY OF  
ENVIRONMENT  
& ENERGY

# 1<sup>st</sup> Update of River Basin Management Plans

## River Basin District of Attica (EL06)

### Summary



European Union  
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**HELLENIC REPUBLIC**  
MINISTRY OF ENVIRONMENT & ENERGY  
SPECIAL SECRETARIAT FOR WATER

**DEVELOPMENT OF 1<sup>st</sup> UPDATE OF RIVER BASIN MANAGEMENT PLANS FOR THE 14 WATER DISTRICTS OF GREECE, IN ACCORDANCE WITH THE DIRECTIVE 2000/60/EC, THE LAW 3199/2003 AND THE P.D. 51/2007 - STUDY M3 “RIVER BASIN DISTRICT OF ATTICA (EL06) AND EASTERN STEREA ELLADA (EL07)”**

**JOINT VENTURE: “1<sup>st</sup> UPDATE OF RIVER BASIN MANAGEMENT PLANS ATTICA (EL06) AND EASTERN STEREA ELLADA (EL07)”**

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**RIVER BASIN DISTRICT OF ATTICA (EL06)**

**Summary of 1<sup>st</sup> Update of River Basin Management Plans – English (Deliverable 22b Study M3)**

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# 1<sup>st</sup> UPDATE OF RIVER BASIN MANAGEMENT PLANS

## RIVER BASIN DISTRICT OF ATTICA (EL06)

### Summary

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### **Abbreviations**

<b>Abbreviation</b>	<b>Interpretation</b>
AR	At Risk
AWB	Artificial Water Body/bodies
EQR	Ecological Quality Ratio
GD	Guidance Document
GIG	Geographical Intercalibration Group (
GOLR	General Organization of Land Reclamation
GWB	Groundwater Body/bodies
HMWB	Heavily Modified Water Body/ bodies
LOLR	Local Organization of Land Reclamation
MEWSS	Municipal Enterprise for Water Supply and Sewerage
NR	Not at Risk
NWMN	National Water Monitoring Network
PAR	Probably At Risk
PNR	Probably Not at Risk
RB	River Basin
RBD	River Basin District
RBMP	River Basin Management Plan
SCI	Site of Community Importance
SPA	Special Protection Area
SWB	Surface Water Body/bodies
WB	Water body/bodies
WFD	Water Framework Directive
WISE	Water Information System of Europe





## 1. INTRODUCTION – 1<sup>st</sup> UPDATE OF RIVER BASIN MANAGEMENT PLANS

### 1.1 INTRODUCTION

By decision 391 / 08.04.2013 (Government Gazette B'1004) of the National Water Committee the 1<sup>st</sup> River Basin Management Plan of the River Basin District examined was approved.

The 1<sup>st</sup> Update has major changes and improvements from the 1<sup>st</sup> Management Plan:

- It is based on the use of data from the National Water Monitoring Network (NWMN), for the 2012-2015 period
- It is being drawn up at the same time as the Flood Risk Management Plans pursuant to Directive 2007/60 /EC and synergy of actions and a program of measures has being accomplished
- It is also being drawn up at the same time as the programs of measures for the achievement of the good environmental status of the marine waters of the country in accordance with the Directive 2008/56/EC and has achieved synergy of actions and of program of measures
- It takes into account the National Strategy for Adaptation to Climate Change and incorporates into the program of measures sub-actions of the National Strategy for Adaptation to Climate Change
- It takes into account the results of actions that have been implemented so far in the context of increasing knowledge of water status and the pressures they receive, as well as the actions implemented to fill in the gaps identified in the 1<sup>st</sup> Management Plan
- It takes into account the new requirements arising from the EU Directive 2000/60/EC Guidance Documents.
- It takes into account the results of the European Commission's Special Report on the Evaluation of Management Plans 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.

The 1<sup>st</sup> Update is being carried out simultaneously for the 14 River Basin Districts of the country and homogeneity has been achieved in the individual methodologies but also in the proposed programs of measures (basic and supplementary).

### 1.2 CONSULTATION PROCESS

The consultation process on the 1<sup>st</sup> Update of River Basin Management Plans lasted from 30/11/2015 till 15/12/2017 and included the following:

- **1<sup>st</sup> Phase:** In November 2015, the content of the foreseen activities for the 1<sup>st</sup> Update of the RBMP was posted on the website of the Ministry of Environment and Energy timetable tender documents for the site of the RBMP ([www.ypeka.gr](http://www.ypeka.gr)) as well as the detailed timetable of the consultation process.
- **2<sup>nd</sup> Phase:** In June 2016, data on the important issues of water resources management in each RBD were posted on the same website, containing briefly the results of the National Water Monitoring Network for the RBD, the main pressures, the identification of the competent authorities and stakeholders involved in the consultation. Also, in December 2016, the basic common methodologies for the designation and classification of water bodies status, assessment of pressures and impacts including hydromorphological pressures, the definition of Highly Modified Water Bodies and the identification of the exemptions of Article 4 of Directive 2000/60 / EC, were posted on the same website.

- **3<sup>rd</sup> Phase:** In June 2017 a draft of the 1<sup>st</sup> Update of RBMP was posted on a special website of the Special Secretariat (<http://wfdver.ypeka.gr>), as well as a questionnaire. This phase included the publication of the Strategic Environmental Impact Study.

**The consultation was completed in 15/12/2017.**

### **1.2.1 Consultation results**

In total 174 persons participated in the consultation event, 11 participants intervened and 44 questionnaires were submitted. No questionnaires were sent through the website and one comment was posted on the website.

Main results of the consultation process:

- Satisfactory participation from the public administration sector
- Medium participation of citizens and NGOs
- High environmental sensitivity concerning water resources

The consultation process is deemed successful as it revealed all the problems that came up during the implementation of the first RBMP and contributed to the final shaping of the 1<sup>st</sup> Update of RBMP of Attica (EL06).

## 2. DIFFERENTIATIONS IN COMPARISON WITH THE 1<sup>st</sup> RBMP

### 2.1 NEW ANALYTICAL METHODOLOGIES FOR CRITICAL ASPECTS OF THE IMPLEMENTATION OF THE IMPLEMENTATION OF DIRECTIVE 2000/60/EC

For the 1<sup>st</sup> Update of RBMP of the country, new analytical methodologies were developed for critical aspects of the implementation of Directive 2000/60/EC. All the analytical methodologies are available on the website of the Special Secretariat for Water <http://wfdver.ypeka.gr/>:

- Analysis of anthropogenic pressures and their impacts on surface and underground water systems
- Determination and criteria for assessment of hydromorphological alterations
- Determination of Heavily modified (HMWB) and Artificial (AWB) Water Bodies
- Determination of the "exceptions" to the achievement of the environmental objectives of Directive 2000/60/EC:
  - Identification of the "exceptions" of paragraphs 4 to 6 of Article 4 of Directive 2000/60 / EC (4.4 - 4.6)
  - Identification of the "exceptions" of paragraph 7 of Article 4 of Directive 2000/60 / EC (4.7) on new modifications
- Assessment (designation classification) of surface water bodies status:
  - Assessment of the ecological and chemical status of river water bodies
  - Assessment of ecological and chemical status of lake water bodies
  - Assessment of the ecological and chemical status of coastal and transitional water bodies
- Assessment methodologies for individual BQEs for each surface water category that has been approved by the EU in the context of the intercalibration exercise at European level. These methodologies concern the following:
  - Analytical methodologies for the assessment of biological quality elements in rivers.
  - Analytical methodologies for the assessment of biological quality elements in lakes.
  - Analytical methodologies for assessing the biological quality elements in coastal and transitional waters.



## 2.2 MAIN DIFFERENTIATIONS IN COMPARISON WITH THE 1<sup>ST</sup> RBMP

Table 2-1: Main differentiations in comparison with the 1<sup>st</sup> RBMP

Content of 1 <sup>st</sup> Update of RBMP/ Activity	Differentiation in comparison with the 1 <sup>st</sup> RBMP
<b>COMPETENT AUTHORITIES</b>	The competent authorities are not differentiated in comparison with the 1 <sup>st</sup> RBMP. In the Update, the inventory of the competent authorities and stakeholders involved in the Water Management, as it derives from the existing institutional framework, is rationalized and it is presented in accordance with the requirements of the new EU Guidance Document (GD Reporting 2016).
<b>DESIGNATION OF SURFACE WATER BODIES - TYPOLOGY</b>	In the Update, new typology was developed for river and lake WB. Furthermore, the reservoirs are reported as River Heavily Modified WB but their assessment is done with elements and tools designated for lakes, as lakes is the category of natural WB they resemble the most. In accordance with the above the number of WB is revised. It is noted that during the Update, the prefix of the WB codes were reformulated from GR to EL, in order to be compatible with the EE databases.
<b>DESIGNATION OF GROUNDWATER BODIES</b>	The number of GWB is revised based of the results of the NWMN or/and special studies completed from the publication of the 1 <sup>st</sup> RBMP till today. It is noted that during the Update, the prefix of the WB codes were reformulated from GR to EL, in order to be compatible with the EE databases.
<b>HEAVILY MODIFIED WATER BODIES (HMWB) AND ARTIFICIAL WATER BODIES (AWB)</b>	The HMWB that were defined under the 1st RBMP are re-examined based on the new methodology and the data from the NWMN.
<b>PROTECTED AREAS</b>	The Registry of Protected Areas of the 1 <sup>st</sup> RBMP is revised based on: The new Natura 2000 areas proposed by the Ministry of Environment and Energy according with the provisions of the Bird (2009/147/EC) and Habitat (92/43/EEC) Directives. The monitoring results from the Bathing Waters and the provisions of the Bathing Waters Directive (2006/7/EC) Other directives on water protection with more strict objectives as the Drinking Water Directive (80/778/EEC, as revised by the Directive 98/83/EC), the Shellfish Directive (2006/113/EC), freshwater fish Directive (2006/44/EK), Nitrates Directive (91/676/EOK), Urban Waste Water Treatment Directive (91/271/EOK) etc New data that came up after the publication of the 1 <sup>st</sup> RBMP and the relevant EE Guidance Documents. Furthermore it is noted that in the framework of the Update the CORINE protected areas and Landscapes of Special Natural Beauty were not included in the Registry of Protected Areas.
<b>PRESSURES AND IMPACTS</b>	The analysis of pressures and impacts in the Update is done according to the new national methodology and data produced after the approval of the 1st RBMP. The main differentiation is the new analytical method of assessment of hydromorphological pressures.

Content of 1 <sup>st</sup> Update of RBMP/ Activity	Differentiation in comparison with the 1 <sup>st</sup> RBMP
<b>CLASSIFICATION OF THE STATUS OF SURFACE WATER BODIES</b>	In the framework of the Update the classification of status of SWB is done according to the new national methodologies approved by the EU and based on the results of the NWMN. For the WB where no monitoring data is available, the classification of status was done by grouping based on their type and the analysis of pressures.
<b>CLASSIFICATION OF THE STATUS OF GROUNDWATER BODIES</b>	The classification of status of the GWB is not different from the 1 <sup>st</sup> RBMP. The classification is based on the new data from the NWMN.
<b>NATIONAL WATER MONITORING NETWORK</b>	The Update takes in consideration the results of the NWMN of the status of the national WB with important number of sampling for the period 2112-2015 for BQE, Physicochemical and chemical indicators and hydromorphological quality elements. It also includes monitoring of the chemical and quantitative status of the GWB.
<b>ECONOMIC ANALYSIS OF WATER USE</b>	For the economical analysis of water uses, the provisions of the new Joint Ministerial Decision οκ. 135275/22.05.17 on water pricing are taken in consideration.
<b>ENVIRONMENTAL OBJECTIVES – EXEMPTIONS</b>	In the framework of the Update, the environmental objectives and exemptions are set according to the new national methodologies, developed according the EU guidance.
<b>PROGRAMME OF MEASURES</b>	The PoM of the 1 <sup>st</sup> Update is differentiated from the 1 <sup>st</sup> RBMP, following the new methodologies: Continuation/improvement of 1 <sup>st</sup> RBMP measures New measures for the achievement of the environmental objectives set Correlation of measures with significant pressures Correlation of measures with Basic Measure Types and implementation indicators set by the EU Synergies of PoM with the National Strategy on Climate Change Adaptation.

### 3. DESCRIPTION OF RIVER BASIN DISTRICTS– COMPETENT AUTHORITIES

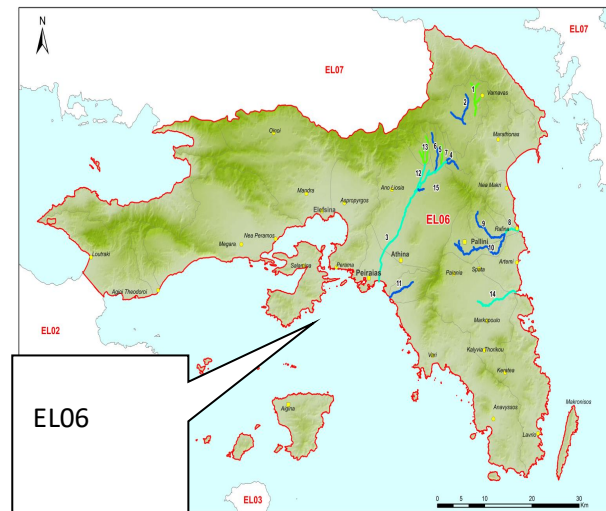
#### 3.1 RIVER BASINS

The **Attika River Basin District (EL06)** is one of the fourteen water districts, which the country was divided by law 1739/1987 (Government Gazette 201/A/1987).

Attika River Basin District covers an area of 3 187 km<sup>2</sup>, and is composed of attica valley River Basin (**EL0626**) which includes the islands of Salamina, Aegina, Agistri and Makroniso.

Table 3-2: Attika River Basin

River Basin	Area (km <sup>2</sup> )
Lekanopedio Attikis (EL0626)	3.187



#### 3.2 COMPETENT AUTHORITIES

Law 3199/2003 (Government Gazette A' 280) on the Protection and Management of Water Bodies harmonises the National Law with the provisions of the Directive 2000/60/EC and defines the competent authorities for the protection and management of Water Bodies.

Designated competent authorities at national level:

- The **National Water Committee**
- The **National Water Council**
- The **Special Secretariat for Water**

Table 3-1: National competent authority ID

<b>Official Name</b>	<b>Special Secretariat for Water</b>
<b>Acronym</b>	S.S.W.
<b>Contact Information</b>	
<b>Address</b>	Amaliados 17
<b>Postal Code</b>	11523
<b>City</b>	Athens
<b>Country</b>	Greece
<b>Web-page</b>	<a href="http://www.ypeka.gr/">http://www.ypeka.gr/</a> <a href="http://wfdver.ypeka.gr/">http://wfdver.ypeka.gr/</a>
<b>Contact</b>	tel: 210 6475102, 213 1515410-1 e-mail: <a href="mailto:info.egy@prv.ypeka.gr">info.egy@prv.ypeka.gr</a>

Designated competent authorities at Decentralised Administration level:

- **Decentralised Administration Water Council**
- **Water Directorates of the Decentralised Administration**

Table 3-2: Decentralised Administration competent authorities ID

<b>Official Name</b>	<b>Decentralised Administration of Attica / Water Directorate of Attica</b>
<b>Acronym</b>	W.D.ATT.
<b>Contact Information</b>	
<b>Address</b>	Mesogeion Av. 239
<b>Postal Code</b>	15451
<b>City</b>	N. Phychico
<b>Country</b>	Greece
<b>Web-page</b>	<a href="http://www.apdattikis.gov.gr">http://www.apdattikis.gov.gr</a>
<b>Contact</b>	tel: 210 3725744 , 210 3725702, 210 3725723 fax: 210 3725728 e-mail: <a href="mailto:nero@attica.gr">nero@attica.gr</a>



The following table gives a snapshot of the role played by each competent authority on every water management and protection thematic.

Table 3-3: Main competences for every water protection and management thematic

Competent Authority	Role												
	Pressure and impact analysis	Economic analysis	Monitoring of surface water	Monitoring of groundwater	Assessment of status of surface water	Assessment of status of groundwater	Preparation of RBMP	Preparation of PoM	Implementation of measures	Public participation	Enforcement of regulations	Co-ordination of implementation	Reporting to the European Commission
Special Secretariat for Water of the Hellenic Ministry of Environment & Energy	M	M	M	M	M	M	M	M	M	M	M	M	M
Water Directorate of the Decentralised Administration	O	O	-	-	-	-	O	O	M	M	M	M	-
Hellenic Ministry of Foreign Affairs	-	-	-	-	-	-	-	-	O	-	M	-	-
Hellenic Ministry of Rural Development and Food	-	-	-	-	-	-	-	-	M	-	O	-	-
Hellenic Ministry of Infrastructure and Transport	-	-	-	-	-	-	-	-	M	-	O	-	-
Hellenic Ministry of Economy and Development	-	-	-	-	-	-	-	-	M	-	O	-	-
Hellenic Ministry of Health	-	-	-	-	-	-	-	-	M	-	O	-	-
Hellenic Ministry of Shipping and Island Policy	-	-	-	-	-	-	-	-	M	-	O	-	-
Hellenic Ministry of Interior	-	-	-	-	-	-	-	-	M	-	O	-	-
Municipalities	-	-	-	-	-	-	-	-	M	O	-	-	-
Regions	-	-	-	-	-	-	-	-	M	O	O	-	-
<b>M</b>	<b>Main role</b>	<b>O</b>	<b>Other role</b>	<b>-</b>	<b>No role</b>								



## 4. DESIGNATION AND CLASSIFICATION OF WATER BODIES

### 4.1 SURFACE WATER BODIES (SWB)

According to the 1<sup>st</sup> Update of RBMP, in the River Basin District of Attica (EL06), **30 surface water bodies**, are identified:

Table 4-1: Number of surface water bodies for each RB

Type of WB	RB	Total RBD
	RB EL0626	
River WB	15	15
Reservoirs	1	1
Lake WB	0	0
Transitional WB	0	0
Coastal WB	14	14
<b>Total</b>	<b>30</b>	<b>30</b>

Table 4-2: River WB and the new typology, according to the European Decision 2013/480/EC and the MED GIG RB

No	WB Name	WB Code	HMWB/ AWB	Length (km)	Immediate Catchment Area (km <sup>2</sup> )	Upstream Catchment area (km <sup>2</sup> )	Mean Annual Flow (hm <sup>3</sup> )	WB Type
<b>Lekanopedio Attikis RB (EL0626)</b>								
1	S. PALIOMIAOYLI	EL0626R000002009N	NAT	9,09	24,6	24,6	5,0	R-M5
2	S. LAKA	EL0626R000000008N	NAT	9,02	69,1	69,1	13,0	R-M1
3	R. KIFISOS 1	EL0626R000200001H	HMWB	14,04	160,5	422,2	94,0	R-M2
4	R. KIFISOS 7	EL0626R000210007N	NAT	3,53	11,3	11,3	2,5	R-M1
5	R. KIFISOS 5	EL0626R000206005N	NAT	3,44	9,4	9,4	2,5	R-M5
6	R. KIFISOS 4	EL0626R000204004N	NAT	7,24	14,6	14,6	4,5	R-M1
7	R. KIFISOS 6	EL0626R000208006N	NAT	1,35	7,2	7,2	2,0	R-M1
8	S. RAFINAS 1	EL0626R000100010N	NAT	3,93	13,2	102,5	11,0	R-M2
9	S. RAFINAS 3	EL0626R000100011N	NAT	9,81	34,7	34,7	4,0	R-M1
10	S. RAFINAS 2	EL0626R000100012N	NAT	18,22	54,6	54,6	7,0	R-M1
11	S. PIKRODAFNIS	EL0626R000300013N	NAT	5,91	36,3	36,3	5,0	R-M1
12	R. KIFISOS 2	EL0626R000200002N	NAT	19,83	177,6	261,7	53,0	R-M2
13	R. KIFISOS 3	EL0626R000202003N	NAT	9,20	27,0	27,0	6,0	R-M5
14	S. ERASINOY	EL0626R000300014N	NAT	10,01	213,4	213,4	32,6	R-M2
15	R. KIFISOS 8 – S. PYRNAS	EL0626R000212008H	HMWB	1,38	14,65	14,7	2,7	R-M1

**NAT:** Natural WB, **HMWB:** Heavily Modified WB, **AWB:** Artificial WB

Table 4-3: Reservoirs WB according to the new methodology per RB

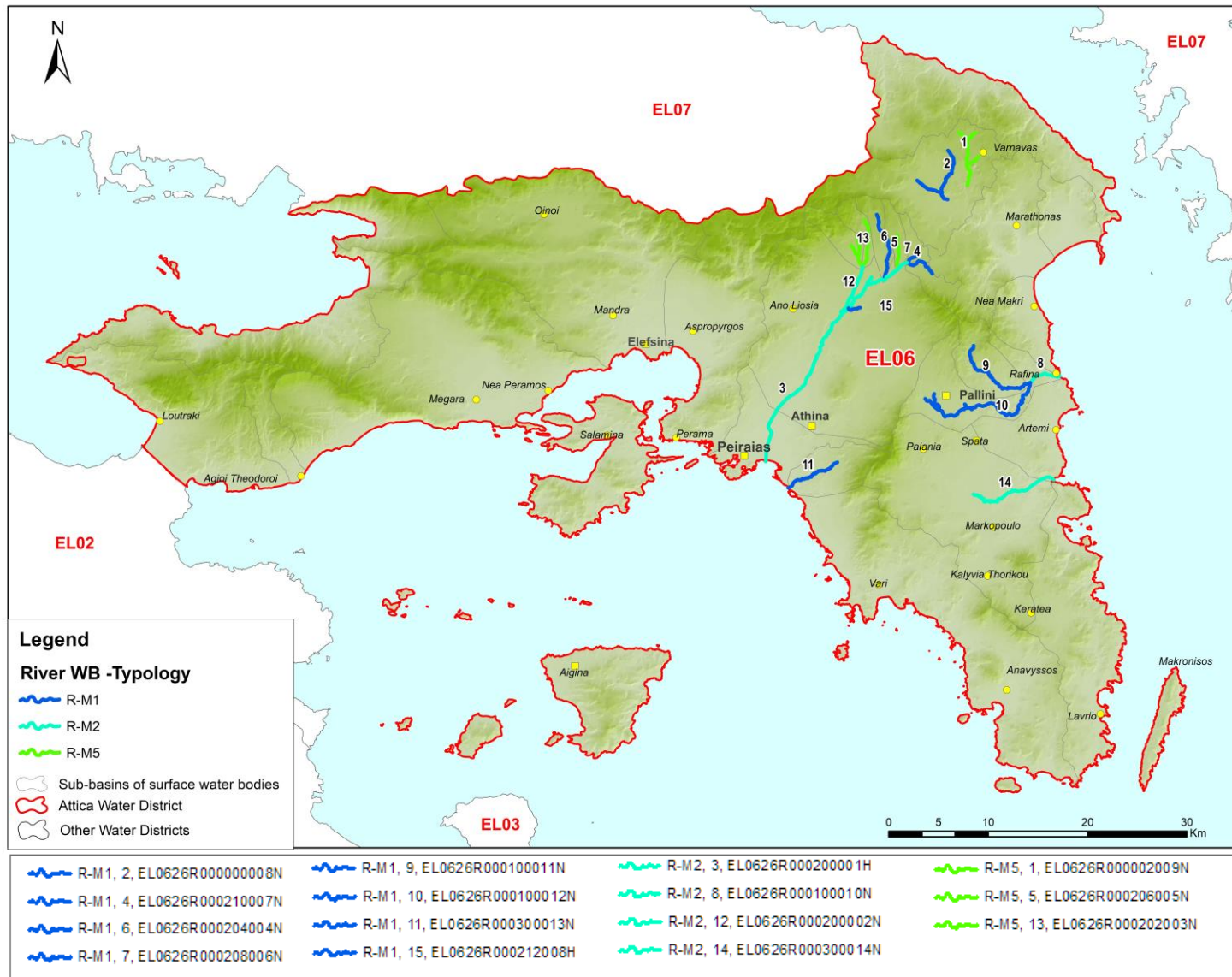
No	WB Name	WB Code	HMWB/ AWB	Surface (km <sup>2</sup> )	Perimeter (km)	WB Type
<b>Lekanopedio Attikis RB (EL0626)</b>						
1	TECHNITI LIMNI MARATHONA	EL0626RL00000001H	HMWB	2,98	11,41	L-M8

**HMWB:** Heavily Modified WB

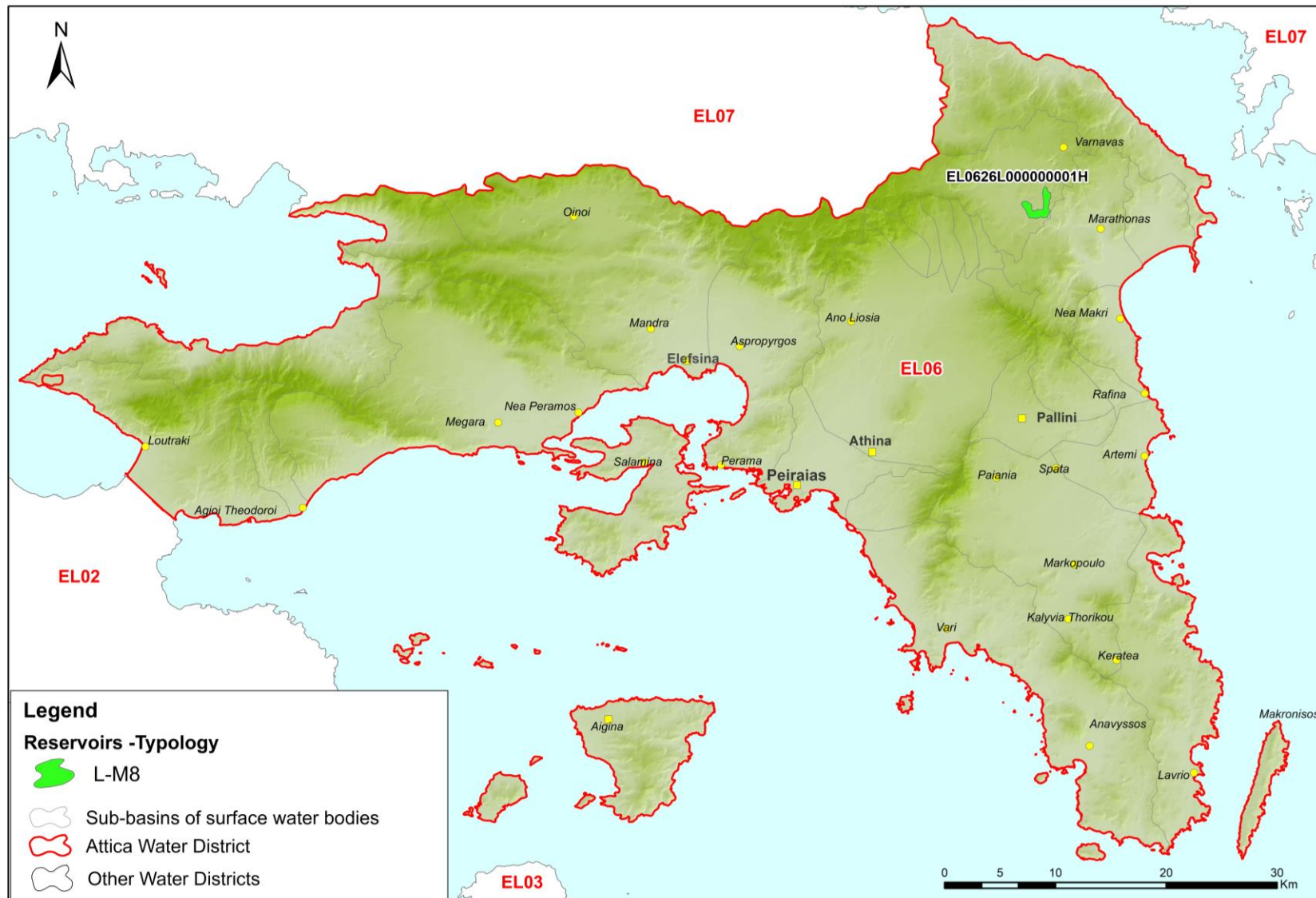
In Attica RBD (EL06) there are not any lakes nor transitional WB identified.

Table 4-4: Coastal WB per RB

No	WB Name	WB Code	HMWB/ AWB	Surface (km <sup>2</sup> )	Perimeter (km)	WB Type
<b>Lekanopedio Attikis RB (EL0626)</b>						
1	KOLPOS FANEROMENIS	EL0626C0009N	NAT	6,3	23,5	IIIE
2	DYTIKOS SARONIKOS KOLPOS	EL0626C0010N	NAT	1.124,2	366,4	IIIE
3	NOTIOS EVVOIKOS - MARKOPOULO	EL0626C0001N	NAT	142,6	78,7	IIIE
4	AKTES KOLPOU PETALION - RAFINA	EL0626C0002N	NAT	545,7	186,8	IIIE
5	THALASSA LAVRIOU - MAKRONISOU	EL0626C0003N	NAT	110,9	177,2	IIIE
6	KOLPOS ALKYONIDON	EL0626C0005N	NAT	214,0	107,8	IIIE
7	DYTIKOS KOLPOS ELEFSINAS	EL0626C0006N	NAT	58,7	76,7	IIIE
8	ESO (KENTRIKOS) SARONIKOS	EL0626C0012N	NAT	417,0	183,9	IIIE
9	ANATOLIKOS KOLPOS ELEFSINAS	EL0626C0007H	HMWB	12,8	22,1	IIIE
10	NISIDA 1	EL0626C0014N	NAT	32,8	36,0	IIIE
11	ESO (KENTRIKOS) SARONIKOS - PSYTALLEIA	EL0626C0011N	NAT	65,0	79,4	IIIE
12	EXO SARONIKOS KOLPOS	EL0626C0013N	NAT	1.296,3	342,9	IIIE
13	LIMANI LAVRIOU	EL0626C0004H	HMWB	0,4	3,6	IIIE
14	AKTES PERAMATOS - PEIRAIKI	EL0626C0008H	HMWB	5,7	41,4	IIIE
<b>NAT: Natural WB, HMWB: Heavily Modified WB, AWB: Artificial WB</b>						



Map 1: Classification of River WB of RBD of Attica (EL06), according to the new typology of the 1<sup>st</sup> Update of RBMP



Map 2: Classification of Reservoirs WB of RBD of Attica (EL06), according to the new typology of the 1<sup>st</sup> Update of RBMP



Map 3: Classification of Coastal WB of RBD of Attica (EL06), according to the new typology of the 1<sup>st</sup> Update of RBMP



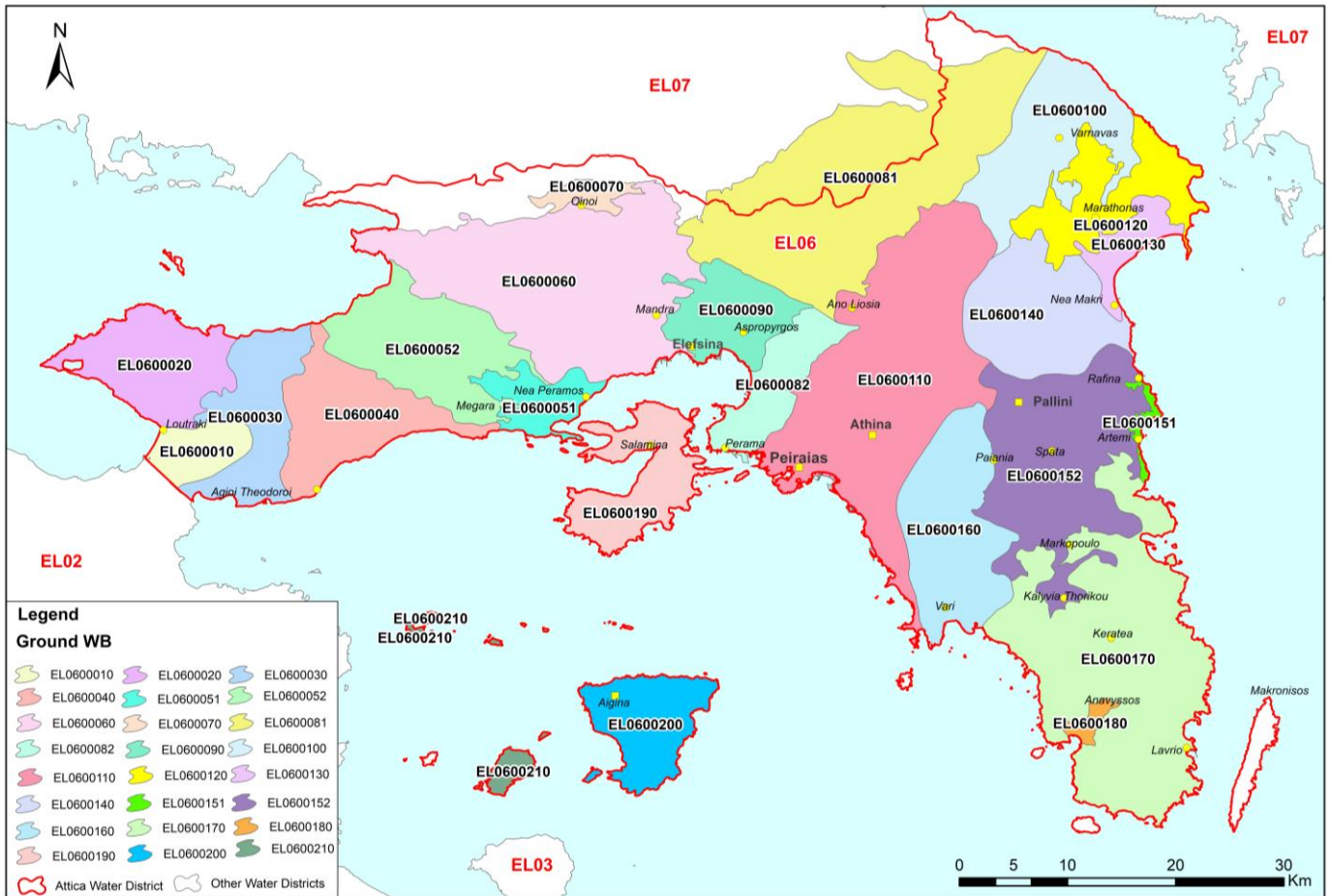


## 4.2 GROUNDWATER BODIES

Under the 1<sup>st</sup> Update the originally identified GWBs were reviewed. The RBD of Attika (EL06) consists of **21 identified GWB's** that are presented on the table that follows.

Table 4-5: The GWB of the RBD

No	RB	GWB Name	GWB Code	Surface (km <sup>2</sup> )
1	EL 0626	LOUTRAKIOU	EL0600010	41
2	EL 0626	DYTIKON GERANION	EL0600020	112
3	EL 0626	KENTRIKON GERANION-KALAMAKIOU	EL0600030	99
4	EL 0626	ANATOLIKON GERANION-MAVROVOUNIOU	EL0600040	123
5	EL 0626	MEGARON-ALEPOCHORIOU (A)	EL0600051	44
	EL 0626	MEGARON-ALEPOCHORIOU (B)	EL0600052	148
6	EL 0626	PATERA	EL0600060	325
7	EL 0626	INOIS	EL0600070	18
8	EL 0626	VORIO-ANATOLIKIS PARNITHAS (A)	EL0600081	382
	EL 0626	VORIO-ANATOLIKIS PARNITHAS (B)	EL0600082	68
9	EL 0626	THRIASIOU PEDIUO	EL0600090	79
10	EL 0626	KAPANDRITIOU	EL0600100	137
11	EL 0626	LEKANIS KIFISOU	EL0600110	362
12	EL 0626	MARATHONA (A)	EL0600120	103
13	EL 0626	MARATHONA (B)	EL0600130	36
14	EL 0626	PENTELIS	EL0600140	140
15	EL 0626	MESOGAIAS (A)	EL0600151	227
	EL 0626	MESOGAIAS (B)	EL0600152	8
16	EL 0626	IMITOU	EL0600160	154
17	EL 0626	LAVREOTIKIS	EL0600170	362
18	EL 0626	ANAVYSOU	EL0600180	9
19	EL 0626	SALAMINA ISLAND	EL0600190	95
20	EL 0626	AEGINA ISLAND	EL0600200	84
21	EL 0626	AGKISTRIS	EL0600210	16



Map 4: Position and delimitation of the GWB of RBD of Attica (EL06)

### 4.3 HEAVILY MODIFIED WATER BODIES (HMWB) AND ARTIFICIAL WATER BODIES (AWB)

In Attica RBD (EL06) are identified six (6) HMWB from a total 30 SWB.

Table 4-6: River HMWB of the RBD of Attica (EL06)

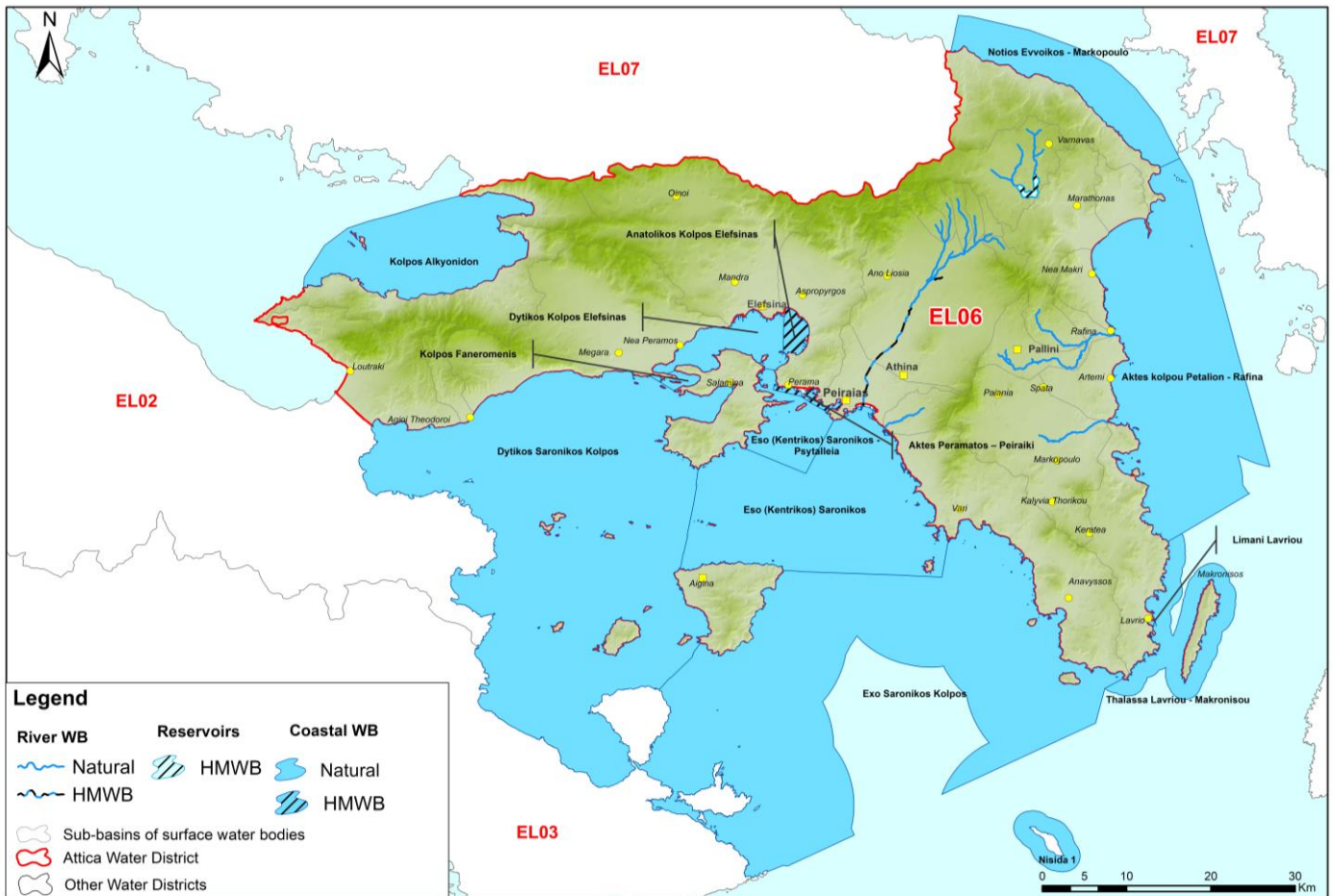
WB CODE	WB NAME	Type	Length (km)	Upstream Catchment area (km <sup>2</sup> )	Designated Water Use
<b>RB Attica (EL0626)</b>					
EL0626R000200001H	R. KIFISOS 1	R-M2	14,12	160,5	Flood protection – Urban Development
EL0626R000212008H	R. KIFISOS 8 – S. PIRNAS	R-M1	1,38	14,7	Flood protection– Urban Development

Table 4-7: River HMWB (Reservoirs) of the RBD of Attica (EL06)

WB CODE	WB NAME	Type	Surface (km <sup>2</sup> )	Designated Water Use
<b>RB Attica (EL0626)</b>				
EL0626RL00000001H	T. LIMNI MARATHONA	L-M8	2,98	Athens water supply

Table 4-8: Coastal HMWB (Reservoirs) of the RBD of Attica (EL06)

WB CODE	WB NAME	Category	Area (km <sup>2</sup> )	«Determined water usage»
EL0626C0007H	ANATOLIKOS KOLPOS ELEYSINAS	III3	12,8	Navigation including port and industrial acilities
EL0626C0004H	LIMANI	III3	0,4	Navigation
EL0626C0008H	AKTES PERAMATOS PEIRAIKI	III3	5,7	Navigation including port of Pireaus



Map 5: HMWB and AWB map of RBD of Attica (EL06)











#### 4.4 PROTECTED AREAS

In accordance with Directive 2000/60/EC, the 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 Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water.

This registry is called Registry of Protected Areas (RPA) and according to the Appendix V of the Presidential Decree 51/2007, it includes the following type or areas:

- Water bodies designated for Drinking Water Abstraction:

Table 4-9: Areas of Abstraction of Drinking water

SWB			
Name	Code		
TECHNITI LIMNI MARATHONA	EL0626RL00000001H		
GWB			
Name	Code	Chemical status	Quantitative status
LOUTRAKIOU	EL0600010	 GOOD	 GOOD
DYTIKON GERANION	EL0600020	 GOOD	 GOOD
KENTRIKON GERANION-KALAMAKIOU	EL0600030	 GOOD	 GOOD
ANATOLIKON GERANION-MAVROVOUNIOU	EL0600040	 GOOD	 GOOD
VORIO-ANATOLIKIS PARNITHAS (A)	EL0600081	 GOOD	 GOOD

The streams flowing into the Techniti Limni Marathona are protected according to the Ministerial Decision A5/2280/1983.

- Water Bodies designated as Recreational waters including areas designated as Bathing Waters:

According to the list of Bathing Water Profiles of Greece (SSW, 2016), in Attica RBD, in 2016, 132 Bathing Water Sites have been designated in coastal WB.

- Urban Waste Water Treatment Directive Sensitive Areas and Nitrates Directive Nitrate Vulnerable Zones (NVZ):

Table 4-10: Nitrate Vulnerable Zones

NVZ Name	WB			
	WB Code	WB Name	WB Category	RB
MEGARON (EL0626NI01)	EL0600051	MEGARON-ALEPOCHORIOU (A)	GWB	EL0626
	EL0600052	MEGARON-ALEPOCHORIOU (B)	GWB	EL0626
MARATHONA (EL0626NI02)	EL0600100	KAPANDRITIOU	GWB	EL0626
	EL0600120	MARATHONA (A)	GWB	EL0626
	EL0600130	MARATHONA (B)	GWB	EL0626
	EL0600100	KAPANDRITIOU	GWB	EL0626
MESOGAIAS (EL0626NI03)	EL0626R000300014N	ERASINOS R.	River WB	EL0626
	EL0600152	MESOGAIAS (B)	GWB	EL0626
	EL0600170	LAVREOTIKIS	GWB	EL0626
	EL0600160	IMITOU	GWB	EL0626
ASOPOY (EL0725NI02)	EL0600081	VORIO-ANATOLIKIS PARNITHAS (A)	GWB	EL0626

Table 4-11: Urban Waste Water Treatment Directive Sensitive Areas

Sensitive Area Name	Sensitive Area Code	WB Code	WB Name
KOLPOS ELEFSINAS	ELSACA02	EL0626C0006N	DYTIKOS KOLPOS ELEFSINAS
	ELSACA02	EL0626C0009N	KOLPOS FANEROMENIS
	ELSACA02	EL0626C0007H	ANATOLIKOS KOLPOS ELEFSINAS
KOLPOS SARONIKOY	ELSACA06	EL0626C0011N	ESO (KENTRIKOS) SARONIKOS - PSYTALLEIA
	ELSACA06	EL0626C0008H	AKTES PERAMATOS - PEIRAIKI

- Areas designated for Birds and Habitats protection including the Natura 2000 protected sites :  
The designation of natural protected areas is adaptable to the national specific conditions.

Table 4-12: Correlation of NATURA 2000 protected sites and Small island wetlands with WB

No	WB Code	WB Name	WB Category	Protected Area Code	Protection Status
1	EL0626C0013N	EXO SARONIKOS KOLPOS	Coastal	GR3000006	SAC
2	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS	Coastal	GR3000006	SAC
3	EL0600160	IMITOU	GWB	GR3000006 GR3000015	SAC SPA
4	EL0626C0013N	EXO SARONIKOS KOLPOS	Coastal	GR3000014 GR3000005	SPA SAC
5	EL0600170	LAVREOTIKIS	GWB	GR3000014 GR3000005 GR3000004	SPA SAC SAC
6	EL0626C0003N	THALASSA LAVRIOU – MAKRONISOU	Coastal	GR3000005	SAC
7	EL0626C0002N	AKTES KOLPOU PETALION - RAFINA	Coastal	GR3000004 GR3000016 GR3000003	SAC SPA SAC
8	EL0626R000300014N	ERASINOS R.	River	GR3000004	SAC
9	EL0600151	MESOGAIAS (A)	GWB	GR3000004	SAC
10	EL0600152	MESOGAIAS (B)	GWB	GR3000004	SAC
11	EL0600120	MARATHONA (A)	GWB	GR3000016 GR3000003	SPA SAC
12	EL0600130	MARATHONA (B)	GWB	GR3000016 GR3000003	SPA SAC
13	EL0600110	LEKANIS KIFISOU	GWB	GR3000001	SAC-SPA
14	EL0600080	INOIS	GWB	GR3000001	SAC-SPA
15	EL0626R000202003N	P. KIFISOS 3	River	GR3000001	SAC-SPA
16	EL0626R000204004N	P. KIFISOS 4	River	GR3000001	SAC-SPA
17	EL0626R000206005N	P. KIFISOS 5	River	GR3000001	SAC-SPA
18	EL0600020	DYTIKON GERANION	GWB	GR2530005	SAC
19	EL0600030	KENTRIKON GERANION-KALAMAKIOU	GWB	GR2530005	SAC
20	EL0600040	ANATOLIKON GERANION-MAVROVOUNIOU	GWB	GR2530005	SAC
21	EL0600190	SALAMINA ISLAND	GWB	Y300SAL001	SIW
22	EL0600190	SALAMINA ISLAND	GWB	Y300SAL002	SIW
23	EL0600200	AEGINA ISLAND	GWB	Y300AIG001	SIW
24	EL0600200	AEGINA ISLAND	GWB	Y300AIG002	SIW

No	WB Code	WB Name	WB Category	Protected Area Code	Protection Status
25	EL0600210	AGKISTRIS	GWB	Y300AGI001	SIW
26	EL0600210	AGKISTRIS	GWB	Y300MET001	SIW

**SIW:** Small Island Wetland

- Areas designated for the protection of economically significant aquatic species:  
There are fishfarms and mussel farms in 6 Coastal WB in Attica RB.

Table 4-13: WB where economically significant aquatic species are encountered

No	WB Code	WB Name	WB Category	Comments
1	EL0626C0013N	EXO SARONIKOS KOLPOS	Coastal	10 fishfarms
2	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	Coastal	29 fishfarms
3	EL0626C0009N	KOLPOS FANEROMENIS	Coastal	1 musselfarms
4	EL0626C0006N	DYTIKOS KOLPOS ELEFSINAS	Coastal	4 musselfarms
5	EL0626C0005N	KOLPOS ALKYONIDON	Coastal	2 fishfarms
6	EL0626C0001N	NOTIOS EVVOIKOS - MARKOPOULO	Coastal	1 musselfarms

Furthermore, the following WB include Fishfarms Development Zones

Table 4-14: WB that include Fishfarms Development Zones

No	WB Code	WB Name	WB Category
1	EL0626C0013N	EXO SARONIKOS KOLPOS	Coastal
2	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	Coastal

Finally, it is proposed to introduce to the Registry of Protected Areas the following WB.

Table 4-15: Proposed new protection areas

No	WB Code	WB Name	WB Category	Protected Area Code
1	EL0626C0013N	EXO SARONIKOS KOLPOS	Coastal	EL0626C0013NFI
2	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	Coastal	EL0626C0010NFI

## 5. PRESSURES AND IMPACTS

Anthropogenic pressures on the bodies of water include all human activities that influence or may influence the water bodies of the area where they are developed. These pressures are characterized as significant as long as they form the cause for the WBs to be in danger of non-achieving their environmental objectives, according to EC No 03 Guidance Document.

### 5.1 POINT SOURCES OF POLLUTION

Point sources of pollution include all sources of nutrients (BOD, N, P). The list of these pressures includes:

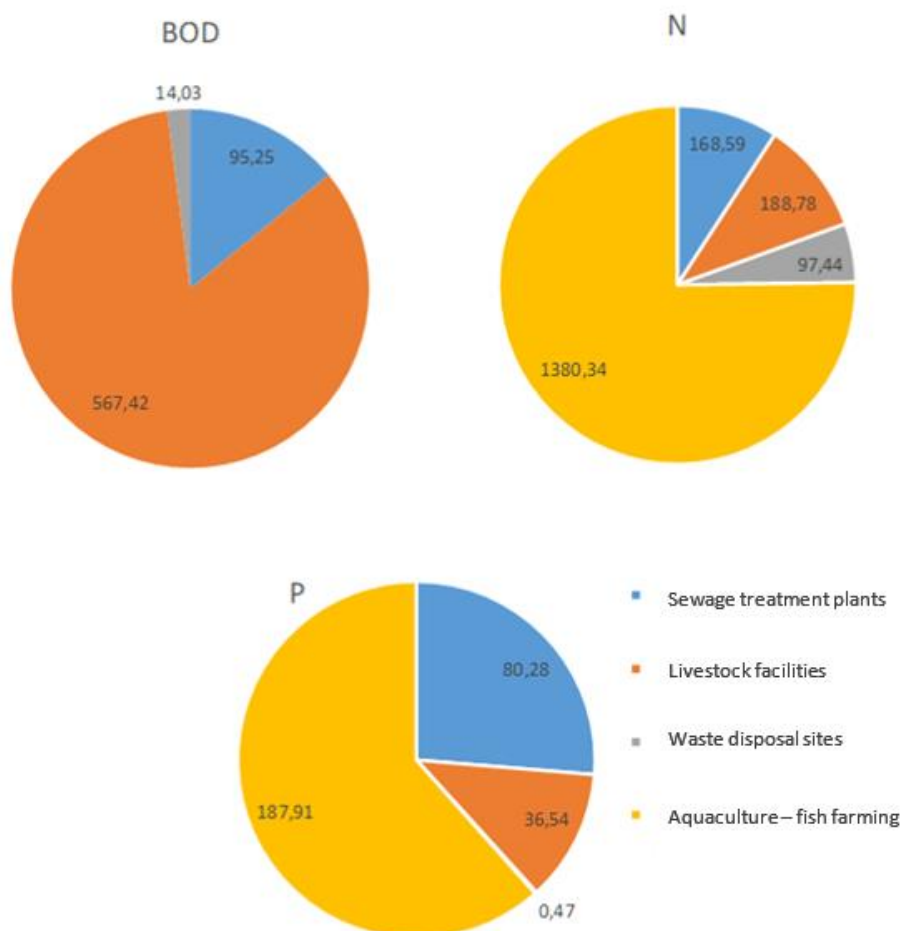
- Waste Water Treatment Plants (WWTP)
- Discharges not connected to WWTP
- Hotels
- Industrial sites
- Livestock Farming
- Aquaculture – Fish farming
- Waste disposal sites
- Runoff from mining activities

From the above point sources of pollution derives the annual load of BOD, N and P produced.

Table 5-1: Total annual loads of BOD, N and P that are produced from point sources of pollution in RB Attica (EL0626)

point sources of pollution	BOD (tons/ year)	N (tons/ year)	P (tons/ year)
Industrial Units	-	-	-
Livestock facilities	567,42	188,78	36,54
Waste disposal sites	14,03	97,44	0,47
Sewage treatment plants	95,25	168,59	80,28
Aquaculture - fish farming	0,00	1.380,34	187,91
<b>TOTAL</b>	<b>676,70</b>	<b>1.835,15</b>	<b>305,20</b>

Figure 5-1: The annual distribution of BOD, N and P for RB Attica (EL06) that are produced from point sources of pollution



## 5.2 DIFFUSED SOURCES OF POLLUTION

Diffuse sources of pollution include all sources of nutrients (BOD, N, P). The list of these pressures includes:

- Agriculture
- Discharges not connected to sewerage network
- Farming
- Other diffuse sources

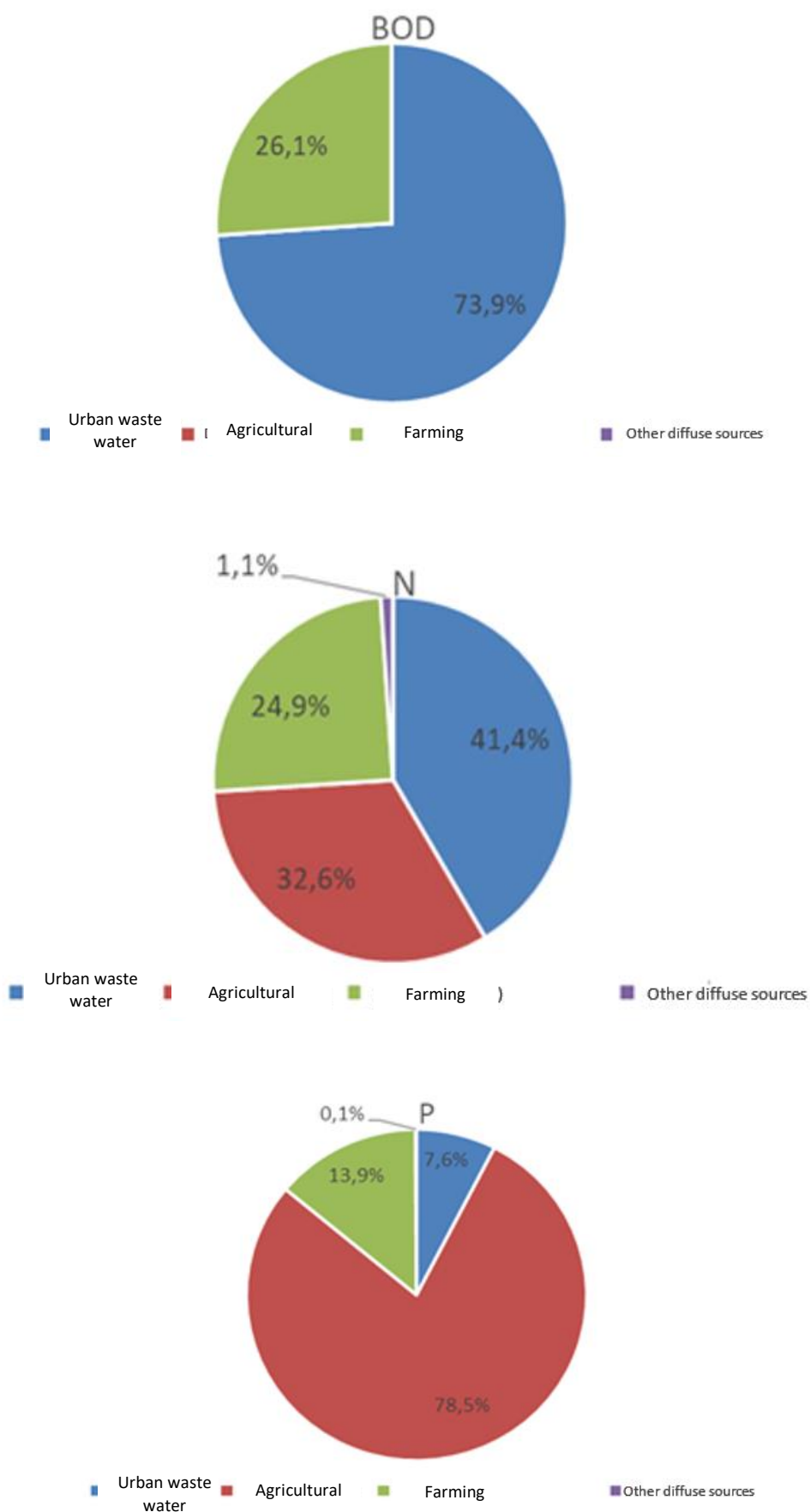
From the above diffuse sources of pollution derives the annual load of BOD, N and P produced.

Table 5-2: Total annual loads of BOD, N and P that are produced from Diffuse sources of pollution in RB Attica (EL0626)

LAND-USE	Annual BOD (tons/year)	Annual N (tons/year)	Annual P (tons/year)
Urban waste water	1.071,0	307,1	12,3
Agricultural	0	241,2	127,5
Farming	377,8	184,5	22,6
Other sources	0	8,1	0,12
<b>Total</b>	<b>1.449</b>	<b>741</b>	<b>163</b>



Figure 5-2: The annual distribution of BOD, N and P for RB Attica from Diffuse sources of pollution (EL06)



## 5.3 HYDROMORPHOLOGICAL PRESSURES

### 5.3.1 Pressures related to hydromorphology

The hydromorphological alterations, that led to the designation of HMWB and AWB are presented in paragraph 4.3.

Table 5-3: *Hydro morphological alterations due to projects on SWB (HMWB-AWB) of RB Attica (EL0626)*

REGIONAL UNIT	PROJECT	USE OF PROJECT	WB CODE	AREA (km <sup>2</sup> ) / LENGTH (km) HMWB/AWB	HMWB-AWB
EAST ATTICA	ARTIFICIAL LAKE MARATHONA	Athens water supply	EL0626RL00000001H	2,98 km <sup>2</sup>	HMWB
PIRAEUS	MANAGING OF R KIFISOS (DOWNSTREAM OF R KANAPITSA)	Flood protection, Urban Development	EL0626R000200001H	14,12 km	HMWB
NORTH SECTOR ATHENS	MANAGING OF S. PIRNAS	Flood protection, Urban Development	EL0626R000212008H	1,38 km	HMWB
PIRAEUS	COASTLINE ARTIFICIALISATION	Navigation, Port facilities,	EL0626C0008H	5,74 km <sup>2</sup>	HMWB
WEST ATTICA	COASTLINE ARTIFICIALISATION EAST COAST OF ELEFSIS	Navigation including port and industrial facilities	EL0626C0007H	12,77 km <sup>2</sup>	HMWB
EAST ATTICA	COASTLINE ARTIFICIALISATION - LAVRIO PORT	Navigation	EL0626C0004H	0,36 km <sup>2</sup>	HMWB

### 5.3.2 Sand and gravel extraction

In Attica RBD (EL06) no sand and gravel extraction activities from the rivers has been carried out based on available data.

## 5.4 WATER ABSTRACTIONS

The following table presents total water abstractions for all uses and activities, which are estimated totally at **503.373.425 m<sup>3</sup>**.

Water abstractions for water supply are **416.173.308 m<sup>3</sup>**, from which **410.789.568 m<sup>3</sup>** comes from EYDAP and the rest **5.383.740 m<sup>3</sup>** from groundwater bodies.

Table 5-4. *Total water abstractions for all uses and activities.*

Water abstractions (m <sup>3</sup> / year)	BD EL0626	EL06
Water supply	416.173.308	416.173.308
Irrigation	66.681.998	66.681.998
Farming	2.064.033	2.064.033
Industry	18.454.086	18.454.086
<b>Total</b>	<b>503.373.425</b>	<b>503.373.425</b>

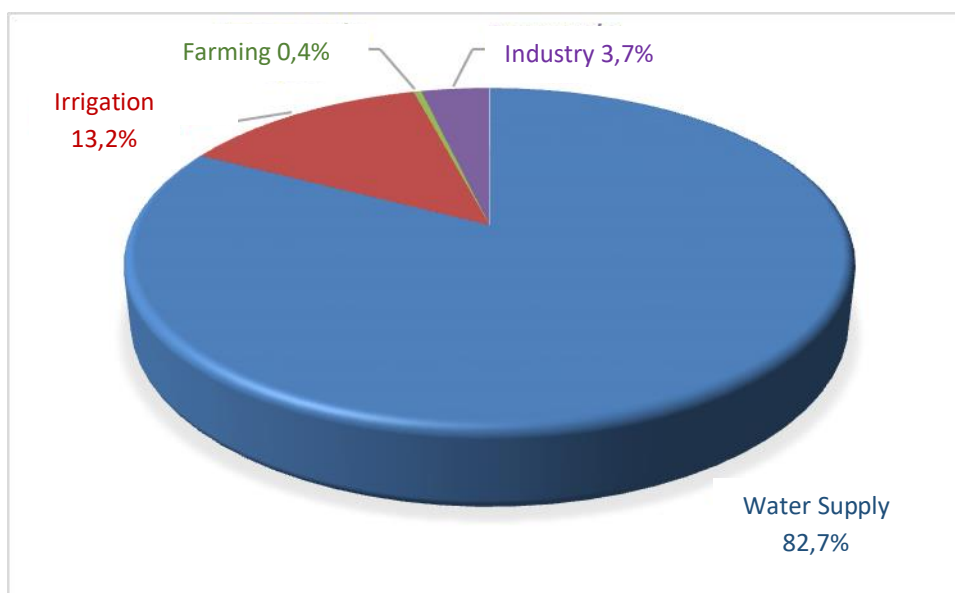


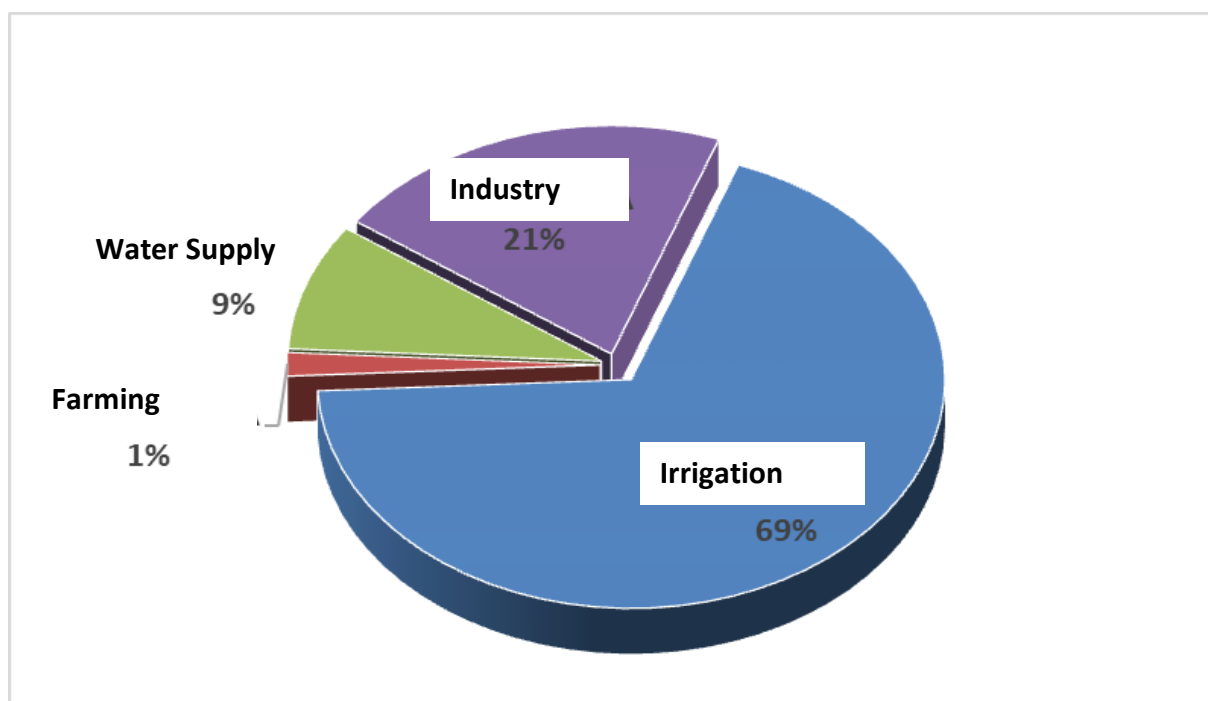
Figure 5-3. Water abstractions per use and activity

The following table presents groundwater abstractions per use and activity from each GWB. Agriculture consumes 69% of these abstractions, followed by 21% used for Industrial purposes.

Table 5-5. Water abstractions per use from each GWB

GWB code	GWB name	Mean annual replenishment (10 <sup>6</sup> m <sup>3</sup> )	Mean annual abstractions (10 <sup>6</sup> m <sup>3</sup> )	Irrigation (10 <sup>6</sup> m <sup>3</sup> )	Water supply (10 <sup>6</sup> m <sup>3</sup> )	Industry (10 <sup>6</sup> m <sup>3</sup> )
EL0600010	LOUTRAKIOU	4,5	2,86	0,95	1,38	0,53
EL0600020	DYTIKON GERANION	15	1,17	0,53	0,32	0,32
EL0600030	KENTRIKON GERANION-KALAMAKIOU	5	4,45	0,74	0,42	3,28
EL0600040	ANATOLIKON GERANION-MAVROVOUNIOU	20	4,56	2,76	0	1,80
EL0600051	MEGARON-ALEPOCHORIOU (A)	22	23,3	23,30	0	0
EL0600052	MEGARON-ALEPOCHORIOU (B)					
EL0600060	PATERA	60	2,12	1,58	0	0,53
EL0600070	INOIS	2,5	0,74	0,21	0,53	0
EL0600081	VORIO-ANATOLIKIS PARNITHAS (A)	85	10,28	4,46	3,19	2,65
EL0600090	VORIO-ANATOLIKIS PARNITHAS (B)	8	8,48	5,20	0	3,29
EL0600100	THRIASIOU PEDIU	9	3,92	3,48	0,21	0,21
EL0600110	KAPANDRITIOU	40	13,57	6,06	0	7,54

GWB code	GWB name	Mean annual replenishment (10 <sup>6</sup> m <sup>3</sup> )	Mean annual abstractions (10 <sup>6</sup> m <sup>3</sup> )	Irrigation (10 <sup>6</sup> m <sup>3</sup> )	Water supply (10 <sup>6</sup> m <sup>3</sup> )	Industry (10 <sup>6</sup> m <sup>3</sup> )
EL0600120	LEKANIS KIFISOU	25	2,86	2,44	0,32	0,11
EL0600130	MARATHONA (A)	5	7,31	6,98	0,32	0
EL0600140	MARATHONA (B)	15,5	1,5	0,43	0,96	0,11
EL0600151	PENTEIS	15	4,9	4,16	0,43	0,32
EL0600152	MESOGAIAS (A)					
EL0600160	MESOGAIAS (B)	24	1,9	1,38	0,11	0,42
EL0600170	IMITOU	20	3,92	3,16	0,42	0,32
EL0600180	LAVREOTIKIS	1,5	0,42	0,40	0	0
EL0600190	ANAVYSOU	8,6	2,2	2,20	0	0
EL0600200	SALAMINA ISLAND	4,5	3,18	2,47	0,72	0,02
EL0600210	AGKISTRIS ISLAND	2	0	0	0	0



Σχήμα 5-4. Groundwater abstractions per use






The only water abstraction in the RBD EL06, concern the Artificial Lake of Marathonas. Marathonas' Lake (EL0626RL000000001H) is part of the wider Athens metropolitan water supply system (EYDAP) and is essentially an auxiliary source of emergency water abstraction. Belongs to the Evinos - Mornos - Ylikis - Marathon Water Supply System, and therefore the abstractions are completely controlled and therefore can not be considered as pressure to a particular WB.

Table 5-4: Annual abstractions from SWB of Attica (EL0626)

WB CODE	WB NAME	WB TYPE	ANNUAL ABSTRACTION VOLUM (% AVERAGE ANNUAL NATURAL WATER DRAINAGE)	USE
EL0626RL000000001H	TECHNITI LIMNI MARATHONA	L	19,5	water supply

Overexploitation phenomena are observed in GWB: EL0600090, EL0600130, EL0600190, EL0600200 and in subsystem EL0600051.

Table 5-5: Annual abstractions and overexploitation of GWB of RB Attica (EL0626)

WB CODE	WB NAME	Annual Average Recharge (hm <sup>3</sup> )	Annual Average Abstractions (hm <sup>3</sup> )	Irrigation (hm <sup>3</sup> )	Water supply (hm <sup>3</sup> )	Industry (hm <sup>3</sup> )	Quantitative status
EL0600051	MEGARON-ALEPOCHORIOU (A)	22	23,3	23,30	0	0	 Poor
EL0600090	THRIASIOU PEDIIOU	8	8,48	5,20	0	3,29	 Poor
EL0600130	MARATHONA (B)	5	7,31	6,98	0,32	0	 Poor
EL0600190	SALAMINA ISLAND	8,6	2,2	2,20	0	0	 Poor
EL0600200	AEGINA ISLAND	4,5	3,18	2,47	0,72	0,02	 Poor

## 5.5 OTHER PRESSURES

### Desalination units

According to the most up-to-date data from the Attica Water Directorate, the desalination units operating in the Attica RBD are presented in the table below.

Table 5-6: Desalination units of Attica RB (EL0626)

BENEFICIARY	CAPACITY m <sup>3</sup> /h	USE	RELATED COASTAL WB	COASTAL WB NAME	GGRS 87	
					X	Y
PPC	135	THERMORFING, FIREFIGHTING AND PRODUCTION PROCESS	EL0626C0003N	THALASSA LAVRIOU - MAKRONISOU	505695	4177454
Agistri Municipality	50	INDUSTRIAL	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	442843	4173386
Agistri Municipality	50	INDUSTRIAL	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	442841	4173359
<b>HALYVOURGIKI SA : INDUSTRIAL USE DRILLING SYSTEM</b>						
G1	100	COOLING, FIREFIGHTING			460831	4210914
G2	100	COOLING, FIREFIGHTING			460816	4210956
G3	100	COOLING, FIREFIGHTING			460931	4211022
G4	100	COOLING, FIREFIGHTING			460954	4211011
G5	100	COOLING, FIREFIGHTING			460975	4211030

### Ports - Marinas - Navigation

The Port Infrastructure of the Attica RBD (EL06), in accordance with the Joint Ministerial Decision 8315 / 02.02.07 Classification of sea ports (Government Gazette B 202 / 16.02.2007), includes four (4) ports of International Interest (K1), Piraeus with its extensive port area including the main passenger port and

the cargo port of Keratsini - Ikonion), Lavrio, Rafina and Elefsina as well as one (1) port of Greater Interest, Aegina. The main existing ports and marinas of the Attica RBD (EL06) are presented in the following tables:

Table 5-7: Existing Ports of Attica RBD (EL06)

PORT NAME	RELATED COASTAL WB	COASTAL WB NAME	RB
PIRAEUS	EL0626C0008H	AKTES PERAMATOS - PEIRAIKI	EL0626
PIRAEUS REPAIR PORT AREA (PERAMA)	EL0626C0008H	AKTES PERAMATOS - PEIRAIKI	EL0626
COMMERCIAL PIRAEUS PORT	EL0626C0008H	AKTES PERAMATOS - PEIRAIKI	EL0626
ELEUSIS	EL0626C0006N	DYTIKOS KOLPOS ELEFSINAS	EL0626
CENTRAL PORT AEGINA	EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	EL0626
RAFINA	EL0626C0002N	AKTES KOLPOU PETALION - RAFINA	EL0626
PORTO RAFTI	EL0626C0002N	AKTES KOLPOU PETALION - RAFINA	EL0626
LAVRIO	EL0626C0003N	THALASSA LAVRIOU - MAKRONISOU	EL0626
OROPOS	EL0626C0001N	NOTIOS EVVOIKOS - MARKOPOULO	EL0626

Table 5-8: Existing Marinas of Attica RBD (EL06)

MARINA NAME	CAPACITY	RELATED COASTAL WB	COASTAL WB NAME
ALIMOS	1.000	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS
VOULIAGMENI	115	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS
GLYFADA	780	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS
ZEA	900	EL0626C0008H	AKTES PERAMATOS - PEIRAIKI
LAYRIO (OLYMPIC MARINE)	685	EL0626C0003N	THALASSA LAVRIOU - MAKRONISOU
METHANA	150	EL0626C0013N	EXO SARONIKOS KOLPOS
FLISVOS	195	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS
AGIOS KOSMAS	337	EL0626C0012N	ESO (KENTRIKOS) SARONIKOS

## 5.6 TOTAL NUTRIENT LOADS

Figure 5-5: Total nutrient surface loads (BOD, N and P) produced by point, diffuse and other pollution sources in RB (EL0626)

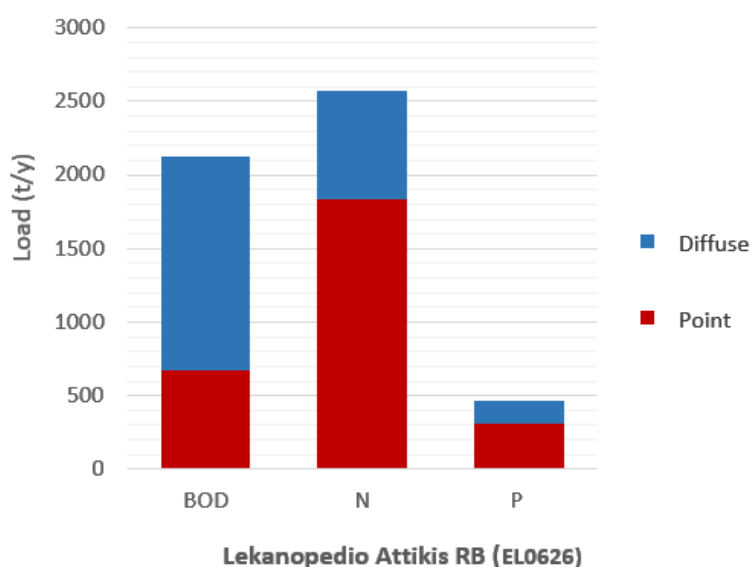


Table 5-9: Total annual nutrient surface loads (BOD, N and P) produced by all sources of pollution in Lekanopedio Attikis

POLLUTION SOURCE	BOD (t/y)	N (t/y)	P (t/y)
POINT	676,70	1.835,15	305,20
DIFFUSE	1.449,00	741,00	163,00
TOTAL	2.125,70	2.576,15	468,20

## 5.7 IMPACTS ASSESSMENT

### 5.7.1 Impacts assessment on SWB

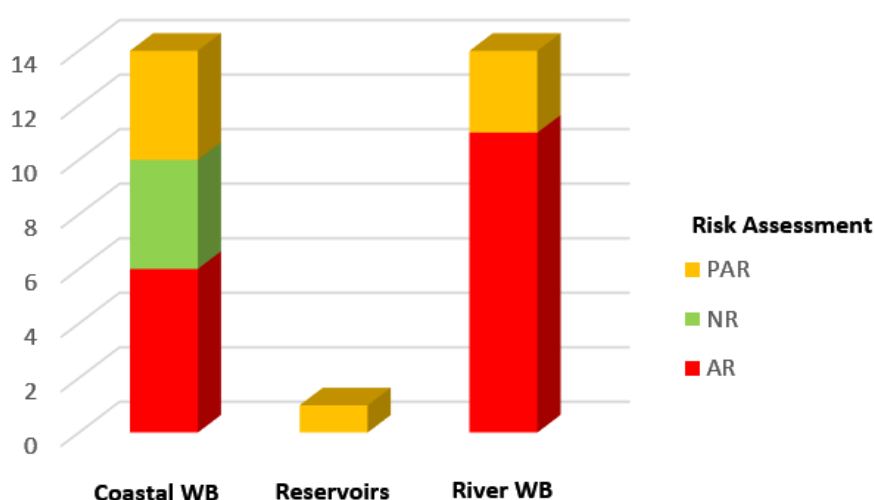
Pressures Impact assessment and WB designation is based on the likelihood of failing to meet the WFD environmental objectives, taking in consideration the following information:

- The magnitude of pressure from emissions and abstractions : High (H), Middle (M), Low (L)
- Available data and Monitoring program results
- Expert judgement, when no data is available

Table 5-10: Risk assessment of SWB failing to meet the WFD objectives in Attica RB (EL0626) – Number of WB

















































WB Type	Risk Assessment Categories								Total Number of WB
	NR – Not at Risk		PNR - Probably not at Risk		PAR –Probably At Risk		AR- At Risk		
	Number of WB	Percentage of WB (%)	Number of WB	Percentage of WB (%)	Number of WB	Percentage of WB (%)	Number of WB	Percentage of WB (%)	
River WB	0	0%	0	0%	3	10%	11	38%	14
Lake and Reservoirs WB	0	0%	0	0%	1	3%	0	0%	1
Transitional WB	-	-	-	-	-	-	-	-	-
Coastal WB	4	14%	0	0%	4	14%	6	21%	14
<b>Total</b>	<b>4</b>	<b>14%</b>	<b>0</b>	<b>0%</b>	<b>8</b>	<b>28%</b>	<b>17</b>	<b>59%</b>	<b>29</b>

Figure 5-6: Risk assessment of SWB failing to meet the WFD objectives in Attica RBD (EL06)



## 5.7.2 Impacts assessment on GWB

Table 5-11: Chemical and Quantitative status of GWB in Attica RBD (EL06)

No	WB CODE	WB NAME	Quantitative status	Decline water levels Trend	Chemical status	Quality Issues	Pollutant Trend
1	EL0600010	LOUTRAKIOU	 GOOD	NO	 GOOD	Local salinization	NO
2	EL0600020	DYTIKON GERANION	 GOOD	-	 GOOD	Local salinization	NO
3	EL0600030	KENTRIKON GERANION-KALAMAKIOU	 GOOD	-	 GOOD		-
4	EL0600040	ANATOLIKON GERANION-MAVROVOUNIOU	 GOOD	-	 GOOD	Local salinization	NO
5	EL0600051	MEGARON-ALEPOCHORIOU (A)	 BAD	YES	 BAD	salinization, overexploitation, level drop,deficit,nitrate (agriculture, sewage), metals (industrial activity)	NO
	EL0600052	MEGARON-ALEPOCHORIOU (B)	 GOOD	NO	 GOOD		NO
6	<b>EL0600060</b>	PATERA	 GOOD	NO	 GOOD	Local salinization	NO
7	EL0600070	INOIS	 GOOD	NO	 GOOD		NO
8	EL0600081	VORIO-ANATOLIKIS PARNITHAS (A)	 GOOD	NO	 GOOD	Local salinization	NO
	EL0600082	VORIO-ANATOLIKIS PARNITHAS (B)	 GOOD	NO	 GOOD	Local salinization Local pollution by uncontrolled waste dump site	NO
9	EL0600090	THRIASIOU PEDIOU	 BAD	YES	 BAD	salinization, overexploitation, level drop,deficit,nitrate (sewage) metals (industrial activity)	NO
10	EL0600100	KAPANDRITIOU	 GOOD	-	 GOOD		-
11	EL0600110	LEKANIS KIFISOU	 GOOD	-	 BAD	salinization,nitrate (agriculture, sewage), metals (industrial activity)	-
12	EL0600120	MARATHONA (A)	 GOOD	NO	 GOOD		-
13	EL0600130	MARATHONA (B)	 BAD	YES	 BAD	salinization, overexploitation, nitrate ( agriculture),	NO
14	EL0600140	PENTELIS	 GOOD	-	 GOOD		-
15	EL0600151	MESOGAIAS (A)	 GOOD	-	 BAD	salinization	YES
	EL0600152	MESOGAIAS (B)	 GOOD	NO	 BAD	nitrate (agriculture, sewage), metals (industrial activity)	YES
16	EL0600160	IMITOU	 GOOD	NO	 GOOD	Local salinization	NO
17	EL0600170	LAVREOTIKIS	 GOOD	-	 GOOD	Local salinization	-
18	EL0600180	ANAVYSOU	 GOOD	-	 GOOD	Local salinization	-
19	EL0600190	SALAMINA ISLAND	 BAD	-	 BAD	salinization, overexploitation, nitrate (agriculture, sewage), metals (industrial activity)	-
20	EL0600200	AEGINA ISLAND	 BAD	-	 BAD	salinization, overexploitation, nitrate (agriculture, sewage), metals (industrial activity)	-
21	EL0600210	AGKISTRIS	 GOOD	-	 GOOD		-



## 6. STATUS OF WATER BODIES

### 6.1 SURFACE WATER BODIES (SWB)

Table 6-1: Status of River WB and progress from the 1<sup>st</sup> RBMP

WB CODE	WB NAME	ECOLOGICAL STATUS / POTENTIAL		CHEMICAL STATUS	
		1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP	1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP
<b>ATTICA RB (EL0626)</b>					
EL0626R000000008N	R. LAKA	Moderate		Good	
EL0626R000208006N	P. KIFISOS 6	Unknown	Moderate	Unknown	Good
EL0626R000100012N	R. RAFINAS 2	Moderate	Moderate	Unknown	Good
EL0626R000300013N	R. PIKRODAFNIS	Unknown	Moderate	Good	Good
EL0626R000204004N	P. KIFISOS 4	Good	Moderate	Good	Good
EL0626R000100011N	R. RAFINAS 3	Unknown	Moderate	Unknown	Good
EL0626R000210007N	P. KIFISOS 7	Unknown	Poor	Unknown	Good
EL0626R000100010N	R. RAFINAS 1	Poor	Moderate	Unknown	Unknown
EL0626R000300014N	ERASINOS R.	Moderate	Moderate	Unknown	Unknown
EL0626R000200002N	P. KIFISOS 2	Bad	Poor	Good	Good
EL0626R000002009N	R. PALIOMIAOULI	Moderate	Good	Good	Good
EL0626R000206005N	P. KIFISOS 5	Unknown	Good	Unknown	Good
EL0626R000202003N	P. KIFISOS 3	Good	Moderate	Good	Good
EL0626R000200001H	P. KIFISOS 1	Poor	Unknown	Unknown	Poor
EL0626R000212008H	P. KIFISOS 8 - R. PIRNAS	-	Unknown	-	Unknown

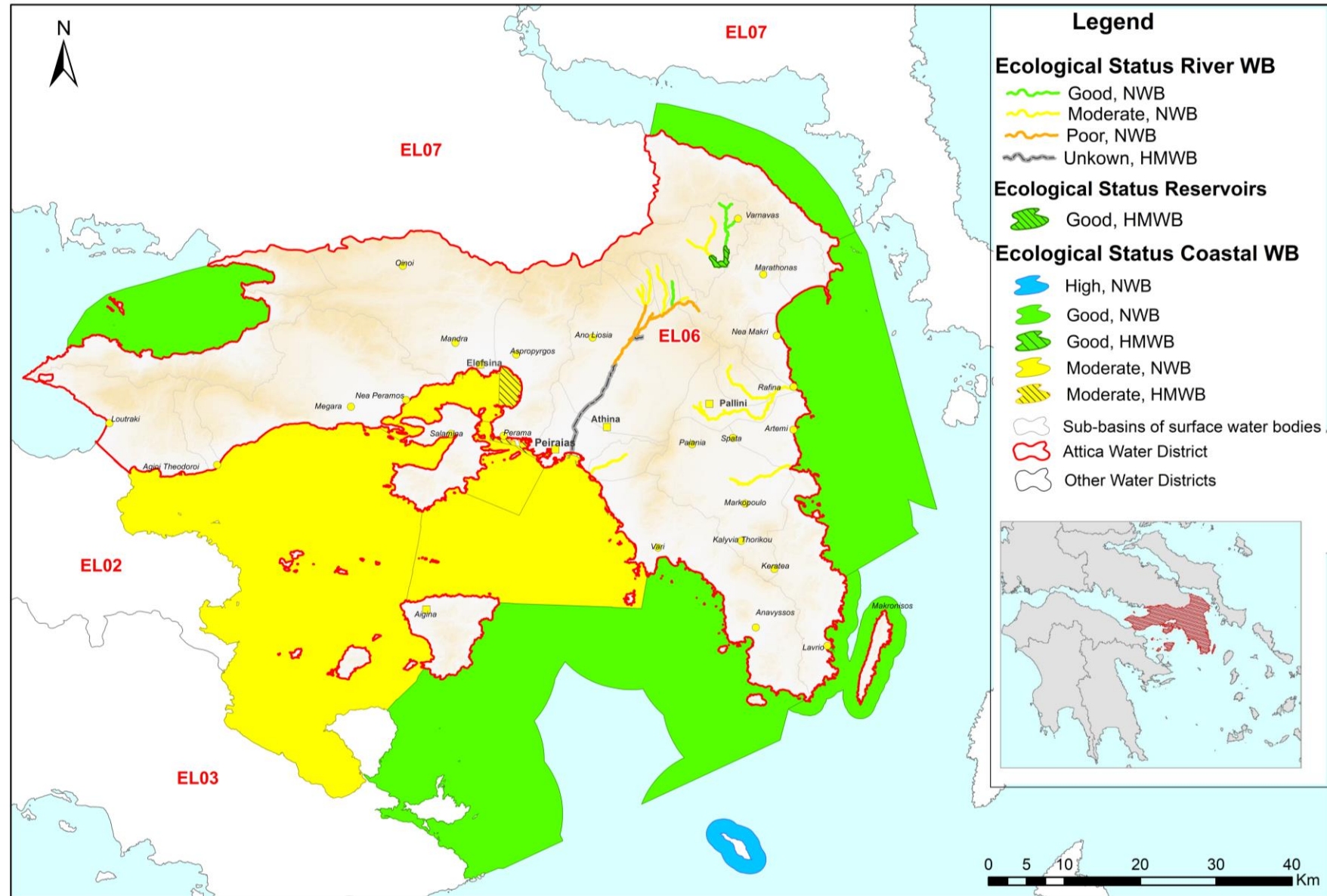
Table 6-2: Status of Reservoirs WB and progress from the 1<sup>st</sup> RBMP

WB CODE	WB NAME	ECOLOGICAL STATUS / POTENTIAL		CHEMICAL STATUS	
		1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP	1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP
<b>ATTICA RB (EL0626)</b>					
EL0626RL000000001H	TECHNITI LIMNI MARATHONA	Moderate	Good	Good	Good

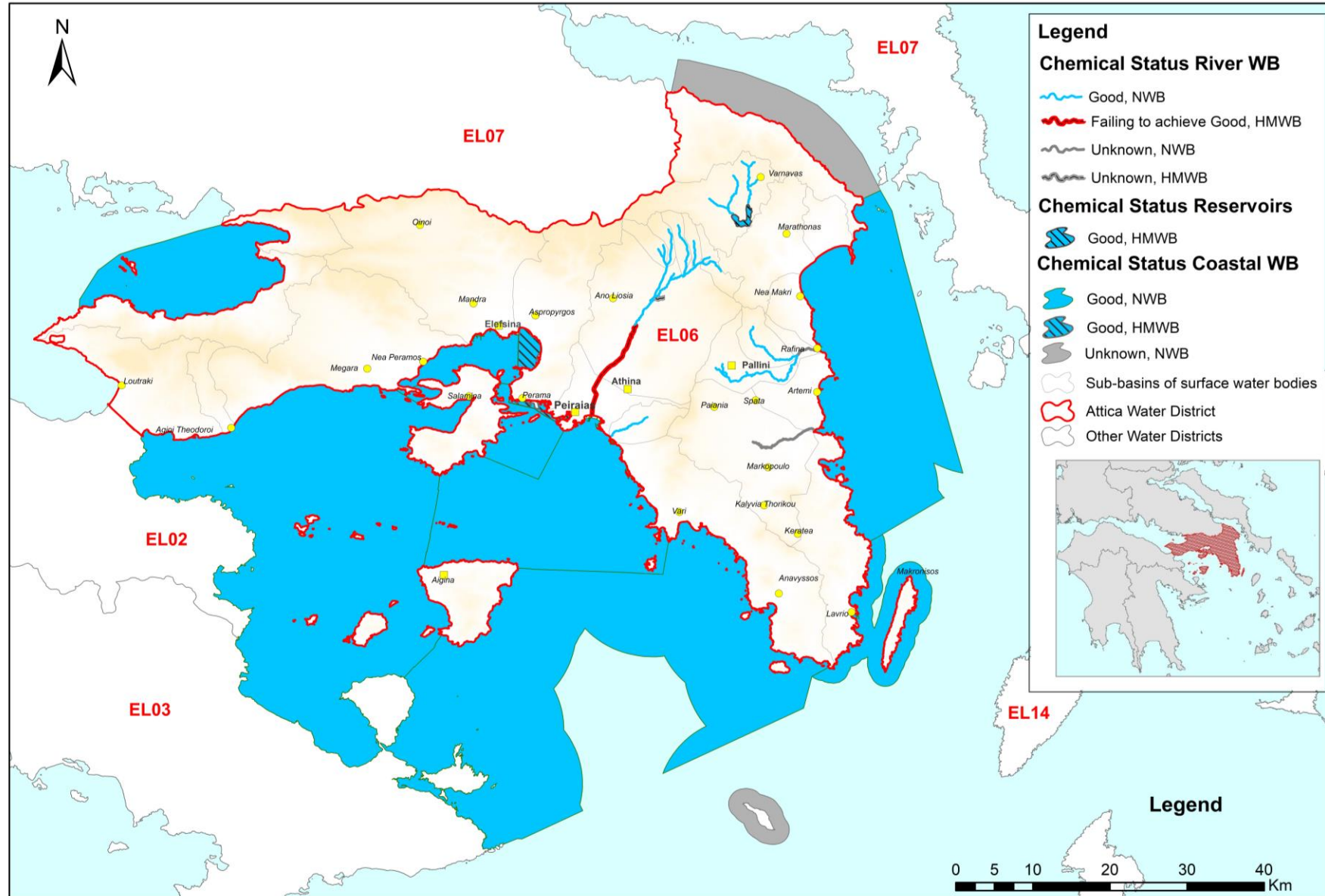
Table 6-3: Status of Coastal WB and progress from the 1<sup>st</sup> RBMP

WB CODE	WB NAME	ECOLOGICAL STATUS / POTENTIAL		CHEMICAL STATUS	
		1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP	1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP
EL0626C0001N	NOTIOS EVVOIKOS - MARKOPOULO	Good		Unknown	
EL0626C0002N	AKTES KOLPOU PETALION - RAFINA	Good	Good	Unknown	Good
EL0626C0006N	DYTIKOS KOLPOS ELEFSINAS	Poor	Moderate	Unknown	Good
EL0626C0009N	KOLPOS FANEROMENIS	Moderate	Moderate	Unknown	Good
EL0626C0010N	DYTIKOS SARONIKOS KOLPOS	Moderate	Moderate	Unknown	Good
EL0626C0011N	ESO (KENTRIKOS) SARONIKOS - PSYTALLEIA	Poor	Moderate	Unknown	Good
EL0626C0013N	EXO SARONIKOS KOLPOS	Good	Good	Unknown	Good

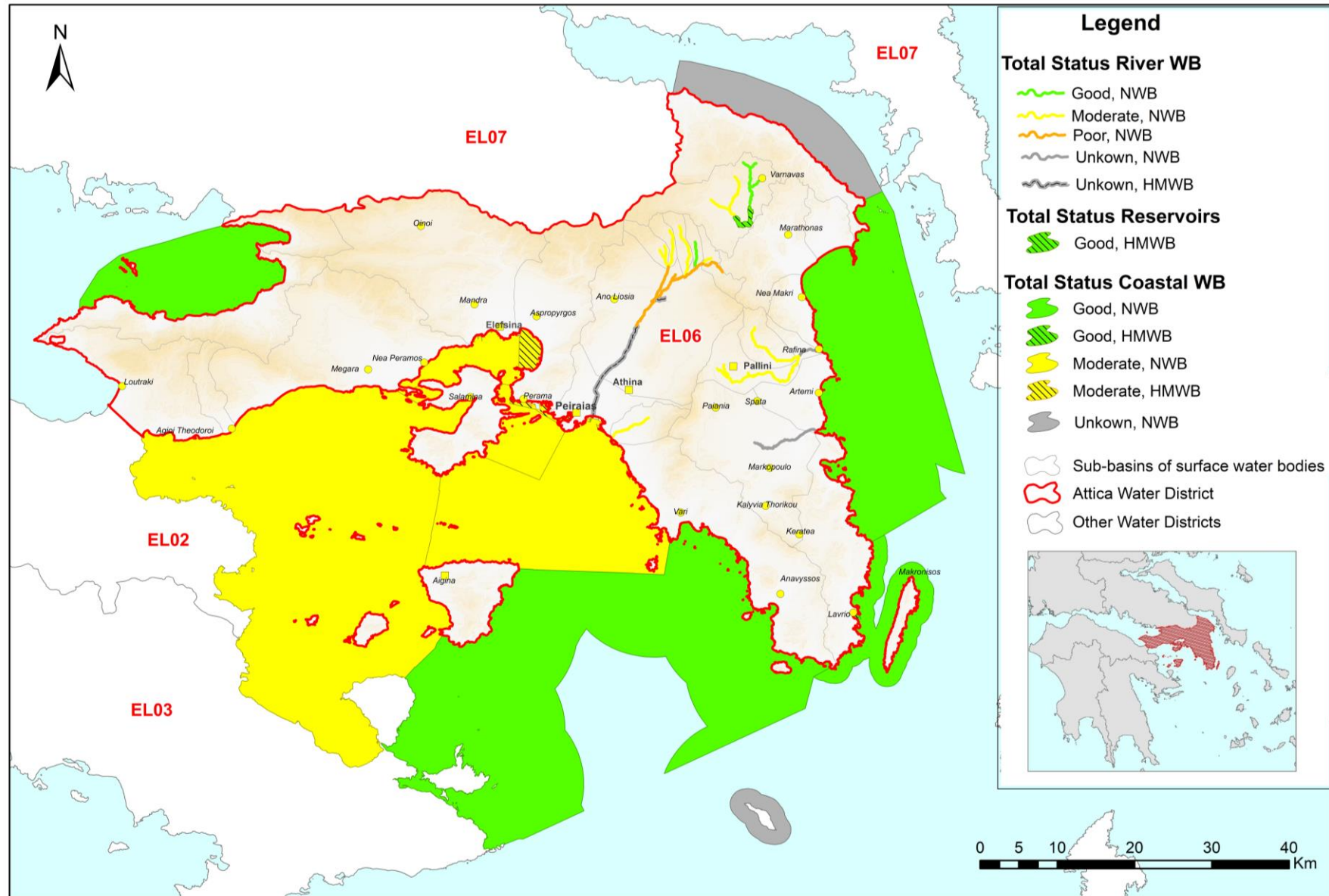
WB CODE	WB NAME	ECOLOGICAL STATUS / POTENTIAL		CHEMICAL STATUS	
		1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP	1 <sup>st</sup> RBMP	1 <sup>st</sup> Update of RBMP
EL0626C0005N	KOLPOS ALKYONIDON	Good	Good	Unknown	Good
EL0626C0012N	ESO (KENTRIKOS) SARONIKOS	Moderate	Moderate	Unknown	Good
EL0626C0003N	THALASSA LAVRIOU - MAKRONISOU	High	Good	Unknown	Good
EL0626C0004H	LIMANI LAVRIOU	Unknown	Good	Unknown	Good
EL0626C0007H	ANATOLIKOS KOLPOS ELEFSINAS	Poor	Moderate	Unknown	Good
EL0626C0008H	AKTES PERAMATOS - PEIRAIKI	Poor	Moderate	Unknown	Good
EL0626C0014N	NISIDA 1	High		Unknown	



Map 6: Ecological status of SWB of the RBD of Attica (EL06)



Map 7: Chemical status of SWB of the RBD of Attica (EL06)



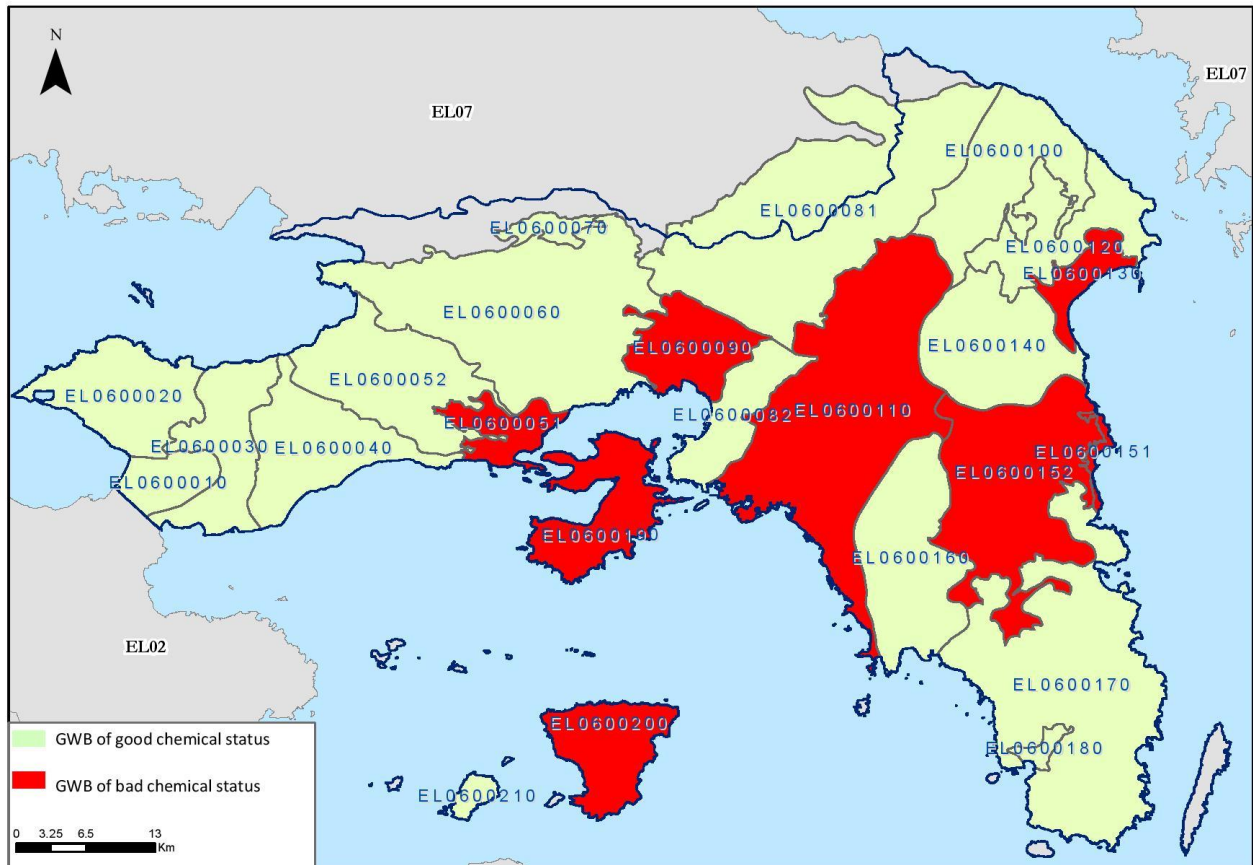
Map 8: Total status of SWB of the RBD of Attica (EL06)



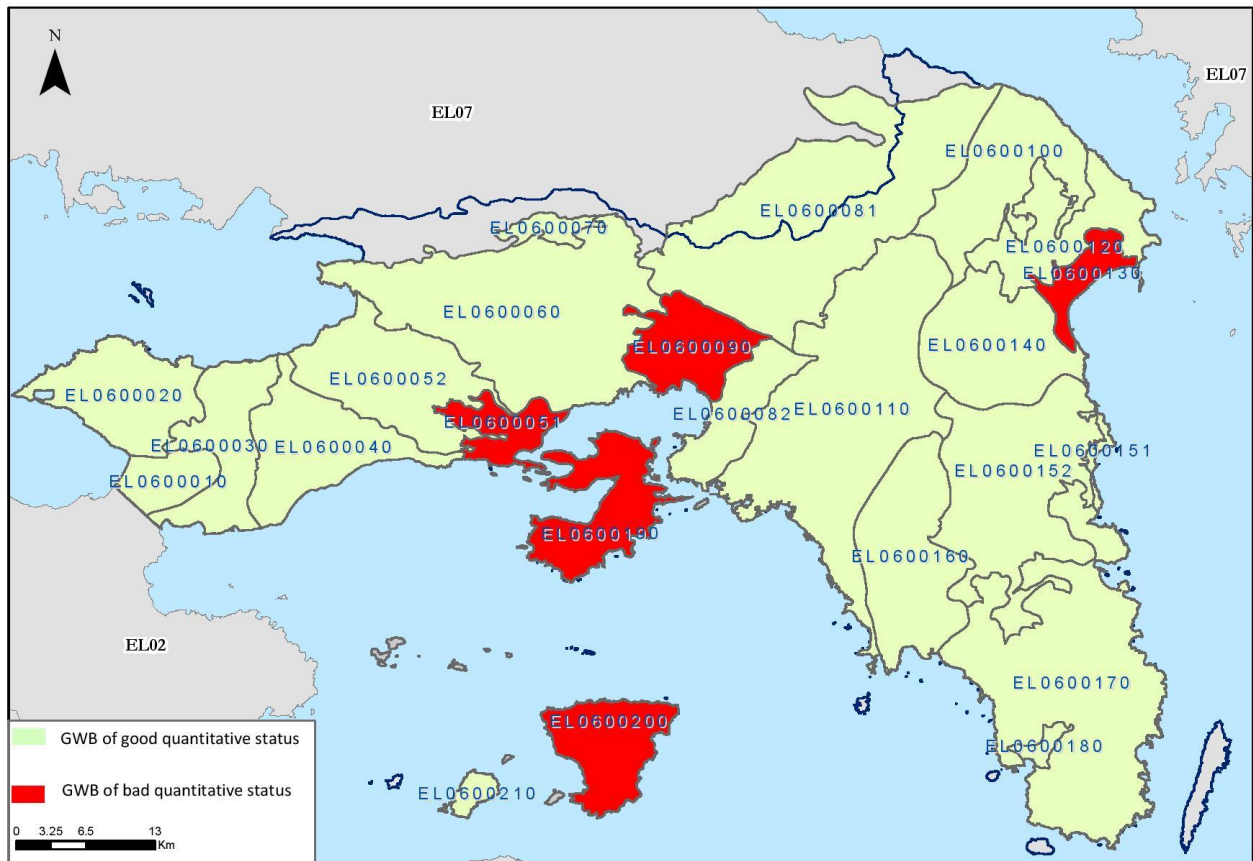
## 6.2 GROUNDWATER BODIES (GWB)

Table 6-4: Status of GWB and progress from the 1st RBMP

1 <sup>st</sup> RBMP				1 <sup>st</sup> Update of RBMP			
GWB Code	GWB Name	Status		GWB Code	GWB Name	Status	
		Chemical	Quantitative			Chemical	Quantitative
GR0600010	LOUTRAKIOU	GOOD	GOOD	EL0600010	LOUTRAKIOU	GOOD	GOOD
GR0600020	DYTIKON GERANION	GOOD	GOOD	EL0600020	DYTIKON GERANION	GOOD	GOOD
GR0600030	KENTRIKON GERANION-KALAMAKIOU	GOOD	GOOD	EL0600030	KENTRIKON GERANION-KALAMAKIOU	GOOD	GOOD
GR0600040	ANATOLIKON GERANION-MAVROVOUNIOU	GOOD	POOR	EL060P0040	ANATOLIKON GERANION-MAVROVOUNIOU	GOOD	GOOD
GR0600050	MEGARON-ALEPOCHORIOU	POOR	POOR	EL0600051	MEGARON-ALEPOCHORIOU (A)	POOR	POOR
				EL0600052	MEGARON-ALEPOCHORIOU (B)	GOOD	GOOD
GR0600060	PATERA	GOOD	GOOD	EL0600060	PATERA	GOOD	GOOD
GR0600070	INOIS	GOOD	GOOD	EL0600070	INOIS	GOOD	GOOD
GR0600080	VORIO-ANATOLIKIS PARNITHAS	GOOD	GOOD	EL0600081	VORIO-ANATOLIKIS PARNITHAS (A)	GOOD	GOOD
				EL0600082	VORIO-ANATOLIKIS PARNITHAS (B)	GOOD	GOOD
GR0600090	THRIASIOU PEDIU	POOR	POOR	EL0600090	THRIASIOU PEDIU	POOR	POOR
GR0600100	KAPANDRITIOU	GOOD	GOOD	EL0600100	KAPANDRITIOU	GOOD	GOOD
GR0600110	LEKANIS KIFISOU	POOR	GOOD	EL0600110	LEKANIS KIFISOU	POOR	GOOD
GR0600120	MARATHONA (A)	GOOD	GOOD	EL0600120	MARATHONA (A)	GOOD	GOOD
GR0600130	MARATHONA (B)	POOR	POOR	EL0600130	MARATHONA (B)	POOR	POOR
GR0600140	PENTELIS	GOOD	GOOD	EL0600140	PENTELIS	GOOD	GOOD
GR0600150	MESOGAIAS	POOR	GOOD	EL0600151	MESOGAIAS (A)	POOR	GOOD
				EL0600152	MESOGAIAS (B)	POOR	GOOD
GR0600160	IMITOU	GOOD	GOOD	EL0600160	IMITOU	GOOD	GOOD
GR0600170	LAVREOTIKIS	GOOD	GOOD	EL0600170	LAVREOTIKIS	GOOD	GOOD
GR0600180	ANAVYSOU	GOOD	GOOD	EL0600180	ANAVYSOU	GOOD	GOOD
GR0600190	SALAMINA ISLAND (A)	POOR	POOR	EL0600190	SALAMINA ISLAND	POOR	POOR
GR0600200	SALAMINA ISLAND (B)	POOR	POOR				
GR0600210	SALAMINA ISLAND (C)	POOR	POOR				
GR0600220	AEGINA ISLAND (A)	POOR	POOR	EL0600200	AEGINA ISLAND	POOR	POOR
GR0600230	AEGINA ISLAND (B)	POOR	POOR				
GR0600240	AEGINA ISLAND (C)	POOR	GOOD				
				EL0600210	AGKISTRIS	GOOD	GOOD



Map 9: Chemical status of GWB of the RBD of Attica(EL06)



Map 10: Quantitative status of GWB of the RBD of Attica (EL06)



## 7. ECONOMIC ANALYSIS OF WATER USE

### 7.1 FINANCIAL COST OF WATER SERVICES

#### 7.1.1 Water services for water supply and waste collection and treatment facilities

Table 7-1: Water / Sewerage service providers in the RB's of the Attica RBD (EL06)

LOCAL COMMUNITY	PROVIDER
ATHENS	EYDAP
VYRONAS	EYDAP
GALATSI	EYDAP
DAPHNI	EYDAP
HYMETTUS	EYDAP
ZOGRAFOY	EYDAP
ILIOYPOLI	EYDAP
KESARIANI	EYDAP
NEA FILADELFIA	EYDAP
NEA CHALKIDONA	EYDAP
AGIA VARVARA	EYDAP
AGIOI ANARGYROI	EYDAP
KAMATERO	EYDAP
EGALEO	EYDAP
ILION	EYDAP
PERISTERI	EYDAP
PETROYPOLI	EYDAP
CHAIKIDARI	EYDAP
AGIA PARASKEYH	EYDAP
MAROYSI	MIXED SYSTEM
VRILISIA	MUNICIPALITY SUPPORTED BY EYDAP
KIFISIA	MIXED SYSTEM
EKALI	MUNICIPALITY SUPPORTED BY EYDAP
NEA ERITHREA	MUNICIPALITY SUPPORTED BY EYDAP
LIKOVRYSI	EYDAP
PEFKI	EYDAP
METAMORFOSI	EYDAP
NEA IONIA	EYDAP
PAPAGOY	EYDAP
XOLARGOY	EYDAP
PENTELIS	EYDAP
NEAS PENTELIS	EYDAP
MELISSION	EYDAP
FILOTHEI	EYDAP
PSYKIKO	EYDAP
NEO PSYKIKO	EYDAP
CHALANDRI	EYDAP
IRAKLEIO	EYDAP
AGIOS DIMITRIOS	EYDAP
ALIMOS	EYDAP
GLYFADA	MIXED SYSTEM
ARGYROYPOLI	EYDAP
ELLINIO	EYDAP
KALLITHEA	EYDAP
MOSCHATO	EYDAP
TAYROS	EYDAP
NEA SMYRNI	EYDAP
PALAIIO FALIRO	EYDAP

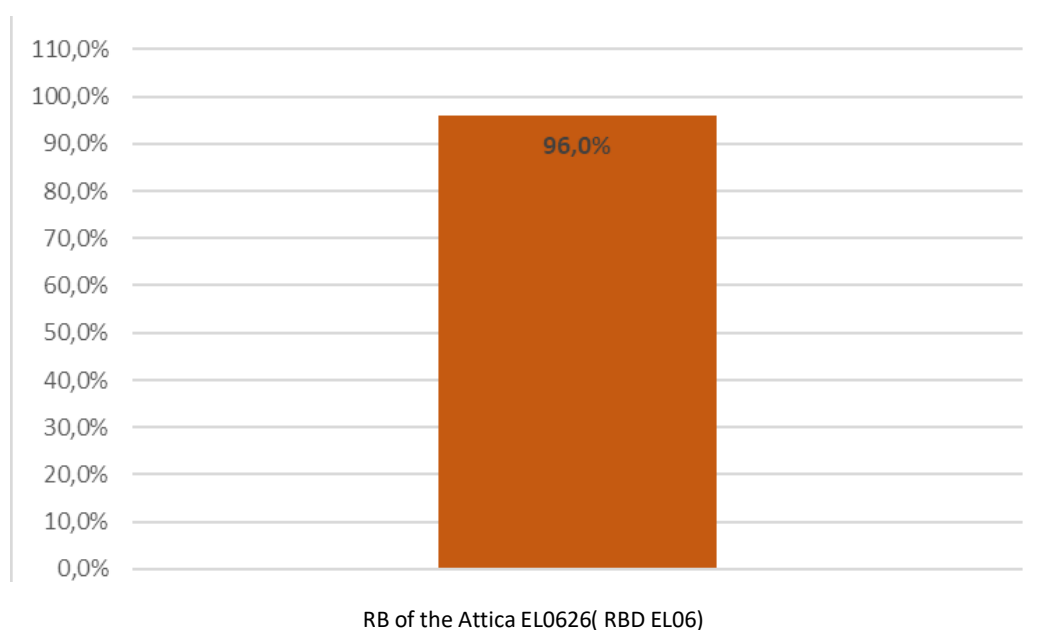
LOCAL COMMUNITY	PROVIDER
KERATSINI	EYDAP
DRAPETSONA	EYDAP
KORIDALLOS	EYDAP
NIKAIA	EYDAP
AGIOS IOANNIS RENTIS	EYDAP
PIRAEUS	EYDAP
PERA,A	EYDAP
AMPELAKIA	MUNICIPALITY
SALAMINA	MIXED SYSTEM
ACHARNES	MIXED SYSTEM
THRAKOMAKEDONES	EYDAP
VARIS	EYDAP
VOYLAS	EYDAP
VOYLIAGMENIS	EYDAP
AGIOY STEFANOY	MUNICIPALITY
ANIKSI	MUNICIPALITY SUPPORTED BY EYDAP
DONYSOY	MUNICIPALITY SUPPORTED BY EYDAP
DROSIAS	MUNICIPALITY SUPPORTED BY EYDAP
KRYONERIOY	MUNICIPALITY
RODOPOLEOS	MUNICIPALITY SUPPORTED BY EYDAP
STAMATAS	MUNICIPALITY
KOROPI	MUNICIPALITY SUPPORTED BY EYDAP
LAVREOTIKI	DEYA TI L
KERATEA	DEYA TI L
AGIOY KOSTANTINOY	DEYA TI L
MARATHONOS	MUNICIPALITY SUPPORTED BY EYDAP
NEA MAKRI	MUNICIPALITY
GRAMMATIKOY	MUNICIPALITY
VARNAVA	MUNICIPALITY
MARKOPOYLO	MUNICIPALITY SUPPORTED BY EYDAP
PAIANIA	MUNICIPALITY SUPPORTED BY EYDAP
GLYKA NERA	MIXED SYSTEM
PALLINI	MUNICIPALITY
GERAKAS	MIXED SYSTEM
ANTHOYSA	MUNICIPALITY
RAFINA	MUNICIPALITY
PIKERMI	MUNICIPALITY
ANAVISSOS	MUNICIPALITY
KALYVIA THORIKOY	MIXED SYSTEM
KOYVARA	MUNICIPALITY SUPPORTED BY EYDAP
PALAIA FOKAIA	MUNICIPALITY
SARONIDA	MUNICIPALITY
SPATA LOYTSA	MUNICIPALITY SUPPORTED BY EYDAP
ARTEMIDA	MUNICIPALITY SUPPORTED BY EYDAP
AYLONOS	MUNICIPALITY
EFIDNES	MUNICIPALITY
KALAMOY	MUNICIPALITY
KAPANDRITIOY	MUNICIPALITY
MARKOPOYLOY OROPOY	MUNICIPALITY
POLYDENDRI	MUNICIPALITY
SYKAMINOY	MUNICIPALITY
OROPION	MUNICIPALITY
ASPROPIRGOS	EYDAP
ELEYSIS	EYDAP
MAGOYLA	MUNICIPALITY
VILIA	MUNICIPALITY

LOCAL COMMUNITY	PROVIDER
MANDRA	MUNICIPALITY SUPPORTED BY EYDAP
OINOI	MUNICIPALITY
MEGARA	MUNICIPALITY
NEA PERAMOS	MIXED SYSTEM
FILIS	MUNICIPALITY
ANO LIOSION	MUNICIPALITY SUPPORTED BY EYDAP
ZEFYRI	EYDAP
AGISTRI	MUNICIPALITY
EGINA	MUNICIPALITY
AGIOI THEODOROI	DEYA L-AG TH
LOYTRAKI PERACHORA	DEYA L-AG TH

Table 7-2: Financial Cost Recovery for Water Supply

	Total Financial Cost (€)	Average Financial Cost (€/m <sup>3</sup> )	Total Revenues (€)	Average Revenues (€/m <sup>3</sup> )	Financial Cost Recovery
<b>TOTAL</b>	<b>335.548.923</b>	<b>0,93</b>	<b>322.260.760</b>	<b>0,89</b>	<b>96,04%</b>

Figure 7-1: Financial Cost Recovery for Water Supply



### 7.1.2 Water services for irrigation/ rural use

There are no water supply services for rural use (OEEB / TOEB) in EL06/RB EL0626.

### 7.1.3 Water supply services for industrial use

In EL0626, the industrial use is partly covered by EYDAP and partly by the municipalities/DEYA from the (general/urban) water supply, and the corresponding financial cost is incorporated into the water supply services. Respectively, the cost recovery of water services for industrial use is not differentiated from the cost recovery from the (general/urban) water supply services.

## 7.2 ENVIRONMENTAL AND RESOURCE COST

### 7.2.1 Environmental Cost

The environmental cost at RBD and RB level is € 1,28 million. The annual unit environmental cost at RBD is estimated at 0,00064 € / m<sup>3</sup>.

Table 7-3: Distribution of Environmental Cost per Water Use in the RB of the Attica EL0626( RBD EL06)

Environmental cost	Households/ Water Supply	Irrigation/ Agriculture	Livestock breeding	Industry	Total
Total cost for all years of PoM implementation (€)	710.487	435.507	13.480	120.526	<b>1.280.000</b>
Annual cost per use (€)	177.622	108.877	3.370	30.131	<b>320.000</b>
Percentage per use (%) in total annual cost	55,51%	34,02%	1,05%	9,42%	<b>100%</b>
<b>Annual unity cost per use (€/m<sup>3</sup>)</b>	0,00043	0,00163	0,00163	0,00163	<b>0,00064</b>

In the RB EL0626, 55,51 % of environmental cost relates to water supply , about 34,02% in irrigation and 9,42% in industry. Livestock breeding concerns a much lower percentage of environmental cost.

### 7.2.2 Resource cost

Resource cost at RBD and RB level is € 0,45 million. The annual unit resource cost at RBD level is estimated at 0,00023 € / m<sup>3</sup>.

Table 7-4: Distribution of Resource Costs per Water Uses in the RB of the Attica EL0626( RBD EL06)

Resource cost	Households/ Water Supply	Irrigation/ Agriculture	Livestock breeding	Industry	Total
Total cost for all years of PoM implementation (€)	8.722	411.961	12.752	29.898	<b>463.333</b>
Annual cost per use (€)	2.181	102.990	3.188	7.475	<b>115.833</b>
Percentage per use (%) in total annual cost	1,88%	88,91%	2,75%	6,45%	<b>100%</b>
<b>Annual unity cost per use (€/m<sup>3</sup>)</b>	0,00001	0,00154	0,00154	0,00041	<b>0,00023</b>

In RBD EL0626, 1,88% of the resource cost concerns water supply, about 89% in irrigation and 6,5% in industry. Livestock breeding concerns a much lower percentage of resource cost.

## 8. ENVIRONMENTAL OBJECTIVES – EXEMPTIONS

The environmental objectives set for the 30 SWBs of the RBD until 2021 are presented in the following table:

Table 8-1: SWB Environmental objectives by 2021

Environmental Objective	Count of SWB
Maintain good / high ecological status/potential	10
Maintain good chemical status	24
Achieve good ecological status	18
Achieve good chemical status	1
Identify ecological status/potential	2
Determine the chemical status	5
Exemption Article 4.4 (Deadline extension)	22
Exemption Article 4.5 (Less strict environmental objectives)	0
Exemption Article 4.6 (Temporary deterioration)	0
Exemption Article 4.7 (New modifications)	0

The environmental objectives set for the 24 GWB of Attica by 2021 are presented in the following table:

Table 8-2: Environmental objectives of GWB by 2021

Environmental Objective	Count of GWB
Maintain good quantitative status	16 and 1 Subsystem
Maintain good chemical status	14 and 1 Subsystem
Achieve good quantitative status	4 and 1 Subsystem
Achieve good chemical status	6 and 1 Subsystem
Exemption Article 4.4 (Deadline extension)	6 and 1 Subsystem
Exemption Article 4.5 (Less strict environmental objectives)	0
Exemption Article 4.6 (Temporary deterioration)	0
Exemption Article 4.7 (New modifications)	0

### 8.1 DEADLINE EXTENSION (ARTICLE 4.4 DIRECTIVE 2000/60/EC)

Table 8-3: WB exemptions 2021

	EXEMPTIONS		Count of WB
	CATEGORY	SUB-CATEGORY	
SWB Ecological status	Article 4.4 (Deadline extension)	It takes longer to fix the problem than there is time available	11 River WB and 7 Coastal WB
SWB Ecological status	Article 4.4 (Deadline extension)	There is no information on the cause of the problem so the solution cannot be identified	2 River HMWB
SWB Chemical status	Article 4.4 (Deadline extension)	It takes longer to fix the problem than there is time available	1 River HMWB
SWB Chemical status	Article 4.4 (Deadline extension)	There is no information on the cause of the problem so the solution cannot be identified	2 River WB, 1 River HMWB and 2 Coastal WB
GWB Quantitative Status	Article 4.4 (Deadline extension)	It takes longer to fix the problem than there is time available	4 GWB and 1 Subsystem
GWB Chemical Status	Article 4.4 (Deadline extension)	It takes longer to fix the problem than there is time available	6 GWB and 1 Subsystem

## **8.2 LESS STRICT ENVIRONMENTAL OBJECTIVES (ARTICLE 4.5 DIRECTIVE 2000/60/EC)**

In the present Update of RBMP, no less strict environmental objectives are set for any GWB or SWB. This exemption category will be reviewed in the next Update of RBMP, taking into consideration the new monitoring data and after evaluating technically feasible measures.

## **8.3 TEMPORARY DETERIORATION (ARTICLE 4.6 DIRECTIVE 2000/60/EC)**

In the present Update of RBMP, no temporary deterioration is foreseeing for any GWB or SWB. This exemption category will be reviewed in the next Update of RBMP, taking into consideration the new monitoring data and after evaluating technically feasible measures.

## **8.4 NEW MODIFICATIONS (ARTICLE 4.7 DIRECTIVE 2000/60/EC)**

The 1<sup>st</sup> Update of RBMP defines the procedure for considering the potential inclusion in Article 4.7 of Directive 2000/60 / EC of water bodies affected by programmed projects.

For this purpose a specific analytical methodology has been developed, which is available on the relevant website of the Special Secretariat of Water <http://wfdver.ypeka.gr/>. The implementation procedure of Article 4.7 is set out in detail, is in force since the adoption of this Management Plan and concerns planned projects for which no environmental permit dossier has been filed or in cases where according to the existing legislation there is no requirement for approval of environmental terms, a request for authorization to build, install or operate has not been filed by the competent body, as appropriate.

## 9. PROGRAMME OF MEASURES

The Programme of Measures is part of the Management Plan and is the "mechanism" for achieving the environmental objectives set. Especially the implementation of the Programme Measure should ensure:

- the prevention of deterioration, the improvement and the remediation of surface water bodies, the achievement of "Good" ecological and chemical status, and the mitigation of the pollution through the discharge and the emission of hazardous substances.
- the protection, the improvement and the remediation of groundwater water bodies, the prevention of their pollution and the deterioration of their water status in order to balance between abstraction and discharge.
- the conservation of Protected Areas

The measures are divided into **Basic** and **Supplementary**.

The **Basic Measures**, according to par. 3 of Article 11 of the WFD are the minimum requirements that should be met and include:

- Measures for the implementation of EU and national legislation on water protection (**Group I**).
- Other basic measures (**Group II**). These basic measures are related to the basic principles of EU and national legislation on water management and relate to the horizontal implementation of actions in groups, usually, water bodies, with a view to achieving or maintaining good status in water.

The **Supplementary Measures** are the measures established and implemented in addition to the Basic Measures, in order to achieve the objectives set in accordance with Article 4 of Directive 2000/60 / EC. Member States may adopt further supplementary measures with a view to additional protection or improvement of the waters covered by the Directive.

### 9.1 PROGRESS OF IMPLEMENTATION OF THE 1<sup>ST</sup> RBMP POM

The PoM of the 1<sup>st</sup> RBMP included 33 Basic Measures.

Table 9-1: Number of Basic Measures of 1<sup>st</sup> RBMP per category of Actions

Actions concerning measures	Count of measures
Administrative acts	14
Constructions	2
Studies	4
Measures relating to administrative acts but requiring specific studies or surveys	12
Measures relating to Services / advisory actions	1
<b>Total</b>	<b>33</b>

Table 9-2: Progress of the implementation of the Basic Measures of the Program of Measures of the 1<sup>st</sup> RBMP

Category of Measures	Total number of measures	Number of measures already implemented	Number of measures in progress / under construction	Number of measures not started
Measures deemed appropriate for the purposes of Article 9 (cost recovery)	1	1	-	-

Category of Measures	Total number of measures	Number of measures already implemented	Number of measures in progress / under construction	Number of measures not started
Measures to promote an efficient and sustainable water use in order to avoid compromising the achievement of the objectives specified in Article 4	5	2	3	-
Measures to meet the requirements of Article 7 (drinking water)	7	1	6	-
Measures for the controls over the abstraction of surface water and groundwater	6	5	1	-
Measures for the controls of artificial recharge of GWB	2	-	2	-
Measures for point source discharges	8	3	5	-
Measures for diffuse sources liable to cause pollution	2	1	1	-
Measures for any other significant adverse impacts on the status of water	-	-	-	-
Special Measures for the priority substances and other substances	-	-	-	-
Measures for the prevention of accidental pollution incidents / extreme weather events	2	2	-	-
<b>Total</b>	<b>33</b>	<b>15</b>	<b>18</b>	<b>-</b>

In addition to the above basic measures, the program of measures of the 1<sup>st</sup> RBMP included 22 supplementary measures, covering 11 categories of measures of Directive 2000/60/EC.

Table 9-3: Progress of the implementation of the Supplementary Measures of the Program of Measures of the 1<sup>st</sup> RBMP

Category of Measures	Total number of measures	Number of measures already implemented	Number of measures in progress / under construction	Number of measures not started
Negotiated environmental agreements	3	3	-	-
Emission controls	3	-	3	-
Codes of good practice	1	-	1	-
Demand management measures	1	-	1	-
Efficiency and reuse measures	1	-	1	-
Other relevant measures	2	1	1	-
Abstraction controls	4	1	3	-
Artificial recharge of aquifers	1	-	1	-
Construction projects	1	-	1	-
Educational projects	4	-	4	-
Recreation and restoration of wetlands areas	1	-	1	-
<b>Total</b>	<b>22</b>	<b>5</b>	<b>17</b>	<b>-</b>



## 9.2 PROGRAMME OF BASIC AND SUPPLEMENTARY MEASURES

### 9.2.1 Actions implementing EU Directives (Group I Basic Measures)

The planned actions for the implementation of EU Directives and National legislation for the protection of WB are presented in the following table.

Table 9-4: Actions for the implementation of EU Directives

DIRECTIVE	PLANNED ACTIONS	IMPLEMENTING BODIES
<b>Bathing water Directive (2006/7/ EC)</b>	<ul style="list-style-type: none"> <li>Continue to monitor the quality of bathing water in accordance with Directive 2006/7 / EC.</li> </ul>	Special Secretariat for Water, Directorate of Water of the Decentralized Administration
	<ul style="list-style-type: none"> <li>Updating the Greek Bathing Water Profiles Registry</li> </ul>	
<b>Habitats Directive (92/43/EEC)</b> <b>Birds Directive (2009/147/ EC)</b>	<ul style="list-style-type: none"> <li>Setting /Approval Management Plans for protected areas of Natura 2000 network relating with water management issues</li> </ul>	Ministry of Environment and Energy, Protected Areas Management Bodies
	<ul style="list-style-type: none"> <li>Monitoring/Assessment of the conservation status of habitats and species directly depending on water in Natura 2000 areas.</li> </ul>	
<b>Drinking water (Directives 98/83/ EC, 2015/1787/ EC)</b>	<ul style="list-style-type: none"> <li>Monitoring of the implementation of the Directive</li> </ul>	Ministry of Health
<b>Environmental Impact Assessment Directives (2011/92/EC, 2014/52/EC)</b>	<p>Amendment of the Ministerial Decision 170225/2014 – (Specifications for the contents of environmental permitting dossiers for projects and activities of category A) so that for certain categories of projects, which should be first specified, to make the following mandatory:</p> <ul style="list-style-type: none"> <li>Emissions of pollutants by category,</li> <li>Calculation of pollution impacts in WB defined in the Management Plans and</li> <li>Comparing these concentrations with the Environmental Quality Standards.</li> <li>Establishment of a monitoring program and notification of results to the relevant Water Directorate.</li> </ul>	Ministry of Environment and Energy
<b>Industrial Emissions Directive IED, (2010/75/EC)</b>	<ul style="list-style-type: none"> <li>Keeping registration and records of installations that are in line with the provisions of the Directive</li> </ul>	Decentralized administration
<b>Nitrates Directive (91/676/ EC)</b>	<ul style="list-style-type: none"> <li>Implementation of New Action Plans. The drafting of New Action Plans in all the vulnerable zones of the country has been entrusted by the Ministry of Rural Development and Food to the Agricultural University of Athens and is under preparation.</li> </ul>	Ministry of Rural Development and Food
	<ul style="list-style-type: none"> <li>Systematic monitoring of nitrate levels in WBs that are or may be subject to nitrate pollution.</li> </ul>	Special Secretariat for Water, Ministry of Rural Development and Food

DIRECTIVE	PLANNED ACTIONS	IMPLEMENTING BODIES
<b>Plant Protection Products (Directive 2009/128/EK, Regulation (EU) No. 1107/2009, Regulation (EU) No. 652/2014)</b>	<ul style="list-style-type: none"> <li>Rational use of plant protection products</li> </ul>	Ministry of Rural Development and Food
<b>Major Accidents (Seveso) Directive (2012/18/EC)</b>	<ul style="list-style-type: none"> <li>Keeping registration and records of installations that are in line with the provisions of the Directive</li> </ul>	Decentralized administration
<b>Sewage sludge Directive (86/278/EEC)</b>	<ul style="list-style-type: none"> <li>Setting up a Joint Ministerial Decision, on Measures, Conditions and Procedures for the Use of Sludge from Domestic and Urban Wastewater Treatment and Certain Wastewater, in compliance with the provisions of Directive 86/278 / EEC and in replacement of Joint Ministerial Decision 80568/4225 / 1991 and promotion of actions related to the safe disposal of treated sludge.</li> </ul>	Ministry of Environment and Energy
<b>Urban Waste Water Treatment Directive (91/271/EC, 98/15/ EC)</b>	<ul style="list-style-type: none"> <li>Completion of sewerage and waste water treatment projects of the settlements that concerns the provisions of the Directive (covering all agglomerations with a population greater than 2,000 p.e.).</li> </ul>	Region, MEWSS, Municipalities
	<ul style="list-style-type: none"> <li>Strengthening actions to control the effective operation of existing wastewater treatment and drainage projects.</li> </ul>	Region

## 9.2.2 Basic Measures of other categories (Group II Basic Measures)

Table 9-5: Basic measures of other categories

CODE - NAME OF MEASURE	CATEGORY	1 <sup>st</sup> RBMP	IMPLEMENTING BODIES
<b>M06B0202</b> Upgrade of the organizational function of MEWSS for the compliance with the financial and other data in order to meet the requirements of the Joint Ministerial Decision 132275/19.05.2017 (Government Gazette 1751 B'/22.05.2017) of the National Water Committee, which deals with pricing and costing rules for water supply services.	Measures to implement the cost recovery principle (Art. 9)	NEW MEASURE	MEWSS / Ministry of Environment & Energy (Special Secretariat for Water) / Ministry of Interior
<b>M06B0203</b> Upgrading of the organizational function of the Local Government Organizations for the compliance with the financial and other data in order to meet the requirements of the Joint Ministerial Decision 132275/19.05.2017 (Government Gazette 1751 B'/22.05.2017) of the National Water Committee, which deals with pricing and costing rules for water supply services.	Measures to implement the cost recovery principle (Art. 9)	NEW MEASURE	Local Government Organizations / Ministry of Environment & Energy (Special Secretariat for Water) / Ministry of Interior
<b>M06B0204</b> Training and expertise of all the stakeholders (Decentralized Administrations, Regions, MEWSS, LOLR, Local Government Organizations of the Joint Ministerial Decision 132275/19.05.2017 (Government Gazette 1751 B'/22.05.2017) of the National Water Committee, which deals with pricing and costing rules for water supply services.	Measures to implement the cost recovery principle (Art. 9)	NEW MEASURE	Ministry of Environment & Energy (Special Secretariat for Water)

CODE - NAME OF MEASURE	CATEGORY	1 <sup>st</sup> RBMP	IMPLEMENTING BODIES
<b>M06B0301</b> Preparation / Update of the Water Supply Masterplan	Measures to promote an efficient and sustainable water use (Art. 4)	YES	MEWSS / Municipalities /Water suppliers/ Decentralized Administration (Water Directorate)
<b>M06B0302</b> Actions for the reinforcement, rehabilitation, modernization of water supply networks and leakage control	Measures to promote an efficient and sustainable water use (Art. 4)	YES	Municipalities / MEWSS / Drinking water providers / Region / Decentralized Administration (Water Directorate)
<b>M06B0304</b> Investments for saving water in agriculture	Measures to promote an efficient and sustainable water use (Art. 4)	YES	Individuals / Irrigation water providers / Ministry of Rural Development and Food / Regions
<b>M06B0305</b> Determination of maximum irrigation requirements for crops for private water abstractions	Measures to promote an efficient and sustainable water use (Art. 4)	YES	Decentralized Administration (Water Directorate), Regional directorate of Rural Economy and Veterinary Medicine
<b>M06B0307</b> Preparation of manual of technical specifications for application of water reuse methods	Measures to promote an efficient and sustainable water use (Art. 4)	YES	Ministry of Environment & Energy (Special Secretariat for Water)
<b>M06B0308</b> Update of the existing Strategic Plan to Address Water Scarcity and Drought	Measures to promote an efficient and sustainable water use (Art. 4)	NEW MEASURE	Decentralized Administration (Water Directorate), Ministry of Environment & Energy (Special Secretariat for Water)
<b>M06B0401</b> Definition and delimitation of zones and / or measures for the protection of water abstraction points, intended for human consumption from groundwater bodies	Measures to meet the requirements of Article 7 (drinking water)	YES	Decentralized Administration (Water Directorate) and Drinking water providers (MEWSS, Municipalities etc.) EYDAP
<b>M06B0402</b> Protection of GWBs included in the registry of protected areas for human consumption and establishment of an institutional framework of protection	Measures to meet the requirements of Article 7 (drinking water)	YES	Decentralized Administration (Water Directorate)
<b>M06B0403</b> Surface water projects for water supply protection	Measures to meet the requirements of Article 7 (drinking water)	YES	Municipalities / MEWSS / Water providers / Decentralized Administration (Water Directorate)
<b>M06B0404</b> Implementation of Water Safety Plans	Measures to meet the requirements of Article 7 (drinking water)	YES	EYDAP, MEWSS, Municipalities, Drinking water providers, Decentralized Administration (Water Directorate)

CODE - NAME OF MEASURE	CATEGORY	1 <sup>st</sup> RBMP	IMPLEMENTING BODIES
<b>M06B0501</b> Restrictions, terms and conditions for the construction of groundwater abstraction projects (drilling, wells, etc.) for new uses, as well as extension of existing water use permits to: (a) area of GWBs in Poor quantitative status (b) the protection zone II of the abstractions serving the water supply networks that operated by Municipalities, Municipal Syndicates, MEWSS, Inter-MEWSS and drinking water companies , (c) zones of collective irrigation networks (d) coastal GWB with extensive or local salinization problems, regardless of their origin	Measures to control surface and groundwater abstractions	YES	Decentralized Administration (Water Directorate)
<b>M06B0502</b> Annual online registration of surface and groundwater abstractions	Measures to control surface and groundwater abstractions	YES	Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate), Regions
<b>M06B0601</b> Investigation of the conditions for application of artificial underground aquifer enrichment as a mean of quantitative enhancement and quality protection of GWBs, with a priority for GWBs with poor condition and/or salinization issues.	Measures to control the artificial recharge of groundwater aquifers	YES	Region, Municipalities, Decentralized Administration (Water Directorate)
<b>M06B0602</b> Establishment of a National Register of Waste Disposal Sites (Joint Ministerial Decision 145116/2011 (Government Gazette 354B)	Measures to control the artificial recharge of groundwater aquifers	YES	Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate)
<b>M06B0701</b> Strengthening environmental inspections and controls	Measures for point source pollution	YES	Region
<b>M06B0702</b> Modernization of national legislation on waste and industrial waste management	Measures for point source pollution	YES	Ministry of Environment & Energy (Special Secretariat for Water), Ministry of health
<b>M06B0703</b> Program of exploratory monitoring of the quality of groundwater bodies and surface water bodies in the areas of existing Landfills	Measures for point source pollution	NEW MEASURE	Landfill Operators, National Monitoring Network coordinated by the Water Directorate
<b>M06B0704</b> Conditions for the licensing of new / extension of existing aquaculture units	Measures for point source pollution	YES	Ministry of Environment & Energy, Decentralized Administration, Region
<b>M06B0705</b> Preparation of rules for sinkholes protection	Measures for point and diffuse source of pollution	YES	Decentralized Administration (Water Directorate)
<b>M06B0801</b> Biological agriculture	Measures for diffuse source pollution	NEW MEASURE	Ministry of Rural Development and Food (Directorate of Quality Systems, Organic Production and Geographical Indications)

CODE - NAME OF MEASURE	CATEGORY	1 <sup>st</sup> RBMP	IMPLEMENTING BODIES
<b>M06B0802</b> Modernization of the institutional framework for sludge management by municipal waste water treatment plants with emphasis on widening the scope and updating the quality characteristics of the applicable sludge	Measures for diffuse source pollution	YES	Ministry of Environment & Energy (Environmental Certification Directorate), Ministry of Rural Development and Food
<b>M06B0803</b> Reduce diffuse pollution from agriculture in the Nitrate Vulnerable Zones of the Directive 91/676/EEC	Measures for diffuse source pollution	YES	Ministry of Rural Development and Food, Regions
<b>M06B0902</b> Determination of minimum natural lakes waterlevel, determination of maximum waterlevel fluctuation of reservoirs	Measures for any other significant adverse impacts on the status of water, in particular concerning hydromorphological alterations of SWB	NEW MEASURE	Managing Authority, Region, Protected Areas Management Bodies, Decentralized Administration (Water Directorate)
<b>M06B0903</b> Development of national methodology and specifications for the determination of ecological flows of river water bodies	Measures for any other significant adverse impacts on the status of water, in particular concerning hydromorphological alterations of SWB	YES	Ministry of Environment & Energy (Special Secretariat for Water)
<b>M06B0904</b> Special Measures to Achieve Good Ecological Potential in Heavily Modified Water Bodies (HMWB)	Measures for any other significant adverse impacts on the status of water, in particular concerning hydromorphological alterations of SWB	NEW MEASURE	Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate), Region
<b>M06B0905</b> Determination of selected areas for river sediment deposits removal to meet the needs of technical projects	Measures for any other significant adverse impacts on the status of water, in particular concerning hydromorphological alterations of SWB	NEW MEASURE	Region, Decentralized Administration (Water Directorate), Municipalities

CODE - NAME OF MEASURE	CATEGORY	1 <sup>st</sup> RBMP	IMPLEMENTING BODIES
<b>M06B0906</b> Monitoring, recording and rehabilitation of coastal erosion	Measures for any other significant adverse impacts on the status of water, in particular concerning hydromorphological alterations of SWB	NEW MEASURE	Ministry of Infrastructure, and Transport, Ministry of Navigation, Region, Decentralized Administration (Water Directorate), Municipalities
<b>M06B1101</b> Compilation of pollution sources register (emissions, discharges and leaks)	Measures for Priority Substances and other pollutants	YES	Ministry of Environment & Energy (Special Secretariat for Water)
<b>M06B1102</b> Establishment / setting of emission limits in RBs for priority substances and other pollutants of the Joint Ministerial Decision 51354/2641 / E103 / 2010 as in force, as well as for Physico Chemical parameters in relation to the quality objectives set out in the Management Plans	Measures for Priority Substances and other pollutants	YES	Decentralized Administration (Water Directorate), Ministry of Environment & Energy (Special Secretariat for Water)

### 9.2.3 Supplementary measures

The program of measures of the RBD of Attica includes 16 supplementary measures, which are presented in the following table.

Table 9-6: Supplementary measures

CODE & NAME OF MEASURE	CATEGORY	CONNECTION WITH THE 1 <sup>st</sup> RBMP	AFFECTED WB	IMPLEMENTING BODIES	IMPLEMENTATION COST (€)
<b>M06Σ0201</b> Development of a Monitoring Programme for the implementation of the PoM of the RBMP in the RBD and provision of supporting services for the implementation of the PoM.	Administrative measures	New measure	Horizontal	Decentralized Administration (Water Directorate)	650.000
<b>M06Σ0202</b> Control and management of artesian wells	Administrative measures	New measure	All GWB	Owner of the abstraction project, Decentralized Administration (Water Directorate)	0
<b>M06Σ0501</b> Emission controls at the outlets of stormwater culverts and other point sources of pollution that result in surface water bodies	Emission control	The measure is related to the RBD06_SM18_055	EL0626R000000008N, EL0626R000208006N, EL0626R000100012N, EL0626R000300013N, EL0626R000100011	Municipals / MEWSS / Region / Decentralized Administration (Water Directorate), Ministry of Environment	100.000

CODE & NAME OF MEASURE	CATEGORY	CONNECTION WITH THE 1st RBMP	AFFECTED WB	IMPLEMENTING BODIES	IMPLEMENTATION COST (€)
			N, EL0626R000100010 N, EL0626R000300014 N, EL0626R000200002 N, EL0626R000202003 N, EL0626R000200001 H, EL0626C0006N, EL0626C0010N, EL0626C0011N, EL0626C0012N, EL0626C0007N, EL0626C0008H	& Energy (Special Secretariat for Water	
<b>M06Σ0502</b> Implementation of investment in agriculture and livestock holdings, aiming at improving environmental performance.	Emission control	New measure	Horizontal	Ministry of Rural Development and Food / Regions	89.000
<b>M06Σ0503</b> Inspections for compliance with the limits of disposal from industrial, processing and livestock-poultry units within the catchment area of the SWB, at least twice a year	Emission control	New measure	EL0626R000200001 H EL0626R000200002 N	Region, Decentralized Administration (Water Directorate)	0
<b>M06Σ0801</b> Determination and delimitation of GWB areas which are of poor quality due to salinization or have local salinization problems	Abstractions Control	Continuation of measure RBD06_SM08_043	EL0600010 EL0600040 EL0600051 EL0600090 EL0600130 EL0600190 EL0600200	Region, Decentralized Administration (Water Directorate)	350.000
<b>M06Σ0802</b> Systematic monitoring of quality status in licensed abstractions in GWB with high natural background level (chlorides)	Abstractions Control	New measure	EL0600010 EL0600040 EL0600051	Principal of the abstraction project, Decentralized Administration (Water Directorate), Region	0
<b>M06Σ1001</b> Preparation of reuse of wastewater treatment studies for all existing tertiary treatment waste water treatment plants	Efficiency and reuse measures	Specialization of the measure RBD06_SM10_047	EL0600090 EL0600152	Decentralized Administration (Water Directorate) / Regions / Municipals /MEWSS	300.000
<b>M06Σ1501</b> Profesional training of agro-	Educational	The measure is related and	Horizontal	EYD/PAA Ministry of	50.000

CODE & NAME OF MEASURE	CATEGORY	CONNECTION WITH THE 1 <sup>st</sup> RBMP	AFFECTED WB	IMPLEMENTING BODIES	IMPLEMENTATION COST (€)
farmers for the protection of water bodies	measures	continuation of measure RBD06_SM15_053		Rural Development and Food, Region.	
<b>M06Σ1502</b> Informing and raising public awareness on water issues	Educational measures	The measure is related and continuation of measures RBD06_SM15_050 and RBD06_SM15_052	Horizontal	MEWSS / Municipalities , Decentralized Administration (Water Directorate)	50.000
<b>M06Σ1503</b> Strengthening environmental program actions in Primary Education	Educational measures	Continuation of measure RBD06_SM15_051	Horizontal	Ministry of Environment & Energy (Special Secretariat for Water) and and Ministry of Education, Research and Religious Affairs, Decentralized Administration (Water Directorate)	50.000
<b>M06Σ1601</b> Pilot measures to apply precision agriculture to reduce water consumption	Research, development & demonstration programmes	New measure	Horizontal	Ministry of Rural Development and Food, Region - EYD/PAA, Region	80.000
<b>M06Σ1602</b> Consultancy services for agriculture exploitation management	Research, development & demonstration programmes	New measure	Horizontal	«ELGO DIMITRA» EYD/PAA	120.000
<b>M06Σ1603</b> Design and Implementation of a Special Exploratory Monitoring Program for the purpose of collecting data on the primary designation of WB Downstream Dams as HMWB	Research, development & demonstration programmes	New measure	Horizontal	Ministry of Environment & Energy (Special Secretariat for Water) Decentralized Administration (Water Directorate of Attica)	50.000



CODE & NAME OF MEASURE	CATEGORY	CONNECTION WITH THE 1st RBMP	AFFECTED WB	IMPLEMENTING BODIES	IMPLEMENTATION COST (€)
<b>M06Σ1604</b> Investigation study on irrigation water consumption	Research, development & demonstration programmes	New measure	EL0600051 EL0600052 EL0600120 EL0600130 EL0600151 EL0600152	Decentralized Administration (Water Directorate of Attica)	40.000
<b>M06Σ1701</b> Exploratory Monitoring of SWB and GWB whose density and spatial distribution of the National Monitoring Network is insufficient	Other measures	New measure	EL0626R000100010 N EL0626R000300014 N EL0626R000200001 H EL0626R000212008 H EL0600020 EL0600030 EL0600040 EL0600100 EL0600110 EL0600140 EL0600170 EL0600180 EL0600190 EL0600200	Decentralized Administration (Water Directorate of Attica), Ministry of Environment & Energy (Special Secretariat for Water)	3.000.000

## 10. NEXT STEPS

The objective of the 1<sup>st</sup> Update of the River Basin Management Plan is to prevent further deterioration, to protect and improve the status of inland surface, transitional, coastal and groundwater, as well as directly dependent terrestrial ecosystems and wetlands. In order to achieve this goal, the implementation of the Programme of Basic and Supplementary Measures is necessary.

The PoM is designed in such a way that the priority of each intervention is clearly defined according to its cost, its effectiveness, the importance of the WB being implemented and the necessary time of preparation.

All elements of the PoM are important, but some planning and prioritization is needed in order to monitor the progress of implementation of the PoM and identify where corrective interventions are required when deviations from targets are identified. Crucial issues that define the implementation level of the PoM are:

- The coordination of implementing bodies and the good communication with other interested parties
- The evaluation of the monitoring network results and its adaptation where necessary

With the responsibility of the Water Directorate of the Decentralized Administration an **Action Plan for the implementation of the 1<sup>st</sup> Update of the RBMP** of the RBD is being prepared.

The main axis of the Action plan is:

- Monitoring plans
- Securing adequate quantity and quality drinking water according to the law
- Irrigation water
- Protected areas
- Enhancement of environmental inspections and controls
- Other measures of the PoM

To this end, the Regional Working Group for the Implementation of the PoM of the RBMP of the RBD of the Country, which was established during the implementation of the 1<sup>st</sup> RBMP, is required to prepare the above Action Plan.



## 11. STATISTICAL DATA ATTICA RBD (EL06)

The following Tables present aggregated statistical data for the Attica RBD (EL06)

Table Σ- 1: Categories of WB per RB of Attica (EL06)

WB Categories	ATTICA RB (EL0626)	TOTAL RBD
River WB	15	15
Lake WB	1	1
Transitional WB	-	-
Coastal WB	14	14
TOTAL OF SWB	30	30
Groundwater WB	21	21
<b>TOTAL WB</b>	<b>51</b>	<b>51</b>
Heavily modified water bodies (HMWB) and artificial Water bodies (AWB)	5	5
WB Connected with protected areas	17	17

Table Σ- 2: Typology of SWB per RB of Attica (EL06)

TYPOLGY OF SWB	ATTICA RB (EL0626)	TOTAL RBD
<b>River WB</b>		
Type R-M1	8	8
Type R-M2	4	4
Type R-M3	-	-
Type R-M4	-	-
Type R-M5	3	3
Type R-L2	-	-
<b>Reservoirs</b>		
Type L-M5/7	-	-
Type L-M8	1	1
Type GR-SR	-	-
<b>Lake WB</b>		
Type GR-DNL	-	-
Type GR-SNL	-	-
Type GR-VSNL	-	-
<b>Transitional WB</b>		
Type TW 1	-	-
Type TW 2	-	-
<b>Coastal WB</b>		
Type IIE	14	14

Table Σ- 3: Assessment (classification) results of SWBs status per RB in RBD of Attica (EL06)

STATUS/POTENTIAL			RB ATTICA (EL0626)				Total RBD			
			Number	% of Number	Length (km)	% of Length	Number	% of Number	Length (km)	% of Length
TOTAL RIVER WB	ECOLOGICAL	High	0	0,0	0	0	0	0,0	0	0
		Good	2	13,3	12,5	9,8	2	13,3	12,5	9,8
		Moderate	9	60,0	74,8	58,6	9	60,0	74,8	58,6
		Poor	2	13,3	24,7	19,3	2	13,3	24,7	19,3
		Bad	0	0,0	0	0	0	0,0	0	0
		Unknown	2	13,3	15,6	12,2	2	13,3	15,6	12,2
	CHEMICAL	Good	11	73,3	90,8	71,1	11	73,3	90,8	71,1
		Poor	1	6,7	14,2	11,1	1	6,7	14,2	11,1
		Unknown	3	20,0	22,6	17,7	3	20,0	22,6	17,7
STATUS/POTENTIAL			RB ATTICA (EL0626)				Total RBD			
			Number	% of Number	Area (km <sup>2</sup> )	% of Area	Number	% of Number	Area (km <sup>2</sup> )	% of Area
<b>RESERVOIRS WB</b>										
TOTAL RESERVOIRS	ECOLOGICAL	Good and higher	0	0	0	0	0	0	0	0
		Moderate	1	100	2,98	100	1	100	2,98	100
		Poor	0	0	0	0	0	0	0	0
		Bad	0	0	0	0	0	0	0	0
		Unknown	0	0	0	0	0	0	0	0
	CHEMICAL	Good	1	100	0	0	1	100	0	0
		Poor	0	0	0	0	0	0	0	0
		Unknown	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0
STATUS/POTENTIAL			RB ATTICA (EL0626)				Total RBD			
			Number	% of Number	Area (km <sup>2</sup> )	% of Area	Number	% of Number	Area (km <sup>2</sup> )	% of Area
<b>COASTAL WB</b>										
TOTAL COASTAL	ECOLOGICAL	High	1	7,1	32,8	0,8	1	7,1	32,8	0,8
		Good	6	42,9	2.310,0	57,3	6	42,9	2.310,0	57,3
		Moderate	7	50,0	1.689,7	41,9	7	50,0	1.689,7	41,9
		Poor	0	0	0	0	0	0	0	0
		Bad	0	0	0	0	0	0	0	0
		Unknown	0	0	0	0	0	0	0	0
	CHEMICAL	Good	12	85,7	3857,0	95,7	12	85,7	3857,0	95,7
		Poor	0	0	0	0	0	0	0	0
		Unknown	2	14,3	175,0	4,3	2	14,3	175,0	4,3

Table Σ- 4: Assessment (classification) results of GWBs status per RB in RBD of Attica (EL06)

STATUS/POTENTIAL		RB ATTICA (EL0626)				Total RBD				
		Number	% of Number	Area (km <sup>2</sup> )	% of Area	Number	% of Number	Area (km <sup>2</sup> )	% of Area	
<b>GROUNDWATER WB</b>										
<b>TOTAL GROUNDWATER WB</b>	<b>CHEMICAL</b>	Good	14 & 1 SubGWB	66,67	2.232	70,48	14 & 1 SubGWB	66,67	2.232	70,48
		Poor	6 & 1 SubGWB	33,33	935	29,52	6 & 1 SubGWB	33,33	935	29,52
		Unknown	-	-	-	-	-	-	-	-
	<b>QUANTITATIVE</b>	Good	16 & 1 SubGWB	76,19	2.829	89,33	16 & 1 SubGWB	76,19	2.829	89,33
		Poor	4 & 1 SubGWB	23,81	338	10,67	4 & 1 SubGWB	23,81	338	10,67
		Unknown								