MINISTRY OF ENVIRONMENT & ENERGY

GENERAL DIRECTORATE FOR WATER

# 2nd UPDATE OF RIVER BASIN MANAGEMENT PLANS

## River Basin District of Northern Peloponnese (EL02)

## SUMMARY

European Union
Cohesion Fund

NSRF 2014-2020

Co-Funded by Greece and the European Union

**HELLENIC REPUBLIC**
Ministry of Environment and Energy
General Secretariat for Natural Environment and Water
General Directorate for Water

**PROJECT**: "Preparation of the 2nd River Basin Management Plans Update of the 14 Water Districts of the country", Subprojects 1-5, Section 1: "2nd River Basin Management Plans Update (RBMP) of the Water District of Western Peloponnese (EL01), Northern Peloponnese (EL02) and Eastern Peloponnese (EL03)'

Joint Venture of the 2nd Update of the River Basin Management Plans for the River Basin Districts of Peloponnese:

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# 2nd Update of the River Basin Management Plan (RBMP) for the River Basin District of Northern Peloponnese (EL02)

**Management Plan Summary - English version**

Final Version

Government Gazette of Approval of the 2nd RBMP Update of the WD of Northern Peloponnese (EL02): Government Gazette A' 85 /12.06.2024

# 2ND UPDATE OF THE RIVER BASIN MANAGEMENT PLAN (RBMP) FOR THE RIVER BASIN DISTRICT OF NORTHERN PELOPONNESE (EL02)

## MANAGEMENT PLAN SUMMARY - ENGLISH VERSION

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# 1 INTRODUCTION - 2nd UPDATE OF RIVER BASIN MANAGEMENT PLANS

## 1.1 Introduction

The water management framework is determined at the European level by the Water Framework Directive 2000/60/EC (WFD), as it has been incorporated into the National Institutional Framework by Law 3199/09.12.2003 (Government Gazette A' 280) and the PD 51/08.03.2007 (Government Gazette A' 54). The Directive requires appropriate measures to be taken to promote the sustainable use of water, as well as to protect and/or improve the condition of surface water (rivers, lakes, transitional and coastal) and groundwater through the preparation of a River Basin Management Plan (RBMP), which is reviewed every six years. The RBMP is a strategic text, in which the objectives for the state of the waters at the Water District level are defined and the necessary measures and actions are proposed to achieve these objectives. With its approval, the RBMP is an institutional obligation and must be taken into account by all public bodies when making decisions.

In this context, the first RBMP of the RBD of Northern Peloponnese (EL02) was approved by the National Water Commission in 2013 (Government Gazette B' 1004/24.04.2013), while its 1st Update in 2017 (Government Gazette B' 4665/29.12.2017).

The Management Plans drawn up with the 2nd Management Plans Update of the River Basins of the 14 River Basin Districts of the country, in accordance with the specifications of Directive 2000/60/EC, concern the 3rd Management Cycle (2022-2027).

The 2nd River Basin Management Plan Update of the Northern Peloponnese Water District (EL02), was implemented by the General Directorate for Water (GDW), of the Ministry of Environment and Energy.

## 1.2 Preparation of the 2nd River Basin Management Plan Update

### 1.2.1 Requirements of Directive 2000/60/EC and objectives of the 2nd Update

The Directive 2000/60/EC places the protection of the aquatic environment and ecological objectives at the heart of an approach based on integrated water management at the RBD scale. For this purpose, appropriate implementation planning is required with the planning and coordination of individual actions so that the final outcome is the "good status" (or "good potential") of the water bodies.

The implementation of the Directive includes the following main components:

1. Current situation assessment and preliminary gap analysis
2. Organization of environmental goals
3. Preparation of Monitoring Programs.
4. Gap analysis
5. Preparation of the Program of Measures
6. Preparation of RB Management Plans of the Country
7. Implementation of the Program of Measures
8. Evaluation of Program of Measures
9. Public consultation, active stakeholder involvement.

For the Northern Peloponnese District (RBD) (EL02), in the framework of the 2nd Update of the approved River Basin Management Plans, the following actions are being carried out:

- Update of the identification and characterization of surface water (rivers, lakes, transitional and coastal) and groundwater bodies.
- Review and update of the typical reference conditions and assessment/classification of the status/potential of surface water bodies (ecological and chemical status), including heavily

modified and artificial water bodies, and groundwater bodies (quantitative and qualitative status), based on the new data that are available from the operation of the National Water Monitoring Network.

- Re-evaluation of the surface water bodies with significant hydromorphological modifications, in order to determine those that constitute heavily modified water bodies (HMWB) and artificial water bodies (AWB).
- Update of the list of significant pressures, as included in the approved Management Plans, and their impacts.
- Update of the Register of Protected Areas (RPA), based on new information that has emerged from the implementation of relevant EU Directives.
- Update of the information on the planned projects/activities of water resources utilization.
- Review of the environmental objectives for all surface water bodies (SWB) and groundwater bodies (GWB), including heavily modified and artificial ones.
- Assessment of progress in relation to the achievement of the environmental objectives of the WFD, as defined in the 1st Update of the RBMP.
- Revision of the Programs of Basic and Supplementary Measures for the protection and rehabilitation of water resources of each RBD, as included in the 1st Update of the RBMP, in accordance with Article 11 and Annex VI of the WFD (Article 12 and Annex VIII of the Decree 51/08.03.2007).
- Update of the economic analysis of water uses.
- Revision of the Strategic Environmental Impact Assessment (SEIA) to identify, describe and assess the environmental impacts of the implementation of the aforementioned Program of Measures and Management Plan.
- Informing the public and promoting its active participation, as well as publication and public consultation of the River Basin Management Plans Draft of the Country, six months before their completion, in accordance with article 14 of Directive 2000/60/EC and article 15 of the MD 51/08.03.2007.
- Covering the country's obligations in relation to the submission of the required data to the EU regarding the 2nd Update of the RBMP, through the electronic system WISE (Water Information System for Europe), in accordance with the specifications of the European Environment Agency.
- Update of the data as well as the results of the implementation of the Project: "Development of water resources management systems and tools in 13 River Basin Districts of the country", which was completed by the Ministry of Development in December 2008, in what concerns the River Basin Districts of the Peloponnese.
- Training of the personnel of the Contracting Authority as well as of the relevant Water Directorates of the Decentralized Administration(s) in the contents of the deliverables.

### 1.2.2 Strategic Environmental Impact Assessment

For the 2nd Update of the RBMP for the River Basin Districts of the Country, the process of the Strategic Environmental Impact Assessment (SEIA) is being followed, in accordance with JMD YPECHODE/EYPE/oik.107017/28.08.2006 for the "assessment of the environmental impacts of certain plans and programs, in compliance with the provisions of Directive 2001/42/EC" (Government Gazette B' 1225), as amended by the Num D. oik. 40238/2017 (Government Gazette B’ 3759), M.D. YPEN/DIPA/38181/2695/2022/18.04.2022 (Government Gazette B` 1923) and M.D. YPEN/DIPA/94750/6235/04.10.2023 (Government Gazette B 5774) and into force.

The approval of the Plan and the SEIA is done by a single administrative act (Act of the Council of Ministers in accordance with Law 3199/2003 as applicable) proposed by the Minister of the Environment following a proposal from the Planning Authority (GDY/YPEN), based on the "SEIA approval proposal" from the Environmental Agency responsible for the environmental approval of

the Plan (DIPA/YPEN) to the Planning Authority [article 7 of the M.D. YPECHODE/EYPE/oik.107017/05.09.2006 (Government Gazette B' 1225) as amended by the Num D. oik. 40238/2017 (Government Gazette B' 3759), M.D. YPEN/DIPA/38181/2695/18.04.2022 (Government Gazette B' 1923) and M.D. YPEN /DIPA/94750/6235/04.10.2023 (Government Gazette B' 5774) and into force].

## 1.3 Consultation process

### 1.3.1 Consultation results and their integration into the RBMP

The consultation process on the 2nd Update of the River Basin Management Plan for the RBD of Northern Peloponnese (EL02) started in March 2019 The Draft was posted on 31st May 2023 and the mandatory consultation period ended on 30th November 2023, including the following:

Phase A: In March 2019, the subject of the planned training works of the 2nd RBMP Update as well as the detailed time schedule of these was posted on the website of the Ministry of Environment and Energy to inform the public.

Phase B: In September 2019, information on the important issues of water resources management in each River Basin was posted on the website of the Ministry of Environment and Energy, which briefly included the main characteristics of the water resources, the main pressures, issues related to the HMWB-AWB and the protected areas as well as the status of surface water (ecological and chemical) and groundwater (qualitative and quantitative), based on the data obtained during the 1st Update of the RBMP.

Phase C: Referred to the consultation of the Draft River Basin Management Plan, the results of which were utilized for the finalization of the 2nd Management Plan Update:

- On May 31st, 2023, the Draft River Basin Management Plan of the RBD of the Northern Peloponnese was posted on the website of the Ministry of Environment and Energy. The Detailed Documentation was also posted on the same website.
- On October 20th, 2023, the hybrid consultation day of the Draft River Basin Management Plan of the Northern Peloponnese was held in Patras. Participation in the seminar was possible both in person and online.
- Especially for the River Basins of the Ionian Islands, a second separate hybrid consultation day of the Draft River Basin Management Plans of the RDBs of the Northern Peloponnese, West Central Greece and Epirus was held on November 2nd , 2023, in Corfu. Likewise, participation in the seminar was possible both in person and online.
- For the consultation of the SEIA, a separate procedure was followed based on the JMD with Num YPECHODE/EYPE/oik.107017/28.08.2006 (Government Gazette B' 1225) as amended and in force.

In summary, the changes, completions and additions included in the Final River Basin Management Plan and in the Detailed Documentation as a result of the consultation concern the following:

- Update of the data presented in the Management Plan based on the data made available and/or points raised during the consultation. They mainly concern issues related to:
    - the inclusion of new surface water bodies (SWB) in the Register of Protected Areas
    - citizens' access to water for various uses, withdrawals from groundwater bodies (GWB) and surface water withdrawals, as well as issues of groundwater bodies (GWB) salinization
    - the actions that have been implemented in the context of the 1st Update of the River Basin Management Plan
- Finalization of the Program of Measures which includes:
    - the abolition of certain measures and the introduction of new ones

- the rephrasing of specific measures regarding the specialization of the restrictions and actions defined therein, but also regarding the clarification of the utilized terminology
- the updating or correction of the implementing entities
- the finalization of the surface water and groundwater bodies (SWB, GWB) for which supplementary measures are foreseen
- the finalization of the environmental cost and the resource cost of the proposed measures.

It must be noted that the final Program of Measures of the RBD of Northern Peloponnese (EL02) was formulated taking into account comments and observations received in the context of the consultation of both the specific RBD and the other RBDs of the country.

# 2 DIFFERENCES RELATING TO THE APPROVED 1ST UPDATE OF RIVER BASIN MANAGEMENT PLAN

For the 2nd Update of the River Basin Management Plans of all Water Districts of the country the special methodological approaches, common for all Water Districts, were updated regarding some critical implementation issues of the 2000/60/EC Directive.

The update of the national methodologies took place in the context of the 2nd Update of the RBMPs and concerned the following methodologies:

- Definitive formulation of a national methodology for determining the ecological flow of river water bodies.
- Update of the methodology for the analysis of anthropogenic pressures and their impacts on surface and groundwater bodies.
- Update of the analytical methodology formulated by the Competent Authority (CA) "Identification of the the "exemptions" of paragraphs 4 to 6 of Article 4 of Directive 2000/60/EC (4.4 - 4.6)", including the re-examination of the application specifications for the exemptions of article 4.5
- Update of the analytical methodology formulated by the CA "Identification of the "exemptions" of paragraph 4.7, of article 4 of Directive 2000/60/EC"
- Update of the Classification Methodology of the Ecological, Chemical and Overall Status of Surface Water Bodies

All the above analytical methodologies are available on the relevant website http://wfdver.ypeka.gr/.

The following table summarizes the differences identified in each individual subject of the 2nd Update of the RBMP in comparison to the 1st Update, based on the abovementioned and the results obtained.

Table 2-1. Main differences in relation to the 1st Update of the Management Plans.

| Content of 1st Update of RBMP/ Activity | Differentiation in comparison with the 1st RBMP | Brief presentation of the results |
|---|---|---|
| COMPETENT AUTHORITIES | The competent authorities in comparison with the 1st Update of the RBMP are amended according to the Law 5037/28.03.2023. A request has been made by the Ionian Water Directorate to separate RB EL0245 (Kefalonia - Ithaca - Zakynthos) from RBD EL02 and to include it (together with other RBs of RBD EL04 and EL05) in a new RBD of the Ionian Islands. | The current situation is briefly presented in Paragraph 3.3 hereof. |
| DEFINITION OF SURFACE WATER BODIES - TYPOLOGY | The typology for all categories of SWB is not differentiated in comparison with the 1st Update. In the 2nd Update, reservoirs are referred to as "Lake HMWB-reservoirs", and their standardization and assessment are done with data and tools intended for lakes, as lakes are the class of natural surface water bodies to which they most closely resemble.<br><br>In the RBD of Northern Peloponnese there are differences in the number of Water Bodies in relation to the 1st Update of the RBMP. | In the 2nd Update, two (2) new river water bodies were identified in RBD EL02 (in the RB Streams basins of N. Peloponnese, EL0227), which were assigned the codes and names EL0227R001100035H - KERYNITIS R._1 and EL0227R001100036N – KERYNITIS R._2, respectively.<br><br>The results are presented briefly in Section 4.1 and are given in detail in the Analytical Documentation – "*Characterization, typology, typo-characteristic reference conditions and assessment/classification of the status of all categories of surface water bodies*". |
| HEAVILY MODIFIED WATER BODIES (HMWB) AND ARTIFICIAL WATER BODIES (AWB) | The HMWB established in the 1st Update were re-examined based on the established methodology and the new data of the National Monitoring Network.<br><br>In the RBD of Northern Peloponnese there were differences in the number of definitively defined HMWB. | In particular, the river HMWB EL0227R0011000035H - KERYNITIS R._1 with defined use "flood protection" was definitively identified as HMWB as a result of the evaluation of the hydromorphological modifications it has undergone. Furthermore, the river HMWB EL0228R000404024H – PARAPIROS STREAM_1 was definitively identified as HMWB, as a river section downstream of a dam, after the filling of the Asteri dam.<br><br>The results are presented briefly in Section 4.3 and are given in detail in the Analytical Documentation – "*Definitive Determination of AWB-HMWB*". |
| PROTECTED AREAS | The Register of Protected Areas (RPA) that was created in the 2nd Update of the RBMP was examined based on: a) the new Natura 2000 areas that have been approved by JMD 50743/2017, b) the results of monitoring the Bathing Waters and the revision of the bathing water quality | Two (2) water bodies with water abstracted for human consumption have been defined, the river WB SELINOUS R._3 (EL0227R000900008N) and the lake HMWB-reservoir ASTERIOU ARTIF.LAKE (EL0228RL00404001H). |

| Content of 1st Update of RBMP/ Activity | Differentiation in comparison with the 1st RBMP | Brief presentation of the results |
|---|---|---|
| | monitoring network (Ministry of Environment, Energy and Climate Change circular no. 190856/01.08.2013) c) other instructions for the protection of waters with stricter objectives such as the Guidelines for drinking water, species of economic importance, vulnerable areas to nitrate pollution, etc. and d) newer data resulting from the approval of the 2nd Update of the RBMP and the relevant EU Guidelines Texts. | There are no changes regarding water bodies of economic importance, sensitive receptors and vulnerable areas.<br><br>Fifteen (15) new swimming coasts were added, of which 4 in RB EL0227, 2 in RB EL0228 and 9 in RB EL0245. One (1) coast was removed (CITY-PISO AETOS). Moreover, 2 WB were added as recreational waters (SELINOUS R._4, SELINOUS R._3).<br><br>Three (3) Natura areas (GR2320004, GR2530007, GR2220007), 28 small island wetlands and 3 National Parks (Zakynthos National Marine Park, Helmos - Vouraikos National Park and Kotychi - Strofylias National Park) were added.<br><br>The results are summarized in Section 4.4 and are given in detail in the Analytical Documentation – *"Register of Protected Areas"*. |
| PRESSURES AND IMPACTS | The assessment of pressures and impacts is carried out in the present Update based on the developed revised common methodology and the newest data resulting from the approval of the 1st Update of the RBMP.<br><br>An important modification is the evaluation of the pressures on the hydromorphological characteristics of the Water Bodies, for which a special methodological approach was developed and is done in more detail. | In the RBD of Northern Peloponnese the methodological approaches that were followed in the 1st Update are largely similar to those of the 2nd Update. The differences that arise mainly occur from the newest data that are available and concern a more complete picture of the cultivated areas, the installation of new activities, and a better recording of the activities in the RBD.<br>Regarding the hydromorphological pressures on the surface water bodies, a more complete evaluation took place by extending the assessment to all water bodies, regardless of the status of natural water bodies or HMWB.<br>The results are summarized in Chapter 5 and are given in detail in the Analytical Documentation "*Analysis of anthropogenic pressures and their impacts on surface and groundwater bodies*". |
| CLASSIFICATION OF THE STATUS OF SURFACE WATER BODIES | During the 2nd Update, the classification of the status of surface waters takes place based on the methodological approaches developed by the National Scientific Committee of the Ministry of Environment and Energy, which aim to define the methods of classification of the ecological status | The update includes a fuller and more credible mapping of the status of the surface WB. |

| Content of 1st Update of RBMP/ Activity | Differentiation in comparison with the 1st RBMP | Brief presentation of the results |
|---|---|---|
| | of all categories of surface waters and were approved by the EU, as well as on the latest data of the National Water Monitoring Network. For the WB that are not monitored, the classification of their status is done through grouping, based on their typology and the pressures they receive. | The results are presented briefly in Section 4.1 and given in detail in the Analytical Documentation " *Characterization, typology, typo-characteristic reference conditions and assessment/classification of the status of all categories of surface water bodies ".* |
| CLASSIFICATION OF THE STATUS OF GROUNDWATER BODIES | The methodology for classifying the status of the GWB does not differ in relation to the 1st Update of the RBMP, with partial improvements, additions in relation to the threshold values due to natural background and the determination of trends.<br>The classification of the GWB is based on the latest data of the National Monitoring Network. | The Update includes a mapping of the status of the GWB based on the latest monitoring data.<br>During the 2nd Update of the RBMP, the method of determining new increased threshold values due to increased physical background values in some GWB was modified because of the availability of more monitoring data. Also, based on the new data of the National Monitoring Network, an approach is implemented to evaluate trends with the aim of predicting, in accordance with Directive 2006/118/EC, the significant and sustained upward pollution trends in pollutant concentrations. Based on the existing, non-continuous, data in our country, the trend identification is considered, in GWB that are at risk, in all the implementation periods in order to ensure a longer series of data, even with intermediate elements.<br>The results are summarized in Section 4.2 and are given in detail in the Analytical Documentation *"Characterization and assessment/classification of the status of groundwater bodies".* |
| NATIONAL WATER MONITORING NETWORK | The 2nd Update of the RBMP in relation to the 1st Update includes the results of the National Monitoring Network (NMN) of the status of the country's Waters with samples for the period 2018 – 2021, and for all Biological Quality Elements (BQEs), Physicochemical and Chemical Quality Elements as well as the hydromorphological quality elements of the surface WB. It also includes measurements of both the qualitative and the quantitative status of the GWB for the period 2018-2020. | In relation to the NMN of the period 2015 – 2017, the total number of stations by type of monitoring has been differentiated, as well as the BQEs monitored and the sampling frequency.<br>The monitoring program data used are presented in detail in the Analytical Documentation Texts " *Characterization, typology, typo-characteristic reference conditions and assessment/classification of the status of all categories of surface water bodies* " for the SWB and "*Characterization and assessment/classification of the status of groundwater bodies*" for the GWB. |

| Content of 1st Update of RBMP/ Activity | Differentiation in comparison with the 1st RBMP | Brief presentation of the results |
|---|---|---|
| ECONOMIC ANALYSIS OF WATER USE | For the economic analysis of water uses, the general costing rules and the guidelines of the GDW were followed.<br><br>The elements of the information system created to assist the GDW in supervising and monitoring the degree of implementation of water management policies after the end of the 1st Update were utilized (where possible and in cases where they were considered reliable). In addition, in cases where these data were insufficient, primary data were collected from the authorities through interviews, correspondence and meetings. | The results are summarized in Chapter 6 and given in detail in the Analytical Documentation *"Economic analysis of water uses".* |
| ENVIRONMENTAL OBJECTIVES – EXEMPTIONS | During the 2nd Update, the determination of environmental objectives and exemptions is based on the developed revised methodological approaches. | The results are summarized in Chapter 7 and are given in detail in the Analytical Documentation *"Definition of the environmental objectives, including "exemptions" from the achievement of the objectives*". |
| PROGRAM OF MEASURES | The Program of Measures as defined in this 2nd Update of the RBMP is different in relation to the 1st Update. In summary, there are the following differences in comparison to the 1st RBMP Update:<br><br>- In the Measures of the 1st RBMP Update which continue in the current implementation cycle, rephrasing was made where deemed necessary, while the progress to date is briefly reported.<br><br>- A number of new measures are introduced to deal with pressures on the WB and to achieve the objectives set, which are highlighted accordingly.<br><br>- - Finally, some measures that were completed in this 2nd Update are removed, similarly to others that are not continued. The completed measures are the following: 1. M02B1101 Compilation of pollution sources register (emissions, discharges and leaks) 2. M02B0904 Special measures to achieve Good Ecological Potential in HMWB, 3. M02B0903 Development of national methodology and specifications for the determination of ecological flows of river water bodies. | The results are summarized in Chapter 8 and given in detail in the Analytical Documentation "*Programs of Basic and Supplementary Measures, including their cost-effectiveness analysis".* |

# 3 DESCRIPTION OF RIVER BASIN DISTRICT– COMPETENT AUTHORITIES

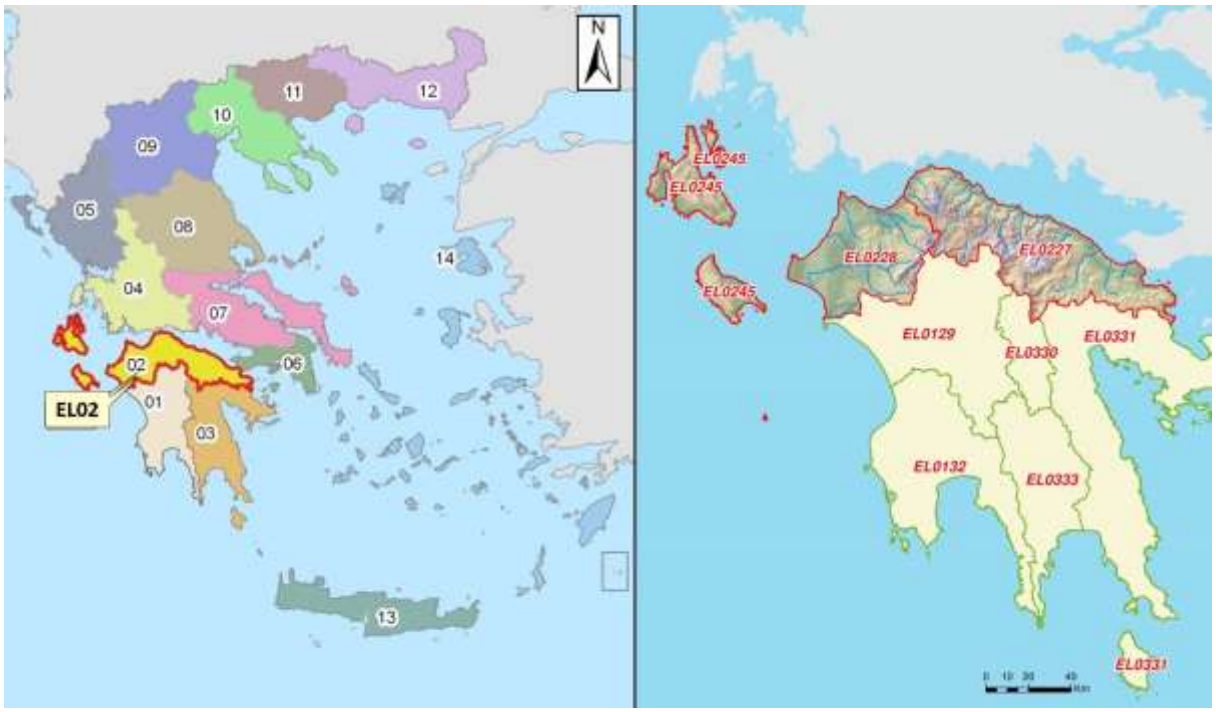
## 3.1 River Basins

With the decision 706/16.07.2010 (Government Gazette B' 1383/02.09.2010 and B' 1572/28.09.2010), of the National Water Commission "on defining the River Basins of the country and defining the competent Regions for the management and their protection" and the approval decisions of the National Water Commission of the 1st RBMP, the forty-six (46) River Basins were defined, which fall under fourteen (14) River Basin Districts (corresponding to the term Water District of article 3 of the PD 51/08.03.2007).

The River basin District of Northern Peloponnese (EL02) includes the River Basins of the Streams basins of N. Peloponnese (EL0227), Peiros- Vergas - Pinios RB(EL0228) and Kefalonia - Ithaca - Zakynthos RB(EL0245), as shown in the table and map below.

Table 3-1. River Basins belonging to the Water District of Northern Peloponnese (EL02)

| River Basin | Code | Area (km²) |
|---|---|---|
| Streams basins of N. Peloponnese | EL0227 | 3.685 |
| Piros - Vergas - Pinios | EL0228 | 2.423 |
| Kefalonia - Ithaca - Zakynthos | EL0245 | 1.289 |
| **Total Area EL02** | | **7.397** |




Map 3-1. Water District of Northern Peloponnese (EL02)

## 3.2 Natural Characteristics

The River Basin District of Northern Peloponnese extends geographically in the northern Peloponnese, andalso includes the islands of Kefalonia, Zakynthos and Ithaca. The Water District is delimited in its terrestrial part by the watershed that starts from Cape Katakolo, continues to the mountain massifs of Foloi, Lampia, Erymanthos, Aroaneia, the Kalavryta plateau, the southern border of the closed Feneos basin, the mountains of Oligirtos, Lyrkios and Oneion, and ends at Cape Trachili via the peaks of Trapezona and Politis in Corinth.

The geomorphological relief of the RBD is generally characterized as mountainous (600 to 2400m) and steep in the interior, semi-mountainous (100 to 600m) in its outer perimeter and lowland (0 to 100m) in its coastal zone.

According to the update of the natural water balances of the River Basin Districts of the Peloponnese prepared in the context of this 2nd Update of the RBMP, with reference period from 1980-2021, the average annual precipitation for the entire RBD EL02 amounts to ~793mm/year, while the average annual evapotranspiration at ~558mm/year. In RBD EL02, most precipitation occurs in the period between October and March, with the wettest month being December and the driest month July.

The main rivers of the Water District are Pinios and Piros. Apart from them, there are other smaller rivers or streams, which in the context of the present study are considered important enough to constitute river water bodies. The main lakes are the artificial lake Pinios and Stymphalia. The coastal waters extend along the northern coastline of the Peloponnese, while also including the waters around the islands of Kefalonia, Ithaca, Zakynthos and other smaller islets. Finally, in the RBD of Northern Peloponnese (EL02) there are important transitional waters (lagoons, river estuaries, etc.), some of which are of supralocal importance and protected by international conventions. The main ones are the lagoons of Kotyhi and Kalogria.

## 3.3 Competent Authorities

### 3.3.1 Identity of the Competent Authority

The competent authorities for the implementation of Directive 2000/60/EC were designated according to Law 3199/09.12.2003 (Government Gazette A' 280) for the Protection and Management of Waters, as amended and in force. More specifically, regarding the competent authorities, the following applies:

- According to article 26 of Law 5037/28.03.2023 (Government Gazette A' 78), from March 28th, 2023, the National Water Commission means the Minister of Environment and Energy, subject to more specific provisions. The Ministry of Environment and Energy (MEE) draws up the policy for the protection and management of water and controls its implementation.
- According to article 4 of Law 3199/09.12.2003 the General Directorate for Water of the Ministry of Environment and Energy, among other things, coordinates the agencies and state authorities and participates in the relevant EU bodies for any issue related to the protection and management of water, proposes the general rules for costing and invoicing water and monitors their implementation, proposes legislative and administrative measures for the protection and management of water, monitors the quality and quantity of water at the national level in cooperation with the Water Directorates of the Decentralized Administrations and attends the development and operation of the national water quality and quantity monitoring network.

In addition, the following Ministries are involved at the National Level in the implementation of 2000/60/EC Directive: Ministry of Foreign Affairs, Ministry of Rural Development and Food, Ministry of Infrastructure and Transport, Ministry of Economy and Finance, Ministry of Development and Investments, Ministry of Health, Ministry of Maritime Affairs and Insular Policy, Ministry of Interior.

At the regional level, the competent authorities are:

- The Water Council of Decentralized Administration (WCDA), which is formed in every Water Department that extends to the administrative boundaries of one or more Decentralized Administrations and is responsible for social dialogue and consultation on matters of water protection and management.
- The Water Directorates of the Decentralized Administration, through which the responsibilities of the Decentralized Administration for the protection and management of water are exercised. After the reorganization of the Local Government services, as a result of the administrative reforms of the "Kallikratis" project, the Water Directorates of the former State Regions are now under the respective Decentralized Administrations.

In addition, in matters of implementation of the Directive 2000/60/EC, the Municipalities of Grade A and Grade B are involved at the Regional Level.

The following table presents an updated excerpt of Annex II of the decision of the National Water Commission in accordance with Law 3852/07.06.2010 (Government Gazette A' 87) for the River Basin District of Northern Peloponnese (EL02).

Table 3-2. River Basins and Competent Decentralized Administration

| River Basin (Code) | Regions that geographically extend within the boundaries of the RB | Competent Decentralized Administration[1] (according to Government Gazette B' 1383/02.09.2010, B' 1572/28.09.2010 and A' 87/07.06.2010) |
|---|---|---|
| Streams basins of N. Peloponnese (EL0227) | Peloponnese (58,1%) Western Greece (41,9%) | Decentralized Administration of Peloponnese, Western Greece and the Ionian Sea |
| Piros - Vergas - Pinios (EL0228) | Western Greece (100%) | Decentralized Administration of Peloponnese, Western Greece and the Ionian Sea |
| Kefalonia - Ithaca - Zakynthos (EL0245) | Ionian Sea (100%) | Decentralized Administration of Peloponnese, Western Greece and the Ionian Sea |

The following Table provides an overview of the role played by each competent authority by thematic subject, in the context of water management and protection.

[1] *The Government Gazette refers to the former "state" Regions, the responsibilities of which are exercised, in accordance with article 280 of Law 3258/07.06.2010 (Government Gazette A' 87), by the Decentralized Administrations, with the exception of the responsibilities conferred by article 186 of the same law in the elected Regions*

Table 3-3. Main responsibilities per subject of water management and protection

| Competent Authority | Main Roles | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analysis of pressures and impacts | Economic analysis | Surface water monitoring | Groundwater monitoring | Surface Water Status Assessment | Groundwater Status Assessment | RBMP preparation | Program of Measures preparation | Measures Implementation | Audience participation | Enforcement of regulations | Application coordination | Data Submission to the European Commission |
| General Directorate 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 Decentralized Administration | *O* | *O* | *O* | *O* | *O* | *O* | *O* | *O* | M | *O* | M | M | - |
| Hellenic Ministry of Rural Development and Food | - | - | - | - | - | - | - | - | M | - | *O* | - | - |
| Hellenic Ministry of Infrastructure and Transport | - | - | - | - | - | - | - | - | M | - | *O* | - | - |
| Hellenic Ministry of Development | - | - | - | - | - | - | - | - | *O* | - | M | - | - |
| Hellenic Ministry of Economy and Finance | - | - | - | - | - | - | - | - | *O* | - | M | - | - |
| Hellenic Ministry of Health | - | - | - | - | - | - | - | - | M | - | *O* | - | - |
| Hellenic Ministry of Maritime Affairs and Insular Policy | - | - | - | - | - | - | - | - | - | - | M | - | - |
| Hellenic Ministry of Interior | - | - | - | - | - | - | - | - | *O* | - | M | - | - |
| Municipalities of the RBD | - | - | - | - | - | - | - | - | M | - | *O* | - | - |
| Regions of the RBD | - | - | - | - | - | - | - | - | M | - | *O* | - | - |

| | |
|---|---|
| *M* | *Main Role* |
| *O* | *Other Role* |
| - | *No Role* |

# 4 DESIGNATION AND CLASSIFICATION OF WATER BODIES

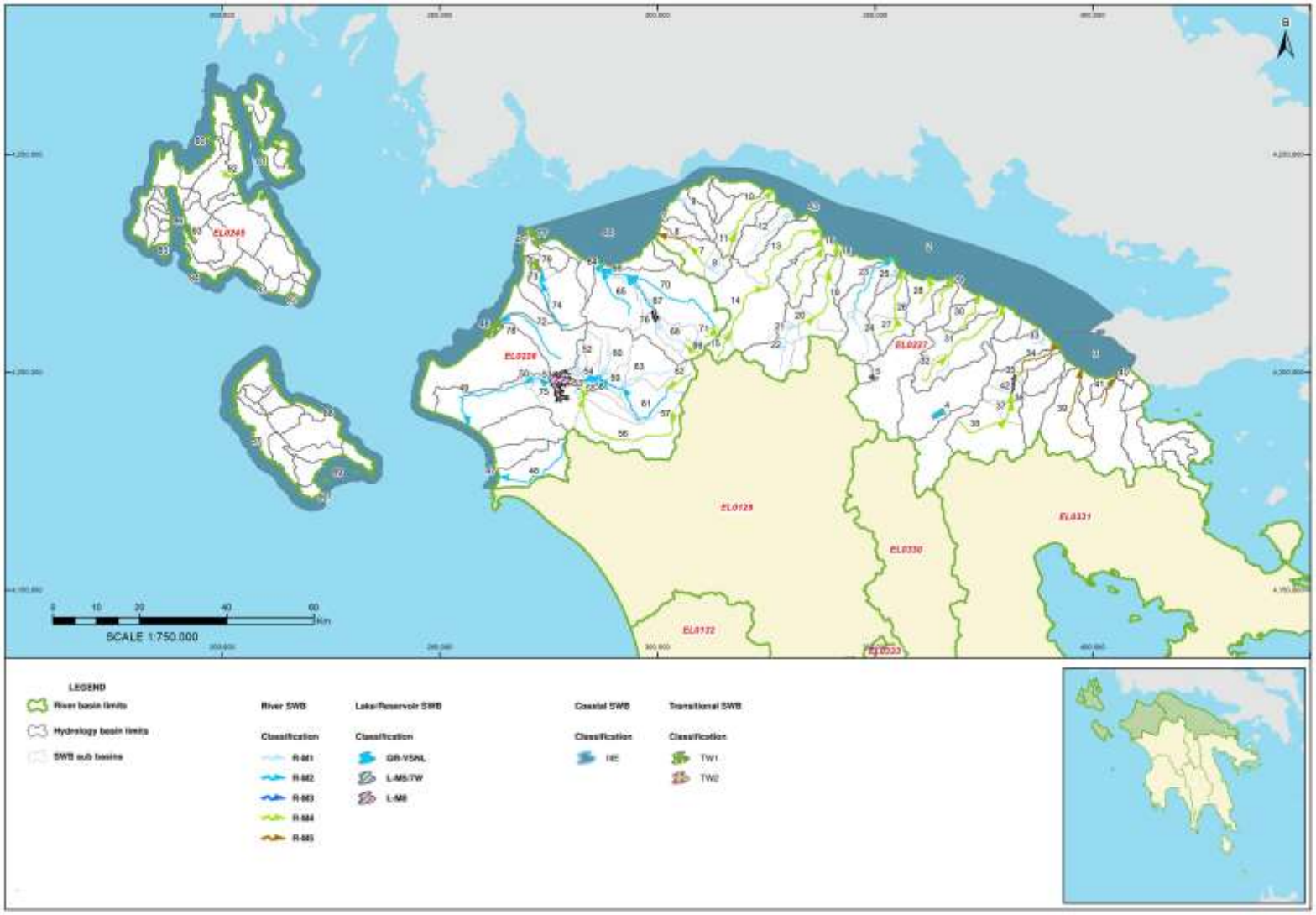
## 4.1 Surface Water Bodies

In the context of the 2nd Update, a total of ninety-three (93) surface water bodies were identified in the RBD of Northern Peloponnese (EL02), after the addition of two new R-M4 type river water bodies, namely the NAT of P. Kerynitis (upstream part of it, KERYNITIS P._2) with code EL0227R001100036N and the HMWB of P. Kerynitis (downstream part of it, KERYNITIS P._1) with code EL0227R001100035H. The distribution of the SWB in the RBD and also per RB is presented in the following table.

**Table 4-1. Number of surface water bodies in the Northern Peloponnese (EL02) by RB**

| Type of WB | RB EL0227 | RB EL0228 | RB EL0245 | Total RBD |
|---|---|---|---|---|
| River WB | 36 | 27 | 1 | 64 |
| Lake WB | 2 | 0 | 0 | 2 |
| Lake HMWB - reservoirs | 1 | 2 | 0 | 3 |
| Transitional WB | 1 | 3 | 1 | 5 |
| Coastal WB | 3 | 4 | 12 | 19 |
| **Total RB** | **43** | **36** | **14** | **93** |

The SWB of the River Basin District are shown on the following map.




Map 4-1. Surface water bodies of the Northern Peloponnese Region (EL02), based on the new typology in the context of the 2nd Update

Below, there is a legend with the numbers, codes and name of the EL02 SWB shown on the map above.

Map Legend 4-1:

| Map num | SWB Code | SWB Name | Map num | SWB Code | SWB Name |
|---|---|---|---|---|---|
| 1 | EL0227C0004H | PORT OF PATRA | 48 | EL0228R000100001N | IARDANOS STREAM |
| 2 | EL0227C0005N | CORINTHIAN GULF – COASTS OF PELOPONNESE | 49 | EL0228R000201002N | PINIOS R._1 |
| 3 | EL0227C0006N | KORINTHOS BAY | 50 | EL0228R000201003N | PINIOS R._2 |
| 4 | EL0227L000000002N | STIMFALIA LAKE | 51 | EL0228R000201004H | PINIOS R._3 |
| 5 | EL0227L000000003A | FENEOS ARTIF.LAKE | 52 | EL0228R000202005N | VELITSEIKO STREAM |
| 6 | EL0227R000100001H | GLAFKOS R._1 | 53 | EL0228R000203009N | PINIOS R._4 |
| 7 | EL0227R000100002N | GLAFKOS R._2 | 54 | EL0228R000203010N | PINIOS R._5 |
| 8 | EL0227R000100003N | GLAFKOS R._3 | 55 | EL0228R000204006N | LADON PINIEOS R._1 |
| 9 | EL0227R000300004N | CHARADROS STREAM | 56 | EL0228R000204007N | LADON PINIEOS R._2 |
| 10 | EL0227R000500005N | FINIKAS R._1 | 57 | EL0228R000204008N | LADON PINIEOS R._3 |
| 11 | EL0227R000500006N | FINIKAS R._2 | 58 | EL0228R000205012N | PINIOS R._6 |
| 12 | EL0227R000700007N | MEGANITAS STREAM | 59 | EL0228R000205013N | PINIOS R._7 |
| 13 | EL0227R000900008N | SELINOUS R._3 | 60 | EL0228R000206011N | VILISSOS STREAM |
| 14 | EL0227R000900009N | SELINOUS R._4 | 61 | EL0228R000207015N | PINIOS R._8 |
| 15 | EL0227R000900010N | SELINOUS R._5 | 62 | EL0228R000207016N | PINIOS R._9 |
| 16 | EL0227R001100035H | KERYNITIS R._1 | 63 | EL0228R000208014N | SKOUROPOTAMOS STREAM |
| 17 | EL0227R001100036N | KERYNITIS R._2 | 64 | EL0228R000401021N | PIROS R._1 |
| 18 | EL0227R001300011N | VOURAIKOS R._1 | 65 | EL0228R000402022N | SERDINI STREAM |
| 19 | EL0227R001300012N | VOURAIKOS R._2 | 66 | EL0228R000403023N | PIROS R._2 |
| 20 | EL0227R001300013N | VOURAIKOS R._3 | 67 | EL0228R000404024H | PARAPIROS STREAM_1 |
| 21 | EL0227R001300014N | VOURAIKOS R._4 | 68 | EL0228R000404025N | PARAPIROS STREAM_2 |
| 22 | EL0227R001300015N | VOURAIKOS R._5 | 69 | EL0228R000404026N | PARAPIROS STREAM_3 |
| 23 | EL0227R001700016N | KRATHIS R._1 | 70 | EL0228R000405027N | PIROS R._3 |
| 24 | EL0227R001700017N | KRATHIS R._2 | 71 | EL0228R000405028N | PIROS R._4 |
| 25 | EL0227R001900018N | THOLOPOTAMO STREAM | 72 | EL0228R000700017N | VERGAS STREAM |
| 26 | EL0227R001900019N | KRIOS R._1 | 73 | EL0228R000900019N | MANNA STREAM_2 |
| 27 | EL0227R001900020N | KRIOS R._2 | 74 | EL0228R000900020N | MANNA STREAM_3 |
| 28 | EL0227R002100021N | DERVENIO STREAM | 75 | EL0228RL00203002H | PINIOS ARTIF.LAKE |
| 29 | EL0227R002100022N | SKOUPEIKO STREAM | 76 | EL0228RL00404001H | ASTERIOU ARTIF.LAKE |
| 30 | EL0227R002100023N | FONISSA STREAM | 77 | EL0228T0001N | PAPA LAGOON (ARAXOS) |
| 31 | EL0227R002300024N | TRIKALITIKOS R._1 | 78 | EL0228T0004N | KOTICHI LAGOON |
| 32 | EL0227R002300025N | TRIKALITIKOS R._2 | 79 | EL0228T0005N | KALOGRIA LAGOON |
| 33 | EL0227R002700026N | KIRILLOU STREAM | 80 | EL0245C0001N | WEST COAST OF KEFALONIA |
| 34 | EL0227R002900027N | ASOPOS R._1 | 81 | EL0245C0002N | EAST COAST OF KEFALONIA-ITHACA |
| 35 | EL0227R002900028N | ASOPOS R._2 | 82 | EL0245C0010N | MOUNTA CAPE |
| 36 | EL0227R002900029N | ASOPOS R._3 | 83 | EL0245C0011N | EAST BAY OF LOURDATA |
| 37 | EL0227R002900030N | ASOPOS R._4 | 84 | EL0245C0012N | WEST BAY OF LOURDATA |
| 38 | EL0227R002900031N | ASOPOS R._5 | 85 | EL0245C0013N | VARDIANOI ISLANDS |
| 39 | EL0227R003300032N | REZANI STREAM | 86 | EL0245C0014N | GULF OF ARGOSTOLI |
| 40 | EL0227R003700033H | POTAMIA STREAM_1 | 87 | EL0245C0015N | WEST COAST OF ZAKINTHOS |

| Map num | SWB Code | SWB Name | Map num | SWB Code | SWB Name |
|---|---|---|---|---|---|
| 41 | EL0227R003700034H | POTAMIA STREAM_2 | 88 | EL0245C0016N | EAST COAST OF ZAKINTHOS |
| 42 | EL0227RL02900001H | ASOPOS ARTIF.LAKE | 89 | EL0245C0017N | LAGANAS GULF (ZAKINTHOS) |
| 43 | EL0227T0001N | ALIKI EGIO | 90 | EL0245C0018N | MARATHIAS CAPE |
| 44 | EL0228C0003N | GULF OF PATRA | 91 | EL0245C0019N | STROFADES ISLANDS |
| 45 | EL0228C0007N | ARAXOS CAPE | 92 | EL0245R000100001N | AGIA EUFIMIA STREAM |
| 46 | EL0228C0008N | GULF OF KILLINI | 93 | EL0245T0001N | KOUTAVOS LAGOON (KEFALONIA) |
| 47 | EL0228C0009N | COAST OF PELOPONNESE OPPOSITE ZAKINTHOS | | | |

### 4.1.1 River Water Bodies

The typology and classification of the status of river water bodies of the Northern Peloponnese River Basin District (EL02) is presented in the following tables. Also there are recorded the differences in ecological and chemical status between the 1st and 2nd RBMP Updates.

**Table 4-2. River water bodies and new typology, according to the European Decision 2018/229/EU, per RB of the Northern Peloponnese (EL02)**

| No | RB | WB Name | WB Code | Category | Type | Length (km) | Immediate Catchment Area (km²) | Upstream Catchment area (km²) | Mean Annual Flow (hm³) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | EL0227 | ASOPOS R._1 | EL0227R002900027N | NAT | R-M5 | 15,0 | 30,5 | 250,8 | 126,7 |
| 2 | EL0227 | ASOPOS R._2 | EL0227R002900028N | NAT | R-M4 | 1,9 | 6,2 | 244,6 | 125,2 |
| 3 | EL0227 | ASOPOS R._3 | EL0227R002900029N | NAT | R-M4 | 2,5 | 20,4 | 194,1 | 119,8 |
| 4 | EL0227 | ASOPOS R._4 | EL0227R002900030N | NAT | R-M4 | 5,0 | 28,5 | 165,6 | 116,2 |
| 5 | EL0227 | ASOPOS R._5 | EL0227R002900031N | NAT | R-M4 | 13,9 | 165,6 | 0,0 | 111,8 |
| 6 | EL0227 | VOURAIKOS R._1 | EL0227R001300011N | NAT | R-M4 | 7,4 | 30,7 | 223,7 | 90,0 |
| 7 | EL0227 | VOURAIKOS R._2 | EL0227R001300012N | NAT | R-M4 | 12,5 | 80,2 | 143,4 | 81,2 |
| 8 | EL0227 | VOURAIKOS R._3 | EL0227R001300013N | NAT | R-M4 | 5,0 | 51,4 | 92,0 | 51,2 |
| 9 | EL0227 | VOURAIKOS R._4 | EL0227R001300014N | NAT | R-M1 | 5,0 | 19,5 | 72,5 | 35,6 |
| 10 | EL0227 | VOURAIKOS R._5 | EL0227R001300015N | NAT | R-M1 | 7,5 | 72,5 | 0,0 | 29,9 |
| 11 | EL0227 | GLAFKOS R._1 | EL0227R000100001H | HMWB | R-M5 | 8,7 | 29,0 | 80,3 | 32,8 |
| 12 | EL0227 | GLAFKOS R._2 | EL0227R000100002N | NAT | R-M4 | 6,4 | 47,8 | 32,6 | 28,7 |
| 13 | EL0227 | GLAFKOS R._3 | EL0227R000100003N | NAT | R-M1 | 11,3 | 32,6 | 0,0 | 12,6 |
| 14 | EL0227 | DERVENIO STREAM | EL0227R002100021N | NAT | R-M4 | 8,1 | 68,2 | 0,0 | 11,0 |
| 15 | EL0227 | THOLOPOTAMO STREAM | EL0227R001900018N | NAT | R-M1 | 6,7 | 14,1 | 0,0 | 3,5 |
| 16 | EL0227 | KERYNITIS R._1 | EL0227R001100035H | HMWB | R-M4 | 2,8 | 11,1 | 81,5 | 21,9 |
| 17 | EL0227 | KERYNITIS R._2 | EL0227R001100036N | NAT | R-M4 | 15,5 | 81,5 | 0,0 | 20,7 |
| 18 | EL0227 | KRATHIS R._1 | EL0227R001700016N | NAT | R-M2 | 17,5 | 76,2 | 77,8 | 42,3 |
| 19 | EL0227 | KRATHIS R._2 | EL0227R001700017N | NAT | R-M1 | 15,1 | 77,8 | 0,0 | 28,0 |

| No | RB | WB Name | WB Code | Category | Type | Length (km) | Immediate Catchment Area (km²) | Upstream Catchment area (km²) | Mean Annual Flow (hm³) |
|---|---|---|---|---|---|---|---|---|---|
| 20 | EL0227 | KRIOS R._1 | EL0227R001900019N | NAT | R-M4 | 12,5 | 62,8 | 51,0 | 34,3 |
| 21 | EL0227 | KRIOS R._2 | EL0227R001900020N | NAT | R-M4 | 7,8 | 51,0 | 0,0 | 16,1 |
| 22 | EL0227 | KIRILLOU STREAM | EL0227R002700026N | NAT | R-M1 | 4,3 | 74,6 | 0,0 | 5,4 |
| 23 | EL0227 | MEGANITAS STREAM | EL0227R000700007N | NAT | R-M1 | 16,0 | 81,8 | 0,0 | 15,7 |
| 24 | EL0227 | POTAMIA STREAM_1 | EL0227R003700033H | HMWB | R-M5 | 1,3 | 1,0 | 161,9 | 16,0 |
| 25 | EL0227 | POTAMIA STREAM_2 | EL0227R003700034H | HMWB | R-M5 | 8,3 | 161,9 | 0,0 | 15,9 |
| 26 | EL0227 | REZANI STREAM | EL0227R003300032N | NAT | R-M5 | 23,6 | 165,7 | 0,0 | 11,8 |
| 27 | EL0227 | SELINOUS R._3 | EL0227R000900008N | NAT | R-M4 | 24,4 | 132,4 | 254,2 | 118,5 |
| 28 | EL0227 | SELINOUS R._4 | EL0227R000900009N | NAT | R-M4 | 15,5 | 225,2 | 29,0 | 92,4 |
| 29 | EL0227 | SELINOUS R._5 | EL0227R000900010N | NAT | R-M4 | 7,8 | 29,0 | 0,0 | 18,9 |
| 30 | EL0227 | SKOUPEIKO STREAM | EL0227R002100022N | NAT | R-M4 | 10,8 | 46,4 | 0,0 | 8,9 |
| 31 | EL0227 | TRIKALITIKOS R._1 | EL0227R002300024N | NAT | R-M4 | 22,4 | 135,6 | 42,1 | 40,4 |
| 32 | EL0227 | TRIKALITIKOS R._2 | EL0227R002300025N | NAT | R-M4 | 9,5 | 42,1 | 0,0 | 16,0 |
| 33 | EL0227 | FINIKAS R._1 | EL0227R000500005N | NAT | R-M4 | 15,0 | 76,8 | 19,1 | 29,1 |
| 34 | EL0227 | FINIKAS R._2 | EL0227R000500006N | NAT | R-M4 | 7,8 | 19,1 | 0,0 | 11,4 |
| 35 | EL0227 | FONISSA STREAM | EL0227R002100023N | NAT | R-M4 | 12,9 | 53,1 | 0,0 | 8,7 |
| 36 | EL0227 | CHARADROS STREAM | EL0227R000300004N | NAT | R-M1 | 7,7 | 36,7 | 0,0 | 8,1 |
| 37 | EL0228 | VELITSEIKO STREAM | EL0228R000202005N | NAT | R-M1 | 7,7 | 17,3 | 0,0 | 3,2 |
| 38 | EL0228 | VERGAS STREAM | EL0228R000700017N | NAT | R-M2 | 21,6 | 122,1 | 0,0 | 18,0 |
| 39 | EL0228 | VILISSOS STREAM | EL0228R000206011N | NAT | R-M1 | 17,3 | 75,2 | 0,0 | 25,5 |
| 40 | EL0228 | IARDANOS STREAM | EL0228R000100001N | NAT | R-M2 | 22,8 | 103,0 | 0,0 | 18,3 |
| 41 | EL0228 | LADON PINIEOS R._1 | EL0228R000204006N | NAT | R-M4 | 2,5 | 37,1 | 200,2 | 63,5 |
| 42 | EL0228 | LADON PINIEOS R._2 | EL0228R000204007N | NAT | R-M4 | 32,5 | 194,2 | 6,0 | 56,5 |
| 43 | EL0228 | LADON PINIEOS R._3 | EL0228R000204008N | NAT | R-M4 | 2,7 | 6,0 | 0,0 | 3,2 |
| 44 | EL0228 | MANNA STREAM_2 | EL0228R000900019N | NAT | R-M2 | 2,5 | 13,8 | 112,7 | 18,8 |
| 45 | EL0228 | MANNA STREAM_3 | EL0228R000900020N | NAT | R-M2 | 15,3 | 112,7 | 0,0 | 16,9 |
| 46 | EL0228 | PARAPIROS STREAM_1 | EL0228R000404024H | HMWB | R-M2 | 14,5 | 18,1 | 103,8 | 49,9 |
| 47 | EL0228 | PARAPIROS STREAM_2 | EL0228R000404025N | NAT | R-M1 | 10,0 | 44,2 | 18,0 | 30,2 |
| 48 | EL0228 | PARAPIROS STREAM_3 | EL0228R000404026N | NAT | R-M4 | 4,1 | 18,0 | 0,0 | 11,3 |
| 49 | EL0228 | PIROS R._1 | EL0228R000401021N | NAT | R-M2 | 3,0 | 5,1 | 484,6 | 143,9 |
| 50 | EL0228 | PIROS R._2 | EL0228R000403023N | NAT | R-M2 | 7,5 | 10,9 | 339,9 | 106,6 |
| 51 | EL0228 | PIROS R._3 | EL0228R000405027N | NAT | R-M2 | 27,5 | 202,3 | 15,7 | 55,3 |
| 52 | EL0228 | PIROS R._4 | EL0228R000405028N | NAT | R-M4 | 4,5 | 15,7 | 0,0 | 10,0 |
| 53 | EL0228 | PINIOS R._1 | EL0228R000201002N | NAT | R-M2 | 27,8 | 168,6 | 742,9 | 257,1 |
| 54 | EL0228 | PINIOS R._2 | EL0228R000201003N | NAT | R-M2 | 4,0 | 10,2 | 732,7 | 227,5 |
| 55 | EL0228 | PINIOS R._3 | EL0228R000201004H | HMWB | R-M2 | 3,5 | 14,2 | 718,5 | 226,1 |

| No | RB | WB Name | WB Code | Category | Type | Length (km) | Immediate Catchment Area (km²) | Upstream Catchment area (km²) | Mean Annual Flow (hm³) |
|---|---|---|---|---|---|---|---|---|---|
| 56 | EL0228 | PINIOS R._4 | EL0228R000203009N | NAT | R-M2 | 2,5 | 3,3 | 324,2 | 126,3 |
| 57 | EL0228 | PINIOS R._5 | EL0228R000203010N | NAT | R-M2 | 3,8 | 8,6 | 315,7 | 125,4 |
| 58 | EL0228 | PINIOS R._6 | EL0228R000205012N | NAT | R-M2 | 2,5 | 4,6 | 235,9 | 97,4 |
| 59 | EL0228 | PINIOS R._7 | EL0228R000205013N | NAT | R-M2 | 7,6 | 21,7 | 214,2 | 96,0 |
| 60 | EL0228 | PINIOS R._8 | EL0228R000207015N | NAT | R-M2 | 22,5 | 89,1 | 29,1 | 50,6 |
| 61 | EL0228 | PINIOS R._9 | EL0228R000207016N | NAT | R-M4 | 6,9 | 29,1 | 0,0 | 21,3 |
| 62 | EL0228 | SERDINI STREAM | EL0228R000402022N | NAT | R-M2 | 15,6 | 133,8 | 0,0 | 36,6 |
| 63 | EL0228 | SKOUROPOTAMOS STREAM | EL0228R000208014N | NAT | R-M1 | 17,5 | 95,9 | 0,0 | 38,4 |
| 64 | EL0245 | AGIA EUFIMIA STREAM | EL0245R000100001N | NAT | R-M4 | 3,5 | 61,7 | 0,0 | 20,3 |

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

Table 4-3. Assessment of the status of the River Water Bodies of the Northern Peloponnese (EL02) RBD

| SWB Type | RB | WB name | WB Code | AWB/ HMWB | Connection with protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| R | EL0227 | GLAFKOS R._1 | EL0227R000100001H | √ | - | Moderate Ecological status | Less than Good | Moderate (2) | Moderate (2) | Moderate Ecological status |
| R | EL0227 | GLAFKOS R._2 | EL0227R000100002N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | GLAFKOS R._3 | EL0227R000100003N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | CHARADROS STREAM | EL0227R000300004N | - | - | Poor | Good | High (3) | Low (1) | Poor |
| R | EL0227 | FINIKAS R._1 | EL0227R000500005N | - | - | Moderate | Good | High (3) | Low (1) | Moderate |
| R | EL0227 | FINIKAS R._2 | EL0227R000500006N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | MEGANITAS STREAM | EL0227R000700007N | - | - | Poor | Good | High (3) | Low (1) | Poor |
| R | EL0227 | SELINOUS R._3 | EL0227R000900008N | - | √ | Poor | Good | Moderate (2) | Moderate (2) | Poor |
| R | EL0227 | SELINOUS R._4 | EL0227R000900009N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | SELINOUS R._5 | EL0227R000900010N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | VOURAIKOS R._1 | EL0227R001300011N | - | √ | Moderate | Less than Good | Moderate (2) | Moderate (2) | Moderate |
| R | EL0227 | VOURAIKOS R._2 | EL0227R001300012N | - | √ | Good | Good | Low (1) | Moderate (2) | Good |
| R | EL0227 | VOURAIKOS R._3 | EL0227R001300013N | - | √ | Poor | Good | Moderate (2) | Moderate (2) | Poor |
| R | EL0227 | VOURAIKOS R._4 | EL0227R001300014N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| R | EL0227 | VOURAIKOS R._5 | EL0227R001300015N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | KRATHIS R._1 | EL0227R001700016N | - | √ | Bad | Good | Moderate (2) | Moderate (2) | Bad |
| R | EL0227 | KRATHIS R._2 | EL0227R001700017N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | THOLOPOTAMO STREAM | EL0227R001900018N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | KRIOS R._1 | EL0227R001900019N | - | - | Bad | Good | Moderate (2) | Moderate (2) | Bad |
| R | EL0227 | KRIOS R._2 | EL0227R001900020N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | DERVENIO STREAM | EL0227R002100021N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | SKOUPEIKO STREAM | EL0227R002100022N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | FONISSA STREAM | EL0227R002100023N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | TRIKALITIKOS R._1 | EL0227R002300024N | - | √ | Moderate | Less than Good | Moderate (2) | Moderate (2) | Moderate |
| R | EL0227 | TRIKALITIKOS R._2 | EL0227R002300025N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | KIRILLOU STREAM | EL0227R002700026N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | ASOPOS R._1 | EL0227R002900027N | - | - | Good | Less than Good | No Data(0) | Moderate (2) | Moderate |
| R | EL0227 | ASOPOS R._2 | EL0227R002900028N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | ASOPOS R._3 | EL0227R002900029N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0227 | ASOPOS R._4 | EL0227R002900030N | - | - | Poor | Good | Moderate (2) | Moderate (2) | Poor |
| R | EL0227 | ASOPOS R._5 | EL0227R002900031N | - | - | Good | Less than Good | No Data(0) | Moderate (2) | Moderate |
| R | EL0227 | REZANI STREAM | EL0227R003300032N | - | - | Poor | Less than Good | Moderate (2) | Moderate (2) | Poor |
| R | EL0227 | POTAMIA STREAM_1 | EL0227R003700033H | √ | - | Good Ecological status | Good | No Data(0) | Low (1) | Good Ecological status |

| SWB Type | RB | WB name | WB Code | AWB/ HMWB | Connection with protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| R | EL0227 | POTAMIA STREAM_2 | EL0227R003700034H | √ | - | Moderate Ecological status | Good | No Data(0) | No Data(0) | Moderate Ecological status |
| R | EL0227 | KERYNITIS R._1 | EL0227R001100035H | √ | - | Good Ecological status | Good | No Data(0) | No Data(0) | Good Ecological status |
| R | EL0227 | KERYNITIS R._2 | EL0227R001100036N | - | - | Good | Good | Low (1) | No Data(0) | Good |
| R | EL0228 | IARDANOS STREAM | EL0228R000100001N | - | - | Bad | Good | High (3) | Moderate (2) | Bad |
| R | EL0228 | PINIOS R._1 | EL0228R000201002N | - | √ | Bad | Less than Good | Moderate (2) | Moderate (2) | Bad |
| R | EL0228 | PINIOS R._2 | EL0228R000201003N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._3 | EL0228R000201004H | √ | - | Good Ecological status | Good | No Data(0) | Low (1) | Good Ecological status |
| R | EL0228 | VELITSEIKO STREAM | EL0228R000202005N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._4 | EL0228R000203009N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._5 | EL0228R000203010N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | LADON PINIEOS R._1 | EL0228R000204006N | - | - | Poor | Good | Moderate (2) | Low (1) | Poor |
| R | EL0228 | LADON PINIEOS R._2 | EL0228R000204007N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | LADON PINIEOS R._3 | EL0228R000204008N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._6 | EL0228R000205012N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._7 | EL0228R000205013N | - | - | Moderate | Good | High (3) | Moderate (2) | Moderate |
| R | EL0228 | VILISSOS STREAM | EL0228R000206011N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._8 | EL0228R000207015N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PINIOS R._9 | EL0228R000207016N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | SKOUROPOTAMOS STREAM | EL0228R000208014N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PIROS R._1 | EL0228R000401021N | - | - | Poor | Less than Good | Moderate (2) | Moderate (2) | Poor |
| R | EL0228 | SERDINI STREAM | EL0228R000402022N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PIROS R._2 | EL0228R000403023N | - | - | Good | Good | Moderate (2) | Low (1) | Good |
| R | EL0228 | PARAPIROS STREAM_1 | EL0228R000404024H | √ | - | Good | Good | Moderate (2) | Low (1) | Good |
| R | EL0228 | PARAPIROS STREAM_2 | EL0228R000404025N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PARAPIROS STREAM_3 | EL0228R000404026N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | PIROS R._3 | EL0228R000405027N | - | - | Moderate | Good | Moderate (2) | No Data(0) | Moderate |
| R | EL0228 | PIROS R._4 | EL0228R000405028N | - | - | Good | Good | Low (1) | Low (1) | Good |
| R | EL0228 | VERGAS STREAM | EL0228R000700017N | - | √ | Bad | Less than Good | Moderate (2) | Moderate (2) | Bad |
| R | EL0228 | MANNA STREAM_2 | EL0228R000900019N | - | √ | Bad | Less than Good | Moderate (2) | Moderate (2) | Bad |
| R | EL0228 | MANNA STREAM_3 | EL0228R000900020N | - | √ | Good | Good | Low (1) | Low (1) | Good |
| R | EL0245 | AGIA EUFIMIA STREAM | EL0245R000100001N | - | - | Good | Good | Low (1) | Low (1) | Good |

Table 4-4. Differences in the status of the river water bodies between the first RBMP and its 1st and 2nd Updates in the Northern Peloponnese RBD (EL02).

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WB Type | RB | WB Code | WB Name | Characterization method | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Remarks - Qualitative data | Remarks - Exceedings |
| R | EL0227 | GLAFKOS R._1 | EL0227R000100001H | NMN | Moderate Ecological Status | Less than Good | Moderate Ecological Status | Good Ecological Status | Good | Good Ecological Status | Unknown Ecological Status | Good | Unknown Ecological Status | Macro invertebrates: Moderate | Fenthion, Lead, Nickel |
| R | EL0227 | GLAFKOS R._2 | EL0227R000100002N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | GLAFKOS R._3 | EL0227R000100003N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | CHARADROS STREAM | EL0227R000300004N | GRP | Poor | Good | Poor | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Poor | |
| R | EL0227 | FINIKAS R._1 | EL0227R000500005N | GRP | Moderate | Good | Moderate | Moderate | Unknown | Unknown | Unknown | Good | Unknown | Macro invertebrates: Moderate | |
| R | EL0227 | FINIKAS R._2 | EL0227R000500006N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | MEGANITAS STREAM | EL0227R000700007N | GRP | Poor | Good | Poor | Moderate | Good | Moderate | Unknown | Less than Good | Unknown | Macro invertebrates: Poor | |
| R | EL0227 | SELINOUS R._3 | EL0227R000900008N | NMN | Poor | Good | Poor | Good | Good | Good | Good | Good | Good | Macro invertebrates: Moderate<br>Fish fauna: Poor | |
| R | EL0227 | SELINOUS R._4 | EL0227R000900009N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | SELINOUS R._5 | EL0227R000900010N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | VOURAIKOS R._1 | EL0227R001300011N | NMN | Moderate | Less than Good | Moderate | Good | Good | Good | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Macrophytes: Moderate | Lead |
| R | EL0227 | VOURAIKOS R._2 | EL0227R001300012N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | VOURAIKOS R._3 | EL0227R001300013N | NMN | Poor | Good | Poor | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Diatoms: Poor<br>Fish fauna: Poor | Lead |
| R | EL0227 | VOURAIKOS R._4 | EL0227R001300014N | EXJ | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | VOURAIKOS R._5 | EL0227R001300015N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WB Type | RB | WB Code | WB Name | Characterization method | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Remarks - Qualitative data | Remarks - Exceedings |
| R | EL0227 | KRATHIS R._1 | EL0227R001700016N | NMN | Bad | Good | Bad | Moderate | Good | Moderate | Good | Unknown | Unknown | Macrophytes:Moderate<br>Fish fauna:Bad | Lead |
| R | EL0227 | KRATHIS R._2 | EL0227R001700017N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | THOLOPOTAMO STREAM | EL0227R001900018N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | KRIOS R._1 | EL0227R001900019N | NMN | Bad | Good | Bad | Good | Good | Good | Unknown | Unknown | Unknown | Fish fauna: Bad | Lead |
| R | EL0227 | KRIOS R._2 | EL0227R001900020N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | DERVENIO STREAM | EL0227R002100021N | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | | |
| R | EL0227 | SKOUPEIKO STREAM | EL0227R002100022N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | FONISSA STREAM | EL0227R002100023N | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | | |
| R | EL0227 | TRIKALITIKOS R._1 | EL0227R002300024N | NMN | Moderate | Less than Good | Moderate | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Moderate | Chromium VI, Molybdenum and its compounds, Lead, Nickel |
| R | EL0227 | TRIKALITIKOS R._2 | EL0227R002300025N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0227 | KIRILLOU STREAM | EL0227R002700026N | GRP | Good | Good | Good | Moderate | Good | Moderate | Unknown | Unknown | Unknown | | |
| R | EL0227 | ASOPOS R._1 | EL0227R002900027N | NMN | Good | Less than Good | Moderate | Poor | Good | Poor | Unknown | Unknown | Unknown | | Lead |
| R | EL0227 | ASOPOS R._2 | EL0227R002900028N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | ASOPOS R._3 | EL0227R002900029N | GRP | Good | Good | Good | Good | Good | Good | Unknown | Unknown | Unknown | | |
| R | EL0227 | ASOPOS R._4 | EL0227R002900030N | NMN | Poor | Good | Poor | Good | Good | Good | Unknown | Less than Good | Unknown | Macro invertebrates: Moderate<br>Fish fauna: Poor | |
| R | EL0227 | ASOPOS R._5 | EL0227R002900031N | NMN | Good | Less than Good | Moderate | Good | Good | Good | Moderate | Unknown | Unknown | | Lead |

| WB Type | RB | WB Code | WB Name | Characterization method | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | Remarks - Qualitative data | Remarks - Exceedings |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | | |
| R | EL0227 | REZANI STREAM | EL0227R003300032N | NMN | Poor | Less than Good | Poor | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Diatoms: Poor | Nickel |
| R | EL0227 | POTAMIA STREAM_1 | EL0227R003700033H | EXJ | Good Ecological Status | Good | Good Ecological Status | Good Ecological Status | Good | Good Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | | |
| R | EL0227 | POTAMIA STREAM_2 | EL0227R003700034H | EXJ | Moderate Ecological Status | Good | Moderate Ecological Status | Unknown Ecological Status | Good | Unknown Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | | |
| R | EL0227 | KERYNITIS R._1 | EL0227R001100035H | EXJ | Good Ecological Status | Good | Good Ecological Status | - | - | - | - | - | - | | |
| R | EL0227 | KERYNITIS R._2 | EL0227R001100036N | EXJ | Good | Good | Good | - | - | - | - | - | - | | |
| R | EL0228 | IARDANOS STREAM | EL0228R000100001N | NMN | Bad | Good | Bad | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Macrophytes: Bad | |
| R | EL0228 | PINIOS R._1 | EL0228R000201002N | NMN | Bad | Less than Good | Bad | Poor | Good | Poor | Moderate | Less than Good | Moderate | Macro invertebrates: Poor Diatoms: Moderate<br>Macrophytes: Poor<br>Fish fauna: Bad | Chlorpyrifos, Dicofol, Lead |
| R | EL0228 | PINIOS R._2 | EL0228R000201003N | GRP | Good | Good | Good | Good | Good | Good | Moderate | Good | Moderate | | |
| R | EL0228 | PINIOS R._3 | EL0228R000201004H | EXJ | Good Ecological Status | Good | Good Ecological Status | Poor Ecological Status | Good | Poor Ecological Status | Moderate Ecological Status | Unknown | Unknown Ecological Status | | |
| R | EL0228 | VELITSEIKO STREAM | EL0228R000202005N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._4 | EL0228R000203009N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._5 | EL0228R000203010N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | LADON PINIEOS R._1 | EL0228R000204006N | GRP | Poor | Good | Poor | Moderate | Good | Moderate | Good | Unknown | Unknown | Macro invertebrates: Moderate<br>Macrophytes: Poor<br>Fish fauna: Moderate | |

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WB Type | RB | WB Code | WB Name | Characterization method | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Remarks - Qualitative data | Remarks - Exceedings |
| R | EL0228 | LADON PINIEOS R._2 | EL0228R000204007N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | LADON PINIEOS R._3 | EL0228R000204008N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._6 | EL0228R000205012N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._7 | EL0228R000205013N | NMN | Moderate | Good | Moderate | Good | Good | Good | Good | Unknown | Unknown | Macro invertebrates: Moderate | |
| R | EL0228 | VILISSOS STREAM | EL0228R000206011N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._8 | EL0228R000207015N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PINIOS R._9 | EL0228R000207016N | GRP | Good | Good | Good | Good | Good | Good | Good | Good | Good | | |
| R | EL0228 | SKOUROPOTAMOS STREAM | EL0228R000208014N | GRP | Good | Good | Good | Moderate | Good | Moderate | Good | Unknown | Unknown | | |
| R | EL0228 | PIROS R._1 | EL0228R000401021N | NMN | Poor | Less than Good | Poor | Moderate | Good | Moderate | Poor | Good | Poor | Macro invertebrates: Moderate Macrophytes: Moderate Fish fauna: Poor | Lead |
| R | EL0228 | SERDINI STREAM | EL0228R000402022N | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | | |
| R | EL0228 | PIROS R._2 | EL0228R000403023N | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Poor | Unknown | Unknown | | |
| R | EL0228 | PARAPIROS STREAM_1 | EL0228R000404024H | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Poor | Unknown | Unknown | | |
| R | EL0228 | PARAPIROS STREAM_2 | EL0228R000404025N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PARAPIROS STREAM_3 | EL0228R000404026N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| R | EL0228 | PIROS R._3 | EL0228R000405027N | EXJ | Moderate | Good | Moderate | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | Macro invertebrates: Moderate Fish fauna: Moderate | |
| R | EL0228 | PIROS R._4 | EL0228R000405028N | GRP | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |

| WB Type | RB | WB Code | WB Name | Characterization method | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | Remarks - Qualitative data | Remarks - Exceedings |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | | |
| R | EL0228 | VERGAS STREAM | EL0228R000700017N | NMN | Bad | Less than Good | Bad | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Diatoms: Moderate<br>Macrophytes: Bad | Nickel |
| R | EL0228 | MANNA STREAM_2 | EL0228R000900019N | NMN | Bad | Less than Good | Bad | Moderate | Good | Moderate | Unknown | Unknown | Unknown | Macro invertebrates: Moderate<br>Diatoms: Moderate<br>Macrophytes: Poor<br>Fish fauna: Bad | Nickel |
| R | EL0228 | MANNA STREAM_3 | EL0228R000900020N | GRP | Good | Good | Good | Moderate | Unknown | Unknown | Unknown | Unknown | Unknown | | |
| R | EL0245 | AGIA EUFIMIA STREAM | EL0245R000100001N | GRP | Good | Good | Good | Moderate | Good | Moderate | Unknown | Unknown | Unknown | | |

***NMN*** *National Monitoring Network Measurements,* ***GRP*** *Grouping,* ***EXJ*** *Expert judgment*

### 4.1.2 Lake Water Bodies

The typology and classification of the status of lake water bodies of the Northern Peloponnese River Basin District (EL02) is presented in the following tables. The differences in ecological and chemical status between the 1st RBMP and its 1st and 2nd Updates are also recorded.

Table 4-5. Lake HMWB-reservoirs per RB in the Northern Peloponnese RBD (EL02)

| No | WB Name | WB Code | Category | Area (km²) | Perimeter (km) | WB Type |
|---|---|---|---|---|---|---|
| **Streams basins of N. Peloponnese (EL0227)** | | | | | | |
| 1 | ASOPOS ARTIF.LAKE | EL0227RL02900001H | HMWB | 1,3 | 12,2 | L-M8 |
| | | | | | | |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | |
| 1 | ASTERIOU ARTIF.LAKE | EL0228RL00404001H | HMWB | 1,6 | 15,4 | L-M8 |
| 2 | PINIOS ARTIF.LAKE | EL0228RL00203002H | HMWB | 19,8 | 80,2 | L-M8 |

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

Table 4-6. Lake WB with new typology per RB in the Northern Peloponnese RBD (EL02)

| No | WB Name | WB Code | Category | Area (km²) | Perimeter (km) | WB Type |
|---|---|---|---|---|---|---|
| **Streams basins of N. Peloponnese (EL0227)** | | | | | | |
| 1 | STIMFALIA LAKE | EL0227L000000002N | NAT | 3,6 | 9,2 | GR-VSNL |
| 2 | FENEOS ARTIF.LAKE | EL0227L000000003A | AWB | 0,5 | 4,0 | L-M5/7W |

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

Table 4-7. Assessment of the status of the lake HMWB-reservoirs of the RBD of the Northern Peloponnese (EL02)

| Type of SWB | RB | WB Name | WB Code | AWB/HMWB | Connection to protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| RL | EL0227 | ASOPOS ARTIF.LAKE | EL0227RL02900001H | √ | - | Moderate Ecological Status | Good | No Data(0) | No Data(0) | Moderate Ecological Status |
| RL | EL0228 | ASTERIOU ARTIF.LAKE | EL0228RL00404001H | √ | - | Good Ecological Status | Good | No Data(0) | No Data(0) | Good Ecological Status |
| RL | EL0228 | PINIOS ARTIF.LAKE | EL0228RL00203002H | √ | √ | Good Ecological Status | Good | Moderate (2) | Moderate (2) | Good Ecological Status |

Table 4-8. Assessment of the status of the lake water bodies of the RBD of the Northern Peloponnese (EL02)

| Type of SWB | RB | WB Name | WB Code | AWB/HMWB | Connection to protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| L | EL0227 | STIMFALIA LAKE | EL0227L000000002N | - | √ | Moderate | Less than Good | Moderate (2) | Moderate (2) | Moderate |
| L | EL0227 | FENEOS ARTIF.LAKE | EL0227L000000003A | √ | √ | Good Ecological Status | Good | Moderate (2) | Moderate (2) | Good Ecological Status |

Table 4-9. Differences in the status of lake water bodies, including reservoirs, between the 1st RBMP and its 1st and 2nd Updates in the Northern Peloponnese RBD (EL02)

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type of SWB | RB | WB Name | WB Code | Characterization method | Ecological status/potential | Chemical Status | Overall condition/potential | Ecological status/potential | Chemical Status | Overall condition/potential | Ecological status/potential | Chemical Status | Overall condition/potential | Remarks - Qualitative data | Remarks - Exceedings |
| RL | EL0227 | ASOPOS ARTIF.LAKE | EL0227RL02900001H | EXJ | Moderate Ecological Status | Good | Moderate Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | - | - | - | | |
| RL | EL0228 | ASTERIOU ARTIF.LAKE | EL0228RL00404001H | EXJ | Good Ecological Status | Good | Good Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | - | - | - | | |
| RL | EL0228 | PINIOS ARTIF.LAKE | EL0228RL00203002H | NMN | Good Ecological Status | Good | Good Ecological Status | Good Ecological Status | Good | Good Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | | |
| L | EL0227 | STIMFALIA LAKE | EL0227L000000002N | NMN | Moderate | Less than Good | Moderate | Unknown | Good | Unknown | Unknown | Unknown | Unknown | The lake has a small amount of water | Lead |
| L | EL0227 | FENEOS ARTIF.LAKE | EL0227L000000003A | NMN | Good Ecological Status | Good | Good Ecological Status | Good Ecological Status | Good | Good Ecological Status | Unknown Ecological Status | Unknown | Unknown Ecological Status | | |

***NMN*** *National Monitoring Network Measurements,* ***GRP*** *Grouping,* ***EXJ*** *Expert judgment*

### 4.1.3 Transitional Water Bodies

The typology and classification of the status of transitional water bodies of the Northern Peloponnese River Basin District (EL02) is presented in the following tables. The differences in ecological and chemical status between the 1st RBMP as well as its 1st and 2nd Updates are also recorded.

Table 4-10. Transitional water bodies per RB of the Northern Peloponnese RBD (EL02)

| No | WB Name | WB Code | Category | Area ($km^2$) | Perimeter (km) | WB Type |
|---|---|---|---|---|---|---|
| Streams basins of N. Peloponnese RB (EL0227) | | | | | | |
| 1 | ALIKI EGIO | EL0227T0001N | NAT | 0,16 | 1,72 | TW1 |
| | | | | | | |
| Piros – Vergas - Pinios (EL0228) | | | | | | |
| 1 | PAPA LAGOON (ARAXOS) | EL0228T0001N | NAT | 4,04 | 15,17 | TW1 |
| 2 | KOTICHI LAGOON | EL0228T0004N | NAT | 7,0 | 16,62 | TW1 |
| 3 | KALOGRIA LAGOON | EL0228T0005N | NAT | 5,63 | 17,7 | TW1 |
| | | | | | | |
| Kefalonia - Ithaca – Zakynthos RB (EL0245) | | | | | | |
| 1 | KOUTAVOS LAGOON (KEFALONIA) | EL0245T0001N | NAT | 1,2 | 5,53 | TW1 |

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

Table 4-11. Assessment of the status of transitional water bodies of the Northern Peloponnese RBD (EL02)

| Type o SWB | RB | WB Name | WB Code | AWB/HMWB | Connection to protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| T | EL0227 | ALIKI EGIO | EL0227T0001N | - | √ | Good | Good | No Data(0) | No Data(0) | Good |
| T | EL0228 | PAPA LAGOON (ARAXOS) | EL0228T0001N | - | √ | Moderate | Good | High (3) | Moderate (2) | Moderate |
| T | EL0228 | KOTICHI LAGOON | EL0228T0004N | - | √ | Moderate | Good | High (3) | Moderate (2) | Moderate |
| T | EL0228 | KALOGRIA LAGOON | EL0228T0005N | - | √ | Moderate | Good | High (3) | Moderate (2) | Moderate |
| T | EL0245 | KOUTAVOS LAGOON (KEFALONIA) | EL0245T0001N | - | - | Moderate | Good | High (3) | Moderate (2) | Moderate |

Table 4-12. Differences in the status of transitional water bodies between the first RBMP and its 1st and 2nd Updates in the Northern Peloponnese RBD (EL02)

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type of SWB | RB | WB Name | WB Code | Method | Ecological status/potential | Chemical Status | Overall condition/potential | Ecological status/potential | Chemical Status | Overall condition/potential | Ecological status/potential | Chemical Status | Overall condition/potential | Remarks - Qualitative data | Remarks - Exceedings |
| T | EL0227 | ALIKI EGIO | EL0227T0001N | EXJ | Good | Good | Good | Unknown | Unknown | Unknown | - | - | - | | |
| T | EL0228 | PAPA LAGOON (ARAXOS) | EL0228T0001N | NMN | Moderate | Good | Moderate | Moderate | Good | Moderate | Poor | Unknown | Unknown | Phytoplankton: Moderate Benthic Macro invertebrates: Moderate | |
| T | EL0228 | KOTICHI LAGOON | EL0228T0004N | NMN | Moderate | Good | Moderate | Poor | Good | Poor | Poor | Unknown | Unknown | Physicochemicals: Moderate Phytoplankton: Moderate Benthic Macro invertebrates: Moderate | |
| T | EL0228 | KALOGRIA LAGOON | EL0228T0005N | NMN | Moderate | Good | Moderate | Poor | Good | Poor | Moderate | Unknown | Unknown | Physicochemicals: Moderate Phytoplankton: Poor Benthic Macro invertebrates: Moderate | |
| T | EL0245 | KOUTAVOS LAGOON (KEFALONIA) | EL0245T0001N | NMN | Moderate | Good | Moderate | Good | Good | Good | Moderate | Unknown | Unknown | Physicochemicals: Moderate | |

***NMN*** *National Monitoring Network Measurements,* ***GRP*** *Grouping,* ***EXJ*** *Expert judgment*

### 4.1.4 Coastal Water Bodies

The typology and classification of the status of the coastal water bodies of the Northern Peloponnese River Basin District (EL02) is presented in the following tables. The differences in ecological and chemical status between the 1st RBMP as well as the 1st and 2nd Updates are also recorded.

Table 4-13. Coastal water bodies per RB of the Northern Peloponnese RBD (EL02)

| No | WB Name | WB Code | Category | Area ($km^2$) | Perimeter (km) | WB Type |
|---|---|---|---|---|---|---|
| **Streams basins of N. Peloponnese RB (EL0227)** | | | | | | |
| 1 | PORT OF PATRA | EL0227C0004H | HMWB | 329,74 | 9,7 | IIIE |
| 2 | CORINTHIAN GULF – COASTS OF PELOPONNESE | EL0227C0005N | NAT | 831,91 | 139,7 | IIIE |
| 3 | KORINTHOS BAY | EL0227C0006N | NAT | 132,59 | 54,9 | IIIE |
| | | | | | | |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | |
| 1 | GULF OF PATRA | EL0228C0003N | NAT | 317,74 | 59,5 | IIIE |
| 2 | ARAXOS CAPE | EL0228C0007N | NAT | 11,7 | 8,3 | IIIE |
| 3 | GULF OF KILLINI | EL0228C0008N | NAT | 108,43 | 43,6 | IIIE |
| 4 | COAST OF PELOPONNESE OPPOSITE ZAKINTHOS | EL0228C0009N | NAT | 86,23 | 56,2 | IIIE |
| | | | | | | |
| **Kefalonia - Ithaca - Zakynthos RB (EL0245)** | | | | | | |
| 1 | WEST COAST OF KEFALONIA | EL0245C0001N | NAT | 438,67 | 188,5 | IIIE |
| 2 | EAST COAST OF KEFALONIA-ITHACA | EL0245C0002N | NAT | 222,31 | 191,0 | IIIE |
| 3 | MOUNTA CAPE | EL0245C0010N | NAT | 6,96 | 4,9 | IIIE |
| 4 | EAST BAY OF LOURDATA | EL0245C0011N | NAT | 21,48 | 15,7 | IIIE |
| 5 | WEST BAY OF LOURDATA | EL0245C0012N | NAT | 40,54 | 30,4 | IIIE |
| 6 | VARDIANOI ISLANDS | EL0245C0013N | NAT | 43,25 | 29,3 | IIIE |
| 7 | GULF OF ARGOSTOLI | EL0245C0014N | NAT | 42,55 | 56,4 | IIIE |
| 8 | WEST COAST OF ZAKINTHOS | EL0245C0015N | NAT | 168,74 | 116,4 | IIIE |
| 9 | EAST COAST OF ZAKINTHOS | EL0245C0016N | NAT | 84,54 | 65,2 | IIIE |
| 10 | LAGANAS GULF (ZAKINTHOS) | EL0245C0017N | NAT | 61,25 | 37,0 | IIIE |
| 11 | MARATHIAS CAPE | EL0245C0018N | NAT | 6,39 | 4,6 | IIIE |
| 12 | STROFADES ISLANDS | EL0245C0019N | NAT | 25,39 | 11,7 | IIIE |

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

Table 4-14. Assessment of the status of the coastal water bodies of the Northern Peloponnese RBD (EL02)

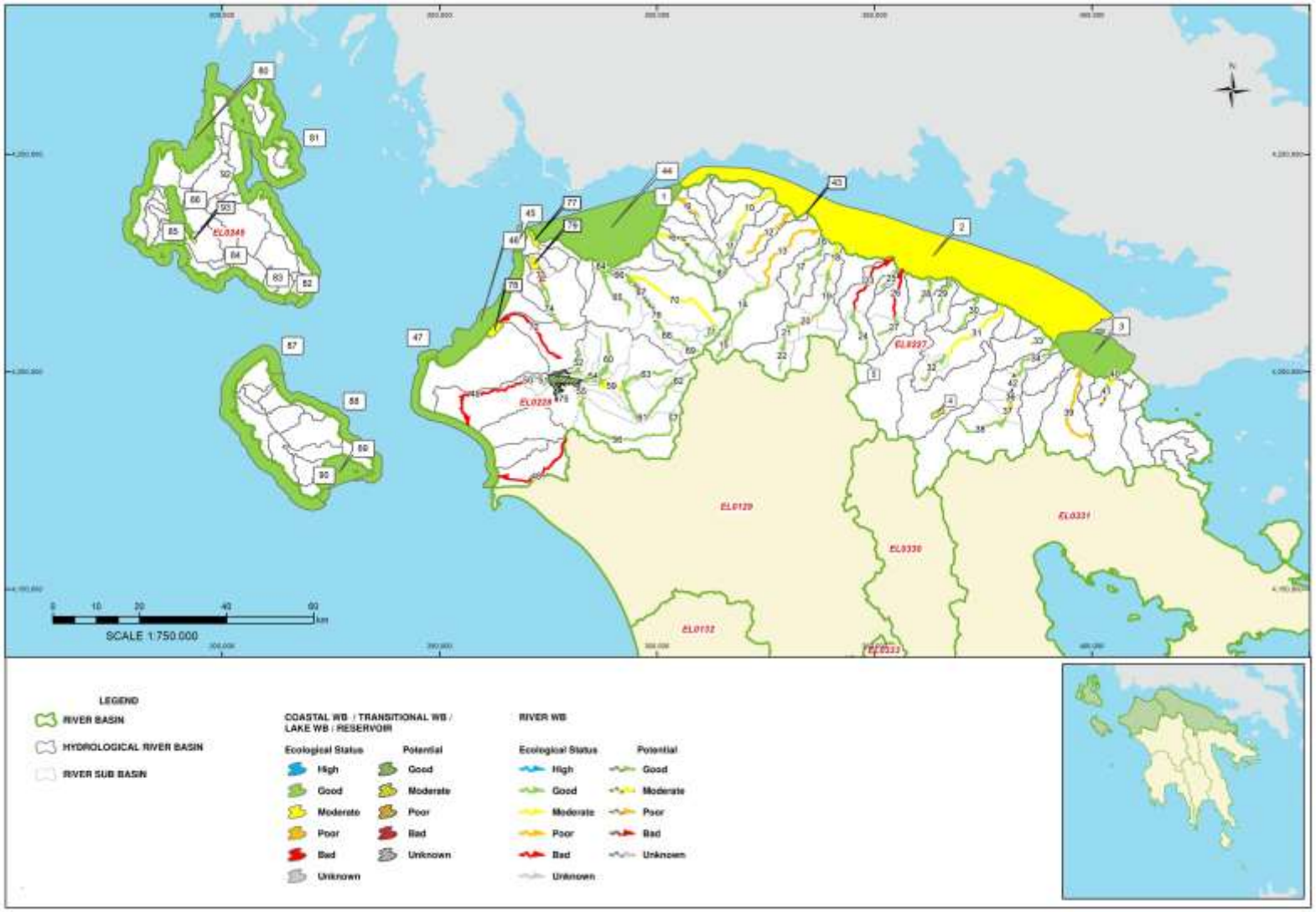
| Type of SWB | RB | WB Name | WB Code | AWB/HMWB | Connection to protected areas | Ecological status/potential | Chemical Status | Ecological Status confidence level | Chemical Status confidence level | Overall condition/potential |
|---|---|---|---|---|---|---|---|---|---|---|
| C | EL0227 | PORT OF PATRA | EL0227C0004H | √ | - | Good Ecological Status | Good | No Data(0) | No Data(0) | Good Ecological Status |
| C | EL0227 | CORINTHIAN GULF – COASTS OF PELOPONNESE | EL0227C0005N | - | √ | Moderate | Good | Moderate (2) | Moderate (2) | Moderate |
| C | EL0227 | KORINTHOS BAY | EL0227C0006N | - | √ | Good | Good | Moderate (2) | No Data(0) | Good |
| C | EL0228 | GULF OF PATRA | EL0228C0003N | - | √ | Good | Good | Moderate (2) | No Data(0) | Good |
| C | EL0228 | ARAXOS CAPE | EL0228C0007N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0228 | GULF OF KILLINI | EL0228C0008N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0228 | COAST OF PELOPONNESE OPPOSITE ZAKINTHOS | EL0228C0009N | - | √ | Good | Good | High (3) | No Data(0) | Good |
| C | EL0245 | WEST COAST OF KEFALONIA | EL0245C0001N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | EAST COAST OF KEFALONIA-ITHACA | EL0245C0002N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | MOUNTA CAPE | EL0245C0010N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | EAST BAY OF LOURDATA | EL0245C0011N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | WEST BAY OF LOURDATA | EL0245C0012N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | VARDIANOI ISLANDS | EL0245C0013N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | GULF OF ARGOSTOLI | EL0245C0014N | - | √ | Good | Good | High (3) | Moderate (2) | Good |
| C | EL0245 | WEST COAST OF ZAKINTHOS | EL0245C0015N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | EAST COAST OF ZAKINTHOS | EL0245C0016N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | LAGANAS GULF (ZAKINTHOS) | EL0245C0017N | - | √ | Good | Good | High (3) | Moderate (2) | Good |
| C | EL0245 | MARATHIAS CAPE | EL0245C0018N | - | √ | Good | Good | Low (1) | No Data(0) | Good |
| C | EL0245 | STROFADES ISLANDS | EL0245C0019N | - | √ | Good | Good | Low (1) | No Data(0) | Good |

Table 4-15. Differences in the status of coastal water bodies between the 1st RBMP and its 1st and 2nd Updates in the Northern Peloponnese RBD (EL02)

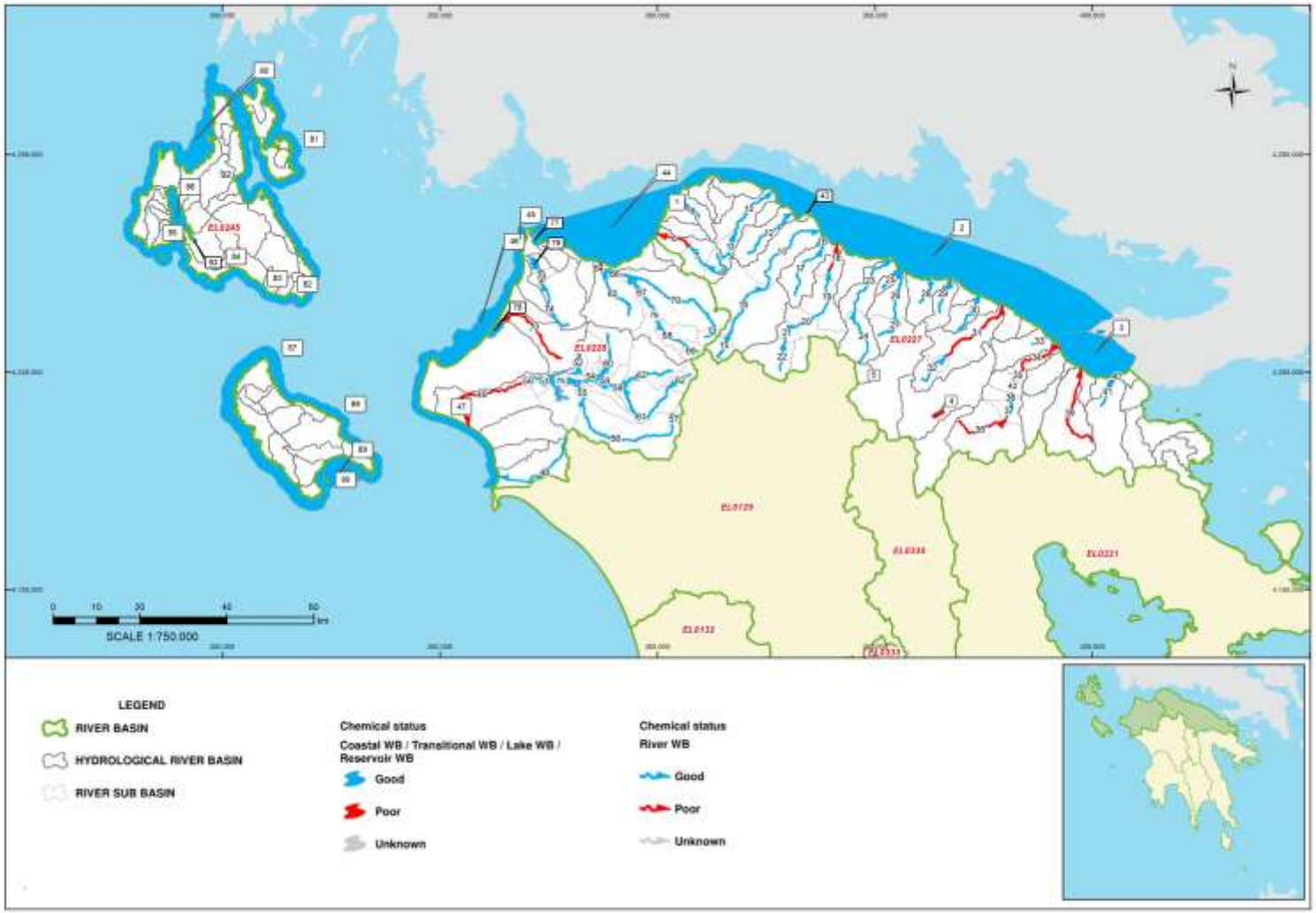
| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type of SWB | RB | WB Name | WB Code | Method | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Remarks - Qualitative data | Remarks - Exceedings |
| C | EL0227 | PORT OF PATRA | EL0227C0004H | EXJ | Good Ecological Status | Good | Good Ecological Status | Good Ecological Status | Good | Good Ecological Status | Moderate Ecological Status | Unknown | Unknown Ecological Status | | |
| C | EL0227 | CORINTHIAN GULF – COASTS OF PELOPONNESE | EL0227C0005N | NMN | Moderate | Good | Moderate | Good | Good | Good | Good | Unknown | Unknown | Benthic Macro invertebrates: Moderate<br>Macroalgae: Moderate | |
| C | EL0227 | KORINTHOS BAY | EL0227C0006N | GRP | Good | Good | Good | Good | Good | Good | Moderate | Unknown | Unknown | | |
| C | EL0228 | GULF OF PATRA | EL0228C0003N | NMN | Good | Good | Good | Good | Good | Good | Moderate | Unknown | Unknown | | |
| C | EL0228 | ARAXOS CAPE | EL0228C0007N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0228 | GULF OF KILLINI | EL0228C0008N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0228 | COAST OF PELOPONNESE OPPOSITE ZAKINTHOS | EL0228C0009N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | WEST COAST OF KEFALONIA | EL0245C0001N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | EAST COAST OF KEFALONIA-ITHACA | EL0245C0002N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | MOUNTA CAPE | EL0245C0010N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | EAST BAY OF LOURDATA | EL0245C0011N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | WEST BAY OF LOURDATA | EL0245C0012N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | VARDIANOI ISLANDS | EL0245C0013N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | GULF OF ARGOSTOLI | EL0245C0014N | NMN | Good | Good | Good | Moderate | Good | Moderate | Moderate | Unknown | Unknown | | |

| | | | | | 2nd RBMP Update | | | 1st RBMP Update | | | 1st RBMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type of SWB | RB | WB Name | WB Code | Method | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Ecological status/potential | Chemical Status | Overall status/potential | Remarks - Qualitative data | Remarks - Exceedings |
| C | EL0245 | WEST COAST OF ZAKINTHOS | EL0245C0015N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | EAST COAST OF ZAKINTHOS | EL0245C0016N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | LAGANAS GULF (ZAKINTHOS) | EL0245C0017N | NMN | Good | Good | Good | Good | Good | Good | Good | Unknown | Unknown | | |
| C | EL0245 | MARATHIAS CAPE | EL0245C0018N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |
| C | EL0245 | STROFADES ISLANDS | EL0245C0019N | GRP | Good | Good | Good | Good | Good | Good | High | Unknown | Unknown | | |

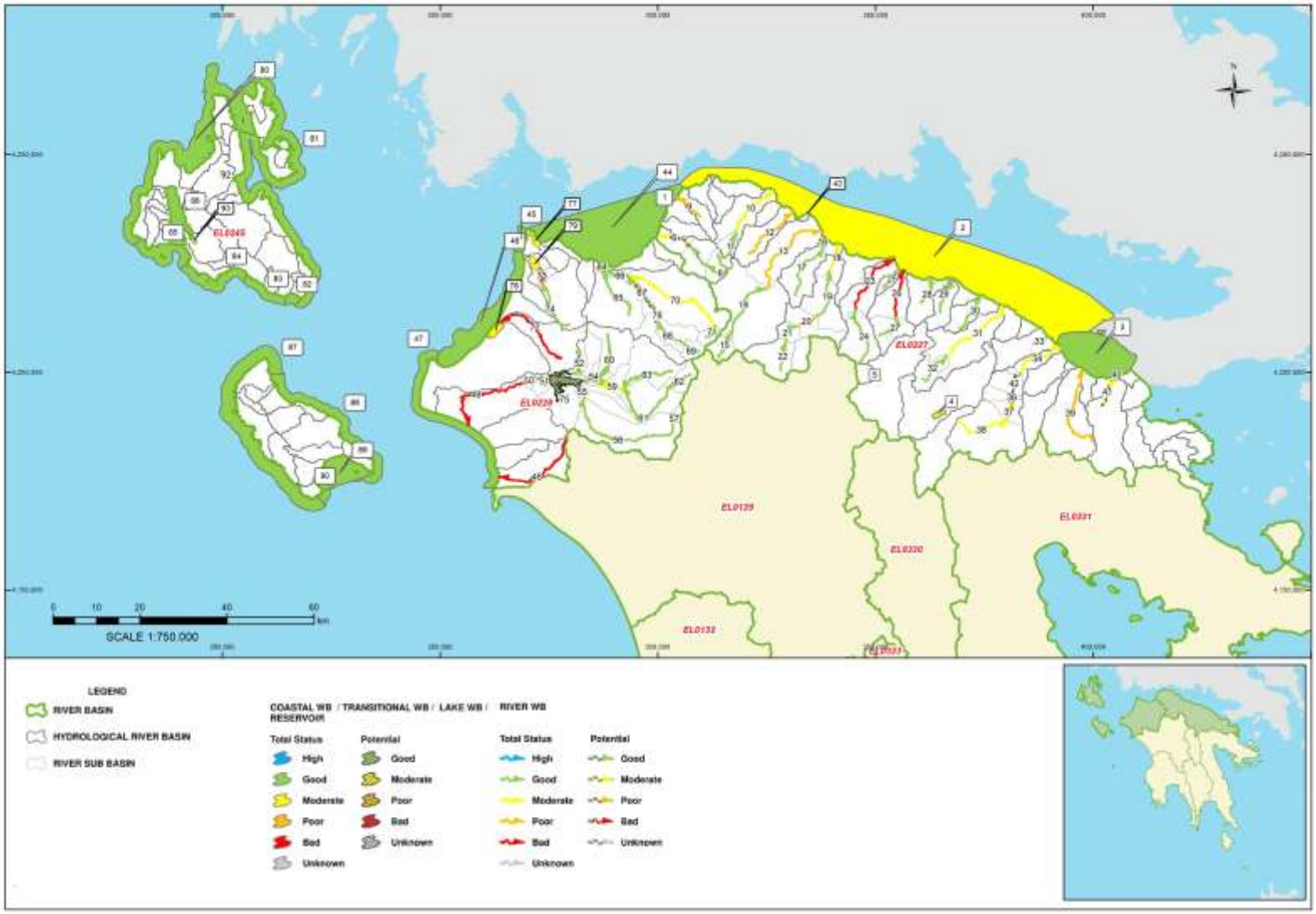
***NMN*** *National Monitoring Network Measurements,* ***GRP*** *Grouping,* ***EXJ*** *Expert judgment*




Map 4-2. Ecological status of surface waters of the River Basin District EL02




Map 4-3. Chemical Status of surface WB of the River Basin District EL02




Map 4-4. Overall status of surface WB of the River Basin District EL02

## 4.2 Groundwater Bodies

Within the framework of the 2nd Update of the RBMP, the demarcated groundwater bodies (GWB) were re-examined, and the need arose to separate the existing WB EL0200160 (Valtou-Evrostinas) into the subsystems EL0200161 and EL0200162. No new GWBs were identified in RBD EL02.

| GWB Code | EL0200160 |
|---|---|
| GWB Name | VALTOU - EVROSTINAS |
| GWB Initial area | 253.247.647 $m^2$ |
| GWB areas | 143.750.259 $m^2$ (Cartesian) / 143.795.100 $m^2$ (Ellipsoidal)<br>109.410.084 $m^2$ (Cartesian) / 109.454.912 $m^2$ (Ellipsoidal) |
| Geology | Pliopleistocene deposits with cohesive cobbles and Quaternary deposits |
| GWB subsystems | EL0200161 VALTOU - KLEMENTIOU SUBSYSTEM<br>EL0200162 EVROSTINAS - TRIKALON SUBSYSTEM |

In the Northern Peloponnese RBD (EL02) there are a total of thirty-four (34) GWB, of which 19 GWB in the Streams basins of N. Peloponnese RB (EL0227), 10 GWB in the Piros – Vergas - Pinios RB (EL0228) and 5 GWB in the Kefalonia -Ithaka-Zakynthos RB (EL0245). These GWBs are presented below:

Table 4-16. Groundwater Bodies of the Northern Peloponnese (EL02)

| No | GWB Name | GWB Code | Area ($km^2$) |
|---|---|---|---|
| **Streams basins of N. Peloponnese RB (EL0227)** | | | |
| 1 | Systima Patras- Riou | EL0200120 | 131,74 |
| 2 | Systima Panachaikou | EL0200130 | 455,62 |
| 3 | Voreias Achaias Subsystem[1] | EL0200141 | 118,77 |
| 4 | Voreias Achaias Subsystem[1] | EL0200142 | 172,67 |
| 5 | Voreias Achaias Subsystem[1] | EL0200143 | 91,74 |
| 6 | Systima Zarouchlas | EL0200150 | 160,65 |
| 7 | Valtou - Klementiou Subsystem[2] | EL0200161 | 111,21 |
| 8 | Evrostinas - Trikalon Subsystem[2] | EL0200162 | 143,75 |
| 9 | Voreias Korinthias Subsystem[3] | EL0200171 | 333,88 |
| 10 | Voreias Korinthias Subsystem[3] | EL0200172 | 235,12 |
| 11 | Voreias Korinthias Subsystem[3] | EL0200173 | 256,46 |
| 12 | Systima Korfiotissas | EL0200180 | 14,03 |
| 13 | Systima Korinthou-Kiatou | EL0200190 | 71,16 |
| 14 | Systima Arachnaiou | EL0200200 | 725,88 |
| 15 | Systima Nemeas | EL0200210 | 107,94 |
| 16 | Systima Zireias | EL0200220 | 196,71 |
| 17 | Systima Feneou | EL0200230 | 40,31 |

| No | GWB Name | GWB Code | Area (km²) |
|---|---|---|---|
| 18 | Systima Kalavryton | EL0200240 | 201,78 |
| 19 | Systima Voreiou Erymanthou | EL0200250 | 301,17 |
| **Piros – Vergas - Pinios (EL0228)** | | | |
| 1 | Systima Pineiou | EL0200060 | 813,12 |
| 2 | Systima Kyllinis | EL0200070 | 58,14 |
| 3 | Systima Dytikis Achaias | EL0200080 | 379,86 |
| 4 | Subsystem p. Larissou[4] | EL0200091 | 106,58 |
| 5 | Subsystem p. Larissou[4] | EL0200092 | 43,41 |
| 6 | Subsystem p. Larissou[4] | EL0200093 | 22,02 |
| 7 | Subsystem p. Larissou[4] | EL0200094 | 13,08 |
| 8 | Systima Movris | EL0200100 | 528,32 |
| 9 | Systima p. Peirou | EL0200110 | 179,66 |
| 10 | Systima Dytikou Erymanthou | EL0200260 | 249,04 |
| **Kefalonia - Ithaca – Zakynthos RB (EL0245)** | | | |
| 1 | Systima Kefalonias | EL0200010 | 602,37 |
| 2 | Systima Lixouriou - Skalas | EL0200020 | 178,08 |
| 3 | Systima Ithakis | EL0200030 | 95,69 |
| 4 | Systima Vrachiona | EL0200040 | 261,86 |
| 5 | Systima Zakynthou | EL0200050 | 144,43 |

***Notes:***

*[1]The Subsystems EL0200141, EL0200142 and EL0200143 belong to Systima Voreias Achaias (EL0200140).*

*[2]The Subsystems EL0200161 and EL0200162 belong to Systima Valtou-Evrostinas (EL0200160).*

*[3]The Subsystems EL0200171, EL0200172 and EL0200173 belong to Systima Voreias Korinthias (EL0200170).*

*[4]The Subsystems EL0200091, EL0200092, EL0200093 and EL0200094 belong to Systima p. Larissou (EL0200090).*

The final characterization of the status of a GWB depends on both the assessment of its chemical and quantitative status. The Good Chemical Status of the waters aims to protect the groundwater from degradation and pollution, while the Good Quantitative status ensures the available water resources and the non-depletion of the aquifer.

Table 4-17. Chemical and Quantitative status of groundwater bodies in the River Basin District of Northen Peloponnese (EL02)

| No | GWB Name | GWB Code | Chemical Status | Quantitative status | Increased element values due to natural background | Increased values of Anthropogenic Influence items | Main Pressures | Seawater infiltration | Register of protected areas of article A7 | Observations |
|---|---|---|---|---|---|---|---|---|---|---|
| Streams basins of N. Peloponnese RB (EL0227) | | | | | | | | | | |
| 1 | EL0200120 | Systima Patras- Riou | Good | Good | - | - | Agriculture Urbanization, Industry | No | NO | - |
| 2 | EL0200130 | Systima Panachaikou | Good | Good | - | - | - | No | YES | - |
| 3 | EL0200141 | Voreias Achaias Subsystem | Good | Good | aa- | - | Agriculture Urbanization | No | NO | - |
| 4 | EL0200142 | Voreias Achaias Subsystem | Good | Good | Mn, Fe | Na | Agriculture Urbanization | No | NO | - |
| 5 | EL0200143 | Voreias Achaias Subsystem | Good | Good | - | - | Agriculture Urbanization | No | NO | - |
| 6 | EL0200150 | Systima Zarouchlas | Good | Good | - | - | Agriculture | No | YES | - |
| 7 | EL0200161 | Valtou - Klementiou Subsystem | Good | Good | - | - | Agriculture | No | NO | - |
| 8 | EL0200162 | Evrostinas - Trikalon Subsystem | Good | Good | - | - | Agriculture | No | NO | - |
| 9 | EL0200171 | Voreias Korinthias Subsystem | Bad | Good | - | EC, Na, Cl, $SO_4$, $NO_3$ Ni, Cr (locally) | Agriculture Industry, oil mills Overpumping | Yes (locally) | NO | - |
| 10 | EL0200172 | Voreias Korinthias Subsystem | Bad | Good | - | $NO_3$ (locally) | Agriculture Industry oil mills | No | NO | - |
| 11 | EL0200173 | Voreias Korinthias Subsystem | Bad | Good | Mn, Fe | $NO_3$, Cl, $SO_4$ (locally) | Agriculture Industry oil mills Overpumping | Yes (locally) | NO | - |
| 12 | EL0200180 | Systima Korfiotissas | Good | Good | - | - | - | - | YES | - |
| 13 | EL0200190 | Systima Korinthou-Kiatou | Bad | Bad | Fe, Al | Na, Cl, $NO_3$, $SO_4$ (locally) | Agriculture oil mills, HADA, Industry Overpumping | Yes | NO | |

| No | GWB Name | GWB Code | Chemical Status | Quantitative status | Increased element values due to natural background | Increased values of Anthropogenic Influence items | Main Pressures | Seawater infiltration | Register of protected areas of article A7 | Observations |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | EL0200200 | Systima Arachnaiou | Good | Good | Fe | Cl, $NO_3$ (locally) | Agriculture Overpumping | Yes (locally) | NO | |
| 15 | EL0200210 | Systima Nemeas | Good | Good | - | $NO_3$ (locally) | Agriculture Urbanization, wineries | No | NO | |
| 16 | EL0200220 | Systima Zireias | Good | Good | - | - | Agriculture | No | YES | |
| 17 | EL0200230 | Systima Feneou | Good | Good | - | - | Agriculture | No | NO | |
| 18 | EL0200240 | Systima Kalavryton | Good | Good | - | - | Agriculture livestock | No | NO | |
| 19 | EL0200250 | Systima Voreiou Erymanthou | Good | Good | - | - | - | No | NO | |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | | | | | |
| 20 | EL0200060 | Systima Pineiou | Good | Good | Mn, Fe | $NO_3$, Ni (locally) | Agriculture Urbanization, Industry, Landfill | No | NO | - |
| 21 | EL0200070 | Systima Kyllinis | Good | Good | Mn | - | Agriculture | - | NO | - |
| 22 | EL0200080 | Systima Dytikis Achaias | Good | Good | Mn, Fe, $SO_4$ | $NO_3$ (locally) | Agriculture Industry, Wastewater Treatment Plants | No | NO | - |
| 23 | EL0200091 | Subsystem p. Larissou | Bad | Bad | Mn, Fe, $SO_4$ | EC, Na, Cl, $SO_4$, $NO_3$ | cultivated land, Urbanization, overpumping, airport | Yes | NO | - |
| 24 | EL0200092 | Subsystem p. Larissou | Good | Bad | - | - | Agriculture | No | NO | - |
| 25 | EL0200093 | Subsystem p. Larissou | Good | Bad | - | - | cultivated land | Yes | NO | - |
| 26 | EL0200094 | Subsystem p. Larissou | Good | Bad | - | - | Agriculture | Yes | NO | - |
| 27 | EL0200100 | Systima Movris | Good | Good | - | - | Agriculture oil mills | No | NO | - |

| No | GWB Name | GWB Code | Chemical Status | Quantitative status | Increased element values due to natural background | Increased values of Anthropogenic Influence items | Main Pressures | Seawater infiltration | Register of protected areas of article A7 | Observations |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 | EL0200110 | Systima p. Peirou | Good | Good | Mn, Fe | $NO_3$ (locally) | Agriculture Industry, oil mills Overpumping | No | NO | - |
| 29 | EL0200260 | Systima Dytikou Erymanthou | Good | Good | - | - | - | No | NAI | - |
| Kefalonia - Ithaca - Zakynthos RB (EL0245) | | | | | | | | | | |
| 30 | EL0200010 | Systima Kefalonias | Good | Good | $SO_4$ | EC, Na, Cl (locally) | Agriculture cheese factories, oil mills, pastoral quarries Overpumping | Yes | NO | - |
| 31 | EL0200020 | Systima Lixouriou - Skalas | Good | Good | - | Cl (locally) | Agriculture cheese factories, oil mills, pastoral quarries | Yes (locally) | NO | - |
| 32 | EL0200030 | Systima Ithakis | Good | Good | - | | Agriculture Urbanization | - | NO | - |
| 33 | EL0200040 | Systima Vrachiona | Good | Good | Mn, $SO_4$ | EC, Na, Cl | Agriculture cheese factories, oil mills, pastoral quarries Overpumping | Yes | NO | - |
| 34 | EL0200050 | Systima Zakynthou | Bad | Bad | $SO_4$ | EC, Na, Cl (locally) | Agriculture cheese factories, oil mills, pastoral quarries Overpumping | Yes (locally) | NO | - |

Table 4-18. Change in the GWB status between the 1sr RBMP and its 1st and 2nd Updatew

| GWB Name | GWB Code | 2nd RBMP Update | | 1st RBMP Update | | 1st RBMP | |
|---|---|---|---|---|---|---|---|
| | | Qualitative (chemical) status | Quantitative status | Qualitative (chemical) status | Quantitative status | Qualitative (chemical) status | Quantitative status |
| **Streams basins of N. Peloponnese (EL0227)** | | | | | | | |
| EL0200120 | Systima Patras- Riou | Good | Good | Good | Good | Good | Good |
| EL0200130 | Systima Panachaikou | Good | Good | Good | Good | Good | Good |
| EL0200141 | Voreias Achaias Subsystem | Good | Good | Good | Good | Good | Good |
| EL0200142 | Voreias Achaias Subsystem | Good | Good | Good | Good | Good | Good |
| EL0200143 | Voreias Achaias Subsystem | Good | Good | Good | Good | Good | Good |
| EL0200150 | Systima Zarouchlas | Good | Good | Good | Good | Good | Good |
| EL0200161 | Valtou - Klementiou Subsystem | Good | Good | Good | Good | Good | Good |
| EL0200162 | Evrostinas - Trikalon Subsystem | Good | Good | Good | Good | Good | Good |
| EL0200171 | Voreias Korinthias Subsystem | Bad | Good | Bad | Good | Bad | Good |
| EL0200172 | Voreias Korinthias Subsystem | Bad | Good | Bad | Good | Bad | Good |
| EL0200173 | Voreias Korinthias Subsystem | Bad | Good | Bad | Good | Bad | Good |
| EL0200180 | Systima Korfiotissas | Good | Good | Good | Good | Good | Good |
| EL0200190 | Systima Korinthou-Kiatou | Bad | Bad | Bad | Bad | Bad | Bad |
| EL0200200 | Systima Arachnaiou | Good | Good | Good | Good | Good | Good |
| EL0200210 | Systima Nemeas | Good | Good | Good | Good | Good | Good |
| EL0200220 | Systima Zireias | Good | Good | Good | Good | Good | Good |
| EL0200230 | Systima Feneou | Good | Good | Good | Good | Good | Good |
| EL0200240 | Systima Kalavryton | Good | Good | Good | Good | Good | Good |

| GWB Name | GWB Code | 2nd RBMP Update | | 1st RBMP Update | | 1st RBMP | |
|---|---|---|---|---|---|---|---|
| | | Qualitative (chemical) status | Quantitative status | Qualitative (chemical) status | Quantitative status | Qualitative (chemical) status | Quantitative status |
| EL0200250 | Systima Voreiou Erymanthou | Good | Good | Good | Good | Good | Good |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | | |
| EL0200060 | Systima Pineiou | Good | Good | Good | Good | Good | Good |
| EL0200070 | Systima Kyllinis | Good | Good | Good | Good | Good | Good |
| EL0200080 | Systima Dytikis Achaias | Good | Good | Good | Good | Good | Good |
| EL0200091 | Subsystem p. Larissou | Bad | Bad | Bad | Bad | Bad | Bad |
| EL0200092 | Subsystem p. Larissou | Good | Bad | Bad | Bad | Bad | Bad |
| EL0200093 | Subsystem p. Larissou | Good | Bad | Bad | Bad | Bad | Bad |
| EL0200094 | Subsystem p. Larissou | Good | Bad | Bad | Bad | Bad | Bad |
| EL0200100 | Systima Movris | Good | Good | Good | Good | Good | Good |
| EL0200110 | Systima p. Peirou | Good | Good | Good | Good | Good | Good |
| EL0200260 | Systima Dytikou Erymanthou | Good | Good | Good | Good | Good | Good |
| **Steam of Kefalonia - Ithaca - Zakynthos (EL0245)** | | | | | | | |
| EL0200010 | Systima Kefalonias | Good | Good | Good | Good | Good | Good |
| EL0200020 | Systima Lixouriou - Skalas | Good | Good | Good | Good | Good | Good |
| EL0200030 | Systima Ithakis | Good | Good | Good | Good | Good | Good |
| EL0200040 | Systima Vrachiona | Good | Good | Good | Good | Good | Good |
| EL0200050 | Systima Zakynthou | Bad | Bad | Bad | Bad | Bad | Good |


Map 4-5. Qualitative (chemical) status of the GWB of the River Basin District of Northern Peloponnese (EL02)


Map 4-6. Quantitative status of the GWB of the River Basin District of Northern Peloponnese (EL02)

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

In summary, during the present 2nd Update of the RBMP, the same methodology as in the 2nd Administrative Cycle (1st RBMP Update) was applied with the following improvements:

1. Data were collected for projects that were built after 2015 and/or are to be built by 2027
2. The entirety of the SWB was examined and all projects/uses were recorded, per criterion in a geographical information system (GIS) to enable their subsequent geographic comparison with future projects
3. The HMWB resulting from the construction of dams (the inland reservoirs) are identified as HMWB-reservoir lakes
4. The recent results of the NMN were taken into account for the final determination of the HMWB

In the context of the 2nd Update of the RBMP, Special Measures to achieve the Good Ecological Potential of the HMWB that were identified in the 2nd Update are proposed in a separate Deliverable ("Special Measures to achieve the Good Ecological Potential in the HMWB"), so that they can be considered in the context of the implementation of the Program of Measures.

Following the application of the HMWB and AWB determination methodology, 10 heavily modified and 1 artificial water body were identified in the Northern Peloponnese RBD (EL02) out of a total of 93 surface water bodies.

The following tables present the water bodies, which were definitively characterized as heavily modified and artificial by River Basin of the Northern Peloponnese RBD (EL02).

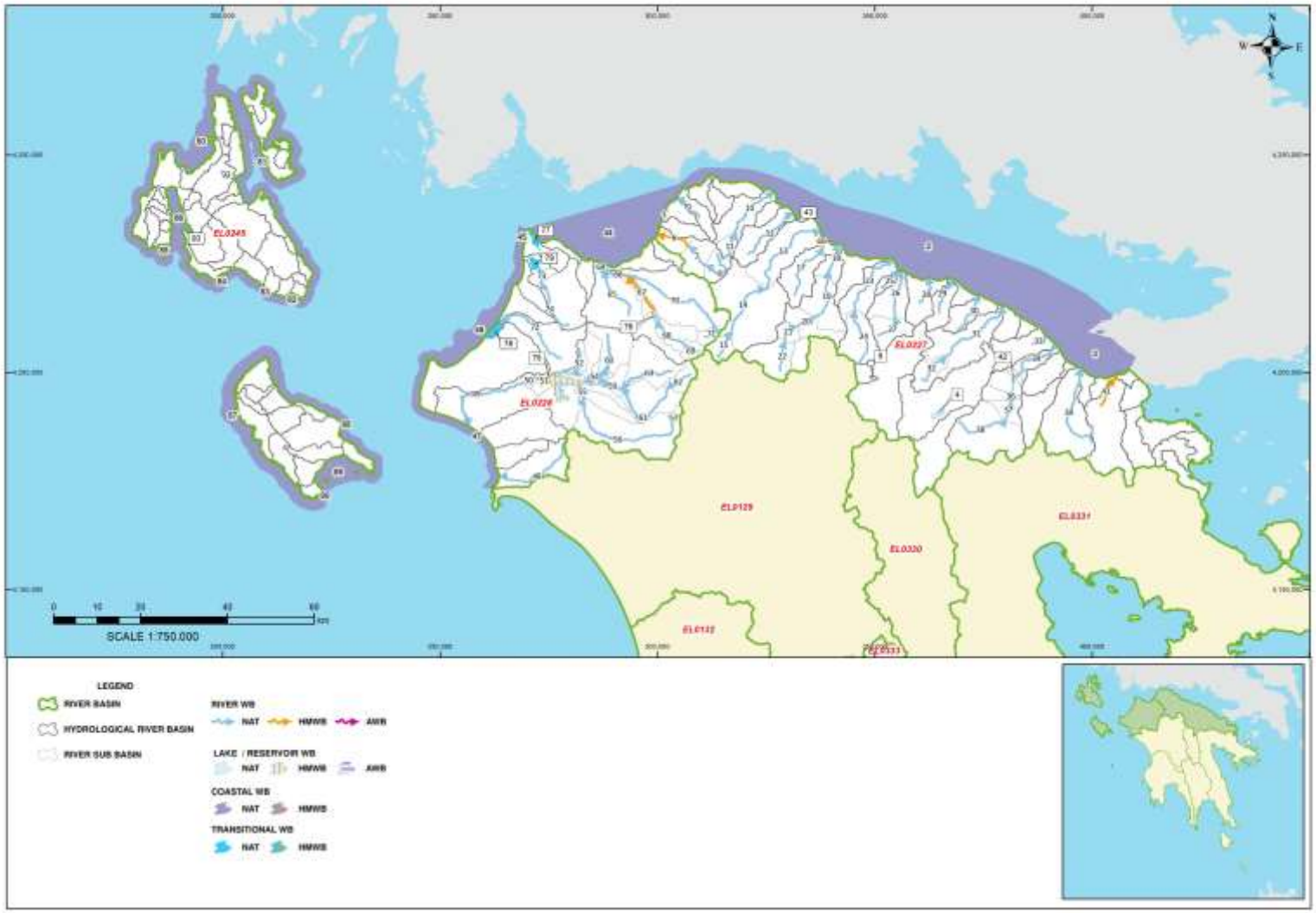
**Table 4-19. Heavily Modified River, Coastal and Transitional Water Bodies in the Northern Peloponnese RBD (EL02)**

| WB Code | Project | WB Name | AWB-HMWB | Type of WB | Length/ Surface of WB (km/km²) | Designated Use |
|---|---|---|---|---|---|---|
| **Streams basins of N. Peloponnese RB (EL0227)** | | | | | | |
| EL0227R000100001H | RELINING | GLAFKOS R._1 | HMWB | R-M5 | 8,7 | Hydroelectric energy production, Flood protection, Water supply, Irrigation |
| EL0227R003700033H | RELINING | POTAMIA STREAM_1 | HMWB | R-M5 | 1,3 | Flood protection |
| EL0227R003700034H | RELINING | POTAMIA STREAM_2 | HMWB | R-M5 | 8,3 | Flood protection |
| EL0227C0004H | PORT | PORT OF PATRA | HMWB | IIIE | 329,74 | Navigation, Recreation |
| EL0227R0011000035H(*) | RELINING | KERYNITIS R._1 | HMWB | R-M4 | 5,2 | Flood protection |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | |
| EL0228R000201004H | RELINING | PINIOS R._3 | HMWB | R-M2 | 3,5 | Irrigation |
| EL0228R000404024H(*) | DAM | PARAPIROS STREAM_1 | HMWB | R-M2 | 14,47 | Water supply, Irrigation |

**Note:** *(*)Addition during the preparation of the 2nd Update*

Table 4-20. Heavily Modified and Artificial lake WB and Heavily Modified Lake WB - reservoirs in the Northern Peloponnese RBD (EL02)

| WB Code | Project | WB Name | AWB-HMWB | Type of WB | Length/ Surface of WB (km/km²) | Designated Use |
|---|---|---|---|---|---|---|
| **Streams basins of N. Peloponnese RB (EL0227)** | | | | | | |
| EL0227RL02900001H | ARTIFICIAL LAKE | ASOPOS ARTIF.LAKE | HMWB | L-M8 | 1,3 | Irrigation, Artificial enrichment |
| EL0227L000000003A | ARTIFICIAL LAKE | FENEOS ARTIF.LAKE | AWB | L-M5/7W | 0,5 | Irrigation, |
| **Piros – Vergas - Pinios (EL0228)** | | | | | | |
| EL0228RL00404001H | ARTIFICIAL LAKE | ASTERIOU ARTIF.LAKE | HMWB | L-M8 | 1,6 | Water supply |
| EL0228RL00203002H | ARTIFICIAL LAKE | PINIOS ARTIF.LAKE | HMWB | L-M8 | 19,8 | Irrigation, Water supply |




Map 4-7. Heavily Modified and Artificial Water Bodies in the Northern Peloponnese RBD (EL02)

## 4.4 Protected Areas

The Register of Protected Areas (RPA) includes, according to Annex V of PD 51/08.03.2007, all the following types of areas:

a) Areas designated for the abstraction of water for human consumption, in accordance with article 7 of PD 51/08.03.2007 (article 7 of Directive 2000/60/EC),

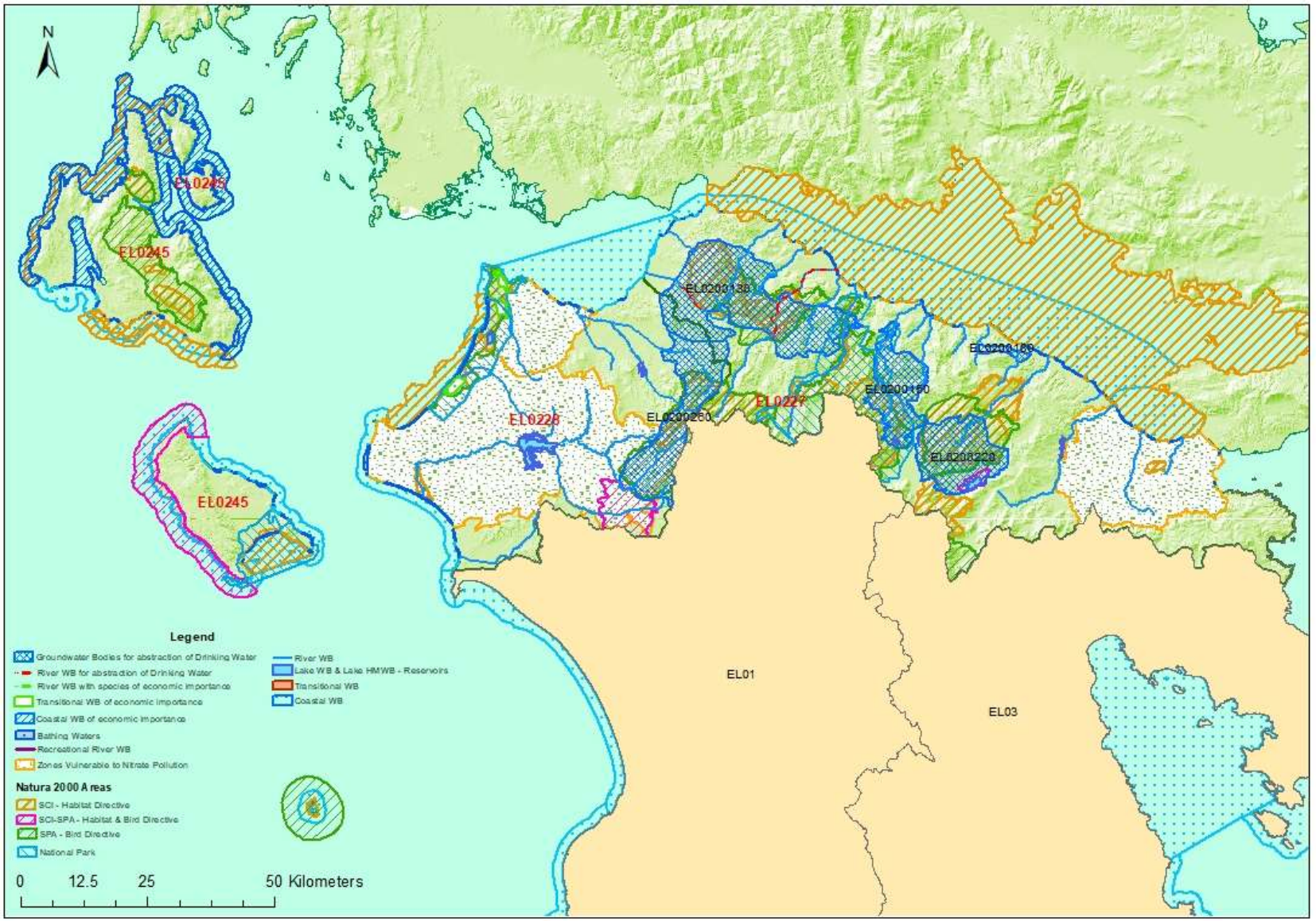
b) Areas intended for the protection of aquatic species of economic importance,

c) Water bodies designated as recreational waters, including areas designated as bathing waters,

d) Areas sensitive to the presence of nutrients, including areas designated as vulnerable zones, and areas designated as sensitive and

e) Areas intended for the protection of habitats or species, when the maintenance or improvement of the state of the waters is important for their protection, including the relevant sites of the NATURE 2000 program (NATURA 2000).

The areas of the RPA for the River Basin District of the Northern Peloponnese (EL02) are shown below.




Map 4-8. Protected areas in the RBD of Northern Peloponnese (EL02)

# 5 HUMAN PRESSURES AND IMPACTS ON WATER BODIES

## 5.1 Point sources of pollution

Point sources of pollution include the following sources that produce conventional pollutants (BOD, N, P):

- Wastewater Treatment Plants (WWTP)
- Discharge of sewage networks to a natural receptor
- Big hotel units
- Industrial units
- Livestock units
- Aquaculture – Fish farming
- Spills from sites for the uncontrolled disposal of waste and landfills

From the above sources of pollution, the total annual pollutant loads of BOD, N and P produced in the examined River Basin District are calculated.

Table 5-1. Total annual loads of BOD, N and P to SWB and GWB produced by point sources of pollution in the River Basin District EL02

| | TOTAL ANNUAL BOD (tn/y) | | | TOTAL ANNUAL N (tn/y) | | | TOTAL ANNUAL P (tn/y) | | | TOTAL ANNUAL BOD (tn/y) | TOTAL ANNUAL N (tn/y) | TOTAL ANNUAL P (tn/y) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF USE | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL02 | EL02 | EL02 |
| Industrial Units | 596,28 | 1.140,65 | 363,43 | 51,2 | 44,05 | 20,23 | 19,58 | 11,3 | 4,17 | 2.100,35 | 115,44 | 35,08 |
| Wastewater Treatment Plants | 79,69 | 91,31 | 26,87 | 20,07 | 93,75 | 20,16 | 9,77 | 3,27 | 11,24 | 197,87 | 133,97 | 24,27 |
| Discharge of sewage networks to a natural receiver | 0,00 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,00 | 0,00 |
| Livestock Units | 102,21 | 120,25 | 74,60 | 58,73 | 76,22 | 59,14 | 8,24 | 7,24 | 5,05 | 297,06 | 194,10 | 20,53 |
| Large hotel units | 1,67 | 3,88 | 5,93 | 2,67 | 6,21 | 9,49 | 0,56 | 1,3 | 1,98 | 11,48 | 18,36 | 3,83 |
| Aquaculture - Fish farming | 16,16 | 74,89 | 0,00 | 3,25 | 15,06 | 315,95 | 0,55 | 2,53 | 43,01 | 91,05 | 334,25 | 46,09 |
| Sites for the uncontrolled disposal of waste and landfills | 0,52 | 0,15 | 0,00 | 0,42 | 0,12 | 0,00 | 0,02 | 0,01 | 0,00 | 0,67 | 0,54 | 0,03 |
| **TOTAL** | **796,52** | **1.431,13** | **470,83** | **136,30** | **235,41** | **424,96** | **38,72** | **25,66** | **65,44** | **2.698,48** | **796,66** | **129,82** |

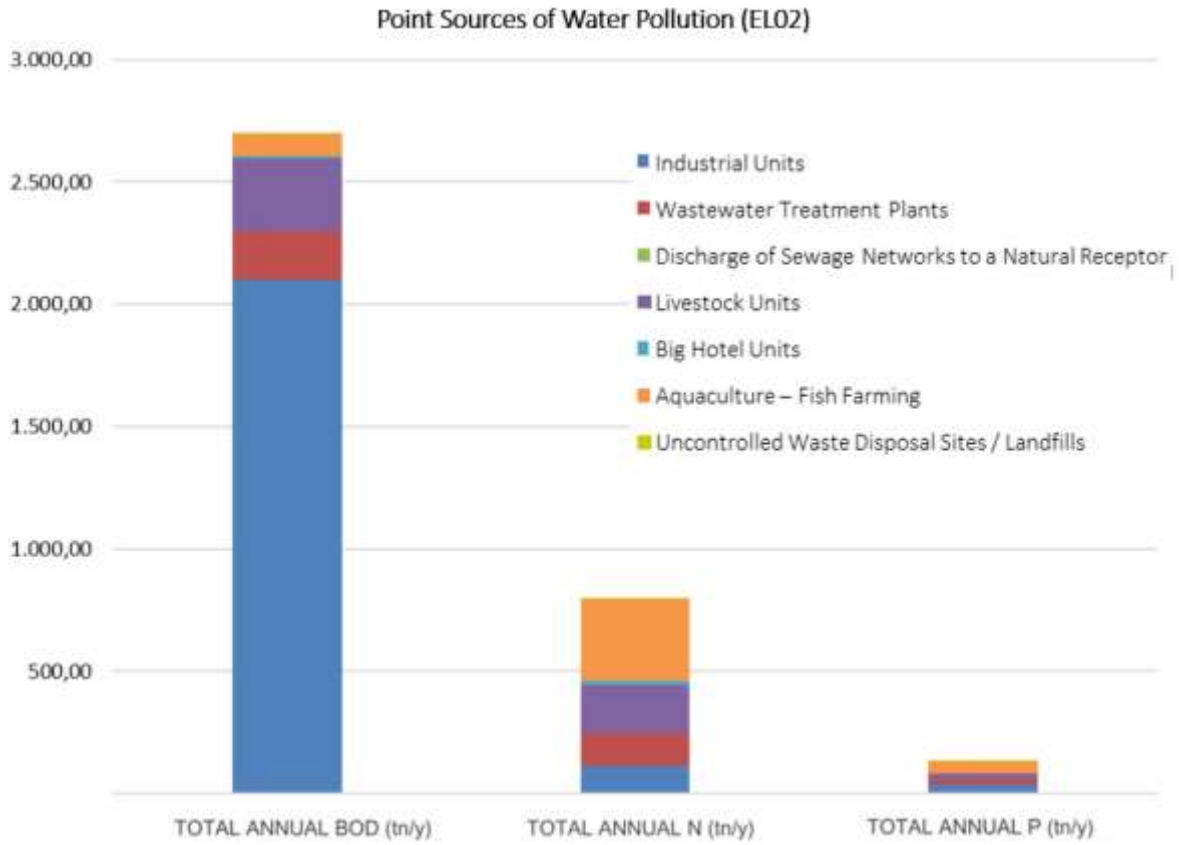



Figure 5-1. Total annual loads of BOD, N and P in the SWB and GWB produced in RBD EL02 by point sources of pollution

## 5.2 Diffuse sources of pollution

Diffuse sources of pollution include the following sources that produce conventional pollutants (BOD, N, P):

- Agricultural activities
- Animal husbandry (pastoral)
- Municipal wastewater that does not end up in WWTP
- Other diffuse sources

From the above sources of pollution, the total annual pollutant loads of BOD, N and P produced in the examined River Basin District are calculated.

Table 5-2. Total annual loads of BOD, N and P in the SWB and GWB produced by diffuse sources of pollution in the RBD EL02

| | TOTAL ANNUAL BOD (tn/y) | | | TOTAL ANNUAL N (tn/y) | | | TOTAL ANNUAL P (tn/y) | | | TOTAL ANNUAL BOD (tn/y) | TOTAL ANNUAL N (tn/y) | TOTAL ANNUAL P (tn/y) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF USE | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL02 | EL02 | EL02 |
| OTHER SOURCES | 0,00 | 0,00 | 0,00 | 158,64 | 60,14 | 38,28 | 16,56 | 5,87 | 3,98 | 0,00 | 257,06 | 26,41 |
| URBAN | 1.624,90 | 1.226,48 | 510,72 | 464,26 | 350,42 | 145,92 | 96,72 | 73,00 | 30,40 | 3.362,10 | 960,60 | 200,13 |
| AGRICULTURE | 0,00 | 0,00 | 0,00 | 233,63 | 247,64 | 33,04 | 71,39 | 88,89 | 6,02 | 0,00 | 514,31 | 166,31 |
| ANIMAL HUSBANDRY | 98,50 | 120,66 | 40,81 | 116,83 | 159,98 | 41,32 | 11,08 | 17,03 | 3,74 | 259,97 | 318,14 | 31,85 |
| **TOTAL** | **1.723,39** | **1.347,14** | **551,53** | **973,36** | **818,18** | **258,57** | **195,75** | **184,80** | **44,15** | **3.622,07** | **2.050,11** | **424,69** |

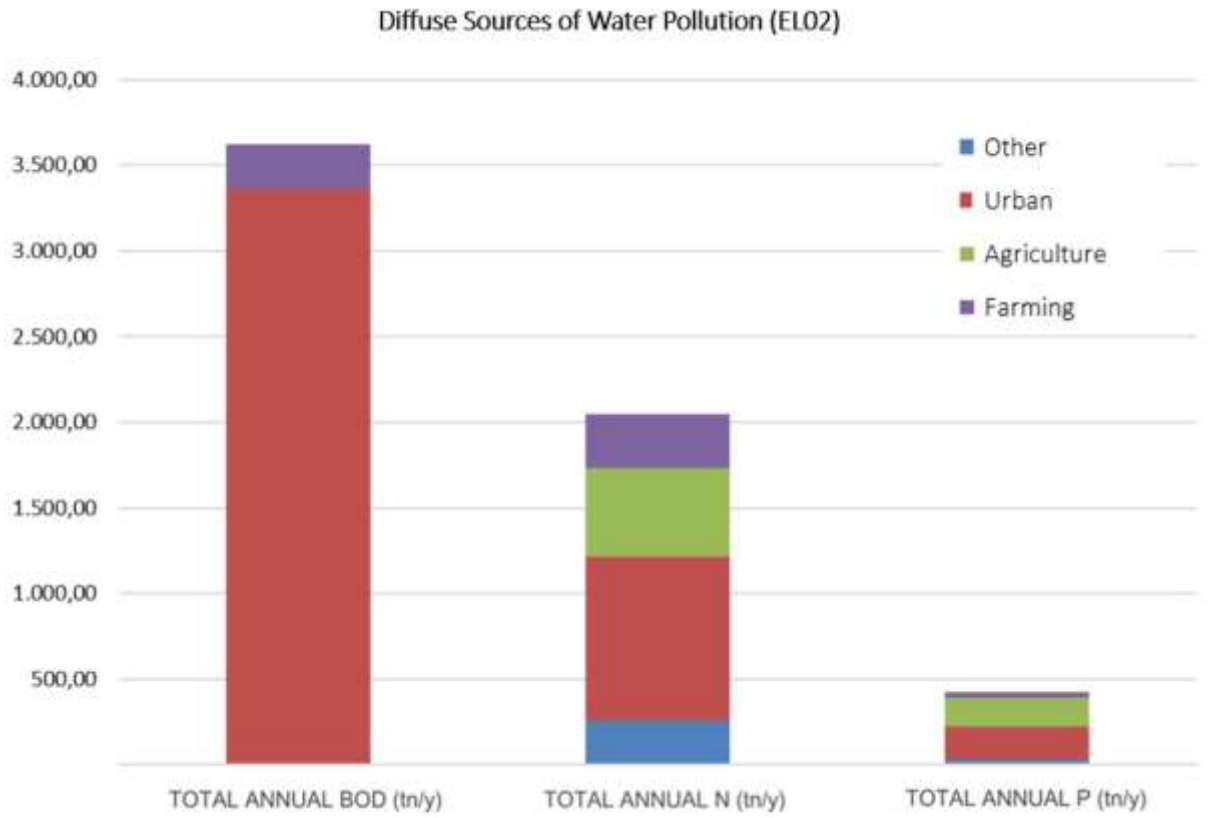



Figure 5-2. Total annual loads of BOD, N and P in the SWB and GWB produced by diffuse sources of pollution in the Water Distinct EL02

## 5.3 Hydromorphological pressures

The overall assessment of the SWB of RBD EL02 in terms of hydromorphological pressures is presented below, as well as the projects that have caused hydromorphological changes in surface water bodies, resulting in their initial characterization as Heavily Modified Water Bodies or Artificial Water Bodies.

Table 5-3 Overall assessment of hydromorphological pressures in the SWB in RBD EL02

| | WB NUMBER | PERCENTAGE % | EVALUATION OF HYDR/MO PRESSURES |
|---|---|---|---|
| WB Rivers | 12 | 17,6% | Negligible |
| | 29 | 42,6% | Tolerable |
| | 17 | 25,0% | Moderate |
| | 8 | 11,8% | Strong |
| | 2 | 2,9% | Important |
| **Total rivers** | **68** | **100,0%** | |
| WB Lake | 0 | 0,0% | Negligible |
| | 0 | 0,0% | Tolerable |
| | 1 | 100,0% | Moderate |
| | 0 | 0,0% | Strong |
| | 0 | 0,0% | Important |

| | WB NUMBER | PERCENTAGE % | EVALUATION OF HYDR/MO PRESSURES |
|---|---|---|---|
| **Total lakes** | **1** | **100,0%** | |
| WB Coastal | 12 | 63,2% | Negligible |
| | 6 | 31,6% | Tolerable |
| | 0 | 0,0% | Moderate |
| | 1 | 5,3% | Strong |
| | 0 | 0,0% | Important |
| **Total coastals** | **19** | **100,0%** | |
| WB Transitional | 2 | 40,0% | Negligible |
| | 1 | 20,0% | Tolerable |
| | 2 | 40,0% | Moderate |
| | 0 | 0,0% | Strong |
| | 0 | 0,0% | Important |
| **Total Transitionals** | **5** | **100,0%** | |

***Note**: Table data includes RBD's HMWBs. AWBs are not included.*

Table 5-4. Projects with hydromorphological changes in surface water bodies identified as HMWB (originally) or AWB in RB Streams basins of N. Peloponnese (EL0227)

| REGIONAL UNIT | PROJECT | DESIGNATED PROJECT USE | WB CODE | AREA ($km^2$) / LENGTH (km) HMWB-AWB | CHARACTERIZATION |
|---|---|---|---|---|---|
| ACHAIAS | RIVERBED ARRANGEMENT GLAFKOS R. | Hydroelectric power generation, Flood and corrosion protection, Water supply and Irrigation | EL0227R000100001H | 8,59 | HMWB |
| ACHAIAS | RIVERBED ARRANGEMENT KERYNITIS R. | Flood protection | EL0227R0011000035H | 5,2 | HMWB |
| CORINTHIA | RIVERBED ARRANGEMENT POTAMIA STREAM | Flood protection | EL0227R003700033H, EL0227R003700034H | 9,59 | HMWB |
| CORINTHIA | FENEOS ARTIFICIAL LAKE | Irrigation | EL0227L000000003A | 0,50 | AWB |
| CORINTHIA | ASOPOS ARTIFICIAL LAKE | Irrigation and Water supply | EL0227RL02900001H | 1,3 | HMWB |
| ACHAIAS | PORT OF PATRA | Navigation and Recreation | EL0227C0004H | 7,09 | HMWB |

Table 5-5. Projects with hydromorphological changes in surface water bodies identified as HMWB (originally) or AWB in RB Piros - Vergas - Pinios (EL0228)

| REGIONAL UNIT | PROJECT | DESIGNATED PROJECT USE | WB CODE | AREA ($km^2$) / LENGTH (km) HMWB-AWB | CHARACTERIZATION |
|---|---|---|---|---|---|
| HLEIAS | RIVER RELINING PINIOS RIVER DOWNSTREAM OF THE DAM | Irrigation and Water supply | EL0228R000201004H | 3,48 | HMWB |
| ACHAIAS | ASTERIOU ARTIFICIAL LAKE | Water supply | EL0228RL00404001H | 1,64 | HMWB |
| ACHAIAS | PART OF PARAPIROS STREAM RIVERBED DOWNSTREAM OF THE DAM | Irrigation and Water supply | EL0228R000404024H | 14,47 | HMWB |
| HLEIAS | PINIOS ARTIFICIAL LAKE | Irrigation and Water supply | EL0228RL00203002H | 19,85 | HMWB |

In the RB Kefalonias - Ithaca - Zakynthos (EL0245), there are no designated Heavily Modified or Artificial Water Bodies.

## 5.4 Water abstractions

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

- Water supply
- Irrigation
- Livestock water
- Industrial water

The following shows the distribution of water abstractions for the different uses within the Northern Peloponnese RBD (EL02) as well as the annual water abstractions per use and per River Basin. The total available quantities to cover water supply, irrigation, livestock and industry needs within EL02 are estimated at 484.149.690 $m^3/y$, of which the largest volume concerns irrigation (76.61%). This is followed by water supply with a percentage of 19.36%, industry with a percentage of 3.43% and finally livestock with a percentage of 0.60%.

Table 5-6. Amounts of annual water abstractions in the RBD of Northern Peloponnese (EL02)

| TYPE OF USE | ABSTRACTIONS ($m^3/y$) | DISTRIBUTION OF ANNUAL ABSTRACTIONS |
|---|---|---|
| IRRIGATION | 370.916.058 | 76,61% |
| INDUSTRY | 16.619.525 | 3,43% |
| LIVESTOCK | 2.897.483 | 0,60% |
| WATER SUPPLY | 93.716.625 | 19,36% |
| **TOTAL WD** | **484.149.690** | **100,00%** |

Table 5-7. Amounts of annual water abstractions in the Streams basins of N. Peloponnese (EL0227)

| TYPE OF USE | ABSTRACTIONS ($m^3/y$) | DISTRIBUTION OF ANNUAL ABSTRACTIONS |
|---|---|---|
| IRRIGATION | 149.321.431 | 68,9% |
| INDUSTRY | 4.233.214 | 2,0% |
| LIVESTOCK | 939.776 | 0,4% |
| WATER SUPPLY | 62.288.399 | 28,7% |
| **TOTAL WD** | **216.782.819** | **100,0%** |

Table 5-8. Amounts of annual water abstractions in the RB Piros - Vergas - Pinios (EL0228)

| TYPE OF USE | ABSTRACTIONS ($m^3/y$) | DISTRIBUTION OF ANNUAL ABSTRACTIONS |
|---|---|---|
| IRRIGATION | 215.557.920 | 86,7% |
| INDUSTRY | 11.636.370 | 4,7% |
| LIVESTOCK | 1.350.746 | 0,5% |
| WATER SUPPLY | 20.216.759 | 8,1% |
| **TOTAL WD** | **248.761.794** | **100,0%** |

Table 5-9. Amounts of annual water abstractions in the RB Kefalonia - Ithaca - Zakynthos (EL0245)

| TYPE OF USE | ABSTRACTIONS ($m^3/y$) | DISTRIBUTION OF ANNUAL ABSTRACTIONS |
|---|---|---|
| IRRIGATION | 6.036.708 | 32,4% |
| INDUSTRY | 749.941 | 4,0% |
| LIVESTOCK | 606.961 | 3,3% |
| WATER SUPPLY | 11.211.467 | 60,3% |
| **TOTAL WD** | **18.605.077** | **100,0%** |

## 5.5 Other pressures

Other pressures considered in the context of the 2nd Update of the RBMP include runoffs from mining activities (mines), desalination units, ports - marinas - navigation, artificial recharge of groundwater bodies and change in groundwater level and quantity due to underground holdings or construction of large underground works.

## 5.6 Aggregate pressure data

The total annual amounts of BOD, N and P pollutant loads per RB in the SWB and GWB from point and diffuse pollution sources and from other types of anthropogenic pressures are presented below:

Table 5-10: Total annual BOD, N and P loads to SWB and GWB from point and diffuse pollution sources in RBD EL02, by WB type and by RB

| | TOTAL ANNUAL BOD (tn/y) | | | TOTAL ANNUAL N (tn/y) | | | TOTAL ANNUAL P (tn/y) | | | TOTAL ANNUAL BOD (tn/y) | TOTAL ANNUAL N (tn/y) | TOTAL ANNUAL P (tn/y) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOURCE OF POLLUTION | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL0227 | EL0228 | EL0245 | EL02 | EL02 | EL02 |
| **TOTAL POINT** | **796,52** | **1.431,13** | **470,83** | **136,30** | **235,41** | **424,96** | **38,72** | **25,66** | **65,44** | **2.698,48** | **796,66** | **129,82** |
| SWB (POINT) | 694,31 | 1.310,88 | 396,23 | 77,57 | 159,19 | 365,82 | 30,48 | 18,42 | 60,39 | 2.401,42 | 602,56 | 109,29 |
| GWB (POINT) | 102,21 | 120,25 | 74,60 | 58,73 | 76,22 | 59,14 | 8,24 | 7,24 | 5,05 | 297,06 | 194,10 | 20,53 |
| **TOTAL DIFFUSE** | **1.723,39** | **1.347,14** | **551,53** | **973,36** | **818,18** | **258,57** | **195,75** | **184,80** | **44,15** | **3.622,07** | **2.050,11** | **424,69** |
| SWB (DIFFUSE) | 1.494,54 | 1.139,61 | 442,94 | 650,65 | 471,85 | 148,55 | 160,61 | 141,70 | 33,01 | 3.077,10 | 1.271,05 | 335,33 |
| GWB (DIFFUSE) | 228,85 | 207,53 | 108,59 | 322,71 | 346,33 | 110,02 | 35,13 | 43,09 | 11,13 | 544,97 | 779,06 | 89,36 |
| **TOTAL SOURCES** | **2.519,91** | **2.778,27** | **1.022,37** | **1.109,66** | **1.053,59** | **683,53** | **234,47** | **210,46** | **109,59** | **6.320,55** | **2.846,77** | **554,51** |

## 5.7 Impact assessment and risk assessment of non-achievement of objectives

### 5.7.1 Impact assessment on surface water bodies

In assessing the impacts and the characterization of the water bodies based on the possibility of achieving the environmental objectives of the Directive, the following are taken into consideration per water body:

- The intensity of pressures from pollution sources and abstractions: high (H), medium (M), low (L)
- The available data and results of the monitoring program
- Expert judgment, when no data are available.

Regarding the risk assessment of non-achieving the objectives, the following categories are identified: at risk (AR), probably at risk (PAR), probably not at risk (PNR), not at risk (NR)

Based on the set of criteria, the WB were ranked in relation to whether or not they are likely to achieve the environmental objectives of Directive 2000/60/EC and the summary results are presented on the following page.

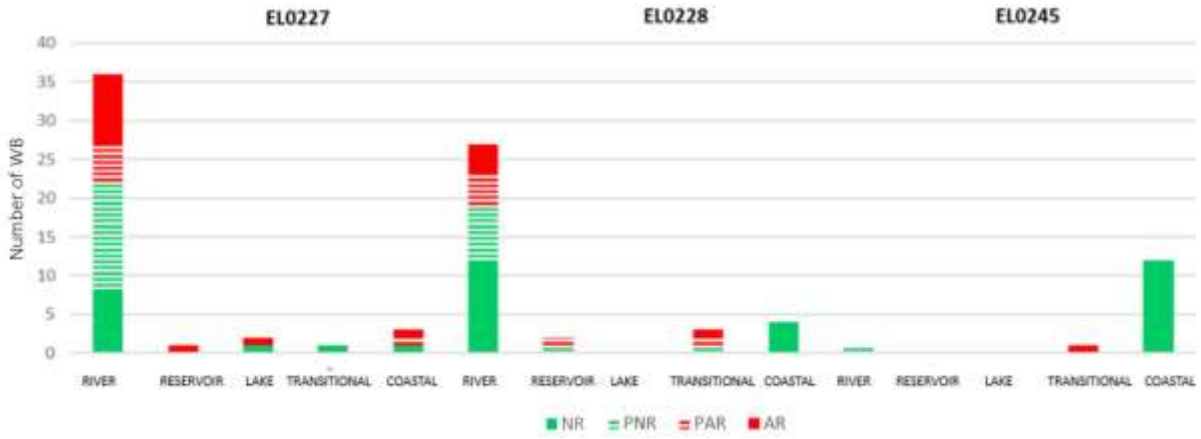



Figure 5-3. Risk assessment of failing to achieve surface water objectives in River Basins (EL0227), (EL0228) and (EL0245)

Table 5-11. Statistical data for risk assessment of failing to achieve surface water bodies objectives of the Streams basins of N. Peloponnese RB (EL0227) - Number of WB

| | Risk assessment categories | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | NR | | PNR | | PAR | | AR | | Total |
| WB Type | WB Num | WB Percentage (%) | WB Num | WB Percentage (%) | WB Num | WB Percentage (%) | WB Num | WB Percentage (%) | WB Num |
| RIVER | 8 | 22,22% | 14 | 38,89% | 5 | 13,89% | 9 | 25,00% | 36 |
| RESERVOIR | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 1 | 100,00% | 1 |
| LAKE | 1 | 50,00% | 0 | 0,00% | 0 | 0,00% | 1 | 50,00% | 2 |
| TRANSITIONAL | 1 | 100,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 1 |
| COASTAL | 1 | 33,33% | 0 | 0,00% | 1 | 33,33% | 1 | 33,33% | 3 |
| **RB TOTAL** | **11** | **25,58%** | **14** | **32,56%** | **6** | **13,95%** | **12** | **27,91%** | **43** |

Table 5-12. Statistical data for risk assessment of failing to achieve surface water bodies objectives of the Piros - Vergas - Pinios RB (EL0228) - Number of WB

| | Risk assessment categories | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | NR | | PNR | | | | NR | | PNR |
| WB Type | WB Num | WB Percentage (%) | WB Type | WB Num | WB Percentage (%) | WB Type | WB Num | WB Percentage (%) | WB Type |
| RIVER | 12 | 44,44% | 7 | 25,93% | 4 | 14,81% | 4 | 14,81% | 27 |
| RESERVOIR | 0 | 0,00% | 1 | 50,00% | 1 | 50,00% | 0 | 0,00% | 2 |
| LAKE | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 |
| TRANSITIONAL | 0 | 0,00% | 1 | 33,33% | 1 | 33,33% | 1 | 33,33% | 3 |
| COASTAL | 4 | 100,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 4 |
| **RB TOTAL** | **16** | **44,44%** | **9** | **25,00%** | **6** | **16,67%** | **5** | **13,89%** | **36** |

Table 5-13. Statistical data for risk assessment of failing to achieve surface water bodies objectives of the Kefalonia - Ithaca - Zakynthos RB (EL0245) - Number of WB

| | Risk assessment categories | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | NR | | PNR | | | | NR | | PNR |
| WB Type | WB Num | WB Percentage (%) | WB Type | WB Num | WB Percentage (%) | WB Type | WB Num | WB Percentage (%) | WB Type |
| RIVER | 0 | 0,00% | 1 | 100,00% | 0 | 0,00% | 0 | 0,00% | 1 |
| RESERVOIR | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 |
| LAKE | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 0 |
| TRANSITIONAL | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 1 | 100,00% | 1 |
| COASTAL | 12 | 100,00% | 0 | 0,00% | 0 | 0,00% | 0 | 0,00% | 12 |
| **RB TOTAL** | **12** | **85,71%** | **1** | **7,14%** | **0** | **0,00%** | **1** | **7,14%** | **14** |

### 5.7.2 Impact assessment on groundwater bodies

The following tables show the qualitative and quantitative status of the GWB in each RB of the RBD of Northern Peloponnese.

Table 5-14. Qualitative and Quantitative status of groundwater bodies in the Streams basins of N. Peloponnese RB (EL0227)

| Code | WB Name | Quantitative status | Code | Level drawdown trend [4] | Chemical status | Quality problems | Pollution trend |
|---|---|---|---|---|---|---|---|
| 1 | EL0200120 | Systima Patras- Riou | Good | No | Good | No | No |
| 2 | EL0200130 | Systima Panachaikou | Good | No | Good | No | No |
| 3 | EL0200141 | Voreias Achaias Subsystem[1] | Good | No | Good | No | - |
| 4 | EL0200142 | Voreias Achaias Subsystem[1] | Good | No | Good | Exceedance in Na, Fe, Mn | No |
| 5 | EL0200143 | Voreias Achaias Subsystem[1] | Good | No | Good | No | - |
| 6 | EL0200150 | Systima Zarouchlas | Good | No | Good | No | No |
| 7 | EL0200161 | Valtou - Klementiou Subsystem[2] | Good | - | Good | No | - |
| 8 | EL0200162 | Evrostinas - Trikalon Subsystem[2] | Good | No | Good | No | - |
| 9 | EL0200171 | Voreias Korinthias Subsystem[3] | Good | No | Bad | Exceedance in EC, Na, $NO_3$, $SO_4$, Cl, Cr, Ni (locally). | No |
| 10 | EL0200172 | Voreias Korinthias Subsystem[3] | Good | - | Bad | Exceedance in $NO_3$ (locally) | No |
| 11 | EL0200173 | Voreias Korinthias Subsystem[3] | Good | No | Bad | Exceedance in $NO_3$, $SO_4$, Cl, Fe, Mn (locally) | No |
| 12 | EL0200180 | Systima Korfiotissas | Good | - | Good | No | No |
| 13 | EL0200190 | Systima Korinthou-Kiatou | Bad | No | Bad | Exceedance in EC, Na, $NO_3$, $SO_4$, Cl, Fe, Al, (locally) | No |
| 14 | EL0200200 | Systima Arachnaiou | Good | No | Good | Exceedance in Cl, $NO_3$ (locally) | No |

| Code | WB Name | Quantitative status | Code | Level drawdown trend [4] | Chemical status | Quality problems | Pollution trend |
|---|---|---|---|---|---|---|---|
| 15 | EL0200210 | Systima Nemeas | Good | No | Good | Exceedance in $NO_3$ (locally) | No |
| 16 | EL0200220 | Systima Zireias | Good | - | Good | No | No |
| 17 | EL0200230 | Systima Feneou | Good | - | Good | No | - |
| 18 | EL0200240 | Systima Kalavryton | Good | - | Good | No | - |
| 19 | EL0200250 | Systima Voreiou Erymanthou | Good | - | Good | No | - |

***Notes:***

*[1]The Subsystems EL0200141, EL0200142 and EL0200143 belong to Systima Voreias Achaias (EL0200140).*

*[2]The Subsystems EL0200161 and EL0200162 belong to Systima Valtou-Evrostinas (EL0200160).*

*[3]The Subsystems EL0200171, EL0200172 and EL0200173 belong to Systima Voreias Korinthias (EL0200170).*

*[4] The "-" symbol, if it appears, indicates that no level drop can be ensured due to lack of data for the specific GWB.*

Table 5-15. Qualitative and Quantitative status of groundwater bodies in the Piros - Vergas - Pinios RB (EL0228)

| Code | WB Name | Quantitative status | Code | Level drawdown trend [2] | Chemical status | Quality problems | Pollution trend |
|---|---|---|---|---|---|---|---|
| 1 | EL0200060 | Systima Pineiou | Good | No | Good | Exceedances EC, Na, $NO_3$, $SO_4$, Cl, Fe, Al, (locally) | No |
| 2 | EL0200070 | Systima Kyllinis | Good | No | Good | Exceedances Cl, $NO_3$ (locally) | - |
| 3 | EL0200080 | Systima Dytikis Achaias | Good | No | Good | Exceedances $NO_3$ (locally) | No |
| 4 | EL0200091 | Subsystem p. Larissou[1] | Bad | No | Bad | Exceedances EC, Na, $NO_3$, $SO_4$, Cl | No |
| 5 | EL0200092 | Subsystem p. Larissou[1] | Bad | No | Good | No | - |
| 6 | EL0200093 | Subsystem p. Larissou[1] | Bad | No | Good | No | No |
| 7 | EL0200094 | Subsystem p. Larissou[1] | Bad | No | Good | No | No |
| 8 | EL0200100 | Systima Movris | Good | - | Good | No | No |
| 9 | EL0200110 | Systima p. Peirou | Good | No | Good | Exceedances $NO_3$ (locally)<br>Fe, Mn | No |
| 10 | EL0200260 | Systima Dytikou Erymanthou | Good | - | Good | No | - |

***Note:***

*[1]The Subsystems EL0200091, EL0200092, EL0200093 and EL0200094 belong to Systima p. Larissou (EL0200090).*

*[2]The "-" symbol, if it appears, indicates that no level drop can be ensured due to lack of data for the specific GWB.*

Table 5-16. Qualitative and Quantitative status of groundwater bodies in the Kefalonia - Ithaca - Zakynthos RB (EL0245)

| Code | WB Name | Quantitative status | Code | Level drawdown trend [1] | Chemical status | Quality problems | Pollution trend |
|---|---|---|---|---|---|---|---|
| 1 | EL0200010 | Systima Kefalonias | Good | No | Good | Exceedances EC, Na, Cl, $SO_4$ (locally) | No |
| 2 | EL0200020 | Systima Lixouriou - Skalas | Good | No | Good | Exceedances Cl (locally) | No |
| 3 | EL0200030 | Systima Ithakis | Good | - | Good | No | - |
| 4 | EL0200040 | Systima Vrachiona | Good | No | Good | Exceedances EC, Na, Cl, Mn, $SO_4$ | No |
| 5 | EL0200050 | Systima Zakynthou | Bad | - | Bad | Exceedances EC, Na, Cl, $SO_4$ $NO_3$ (locally). | No |

***Note:***

*[1] The "-" symbol, if it appears, indicates that no level drop can be ensured due to lack of data for the specific GWB.*

# 6 ECONOMIC ANALYSIS OF WATER USE

The economic analysis of water uses is carried out in accordance with the current legislation and the specific directions of the General Directorate for Water.

## 6.1 The Financial Cost of water services and its recovery in the Water District

### 6.1.1 Recovery of financial costs of water supply, drainage and sewage treatment services

The recovery rate of the financial costs in the water supply service, wastewater drainage and sewerage treatment, per River Basin (RB), for the Providers of the RBD who provided complete data, is calculated in the table below, after taking into account private boreholes with a recovery rate of 100%.

Table 6-1. Water supply, wastewater drainage and sewerage treatment service: Recovery % of financial costs per River Basin (RB) – Providers and private boreholes, 2020, (water quantities in thousand $m^3$)

| RB | PROVIDERS WITH FULL DATA AVAILABLE PER RB | | PRIVATE DRILLING | | PROVIDERS WITH FULL DATA AVAILABLE PER RB AND PRIVATE DRILLING | |
|---|---|---|---|---|---|---|
| | Consumption ($10^3$ $m^3$) | % of financial cost recovery | Consumption ($10^3$ $m^3$) | % of financial cost recovery | Consumption ($10^3$ $m^3$) | % of financial cost recovery |
| RB EL0227 Streams basins of N. Peloponnese | 45.056,20 | 112,71% | 2.618,63 | 100,00% | 47.674,83 | 112,01% |
| RB EL0228 Piros - Vergas - Pinios | 2.622,18 | 73,14% | 9.304,24 | 100,00% | 11.926,42 | 94,09% |
| RB EL0245 Kefalonia - Ithaca - Zakynthos | 6.950,33 | 85,64% | 386,34 | 100,00% | 7.336,67 | 86,40% |
| **TOTAL RBD 02** | **54.628,72** | **105,07%** | **12.309,21** | **100,00%** | **66.937,92** | **104,14%** |

The financial cost recovery rate of the RBD Providers, who provided complete data including private boreholes 104.14% (RB EL0227: 112.01%, RB EL0228: 94.09% and RB EL0245: 86.40%).

The recovery rate in the Northern Peloponnese RBD (EL02) for all Providers[2], including private boreholes is estimated at 104.38% (RB EL0227: 109.06%, RB EL0228: 104.99% andRB EL0245: 86.40% ).

### 6.1.2 Recovery of financial costs of water supply service for agricultural use

The financial cost recovery rate in the water supply service for agricultural use, per River Basin (RB), of the RBD Providers who provided complete data, is calculated in the table below, after including the private boreholes with a recovery rate 100%.

[2] After estimates by the experts for the missing elements.

Table 6-2. Agricultural water service: Recovery (%) of financial costs by River Basin (RB) – providers and private boreholes, 2020 (water quantities in $10^3$ $m^3$)

| RB | PROVIDERS WITH FULL DATA AVAILABLE PER RB | | PRIVATE BOREHOLES | | PROVIDERS WITH FULL DATA AVAILABLE PER RB AND PRIVATE BOREHOLES | |
|---|---|---|---|---|---|---|
| | Consumption ($10^3$ $m^3$) | % of financial cost recovery | Consumption ($10^3$ $m^3$) | Consumption ($10^3$ $m^3$) | % of financial cost recovery | Consumption ($10^3$ $m^3$) |
| RB EL0227 Streams basins of N. Peloponnese | 13.991,17 | 108,54% | 72.319,97 | 100,00% | 86.311,15 | 101,38% |
| RB EL0228 Piros - Vergas - Pinios | 51.405,72 | 102,58% | 93.619,22 | 100,00% | 145.024,94 | 100,92% |
| RB EL0245 Kefalonia - Ithaca - Zakynthos | | | 6.305,07 | 100,00% | 6.305,07 | 100,00% |
| **TOTAL EL02** | **65.396,89** | **103,64%** | **172.244,27** | **100,00%** | **237.641,16** | **101,00%** |

The percentage of recovery of the financial cost of the Water Providers, for agricultural use, who provided complete data including private boreholes is 101,00% (RB EL0227 Streams basins of N. Peloponnese: 101,38%, RB EL0228 Piros - Vergas - Pinios: 100,92% and RB EL0245 Kefalonia - Ithaca - Zakynthos: 100,00%).

The financial cost recovery rate for all Providers[3], for Agricultural use, including private boreholes in the RBD is 101,58% (RB EL0227 Streams basins of N. Peloponnese: 101,25%, RB EL0228 Piros - Vergas - Pinios: 101,86% and RB EL0245 Kefalonia - Ithaca - Zakynthos: 100%).

## 6.2 Environmental cost and resource cost

### 6.2.1 Environmental cost and resource cost recovery for the year 2020

For the River Basin District of Northern Peloponnese:

- In the Streams basins of N. Peloponnese RB (EL0227) for the environmental fee, the Decision of the Water Directorate of Western Greece for the year 2020 was issued with reference number oik. 245188/30.10.2019.
- In the Piros - Vergas - Pinios RB (EL0228) for the Environmental Fee, the Decision of the Water Directorate of Western Greece for the year 2020 was issued with reference number oik. 245196/30.10.2019.
- In the RB Kefalonia - Ithaca - Zakynthos (EL0245) for the Environmental Fee, the Decision of the Water Directorate of Ionian Islands for the year 2020 was issued with reference number oik. 3741/09.01.2020.

Environmental and resource cost recovery is assumed to be 100%.

### 6.2.2 Environmental cost and resource cost, 2024-2027

The results of the analysis for the environmental cost and resource cost in RBD EL02 per RB and water use are presented below.

[3] After estimates by the experts for the missing data

Table 6-3. Environmental cost and Resource cost in RBD EL02 (€), 2024-2027

| RB | Environmental cost | | Resource cost | |
|---|---|---|---|---|
| | Annual (€) | Unit (€/m³) | Annual (€) | Unit (€/m³) |
| Streams basins of N. Peloponnese (EL0227) | 76.250 | 0,00046 | 25.000 | 0,00015 |
| Piros - Vergas - Pinios (EL0228) | 52.500 | 0,00028 | 32.500 | 0,00017 |
| Kefalonia - Ithaca - Zakynthos(EL0245) | 6.250 | 0,00046 | 6.250 | 0,00046 |
| **Total RBD EL02** | **135.000** | **0,00036** | **63.750** | **0,00017** |

The distribution of environmental cost and resource cost per water use in RBD EL02 is shown in the table below.

Table 6-4. Distribution of environmental cost and resource cost per water use per RB of the RBD EL02 (€), 2024-2027

| | Environmental cost | | | Resource cost | | |
|---|---|---|---|---|---|---|
| | Water supply (domestic and other uses) | Agricultural use (agriculture-livestock) | Industry | Water supply (domestic and other uses) | Agricultural use (agriculture-livestock) | Industry |
| **RB Streams basins of N. Peloponnese (EL0227)** | | | | | | |
| Usage participation (%) in the total annual cost | 63,6% | 36,4% | 0,0% | 20,7% | 79,3% | 0,0% |
| Annual Cost per use (€) | 48.486 | 27.764 | 0 | 5.169 | 19.831 | 0 |
| Annual Unit Cost (€/$m^3$) | 0,00144 | 0,00021 | 0,00000 | 0,00015 | 0,00015 | 0,00000 |
| **RB Piros - Vergas - Pinios (EL0228)** | | | | | | |
| Usage participation (%) in the total annual cost | 0,0% | 99,1% | 0,9% | 0,0% | 100,0% | 0,0% |
| Annual Cost per use (€) | 0 | 52.047 | 453 | 0 | 32.500 | 0 |
| Annual Unit Cost (€/$m^3$) | 0,00000 | 0,00030 | 0,00014 | 0,00000 | 0,00019 | 0,00000 |
| **RB Kefalonia - Ithaca - Zakynthos(EL0245)** | | | | | | |
| Usage participation (%) in the total annual cost | 51,9% | 48,1% | 0,0% | 51,9% | 48,1% | 0,0% |
| Annual Cost per use (€) | 3.243 | 3.007 | 0 | 3.243 | 3.007 | 0 |
| Annual Unit Cost (€/$m^3$) | 0,00048 | 0,00048 | 0,00000 | 0,00048 | 0,00048 | 0,00000 |
| **Total (EL02)** | | | | | | |
| Usage participation (%) in the total annual cost | 38,3% | 61,3% | 0,3% | 13,2% | 86,8% | 0,0% |
| Annual Cost per use (€) | 51.729 | 82.817 | 453 | 8.412 | 55.338 | 0 |
| Annual Unit Cost (€/$m^3$) | 0,00095 | 0,00027 | 0,00006 | 0,00016 | 0,00018 | 0,00000 |

# 7 ENVIRONMENTAL OBJECTIVES – EXEMPTIONS

The following tables summarize the status objectives for surface and underground WB. The objectives set for the WB take into account the assessment of the WD status, the efficiency of the proposed Program of Measures and the possibility given by the Directive for deviations under specific conditions.

## 7.1 Objectives for surface water bodies

The table below summarizes the goals set for the 93 SWB of the RBD up to 2027 and beyond:

- For 55 NAT the objective is no deterioration of Good ecological and chemical status, for 1 AWB and 7 HMWB the goal is to maintain Good Ecological Potential (GEP) and good chemical status
- For 8 NAT the objective is to achieve good ecological and chemical status
- For 17 NAT the objective is achievement of good ecological status and no deterioration in good chemical status
- For 2 NAT the objective is no deterioration of good ecological status and achievement of good chemical status
- For 3 HMWB the objective is to achieve Good Ecological Potential (GEP), provided that appropriate mitigation measures are implemented
- For 2 HMWB the objective is no deterioration of good chemical status
- For 1 HMWB the objective is to achieve good chemical status

A total of 12 of the above SWB are subject to Article 4.4 for deadline extension and 15 to Article 4.5 for less strict environmental objectives, and the conditions under which Independent Objectives will be set are defined.

Table 7-1. Surface water bodies objectives up to 2027

| Objectives | Num of Surface WB |
|---|---|
| No deterioration of Good ecological status/ GEP | 65 |
| No deterioration of Good chemical status | 82 |
| Achievement of Good ecological status/ GEP | 28 |
| Achievement of Good chemical status | 11 |
| Subject to article 4.4 | 12 |
| Subject to Article 4.5 | 15 |
| Subject to article 4.6 | 0 |
| Subject to article 4.7 | 0 |

## 7.2 Objectives for groundwater bodies

The table below summarizes the objectives set for the GWB of the RBD:

- For 28 GWB the objective is no deterioration of Good quantitative status
- For 6 GWB the objective is achievement of Good quantitative status whenever the natural hydrogeological conditions allow after 2027
- For 28 GWB the objective is no deterioration of Good chemical status
- For 6 GWB the objective is achievement of Good chemical status whenever the natural hydrogeological conditions allow after2027.

Table 7-2. Groundwater bodies objectives after 2027

| Objective | Num of Ground WB |
|---|---|
| No deterioration of Good quantitative status | 28 |
| No deterioration of Good chemical status | 28 |
| Achievement of Good quantitative status | 6 |
| Achievement of Good qualitative status | 6 |
| Subject to article 4.4 | 9 |
| Subject to Article 4.5 | 0 |
| Subject to article 4.6 | 0 |
| Subject to article 4.7 | 0 |

## 7.3 Exemptions

The following tables summarize the exemptions for the Northern Peloponnese River Basin District (EL02).

Table 7-3. Summary of exemptions of Article 4.4 (deadline extension) for the Northern Peloponnese RBD (EL02)

| Kind of Exemption | Reasons of Exemption | Exemption | | Num of WB |
|---|---|---|---|---|
| | | Category | Subcategory | |
| Ecological Status of SWB | Technical Feasibility | Article 4.4 / Deadline Extension | Solving the problem requires more time than is available | 10 |
| | | | There is no information about the cause of the problem and therefore the solution cannot be detected | 1 |
| Chemical Status of SWB | Technical Feasibility | Article 4.4 / Deadline Extension | Solving the problem requires more time than is available | 5 |
| Quantitative status of GWB | Natural Conditions | Article 4.4 / Deadline Extension | Natural hydrogeological conditions | 6 |
| Chemical Status of GWB | Natural Conditions | Article 4.4 / Deadline Extension | Natural hydrogeological conditions | 6 |

Table 7-4. Exemptions of the Article 4.5 (less strict objectives) for the Northern Peloponnese RBD (EL02)

| Kind of Exemption | Reasons of Exemption | Exemption | | Num of SWB |
|---|---|---|---|---|
| | | Category | Subcategory | |
| Ecological Status of SWB | Technical Feasibility | Article 4.5 / Less strict objectives | Solving the problem requires more time than is available | 9 |
| | | | There is no information about the cause of the problem and therefore the solution cannot be detected | 5 |
| Chemical Status of SWB | Technical Feasibility | Article 4.5 / Less strict objectives | Solving the problem requires more time than is available | 4 |
| | | | There is no information about the cause of the problem and therefore the solution cannot be detected | 1 |

# 8 PROGRAM OF MEASURES

The program of measures is part of the RBMP, constitutes the "mechanism" for achieving the environmental objectives set in it and aims:

- in the prevention of deterioration, the improvement and the remediation of surface water bodies, the achievement of the objective of Good ecological and chemical status thereof, and the mitigation of pollution due to discharge and emission of hazardous substances
- to protect, improve and restore the status of groundwater bodies, to prevent their pollution and deterioration with the aim of balancing abstractions and discharges
- in the conservation of protected areas.

The measures are divided into Basic and Supplementary.

The Basic Measures, according to paragraph 3 of Article 11 of the Directive, are the minimum requirements that must be met and include:

- Measures for the implementation of Community 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 are related to the horizontal implementation of actions in groups, usually, of water bodies with the aim of achieving or maintaining their Good status.

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

## 8.1 Implementation progress of the program of measures of the 1st RBMP Update

The program of measures of the 1st Update of the RBMP for the River basin District of Northern Peloponnese (EL02) included 10 Basic Measures of Group I, 36 Basic Measures of Group II and 19 Supplementary Measures.

The following tables give the number of Basic (Group II) and Supplementary Measures per measure category, as defined in the 1st Update of the RBMP.

**Table 8-1. Number of Basic Measures (Group II) of 1st RBMP Update for the Water River Basin of Northern Peloponnese (EL02)**

| BASIC MEASURES CATEGORY (GROUP II) | MEASURES NO |
|---|---|
| Measures to implement the cost recovery principle of Water Services (Article 9) | 4 |
| Measures to promote the efficient and sustainable use of water so as to not jeopardize the achievement of the objectives of the Directive (Article 4) | 8 |
| Measures for the protection of waters intended for human consumption (Article 7) | 4 |
| Control measures for surface and groundwater abstraction and surface water storage | 2 |
| Measures to control and authorize the artificial recharge of GWB | 2 |
| Measures for point source pollution | 4 |
| Measures for point & diffuse source pollution | 1 |
| Measures for diffuse source pollution | 3 |
| Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | 6 |
| Measures for priority substances and other pollutants | 2 |

Table 8-2. Number of Supplementary Measures (Group II) of the 1st RBMP Update for the Water River Basin of Northern Peloponnese (EL02)

| SUPPLEMENTARY MEASURES CATEGORY | MEASURES NO |
|---|---|
| Administrative Measures | 4 |
| Emissions controls | 5 |
| Abstraction control | 11 |
| Efficiency and reuse measures | 2 |
| Restoration projects | 1 |
| Artificial recharge of GWB | 1 |
| Educational measures | 3 |
| Research, development and demonstration projects | 4 |
| Other measures | 1 |

The progress of implementing the measures of the 1st Update of the RBMP is directly affected by:

- The time available from the approval of the 1st RBMP Update to today, approximately 5 years, which is relatively short for the full implementation of certain actions that require significant maturation time.
- The economic conditions that prevailed in the country during this period, which led to limited rates of allocation of the necessary funds for the measures' implementation.
- The available resources (human and financial) of the competent bodies for the measures' implementation.

The following were recorded as the main problems regarding the implementation of the Program of Basic and Supplementary measures:

- Financing problems
- Administrative difficulties
- Problems related to the prioritization of measures, as well as the role of implementing bodies.

The course of implementation of the measures of the 1st Update of the RBMP is summarized in the tables below.

Table 8-3. Completion stage of Basic Protection Measures (Group I)

| Directive | Planned actions | Implementing Bodies | Implementation status |
|---|---|---|---|
| **Bathing water Directive (2006/7/EC)** | • **BO11:** Continue to monitor the quality of bathing water in accordance with Directive 2006/7/EC. | General Directorate for Water, Water Directorate of the Decentralized Administration | Under implementation |
| | • **BO12:** Updating the Greek Bathing Water Profiles Registry | | |
| **Habitats Directive (92/43/EEC)**<br>**Birds Directive (2009/147/ EC)** | • **BO21:** Setting /Approval of Management Plans for protected areas of Natura 2000 network related with water management issues. | Ministry of Environment and Energy, Protected Areas Management Bodies | To be implemented |
| | • **BO22:** Monitoring/Assessment of the conservation status of habitats and species directly depending on water in Natura 2000 areas. | | |

| Directive | Planned actions | Implementing Bodies | Implementation status |
|---|---|---|---|
| Drinking water (2020/2184/EC) | • **BO31:** Monitoring of the implementation of the Directive | Ministry of Health | Under implementation |
| Environmental Impact Assessment Directives (Directives 2011/92/EC, 2014/52/EC) | • **BO41**: Amendment of the Ministerial Decision 170225/27.01.2014 (Specifications for the contents of environmental permitting dossiers for projects and activities of A Category) so that for certain categories of projects, which should be determined beforehand, the following are made mandatory:<br>1. Pollutant emissions by category,<br>2. Calculation of pollution impacts on the WB defined in the Management Plans and<br>3. Comparison of these concentrations with the Environmental Quality Standards.<br>4. Preparation of a monitoring program and notification of results to the relevant Water Directorate. | Ministry of Environment and Energy | Under implementation |
| Industrial Emissions Directive IED 2010/75/EC) | • **BO51:** Keeping registration and records of installations that are in line with the provisions of the Directive | Decentralized Administration | To be implemented |
| Nitrates Directive (91/676/EC) | • **BO61:** Implementation of the Action Plans, established on the basis of the study on the drafting of Action Plans in all the Vulnerable Zones of the Country, and which have been institutionalized by the Ministry of Rural Development and Food. | Ministry of Rural Development and Food | Under implementation |
| | • **BO62:** Systematic monitoring of nitrate levels in WBs that are or may be subject to nitrification. | General Directorate for Water, Ministry of Rural Development and Food | Under implementation |
| Plant Protection Products (Directive 2009/128/EC, Regulation (EU) No. 1107/2009, Regulation (EU) No. 652/2014) | • **BO71:** Rational use of plant protection products | Ministry of Rural Development and Food | Under implementation |
| Major accidents (Seveso) Directive (2012/18/EC) | • **BO81:** Keeping registration and records of installations that are in line with the provisions of the Directive. | Decentralized Administration | To be implemented |
| Sewage sludge Directive (86/278/EEC) | • **BO91:** 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 | Ministry of Environment and Energy | To be implemented |

| Directive | Planned actions | Implementing Bodies | Implementation status |
|---|---|---|---|
| | Ministerial Decision 80568/4225/1991 and promotion of actions related to the safe disposal of treated sludge. | | |
| Urban Wastewater Treatment (Directives 91/271/EEC and 98/15/EC, Regulation (EU) No. 741/2020) | • **BO101:** Completion of sewerage and wastewater treatment projects of the settlements that fall under the provisions of the Directive | Region, MEWSS, Municipalities | Under implementation |
| | • **BO102:** Strengthening actions to control the effective operation of existing wastewater treatment and drainage projects. | Region | Under implementation |

Table 8-4. Summary table of progress of completion of Basic and Supplementary Measures programs (1st Update of the RBMP) in EL02

| Basic Measures | | | |
|---|---|---|---|
| Not implemented | To be implemented | Under Implementation | Total |
| 12 | 4 | 17 + 3 | **36** |
| **Supplementary Measures** | | | |
| Not implemented | To be implemented | Under Implementation | Total |
| 21 | 0 | 11 | **32** |

Table 8-5. Number of Basic and Supplementary Measures (1st Update of the RBMP) that have been completed by measure category in EL02

| Measure Category | EL02 |
|---|---|
| Reconstitution and restoration of wetland areas | |
| Administrative measures | 2 |
| Educational measures | |
| Pumping control | |
| Emissions control | 3 |
| Abstractions control | 5 |
| Research, development and demonstration projects | |
| Other Measures | |
| Efficiency and reuse measures | |
| Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | 2 |
| Measures to implement the cost recovery principle of Water Services (Article 9) | 2 |
| Measures for the protection of waters intended for human consumption (Article 7) | 3 |
| Measures to promote the efficient and sustainable use of water so as to not jeopardize the achievement of the objectives of the Directive (Article 4) | 4 |
| Measures for diffuse source pollution | 2 |
| Measures for priority substances and other pollutants | 1 |
| Measures for point and diffuse source pollution | |
| Measures for point source pollution | 4 |
| Measures to control and authorize the artificial recharge of GWB | 1 |
| Demand management measures | |
| Control measures for surface and groundwater abstraction and surface water storage | 2 |
| **TOTAL** | **31** |

## 8.2 Program of basic and supplementary of the 2nd Update of the RBMP

### 8.2.1 Actions implementing EC Directives (Group I Basic Measures)

The planned actions for the implementation of EC Directives Annex VI of Directive 2000/60/EC (as amended and in force) into National Law are presented in the following table.

| DIRECTIVE | INCORPORATION IN NATIONAL LAW |
|---|---|
| Bathing water Directive (2006/7/EC) | JMD 8600/416/E103/23.02.2009 (Government Gazette 356/B/2009) regarding the "quality and measures of bathing water management, in compliance with the provisions of Directive 2006/7/EC "regarding the management of the quality of bathing waters and the repeal of Directive 76/160/EEC", as amended by article 18 of Government Decree 145116/8.3.2011 (Government Gazette B' 354/8.3.2011) "Determining measures, conditions and procedures for the reuse of treated liquid waste and other provisions". |
| Habitats Directive (92/43/EEC)<br>Birds Directive (2009/147/EC) | JMD 33318/3028/11.12.1998 (Government Gazette B' 1289) "determining measures and procedures for the conservation of natural habitats (habitats) as well as wild fauna and flora" and its amendment JMD 14849/853/E103/11.04 .2008 (Government Gazette B' 645) in compliance with the provisions of Directive 92/43/EEC "on the conservation of natural habitats as well as wild fauna and flora".<br>JMD 37338/1807/E103/01.09.2010 (Government Gazette B' 1495) "Definition of measures and procedures for the conservation of wild poultry and their habitats, in compliance with the provisions of Directive 79/409/EEC "On conservation of wild birds", of the European Council of April 2, 1979, as codified by Directive 2009/147/EC" and its amendment JMD 8353/276/E103/23.02.2012 (Government Gazette B' 415).<br>Law 3937/31.03.2011 (Government Gazette A' 60) "Conservation of Biodiversity and other provisions"<br>JMD 50743/11.12.2017 (Government Gazette B' 4432) "Update of the national list of areas of the European Ecological Network Natura 2000"<br>Law 4685/07.05.2020 (Government Gazette A' 92) "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", as amended by Law 4951/04.07.2022 (Government Gazette A' 129), Law 4964/30.07.2022 (Government Gazette A' 150), Law 5037/28.03.2023 (Government Gazette A' 58) and Law 5069/28.11.2023 (Government Gazette A' 193). |
| Drinking water (Directive 2020/2184/EC) | JMD No. D1 (d)/GP 27829/15.05.2023 (Government Gazette B' 3525) "Quality of water for human consumption in compliance with the provisions of Directive (EU) 2020/2184 of the European Parliament and of the Council of 16th December 2020 (L435/1, 23.12.2020)'. |
| Environmental Impact Assessment Directives (Directives 85/337/EEC, 2011/92/EU, 2014/52/EU) | Law 4014/21.09.2011 (Government Gazette A' 209) "Environmental licensing of projects and activities, regulation of arbitrary in connection with the creation of an environmental balance and other provisions of the competence of the Ministry of the Environment" as amended and in force.<br>MD 5688/21.03.2018 (Government Gazette B' 988) "Amendment of the appendices of Law 4014/21.09.2011 (Government Gazette 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 the Council of April 16, 2014.<br>L. 4936/27.05.2022 (Government Gazette A' 105) "National Climate Law - Transition to climate neutrality and adaptation to climate change, urgent provisions to address the energy crisis and protect the environment". |

| DIRECTIVE | INCORPORATION IN NATIONAL LAW |
|---|---|
| Pollution Prevention - Control (Directives 96/61/EC, 2008/1/EC, 2010/75/EC) | MD 36060/1155/E.103/14.06.2013 (Government Gazette B' 1450) "Definition of a framework of rules, measures and procedures for the comprehensive prevention and control of environmental pollution from industrial activities, in compliance with the provisions of the 2010 Directive 2010/75/EC "on industrial emissions (integrated pollution prevention and control)" of the European Parliament and of the Council of 24th November 2010" |
| Protection from nitrate pollution (Directive 91/676/EEC) | JMD 16190/1335/19.05.1997 (Government Gazette B' 519) "Measures and conditions for the protection of waters from nitrate pollution of agricultural origin"<br>MD co. 19652/1906/05.08.1999 (Government Gazette B' 1575) "Determination 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 No. 16190/1335 /1997 joint ministerial decision "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 MD 20419/2522/18.09.2001 (Government Gazette B' 1212), MD 24838/1400/E103/19.06.2008 (Government Gazette B' 1132), MD 106253/24.11.2010 (Government Gazette B' 1843), MD 190126/23.04.2013 (Government Gazette B' 983), MD 147070/02.12.2014 (Government Gazette B' 3224) and is valid.<br>JMD IPEN/38552/265/03.05.2019 (Government Gazette B' 1496) "Action Program for areas that have been characterized as vulnerable zones from nitrate pollution of agricultural origin in accordance with article 2 of co. 19652/1906/05.08.1999 joint ministerial decision (Government Gazette B' 1575), as applicable, in compliance with Directive 91/676/EEC "on the protection of waters from nitrate pollution of agricultural origin" of the Council of December 12, 1991 of the European Communities", as amended and in effect.<br>MD 1848/278812/20.10.2021 (Government Gazette B' 4855) "Code of Good Agricultural Practice for the Protection of Waters from Nitrate Pollution of Agricultural Origin" (article 10 paragraph 1) |
| Plant Protection Products (Directive 2009/128/EC, as amended by 2019/782/EC, Regulation (EU) No. 1107/2009, Regulation (EU) No. 652/2014) | Law 4036/27.01.2012 (Government Gazette A' 8) "Availability of agricultural medicines on the market, their rational use and related provisions" as amended and in force.<br>Law 4625/31.08.2019 (Government Gazette A' 139) "Regulations of the Ministry of Infrastructure and Transport and other urgent provisions" [Article 19 includes the amendment of Annex E of Law 4036/27.01.2012 (Government Gazette A' 8) , in compliance with Directive (EC) 2019/782 (Articles 1 and 2 of Directive 2019/782/EC)] |
| Major accidents (Seveso) Directive (2012/18/EC) | JMD 172058/17.02.2016 (Government Gazette B' 354) "Definition of rules, measures and conditions for dealing with risks from large-scale accidents in facilities or units, due to the existence of dangerous substances, in compliance with the provisions of Directive 2012/18/EC "to address the risks of major accidents involving dangerous substances and to amend and subsequently repeal Council Directive 96/82/EC" of the European Parliament and of the Council of 4 July 2012. Replacement of No. 12044 /613/19.03.2007 (Government Gazette B' 376), as corrected (Government Gazette B' 2259)" |
| Sewage sludge (Directives 86/278/EEC, 2018/853/EC, Regulation 2019/1010/EC) | JMD MEE/DDA/41828/630/21.04.2023 (Government Gazette B' 2692) "Measures, conditions and procedures for the use of treated sludge in agriculture and soil restoration - Compliance with the provisions of Directive 86/278/EEC of the Council of 12 June 1986 "on the protection of the environment and in particular the soil when using sewage treatment sludge in agriculture", as amended by Regulation (EC) 2019/1010 of the European Parliament and of the Council of 5 June 2019 and replacement of under no. 80568/4225/07.08.1991 (B' 641) of joint ministerial decision". |

| DIRECTIVE | INCORPORATION IN NATIONAL LAW |
|---|---|
| Urban Wastewater Treatment (Directives 91/271/EEC and 98/15/EC, Regulation (EU) No. 741/2020) | JMD 5673/400/05.03.1997 (Government Gazette B' 192) "Measures and conditions for the treatment of urban wastewater" and its amending decisions MD 19661/1982/02.08.1999 (Government Gazette B' 1811), MD 48392/939 /28.3.2002 (Government Gazette B' 405) and JMD MEE/136843/31.12.2022 (Government Gazette B' 7215) |

The planned actions for the implementation of the European and National Legislation for water protection are presented in the following Table.

Table 8-6. Actions in implementation of EC Directives

| DIRECTIVE | PLANNED ACTIONS | IMPLEMENTING BODIES |
|---|---|---|
| Bathing water Directive (2006/7/EC) | • **BO11:** Continue to monitor the quality of bathing water in accordance with Directive 2006/7/EC. | General Directorate for Water, Directorate of Water of the Decentralized Administration |
| | • **BO11:** Continue to monitor the quality of bathing water in accordance with Directive 2006/7/EC. | |
| Habitats Directive (92/43/EEC) Birds Directive (2009/147/EC) | • **BO21:** Setting /Approval of Management Plans for protected areas of Natura 2000 network related with water management issues. | Ministry of Environment and Energy, Protected Areas Management Bodies |
| | • **BO22:** Monitoring/Assessment of the conservation status of habitats and species directly depending on water in Natura 2000 areas. | |
| Drinking water (2020/2184/EC) | • **BO31:** Monitoring of the implementation of the Directive | Ministry of Health |
| Environmental Impact Assessment Directives (Directives 2011/92/EC, 2014/52/EC) | • **BO41**: Amendment of the Ministerial Decision 170225/27.01.2014 (Specifications for the contents of environmental permitting dossiers for projects and activities of A Category) so that for certain categories of projects, which should be determined beforehand, the following are made mandatory:<br>1. Pollutant emissions by category,<br>2. Calculation of pollution impacts on the WB defined in the Management Plans and<br>3. Comparison of these concentrations with the Environmental Quality Standards.<br>4. Preparation of a monitoring program and notification of results to the relevant Water Directorate. | Ministry of Environment and Energy |
| Industrial Emissions Directive IED 2010/75/EC) | • **BO51:** Keeping registration and records of installations that are in line with the provisions of the Directive | Decentralized Administration |
| Nitrates Directive (91/676/EC) | • **BO61:** Implementation of the Action Plans, established on the basis of the study on the drafting of Action Plans in all the Vulnerable Zones of the Country, and which have been institutionalized by the Ministry of Rural Development and Food. | Ministry of Rural Development and Food |
| | • **BO62:** Systematic monitoring of nitrate levels in WBs that are or may be subject to nitrification. | General Directorate for Water, Ministry of Rural Development and Food |
| Plant Protection Products (Directive 2009/128/EC, Regulation (EU) No. 1107/2009, Regulation (EU) No. 652/2014) | • **BO71:** Rational use of plant protection products | Ministry of Rural Development and Food |

| DIRECTIVE | PLANNED ACTIONS | IMPLEMENTING BODIES |
|---|---|---|
| Major accidents (Seveso) Directive (2012/18/EC) | • **BO81:** Keeping registration and records of installations that are in line with the provisions of the Directive. | Decentralized Administration |
| Sewage sludge Directive (86/278/EEC) | • **BO91:** 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. | Ministry of Environment and Energy |
| Urban Wastewater Treatment (Directives 91/271/EEC and 98/15/EC, Regulation (EU) No. 741/2020) | • **BO101:** Completion of sewerage and wastewater treatment projects of the settlements that fall under the provisions of the Directive | Region, MEWSS, Municipalities |
| | • **BO102:** Strengthening actions to control the effective operation of existing wastewater treatment and drainage projects. | Region |

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

The Basic Measures of Group II for the River Basin District of Northern Peloponnese (EL02) are listed in the Table below.

Table 8-7. Basic Measures of other categories

| CODE – NAME OF MEASURE | CATEGORY | CONNECTION WITH 1ST RBMP UPDATE | IMPLEMENTING BODIES | IMPLEMENTATION STATUS |
|---|---|---|---|---|
| M02B0204 Training and expertise of all the stakeholders (Decentralized Administrations, Regions, and water service providers), which deals with pricing and costing rules for water supply services | Measures to implement the cost recovery principle (Article 9) | Continuing Measure (modification of title and description) | Ministry of Environment & Energy (General Directorate for Water) | To be implemented as part of the 2nd Update of the RBMP |
| M02B0301 Preparation / Update of General Water Supply Plans (Masterplan) | Measures to promote the efficient and sustainable use of water so as not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure (modification of description) | Potable water service providers (MEWSS, Municipalities, etc.) / Dec. Administration (General Directorate for Water) | Under implementation. The implementation progress is different between the RBs. |
| M02B0302 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 jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure (modification of description) | Potable water service providers (MEWSS, Municipalities, etc.) / Dec. Administration (General Directorate for Water) | Under implementation |
| M02B0303 Increase of the efficiency of water use in land reclamation infrastructure | Measures to promote the efficient and sustainable use of water so as not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure (modification of description) | Ministry of Rural Development & Food, SDM/PRD, SDM/RP, Region | To be implemented as part of the 2nd Update of the RBMP |
| M02B0304 Investments for saving water in agriculture | Measures to promote the efficient and sustainable use of water so as not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure | Individuals / Ministry of Rural Development and Food / Regions | Under implementation |
| M02B0305 Determination of maximum irrigation requirements for crops for private water abstractions | Measures to promote the efficient and sustainable use of water so as not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure (modification of description) | Decentralized Administration (Water Directorate), Region (Directorate of Rural Economy and Veterinary Medicine) | Under implementation |

| CODE – NAME OF MEASURE | CATEGORY | CONNECTION WITH 1ST RBMP UPDATE | IMPLEMENTING BODIES | IMPLEMENTATION STATUS |
|---|---|---|---|---|
| M02B0308<br>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 jeopardize the achievement of the objectives of the Directive (Article 4) | Continuing Measure | Decentralized Administration (Water Directorate), Ministry of Environment and Energy (GDW) | The measure has been implemented in the Kefalonia – Ithaca – Zakynthos RB (EL0245). |
| M02B0401<br>Definition and delimitation of zones and/or measures for the protection of water abstraction points, intended for human consumption from Groundwater Bodies | Measures to protect water intended for human consumption (article 7) | Continuing measure (modification of measure description, including the obligations of Directive 2020/2184/EC) | Potable water service providers (MEWSS, Municipalities, etc.), Decentralized Administration (Directorate for Water in terms of coordinating the implementation of the measure, Directorate of Environment and Spatial Planning), competent environmental authority | Under implementation |
| M02B0402<br>Protection of GWBs included in the register of protected areas for human consumption and establishment of an institutional framework of protection | Measures to protect water intended for human consumption (article 7) | Continuing Measure | Decentralized Administration (Directorate for Water), competent environmental authority | Under implementation |
| M02B0403<br>Surface water projects for water supply protection | Measures to protect water intended for human consumption (article 7) | Continuing measure (modification of measure description, including the obligations of Directive 2020/2184/EC) | Potable water service providers (MEWSS, Municipalities, etc.) / Decentralized Administration (Directorate for Water), Regional Directorate of Public Health | Under implementation |

| CODE – NAME OF MEASURE | CATEGORY | CONNECTION WITH 1ST RBMP UPDATE | IMPLEMENTING BODIES | IMPLEMENTATION STATUS |
|---|---|---|---|---|
| M02B0501<br>Restrictions, terms and conditions for the construction of groundwater abstraction projects (drillings, wells, etc.) for new uses, as well as extension of existing water use permits to:<br>a) areas of GWBs with Bad quantitative status<br>b) the protection zone II of the abstraction projects serving the water supply networks that are operated by potable water service providers,<br>c) zones of collective irrigation networks<br>d) GWBs of coastal areas with extensive or local salinization problems, regardless of their origin | Control measures for surface and groundwater abstraction and surface water storage | Continuing Measure (modification of measure description) | Decentralized Administration (Water Directorate) | Under implementation |
| M02B0601<br>Investigation/determination of the conditions for application of artificial underground aquifer enrichment as a means of quantitative enhancement and quality protection of GWBs, with priority for GWBs in bad condition and/or salinization issues. | Measures to control and authorize the artificial recharge of GWB | Continuing Measure | Region, Municipalities, Decentralized Administration (Water Directorate) | Not implemented |
| M02B0701<br>Strengthening environmental inspections and controls | Measures for point source pollution | Continuing Measure | Region | Under implementation |
| M02B0702<br>Setting guidelines and development of tools to effectively control of sewerage and industrial wasterwater disposal | Measures for point source pollution | **New measure** to replace the M02B0702 & M02B1102 | Ministry of Environment and Energy (General Directorate for Water), Regions | - |
| M02B0704<br>Conditions for the licensing of new / extension of existing aquaculture units | Measures for point source pollution | Continuing Measure | Ministry of Environment and Energy, Decentralized Administration, Regions | Under implementation |
| M02B0705<br>Preparation of rules for sinkholes protection | Measures for point and diffuse source pollution | Continuing Measure | Decentralized Administration (Water Directorate) regarding the implementation of the Special Hydrogeological Study, Regions (regarding the construction of the works) | Under implementation |

| CODE – NAME OF MEASURE | CATEGORY | CONNECTION WITH 1ST RBMP UPDATE | IMPLEMENTING BODIES | IMPLEMENTATION STATUS |
|---|---|---|---|---|
| M02B0801<br>Biological agriculture | Measures for diffuse source pollution | Continuing Measure (modification of measure description) | Ministry of Rural Development and Food (Directorate of Quality Systems, Organic Production and Geographical Indications) | Under implementation |
| M02B0803<br>Reduce diffuse pollution from agriculture in the Nitrate Vulnerable Zones of the Directive 91/676/EEC | Measures for diffuse source pollution | Continuing Measure (modification of measure description) | Ministry of Rural Development and Food / OPEKEPE | Under implementation |
| M02B0902<br>Determination of maximum reservoir level fluctuation range | Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | Continuing Measure (modification of measure description) | Managing Authority, Decentralized Administration (Water Directorate, National Monitoring Network Operating Bodies, Protected Areas Bodies, other scientific bodies) | Not implemented |
| M02B0905<br>Determination of selected areas for river sediment deposits removal to meet the needs of technical projects | Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | Continuing Measure (modification of measure description) | General Directorate for Water, Region (Property Agencies, Municipalities), Decentralized Administration (Water Directorate, Directorate for Environment and Spatial Planning) | Not implemented |
| M02B0906<br>Monitoring, recording and rehabilitation of coastal erosion | Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | Continuing Measure | Ministry of Infrastructure and Transport, Ministry of Maritime Affairs and Insular Policy, Region, Decentralized Administration (Water Directorate), Municipalities, Technical Chamber of Greece | Not implemented |

| CODE – NAME OF MEASURE | CATEGORY | CONNECTION WITH 1ST RBMP UPDATE | IMPLEMENTING BODIES | IMPLEMENTATION STATUS |
|---|---|---|---|---|
| M02B0907<br>Measures to identify and achieve Good Ecological Potential in Heavily Modified Water Bodies | Measures to confront negative impacts on the status of surface water bodies, particularly due to hydromorphological modifications | **New measure,** in continuation of the implemented measure M02B0904 of the 1st Update of the RBMP | Defined on a case-by-case basis | - |

### 8.2.3 Assessment of the possibility of achieving Good status by 2027 after the implementation of the key measures program

The program of basic measures is a tool for the protection and restoration of all water bodies. In order to achieve the objectives of the River Basin Management Plan, as defined in Chapter 7, it is necessary to support the implementation of the basic measures by supplementary measures.

Methodologically, it was chosen to propose supplementary measures:

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 by targeted users. In this case the supplementary measures have a horizontal, general application and the affected water bodies are not specified.

b) In the water bodies for which it is estimated that, despite the implementation of the program of basic measures, they will not achieve the goal of Good status by 2027, and in particular:

- in water bodies, which, according to measurements of qualitative and quantitative parameters or with the new methodological approach to their grouping, are in a status inferior to Good,
- in water bodies which are in Good condition, but there are clear indications, through the analysis of pressures, that they are at risk of not achieving their environmental objectives.

The measures of case (b) are taken into account for the calculation of the environmental cost and/or resource cost, according to the costing and pricing rules.

The following Table lists the water bodies of River Basin District EL02 for which it is considered necessary to take targeted supplementary measures.

**Table 8-8. Water bodies of the Northern Peloponnese RBD (EL02), for which it is considered necessary to take supplementary measures**

| CODE | NAME | TYPE | CURRENT SITUATION |
|---|---|---|---|
| **EL0227 - RB Streams of N. Peloponnese** | | | |
| EL0227L000000002N | STIMFALIA LAKE | LAKE | MODERATE ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0227R000300004N | CHARADROS STREAM | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0227R000500005N | FINIKAS R._1 | RIVER | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0227R000700007N | MEGANITAS STREAM | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0227R000900008N | SELINOUS R._3 | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0227R001300011N | VOURAIKOS R._1 | RIVER | MODERATE ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0227R001300013N | VOURAIKOS R._3 | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0227R001700016N | KRATHIS R._1 | RIVER | BAD ECOLOGICAL, GOOD CHEMICAL |
| EL0227R001900019N | KRIOS R._1 | RIVER | BAD ECOLOGICAL, GOOD CHEMICAL |
| EL0227R002300024N | TRIKALITIKOS R._1 | RIVER | MODERATE ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0227R002900027N | ASOPOS R._1 | RIVER | GOOD ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0227R002900030N | ASOPOS R._4 | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0227R002900031N | ASOPOS R._5 | RIVER | GOOD ECOLOGICAL, LESS THAN GOOD CHEMICAL |

| CODE | NAME | TYPE | CURRENT SITUATION |
|---|---|---|---|
| EL0227R003300032N | REZANI STREAM | RIVER | POOR ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0227R003700034H | POTAMIA STREAM_2 | RIVER | MODERATE ECOLOGICAL STATUS, GOOD CHEMICAL |
| EL0227R000100001H | GLAFKOS R._1 | RIVER | MODERATE ECOLOGICAL STATUS, LESS THAN GOOD CHEMICAL |
| EL0227C0005N | CORINTHIAN GULF – COASTS OF PELOPONNESE | COASTAL | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0200171 | VOREIAS KORINTHIAS SUBSYSTEM | GROUNDWATER | GOOD QUANTITATIVE, BAD CHEMICAL |
| EL0200172 | VOREIAS KORINTHIAS SUBSYSTEM | GROUNDWATER | GOOD QUANTITATIVE, BAD CHEMICAL |
| EL0200173 | VOREIAS KORINTHIAS SUBSYSTEM | GROUNDWATER | GOOD QUANTITATIVE, BAD CHEMICAL |
| EL0200190 | SYSTIMA KORINTHOU-KIATOU | GROUNDWATER | BAD QUANTITATIVE, BAD CHEMICAL |
| **EL0228 - Piros - Vergas - Pinios RB** | | | |
| EL0228R000100001N | IARDANOS STREAM | RIVER | BAD ECOLOGICAL, GOOD CHEMICAL |
| EL0228R000201002N | PINIOS R._1 | RIVER | BAD ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0228R000204006N | LADON PINIEOS R._1 | RIVER | POOR ECOLOGICAL, GOOD CHEMICAL |
| EL0228R000205013N | PINIOS R._7 | RIVER | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0228R000401021N | PIROS R._1 | RIVER | POOR ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0228R000405027N | PIROS R._3 | RIVER | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0228R000700017N | VERGAS STREAM | RIVER | BAD ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0228R000900019N | MANNA STREAM_2 | RIVER | BAD ECOLOGICAL, LESS THAN GOOD CHEMICAL |
| EL0228T0001N | PAPA LAGOON (ARAXOS) | TRANSITIONAL | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0228T0004N | KOTICHI LAGOON | TRANSITIONAL | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0228T0005N | KALOGRIA LAGOON | TRANSITIONAL | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0200091 | SUBSYSTEM P. LARISSOU | GROUNDWATER | BAD QUANTITATIVE, BAD CHEMICAL |
| EL0200093 | SUBSYSTEM P. LARISSOU | GROUNDWATER | BAD QUANTITATIVE, GOOD CHEMICAL |
| EL0200094 | SUBSYSTEM P. LARISSOU | GROUNDWATER | BAD QUANTITATIVE, GOOD CHEMICAL |
| **EL0245 - RB Kefalonia - Ithaca - Zakynthos** | | | |
| EL0245T0001N | KOUTAVOS LAGOON (KEFALONIA) | TRANSITIONAL | MODERATE ECOLOGICAL, GOOD CHEMICAL |
| EL0200050 | SYSTIMA ZAKYNTHOU | GROUNDWATER | BAD QUANTITATIVE, BAD CHEMICAL |

### 8.2.4 Supplementary measures

The Supplementary Measures for the Northern Peloponnese Water District (EL02) are listed in the following Tables, where the following are presented.

Table 8-9. Horizontal supplementary measures

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|
| **M02S0201** Development of a Monitoring Program 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 | Continuing measure | Horizontal | Decentralized Administration (Water Directorate) | 650.000€ | Implemented only in RB EL0245 |
| **M02S0202** Control and management of artesian Wells | Administrative measures | Continuing measure | GWB | Owner of the Abstraction project, Decentralized Administration (Water Directorate) | 0€ | Under implementation |
| **M02S0206** Package of measures to prevent and address water scarcity and drought phenomena | Administrative measures | **New Measure** | SWB and GWB in the entire Kefalonia - Ithaca - Zakynthos RB (EL0245) | Decentralized Administration (Water Directorate of Ionian Islands), Ionian Islands Region, MEWSS, TAB (Technical service to cover water supply needs) | 240.000€ | - |
| **M02S0207** Establishment of the Ionian Islands River Basin District (EL15) | Administrative measures | **New Measure** | SWB and GWB in the entire Kefalonia - Ithaca - Zakynthos RB (EL0245) | Ministry of Environment & Energy | 0€ | - |
| **M02S0208** Establishment of an institutional framework for the definition of the conditions for the protection of recreational inland waters of Article 6 Directive 2000/60/EK -Temporary regulation for new projects in inland water bodies which are included as recreational waters in the Register of Protected Areas under Article 6 of Directive 2000/60/EC | Administrative measures | Adaptation of the previous basic measure M02B0901. It continues to apply as supplementary measure. | SELINOUS R._3 EL0227R000900008N<br>SELINOUS R._4 EL0227R000900009N | Ministry of Environment & Energy (General Directorate for Water), Decentralized Administration (Water Directorate) | 0€ | Not implemented |

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|
| **M02S0504**<br>Program of exploratory monitoring of the quality status of groundwater bodies and surface water bodies in the areas of existing landfills | Emission controls | Adaptation of the previous basic measure M02B0703. It continues to apply as supplementary measure. | Horizontal | Region, Landfill Operators | 0€ | Under implementation |
| **M02S1501**<br>Professional training of farmers for the protection of Water Bodies | Educational measures | Continuing measure | Horizontal | SDM/PRD, Ministry of Rural Development and Food, Region | 146.625€ | Not implemented |
| **M02S1603**<br>Design and Implementation of a Special Exploratory Monitoring Program for the purpose of collecting data on the primary designation of WB downstream of Dams as HMWB | Research, development and demonstration projects | Continuing measure | Surface WB downstream of large dams, i.e. the following:<br>PINIOS R._3 EL0228R000201004H<br>PINIOS R._2 EL0228R000201003N<br>PARAPIROS S._1 EL0228R000404024H | Ministry of Environment & Energy (General Directorate for Water), Decentralized Administration (Water Directorate) | 65.000€ | Not implemented |

Table 8-10. Supplementary measures in Streams basins of N. Peloponnese RB (EL0227)

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|---|
| **M02S0203**<br>Prohibition of new sediment deposits' removal or permit expansions except in cases to avoid flooding, determined by the Civil Protection of the Region, until the necessary studies are prepared to identify selected areas for sediment removal for the needs of technical projects | Administrative measures | Continuing measure | CHARADROS STREAM<br>KRATHIS R._1 | EL0227R000300004N<br>EL0227R001700016N | Decentralized Administration, Region | 0 € | Under implementation |
| **M02S0501**<br>Emission controls at the outlets of stormwater culverts and other point sources of pollution that outflow in surface water bodies | Emission controls | Continuing measure | GULF OF CORINTH – COASTS OF PELOPONNESE | EL0227C0005N | Municipalities/MEWSS, Decentralized Administration (Water Directory), Ministry of Environment & Energy (General Directorate for Water) | 90.000 € | Not implemented |
| **M02S0503**<br>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 controls | Continuing measure | FINIKAS R._1<br>MEGANITAS STREAM<br>VOURAIKOS R._3<br>VOURAIKOS R._1<br>KRATHIS R._1<br>KRIOS R._1<br>TRIKALITIKOS R._1<br>KIRILLOU STREAM<br>ASOPOS R._1<br>REZANI STREAM<br>POTAMIA STREAM_2<br>SELINOUS R._3<br>ASOPOS R._5<br>CHARADROS STREAM<br>GLAFKOS R._1<br>STIMFALIA LAKE | EL0227R000500005N<br>EL0227R000700007N<br>EL0227R001300013N<br>EL0227R001300011N<br>EL0227R001700016N<br>EL0227R001900019N<br>EL0227R002300024N<br>EL0227R002700026N<br>EL0227R002900027N<br>EL0227R003300032N<br>EL0227R003700034H<br>EL0227R000900008N<br>EL0227R002900031N<br>EL0227R000300004N<br>EL0227R000100001H<br>EL0227L000000002N | Region, Decentralized Administration | 0 € | Under implementation |
| **M02S0805**<br>Installation of an exploratory monitoring network and preparation of a Special Management Plan for the Stymphalia closed basin for abstractions control | Abstractions control | Continuing measure (description modification) | Systima Zireias | EL0200220 | Ministry of Environment and Energy, Decentralized Administration, Region | 300.000 € | Not implemented |

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|---|
| **M02S0806**<br>Determination and demarcation of GWB areas exhibiting bad qualitative status due to salinization, or exhibiting local salinization and other actions to address the impacts (Systima Voreias Korinthias, subsystems EL0200171 and EL0200173, Systima Korinthou - Kiatou EL0200190 and Systima Arachnaiou EL0200200) | Abstractions control | Continuing measure (consolidation of M02S0801 and M02S0806 of RB EL0227 from the 1st RBMP Update) | Systima Voreias Korinthias<br>Systima Korinthou - Kiatou,<br>Systima Arachnaiou | Subsystems: EL0200171, EL0200173<br>EL0200190<br><br>EL0200200 | Decentralized Administration (Water Directorate) | 300.000 € | Under implementation |
| **M02S0807**<br>Water management study of the, under construction, Asopos dam in Corinth | Abstractions control | **New Measure** | Systima Voreias Korinthias | Subsystem: EL0200172 | Ministry of Rural Development and Food (project owner) / Water Directorate of the Decentralized Administration (coordination) | 75.000€ | - |
| **M02S0811**<br>Special arrangements to protect the quantitative status of GWB | Abstractions control | **New Measure** | Systima Patras-Riou<br>Systima Panachaikou<br>Systima Voreias Achaias<br><br>Systima Zarouchlas<br>Systima Valtou-Evrostinas<br>Systima Voreias Korinthias<br>Systima Korfiotissas<br>Systima Nemeas<br>Systima Zireias<br>Systima Feneou<br>Systima Kalavryton<br>Systima Voreiou Erymanthou | EL0200120<br>EL0200130<br>Subsystems: EL0200141, EL0200142, EL0200143<br>EL0200150<br>Subsystems: EL0200161, EL0200162<br>Subsystems: EL0200171, EL0200172, EL0200173<br>EL0200180<br>EL0200210<br>EL0200220<br>EL0200230<br>EL0200240<br>EL0200250 | Ministry of Environment and Energy, Decentralized Administration (Water Directorate), Region | 0€ | - |
| **M02S1605**<br>Exploratory monitoring program in SWB with status inferior to Good (ASOPOS R._5, ASOPOS R._4, ASOPOS R._3 and ASOPOS R._2) | Research, development and demonstration projects | **New Measure** | ASOPOS R._2<br>ASOPOS R._3<br>ASOPOS R._4<br>ASOPOS R._5 | EL0227R002900028N<br>EL0227R002900029N<br>EL0227R002900030N<br>EL0227R002900031N | Decentralized Administration, Region | 80.000€ | - |

Table 8-11. Supplementary measures in Piros - Vergas - Pinios RB (EL0228)

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|---|
| **M02S0503**<br>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 controls | Continuing measure | IARDANOS STREAM<br>PINIOS R._1<br>VERGAS STREAM<br>MANNA STREAM_2<br>PIROS R._3<br>PAPA LAGOON (ARAXOS)<br>KOTIYCHI LAGOON | EL0228R000100001N<br>EL0228R000201002N<br>EL0228R000700017N<br>EL0228R000900019N<br>EL0228R000405027N<br>EL0228T0001N<br><br>EL0228T0004N | Region, Decentralized Administration | 0 € | Under implementation |
| **M02S0801**<br>Determination and demarcation of GWB areas exhibiting bad qualitative status due to salinization, or exhibiting local salinization (Systima p. Larissou EL0200090, subsystems EL0200091, EL0200093 and EL0200094) | Abstractions control | Continuing measure | Systima p. Larissou | Subsystems:<br>EL0200091<br>EL0200093<br>EL0200094 | Decentralized Administration (Water Directorate) | 180.000 € | Not implemented |
| **M02S0811**<br>Special arrangements to protect the quantitative status of GWB | Abstractions control | **New Measure** | Systima Pineiou<br>Systima Kyllinis<br>Systima Dytikis Achaias<br>Systima Movris<br>Systima p. Peirou<br>Systima Dytikou<br>Erymanthou | EL0200060<br>EL0200070<br>EL0200080<br>EL0200100<br>EL0200110<br>EL0200260 | Ministry of Environment and Energy, Decentralized Administration (Water Directorate), Region | 0€ | - |
| **M02S1301**<br>Study for the implementation of the restoration project of the Kotichi lagoon lido | Restoration projects | Continuing measure (description modification) | KOTICHI LAGOON | EL0228T0004N | PAMU, Ministry of Environment and Energy (COIEL) | 60.000 € | Not implemented |
| **M02S1605**<br>Exploratory monitoring program in SWB with status inferior to Good (LADON PINIAIOS R._1, PINIOS R._7, PIROS R._1, KALOGRIA LAGOON) | Research, development and demonstration projects | **New Measure** | LADON PINIAIOS R._1<br>PINIOS R._7<br>PIROS R._1<br>KALOGRIA LAGOON | EL0228R000204006N<br>EL0228R000205013N<br>EL0228R000401021N<br>EL0228T0005N | Decentralized Administration, Region | 100.000 € | - |

Table 8-12. Supplementary measures in Kefalonia - Ithaca – Zakynthos RB (EL0245)

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|---|
| **M02S0205**<br>Measures for the installation of water saving equipment / upgrading of wastewater treatment facilities in large hotel units with the aim of reducing pumping from specific GWB. | Administrative measures | **New Measure** | Systima Kefalonias<br>Systima Lixouriou - Skalas<br>Systima Zakynthou | EL0200010<br>EL0200020<br>EL0200050 | Individuals, Ministry of Development & Investments, Ministry of Environment and Energy (YMEPERAA), Region of the Ionian Islands (Ionian Islands Regional Plan 2021-2027) | 0 € | - |
| **M02S0503**<br>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 controls | Continuing measure | KOUTAVOS LAGOON | EL0245T0001N | Decentralized Administration, Region | 0 € | Not implemented |
| **M02S0808**<br>Reduction or replacement of groundwater abstractions with abstraction from surface water bodies or other groundwater bodies or engineering works (reservoir, dam, desalination) in the GWB Systima Zakynthou (EL0200050) | Abstractions control | Continuing measure | Systima Zakynthou | EL0200050 | Decentralized Administration, Region, Municipality, MEWSS | 50.000 € | Not implemented |
| **M02S0809**<br>Restrictions, terms and conditions for the construction of new water abstraction works in certain GWB of the Ionian Sea with salinization problems (Systima Kefalonias EL0200010, Systima Lixouriou - Skalas EL0200020, Systima Vrachiona EL0200040 and Systima Zakynthou EL0200050) | Abstractions control | Continuing measure (consolidation of measures M02S0801 and M02S0809 of the 1st Update) | Systima Kefalonias<br>Systima Lixouriou-Skalas<br>Systima Vrachiona<br>Systima Zakynthou | EL0200010<br>EL0200020<br>EL0200040<br>EL0200050 | Decentralized Administration, Water Directorate, Region | 0 € | Under implementation |

| CODE & NAME OF MEASURE | CATEGORY | CONNECTION WITH 1st RBMP UPDATE | AFFECTED WB | | IMPLEMENTING BODIES | COST (€) | IMPLEMENTA-TION STATUS |
|---|---|---|---|---|---|---|---|
| **M02S0811**<br>Special arrangements to protect the quantitative status of GWB | Abstractions control | **New Measure** | Systima Kefalonias<br>Systima Lixouriou-Skalas<br>Systima Ithakis<br>Systima Vrachiona | EL0200010<br>EL0200020<br><br>EL0200030<br>EL0200040 | Ministry of Environment and Energy, Decentralized Administration (Water Directorate), Region | 0 € | - |
| **M02S1606**<br>Regional Monitoring Program for SWB of the Ionian Islands RB | Research, development and demonstration projects | **New Measure** | AGIA EUFIMIA STREAM<br>WEST COAST OF KEFALONIA<br>EAST COAST OF KEFALONIA – ITHACA<br>MOUNTA CAPE<br>EAST BAY OF LOURDATA<br>WEST BAY OF LOURDATA<br>VARDIANOI ISLANDS<br>WEST COAST OF ZAKYNTHOS<br>EAST COAST OF ZAKYNTHOS<br>MARATHIAS CAPE<br>STROFADES ISLANDS | EL0245R000100001N<br>EL0245C0001N<br>EL0245C0002N<br>EL0245C0010N<br>EL0245C0011N<br>EL0245C0012N<br>EL0245C0013N<br>EL0245C0015N<br>EL0245C0016N<br>EL0245C0018N<br>EL0245C0019N | Decentralized Administration, Region | 220.000 € | - |