



SPECIAL  
SECRETARIAT  
FOR WATER



MINISTRY OF  
ENVIRONMENT  
& ENERGY



# 1<sup>st</sup> Revision of River Basin Management Plan Crete River Basin District (EL13)

## SUMMARY



European Union  
European Regional  
Development Fund



Co-funded by Greece and the European Union



**HELLENIC REPUBLIC**

**MINISTRY OF ENVIRONMENT & ENERGY**

**SPECIAL SECRETARIAT FOR WATER**

**1<sup>st</sup> REVISION OF RIVER BASIN MANAGEMENT PLAN FOR THE CRETE RIVER BASIN DISTRICT (EL13)**

**PROJECT: DEVELOPMENT OF 1<sup>st</sup> REVISION OF RIVER BASIN MANAGEMENT PLANS OF 14 RIVER BASIN DISTRICT OF THE COUNTRY, ACCORDING TO THE SPECIFICATIONS OF THE DIRECTIVE 2000/60/EC, PURSUANT TO THE LAW 3199/2003 AS AMENDED AND IN FORCE AND THE PRESIDENTIAL DECREE 51/2007 / M.6: CRETE RIVER BASIN DISTRICT (GR13)**

**JOINT VENTURE: «1<sup>st</sup> REVISION OF RIVER BASIN MANAGEMENT PLAN FOR THE CRETE RIVER BASIN DISTRICT»**

- **ADVANCED ENVIRONMENTAL STUDIES CONSULTANT ENGINEERS S.A.**
- **KAPSALIS PANAGIOTIS**
- **KRITSOTSAKI MELPOMENI**

**CRETE RIVER BASIN DISTRICT (EL13)**

**Deliverable 22b Study M.6:**

**Summary with abstract of the final 1<sup>st</sup> Revision of River Basin Management Plan in English**

*Government Gazette approving the 1<sup>st</sup> Revision of the RBMP for the Crete RBD: 4666/B/29.12.2017*





## 1<sup>st</sup> REVISION OF RIVER BASIN MANAGEMENT PLAN FOR THE CRETE RIVER BASIN DISTRICT (EL13)

### Summary with abstract of the final 1<sup>st</sup> Revision of River Basin Management Plan in English

#### Table of Contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>INTRODUCTION .....</b>   | <b>1</b>  |
| 1.1      | General.....  | 1         |
| 1.2      | Consultation .....  | 1         |
| <b>2</b> | <b>DIFFERENCES IN RELATION TO THE 1<sup>ST</sup> RIVER BASIN MANAGEMENT PLAN .....</b>          | <b>6</b>  |
| 2.1      | Main differences in relation to the 1 <sup>st</sup> River Basin Management Plan.....            | 6         |
| 2.2      | Record of the main differences.....   | 7         |
| <b>3</b> | <b>DESCRIPTION OF THE RIVER BASIN DISTRICT - COMPETENT AUTHORITIES.....</b>                     | <b>10</b> |
| 3.1      | River Basins .....  | 10        |
| 3.2      | Competent Authorities .....   | 11        |
| <b>4</b> | <b>IDENTIFICATION OF WATER BODIES.....</b>  | <b>16</b> |
| 4.1      | Surface Water Bodies .....  | 16        |
| 4.2      | Groundwater Bodies.....   | 26        |
| 4.3      | Heavily Modified Water Bodies (HMWB) and Artificial Water Bodies (AWB).....                     | 30        |
| 4.4      | Protected Areas .....   | 33        |
| <b>5</b> | <b>PRESSURES AND IMPACTS .....</b>  | <b>39</b> |
| 5.1      | Point sources of pollution .....  | 39        |
| 5.2      | Diffuse sources of pollution .....  | 40        |
| 5.3      | Hydromorphological pressures .....  | 42        |
| 5.3.1    | Pressures related to Hydromorphology .....  | 42        |
| 5.3.2    | Sand and gravel extraction .....  | 42        |
| 5.4      | Water abstraction.....  | 42        |
| 5.5      | Other pressures .....   | 43        |
| 5.6      | Total pressures .....   | 45        |
| 5.7      | Impact Assessment .....   | 46        |
| 5.7.1    | Impact Assessment on Surface water bodies .....   | 46        |
| 5.7.2    | Impact Assessment on Groundwater bodies.....  | 47        |
| <b>6</b> | <b>STATUS OF WATER BODIES .....</b>   | <b>52</b> |
| 6.1      | Classification of the Status of Surface Water Bodies .....                                      | 52        |
| 6.1.1    | Status assessment of River Water Bodies .....   | 52        |
| 6.1.2    | Status assessment of Lake Water Bodies .....  | 55        |
| 6.1.3    | Status assessment of Transitional Water Bodies.....   | 55        |
| 6.1.4    | Status assessment of Coastal Water Bodies.....  | 56        |
| 6.2      | Classification of the Status of Groundwater Bodies .....  | 70        |
| <b>7</b> | <b>ECONOMIC ANALYSIS OF WATER USES .....</b>  | <b>75</b> |
| 7.1      | Water service cost estimation - Financial Cost .....  | 75        |
| 7.1.1    | Water services for public water supply and sewage collection/ treatment.....                    | 75        |
| 7.1.2    | Water services for Agricultural usage.....  | 76        |
| 7.2      | Environmental and resource cost .....   | 77        |
| 7.2.1    | Environmental cost estimation.....  | 77        |
| 7.2.2    | Resource cost estimation .....  | 78        |
| <b>8</b> | <b>ENVIRONMENTAL OBJECTIVES - EXEMPTIONS .....</b>  | <b>80</b> |
| 8.1      | Summary of environmental Objectives and Exemptions.....   | 80        |
| 8.2      | Deadline Extension (Article 4.4, Directive 2000/60 /EC) .....                                   | 80        |
| 8.3      | Less stringent environmental objectives (Article 4.5, Directive 2000/60 /EC) .....              | 81        |
| 8.4      | Temporary deterioration in the status of WBs (Article 4.6, Directive 2000/60 /EC) .....         | 81        |
| 8.5      | New And Planned Water Resources Development Projects (Article 4.7, Directive 2000/60 /EC) ..... | 81        |
| <b>9</b> | <b>PROGRAMME OF MEASURES.....</b>   | <b>82</b> |
| 9.1      | Introduction .....  | 82        |

|            |   |            |
|------------|---|------------|
| <b>9.2</b> | <b>Progress In Implementing The Programme Of Measures of the 1<sup>st</sup> Management Plan .....</b> | <b>83</b>  |
| <b>9.3</b> | <b>Basic and Supplementary Measures Programme .....</b>   | <b>84</b>  |
| 9.3.1      | Actions implementing EU Directives (Group I of Basic Measures) .....                                  | 86         |
| 9.3.2      | Basic Measures of other Categories (Group II of Basic Measures) .....                                 | 89         |
| 9.3.3      | Supplementary measures .....  | 95         |
| <b>10</b>  | <b>NEXT STEPS .....</b>   | <b>101</b> |
| <b>11</b>  | <b>SUMMARIZED STATISTICS FOR CRETE RBD (EL13) .....</b>   | <b>102</b> |

### List of Tables

|            |   |    |
|------------|---|----|
| Table 2-1  | Main differences of the 1 <sup>st</sup> Revision in relation to the 1 <sup>st</sup> RBMP .....  | 8  |
| Table 3-1  | River Basins of Crete RBD (EL13) .....  | 10 |
| Table 3-2  | Identity of the National Competent Authority .....  | 12 |
| Table 3-3  | Identity of the Regional Competent Authority .....  | 13 |
| Table 3-4  | Degree of involvement of the competent authorities in relation to the Directive 2000/60/EC implication .....  | 14 |
| Table 4-2  | Number of surface water bodies per River Basin of Crete RBD (EL13) .....  | 16 |
| Table 4-2  | New typology, according to European Decision 2013/480 / EC and MED GIG, for River WBs (not reservoirs) of Crete RBD (EL13) .....  | 16 |
| Table 4-3  | Lake WBs and River HMWBs of lake type (reservoirs) of Crete RBD (EL13) .....  | 21 |
| Table 4-4  | Transitional WBs of Crete RBD (EL13) .....  | 23 |
| Table 4-5  | Coastal WBs of Crete RBD (EL13) .....   | 23 |
| Table 4-6  | Ground Waterbodies of Crete RBD (EL13) .....  | 26 |
| Table 4-7  | Summary data for HMWBs in Crete RBD (EL13) .....  | 30 |
| Table 4-8  | Heavily Modified WBs of Crete RBD (EL13) .....  | 30 |
| Table 4-9  | Areas designated for the abstraction of water intended for human consumption .....  | 33 |
| Table 4-10 | Vulnerable Zones and WBs which are or may be subjected to Nitrates .....  | 36 |
| Table 5-1  | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point sources of pollution .....  | 40 |
| Table 5-2  | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from diffuse sources of pollution .....  | 41 |
| Table 5-3  | Water per use to Crete RBD (EL13) .....   | 42 |
| Table 5-4  | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point and diffuse sources of pollution .....  | 45 |
| Table 5-5  | Statistics for the risk assessment of non-achievement of surface water bodies objectives in RBs of Crete RBD (EL13) .....   | 46 |
| Table 5-6  | Quantitative and chemical status of GWBs per RB at Crete RBD (EL13) .....   | 47 |
| Table 6-1  | Status and differences in the status of river WBs between the 1 <sup>st</sup> RBMP and the 1 <sup>st</sup> Revision of RBMP .....   | 52 |
| Table 6-2  | Status and differences in the status of Lake WBs and reservoirs (Heavily Modified River Water Bodies) between the 1 <sup>st</sup> RBMP and the 1 <sup>st</sup> Revision of RBMP ..... | 55 |
| Table 6-3  | Status and differences in the status of transitional WBs between the 1 <sup>st</sup> RBMP and the 1 <sup>st</sup> Revision of RBMP .....  | 55 |
| Table 6-4  | Status and differences in the status of coastal WBs between the 1 <sup>st</sup> RBMP and the 1 <sup>st</sup> Revision of RBMP .....   | 56 |
| Table 6-5  | Status and differences in the status of GWBs between the 1 <sup>st</sup> RBMP and the 1 <sup>st</sup> Revision of RBMP .....  | 70 |
| Table 7-1  | Public water supply financial cost recovery at RBs of Crete RBD (EL13) .....  | 75 |
| Table 7-2  | Agricultural usage financial cost recovery at RBs of Crete RBD (EL13) .....   | 76 |
| Table 7-3  | Environmental cost per RB of Crete RBD (EL13) .....   | 77 |
| Table 7-4  | Distribution of Environmental Cost per Water Use in the RBs of Crete RBD (EL13) .....   | 77 |
| Table 7-5  | Resource cost per RB of Crete RBD (EL13) .....  | 78 |
| Table 7-6  | Distribution of Resource Cost per Water Use in the RBs of Crete RBD (EL13) .....  | 78 |
| Table 8-1  | Objectives of surface WBs by 2021 .....   | 80 |
| Table 8-2  | Objectives of GWBs by 2021 .....  | 80 |

|            |   |     |
|------------|---|-----|
| Table 8-3  | Exceptions of WB's by 2021 .....  | 80  |
| Table 9-1  | Number of Basic Measures of the 1 <sup>st</sup> Management Plan per action .....                                      | 83  |
| Table 9-2  | Summary of the implementation progress of the Basic Measures during the 1 <sup>st</sup> Management Plan .....         | 83  |
| Table 9-3  | Summary of the implementation progress of the Supplementary Measures during the 1 <sup>st</sup> Management Plan ..... | 84  |
| Table 9-4  | Provisions for the incorporation of the EU Directives into National Law .....   | 86  |
| Table 9-5  | Actions for the implementation of EU Directives .....   | 88  |
| Table 9-6  | Basic measures of other categories .....  | 89  |
| Table 9-7  | Waterbodies of the Crete RBD (EL13), for which the adoption of supplementary measures is considered necessary .....   | 96  |
| Table 9-8  | Supplementary measures .....  | 98  |
| Table 11-1 | Categories of WB per RB of Crete RBD (EL13) .....   | 102 |
| Table 11-2 | Typology of Surface WBs per RB of Crete RBD (EL13) .....  | 102 |
| Table 11-3 | Assessment (classification) results of WBs status per RB of Crete RBD (EL13) .....                                    | 103 |

### List of Charts

|           |  |    |
|-----------|--|----|
| Chart 5-1 | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point sources of pollution .....             | 40 |
| Chart 5-2 | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from diffuse sources of pollution .....           | 41 |
| Chart 5-3 | Distribution of water needs per use for Crete RBD (EL13) .....   | 43 |
| Chart 5-4 | Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point and diffuse sources of pollution ..... | 45 |
| Chart 5-5 | Risk assessment of non-achievement of surface water bodies objectives in RBs of Crete RBD (EL13) .....                   | 46 |
| Chart 7-1 | Public water supply financial cost recovery at RBs of Crete RBD (EL13) .....   | 75 |
| Chart 7-2 | Agricultural usage financial cost recovery at RBs of Crete RBD (EL13) .....  | 76 |

### List of Maps

|          |  |    |
|----------|--|----|
| Map 3-1  | Crete River Basin District (EL13) and River Basins .....   | 10 |
| Map 4-1  | River WBs identified in Crete RBD (EL13) and typology .....  | 20 |
| Map 4-2  | Lake WBs and River HMWBs of lake type (reservoirs) of Crete RBD (EL13) .....   | 22 |
| Map 4-3  | Transitional WBs of Crete RBD (EL13) .....   | 23 |
| Map 4-4  | Coastal WBs of Crete RBD (EL13) .....  | 25 |
| Map 4-5  | Groundwater bodies of Crete RBD (EL13) .....   | 29 |
| Map 4-6  | Heavily Modified WBs of Crete RBD (EL13) .....   | 32 |
| Map 4-7  | WBs designated for the abstraction of water intended for human consumption (Article 7 of Directive 2000/60 / EC) of Crete RBD (EL13) ..... | 35 |
| Map 4-8  | Bathing waters of Crete RBD (EL13) .....   | 36 |
| Map 4-9  | Designated and proposed Vulnerable Zones of Crete RBD (EL13) .....   | 37 |
| Map 4-10 | Areas designated for the protection of habitats or species of Crete RBD (EL13) – Areas of Natura 2000 Network .....                        | 38 |
| Map 4-11 | Areas designated for the protection of habitats or species of Crete RBD (EL13) – Small island wetlands .....                               | 38 |
| Map 6-1  | Ecological status/ potential of river WBs of Crete RBD (EL13) .....  | 58 |
| Map 6-2  | Chemical status of river WBs of Crete RBD (EL13) .....   | 59 |
| Map 6-3  | Total status of river WBs of Crete RBD (EL13) .....  | 60 |
| Map 6-4  | Ecological status of Lake WBs and ecological potential of lake type river WBs (reservoirs) of Crete RBD (EL13) .....                       | 61 |
| Map 6-5  | Chemical status of Lake WBs and lake type river WBs (reservoirs) of Crete RBD (EL13) .....   | 62 |
| Map 6-6  | Total status of Lake WBs and lake type river WBs (reservoirs) of Crete RBD (EL13) .....  | 63 |
| Map 6-7  | Ecological status of transitional WBs of Crete RBD (EL13) .....  | 64 |

|          |   |    |
|----------|---|----|
| Map 6-8  | Chemical status of transitional WBs of Crete RBD (EL13) | 65 |
| Map 6-9  | Total status of transitional WBs of Crete RBD (EL13)    | 66 |
| Map 6-10 | Ecological status of coastal WBs of Crete RBD (EL13)    | 67 |
| Map 6-11 | Chemical status of coastal WBs of Crete RBD (EL13)      | 68 |
| Map 6-12 | Total status of coastal WBs of Crete RBD (EL13)         | 69 |
| Map 6-13 | Chemical status of GWBs of Crete RBD (EL13)             | 73 |
| Map 6-14 | Quantitative status of GWBs of Crete RBD (EL13)         | 74 |

## ABBREVIATIONS

|         |  |
|---------|--|
| AR      | At Risk  |
| AWB     | Artificial Water Body                              |
| BQEs    | Biological Quality Elements                        |
| DA      | Decentralized Administration                       |
| EU      | European Union                                     |
| GOLR    | General Organization of Land Reclamation           |
| GG      | Government Gazette                                 |
| GWB     | Ground Waterbody                                   |
| HMWB    | Heavily Modified Water Body                        |
| JMD     | Joint Ministerial Decision                         |
| LAA     | Local Administration Authority                     |
| LOLR    | Local Organizations of Land Reclamation            |
| MD      | Ministerial Decision                               |
| MED GIG | Mediterranean Intercalibration Team                |
| MEE     | Ministry of Environment & Energy                   |
| MEWSS   | Municipal Enterprise for Water Supply and Sewerage |
| MP      | Measurement Plan                                   |
| NAT     | Natural Water Body                                 |
| NR      | Not at Risk  |
| NMWN    | National Monitoring Water Network                  |
| OLR     | Organizations of Land Reclamation                  |
| PAR     | Probably At Risk                                   |
| PD      | Presidential Decree                                |
| PNR     | Probably Not at Risk                               |
| RB      | River Basin  |
| RBD     | River Basin District                               |
| RBMP    | River Basin Management Plan                        |
| RU      | Regional Unit                                      |
| SCA     | Special Conservation Area                          |
| SCI     | Site of Community Interest                         |
| SPA     | Special Protection Area                            |
| SSW     | Special Secretariat for Water                      |
| SWB     | Surface Water Body                                 |
| WB      | Water Body   |
| WFD     | Water Framework Directive                          |
| WWTP    | Waste Water Treatment Plants                       |

## 1 INTRODUCTION

### 1.1 General

Since the beginning of 2000, the European Union has a new policy regarding the management of water resources. Basic tool for the promotion of this new policy is the Water Framework Directive (WFD) 2000/60/EC.

The Greek Law was harmonised with the WFD with Law 3199/2003 (Government Gazette 280/A/2003) and the Presidential Decree 51/2007 (Government Gazette 54/A/2007).

**River Basin Management Plans (RBMPs)** for the **14 River Basin Districts (RBDs)** of the country was both a priority and a required step for the implementation of the WFD in Greece. These 14 River Basin Districts have been defined according to No.706/2010 Decision of the National Water Committee (GG 1383/B/2010 and GG 1572/B/2010 - correction of Annex II).

The 1<sup>st</sup> River Basin Management Plan for the Crete River Basin District (EL 13) was approved by the Decision No. 163/31.03.2015 (GG 570/B/2015) of National Water Committee.

The River Basin Management Plans of the River Basin Districts of the country are revised and updated every six years. The first River Basin Management Plans of each RBD of Greece, which have been approved, concern the 1<sup>st</sup> Management Cycle (2009-2015) and are valid until their revision. The Management Plans which are laid down with the 1<sup>st</sup> Revision of River Basin Management Plans of the country's 14 River Basin Districts, according to the specifications of the Directive 2000/60/EC, concern the 2<sup>nd</sup> Management Cycle (2016-2021).

The 1<sup>st</sup> Revision was implemented simultaneously for all 14 River Basin Districts of the country and consistence has been achieved regarding both the methodologies and the proposed Programme of Measures (Basic and Supplementary).

### 1.2 Consultation

Informing the public, in all stages of its implementation, is required by the Directive 2000/60/EC (Article 14), while active participation should be encouraged. All important issues should be discussed with all stakeholders, competent authorities and public via appropriate actions of consultation and participating procedures.

Everyone that affects the good status of waters of Crete River Basin District and is affected from it, was called to participate in the consultation process (indicatively decision making authorities, administrators, water users or consumers, experts).

The consultation on the 1<sup>st</sup> Revision of the RBMP for the Crete RBD lasted from November 2015 to December 2017 and included the following stages:

- **Stage A:** In November 2015, the planned tasks regarding the 1<sup>st</sup> Revision of the RBMP were posted to the website of the Greek Ministry of Environment and Energy ([www.ypeka.gr](http://www.ypeka.gr)). Also, a detailed timetable of these tasks was posted for the information of public.

- **Stage B:** In June 2016, the significant water management issues for each River Basin were posted to the website of the Greek Ministry of Environment and Energy. These issues included, the results of the National Monitoring Water Network (NMWN) for the RBD, the main pressures, the definition and listing of the competent authorities and bodies participating in the consultation. Basic common methodologies for the classification of the status of Water Bodies (WBs), the assessment of pressures and the determination of Heavily Modified Water Bodies (HMWBs) and the exemptions of Article 4 of Directive 2000/60/EC were also posted in December 2016.
- **Stage C:** In June 2017, the Draft of 1<sup>st</sup> Revision of the RBMP for the Crete RBD was posted to the webpage of Special Secretariat for Water (<http://wfdver.ypeka.gr>), as well as the relevant questionnaire. This stage also included the publication of the Strategic Environmental Impact Assessment.

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

For the purpose of the consultation of the 1<sup>st</sup> Revision of the RBMPs of the country a website was implemented by the Special Secretariat for Water (SSW) (<http://wfdver.ypeka.gr>), with the capability of comment submissions (email and online comments posting), as well as the capability of filling the consultation questionnaire. Posting public comments regarding the published material was also possible via the same webpage. Also, in the same webpage there are available all the elements of the 1<sup>st</sup> RBMPs accompanied with their relevant geospatial data, concerning the WBs and their status, as well as other relevant data related to Water Resources Management like the National Registry of Surface and Groundwater Abstraction Points, the National Database of Wastewater Treatment Plants etc.

In addition to the above mentioned, during the consultation, the capability of intervention was given regarding the 1<sup>st</sup> Revision of the RBMPs via email, fax or by post, aiming at the submission of different opinions and information providing.

The consultation process of the Strategic Environmental Impact Assessment was implemented simultaneously with the consultation of the 1<sup>st</sup> Revision of the RBMP, a fact which significantly contributed to the configuration of the Final Plan.

Last but not least, workshops were organized during a two-day event for informing the public about the River Basin Management Plan and the Flood Risk Management Plan.

In total, 113 people took part, 10 of which actively intervened during the workshops, while 18 consultation questionnaires were filled. Additionally, 6 commentary texts were received, either via e-mail or as comments on the SSW website.

By assessing these questionnaires, the following conclusions came up:

1. The main mean of information for the participants was the SSW's invitation (60%). The most effective way for your information, with regards to the various Management Plan supportive documents to be published, is the use of e-mail services for sending information (46%) and the SSW's website for briefing and updates (41%).

2. The list of the social partners involved found on the website was not read by 55% of the participants, while 89% of them do not want to make any addition or correction on that list. In two questionnaires, the Real Estate Service and the Municipality of Amari were asked to be added on the social partners list.
3. No objections were made on the changes suggested with regards to the surface and ground water bodies. From the questionnaires filled the following suggestions are highlighted: Firstly, it should be environmentally monitored how the Aposelemis dam works could affect the aquifer of the surrounding area and especially the area of Ierapetra. Secondly, the ground waterbody of the southern and eastern Diktis kart system should be checked.
4. The most important waterbody issues that need to be confronted during the Management Plan revision are prioritized as such:
  - ✓ The lack of drinking water of adequate quantity and of proper quality
  - ✓ The lack of irrigation water of adequate quantity and of proper quality
  - ✓ Problematic infrastructure in relation to drinking and irrigation works (e.g. old network, lack of water abstraction works, etc.)
  - ✓ Irrational management of water resources by the competent bodies
5. The most significant causes that complicate the confrontation of the above issues are prioritized as such:
  - ✓ Confrontation/overlap of jurisdiction between the competent bodies
  - ✓ Lack of authority coordination
  - ✓ Improper observance of the law
6. Additional issues are identified that should be furtherly investigated in the frame of the RBMP revision. The suggested issues arise are: the adaptation to climate change, the hierarchy of measures after the SWOT or COST BENEFIT ANALYSIS, the use of “grey” water, the cooperation of the competent services, the utilization of the recycled water by the wastewater treatment plants and the management of surface water bodies in relation in accordance to the technological capabilities available.
7. In relation to the question on how the drought-water shortage and Climate Change issues could be taken into account in the revised Management Plan, the following were suggested:
  - ✓ New approaches in relation to intervening with small dams, desalinations and better information provision
  - ✓ Proper management, new legal framework and implication of proper agricultural practice
  - ✓ Drilling new wells
  - ✓ Work desing for water saving and for encountering water resources waste
  - ✓ Examine high-risk scenarios and solutions such as the process desalination and “grey” waters



- ✓ Make good use of water resources that are not currently used, such as Almyros of Heraklion
8. The water-saving measures are prioritized in accordance to their effectiveness as such:
- ✓ Proper information
  - ✓ Saving systems
  - ✓ Proper pricing policy
9. The most effective ways of informing the public and raising awareness are:
- ✓ The transmission of information through in newspapers, on television and on the radio, along with the organization of related workshops
  - ✓ The use of social media networks
10. The main priorities for confronting the important management issues are:
- ✓ Saving of water resources with infrastructure improvement works (replacement of drinking and irrigating networks, recycling, etc.)
  - ✓ Pricing according the saying “the polluter pays”
  - ✓ Pollution reduction on the ground waterbodies

From the written and oral interventions made, certain adjustments on the Management Plan were made, which are related to the following issues:

- ✓ Classification of surface waterbodies status
- ✓ Drinking water demand
- ✓ Financial analysis issues
- ✓ Issues on the protection of water abstraction localities related to human consumption
- ✓ Integration of drought and climate change issues in the RBMP
- ✓ Individual issues in relation to certain pressure categories

The consultation process was designed and implemented based on the Directive regulations, that include a series of actions to ensure that both the public and competent bodies will have access to all the information available, aiming to their active participation with regards the 1<sup>st</sup> Revision of the River Basin Management Plan of the RBD. The main conclusions arose are:

- Satisfying participation of the Public Administration bodies
- Satisfying participation of the public and of NGO's
- High degree of environmental awareness with regards to water resources
- The consultation process is considered successful, since it highlighted all these points/problems/deficiencies that arose during the implication of the 1<sup>st</sup> RBMP of the Crete River-Basin District, it demonstrated the need for revision and it contributed to the final configuration of the 1<sup>st</sup> RBMP of the Crete River-Basin District.



In summary, all the changes and additions included in the 1<sup>st</sup> RBMP are the result of the consultation process and are related to the following:

- Update of data presented on the Management Plan, according to the information available and/or highlights that were taken into consideration during the consultation. These data are mostly related to water abstraction issues, but are also related to water usages, pressures and the waterbodies status, the delimitation of certain coastal and surface waterbodies, etc.
- Reform of the final Measure Programme that includes:
  - The recast of specific measures in relation to the concretization/specialization of restrictions and actions related to them
  - The correction of the implementation bodies of the measures
  - The differentiation on the description of certain measures for the inclusion of actions that have been already programmed by the implementation bodies and/or the available funding tools
  - The inclusion of targeted complementary measures for the achievement of certain and locally significant management objectives, the increase of the current knowledge and the improvement of the environmental and the aquatic conditions.

The consultation process, along with the results summarized above, are extensively described in the Detailed Documentation Text “Evaluation report of the consultation results”.

## 2 DIFFERENCES IN RELATION TO THE 1<sup>st</sup> RIVER BASIN MANAGEMENT PLAN

### 2.1 Main differences in relation to the 1<sup>st</sup> River Basin Management Plan

The 1<sup>st</sup> Revision has significant changes and improvements in comparison to the 1<sup>st</sup> RBMP:

- It is based on the data of the National Water Monitoring Network for the 2012-2015 period
- The 1<sup>st</sup> Revision is being drawn up at the same time as the Flood Risk Management Plans in accordance with Directive 2007/60 /EC and synergy of actions and of programme of measures has being accomplished
- It is being drawn up at the same time as the programmes of measures for the achievement of the good environmental status of the marine waters of the country in accordance with the Directive 2008/56/EC and synergy of actions and of programme of measures has being accomplished
- It takes into account the National Strategy for Adaptation to Climate Change and incorporated actions of the National Strategy for Adaptation to Climate Change into the programme of measures
- It takes into account the results of actions that have been implemented so far in the context of increasing knowledge of water status and pressures, as well as the actions implemented to fill in the gaps identified in the 1<sup>st</sup> Management Plan
- It takes into account the new requirements arising from the Directive 2000/60/EC Guidance Documents published by the EU.
- It takes into account the results of the European Commission's Special Report on the Evaluation of Management Plans which was implemented as part of the European Parliament's briefing on the implementation of the Directive and is available on the EU's website
- It takes into account the new analytical methodologies for critical aspects of the implementation of WFD:
  - Analysis of anthropogenic pressures and their impacts on surface water bodies and groundwater bodies
  - Determination and criteria for assessment of hydromorphological alterations
  - Determination of Heavily Modified (HMWB) and Artificial (AWB) Water Bodies
  - Determination of the "exemptions" from the achievement of the environmental objectives of Directive 2000/60/EC:
    - Determination of the "exemptions" of paragraphs 4 to 6 of Article 4 of Directive 2000/60/EC (4.4 - 4.6)
    - Determination of the "exemptions" of paragraph 7 of Article 4 of Directive 2000/60/EC (4.7), concerning new modifications
  - Assessment (classification) of surface water bodies status:
    - Assessment of the ecological and chemical status of river water bodies
    - Assessment of the ecological and chemical status of lake water bodies
    - Assessment of the ecological and chemical status of coastal and transitional water bodies
- It takes into account the new analytical national assessment methodologies for individual biological quality elements (BQEs) for each surface water category that have been approved by

the EU in the context of the intercalibration exercise carried out at European level. These methodologies concern the following:

- Analytical methodologies for the assessment of biological quality elements in rivers.
- Analytical methodologies for the assessment of biological quality elements in lakes.
- Analytical methodologies for the assessment of the biological quality elements in coastal and transitional waters.

All the analytical methodologies, which are also Analytical Documentation Documents of the 1<sup>st</sup> Revision of the RBMP, are available on the relevant website of the Special Secretariat for Water (<http://wfdver.ypeka.gr/>).

## **2.2 Record of the main differences**

The following table summarizes the differences in each individual scope of the Revised RBMP in relation to the 1<sup>st</sup> RBMP, based on the previous paragraph and the obtained results.

**Table 2-1 Main differences of the 1<sup>st</sup> Revision in relation to the 1<sup>st</sup> RBMP**

| Scope of 1 <sup>st</sup> Revision /Activity                              | Differences in relation to the 1 <sup>st</sup> RBMP  |
|--|--|
| COMPETENT AUTHORITIES  | The competent authorities are not different from the 1 <sup>st</sup> RBMP.<br>In the Revision, the inventory of key authorities / stakeholders involved in Water Management as outlined in the existing institutional framework is rationalized and presented based on the requirements of the new Guidance Document for reporting to EU (GD Reporting 2016).  |
| DETERMINATION OF SURFACE WATER BODIES - TYPOLOGY                         | During the Revision, a new typology is being developed for river and lake WBs. Also, reservoirs are reported as River Heavily Modified WBs, but for their typology and classification the elements and tools for the lake WBs has been used, as lake WBs are the category of natural surface water bodies to which reservoirs are the most similar.<br>Based on the above, the number of SWBs is reviewed.<br>During the revision, the SWBs codes were modified. The GR at the beginning of the codes becomes EL for compatibility reasons with the EU databases.  |
| DETERMINATION OF GROUNDWATER BODIES                                      | The number of GWBs is reviewed based on the latest data from the NMWN and / or individual specific studies that have been implemented since the approval of the 1 <sup>st</sup> RBMP to date.<br>During the revision, the GWBs codes were modified. The GR at the beginning of the codes becomes EL for compatibility reasons with the EU databases.   |
| HEAVILY MODIFIED WATER BODIES (HMWBs) AND ARTIFICIAL WATER BODIES (AWBs) | Heavily Modified Water Bodies determined in the 1 <sup>st</sup> RBMP are reviewed on the basis of the new methodology that has been established and the data from the NMWN.  |
| PROTECTED AREAS  | The Register of Protected Areas from the 1 <sup>st</sup> RBMP, is revised based on:<br>The new Natura 2000 sites proposed by the Greek Ministry of Environment and Energy based on the provisions of the Birds Directive (2009/147/EC) and Habitats Directive (92/43/EEC)<br>The results of the Monitoring Program of Bathing Waters and the provisions of the Bathing Waters Directive (2006/7/EC)<br>Other directives on water protection with stricter objectives such as the Drinking Water Directive (80/778/EEC, as amended by Directive 98/83/EC), the Directive for shellfish (2006/113/EC), the Directive for freshwater fish (2006/44 / EC), the Directive for protection from pollution caused by nitrates (91/676/EEC) and the Directive for urban waste water treatment (91/271/EEC).<br>Newer data emerged from the approval of the 1 <sup>st</sup> RBMP and the relevant EU Guidance Documents. |
| PRESSURES AND IMPACTS  | The assessment of pressures and impacts in the Revision is carried out on the basis of the new common methodology developed and the newer data from the approval of the 1 <sup>st</sup> RBMP.<br>A significant difference is the assessment of the pressures on the hydromorphological characteristics of the Water Bodies for which a specific and analytical methodological approach has been developed.   |

| Scope of 1 <sup>st</sup> Revision /Activity    | Differences in relation to the 1 <sup>st</sup> RBMP  |
|--|--|
| CLASSIFICATION OF SURFACE WATER BODIES' STATUS | In the Revision, the classification of surface WBs' status is based on: <ul style="list-style-type: none"> <li>- the new methodological approaches developed by the National Scientific Committee of the SSW to determine the methods for classifying the ecological status of all categories of surface water bodies and adopted by the EU</li> <li>- the data of the Monitoring Network of water bodies' status.</li> </ul> For WBs that are not monitored, the classification of their status was performed by grouping based on their typology and pressures.  |
| CLASSIFICATION OF GROUNDWATER BODIES' STATUS   | The methodology for the classification of GWBs' status is not different from the 1 <sup>st</sup> RBMP. The classification of GWBs is based on the newest data of the NMWN..  |
| MONITORING NETWORK FOR WATER BODIES' STATUS    | The Revision in relation to the 1 <sup>st</sup> RBMP includes the results of the NMWN with a larger number of samples for the 2012 - 2015 period for almost all Biological Quality Elements, Physico-chemical and Chemical Quality Elements as well as the hydromorphological quality elements of surface WBs. It also includes measurements of both the qualitative and the quantitative status of the GWBs   |
| ECONOMIC ANALYSIS OF WATER USES                | The economic analysis of the water uses is based on <ul style="list-style-type: none"> <li>- the provisions of the new JMD 135275/22.05.17 "Adoption of general rules for costing and pricing of water services. Method and procedures for the recovery of the cost of water services in its various uses "</li> <li>- the methodological tools resulted from the SSW project "Consultant on technical support and assistance of SSW in matters of organization, management and costing of water services"</li> </ul>  |
| ENVIRONMENTAL OBJECTIVES - EXCEPTIONS          | During the Revision, the environmental objectives and exemptions were based on new methodological approaches developed in accordance with EU guidelines  |
| PROGRAM OF MEASURES                            | The Programme of Measures in this Revision of the RBMP includes the following new approaches in relation to the 1 <sup>st</sup> RBMP: <ul style="list-style-type: none"> <li>- The specialization /restatement of the 1<sup>st</sup> RBMP measures, which are continuing in this Management Cycle</li> <li>- The formulation of new measures to address the pressures on the WBs and the achievement of the objectives set.</li> <li>- The correlation of measures with specific significant pressures identified in the RBD.</li> <li>- The correlation of measures with Key Type Measures as defined by the EU and specific indicators to monitor their implementation progress.</li> <li>- The correlation of measures with national actions to adapt to climate change as set out in the National Climate Change Adaptation Strategy (Greek Ministry of Environment and Energy, 2016)</li> </ul> |

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

#### 3.1 River Basins

The **Crete River Basin District** is the 13<sup>th</sup> of the 14 River Basin Districts of the Country, has the Code EL13 and consists of three (3) River Basins, which, according to the No 706/2010 Decision of the National Water Committee (GG 1383/B/2010), are the River Basin Rematon Voreiou Tmimatos Chanion-Rethymnou-Irakleiou (EL1339), the River Basin Rematon Notiou Tmimatos Chanion-Rethymnou-Irakleiou (EL1340) and the River Basin Rematon Anatolikis Kritis (EL1341)

**Table 3-1 River Basins of Crete RBD (EL13)**

| RB Code     | RB Name  | Area (km <sup>2</sup> ) | Elevation (m) |                 |          |
|-------------|--|-------------------------|---------------|-----------------|----------|
|             |  |                         | Mean          | Maximum         | Minimum  |
| EL1339      | Northern Part of the Chania-Rethymno-Irakleio Streams  | 3.643,75                | 438,92        | 2.452,09        | 0        |
| EL1340      | Shouthern Part of the Chania-Rethymno-Irakleio Streams | 2.798,03                | 475,15        | 2448,02         | 0        |
| EL1341      | Eastern Crete Streams                                  | 1.885,36                | 346,73        | 2122,66         | 0        |
| <b>EL13</b> | <b>River Basin District of Crete (EL13)</b>            | <b>8.327,10</b>         | <b>480,51</b> | <b>2.452,09</b> | <b>0</b> |



**Map 3-1 Crete River Basin District (EL13) and River Basins**

### 3.2 Competent Authorities

The competent authorities for the protection and management of water resources are defined by Law 3199/2003 (GG 280/A/2003), as amended and in force, for the Protection and Management of Water Resources, which harmonizes the National Law with the provisions of the WFD,. The competent authorities are:

The **National Water Committee**, is defined as the high level interministerial body and has the responsibility of policymaking for the management and protection of water resources of the country and consists of the Ministers of:

- a) Environment and Energy, as President,
- b) Infrastructure and Transport
- c) Economy
- d) Economy and Development
- e) Interior
- f) Health
- g) Rural Development and Food
- h) Administrative Reconstruction

In the Committee other Ministers may participate, after invitation of the President, if issues of their responsibilities are discussed, while the Minister of Foreign Affairs participates when issues regarding transboundary water bodies are discussed.

The **National Water Council**, delivers opinions to the National Water Committee for national programs related to the protection and management of the water resources of the country, while takes note of the Yearly Report, which the National Water Committee submits, regarding the status of water environment of the country, the implementation of the legislation for the protection and management of water resources, as well as the compatibility of Union's acquis. It consists of 26 members (parties and bodies representatives) and the Minister of Environment and Energy. The National Water Council is convened from its President at least once a year.

The **Special Secretariat for Water**, which has the responsibility of the implementation of the Programs for Protection and Management of Water resources of the country and the coordination of agencies and national bodies for each issue regarding the protection and management of water resources. The Secretariat, in collaboration with the Water Directorate of the Decentralized Administrations, sets up the national programmes for the protection and management of the water resources of the country and monitors and coordinates their implementation.

**Table 3-2 Identity of the National Competent Authority**

| Official Name  | Special Secretariat for Water  |
|--|--|
| Abbreviation   | SSW  |
| Legal status   | Single Administrative Division of the Ministry of Environment and Energy   |
| Provisions for its Creation and Definition of Competencies | <ul style="list-style-type: none"> <li>• Law 3199/2003 (GG 280/A/2003) for the Protection and Management of Water Resources, as amended and in force, specially by Law 4117/2013 (GG 29/A/2013) and Law 4315/2014 (GG 269/A/2014)</li> <li>• Presidential Decree 132/2017 (GG 160/A/2017) "Organization of the Ministry of Environment and Energy" in combination with the JMD 322/2013 "Organization of the Special Secretariat for Water of the Ministry of Environment, Energy and Climate Change" (GG B' 679), as in force.</li> </ul> |
| Contact info   |  |
| Postal address   | 17 Amaliados st.   |
| Postal Code  | 11523  |
| City   | Athens   |
| Country  | Greece   |
| Webpage  | <a href="http://www.ypeka.gr/">http://www.ypeka.gr/</a><br><a href="http://wfdver.ypeka.gr">http://wfdver.ypeka.gr</a>   |
| Telephone, e-mail  | Tel. 210 6475102, 213 1515410<br>e-mail: info.egy@prv.ypeka.gr   |

Additionally, on implementation issues of the WFD, the following Ministries are engaged: Ministry of Foreign Affairs, Ministry of Rural Development and Food, Ministry of Infrastructure and Transport, Ministry of Economy and Development, Ministry of Health, Ministry of Maritime Affairs and Island Policy, Ministry of Interior.

At a regional level, the competent authorities are:

The **Water Council of the Decentralized Administrations**, which, according to Article 6 of Law 3199/2003, as amended by Article 53 of Law 4423 (GG 182/A/2016), is established in each Decentralized Administration as an instrument for social dialogue and consultation on water protection and management issues. In case that the River Basin Management Plan is implemented by the Decentralized Administration, the Water Council of the Decentralized Administration is consulted before the approval of the Management Plan and advises Secretary General of the Decentralized Administration [or otherwise the Coordinator of Decentralized Administration, according to article 28 of Law 4325/2015 (GG 47/A/2015)] on every issue of water protection and management that he/she submits. Also, in this case, the Water Council of the Decentralized Administration, before issuing its opinion to the Management Plan, shall make it available, in order for the public to be informed of its content and participate in the consultation about it, within a deadline set by the Water Council.

The **Water Directorates of the Decentralized Administrations**, through which the Decentralized Administration's responsibilities for the protection and management of water are exercised.

Following the reorganization of the local administration authorities as a result of the administrative reforms of the "Kallikratis" plan, the Water Directorates of the former State Regions are now subordinated to the respective Decentralized Administrations. The Decentralized Administration of



Crete, which is responsible for all the RBs of Crete RBD (EL13), includes a Water Directorate, the Water Directorate of Crete. The Water Directorate is responsible for the protection and management of the waters in the Region of Crete and exercises the powers conferred on the Decentralized Administration in accordance with the current legislation.

**Table 3-3 Identity of the Regional Competent Authority**

| <b>Decentralized Administration of Crete, Water Directorate of Crete</b> |  |
|--|--|
| <b>Official Name</b>   |  |
| <b>Abbreviation</b>  | WDC  |
| <b>Legal status</b>  | Organic Unit of the Decentralized Administration of Crete<br>Falls under the General Directorate of Spatial and Environmental Policy   |
| <b>Provisions for its Creation and Definition of Competencies</b>        | <ul style="list-style-type: none"> <li>• Law 3199/2003 (GG 280/A/2003) for the Protection and Management of Water Resources, as amended and in force, specially by Law 4117/2013 (GG 29/A/2013) and Law 4315/2014 (GG 269/A/2014).</li> <li>• Law 3852/2010 (GG 87/A/2010) Kallikratis Plan, as in force.</li> <li>• Presidential Decree 51/2007 for the definition of measures and processes for the complete protection and water management, according to the Directive 2000/60/EC.</li> <li>• Presidential Decree 136 (GG 229/A/2010) "Organization of the Decentralized Administration of Crete".</li> <li>• Decision of the National Water Committee 706/2010 (GG B' 1383/2-9-2010 "Definition of the River Basins of the country and of the competent Regions for their management and protection" and GG B' 1572/28-9-2010 correction of Annex II), as in force after the approval of the individual River Basin Management Plan of the country's River Basin Districts</li> </ul> |
| <b>Contact info</b>  |  |
| <b>Postal address</b>  | Kountourioti Square,<br>71202,<br>Heraclion, Crete,<br>Greece  |
| <b>Webpage</b>   | <a href="http://www.apdkritis.gov.gr/">http://www.apdkritis.gov.gr/</a>  |
| <b>Telephone, e-mail</b>   | Tel. 2813 404136<br>fax: 2813-404198<br>e-mail: ydata@apdkritis.gov.gr<br>e-mail: m.kritsotakis@apdkritis.gov.gr   |

In addition, Local Administration Authorities of Level A and B are involved in issues regarding the implementation of the WFD.

The table that follows provides a better image of the nature of the role of each competent authority per thematic object, in the frame of water management and protection.

**Table 3-4 Degree of involvement of the competent authorities in relation to the Directive 2000/60/EC implication**

| Authority   | Roles                        |                    |                                |                               |  |   |                  |                |                         |                             |                        |                          |                           |
|---|------------------------------|--------------------|--------------------------------|-------------------------------|--|---|------------------|----------------|-------------------------|-----------------------------|------------------------|--------------------------|---------------------------|
|   | Pressure and impact analysis | Financial Analysis | Surface waterbodies monitoring | Ground waterbodies monitoring | Status assessment of surface waterbodies | Status assessment of ground waterbodies | RBMP instruction | MP instruction | Measurement implication | Participation of the public | Regulation enforcement | Implication coordination | Data submission to the EC |
| Special Secretariat for Water of the 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              | M                       | M                           | M                      | M                        | -                         |
| Ministry of Foreign Affairs   | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | O                       | -                           | M                      | -                        | -                         |
| Ministry of Rural Development & Food                                  | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Ministry of Infrastructure & Transport                                | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Ministry of Finance & Development                                     | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Ministry of Health  | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Ministry of Shipping & Island Policy                                  | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Ministry of Interior  | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | -                           | O                      | -                        | -                         |
| Municipalities  | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | O                           | -                      | -                        | -                         |
| Regions   | -                            | -                  | -                              | -                             | -  | -                                       | -                | -              | M                       | O                           | O                      | -                        | -                         |

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

The competent authorities in a national, regional and local level are presented in the figure that follows.

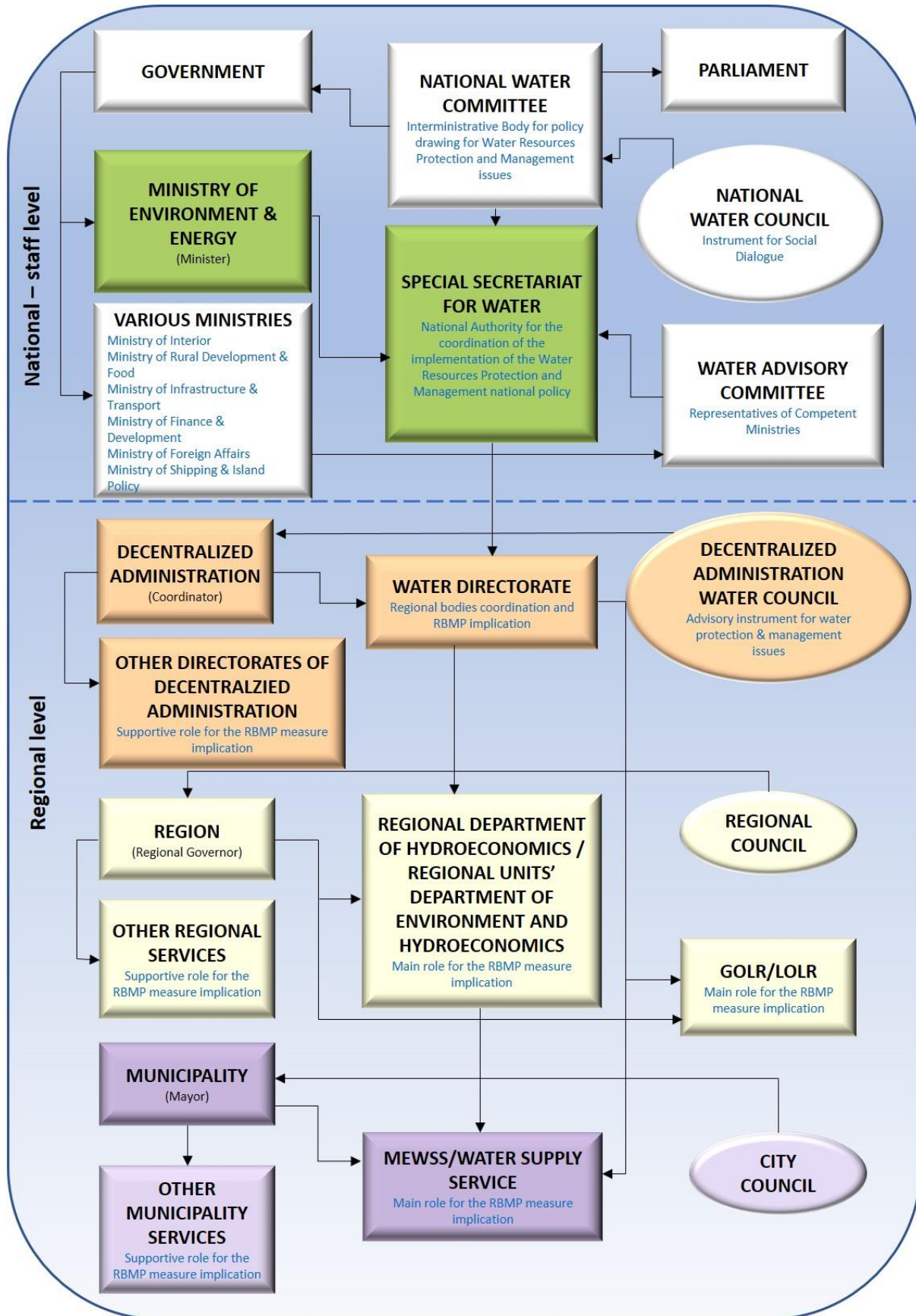


Figure 3-1 National, regional and local competent authorities

## 4 IDENTIFICATION OF WATER BODIES

### 4.1 Surface Water Bodies

Under the 1<sup>st</sup> Revision of the RBMP, a total of one hundred and fifty-three (153) surface water bodies were identified.

**Table 4-1 Number of surface water bodies per River Basin of Crete RBD (EL13)**

| WB Type          | RB EL1339 | RB EL1340 | RB EL1341 | TOTAL RBD  |
|------------------|-----------|-----------|-----------|------------|
| River WBs*       | 63        | 44        | 16        | 123        |
| Lake WBs         | 1         | 0         | 0         | 1          |
| Transitional WBs | 4         | 0         | 0         | 4          |
| Coastal WBs      | 10        | 6         | 9         | 25         |
| <b>Total WBs</b> | <b>78</b> | <b>50</b> | <b>25</b> | <b>153</b> |

*\*Reservoirs included*

The surface water bodies identified are presented to the following tables.

**Table 4-2 New typology, according to European Decision 2013/480 / EC and MED GIG, for River WBs (not reservoirs) of Crete RBD (EL13)**

| No  | WB Name    | WB Code           | Cate-<br>gory | Length<br>(km) | Immediate<br>River Basin<br>(km <sup>2</sup> ) | Cumulative<br>River Basin<br>(km <sup>2</sup> ) | Mean<br>Annual<br>Runoff<br>(hm <sup>3</sup> ) | Type |
|---|------------|-------------------|---------------|----------------|--|---|--|------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |            |                   |               |                |  |   |  |      |
| 1   | TSIHLIANOS | EL1339R000101001N | NAT.          | 9,07           | 32,12  | 32,12   | 2,23   | R-M5 |
| 2   | GIFLOS     | EL1339R000201003N | NAT.          | 8,68           | 27,63  | 27,63   | 2,56   | R-M1 |
| 3   | GIFLOS     | EL1339R000201058N | NAT.          | 6,04           | 11,08  | 77,71   | 6,55   | R-M5 |
| 4   | GIFLOS     | EL1339R000202104N | NAT.          | 3,2            | 4,59   | 39  | 3,16   | R-M1 |
| 5   | GIFLOS     | EL1339R000202205N | NAT.          | 5,9            | 34,41  | 34,41   | 2,77   | R-M1 |
| 6   | TAVRONITIS | EL1339R000301006N | NAT.          | 3,94           | 7,43   | 130,85  | 23,86  | R-M5 |
| 7   | TAVRONITIS | EL1339R000301007N | NAT.          | 4,1            | 15,3   | 52,01   | 16,22  | R-M5 |
| 8   | TAVRONITIS | EL1339R000301008N | NAT.          | 6,72           | 28,43  | 28,43   | 6,5  | R-M1 |
| 9   | TAVRONITIS | EL1339R000301057N | NAT.          | 1,68           | 2,1  | 49,91   | 14,87  | R-M1 |
| 10  | TAVRONITIS | EL1339R000302009N | NAT.          | 9,01           | 21,48  | 21,48   | 8,17   | R-M1 |
| 11  | TAVRONITIS | EL1339R000303110N | NAT.          | 17,8           | 56,12  | 56,12   | 7,11   | R-M1 |
| 12  | KERITIS    | EL1339R000401011N | NAT.          | 4,29           | 17,03  | 180,26  | 84,94  | R-M2 |
| 13  | KERITIS    | EL1339R000401012H | HMW<br>B      | 1,9            | 2,79   | 17,92   | 67,2   | R-M1 |
| 14  | KERITIS    | EL1339R000401114N | NAT.          | 10,99          | 80,26  | 145,32  | 16,53  | R-M2 |
| 15  | KERITIS    | EL1339R000401115N | NAT.          | 2,41           | 65,05  | 65,05   | 8,27   | R-M4 |
| 16  | KERITIS    | EL1339R000402013N | NAT.          | 2,25           | 15,12  | 15,12   | 67   | R-M1 |
| 17  | KOILIARIS  | EL1339R000501016N | NAT.          | 0,85           | 2,61   | 130,94  | 12,76  | R-M2 |
| 18  | KOILIARIS  | EL1339R000501017N | NAT.          | 3,9            | 61,64  | 61,64   | 6,62   | R-M5 |
| 19  | KOILIARIS  | EL1339R000501059N | NAT.          | 1,42           | 10,16  | 128,33  | 12,58  | R-M2 |
| 20  | KOILIARIS  | EL1339R000501060N | NAT.          | 0,56           | 0,48   | 118,17  | 11,84  | R-M2 |

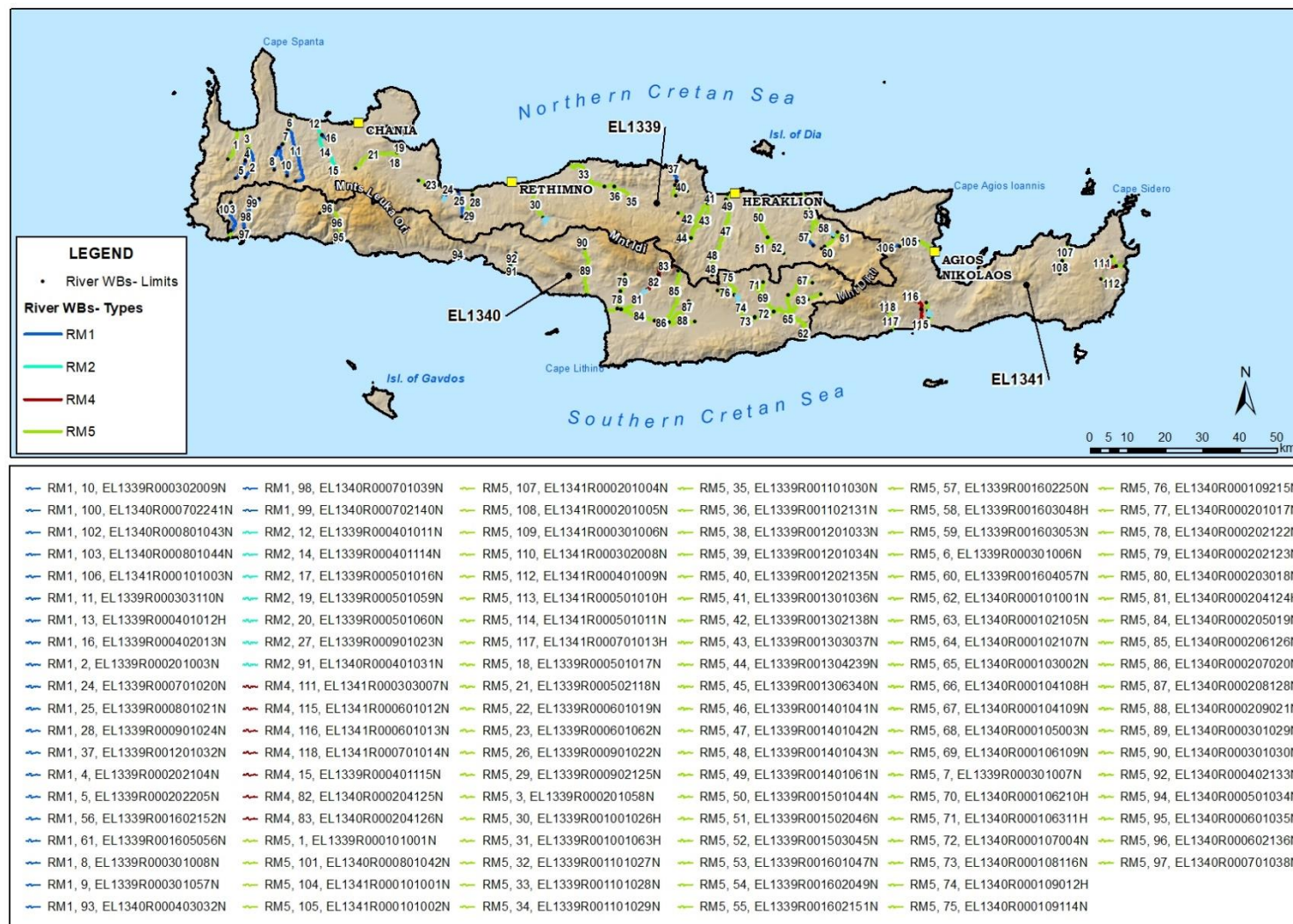
| No  | WB Name         | WB Code           | Category | Length (km) | Immediate River Basin (km <sup>2</sup> ) | Cumulative River Basin (km <sup>2</sup> ) | Mean Annual Runoff (hm <sup>3</sup> ) | Type |
|---|-----------------|-------------------|----------|-------------|--|---|---------------------------------------|------|
| 21  | KOILIARIS       | EL1339R000502118N | NAT.     | 14,25       | 56,06                                    | 56,06                                     | 5,18                                  | R-M5 |
| 22  | ALMIROS CHANION | EL1339R000601019N | NAT.     | 2,57        | 112,46                                   | 112,46                                    | 14,87                                 | R-M5 |
| 23  | ALMIROS CHANION | EL1339R000601062N | NAT.     | 4,33        | 26,48                                    | 138,94                                    | 18,04                                 | R-M5 |
| 24  | KOURNIOTIS      | EL1339R000701020N | NAT.     | 2,97        | 9,17                                     | 18,22                                     | 2,03                                  | R-M1 |
| 25  | MOYSELAS        | EL1339R000801021N | NAT.     | 7,43        | 49,31                                    | 49,31                                     | 4,96                                  | R-M1 |
| 26  | PETRES          | EL1339R000901022N | NAT.     | 1,19        | 1,2                                      | 127,24                                    | 9,84                                  | R-M5 |
| 27  | PETRES          | EL1339R000901023N | NAT.     | 1,76        | 4,63                                     | 126,04                                    | 9,74                                  | R-M2 |
| 28  | PETRES          | EL1339R000901024N | NAT.     | 2,28        | 79,16                                    | 79,16                                     | 5,8                                   | R-M1 |
| 29  | PETRES          | EL1339R000902125N | NAT.     | 6,81        | 42,25                                    | 42,25                                     | 3,56                                  | R-M5 |
| 30  | SFAKORIAKO      | EL1339R001001026H | HMW B    | 10,66       | 42,85                                    | 103,61                                    | 17,84                                 | R-M5 |
| 31  | SFAKORIAKO      | EL1339R001001063H | HMW B    | 1,93        | 18,32                                    | 121,94                                    | 19,2                                  | R-M5 |
| 32  | MILOPOTAMOS     | EL1339R001101027N | NAT.     | 7,45        | 36,06                                    | 375,26                                    | 44,04                                 | R-M5 |
| 33  | MILOPOTAMOS     | EL1339R001101028N | NAT.     | 9,96        | 135,96                                   | 339,21                                    | 40,58                                 | R-M5 |
| 34  | MILOPOTAMOS     | EL1339R001101029N | NAT.     | 2,95        | 5,99                                     | 203,25                                    | 24,88                                 | R-M5 |
| 35  | MILOPOTAMOS     | EL1339R001101030N | NAT.     | 8,94        | 96,3                                     | 96,3                                      | 10,59                                 | R-M5 |
| 36  | MILOPOTAMOS     | EL1339R001102131N | NAT.     | 3,49        | 100,96                                   | 100,96                                    | 13,64                                 | R-M5 |
| 37  | FODELE          | EL1339R001201032N | NAT.     | 4,21        | 13,02                                    | 44,3                                      | 3,58                                  | R-M1 |
| 38  | FODELE          | EL1339R001201033N | NAT.     | 1,12        | 1,23                                     | 31,28                                     | 2,56                                  | R-M5 |
| 39  | FODELE          | EL1339R001201034N | NAT.     | 4,35        | 21,64                                    | 21,64                                     | 1,82                                  | R-M5 |
| 40  | FODELE          | EL1339R001202135N | NAT.     | 4,4         | 8,41                                     | 8,41                                      | 0,65                                  | R-M5 |
| 41  | GAZANOS         | EL1339R001301036N | NAT.     | 3,02        | 22,74                                    | 182,17                                    | 6,87                                  | R-M5 |
| 42  | GAZANOS         | EL1339R001302138N | NAT.     | 13,39       | 74,52                                    | 74,52                                     | 2,66                                  | R-M5 |
| 43  | GAZANOS         | EL1339R001303037N | NAT.     | 12,29       | 27,97                                    | 84,91                                     | 3,54                                  | R-M5 |
| 44  | GAZANOS         | EL1339R001304239N | NAT.     | 3,23        | 10,54                                    | 10,54                                     | 0,44                                  | R-M5 |
| 45  | GAZANOS         | EL1339R001306340N | NAT.     | 1,67        | 46,39                                    | 46,39                                     | 2,14                                  | R-M5 |
| 46  | GIOFIROS        | EL1339R001401041N | NAT.     | 1,7         | 6,95                                     | 189,76                                    | 26,63                                 | R-M5 |
| 47  | GIOFIROS        | EL1339R001401042N | NAT.     | 17,31       | 103,91                                   | 170,85                                    | 25,55                                 | R-M5 |
| 48  | GIOFIROS        | EL1339R001401043N | NAT.     | 6,34        | 66,93                                    | 66,93                                     | 10,92                                 | R-M5 |
| 49  | GIOFIROS        | EL1339R001401061N | NAT.     | 3,1         | 11,96                                    | 182,81                                    | 26,27                                 | R-M5 |
| 50  | KARTEROS        | EL1339R001501044N | NAT.     | 13,87       | 62,65                                    | 191,61                                    | 13,51                                 | R-M5 |
| 51  | KARTEROS        | EL1339R001502046N | NAT.     | 4,76        | 55,02                                    | 55,02                                     | 3,71                                  | R-M5 |
| 52  | KARTEROS        | EL1339R001503045N | NAT.     | 6,67        | 73,93                                    | 73,93                                     | 5,77                                  | R-M5 |
| 53  | APOSELEMIS      | EL1339R001601047N | NAT.     | 8,42        | 14,73                                    | 122,19                                    | 15,39                                 | R-M5 |
| 54  | APOSELEMIS      | EL1339R001602049N | NAT.     | 4,63        | 15,94                                    | 30,56                                     | 2,4                                   | R-M5 |
| 55  | APOSELEMIS      | EL1339R001602151N | NAT.     | 2,1         | 1,27                                     | 6,57                                      | 0,53                                  | R-M5 |
| 56  | APOSELEMIS      | EL1339R001602152N | NAT.     | 2,29        | 5,3                                      | 5,3                                       | 0,43                                  | R-M1 |
| 57  | APOSELEMIS      | EL1339R001602250N | NAT.     | 2,62        | 8,05                                     | 8,05                                      | 0,6                                   | R-M5 |
| 58  | APOSELEMIS      | EL1339R001603048H | HMW B    | 5,75        | 17,56                                    | 76,91                                     | 12,04                                 | R-M5 |
| 59  | APOSELEMIS      | EL1339R001603053N | NAT.     | 3,52        | 19,63                                    | 21,2                                      | 3,34                                  | R-M5 |
| 60  | APOSELEMIS      | EL1339R001604057N | NAT.     | 7,62        | 16,31                                    | 16,31                                     | 9,73                                  | R-M5 |
| 61  | APOSELEMIS      | EL1339R001605056N | NAT.     | 1,63        | 1,57                                     | 1,57                                      | 0,26                                  | R-M1 |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                 |                   |          |             |  |   |                                       |      |

| No  | WB Name          | WB Code           | Category | Length (km) | Immediate River Basin (km <sup>2</sup> ) | Cumulative River Basin (km <sup>2</sup> ) | Mean Annual Runoff (hm <sup>3</sup> ) | Type |
|-----|------------------|-------------------|----------|-------------|--|---|---------------------------------------|------|
| 62  | ANAPODARIS       | EL1340R000101001N | NAT.     | 9,63        | 31,36                                    | 517,4                                     | 31,55                                 | R-M5 |
| 63  | ANAPODARIS       | EL1340R000102105N | NAT.     | 9,3         | 17,32                                    | 93,75                                     | 2,47                                  | R-M5 |
| 64  | ANAPODARIS       | EL1340R000102107N | NAT.     | 4,29        | 76,43                                    | 76,43                                     | 2,17                                  | R-M5 |
| 65  | ANAPODARIS       | EL1340R000103002N | NAT.     | 1,8         | 1,94                                     | 392,29                                    | 27,68                                 | R-M5 |
| 66  | ANAPODARIS       | EL1340R000104108H | HMW B    | 7,89        | 19,07                                    | 103,78                                    | 1,82                                  | R-M5 |
| 67  | ANAPODARIS       | EL1340R000104109N | NAT.     | 9,65        | 84,71                                    | 84,71                                     | 1,49                                  | R-M5 |
| 68  | ANAPODARIS       | EL1340R000105003N | NAT.     | 6,92        | 25,55                                    | 286,57                                    | 25,83                                 | R-M5 |
| 69  | ANAPODARIS       | EL1340R000106109N | NAT.     | 7,36        | 18,81                                    | 54,41                                     | 3,47                                  | R-M5 |
| 70  | ANAPODARIS       | EL1340R000106210H | HMW B    | 4,73        | 18,35                                    | 18,35                                     | 1,22                                  | R-M5 |
| 71  | ANAPODARIS       | EL1340R000106311H | HMW B    | 4,41        | 17,25                                    | 17,25                                     | 1,16                                  | R-M5 |
| 72  | ANAPODARIS       | EL1340R000107004N | NAT.     | 7,57        | 50,53                                    | 206,61                                    | 21,1                                  | R-M5 |
| 73  | ANAPODARIS       | EL1340R000108116N | NAT.     | 3,4         | 61,75                                    | 61,75                                     | 3,59                                  | R-M5 |
| 74  | ANAPODARIS       | EL1340R000109012H | HMW B    | 8,48        | 15,54                                    | 79,42                                     | 13,58                                 | R-M5 |
| 75  | ANAPODARIS       | EL1340R000109114N | NAT.     | 7,47        | 25,29                                    | 25,28                                     | 4,56                                  | R-M5 |
| 76  | ANAPODARIS       | EL1340R000109215N | NAT.     | 4,8         | 18,31                                    | 18,31                                     | 3,17                                  | R-M5 |
| 77  | GEROPOTAMOS      | EL1340R000201017N | NAT.     | 3,68        | 15,21                                    | 578,39                                    | 45,51                                 | R-M5 |
| 78  | GEROPOTAMOS      | EL1340R000202122N | NAT.     | 5,21        | 12,82                                    | 44,11                                     | 4,22                                  | R-M5 |
| 79  | GEROPOTAMOS      | EL1340R000202123N | NAT.     | 5,56        | 31,28                                    | 31,28                                     | 3,27                                  | R-M5 |
| 80  | GEROPOTAMOS      | EL1340R000203018N | NAT.     | 1,03        | 16,55                                    | 519,07                                    | 40,55                                 | R-M5 |
| 81  | GEROPOTAMOS      | EL1340R000204124H | HMW B    | 7,1         | 13,19                                    | 103,6                                     | 9,88                                  | R-M5 |
| 82  | GEROPOTAMOS      | EL1340R000204125N | NAT.     | 6,13        | 52,21                                    | 81,67                                     | 8,45                                  | R-M4 |
| 83  | GEROPOTAMOS      | EL1340R000204126N | NAT.     | 6,49        | 29,46                                    | 29,46                                     | 3,05                                  | R-M4 |
| 84  | GEROPOTAMOS      | EL1340R000205019N | NAT.     | 11,69       | 87,61                                    | 398,91                                    | 29,69                                 | R-M5 |
| 85  | GEROPOTAMOS      | EL1340R000206126N | NAT.     | 16,94       | 44,77                                    | 44,77                                     | 7,02                                  | R-M5 |
| 86  | GEROPOTAMOS      | EL1340R000207020N | NAT.     | 4,54        | 50,53                                    | 311,3                                     | 24,59                                 | R-M5 |
| 87  | GEROPOTAMOS      | EL1340R000208128N | NAT.     | 8,8         | 26,98                                    | 26,98                                     | 1,96                                  | R-M5 |
| 88  | GEROPOTAMOS      | EL1340R000209021N | NAT.     | 8,68        | 189,03                                   | 189,03                                    | 12,55                                 | R-M5 |
| 89  | PLATIS           | EL1340R000301029N | NAT.     | 15,16       | 153,81                                   | 207,85                                    | 45,84                                 | R-M5 |
| 90  | PLATIS           | EL1340R000301030N | NAT.     | 3,25        | 54,04                                    | 54,04                                     | 14,3                                  | R-M5 |
| 91  | KOYRTALLOTIS     | EL1340R000401031N | NAT.     | 2,6         | 4,15                                     | 108,69                                    | 8,09                                  | R-M2 |
| 92  | KOYRTALLOTIS     | EL1340R000402133N | NAT.     | 3,87        | 44,31                                    | 44,31                                     | 3,51                                  | R-M5 |
| 93  | KOYRTALLOTIS     | EL1340R000403032N | NAT.     | 2,74        | 60,24                                    | 60,24                                     | 4,3                                   | R-M1 |
| 94  | RODAKINO         | EL1340R000501034N | NAT.     | 1,86        | 10,22                                    | 10,22                                     | 0,81                                  | R-M5 |
| 95  | SAMARIAS FARAGGI | EL1340R000601035N | NAT.     | 2,22        | 5,27                                     | 51,2                                      | 6,52                                  | R-M5 |
| 96  | SAMARIAS FARAGGI | EL1340R000602136N | NAT.     | 13,55       | 45,92                                    | 45,92                                     | 5,85                                  | R-M5 |
| 97  | KAKODIKIANOS     | EL1340R000701038N | NAT.     | 2,62        | 3,57                                     | 77,63                                     | 14,46                                 | R-M5 |
| 98  | KAKODIKIANOS     | EL1340R000701039N | NAT.     | 9,01        | 21,41                                    | 74,06                                     | 14,09                                 | R-M1 |
| 99  | KAKODIKIANOS     | EL1340R000702140N | NAT.     | 2,84        | 34,94                                    | 34,94                                     | 7,62                                  | R-M1 |
| 100 | KAKODIKIANOS     | EL1340R000702241N | NAT.     | 2,43        | 17,71                                    | 17,71                                     | 3,26                                  | R-M1 |
| 101 | PELEKANIOTIS     | EL1340R000801042N | NAT.     | 2,39        | 2,97                                     | 40,72                                     | 2,69                                  | R-M5 |
| 102 | PELEKANIOTIS     | EL1340R000801043N | NAT.     | 6,09        | 17,19                                    | 37,75                                     | 2,54                                  | R-M1 |



| No  | WB Name              | WB Code           | Cate-<br>gory | Length<br>(km) | Immediate<br>River Basin<br>(km <sup>2</sup> ) | Cumulative<br>River Basin<br>(km <sup>2</sup> ) | Mean<br>Annual<br>Runoff<br>(hm <sup>3</sup> ) | Type |
|---|----------------------|-------------------|---------------|----------------|--|---|--|------|
| 103   | PELEKANIOTIS         | EL1340R000801044N | NAT.          | 3,65           | 20,56  | 20,56   | 1,46   | R-M1 |
| <b>RB of the Eastern Crete Streams (EL1341)</b> |                      |                   |               |                |  |   |  |      |
| 104   | ALMIROS<br>LASITHIOU | EL1341R000101001N | NAT.          | 6,47           | 9,68   | 115,1   | 10,21  | R-M5 |
| 105   | ALMIROS<br>LASITHIOU | EL1341R000101002N | NAT.          | 7,61           | 68,12  | 105,41  | 9,5  | R-M5 |
| 106   | ALMIROS<br>LASITHIOU | EL1341R000101003N | NAT.          | 6,49           | 37,29  | 37,29   | 3,87   | R-M1 |
| 107   | PENTELIS             | EL1341R000201004N | NAT.          | 5,11           | 59,3   | 126,88  | 10,96  | R-M5 |
| 108   | PENTELIS             | EL1341R000201005N | NAT.          | 3,9            | 67,57  | 67,57   | 7,23   | R-M5 |
| 109   | HOHLAKIAS            | EL1341R000301006N | NAT.          | 2,69           | 3,73   | 21,17   | 1,24   | R-M5 |
| 110   | HOHLAKIAS            | EL1341R000302008N | NAT.          | 3,02           | 7,01   | 7,01  | 0,4  | R-M5 |
| 111   | HOHLAKIAS            | EL1341R000303007N | NAT.          | 4,87           | 10,44  | 10,44   | 0,62   | R-M4 |
| 112   | ZAKROU<br>FARAGGI    | EL1341R000401009N | NAT.          | 7,22           | 49,53  | 49,53   | 3,14   | R-M5 |
| 113   | BRAMIANOS            | EL1341R000501010H | HMW<br>B      | 2,47           | 2,78   | 29,17   | 2,3  | R-M5 |
| 114   | BRAMIANOS            | EL1341R000501011N | NAT.          | 2,41           | 16,67  | 16,67   | 1,3  | R-M5 |
| 115   | KALAMAFKIANO<br>S    | EL1341R000601012N | NAT.          | 4,95           | 9,91   | 35,03   | 6,8  | R-M4 |
| 116   | KALAMAFKIANO<br>S    | EL1341R000601013N | NAT.          | 6,01           | 25,12  | 25,12   | 4,2  | R-M4 |
| 117   | MIRTOS               | EL1341R000701013H | HMW<br>B      | 5,73           | 26,3   | 95,35   | 11,81  | R-M5 |
| 118   | MIRTOS               | EL1341R000701014N | NAT.          | 2,81           | 69,05  | 69,05   | 6,9  | R-M4 |

NAT.: Natural WB, HMWB: Heavily Modified WB



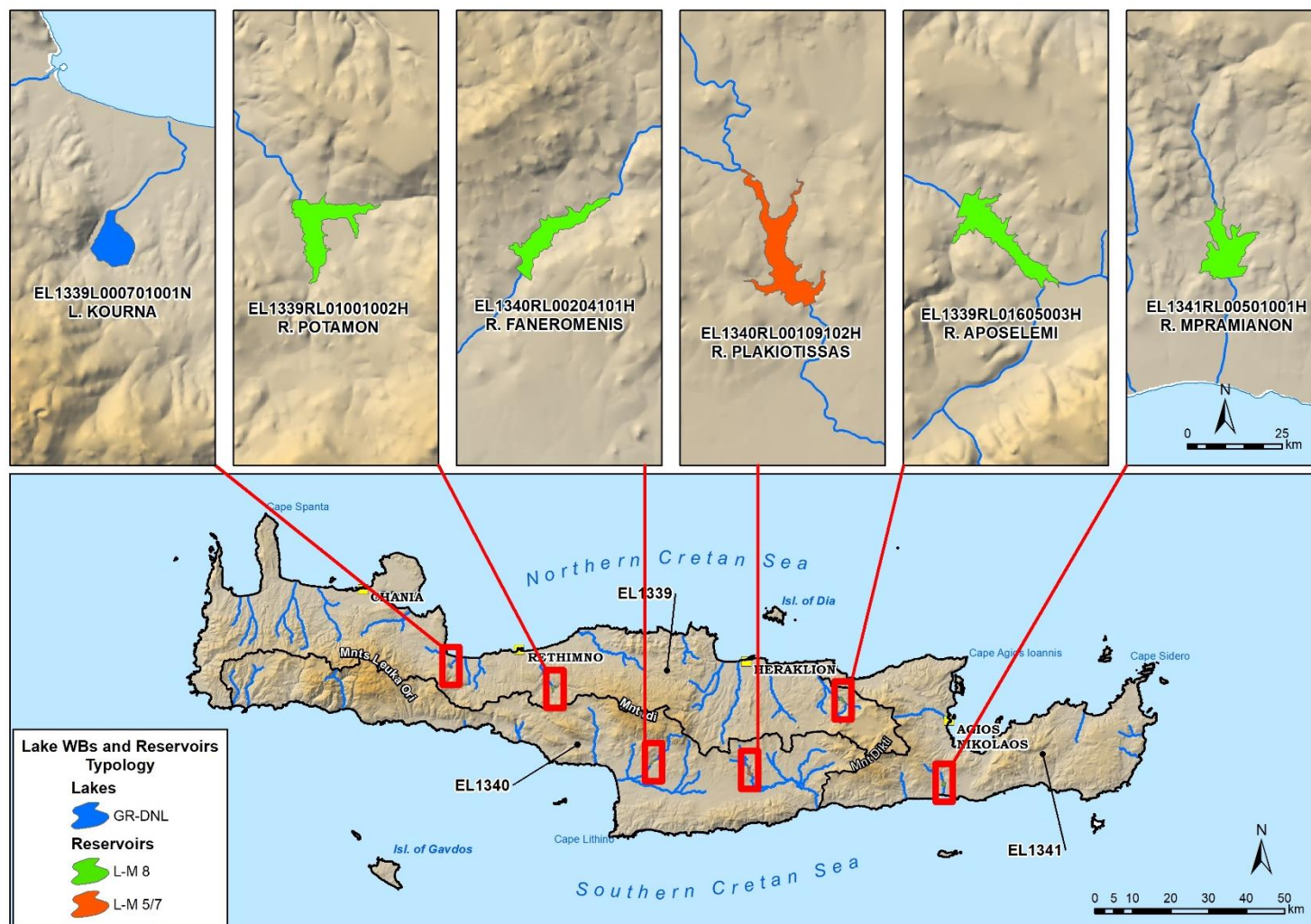
Map 4-1 River WBs identified in Crete RBD (EL13) and typology



**Table 4-3 Lake WBs and River HMWBs of lake type (reservoirs) of Crete RBD (EL13)**

| No  | WB Name         | WB Code           | Category | Area (km <sup>2</sup> ) | Perimeter (km) | Type   |
|---|-----------------|-------------------|----------|-------------------------|----------------|--------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                 |                   |          |                         |                |        |
| 1   | L. KOURNA       | EL3901L000701001N | NAT.     | 0,72                    | 3,7            | GR-DNL |
| 2   | R. POTAMON      | EL1339RL01001002H | HMWB     | 1,12                    | 9,70           | L-M 8  |
| 3   | R. APOSELEMI    | EL1339RL01605003H | HMWB     | 1,23                    | 11,71          | L-M 8  |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                 |                   |          |                         |                |        |
| 4   | R. PLAKIOTISSAS | EL1340RL00109102H | HMWB     | 1,52                    | 14,91          | L-M5/7 |
| 5   | R. FANEROMENIS  | EL1340RL00204101H | HMWB     | 0,86                    | 7,99           | L-M 8  |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |                 |                   |          |                         |                |        |
| 6   | R. MPRAMIANON   | EL1341RL00501001H | HMWB     | 0,98                    | 8,44           | L-M 8  |

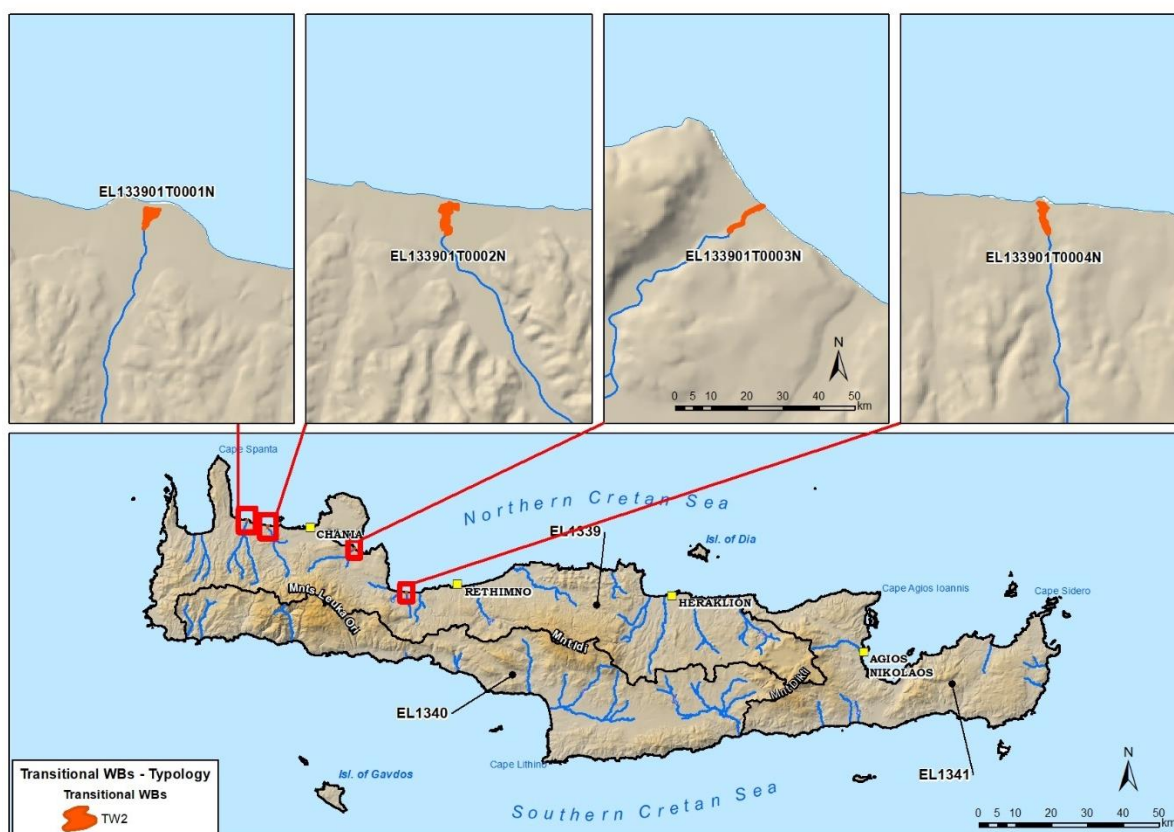
*NAT.: Natural WB, HMWB: Heavily Modified WB*



Map 4-2 Lake WBs and River HMWBs of lake type (reservoirs) of Crete RBD (EL13)

**Table 4-4 Transitional WBs of Crete RBD (EL13)**

| No  | WB Name    | WB Code        | Category | Area (km <sup>2</sup> ) | Perimeter (km) | Type |
|---|------------|----------------|----------|-------------------------|----------------|------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |            |                |          |                         |                |      |
| 1   | TAYRONITIS | EL133901T0001N | NAT.     | 0,05                    | 1,09           | TW2  |
| 2   | KERITIS    | EL133901T0002N | NAT.     | 0,08                    | 1,88           | TW2  |
| 3   | KOILIARIS  | EL133901T0003N | NAT.     | 0,02                    | 1,24           | TW2  |
| 4   | MOUSELAS   | EL133901T0004N | NAT.     | 0,03                    | 1,01           | TW2  |



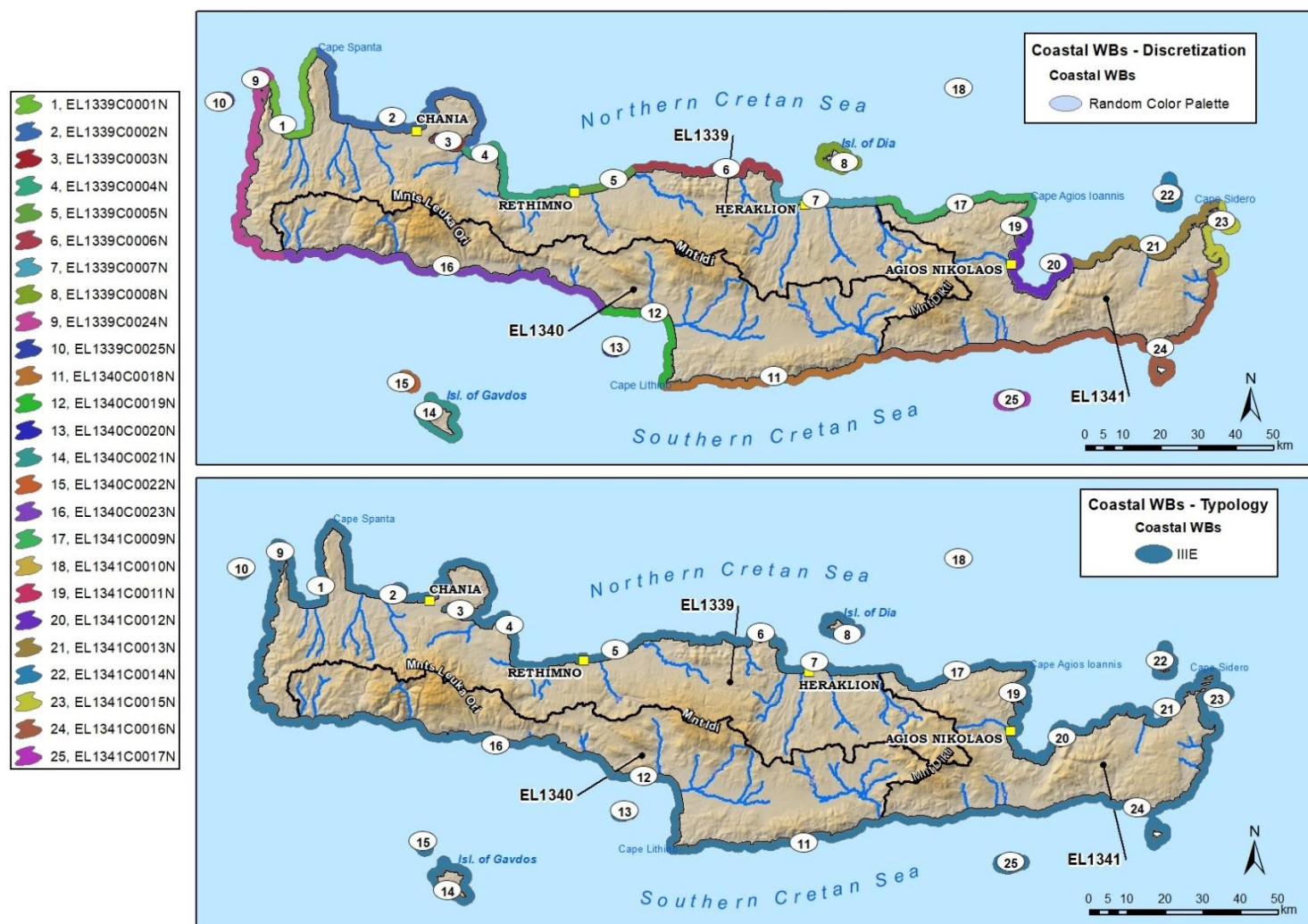
**Map 4-3 Transitional WBs of Crete RBD (EL13)**

**Table 4-5 Coastal WBs of Crete RBD (EL13)**

| No  | WB Name  | WB Code      | Category | Area (km <sup>2</sup> ) | Perimeter (km) | Type |
|---|--|--------------|----------|-------------------------|----------------|------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |  |              |          |                         |                |      |
| 1   | AKTES KOLPOU KISSAMOU                                | EL1339C0001N | NAT.     | 87,22                   | 117,08         | IIIE |
| 2   | AKTES KOLPOU CHANION                                 | EL1339C0002N | NAT.     | 165,13                  | 219,10         | IIIE |
| 3   | ORMOS SOUDAS   | EL1339C0003N | NAT.     | 23,20                   | 37,20          | IIIE |
| 4   | ORMOS ALMYROU  | EL1339C0004N | NAT.     | 87,12                   | 118,12         | IIIE |
| 5   | AKTES RETHYMNOU                                      | EL1339C0005N | NAT.     | 31,72                   | 43,47          | IIIE |
| 6   | AKTES MPALI-FODELE                                   | EL1339C0006N | NAT.     | 93,49                   | 145,88         | IIIE |
| 7   | AKTES KOLPOU IRAKLEIOU                               | EL1339C0007N | NAT.     | 63,82                   | 88,76          | IIIE |
| 8   | NISOS DIAS   | EL1339C0008N | NAT.     | 57,54                   | 64,16          | IIIE |
| 9   | AKTES STO NOTIO KRITIKO PELAGOS<br>PELAGOS-VVD KRITI | EL1339C0024N | NAT.     | 153,33                  | 232,91         | IIIE |
| 10  | MISOS GRAMVOUSA                                      | EL1339C0025N | NAT.     | 15,77                   | 17,09          | IIIE |

| No  | WB Name   | WB Code      | Category | Area (km <sup>2</sup> ) | Perimeter (km) | Type |
|---|---|--------------|----------|-------------------------|----------------|------|
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |   |              |          |                         |                |      |
| 11  | AKTES NOTIOU KRITIKOU PELAGOUS - ASTEROUSIA       | EL1340C0018N | NAT.     | 120,38                  | 174,46         | IIIE |
| 12  | AKTES KOLPOU MESSARAS                             | EL1340C0019N | NAT.     | 70,84                   | 100,23         | IIIE |
| 13  | NISI PAXIMADIA                                    | EL1340C0020N | NAT.     | 25,92                   | 29,42          | IIIE |
| 14  | NISOS GAYDOS                                      | EL1340C0021N | NAT.     | 70,09                   | 86,00          | IIIE |
| 15  | NISOS GAYDOPOULA                                  | EL1340C0022N | NAT.     | 23,87                   | 30,31          | IIIE |
| 16  | AKTES STO NOTIO KRITIKO PELAGOS – CHANIA/RETHYMNO | EL1340C0023N | NAT.     | 188,44                  | 266,88         | IIIE |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |   |              |          |                         |                |      |
| 17  | KOLPOS MALION                                     | EL1341C0009N | NAT.     | 100,67                  | 136,78         | IIIE |
| 18  | NISOS AVGO  | EL1341C0010N | NAT.     | 12,28                   | 13,28          | IIIE |
| 19  | ORMOS ELOUNTAS                                    | EL1341C0011N | NAT.     | 6,08                    | 18,59          | IIIE |
| 20  | KOLPOS AG. NIKOLAOU                               | EL1341C0012N | NAT.     | 106,76                  | 143,81         | IIIE |
| 21  | AKTES SITEIAS                                     | EL1341C0013N | NAT.     | 112,35                  | 164,71         | IIIE |
| 22  | AKTES DIONYSIADON                                 | EL1341C0014N | NAT.     | 48,03                   | 52,88          | IIIE |
| 23  | AKTES STO NOTIO KRITIKO PELAGOS- BAA KRITI        | EL1341C0015N | NAT.     | 75,84                   | 104,05         | IIIE |
| 24  | AKTES NOTIOU KRITIKOU PELAGOUS - LASITHI          | EL1341C0016N | NAT.     | 246,99                  | 317,67         | IIIE |
| 25  | AKTES NISOU CHRYSI                                | EL1341C0017N | NAT.     | 36,75                   | 44,92          | IIIE |





Map 4-4 Coastal WBs of Crete RBD (EL13)

## 4.2 Groundwater Bodies

Under the 1<sup>st</sup> Revision of the RBMP, the originally identified GWBs were reviewed. The RBD of Crete (EL13) consists of **91 identified GWB's** and are presented on the table that follows.

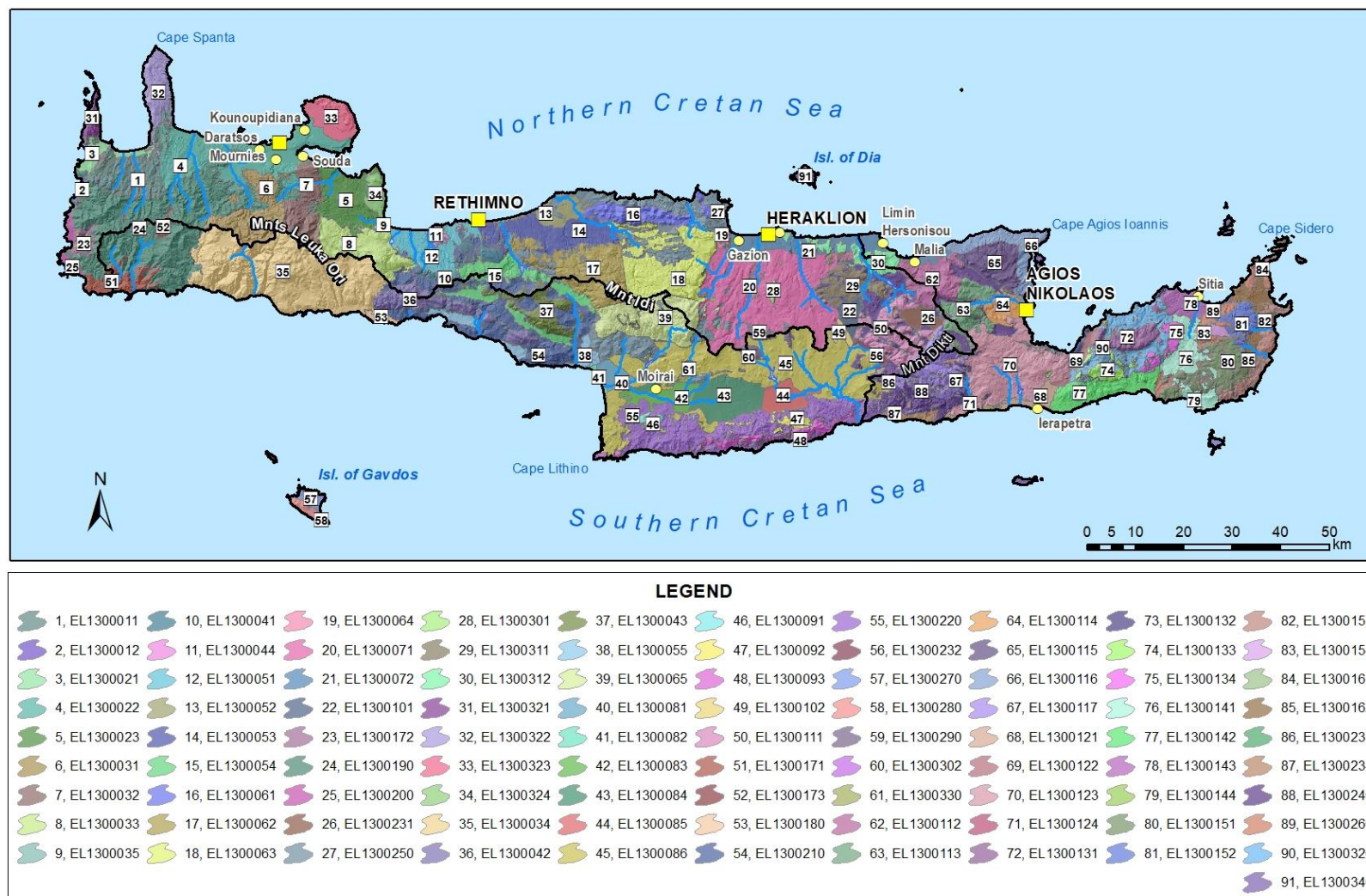
**Table 4-6 Ground Waterbodies of Crete RBD (EL13)**

| No  | GWB Name   | GWB Code  | Area (km <sup>2</sup> ) |
|---|--|-----------|-------------------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |  |           |                         |
| 1   | KARSTIKO TOPOLION  | EL1300011 | 97,10                   |
| 2   | KARSTIKO SFINARIOU   | EL1300012 | 6,80                    |
| 3   | PORODES KISSAMOU   | EL1300021 | 38,09                   |
| 4   | PORODES KAMPOU CHANION   | EL1300022 | 278,39                  |
| 5   | PORODES APOKORONOU   | EL1300023 | 122,96                  |
| 6   | KARSTIKO VD LEYKON OREON (AGIAS)                                   | EL1300031 | 122,83                  |
| 7   | KARSTIKO VOREION LEYKON OREON (STYLOU-ARMENON)                     | EL1300032 | 93,16                   |
| 8   | KARSTIKO VA LEYKON OREON (KOURNA-GEORGIOUPOLIS)                    | EL1300033 | 125,00                  |
| 9   | KARSTIKO GEORGIOUPOLIS   | EL1300035 | 1,97                    |
| 10  | KARSTIKO ARMENON-MALAKIOU- MOUNTROU-ARGYROUPOLIS                   | EL1300041 | 40,83                   |
| 11  | KARSTIKO PARAKTIO GERANIOU   | EL1300044 | 14,95                   |
| 12  | PORODES VD RETHYMNOU   | EL1300051 | 101,26                  |
| 13  | PORODES VA PARAKTIOU RETHYMNOU (KAMPOU RETHYMNOU-PRINOU-PERAMATOS) | EL1300052 | 48,22                   |
| 14  | PORODES VA RETHYMNOU   | EL1300053 | 137,10                  |
| 15  | PORODES KENTRIKOU RETHYMNO   | EL1300054 | 123,99                  |
| 16  | KARSTIKO TALAION   | EL1300061 | 83,40                   |
| 17  | KARSTIKO VD. PSILOREITI  | EL1300062 | 173,43                  |
| 18  | KARSTIKO VA. PSILOREITI  | EL1300063 | 217,91                  |
| 19  | KARSTIKO KERIS-TYLISSOU  | EL1300064 | 8,27                    |
| 20  | PORODES VOREIO-KENTRIKIS LEKANIS IRAKLEIOU                         | EL1300071 | 434,67                  |
| 21  | PORODES PARAKTIO VOREIOU IRAKLEIOU                                 | EL1300072 | 108,45                  |
| 22  | PORODES KASTELIOU  | EL1300101 | 25,05                   |
| 23  | KARSTIKO CHRYSOSKALITISSAS   | EL1300172 | 14,84                   |
| 24  | ROGMODES CHANION   | EL1300190 | 581,17                  |
| 25  | PORODES CHRYSOSKALITISSAS  | EL1300200 | 27,56                   |
| 26  | PORODES OROPEDIOU LASITHIOU  | EL1300231 | 27,01                   |
| 27  | ROGMODES PSILOREITI  | EL1300250 | 295,20                  |
| 28  | KARSTIKO GIOUCHTA  | EL1300301 | 3,88                    |
| 29  | KARSTIKO KAINOURGIOU CHORIOU-SMARIOU                               | EL1300311 | 69,10                   |
| 30  | KARSTIKO PARAKTIO IRAKLEIOU-GOUVON-CHERSONISOU                     | EL1300312 | 56,86                   |
| 31  | KARSTIKO PARAKTIO GRAMVOUSAS                                       | EL1300321 | 25,53                   |
| 32  | KARSTIKO PARAKTIO SPATHAS (RODOPOU)                                | EL1300322 | 78,35                   |
| 33  | KARSTIKO PARAKTIO AKROTIRIOU (SOUDAS)                              | EL1300323 | 69,13                   |
| 34  | KARSTIKO PARAKTIO APOKORONA  | EL1300324 | 30,00                   |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |  |           |                         |
| 35  | KARSTIKO NOTION LEYKON OREON                                       | EL1300034 | 480,73                  |
| 36  | KARSTIKO KALLIKRATI-ASIDEROTA                                      | EL1300042 | 93,10                   |
| 37  | KARSTIKO KEDROU  | EL1300043 | 72,66                   |
| 38  | PORODES NOTIOU RETHYMNOU   | EL1300055 | 49,37                   |
| 39  | KARSTIKO NA. PSILOREITI  | EL1300065 | 167,41                  |
| 40  | PORODES TYMPAKIOU  | EL1300081 | 28,69                   |

| No  | GWB Name  | GWB Code  | Area (km <sup>2</sup> ) |
|---|---|-----------|-------------------------|
| 41  | PORODES PARAKTIO TYMPAKIOU                          | EL1300082 | 6,35                    |
| 42  | PORODES MOIRON                                      | EL1300083 | 55,89                   |
| 43  | PORODES GALIAS-VAGIONIAS-ASIMIOU                    | EL1300084 | 115,63                  |
| 44  | PORODES MESOCHORIOU                                 | EL1300085 | 50,99                   |
| 45  | PORODES MESARAS-NOTIOU IRAKLEIOU                    | EL1300086 | 508,00                  |
| 46  | KARSTIKO POMPIAS-ALITHINIS                          | EL1300091 | 12,79                   |
| 47  | KARSTIKO PYRGOU-CHARAKA-FOURNOFARAGGOU              | EL1300092 | 20,82                   |
| 48  | KARSTIKO PARAKTIO ASTEROUSSION                      | EL1300093 | 69,63                   |
| 49  | PORODES ROUSOCHORION                                | EL1300102 | 9,67                    |
| 50  | KARSTIKO DYTIKIS DIKTIS                             | EL1300111 | 109,67                  |
| 51  | KARSTIKO PALAIOCHORAS                               | EL1300171 | 62,24                   |
| 52  | KARSTIKO KANTANOU                                   | EL1300173 | 10,79                   |
| 53  | PORODES FRAGKOKASTELOU                              | EL1300180 | 11,12                   |
| 54  | ROGMODES RETHYMNOU                                  | EL1300210 | 307,54                  |
| 55  | ROGMODES ASTEROUSSION                               | EL1300220 | 281,43                  |
| 56  | PORODES EMPAROU-PANAGIAS                            | EL1300232 | 8,00                    |
| 57  | PORODES GAYDOU                                      | EL1300270 | 17,03                   |
| 58  | KARSTIKO GAYDOU                                     | EL1300280 | 15,46                   |
| 59  | ROGMODES GIOUCHTAS-OXY KEFALI (DAMANION - LARANIOU) | EL1300290 | 30,95                   |
| 60  | KARSTIKO DAMANION-LARANIOU                          | EL1300302 | 2,08                    |
| 61  | KARSTIKO GYPSON KRITIS                              | EL1300330 | 17,71                   |
| <b>RB of the Eastern Crete Streams (EL1341)</b> |   |           |                         |
| 62  | KARSTIKO MALION-SELENAS                             | EL1300112 | 92,20                   |
| 63  | KARSTIKO VA. DIKTIS                                 | EL1300113 | 86,73                   |
| 64  | KARSTIKO LAKONION-ALMYROU AG. NIKOLAOU              | EL1300114 | 43,45                   |
| 65  | KARSTIKO FOURNIS-ELOUNTAS                           | EL1300115 | 80,96                   |
| 66  | KARSTIKO PARAKTIO SISIOU-MILATOU-ELOUNTAS           | EL1300116 | 88,72                   |
| 67  | KARSTIKO ANATOLIKIS-NOTIAS DIKTIS                   | EL1300117 | 116,37                  |
| 68  | PORODES IERAPETRAS-KENTRIOU                         | EL1300121 | 27,74                   |
| 69  | PORODES PACHEIAS AMMOU-KALOU CHORIOU                | EL1300122 | 27,00                   |
| 70  | PORODES IERAPETRAS-KALOU CHORIOU                    | EL1300123 | 260,24                  |
| 71  | PORODES MYRTOU                                      | EL1300124 | 2,51                    |
| 72  | KARSTIKO ORNOU                                      | EL1300131 | 51,87                   |
| 73  | KARSTIKO PARAKTIO MALAYRAS-PACHEIAS AMMOU           | EL1300132 | 15,24                   |
| 74  | KARSTIKO THRYPTIS                                   | EL1300133 | 35,40                   |
| 75  | KARSTIKO PEYKON - MARONIAS                          | EL1300134 | 28,92                   |
| 76  | PORODES SITEIAS-PAPAGIANNADON-AGIAS TRIADAS         | EL1300141 | 94,25                   |
| 77  | PORODES KOUTSOURA-MAKRYGIALOU                       | EL1300142 | 94,40                   |
| 78  | PORODES SKOPIS-SITEIAS                              | EL1300143 | 51,83                   |
| 79  | PORODES GOUDOURA                                    | EL1300144 | 2,34                    |
| 80  | KARSTIKO OREON ZAKROU                               | EL1300151 | 93,30                   |
| 81  | KARSTIKO VA. APOLIXEON OREON ZAKROU                 | EL1300152 | 44,28                   |
| 82  | KARSTIKO PARAKTIO ANATOLIKON APOLIXEON OREON ZAKROU | EL1300153 | 71,69                   |
| 83  | KARSTIKO OREON PIGIS ZOU                            | EL1300154 | 15,59                   |
| 84  | PORODES FOINIKODASOUS VAI                           | EL1300161 | 1,66                    |
| 85  | PORODES MONIS TOPLOU-PALAIKASTROU-XIROKAMPOU        | EL1300162 | 63,67                   |
| 86  | PORODES ANO VIANNOU                                 | EL1300233 | 0,98                    |
| 87  | POROUS KERATOKAMPOU-ARVIS                           | EL1300234 | 17,84                   |
| 88  | ROGMODES DIKTIS                                     | EL1300240 | 271,23                  |
| 89  | ROGMODES OREON ZAKROU                               | EL1300260 | 78,00                   |
| 90  | ROGMODES ORNOU-THRYPTIS                             | EL1300320 | 125,65                  |

| No | GWB Name       | GWB Code  | Area (km <sup>2</sup> ) |
|----|----------------|-----------|-------------------------|
| 91 | NISIDES KRITIS | EL1300340 | 43,61                   |





Map 4-5 Groundwater bodies of Crete RBD (EL13)

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

Applying the HMWB and AWB identification methodology to Crete RBD, **18 HMWBs (5 Reservoirs and 13 River WBs) were originally identified. Finally, 16 HMWBs (5 Reservoirs and 11 River WBs) were identified** in a total of **153 SWBs**. No Lake, Transitional or Coastal WBs were identified as HMWBs and no AWBs were identified.

**Table 4-7 Summary data for HMWBs in Crete RBD (EL13)**

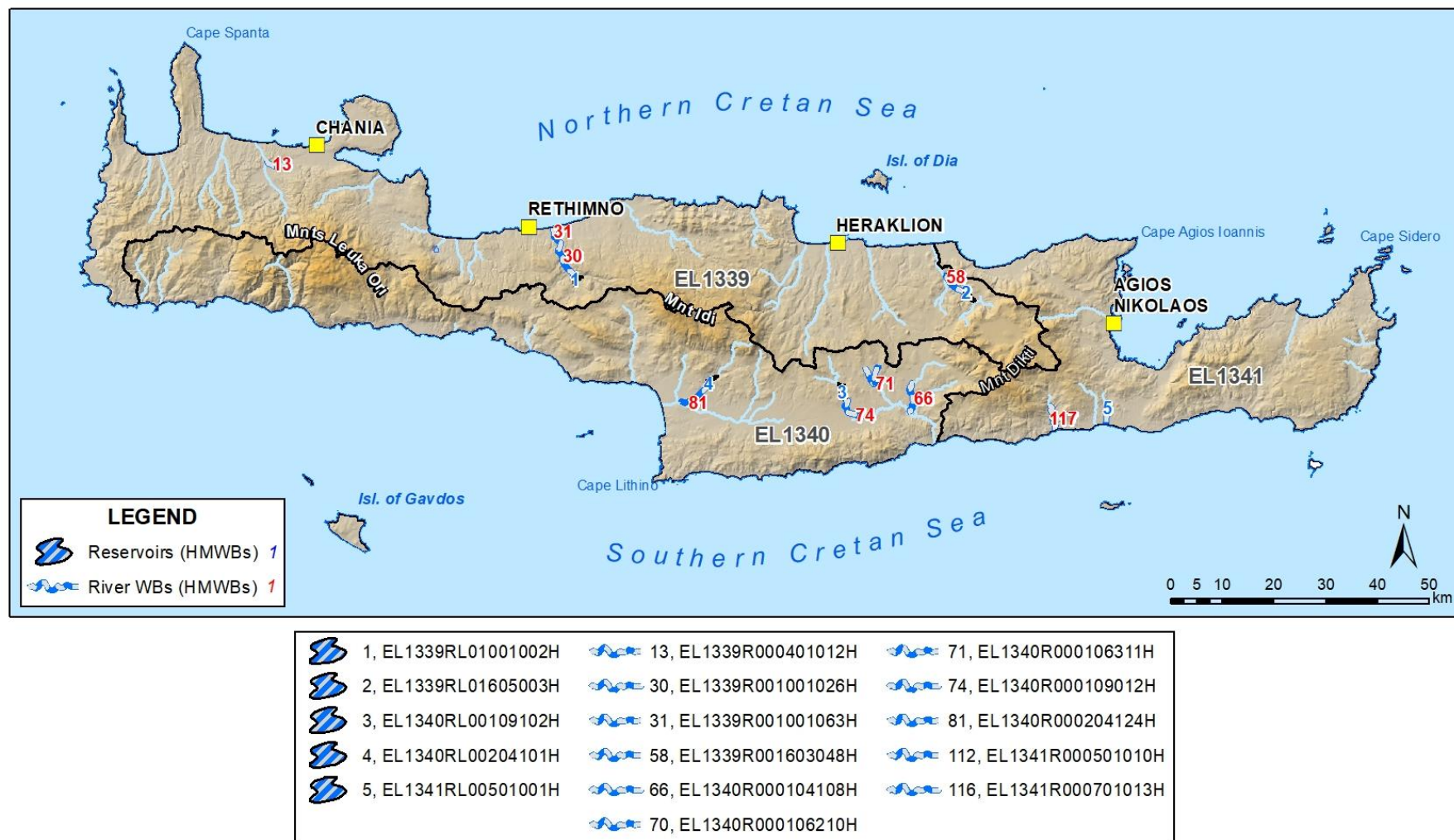
| WB Type                   | HMWBs  |                                 | AWBs   |                                 |
|---------------------------|--------|---------------------------------|--------|---------------------------------|
|                           | WBs No | Area-<br>Length<br>Coverage (%) | WBs No | Area-<br>Length<br>Coverage (%) |
| Lake WBs                  | 0      | 0%                              | 0      | 0%                              |
| River WBs (no reservoirs) | 11     | 9,2%                            | 0      | 0%                              |
| Reservoirs (River HMWBs)  | 5      | 100%                            | 0      | 0%                              |
| Transitional WBs          | 0      | 0%                              | 0      | 0%                              |
| Coastal WBs               | 0      | 0%                              | 0      | 0%                              |

The water bodies which were finally identified as Heavily Modified are presented below for every River Basin of Crete RBD (EL13).

**Table 4-8 Heavily Modified WBs of Crete RBD (EL13)**

| HMWB Code   | HMWB Name       | Type   | Length/ Area<br>(km/km <sup>2</sup> ) | Designated Use   |
|---|-----------------|--------|---------------------------------------|--|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                 |        |                                       |  |
| EL1339R000401012H   | KERITIS         | R-M1   | 1,90                                  | Irrigation   |
| EL1339RL01001002H   | R. POTAMON      | L-M 8  | 1,12                                  | Irrigation, Public water supply  |
| EL1339R001001026H   | SFAKORIAKO      | R-M5   | 10,66                                 | Irrigation, Public water supply (from the upstream reservoir R. POTAMON) |
| EL1339R001001063H   | SFAKORIAKO      | R-M5   | 1,93                                  | Irrigation, Public water supply (from the upstream reservoir R. POTAMON) |
| EL1339RL01605003H   | R. APOSELEMI    | L-M 8  | 1,23                                  | Public water supply  |
| EL1339R001603048H   | APOSELEMIS      | R-M5   | 5,75                                  | Public water supply from the upstream reservoir R. APOSELEMI             |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                 |        |                                       |  |
| EL1340R000104108H   | ANAPODARIS      | R-M5   | 7,89                                  | Irrigation (diversion to the Iniou dam), flood protection                |
| EL1340R000106210H   | ANAPODARIS      | R-M5   | 4,73                                  | Irrigation from the upstream reservoir Partiron                          |
| EL1340R000106311H   | ANAPODARIS      | R-M5   | 4,41                                  | Irrigation from the upstream reservoir Amourgelon                        |
| EL1340RL00109102H   | R. PLAKIOTISSAS | L-M5/7 | 1,52                                  | Irrigation   |

| HMWB Code                                       | HMWB Name      | Type  | Length/ Area<br>(km/km <sup>2</sup> ) | Designated Use   |
|---|----------------|-------|---------------------------------------|--|
| EL1340R000109012H                               | ANAPODARIS     | R-M5  | 8,48                                  | Irrigation from the upstream reservoir<br>R. PLAKIOTISSAS (the operation of the<br>irrigation network has not yet started) |
| EL1340RL00204101H                               | R. FANEROMENIS | L-M 8 | 0,86                                  | Irrigation   |
| EL1340R000204124H                               | GEROPOTAMOS    | R-M5  | 7,10                                  | Irrigation from the upstream reservoir<br>R. FANEROMENIS   |
| <b>RB of the Eastern Crete Streams (EL1341)</b> |                |       |                                       |  |
| EL1341RL00501001H                               | R. MPRAMIANON  | L-M 8 | 0,98                                  | Irrigation, Public water supply  |
| EL1341R000501010H                               | BRAMIANOS      | R-M5  | 2,47                                  | Irrigation, Public water supply from the<br>upstream reservoir R. MPRAMIANON   |
| EL1341R000701013H                               | MIRTOS         | R-M5  | 5,73                                  | Irrigation – Water transfer to reservoir<br>R. MPRAMIANON  |



Map 4-6 Heavily Modified WBs of Crete RBD (EL13)

#### 4.4 Protected Areas

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

This register (Register of Protected Areas- RPA), includes all the water bodies which are identified by Annex V of Presidential Decree 51/2007.

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

**Areas designated for the abstraction of water intended for human consumption, according to Article 7 of Presidential Decree 51/2007 (Article 7 of the Directive 2000/60/EC):**

**Table 4-9 Areas designated for the abstraction of water intended for human consumption**

| No | Area Code   | Category | WB code   | WB Name  |
|----|-------------|----------|-----------|--|
| 1  | EL1300280A7 | GWB      | EL1300280 | KARSTIKO GAYDOU                                    |
| 2  | EL1300093A7 | GWB      | EL1300093 | KARSTIKO PARAKTIO ASTEROUSION                      |
| 3  | EL1300092A7 | GWB      | EL1300092 | KARSTIKO PYRGOU-CHARAKA-<br>FOURNOFARAGGOU         |
| 4  | EL1300091A7 | GWB      | EL1300091 | KARSTIKO POMPIAS-ALITHINIS                         |
| 5  | EL1300117A7 | GWB      | EL1300117 | KARSTIKO ANATOLIKIS-NOTIAS DIKTIS                  |
| 6  | EL1300133A7 | GWB      | EL1300133 | KARSTIKO THRYPTIS                                  |
| 7  | EL1300111A7 | GWB      | EL1300111 | KARSTIKO DYTIKIS DIKTIS                            |
| 8  | EL1300151A7 | GWB      | EL1300151 | KARSTIKO OREON ZAKROU                              |
| 9  | EL1300132A7 | GWB      | EL1300132 | KARSTIKO PARAKTIO MALAYRAS-<br>PACHEIAS AMMOU      |
| 10 | EL1300134A7 | GWB      | EL1300134 | KARSTIKO PEYKON - MARONIAS                         |
| 11 | EL1300302A7 | GWB      | EL1300302 | KARSTIKO DAMANION-LARANIOU                         |
| 12 | EL1300113A7 | GWB      | EL1300113 | KARSTIKO VA. DIKTIS                                |
| 13 | EL1300154A7 | GWB      | EL1300154 | KARSTIKO OREON PIGIS ZOU                           |
| 14 | EL1300152A7 | GWB      | EL1300152 | KARSTIKO VA. APOLIXEON OREON<br>ZAKROU             |
| 15 | EL1300131A7 | GWB      | EL1300131 | KARSTIKO ORNOU                                     |
| 16 | EL1300311A7 | GWB      | EL1300311 | KARSTIKO KAINOURGIOU CHORIOU-<br>SMARIOU           |
| 17 | EL1300114A7 | GWB      | EL1300114 | KARSTIKO LAKONION-ALMYROU AG.<br>NIKOLAOU          |
| 18 | EL1300301A7 | GWB      | EL1300301 | KARSTIKO GIOUCHTA                                  |
| 19 | EL1300043A7 | GWB      | EL1300043 | KARSTIKO KEDROU                                    |
| 20 | EL1300042A7 | GWB      | EL1300042 | KARSTIKO KALLIKRATI-ASIDEROTA                      |
| 21 | EL1300312A7 | GWB      | EL1300312 | KARSTIKO PARAKTIO IRAKLEIOU-<br>GOUVON-CHERSONISOU |
| 22 | EL1300112A7 | GWB      | EL1300112 | KARSTIKO MALION-SELENAS                            |
| 23 | EL1300115A7 | GWB      | EL1300115 | KARSTIKO FOURNIS-ELOUNTAS                          |
| 24 | EL1300062A7 | GWB      | EL1300062 | KARSTIKO VD. PSILOREITI                            |
| 25 | EL1300064A7 | GWB      | EL1300064 | KARSTIKO KERIS-TYLISSOU                            |



| No | Area Code           | Category   | WB code           | WB Name  |
|----|---------------------|------------|-------------------|--|
| 26 | EL1300063A7         | GWB        | EL1300063         | KARSTIKO VA. PSILOREITI                          |
| 27 | EL1300172A7         | GWB        | EL1300172         | KARSTIKO CHRYSOSKALITISSAS                       |
| 28 | EL1300116A7         | GWB        | EL1300116         | KARSTIKO PARAKTIO SISIOU-MILATOU-ELOUNTAS        |
| 29 | EL1300034A7         | GWB        | EL1300034         | KARSTIKO NOTION LEYKON OREON                     |
| 30 | EL1300035A7         | GWB        | EL1300035         | KARSTIKO GEORGIOUPOLIS                           |
| 31 | EL1300033A7         | GWB        | EL1300033         | KARSTIKO VA. LEYKON OREON (KOURNA-GEORGIOUPOLIS) |
| 32 | EL1300324A7         | GWB        | EL1300324         | KARSTIKO PARAKTIO APOKORONA                      |
| 33 | EL1300011A7         | GWB        | EL1300011         | KARSTIKO TOPOLION                                |
| 34 | EL1300032A7         | GWB        | EL1300032         | KARSTIKO VOREION LEYKON OREON (STYLOU-ARMENON)   |
| 35 | EL1300323A7         | GWB        | EL1300323         | KARSTIKO PARAKTIO AKROTIRIOU (SOUDAS)            |
| 36 | EL1300340A7         | GWB        | EL1300340         | NISIDES KRITIS                                   |
| 37 | EL1300171A7         | GWB        | EL1300171         | KARSTIKO PALAIOCHORAS                            |
| 38 | EL1300031A7         | GWB        | EL1300031         | KARSTIKO VD. LEYKON OREON (AGIAS)                |
| 39 | EL1300322A7         | GWB        | EL1300322         | KARSTIKO PARAKTIO SPATHAS (RODOPOU)              |
| 40 | EL1300321A7         | GWB        | EL1300321         | KARSTIKO PARAKTIO GRAMVOUSAS                     |
| 41 | EL1300012A7         | GWB        | EL1300012         | KARSTIKO SFINARIOU                               |
| 42 | EL1300173A7         | GWB        | EL1300173         | KARSTIKO KANTANOU                                |
| 43 | EL1300044A7         | GWB        | EL1300044         | COASTAL GERANI KARST                             |
| 44 | EL1300041A7         | GWB        | EL1300041         | KARSTIKO ARMENON-MALAKIOU-MOUNTROU-ARGYROUPOLIS  |
| 45 | EL1300065A7         | GWB        | EL1300065         | KARSTIKO NA. PSILOREITI                          |
| 46 | EL1300061A7         | GWB        | EL1300061         | KARSTIKO TALAION                                 |
| 47 | EL1339R000302009NA7 | River WB   | EL1339R000302009N | TAVRONITIS                                       |
| 48 | EL1339R000201003NA7 | River WB   | EL1339R000201003N | GIFLOS   |
| 49 | EL1339RL01001002HA7 | River HMWB | EL1339RL01001002H | R. POTAMON                                       |
| 50 | EL1339RL01605003HA7 | River HMWB | EL1339RL01605003H | R. APOSELEMI                                     |
| 51 | EL1341RL00501001HA7 | River HMWB | EL1341RL00501001H | R. MPRAMIANON                                    |
| 52 | EL1339L000701001NA7 | Lake WB    | EL1339L000701001N | L. KOURNA  |



**Map 4-7** WBs designated for the abstraction of water intended for human consumption (Article 7 of Directive 2000/60 / EC) of Crete RBD (EL13)



### Water Bodies designated as recreational waters including areas designated as bathing waters:

According to the Bathing Water Register (SSW, 2016) at Crete RBD (EL13) 157 bathing water areas were designated in 2016 at 18 Coastal WBs.

According to the Monitoring Program (2015), from the 157 bathing water areas, 156 were of excellent quality and 1 (area "Damnoni") was of at least sufficient quality.

With regards to inland recreational waters, there are no designated recreational activities in the Crete RBD (EL13) and therefore no recreational waters are identified in both the 1<sup>st</sup> RBMP and this 1<sup>st</sup> Revision.



**Map 4-8 Bathing waters of Crete RBD (EL13)**

### Nutrient-sensitive areas, including areas designated as vulnerable zones and areas designated as sensitive areas

**Table 4-10 Vulnerable Zones and WBs which are or may be subjected to Nitrates**

| Vulnerable Zone Name  | WBs which are or may be subjected to Nitrates |                             |             |        |
|---|---|-----------------------------|-------------|--------|
|   | WB Code                                       | WB Name                     | WB Category | RB     |
| Area of Geropotamos sub-basin, Messara, Crete<br>EL1340NI01 | EL1300083                                     | PORODES MOIRON              | GWB         | EL1340 |
| Area of Ierapetra<br>EL1341NI02                             | EL1300121                                     | PORODES IERAPETRAS-KENTRIOU | GWB         | EL1341 |

In the RBD there are no areas designated as sensitive areas under Directive 91/271/EEC and no new ones are proposed in this Revision.



**Map 4-9** Designated and proposed Vulnerable Zones of Crete RBD (EL13)

**Areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites.**

At Crete RBD (EL13), from the 53 Natura 2000 sites, **36 sites** are finally included at the Register of Protected Areas (those for which the analytical methodology applied in the Analytical Documentation Document "Register of Protected Areas Revision" demonstrated to exhibit habitats or/ and species for which the protection and improvement of the status of water is an important factor in their protection). From the 36 sites, 26 are SAC sites, 9 are SPA sites and one is both SAC and SPA site. In three SAC sites, the recent modifications of the Natura 2000 sites were included. The rest (new or modifications of existing sites) related to proposed Sites of Community Importance (SCI) have not been included in this 1<sup>st</sup> Revision of the RBMP, as their adoption should be preceded by a biogeographical seminar and is a decision to be taken at European level.

The aforementioned Natura 2000 sites for the Crete RBD (EL13), are presented to **Map 4-10** below.

Also, 69 small island wetlands are identified in Crete RBD (EL13), which were identified and protected under the Presidential Decree: "Adoption of a list of small island wetlands and setting conditions and restrictions for the protection and promotion of the small coastal wetlands included in it" (GG 229 / Issue of Forced Expropriations and Urban Issues / 2012). These wetlands have been integrated into the Register of Protected Areas and are maintained in this Revision (**Map 4 11**).



**Map 4-10** Areas designated for the protection of habitats or species of Crete RBD (EL13) – Areas of Natura 2000 Network



**Map 4-11** Areas designated for the protection of habitats or species of Crete RBD (EL13) – Small island wetlands

#### Areas designated for the protection of economically significant aquatic species

At Crete RBD (EL13) there are no areas designated for the protection of economically significant aquatic species and no new ones are proposed in this revision.

## 5 PRESSURES AND IMPACTS

Anthropogenic pressures on waterbodies are defined as the amount of all human activities that do influence or could influence any waterbodies present in the area. These pressures are characterized as significant, since they threaten the WB's in relation to not achieving their environmental goals, according to the No 03 Guidance Document of the EU.

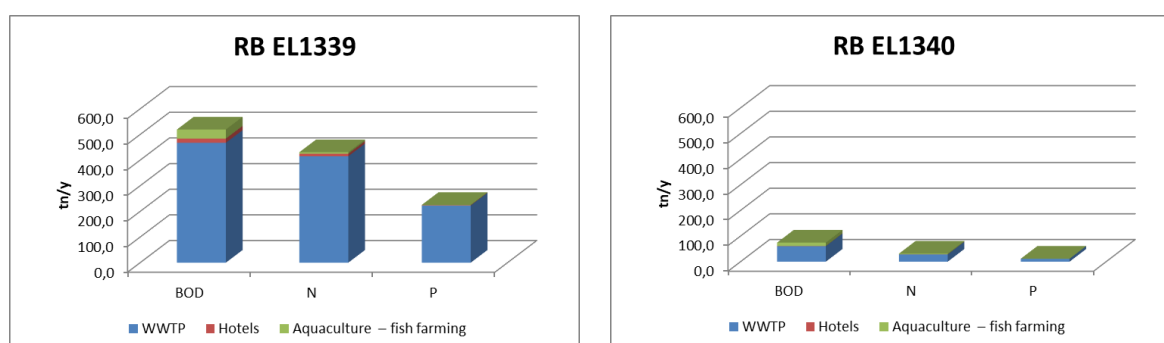
The sections following are presenting data and results of the anthropogenic pressure analysis conducted, during the 1<sup>st</sup> Revision of the RBMP's.

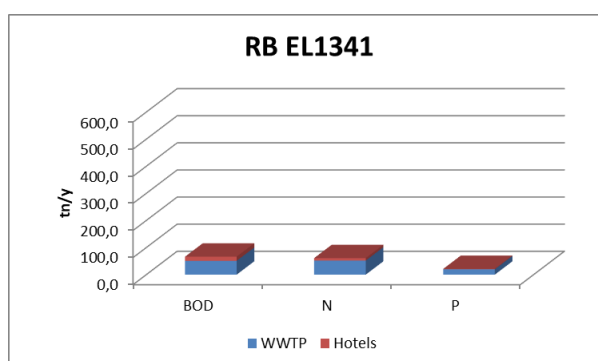
### 5.1 Point sources of pollution

All point sources of pollution that produce conventional pollutants (BOD, N, P) are included. The list with the pressure categories includes:

- Waste Water Treatment Plants (WWTP)
- Extrusion of sewage networks into a natural recipient
- Large hotels
- Industrial units
- Livestock facilities
- Aquaculture – fish farming
- Leaks from Uncontrolled Waste Dumping Sites and Landfill Sites

From the above sources of pollution (where these appear or where sufficient data were found for their estimation), the annual surface pollution loads of BOD, N and P produced in the study area were derived. Pollutants produced by livestock units were treated as diffuse pressures and are taken into account in the corresponding section of this chapter.





**Chart 5-1** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point sources of pollution

**Table 5-1** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point sources of pollution

| Point sources of pollution  | BOD (tn/year) | N (tn/year)  | P (tn/year)  |
|---|---------------|--------------|--------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |               |              |              |
| Waste Water Treatment Plants (WWTP)   | 467,5         | 415,1        | 222,9        |
| Large hotels  | 16,3          | 9,8          | 1,3          |
| Aquaculture – fish farming  | 35,5          | 5,9          | 1,1          |
| <b>TOTAL</b>  | <b>519,3</b>  | <b>430,8</b> | <b>225,3</b> |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |               |              |              |
| Waste Water Treatment Plants (WWTP)   | 60,5          | 28,2         | 11,3         |
| Large hotels  | 0,6           | 0,4          | -            |
| Aquaculture – fish farming  | 13,3          | 2,7          | 0,5          |
| <b>TOTAL</b>  | <b>74,4</b>   | <b>31,3</b>  | <b>11,7</b>  |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |               |              |              |
| Waste Water Treatment Plants (WWTP)   | 51,0          | 51,9         | 20,0         |
| Large hotels  | 15,3          | 9,2          | 1,2          |
| Aquaculture – fish farming  | -             | -            | -            |
| <b>TOTAL</b>  | <b>66,3</b>   | <b>61,1</b>  | <b>21,2</b>  |
| <b>TOTAL RBD</b>  | <b>660,0</b>  | <b>523,2</b> | <b>258,2</b> |

## 5.2 Diffuse sources of pollution

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

- Agriculture
- Urban waste water that do not end up in WWTPs
- Livestock (pastoral and sheltered)
- Other sources

From the above sources of pollution, the final annual surface pollution loads BOD, N and P produced in the study area were derived. Pollutants produced by livestock farms, although they are point sources of pollution, are counted in the diffuse sources and are taken into account in this section.

The total annual pollution loads of the sources mentioned above are presented on the chart and table that follow.



**Chart 5-2** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from diffuse sources of pollution

**Table 5-2** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from diffuse sources of pollution

| Diffuse sources of pollution  | BOD (tn/year)   | N (tn/year)     | P (tn/year)    |
|---|-----------------|-----------------|----------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                 |                 |                |
| Urban waste water   | 1.449,8         | 414,2           | 86,3           |
| Agriculture   | -               | 2.066,2         | 346,2          |
| Livestock   | 17.270,6        | 7.883,9         | 2.218,5        |
| Other sources   | -               | 931,6           | 90,2           |
| <b>TOTAL</b>  | <b>18.720,3</b> | <b>11.295,9</b> | <b>2.741,1</b> |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                 |                 |                |
| Urban waste water   | 910,6           | 260,2           | 54,2           |
| Agriculture   | -               | 1.353,4         | 230,4          |
| Livestock   | 9.964,1         | 4.694,8         | 1.330,2        |
| Other sources   | -               | 762,6           | 71,5           |
| <b>TOTAL</b>  | <b>10.874,7</b> | <b>7.071,0</b>  | <b>1.686,3</b> |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |                 |                 |                |
| Urban waste water   | 302,1           | 86,3            | 18,0           |
| Agriculture   | -               | 855,7           | 135,1          |
| Livestock   | 3.734,5         | 1.631,1         | 456,2          |
| Other sources   | -               | 547,8           | 52,6           |
| <b>TOTAL</b>  | <b>4.036,6</b>  | <b>3.120,9</b>  | <b>661,9</b>   |
| <b>TOTAL RBD</b>  | <b>33.631,6</b> | <b>21.487,8</b> | <b>5.089,4</b> |



## 5.3 Hydromorphological pressures

### 5.3.1 Pressures related to Hydromorphology

In paragraph 4.3, projects that have caused hydromorphological alterations in surface water bodies resulting in their designation as Heavily Modified Water Bodies were presented per River Basin

### 5.3.2 Sand and gravel extraction

Sand and gravel extraction is the extraction of riverside sediments for the construction of technical works or for other purposes. Sand and gravel extraction, depending on the amount of sediments taken, can alter the geometric characteristics of the river bed and cause hydromorphological alterations of the particular water bodies.

There is no extensive sand and gravel extractions from river beds in Crete RBD(EL13).

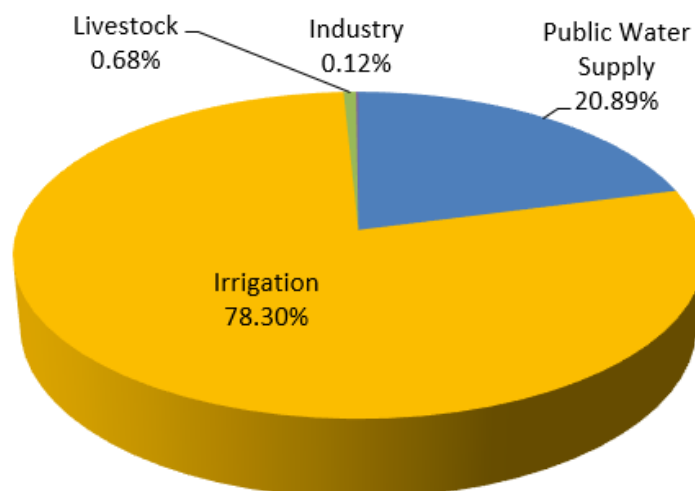
## 5.4 Water abstraction

In the following table and chart, the total water abstraction for public water supply, irrigation, livestock and industry use are presented in the Crete RBD. From these data, it becomes clear that most of the water abstraction concerns irrigation, which accounts for 78% of the total water abstraction, followed by the public water supply reaching 21%. Livestock and industry account for only a small percentage of water abstraction (0,7% and 0,1% respectively).

**Table 5-3 Water per use to Crete RBD (EL13)**

| Public Water Supply<br>(10 <sup>6</sup> m <sup>3</sup> )  | Irrigation (10 <sup>6</sup> m <sup>3</sup> ) | Livestock (10 <sup>6</sup> m <sup>3</sup> ) | Industry (10 <sup>6</sup> m <sup>3</sup> ) |
|---|--|---|--|
| 78,10*  | 415,00**                                     | 4,16  | 0,75                                       |
| * By the methodology applied in Chapter 5 of the Analytical Documentation "Analysis of anthropogenic pressures and their impacts on surface and ground water systems" is estimated at 127,65 million m <sup>3</sup> . |  |   |  |
| ** The theoretical (optimal) irrigation, as indicated by the cultivated land, amounts to 478,39 million m <sup>3</sup> .  |  |   |  |





**Chart 5-3 Distribution of water needs per use for Crete RBD (EL13)**

Demands for the various uses were described in Chapter 5 of the Analytical Documentation Document "Analysis of man-made pressures and their impacts on Surface water bodies and Groundwater bodies" amounting to 127,65 million m<sup>3</sup>. According to the methodology applied to this Analytical Documentation Document, for the estimation of the demand for the public water supply, a daily consumption per capita of 250 liters was used for the actual population together with the observed deficit and losses. Similarly, a daily consumption per night of 400 liters was used for the water demand of tourists. According to data from the Water Directorate of Crete, the aforementioned daily consumption already includes losses and therefore the water abstraction is estimated to be around 78.10 million m<sup>3</sup>.

According to the Licensing Registry of the Regulatory Authority for Energy (updated on March 2017), the current power generation licenses for hybrid power stations in Crete RBD (EL13) amount to 14 (none of them is operational). Hybrid stations (pumped storage) can be a pressure for water resources. However, detailed data are required to accurately assess their impact, which should be assessed in the light of Directive 2000/60/EC and the new methodology developed in the context of this revision "Identification of the "exceptions" of paragraph 7, Article 4 of Directive 2000/60/EC (4.7), on new modifications ".

## 5.5 Other pressures

Other pressures include:

- Runoff from mining activities (quarries, mines)
- Desalination units
- Harbors - Marinas – Navigation
- Artificial recharge of groundwater bodies

### ***Runoff from mining activities (quarries, mines)***

In most of the active quarries in the RBD there is aggregate extraction, most of which are located within quarry areas. The aggregates extracted include marble chips, marble dust, stones, etc.

In the industrial minerals quarries of the RBD, the extracted materials are mainly gypsum, clay and cement materials, flints etc. The largest industrial mines quarries concern surface gypsum quarries, with the most important in Stomio Vathis Bay (EL1339) and Altsi (EL1341).

The active quarries of marble and shale plaques generally occupy a small area, with the largest marble quarry located in Chordaki, Chania Cape (EL1339).

#### ***Desalination units***

In Crete RBD (EL13), the largest desalination unit in operation are of MEWSS Maleviziou and of the company HYDROMINOIKI SA located in the Industrial Area of Heraklion. Both of these units are located within RB EL1339.

MEWSS Maleviziou operates a Desalination Unit (RO) with a capacity of 2,000 m<sup>3</sup>/day. The water is pumped from the boreholes of the area (GWB EL1300064 - KARSTIKO KERIS-TYLISSOU) and the waste is discharged into the sea (Coastal WB EL1339C0007N - AKTES KOLPOU IRAKLEIOU.)

The unit of HYDROMINOIKI SA operates with the reverse osmosis method and with a treatment capacity of 6.250 m<sup>3</sup>/day of raw water and produces 5.000 m<sup>3</sup>/day of drinking water. Raw material (raw brackish water) is pumped from boreholes in the Municipal unity of Alikarnassos (GWB EL1300072). The waste is directed through a borehole to the Groundwater body of the area (GWB EL1300072- PORODES PARAKTIO VOREIOU IRAKLEIOU).

#### ***Harbors - Marinas – Navigation***

Along the coastline of Crete RBD, there are a number of port facilities, which mainly concern ports of local importance, fishing shelters and marinas. The main port system of Crete includes two ports of international interest, one port of national importance and two ports of major interest. The most port facilities are located on the coastline of RB EL1339, two ports of international interest, one National Port and a number of smaller port facilities. On the coastline of RB EL1340 a number of port facilities that concern ports of local importance is located. On the coastline of RB EL1341 there are a number of ports, marinas and fishing shelters and two ports of major Interest.

#### ***Artificial recharge of groundwater bodies***

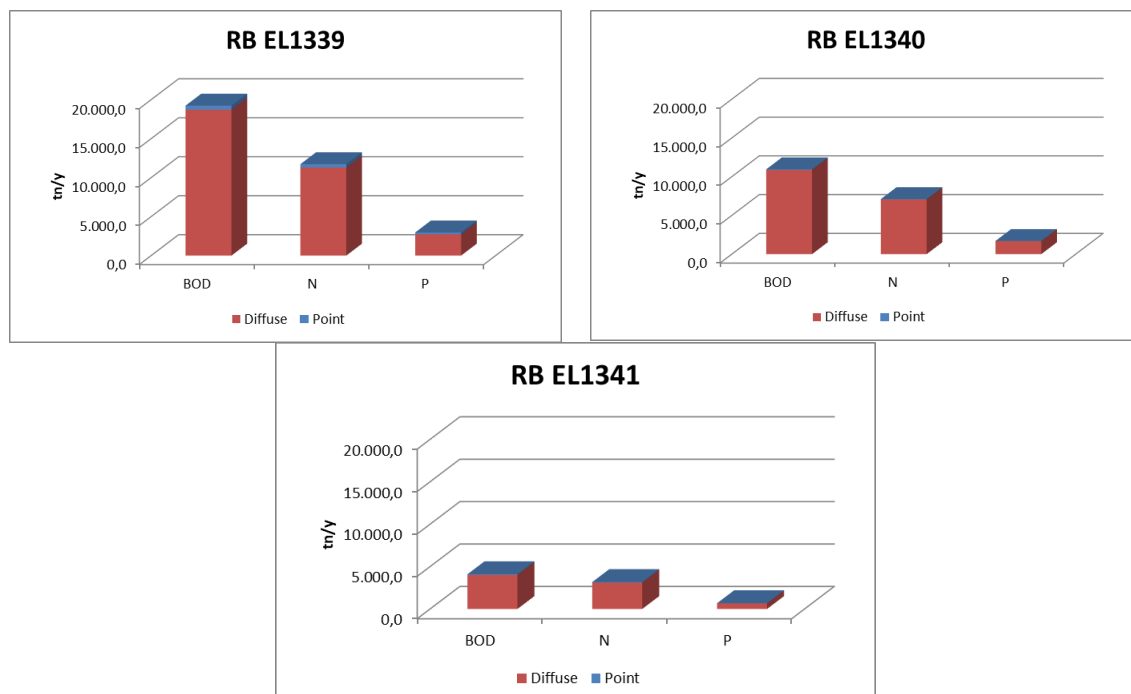
In the Crete RBD (EL13), several artificial recharge projects have been carried out, with the most important ones at the area of the western Messara plain and at the GWB PORODES MYRTOU (EL1300124). There are several small-scale projects scattered around the island that support the local aquifers.

#### ***Groundwater level and groundwater quantity variation as a result of subsurface exploitation or major underground construction works***

In the Crete RBD (EL13), no such works or activities are taking place that would lead to groundwater level and groundwater quantity variations.

## 5.6 Total pressures

From point and diffuse sources of pollution and the other pressures the total annual loads BOD, N and P produced in the study area were derived, as shown below.



**Chart 5-4** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point and diffuse sources of pollution

**Table 5-4** Total annual loads of BOD, N and P produced in RBs of Crete RBD (EL13) from point and diffuse sources of pollution

| Sources of pollution  | BOD (tn/year)    | N (tn/year)      | P (tn/year)     |
|---|------------------|------------------|-----------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                  |                  |                 |
| Point   | 519,29           | 430,75           | 225,29          |
| Diffuse   | 18720,31         | 11295,88         | 2741,12         |
| <b>TOTAL</b>  | <b>19.239,60</b> | <b>11.726,63</b> | <b>2.966,41</b> |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                  |                  |                 |
| Point   | 74,40            | 31,31            | 11,71           |
| Diffuse   | 10874,68         | 7070,98          | 1686,31         |
| <b>TOTAL</b>  | <b>10.949,08</b> | <b>7.102,29</b>  | <b>1.698,03</b> |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |                  |                  |                 |
| Point   | 66,30            | 61,10            | 21,20           |
| Diffuse   | 4036,59          | 3120,90          | 661,93          |
| <b>TOTAL</b>  | <b>4.102,89</b>  | <b>3.181,99</b>  | <b>683,13</b>   |
| <b>TOTAL RBD</b>  | <b>34.291,58</b> | <b>22.010,91</b> | <b>5.347,57</b> |

## 5.7 Impact Assessment

### 5.7.1 Impact Assessment on Surface water bodies

For the impacts assessment and the characterization of WBs based on the probability of achieving the environmental objectives of the Directive, the following were assessed per water body:

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

Taking into account the above criteria, the WBs were ranked by the probability of achieving the environmental objectives of the Directive. Summary data on the Impact Assessment is presented below.

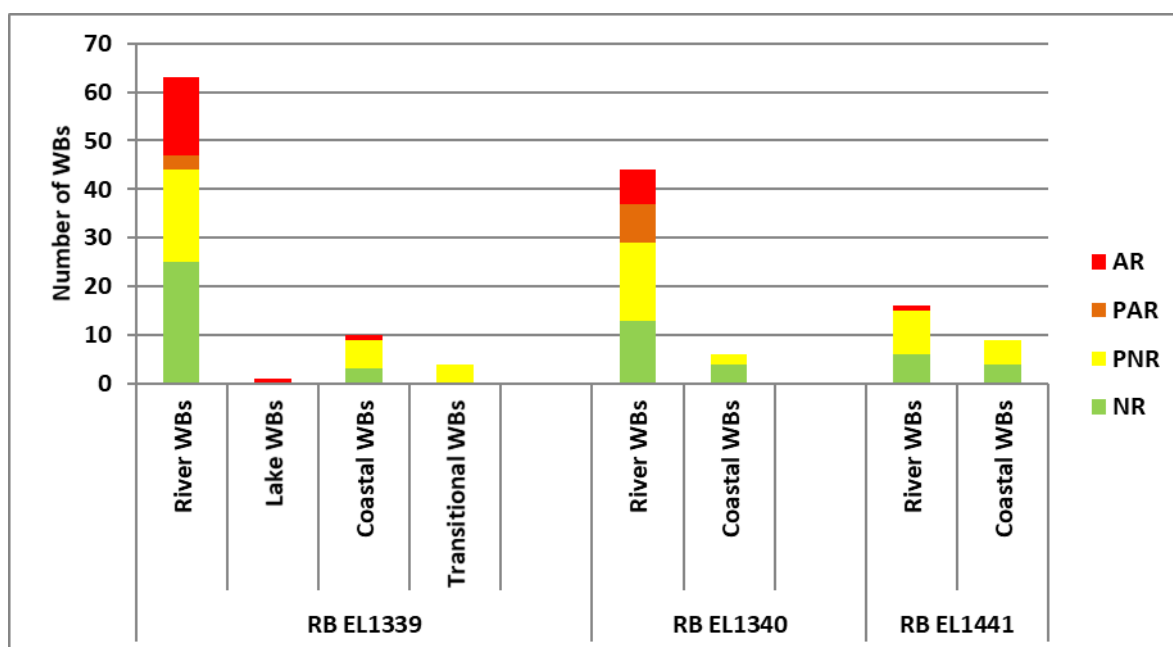


Chart 5-5 Risk assessment of non-achievement of surface water bodies objectives in RBs of Crete RBD (EL13)

Table 5-5 Statistics for the risk assessment of non-achievement of surface water bodies objectives in RBs of Crete RBD (EL13)

| WB type  | Risk assessment categories* |                   |               |                   |               |                   |               |                   | TOTAL         |
|--|-----------------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
|  | NR                          |                   | PNR           |                   | PAR           |                   | AR            |                   | Number of WBs |
|  | Number of WBs               | Number of WBs (%) | Number of WBs | Number of WBs (%) | Number of WBs | Number of WBs (%) | Number of WBs | Number of WBs (%) |               |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |                             |                   |               |                   |               |                   |               |                   |               |
| River WBs  | 25                          | 40%               | 19            | 30%               | 3             | 5%                | 16            | 25%               | 63            |
| Lake WBs   |                             |                   |               |                   |               |                   | 1             | 100%              | 1             |
| Coastal WBs  | 3                           | 30%               | 6             | 60%               |               |                   | 1             | 10%               | 10            |
| Transitional WBs   |                             |                   | 4             | 100%              |               |                   |               |                   | 4             |
| TOTAL  | 28                          | 36%               | 29            | 37%               | 3             | 4%                | 18            | 23%               | 78            |

| WB type  | Risk assessment categories* |                   |               |                   |               |                   |               |                   | TOTAL         |
|--|-----------------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
|  | NR                          |                   | PNR           |                   | PAR           |                   | AR            |                   | Number of WBs |
|  | Number of WBs               | Number of WBs (%) | Number of WBs | Number of WBs (%) | Number of WBs | Number of WBs (%) | Number of WBs | Number of WBs (%) |               |
| RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |                             |                   |               |                   |               |                   |               |                   |               |
| River WBs  | 13                          | 30%               | 16            | 36%               | 8             | 18%               | 7             | 16%               | 44            |
| Coastal WBs  | 4                           | 67%               | 2             | 33%               |               |                   |               |                   | 6             |
| TOTAL  | 17                          | 34%               | 18            | 36%               | 8             | 16%               | 7             | 14%               | 50            |
| RB of the Eastern Crete Streams (EL1341)                                 |                             |                   |               |                   |               |                   |               |                   |               |
| River WBs  | 6                           | 38%               | 9             | 56%               |               |                   | 1             | 6%                | 16            |
| Coastal WBs  | 4                           | 44%               | 5             | 56%               |               |                   |               |                   | 9             |
| TOTAL  | 10                          | 40%               | 14            | 56%               | 0             | 0%                | 1             | 4%                | 25            |

\* For the assessment of the risk of failure to achieve the objectives, the following categories are distinguished: At Risk -AR, possibly at risk (PAR), possibly not at risk (PNR), not at risk (NR)

## 5.7.2 Impact Assessment on Groundwater bodies

In Crete RBD (EL13) were identified 91 GWBs, the status of which is presented below. Of these, 9 are in poor chemical status and 9 in poor quantitative status.

**Table 5-6 Quantitative and chemical status of GWBs per RB at Crete RBD (EL13)**

| No  | GWB Code  | GWB Name   | Quantitative status | Decline water levels tendency | Chemical status | Quality problems         | Pollutants tendency |
|---|-----------|--|---------------------|-------------------------------|-----------------|--------------------------|---------------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |           |  |                     |                               |                 |                          |                     |
| 1   | EL1300011 | KARSTIKO TOPOLION                                | Good                | -                             | Good            |                          | -                   |
| 2   | EL1300012 | KARSTIKO SFINARIOU                               | Good                | -                             | Good            |                          | -                   |
| 3   | EL1300021 | PORODES KISSAMOU                                 | Good                | -                             | Good            | Local salinity intrusion | -                   |
| 4   | EL1300022 | PORODES KAMPOU CHANION                           | Good                | -                             | Good            | Local nitrates presence  | -                   |
| 5   | EL1300023 | PORODES APOKORONOU                               | Good                | -                             | Good            |                          | -                   |
| 6   | EL1300031 | KARSTIKO VD. LEYKON OREON (AGIAS)                | Good                | -                             | Good            |                          | -                   |
| 7   | EL1300032 | KARSTIKO VOREION LEYKON OREON (STYLOU-ARMENON)   | Good                | -                             | Good            |                          | -                   |
| 8   | EL1300033 | KARSTIKO VA. LEYKON OREON (KOURNA-GEORGIOUPOLIS) | Good                | -                             | Good            |                          | -                   |
| 9   | EL1300035 | KARSTIKO GEORGIOUPOLIS                           | Good                | -                             | Good            |                          | -                   |
| 10  | EL1300041 | KARSTIKO ARMENON-MALAKIOU-MOUNTRON-ARGYROUPOLIS  | Good                | -                             | Good            |                          | -                   |
| 11  | EL1300044 | KARSTIKO PARAKTIO GERANIOU                       | Good                | -                             | Good            |                          | -                   |

| No  | GWB Code  | GWB Name   | Quantitative status | Decline water levels tendency | Chemical status | Quality problems                             | Pollutants tendency |
|---|-----------|--|---------------------|-------------------------------|-----------------|--|---------------------|
| 12  | EL1300051 | PORODES VD.<br>RETHYMNOU   | Good                | -                             | Good            |  | -                   |
| 13  | EL1300052 | PORODES VA.<br>PARAKTIOU<br>RETHYMNOU (KAMPOU<br>RETHYMNOU-PRINOU-<br>PERAMATOS) | Good                | -                             | Good            | Local Salinity intrusion - nitrates presence | -                   |
| 14  | EL1300053 | PORODES<br>VA.RETHYMNOU  | Good                | -                             | Good            |  | -                   |
| 15  | EL1300054 | PORODES KENTRIKOU<br>RETHYMNOU   | Good                | -                             | Good            |  | -                   |
| 16  | EL1300061 | KARSTIKO TALAION   | Good                | -                             | Good            |  | -                   |
| 17  | EL1300062 | KARSTIKO VD.<br>PSILOREITI   | Good                | -                             | Good            |  | -                   |
| 18  | EL1300063 | KARSTIKO VA. PSILOREITI  | Good                | -                             | Good            |  | -                   |
| 19  | EL1300064 | KARSTIKO KERIS-<br>TYLISSOU  | Poor                | -                             | Poor            | Salinity intrusion                           | -                   |
| 20  | EL1300071 | PORODES VOREIO-<br>KENTRIKIS LEKANIS<br>IRAKLEIOU                                | Good                | -                             | Good            |  | -                   |
| 21  | EL1300072 | PORODES PARAKTIO<br>VOREIOU IRAKLEIOU  | Poor                | -                             | Poor            | Salinity intrusion                           | -                   |
| 22  | EL1300101 | PORODES KASTELIOU  | Poor                | -                             | Good            | Local nitrates presence                      | -                   |
| 23  | EL1300172 | KARSTIKO<br>CHRYOSKALITISSAS   | Good                | -                             | Good            |  | -                   |
| 24  | EL1300190 | ROGMODES CHANION   | Good                | -                             | Good            |  | -                   |
| 25  | EL1300200 | PORODES<br>CHRYOSKALITISSAS  | Good                | -                             | Good            |  | -                   |
| 26  | EL1300231 | PORODES OROPEDIOU<br>LASITHIOU   | Good                | -                             | Good            | Local nitrates presence                      | -                   |
| 27  | EL1300250 | ROGMODES PSILOREITI  | Good                | -                             | Good            | Local salinity intrusion                     | -                   |
| 28  | EL1300301 | KARSTIKO GIOUCHTA  | Good                | -                             | Good            |  | -                   |
| 29  | EL1300311 | KARSTIKO<br>KAINOURGIOU<br>CHORIOU-SMARIOU                                       | Good                | -                             | Good            |  | -                   |
| 30  | EL1300312 | KARSTIKO PARAKTIO<br>IRAKLEIOU-GOUVON-<br>CHERSONISOU                            | Poor                | -                             | Poor            | Salinity intrusion                           | Yes                 |
| 31  | EL1300321 | KARSTIKO PARAKTIO<br>GRAMVOUSAS  | Good                | -                             | Good            |  | -                   |
| 32  | EL1300322 | KARSTIKO PARAKTIO<br>SPATHAS (RODOPOU)   | Good                | -                             | Good            |  | -                   |
| 33  | EL1300323 | KARSTIKO PARAKTIO<br>AKROTIRIOU (SOUDAS)   | Good                | -                             | Good            |  | -                   |
| 34  | EL1300324 | KARSTIKO PARAKTIO<br>APOKORONA   | Good                | -                             | Good            |  | -                   |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |           |  |                     |                               |                 |  |                     |

| No | GWB Code  | GWB Name   | Quantitative status | Decline water levels tendency | Chemical status | Quality problems         | Pollutants tendency |
|----|-----------|--|---------------------|-------------------------------|-----------------|--------------------------|---------------------|
| 35 | EL1300034 | KARSTIKO NOTION<br>LEYKON OREON                      | Good                | -                             | Good            |                          | -                   |
| 36 | EL1300042 | KARSTIKO KALLIKRATI-<br>ASIDEROTA                    | Good                | -                             | Good            |                          | -                   |
| 37 | EL1300043 | KARSTIKO KEDROU                                      | Good                | -                             | Good            |                          | -                   |
| 38 | EL1300055 | PORODES NOTIOU<br>RETHYMNOU                          | Good                | -                             | Good            |                          | -                   |
| 39 | EL1300065 | KARSTIKO NA.<br>PSILOREITI                           | Good                | -                             | Good            |                          | -                   |
| 40 | EL1300081 | PORODES TYMPAKIOU                                    | Good                | -                             | Good            | Local nitrates presence  | -                   |
| 41 | EL1300082 | PORODES PARAKTIO<br>TYMPAKIOU                        | Poor                | -                             | Poor            | Salinity intrusion       | -                   |
| 42 | EL1300083 | PORODES MOIRON                                       | Poor                | Yes                           | Poor            | Nitrates presence        | -                   |
| 43 | EL1300084 | PORODES GALIAS-<br>VAGIONIAS-ASIMIOU                 | Good                | -                             | Good            | Local nitrates presence  | -                   |
| 44 | EL1300085 | PORODES MESOCHORIOU                                  | Good                | -                             | Good            | Local nitrates presence  | -                   |
| 45 | EL1300086 | PORODES MESARAS-<br>NOTIOU IRAKLEIOU                 | Good                | -                             | Good            | Local nitrates presence  | -                   |
| 46 | EL1300091 | KARSTIKO POMPIAS-<br>ALITHINIS                       | Good                | -                             | Good            |                          | -                   |
| 47 | EL1300092 | KARSTIKO PYRGOU-<br>CHARAKA-FOURNOFARAGGOU           | Good                | -                             | Good            |                          | -                   |
| 48 | EL1300093 | KARSTIKO PARAKTIO<br>ASTEROUSION                     | Good                | -                             | Good            | Local salinity intrusion | -                   |
| 49 | EL1300102 | PORODES ROUSOCHORION                                 | Poor                | -                             | Poor            | Nitrates presence        | Yes                 |
| 50 | EL1300111 | KARSTIKO DYTIKIS DIKTIS                              | Good                | -                             | Good            |                          | -                   |
| 51 | EL1300171 | KARSTIKO PALAIOCHORAS                                | Good                | -                             | Good            |                          | -                   |
| 52 | EL1300173 | KARSTIKO KANTANOU                                    | Good                | -                             | Good            |                          | -                   |
| 53 | EL1300180 | PORODES FRAGKOKASTELOU                               | Good                | -                             | Good            |                          | -                   |
| 54 | EL1300210 | ROGMODES RETHYMNOU                                   | Good                | -                             | Good            |                          | -                   |
| 55 | EL1300220 | ROGMODES ASTEROUSION                                 | Good                | -                             | Good            |                          | -                   |
| 56 | EL1300232 | PORODES EMPAROU-<br>PANAGIAS                         | Good                | -                             | Good            |                          | -                   |
| 57 | EL1300270 | PORODES GAYDOU                                       | Poor                | -                             | Poor            | Salinity intrusion       | -                   |
| 58 | EL1300280 | KARSTIKO GAYDOU                                      | Good                | -                             | Good            |                          | -                   |
| 59 | EL1300290 | ROGMODES GIOUCHTAS-OXY KEFALI<br>(DAMANION LARANIOU) | Good                | -                             | Good            |                          | -                   |



| No  | GWB Code  | GWB Name                                    | Quantitative status | Decline water levels tendency | Chemical status | Quality problems         | Pollutants tendency |
|---|-----------|---|---------------------|-------------------------------|-----------------|--------------------------|---------------------|
| 60  | EL1300302 | KARSTIKO DAMANION-LARANIOU                  | Good                | -                             | Good            |                          | -                   |
| 61  | EL1300330 | KARSTIKO GYPSON KRITIS                      | Good                | -                             | Good            |                          | -                   |
| <b>RB of the Eastern Crete Streams (EL1341)</b> |           |   |                     |                               |                 |                          |                     |
| 62  | EL1300112 | KARSTIKO MALION-SELENAS                     | Good                | -                             | Good            | Local salinity intrusion | -                   |
| 63  | EL1300113 | KARSTIKO VA. DIKTIS                         | Good                | -                             | Good            |                          | -                   |
| 64  | EL1300114 | KARSTIKO LAKONION-ALMYROU AG. NIKOLAOU      | Good                | -                             | Good            |                          | -                   |
| 65  | EL1300115 | KARSTIKO FOURNIS-ELOUNTAS                   | Good                | -                             | Good            |                          | -                   |
| 66  | EL1300116 | KARSTIKO PARAKTIO SISIYOU-MILATOU-ELOUNTAS  | Good                | -                             | Good            |                          | -                   |
| 67  | EL1300117 | KARSTIKO ANATOLIKIS-NOTIAS DIKTIS           | Good                | -                             | Good            |                          | -                   |
| 68  | EL1300121 | PORODES IERAPETRAS-KENTRIOU                 | Good                | -                             | Poor            | Nitrates presence        | -                   |
| 69  | EL1300122 | PORODES PACHEIAS AMMOU-KALOU CHORIOU        | Good                | -                             | Good            | Local salinity intrusion | -                   |
| 70  | EL1300123 | PORODES IERAPETRAS-KALOU CHORIOU            | Good                | -                             | Good            |                          | -                   |
| 71  | EL1300124 | PORODES MYRTOU                              | Good                | -                             | Good            |                          | -                   |
| 72  | EL1300131 | KARSTIKO ORNOU                              | Good                | -                             | Good            |                          | -                   |
| 73  | EL1300132 | KARSTIKO PARAKTIO MALAYRAS-PACHEIAS AMMOU   | Good                | -                             | Good            |                          | -                   |
| 74  | EL1300133 | KARSTIKO THRYPTIS                           | Good                | -                             | Good            |                          | -                   |
| 75  | EL1300134 | KARSTIKO PEYKON - MARONIAS                  | Good                | -                             | Good            |                          | -                   |
| 76  | EL1300141 | PORODES SITEIAS-PAPAGIANNADON-AGIAS TRIADAS | Good                | -                             | Good            |                          | -                   |
| 77  | EL1300142 | PORODES KOUTSOURA-MAKRYGIALOU               | Good                | -                             | Good            |                          | -                   |
| 78  | EL1300143 | PORODES SKOPIS-SITEIAS                      | Good                | -                             | Good            | Local salinity intrusion | -                   |
| 79  | EL1300144 | PORODES GOUDOURA                            | Poor                | -                             | Poor            | Salinity intrusion       | -                   |
| 80  | EL1300151 | KARSTIKO OREON ZAKROU                       | Good                | -                             | Good            |                          | -                   |
| 81  | EL1300152 | KARSTIKO VA. APOLIXEON OREON ZAKROU         | Good                | -                             | Good            |                          | -                   |

| No | GWB Code  | GWB Name   | Quantitative status | Decline water levels tendency | Chemical status | Quality problems | Pollutants tendency |
|----|-----------|--|---------------------|-------------------------------|-----------------|------------------|---------------------|
| 82 | EL1300153 | KARSTIKO PARAKTIO<br>ANATOLIKON<br>APOLIXEON OREON<br>ZAKROU | Good                | -                             | Good            |                  | -                   |
| 83 | EL1300154 | KARSTIKO OREON PIGIS<br>ZOU                                  | Good                | -                             | Good            |                  | -                   |
| 84 | EL1300161 | PORODES<br>FOINIKODASOUS VAI                                 | Good                | -                             | Good            |                  | -                   |
| 85 | EL1300162 | PORODES MONIS<br>TOPLOU-<br>PALAIKASTROU-<br>XIROKAMPOU      | Good                | -                             | Good            |                  | -                   |
| 86 | EL1300233 | PORODES ANO<br>VIANNOU                                       | Good                | -                             | Good            |                  | -                   |
| 87 | EL1300234 | PORODES<br>KERATOKAMPOU-ARVIS                                | Good                | -                             | Good            |                  | -                   |
| 88 | EL1300240 | ROGMODES DIKTIS  | Good                | -                             | Good            |                  | -                   |
| 89 | EL1300260 | ROGMODES OREON<br>ZAKROU                                     | Good                | -                             | Good            |                  | -                   |
| 90 | EL1300320 | ROGMODES ORNOU-<br>THRYPTIS                                  | Good                | -                             | Good            |                  | -                   |
| 91 | EL1300340 | NISIDES KRITIS   | Good                | -                             | Good            |                  | -                   |

## 6 STATUS OF WATER BODIES

### 6.1 Classification of the Status of Surface Water Bodies

#### 6.1.1 Status assessment of River Water Bodies

In Crete RB (EL13) **118 River WB's** are identified. The table that follows presents the ecological and chemical status of those bodies, along with any differences found between the 1<sup>st</sup> and the Revised RBMP.

**Table 6-1 Status and differences in the status of river WBs between the 1<sup>st</sup> RBMP and the 1<sup>st</sup> Revision of RBMP**

| WB Code  | WB Name         | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|--|-----------------|-----------------------------|----------------------------------|----------------------|----------------------------------|
|  |                 | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |                 |                             |                                  |                      |                                  |
| EL1339R000101001N  | TSIHLIANOS      | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1339R000201003N  | GIFLOS          | High                        | Good                             | Unknown              | Good                             |
| EL1339R000201058N  | GIFLOS          | Good                        | Good                             | Unknown              | Good                             |
| EL1339R000202104N  | GIFLOS          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000202205N  | GIFLOS          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000301006N  | TAVRONITIS      | Unknown                     | Poor                             | Unknown              | Good                             |
| EL1339R000301007N  | TAVRONITIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000301008N  | TAVRONITIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000301057N  | TAVRONITIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000302009N  | TAVRONITIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000303110N  | TAVRONITIS      | Good                        | Good                             | Unknown              | Good                             |
| EL1339R000401011N  | KERITIS         | Unknown                     | Good                             | Good                 | Good                             |
| EL1339R000401012H  | KERITIS         | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL1339R000401114N  | KERITIS         | Good                        | Good                             | Unknown              | Good                             |
| EL1339R000401115N  | KERITIS         | Good                        | Good                             | Unknown              | Good                             |
| EL1339R000402013N  | KERITIS         | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000501016N  | KOILIARIS       | Good                        | Good                             | Unknown              | Good                             |
| EL1339R000501017N  | KOILIARIS       | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000501059N  | KOILIARIS       | High                        | Good                             | Unknown              | Good                             |
| EL1339R000501060N  | KOILIARIS       | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000502118N  | KOILIARIS       | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000601019N  | ALMIROS CHANION | Moderate                    | Good                             | Unknown              | Good                             |
| EL1339R000601062N  | ALMIROS CHANION | Moderate                    | Good                             | Unknown              | Good                             |
| EL1339R000701020N  | KOURNIOTIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000801021N  | MOYSELAS        | High                        | Good                             | Unknown              | Good                             |
| EL1339R000901022N  | PETRES          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000901023N  | PETRES          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R000901024N  | PETRES          | High                        | Good                             | Unknown              | Good                             |
| EL1339R000902125N  | PETRES          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339R001001026H  | SFAKORIAKO      | Good                        | Unknown                          | Unknown              | Good                             |
| EL1339R001001063H  | SFAKORIAKO      | Moderate                    | Unknown                          | Unknown              | Good                             |
| EL1339R001101027N  | MILOPOTAMOS     | Unknown                     | Poor                             | Unknown              | Good                             |
| EL1339R001101028N  | MILOPOTAMOS     | Moderate                    | Moderate                         | Unknown              | Good                             |
| EL1339R001101029N  | MILOPOTAMOS     | Unknown                     | Good                             | Unknown              | Good                             |

| WB Code   | WB Name     | Ecological Status/Potential       |                                  | Chemical Status              |                                  |
|---|-------------|-----------------------------------|----------------------------------|------------------------------|----------------------------------|
|   |             | 1 <sup>st</sup> RBMP              | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP         | 1 <sup>st</sup> Revision of RBMP |
| EL1339R001101030N   | MILOPOTAMOS | Good                              | Good                             | Unknown                      | Good                             |
| EL1339R001102131N   | MILOPOTAMOS | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001201032N   | FODELE      | Moderate                          | Good                             | Unknown                      | Good                             |
| EL1339R001201033N   | FODELE      | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001201034N   | FODELE      | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001202135N   | FODELE      | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001301036N   | GAZANOS     | Moderate                          | Moderate                         | Unknown                      | Good                             |
| EL1339R001302138N   | GAZANOS     | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1339R001303037N   | GAZANOS     | Unknown                           | Poor                             | Unknown                      | Good                             |
| EL1339R001304239N   | GAZANOS     | Good                              | Good                             | Unknown                      | Good                             |
| EL1339R001306340N   | GAZANOS     | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1339R001401041N   | GIOFIROS    | Moderate                          | Moderate                         | Unknown                      | Good                             |
| EL1339R001401042N   | GIOFIROS    | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1339R001401043N   | GIOFIROS    | Moderate                          | Moderate                         | Unknown                      | Good                             |
| EL1339R001401061N   | GIOFIROS    | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1339R001501044N   | KARTEROS    | Moderate                          | Poor                             | Unknown                      | Good                             |
| EL1339R001502046N   | KARTEROS    | Poor                              | Poor                             | Unknown                      | Good                             |
| EL1339R001503045N   | KARTEROS    | Poor                              | Poor                             | Unknown                      | Good                             |
| EL1339R001601047N   | APOSELEMIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001602049N   | APOSELEMIS  | Moderate                          | Good                             | Unknown                      | Good                             |
| EL1339R001602151N   | APOSELEMIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001602152N   | APOSELEMIS  | High                              | Good                             | Unknown                      | Good                             |
| EL1339R001602250N   | APOSELEMIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1339R001603048H   | APOSELEMIS  | Unknown                           | Άγνωστο                          | Unknown                      | Good                             |
| EL1339R001603053N   | APOSELEMIS  | Moderate/<br>Moderate/<br>Unknown | Moderate                         | Unknown<br>/Good/<br>Unknown | Good                             |
| EL1339R001604057N   | APOSELEMIS  | New WB                            | Good                             | New WB                       | Good                             |
| EL1339R001605056N   | APOSELEMIS  | Good                              | Good                             | Unknown                      | Good                             |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |             |                                   |                                  |                              |                                  |
| EL1340R000101001N   | ANAPODARIS  | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1340R000102105N   | ANAPODARIS  | Moderate                          | Moderate                         | Unknown                      | Good                             |
| EL1340R000102107N   | ANAPODARIS  | Moderate                          | Moderate                         | Unknown                      | Good                             |
| EL1340R000103002N   | ANAPODARIS  | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1340R000104108H   | ANAPODARIS  | Unknown                           | Unknown                          | Unknown                      | Good                             |
| EL1340R000104109N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000105003N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000106109N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000106210H   | ANAPODARIS  | Unknown                           | Unknown                          | Unknown                      | Good                             |
| EL1340R000106311H   | ANAPODARIS  | Unknown                           | Unknown                          | Unknown                      | Good                             |
| EL1340R000107004N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000108116N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000109012H   | ANAPODARIS  | Good                              | Unknown                          | Unknown                      | Good                             |
| EL1340R000109114N   | ANAPODARIS  | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000109215N   | ANAPODARIS  | Moderate                          | Good                             | Unknown                      | Good                             |
| EL1340R000201017N   | GEROPOTAMOS | Unknown                           | Moderate                         | Unknown                      | Good                             |
| EL1340R000202122N   | GEROPOTAMOS | Unknown                           | Good                             | Unknown                      | Good                             |
| EL1340R000202123N   | GEROPOTAMOS | Unknown                           | Good                             | Unknown                      | Good                             |

| WB Code   | WB Name           | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|---|-------------------|-----------------------------|----------------------------------|----------------------|----------------------------------|
|   |                   | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| EL1340R000203018N                               | GEROPOTAMOS       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1340R000204124H                               | GEROPOTAMOS       | Moderate                    | Unknown                          | Unknown              | Good                             |
| EL1340R000204125N                               | GEROPOTAMOS       | High                        | Good                             | Unknown              | Good                             |
| EL1340R000204126N                               | GEROPOTAMOS       | High                        | High                             | Unknown              | Good                             |
| EL1340R000205019N                               | GEROPOTAMOS       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1340R000206126N                               | GEROPOTAMOS       | Moderate                    | Moderate                         | Unknown              | Good                             |
| EL1340R000207020N                               | GEROPOTAMOS       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1340R000208128N                               | GEROPOTAMOS       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1340R000209021N                               | GEROPOTAMOS       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1340R000301029N                               | PLATIS            | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000301030N                               | PLATIS            | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000401031N                               | KOYRTALLOTIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000402133N                               | KOYRTALLOTIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000403032N                               | KOYRTALLOTIS      | High                        | Good                             | Unknown              | Good                             |
| EL1340R000501034N                               | RODAKINO          | High                        | Good                             | Unknown              | Good                             |
| EL1340R000601035N                               | SAMARIAS FARAGGI  | Moderate                    | Good                             | Unknown              | Good                             |
| EL1340R000602136N                               | SAMARIAS FARAGGI  | Good/Good                   | High                             | Unknown/Unknown      | Good                             |
| EL1340R000701038N                               | KAKODIKIANOS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000701039N                               | KAKODIKIANOS      | High                        | Good                             | Unknown              | Good                             |
| EL1340R000702140N                               | KAKODIKIANOS      | High                        | Good                             | Unknown              | Good                             |
| EL1340R000702241N                               | KAKODIKIANOS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000801042N                               | PELEKANIOTIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000801043N                               | PELEKANIOTIS      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1340R000801044N                               | PELEKANIOTIS      | High                        | Good                             | Unknown              | Good                             |
| <b>RB of the Eastern Crete Streams (EL1341)</b> |                   |                             |                                  |                      |                                  |
| EL1341R000101001N                               | ALMIROS LASITHIOU | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000101002N                               | ALMIROS LASITHIOU | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000101003N                               | ALMIROS LASITHIOU | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000201004N                               | PENTELIS          | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1341R000201005N                               | PENTELIS          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000301006N                               | HOHLAKIAS         | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000302008N                               | HOHLAKIAS         | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000303007N                               | HOHLAKIAS         | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000401009N                               | ZAKROU FARAGGI    | High                        | Good                             | Unknown              | Good                             |
| EL1341R000501010H                               | BRAMIANOS         | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL1341R000501011N                               | BRAMIANOS         | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000601012N                               | KALAMAFKIANOS     | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000601013N                               | KALAMAFKIANOS     | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341R000701013H                               | MIRTOS            | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL1341R000701014N                               | MIRTOS            | High                        | Good                             | Unknown              | Good                             |

### 6.1.2 Status assessment of Lake Water Bodies

In the RB examined **1 Lake** and **5 Reservoirs (lake type river HMWB's)** have been identified. The table that follows presents the ecological and chemical status of those bodies, along with any differences found between the 1<sup>st</sup> and the Revised RBMP.

**Table 6-2 Status and differences in the status of Lake WBs and reservoirs (Heavily Modified River Water Bodies) between the 1<sup>st</sup> RBMP and the 1<sup>st</sup> Revision of RBMP**

| WB Code  | WB Name         | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|--|-----------------|-----------------------------|----------------------------------|----------------------|----------------------------------|
|  |                 | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |                 |                             |                                  |                      |                                  |
| EL1339L000701001N  | L. KOURNA       | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1339RL01001002H  | R. POTAMON      | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL1339RL01605003H  | R. APOSELEMI    | Unknown                     | Unknown                          | Unknown              | Good                             |
| RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |                 |                             |                                  |                      |                                  |
| EL1340RL00109102H  | R. PLAKIOTISSAS | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL1340RL00204101H  | R. FANEROMENIS  | Unknown                     | Good and above                   | Unknown              | Good                             |
| RB of the Eastern Crete Streams (EL1341)                                 |                 |                             |                                  |                      |                                  |
| EL1341RL00501001H  | R. MPRAMIANON   | Unknown                     | Good and above                   | Unknown              | Good                             |

### 6.1.3 Status assessment of Transitional Water Bodies

In the RB examined **4 transitional WB's** have been identified. The table that follows presents the ecological and chemical status of those bodies, along with any differences found between the 1<sup>st</sup> and the Revised RBMP.

**Table 6-3 Status and differences in the status of transitional WBs between the 1<sup>st</sup> RBMP and the 1<sup>st</sup> Revision of RBMP**

| WB Code  | WB Name    | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|--|------------|-----------------------------|----------------------------------|----------------------|----------------------------------|
|  |            | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |            |                             |                                  |                      |                                  |
| EL133901T0001N   | TAYRONITIS | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL133901T0002N   | KERITIS    | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL133901T0003N   | KOILIARIS  | Unknown                     | Unknown                          | Unknown              | Good                             |
| EL133901T0004N   | MOUSELAS   | Unknown                     | Unknown                          | Unknown              | Good                             |

#### 6.1.4 Status assessment of Coastal Water Bodies

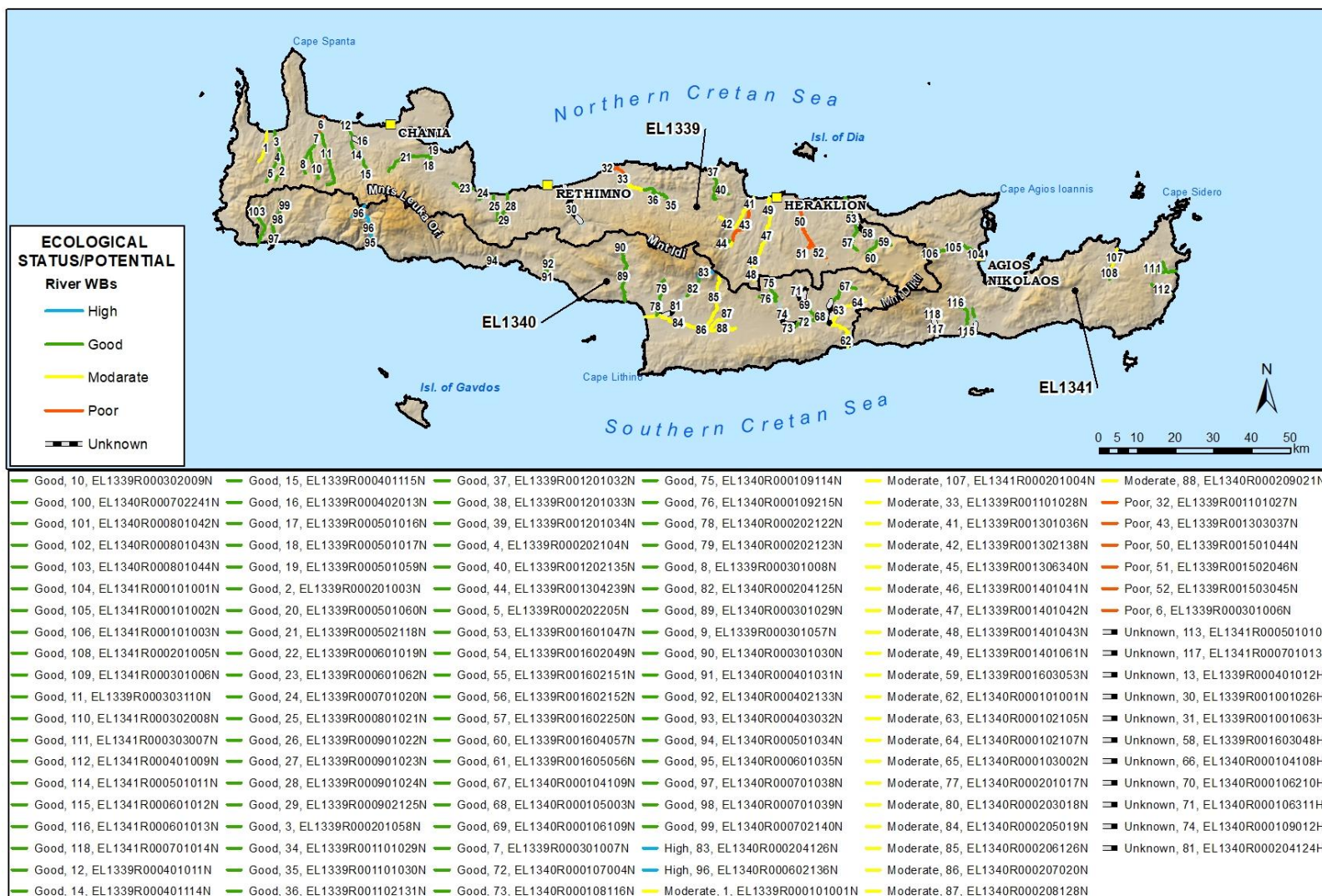
In the RB examined **24 coastalWB's** have been identified. The table that follows presents the ecological and chemical status of those bodies, along with any differences found between the 1<sup>st</sup> and the Revised RBMP.

**Table 6-4 Status and differences in the status of coastal WBs between the 1<sup>st</sup> RBMP and the 1<sup>st</sup> Revision of RBMP**

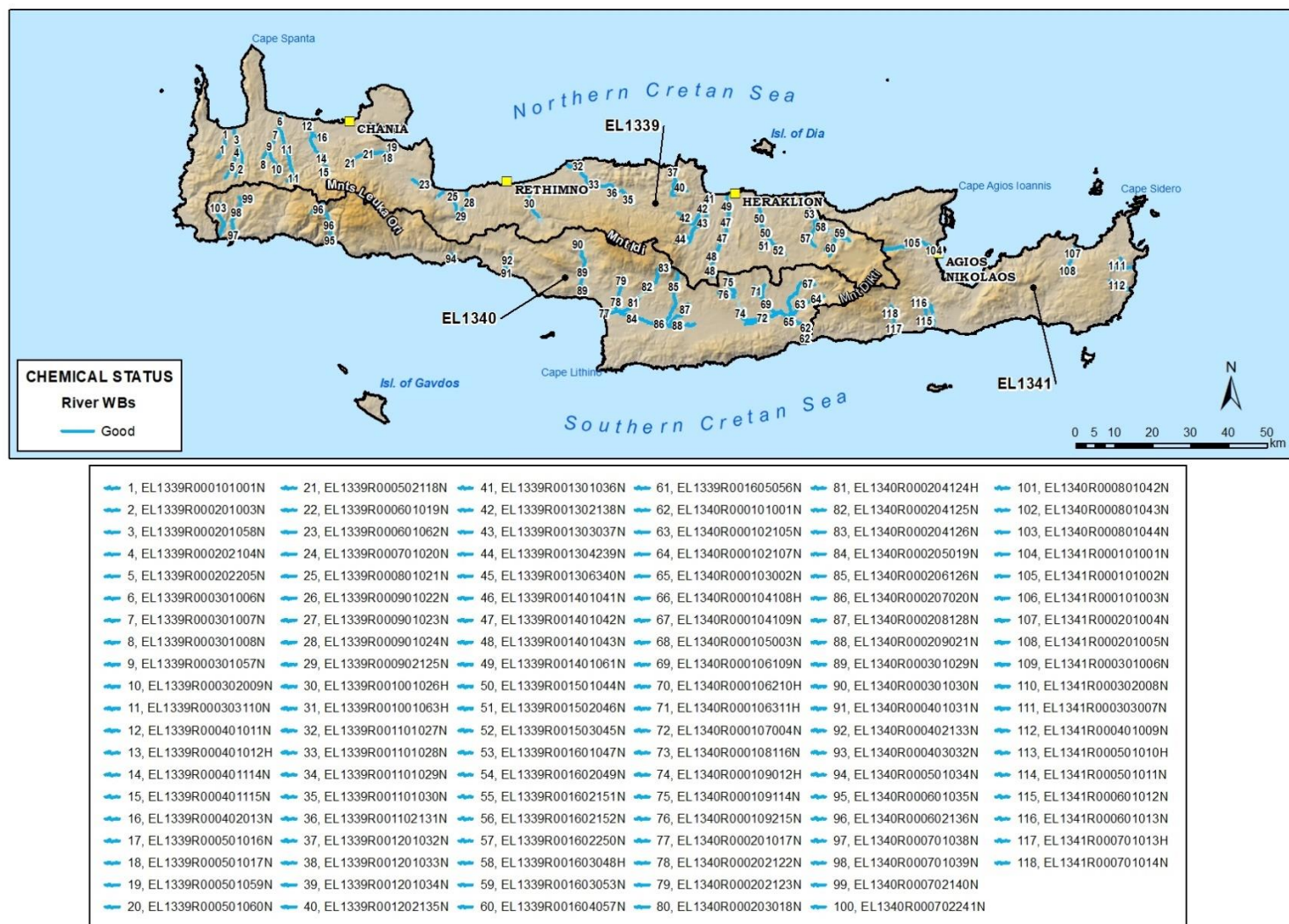
| WB Code  | WB Name   | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|--|---|-----------------------------|----------------------------------|----------------------|----------------------------------|
|  |   | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |   |                             |                                  |                      |                                  |
| EL1339C0001N   | AKTES KOLPOU KISSAMOU                               | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0003N   | ORMOS SOUDAS  | Unknown                     | Moderate                         | Unknown              | Good                             |
| EL1339C0004N   | ORMOS ALMYROU                                       | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0005N   | AKTES RETHYMNOU                                     | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0006N   | AKTES MPALI-FODELE                                  | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0007N   | EYRYTEROS KOLPOS IRAKLEIOU                          | Unknown                     | Good                             | Unknown              | Good                             |
| EL1339C0008N   | NISOS DIA   | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0024N   | AKTES STO NOTIO KRITIKO PELAGOS PELAGOS - VDD KRITI | Good                        | Good                             | Unknown              | Good                             |
| EL1339C0025N   | NISOS GRAMVOUSA                                     | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |
| RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |   |                             |                                  |                      |                                  |
| EL1340C0018N   | AKTES NOTIOU KRITIKOU PELAGOUS - ASTEROUSIA         | Good                        | Good                             | Unknown              | Good                             |
| EL1340C0019N   | AKTES KOLPOU MESSARAS                               | Good                        | Good                             | Unknown              | Good                             |
| EL1340C0020N   | NISOI PAXIMADIA                                     | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |
| EL1340C0021N   | NISOS GAYDOS  | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |
| EL1340C0022N   | NISOS GAYDOPOULA                                    | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |
| EL1340C0023N   | AKTES STO NOTIO KRITIKO PELAGOS – CHANIA/RETHYMNO   | Good                        | Good                             | Unknown              | Good                             |
| RB of the Eastern Crete Streams (EL1341)                                 |   |                             |                                  |                      |                                  |
| EL1341C0009N   | KOLPOS MALION                                       | Good                        | Good                             | Unknown              | Good                             |
| EL1341C0010N   | NISIS AVGO  | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |
| EL1341C0011N   | ORMOS ELOUNTAS                                      | Unknown                     | Good                             | Unknown              | Good                             |
| EL1341C0012N   | KOLPOS AG. NIKOLAOU                                 | Good                        | Good                             | Unknown              | Good                             |
| EL1341C0013N   | AKTES SITEIAS                                       | Good                        | Good                             | Unknown              | Good                             |
| EL1341C0014N   | AKTES DIONYSIADON                                   | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |



| WB Code      | WB Name   | Ecological Status/Potential |                                  | Chemical Status      |                                  |
|--------------|---|-----------------------------|----------------------------------|----------------------|----------------------------------|
|              |   | 1 <sup>st</sup> RBMP        | 1 <sup>st</sup> Revision of RBMP | 1 <sup>st</sup> RBMP | 1 <sup>st</sup> Revision of RBMP |
| EL1341C0015N | AKTES STO NOTIO<br>KRITIKO PELAGOS -<br>VAA KRITI | Good                        | Good                             | Unknown              | Good                             |
| EL1341C0016N | AKTES NOTIOU<br>KRITIKOU<br>PELAGOUS - LASITHI    | Good                        | Good                             | Unknown              | Good                             |
| EL1341C0017N | AKTES NISOU<br>CHRYSI                             | Υψηλή                       | Υψηλή                            | Unknown              | Good                             |

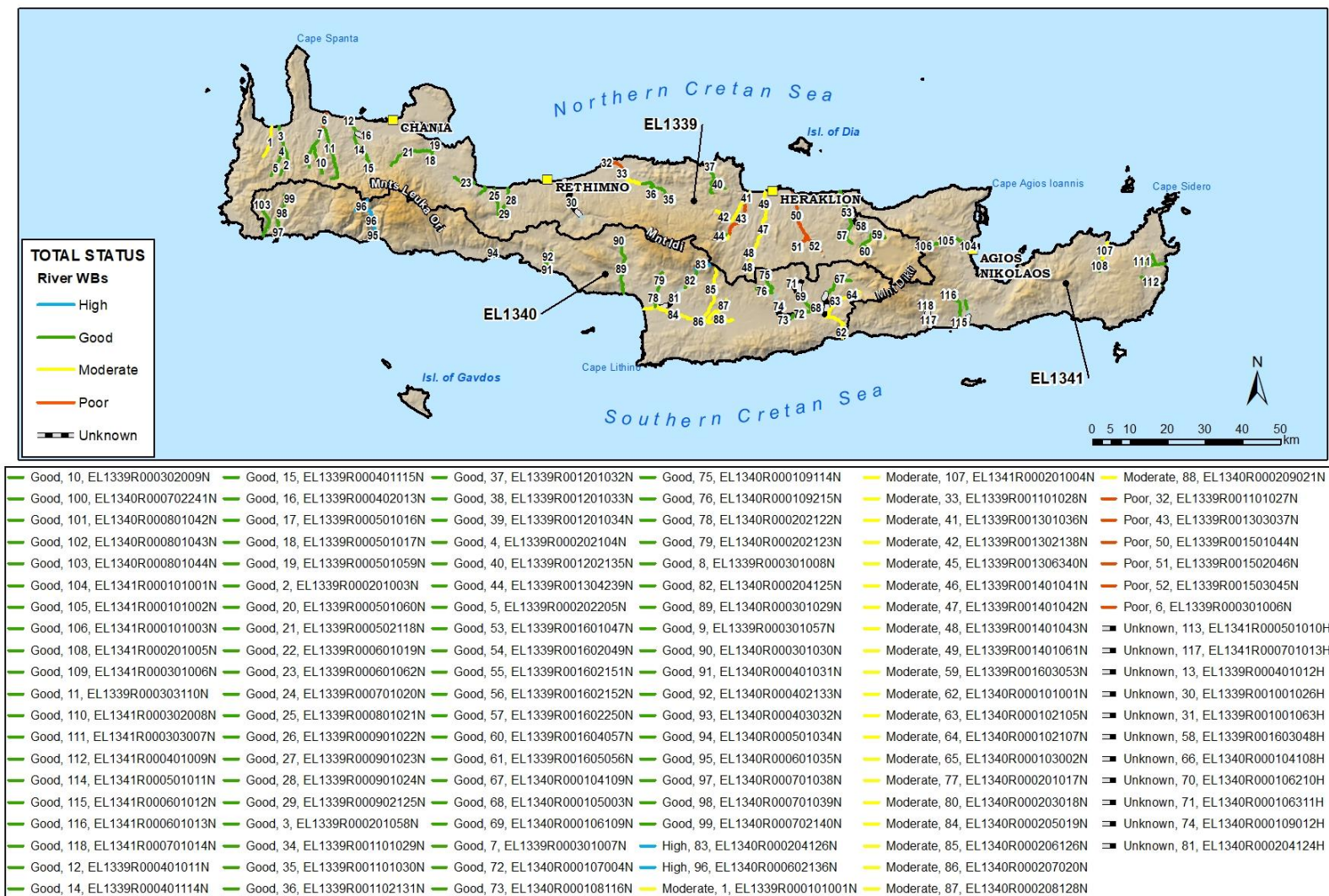


Map 6-1 Ecological status/ potential of river WBs of Crete RBD (EL13)

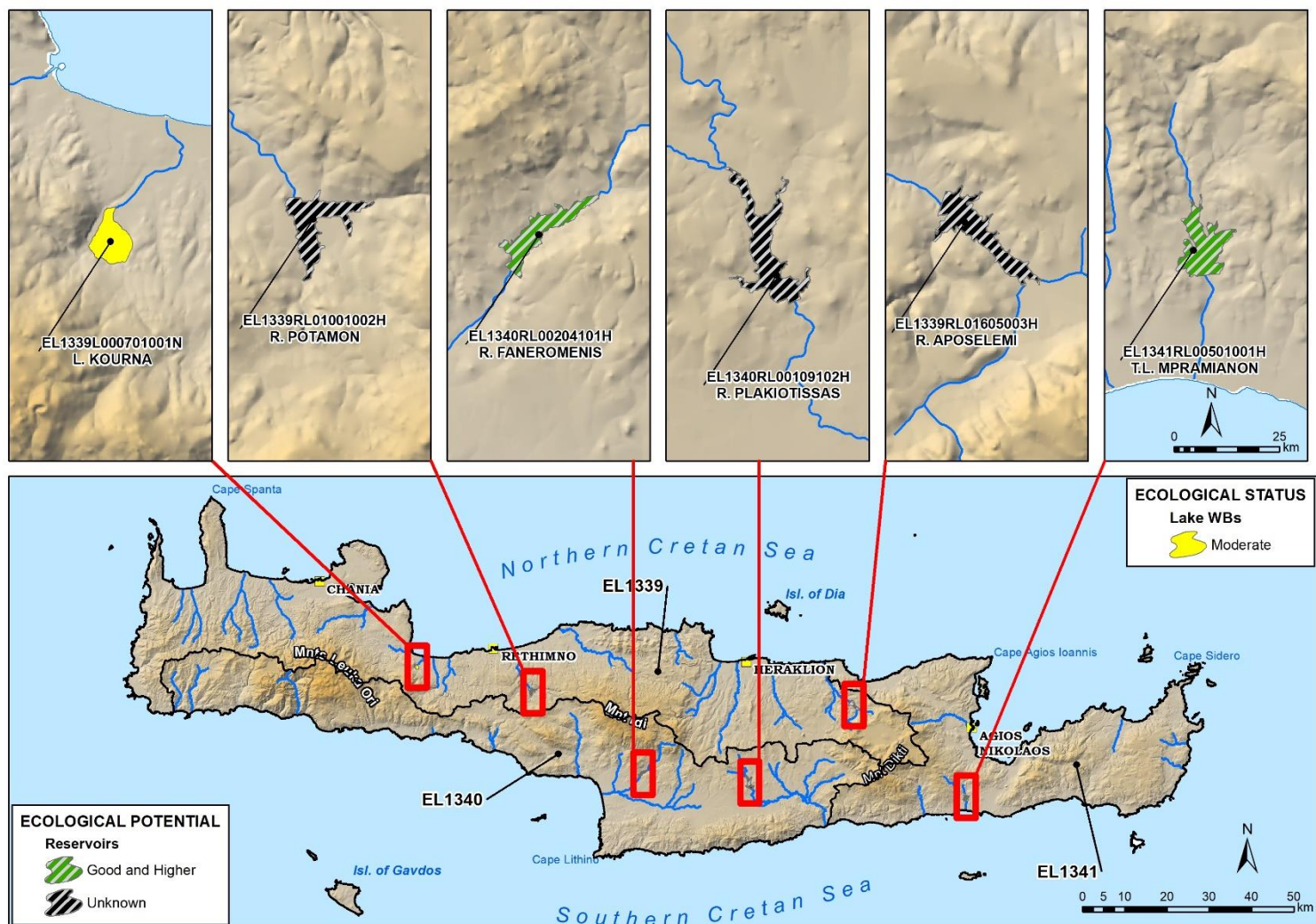


Map 6-2 Chemical status of river WBs of Crete RBD (EL13)



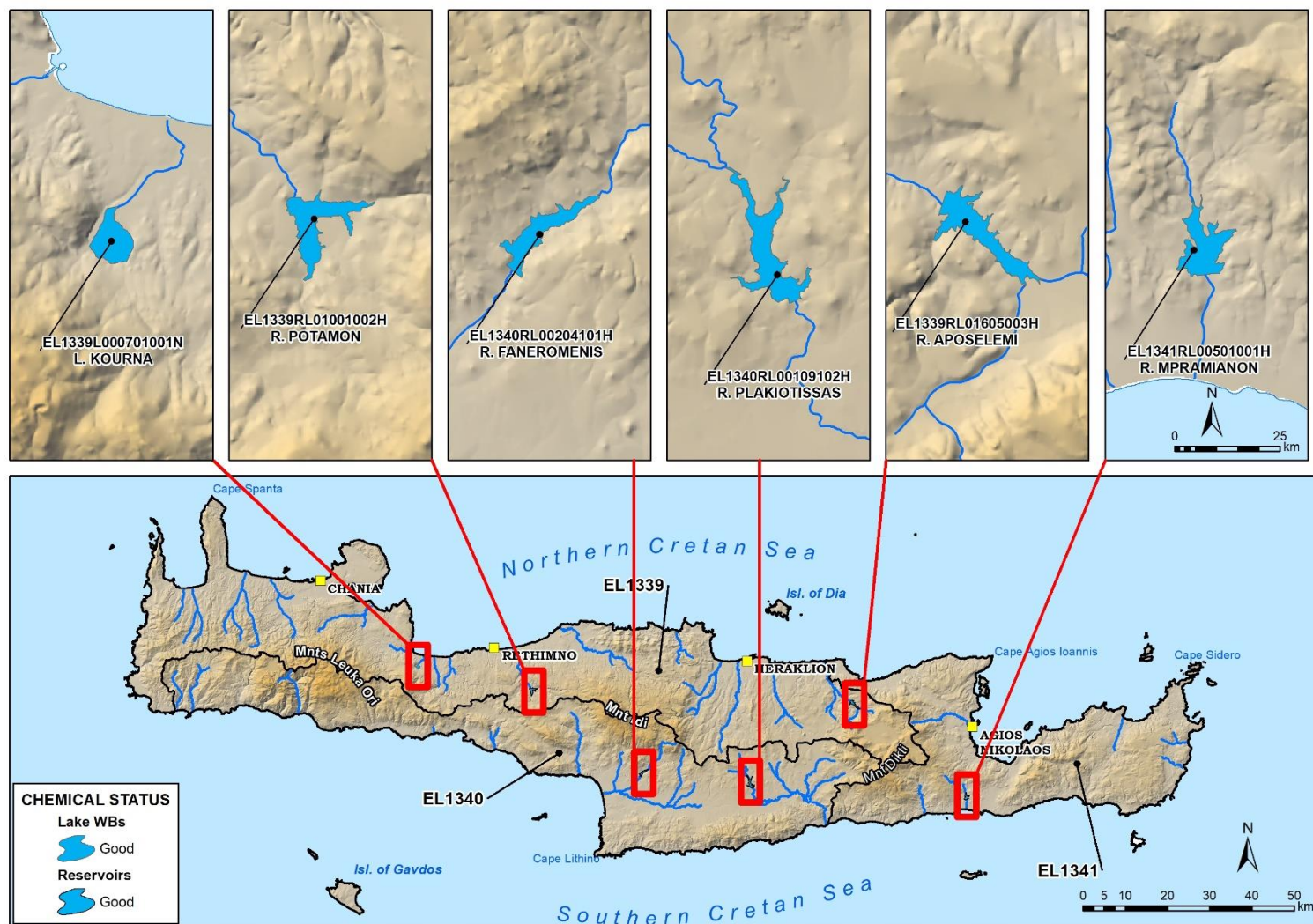


Map 6-3 Total status of river WBs of Crete RBD (EL13)



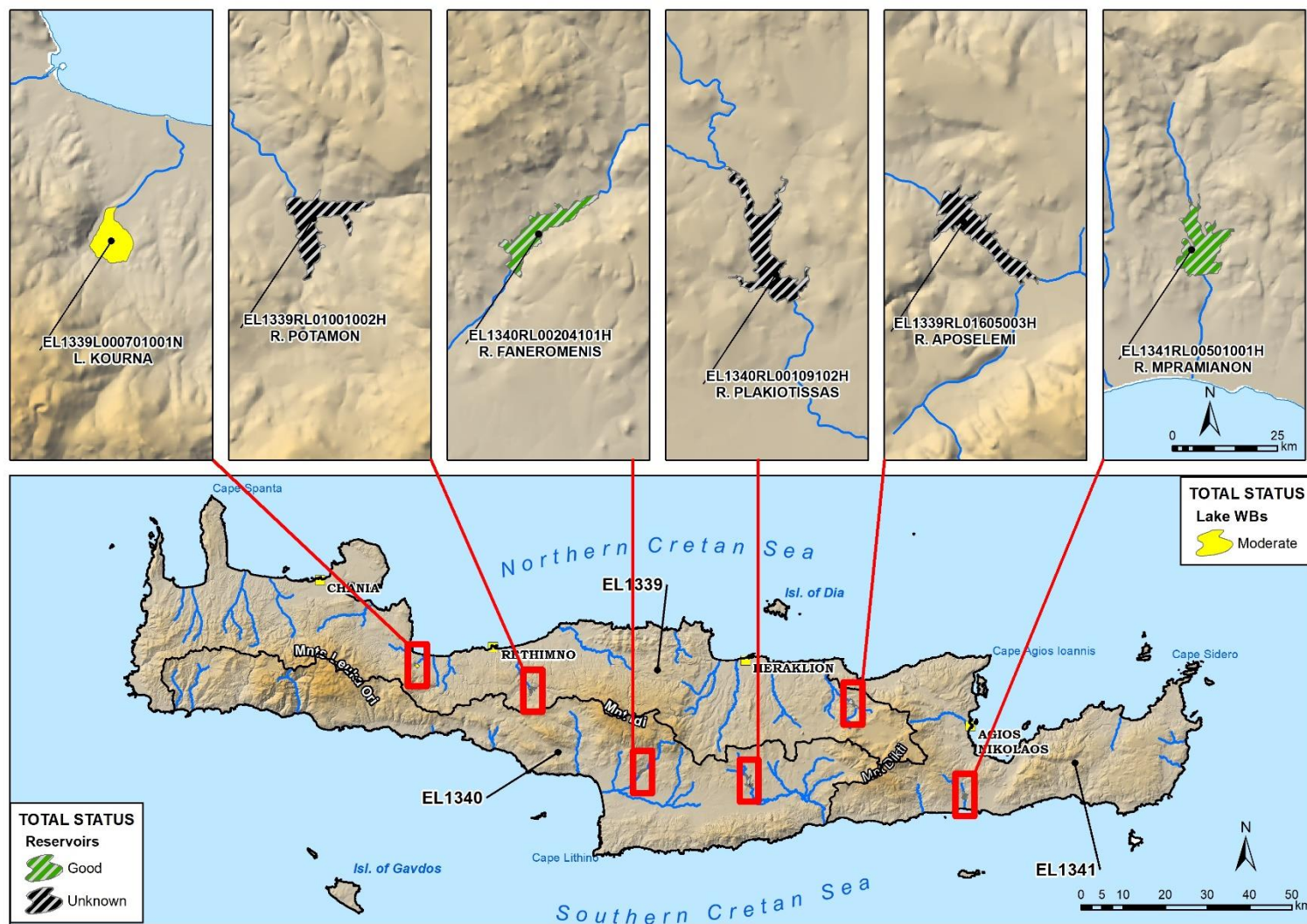
Map 6-4 Ecological status of Lake WBs and ecological potential of lake type river WBs (reservoirs) of Crete RBD (EL13)



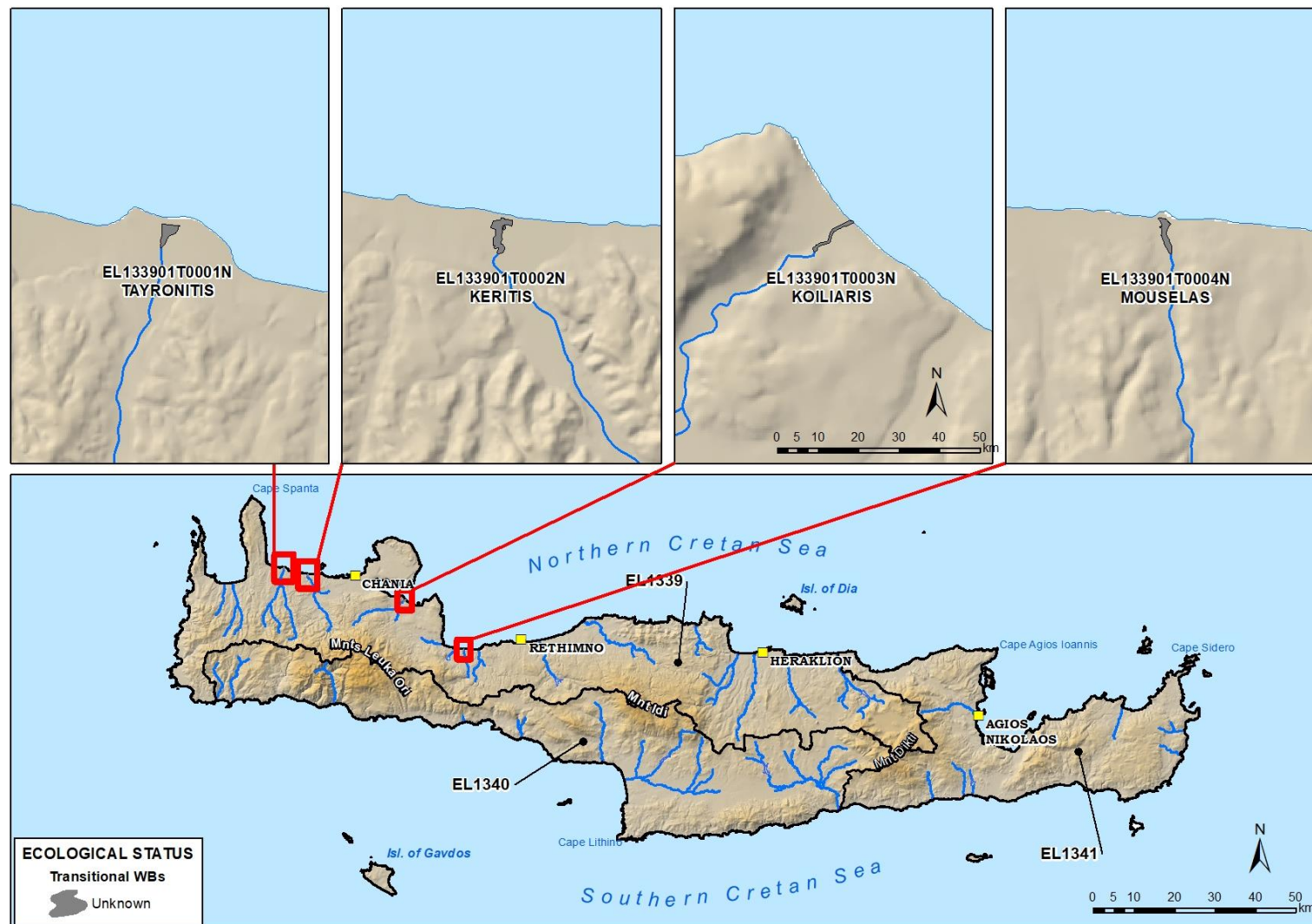


Map 6-5 Chemical status of Lake WBs and lake type river WBs (reservoirs) of Crete RBD (EL13)

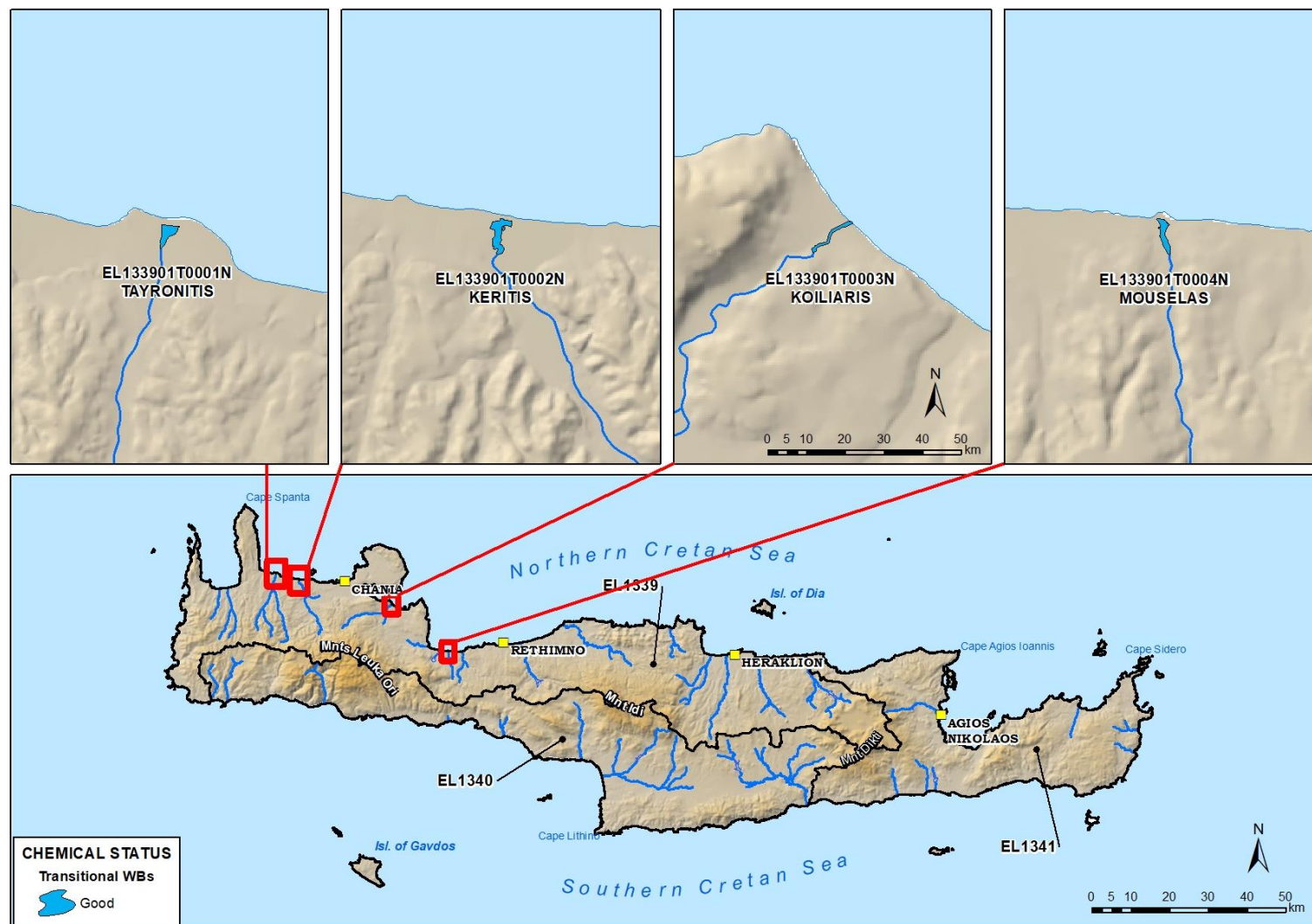




Map 6-6 Total status of Lake WBs and lake type river WBs (reservoirs) of Crete RBD (EL13)

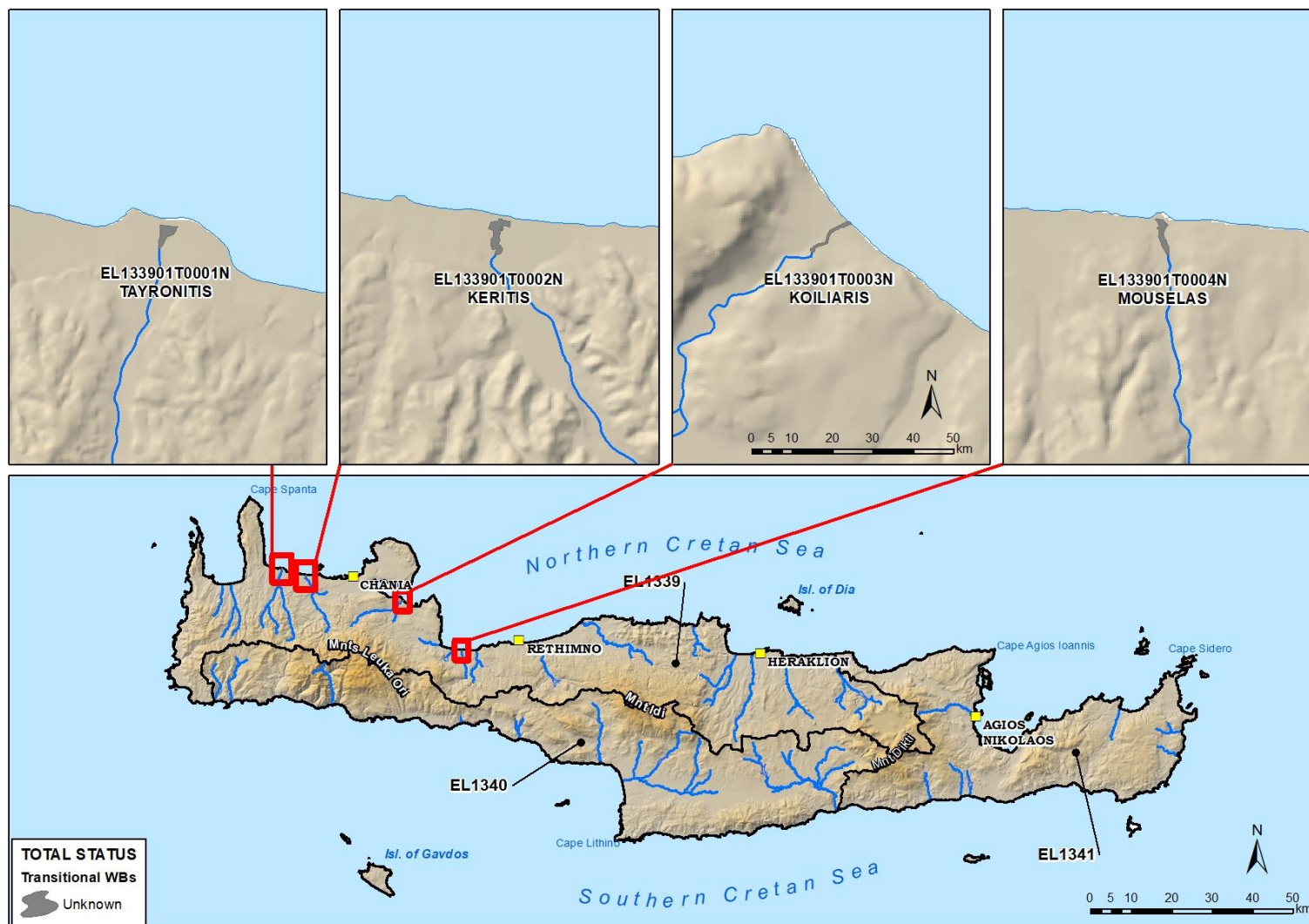


Map 6-7 Ecological status of transitional WBs of Crete RBD (EL13)



Map 6-8 Chemical status of transitional WBs of Crete RBD (EL13)





Map 6-9 Total status of transitional WBs of Crete RBD (EL13)



Map 6-10 Ecological status of coastal WBs of Crete RBD (EL13)



Map 6-11 Chemical status of coastal WBs of Crete RBD (EL13)





Map 6-12 Total status of coastal WBs of Crete RBD (EL13)



## 6.2 Classification of the Status of Groundwater Bodies

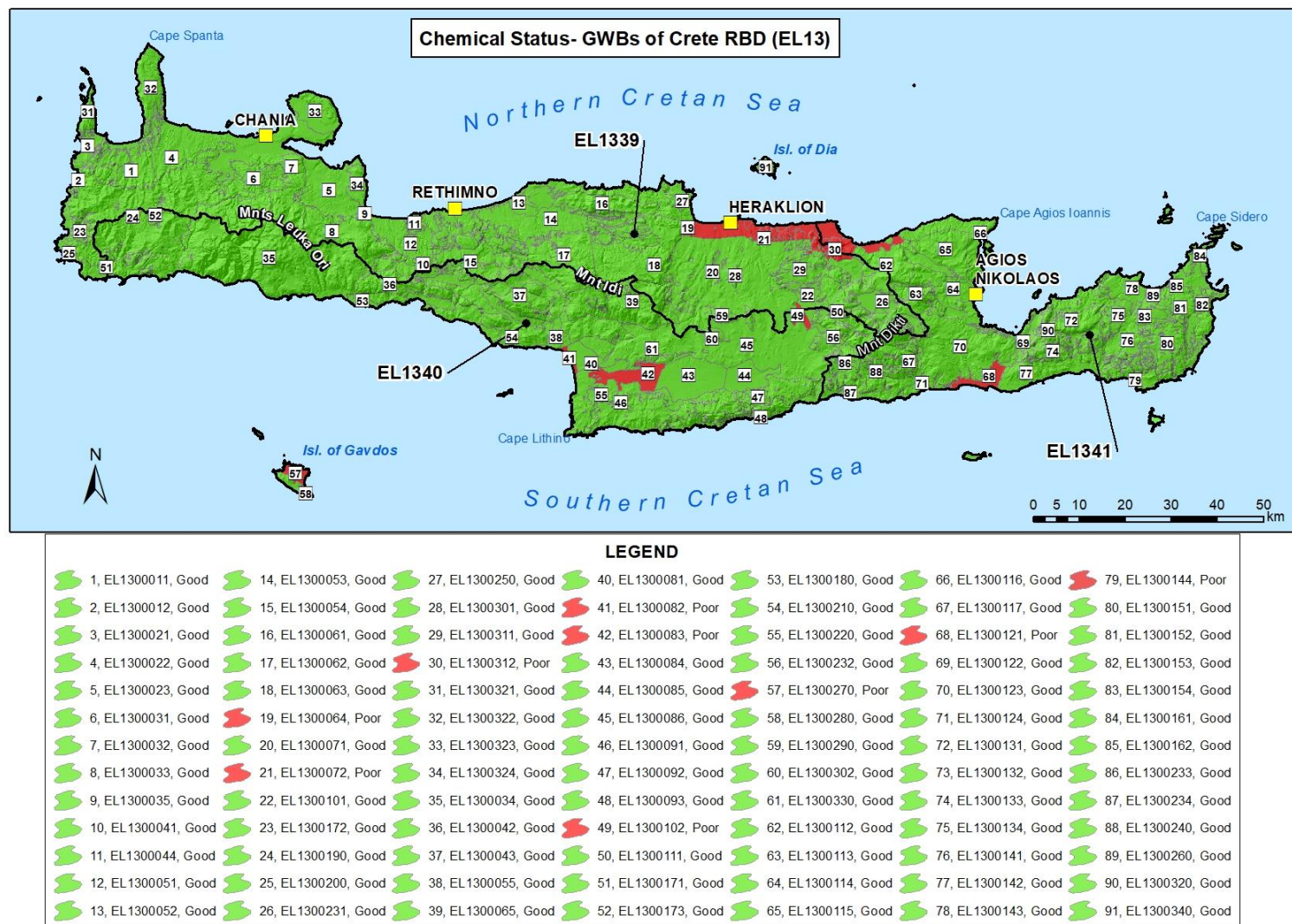
In Crete RB (EL13) **91 Groundwater Bodies** have been identified. The table that follows presents the ecological and chemical status of those bodies, along with any differences found between the 1<sup>st</sup> and the Revised RBMP. The chemical and ecological status of these GWB is additionally presented on the maps that follow.

**Table 6-5 Status and differences in the status of GWBs between the 1<sup>st</sup> RBMP and the 1<sup>st</sup> Revision of RBMP**

| GWB Code   | GWB Name  | 1 <sup>st</sup> RBMP |                     | 1 <sup>st</sup> Revision of RBMP |                     |
|--|---|----------------------|---------------------|----------------------------------|---------------------|
|  |   | Chemical status      | Quantitative status | Chemical status                  | Quantitative status |
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |   |                      |                     |                                  |                     |
| EL1300011  | KARSTIKO TOPOLION   | Good                 | Good                | Good                             | Good                |
| EL1300012  | KARSTIKO SFINARIOU  | Good                 | Good                | Good                             | Good                |
| EL1300021  | PORODES KISSAMOU  | Good                 | Good                | Good                             | Good                |
| EL1300022  | PORODES KAMPOU CHANION  | Good                 | Good                | Good                             | Good                |
| EL1300023  | PORODES APOKORONOU  | Good                 | Good                | Good                             | Good                |
| EL1300031  | KARSTIKO VD. LEYKON OREON (AGIAS)                                   | Good                 | Good                | Good                             | Good                |
| EL1300032  | KARSTIKO VOREION LEYKON OREON (STYLOU-ARMENON)                      | Good                 | Good                | Good                             | Good                |
| EL1300033  | KARSTIKO VA. LEYKON OREON (KOURNA-GEORGIOUPOLIS)                    | Good                 | Good                | Good                             | Good                |
| EL1300035  | KARSTIKO GEORGIOUPOLIS  | Good                 | Good                | Good                             | Good                |
| EL1300041  | KARSTIKO ARMENON-MALAKIOU-MOUNTROU-ARGYROUPOLIS                     | Good                 | Good                | Good                             | Good                |
| EL1300044  | KARSTIKO PARAKTIO GERANIOU  | Good                 | Good                | Good                             | Good                |
| EL1300051  | PORODES VD. RETHYMNOU   | Good                 | Good                | Good                             | Good                |
| EL1300052  | PORODES VA. PARAKTIOU RETHYMNOU (KAMPOU RETHYMNOU-PRINOU-PERAMATOS) | Good                 | Good                | Good                             | Good                |
| EL1300053  | PORODES VA.RETHYMNOU  | Good                 | Good                | Good                             | Good                |
| EL1300054  | PORODES KENTRIKOU RETHYMNOU   | Good                 | Good                | Good                             | Good                |
| EL1300061  | KARSTIKO TALAION  | Good                 | Good                | Good                             | Good                |
| EL1300062  | KARSTIKO VD. PSILOREITI   | Good                 | Good                | Good                             | Good                |
| EL1300063  | KARSTIKO VA. PSILOREITI   | Good                 | Good                | Good                             | Good                |
| EL1300064  | KARSTIKO KERIS-TYLISSOU   | Poor                 | Poor                | Poor                             | Poor                |
| EL1300071  | PORODES VOREIO-KENTRIKIS LEKANIS IRAKLEIOU                          | Good                 | Good                | Good                             | Good                |
| EL1300072  | PORODES PARAKTIO VOREIOU IRAKLEIOU                                  | Poor                 | Poor                | Poor                             | Poor                |
| EL1300101  | PORODES KASTELIOU   | Good                 | Poor                | Good                             | Poor                |
| EL1300172  | KARSTIKO CHRYSOSKALITISSAS  | Good                 | Good                | Good                             | Good                |
| EL1300190  | ROGMODES CHANION  | Good                 | Good                | Good                             | Good                |
| EL1300200  | PORODES CHRYSOSKALITISSAS   | Good                 | Good                | Good                             | Good                |
| EL1300231  | PORODES OROPEDIOU LASITHIOU   | Good                 | Good                | Good                             | Good                |
| EL1300250  | ROGMODES PSILOREITI   | Good                 | Good                | Good                             | Good                |
| EL1300301  | KARSTIKO GIOUCHTA   | Good                 | Good                | Good                             | Good                |

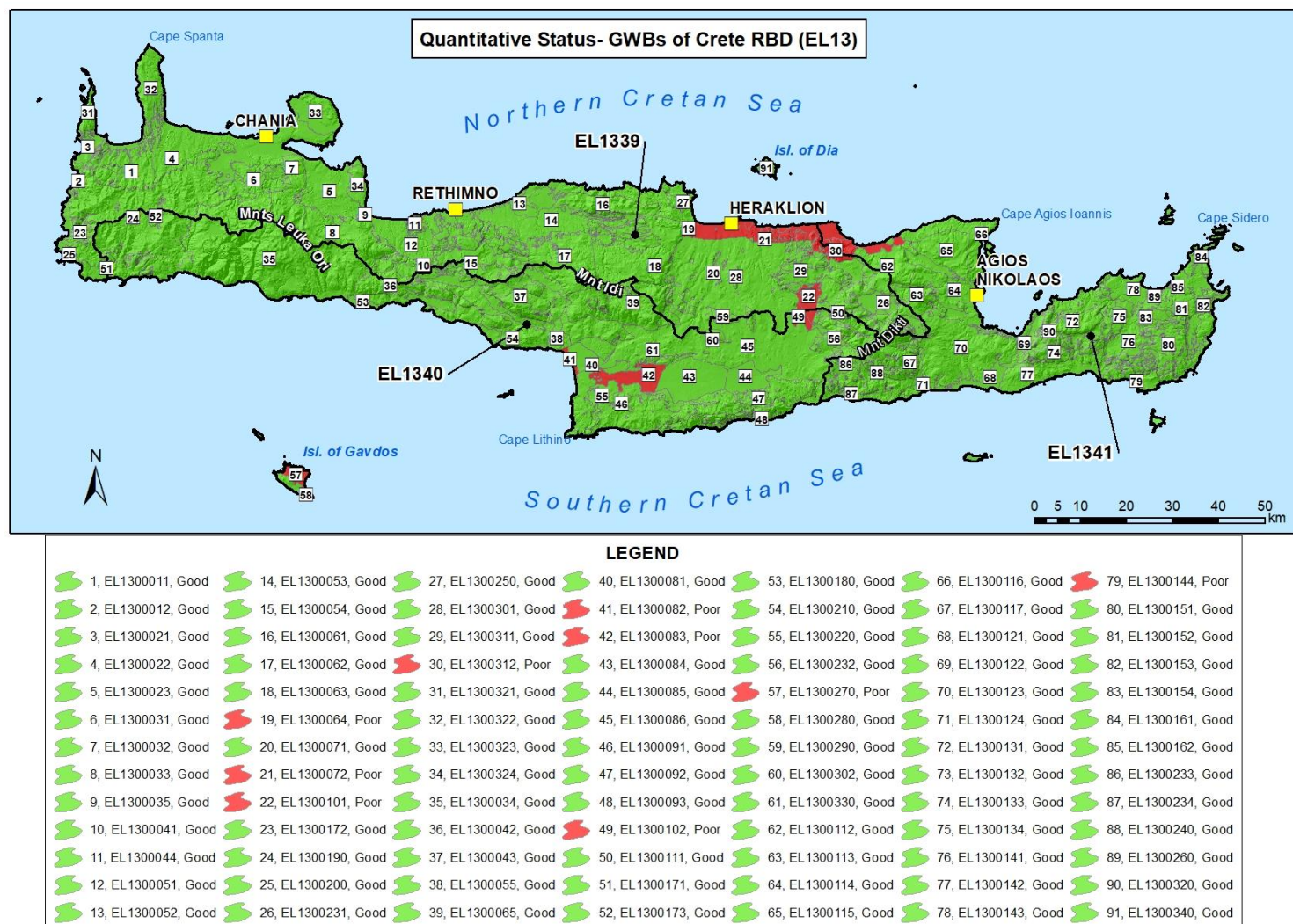
| GWB Code  | GWB Name   | 1 <sup>st</sup> RBMP |                     | 1 <sup>st</sup> Revision of RBMP |                     |
|---|--|----------------------|---------------------|----------------------------------|---------------------|
|   |  | Chemical status      | Quantitative status | Chemical status                  | Quantitative status |
| EL1300311   | KARSTIKO KAINOURGIOU<br>CHORIOU-SMARIOU                | Good                 | Good                | Good                             | Good                |
| EL1300312   | KARSTIKO PARAKTIO IRAKLEIOU-<br>GOUVON-CHERSONISOU     | Poor                 | Poor                | Poor                             | Poor                |
| EL1300321   | KARSTIKO PARAKTIO<br>GRAMVOUSAS                        | Good                 | Good                | Good                             | Good                |
| EL1300322   | KARSTIKO PARAKTIO SPATHAS<br>(RODOPOU)                 | Good                 | Good                | Good                             | Good                |
| EL1300323   | KARSTIKO PARAKTIO AKROTIRIOU<br>(SOUDAS)               | Good                 | Good                | Good                             | Good                |
| EL1300324   | KARSTIKO PARAKTIO APOKORONA                            | Good                 | Good                | Good                             | Good                |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |  |                      |                     |                                  |                     |
| EL1300034   | KARSTIKO NOTION LEYKON OREON                           | Good                 | Good                | Good                             | Good                |
| EL1300042   | KARSTIKO KALLIKRATI-ASIDEROTA                          | Good                 | Good                | Good                             | Good                |
| EL1300043   | KARSTIKO KEDROU  | Good                 | Good                | Good                             | Good                |
| EL1300055   | PORODES NOTIOU RETHYMNOU                               | Good                 | Good                | Good                             | Good                |
| EL1300065   | KARSTIKO NA. PSILOREITI                                | Good                 | Good                | Good                             | Good                |
| EL1300081   | PORODES TYMPAKIOU                                      | Good                 | Good                | Good                             | Good                |
| EL1300082   | PORODES PARAKTIO TYMPAKIOU                             | Poor                 | Poor                | Poor                             | Poor                |
| EL1300083   | PORODES MOIRON   | Poor                 | Poor                | Poor                             | Poor                |
| EL1300084   | PORODES GALIAS-VAGIONIAS-<br>ASIMIOU                   | Good                 | Good                | Good                             | Good                |
| EL1300085   | PORODES MESOCHORIOU                                    | Good                 | Good                | Good                             | Good                |
| EL1300086   | PORODES MESARAS-NOTIOU<br>IRAKLEIOU                    | Good                 | Good                | Good                             | Good                |
| EL1300091   | KARSTIKO POMPIAS-ALITHINIS                             | Good                 | Good                | Good                             | Good                |
| EL1300092   | KARSTIKO PYRGOU-CHARAKA-<br>FOURNOFARAGGOU             | Good                 | Good                | Good                             | Good                |
| EL1300093   | KARSTIKO PARAKTIO<br>ASTEROUSION                       | Good                 | Good                | Good                             | Good                |
| EL1300102   | PORODES ROUSOCHORION                                   | Poor                 | Poor                | Poor                             | Poor                |
| EL1300111   | KARSTIKO DYTIKIS DIKTIS                                | Good                 | Good                | Good                             | Good                |
| EL1300171   | KARSTIKO PALAIOCHORAS                                  | Good                 | Good                | Good                             | Good                |
| EL1300173   | KARSTIKO KANTANOU                                      | Good                 | Good                | Good                             | Good                |
| EL1300180   | PORODES FRAGKOKASTELOU                                 | Good                 | Good                | Good                             | Good                |
| EL1300210   | ROGMODES RETHYMNOU                                     | Good                 | Good                | Good                             | Good                |
| EL1300220   | ROGMODES ASTEROUSION                                   | Good                 | Good                | Good                             | Good                |
| EL1300232   | PORODES EMPAROU-PANAGIAS                               | Good                 | Good                | Good                             | Good                |
| EL1300270   | PORODES GAYDOU   | Poor                 | Poor                | Poor                             | Poor                |
| EL1300280   | KARSTIKO GAYDOU  | Good                 | Good                | Good                             | Good                |
| EL1300290   | ROGMODES GIOUCHTAS-OXY<br>KEFALI (DAMANION - LARANIOU) | Good                 | Good                | Good                             | Good                |
| EL1300302   | KARSTIKO DAMANION-LARANIOU                             | Good                 | Good                | Good                             | Good                |
| EL1300330   | KARSTIKO GYPSON KRITIS                                 | Good                 | Good                | Good                             | Good                |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |  |                      |                     |                                  |                     |
| EL1300112   | KARSTIKO MALION-SELENAS                                | Good                 | Good                | Good                             | Good                |
| EL1300113   | KARSTIKO VA. DIKTIS                                    | Good                 | Good                | Good                             | Good                |
| EL1300114   | KARSTIKO LAKONION-ALMYROU<br>AG. NIKOLAOU              | Good                 | Good                | Good                             | Good                |
| EL1300115   | KARSTIKO FOURNIS-ELOUNTAS                              | Good                 | Good                | Good                             | Good                |

| GWB Code  | GWB Name  | 1 <sup>st</sup> RBMP |                     | 1 <sup>st</sup> Revision of RBMP |                     |
|-----------|---|----------------------|---------------------|----------------------------------|---------------------|
|           |   | Chemical status      | Quantitative status | Chemical status                  | Quantitative status |
| EL1300116 | KARSTIKO PARAKTIO SISIOU-MILATOU-ELOUNTAS           | Good                 | Good                | Good                             | Good                |
| EL1300117 | KARSTIKO ANATOLIKIS-NOTIAS DIKTIS                   | Good                 | Good                | Good                             | Good                |
| EL1300121 | PORODES IERAPETRAS-KENTRIOU                         | Poor                 | Good                | Poor                             | Good                |
| EL1300122 | PORODES PACHEIAS AMMOU-KALOU CHORIOU                | Good                 | Good                | Good                             | Good                |
| EL1300123 | PORODES IERAPETRAS-KALOU CHORIOU                    | Good                 | Good                | Good                             | Good                |
| EL1300124 | PORODES MYRTOU                                      | Good                 | Good                | Good                             | Good                |
| EL1300131 | KARSTIKO ORNOU                                      | Good                 | Good                | Good                             | Good                |
| EL1300132 | KARSTIKO PARAKTIO MALAYRAS-PACHEIAS AMMOU           | Good                 | Good                | Good                             | Good                |
| EL1300133 | KARSTIKO THRYPTIS                                   | Good                 | Good                | Good                             | Good                |
| EL1300134 | KARSTIKO PEYKON - MARONIAS                          | Good                 | Good                | Good                             | Good                |
| EL1300141 | PORODES SITEIAS-PAPAGIANNADON-AGIAS TRIADAS         | Good                 | Good                | Good                             | Good                |
| EL1300142 | PORODES KOUTSOURA-MAKRYGIALOU                       | Good                 | Good                | Good                             | Good                |
| EL1300143 | PORODES SKOPIS-SITEIAS                              | Good                 | Poor                | Good                             | Good                |
| EL1300144 | PORODES GOUDOURA                                    | Poor                 | Poor                | Poor                             | Poor                |
| EL1300151 | KARSTIKO OREON ZAKROU                               | Good                 | Good                | Good                             | Good                |
| EL1300152 | KARSTIKO VA. APOLIXEON OREON ZAKROU                 | Good                 | Good                | Good                             | Good                |
| EL1300153 | KARSTIKO PARAKTIO ANATOLIKON APOLIXEON OREON ZAKROU | Good                 | Good                | Good                             | Good                |
| EL1300154 | KARSTIKO OREON PIGIS ZOU                            | Good                 | Good                | Good                             | Good                |
| EL1300161 | PORODES FOINIKODASOUS VAI                           | Good                 | Good                | Good                             | Good                |
| EL1300162 | PORODES MONIS TOPLOU-PALAIKASTROU-XIROKAMPOU        | Good                 | Good                | Good                             | Good                |
| EL1300233 | PORODES ANO VIANNOU                                 | Good                 | Good                | Good                             | Good                |
| EL1300234 | PORODES KERATOKAMPOU-ARVIS                          | Good                 | Good                | Good                             | Good                |
| EL1300240 | ROGMODES DIKTIS                                     | Good                 | Good                | Good                             | Good                |
| EL1300260 | ROGMODES OREON ZAKROU                               | Good                 | Good                | Good                             | Good                |
| EL1300320 | ROGMODES ORNOU-THRYPTIS                             | Good                 | Good                | Good                             | Good                |
| EL1300340 | NISIDES KRITIS                                      | Good                 | Good                | Good                             | Good                |



Map 6-13 Chemical status of GWBs of Crete RBD (EL13)





Map 6-14

Quantitative status of GWBs of Crete RBD (EL13)

## 7 ECONOMIC ANALYSIS OF WATER USES

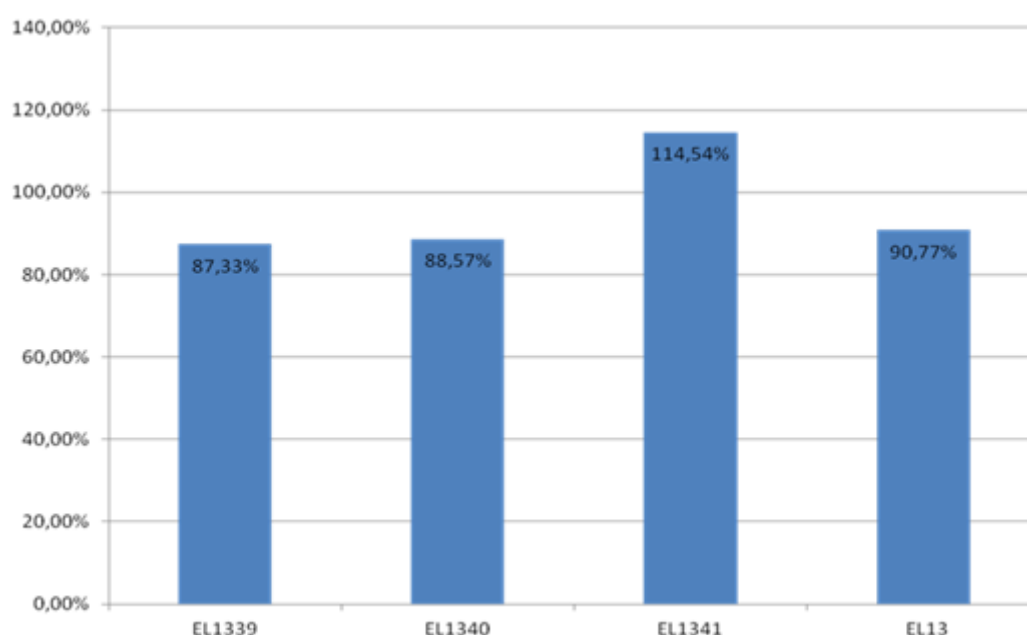
### 7.1 Water service cost estimation - Financial Cost

#### 7.1.1 Water services for public water supply and sewage collection/ treatment

The total financial cost of public water supply and sewage collection/ treatment in Crete RBD (EL13) amounts to 65.767.264 €. The recovery of the financial cost at RBD level is 90,77%, with the revenue at € 59,5 million versus cost at € 65,8 million.

**Table 7-1 Public water supply financial cost recovery at RBs of Crete RBD (EL13)**

| RB               | Total financial cost (€) | Average financial cost per unit (€/m <sup>3</sup> ) | Total revenue (€) | Average revenue per unit (€/m <sup>3</sup> ) | Financial cost recovery |
|------------------|--------------------------|---|-------------------|--|-------------------------|
| EL1339           | 53.482.486               | 1,00  | 46.704.068        | 0,87   | 87,33%                  |
| EL1340           | 5.085.341                | 1,02  | 4.504.286         | 0,90   | 88,57%                  |
| EL1341           | 7.199.437                | 1,14  | 8.246.366         | 1,31   | 114,54%                 |
| <b>TOTAL RBD</b> | <b>65.767.264</b>        | <b>1,01</b>   | <b>59.454.720</b> | <b>0,92</b>                                  | <b>90,77%</b>           |



**Chart 7-1 Public water supply financial cost recovery at RBs of Crete RBD (EL13)**

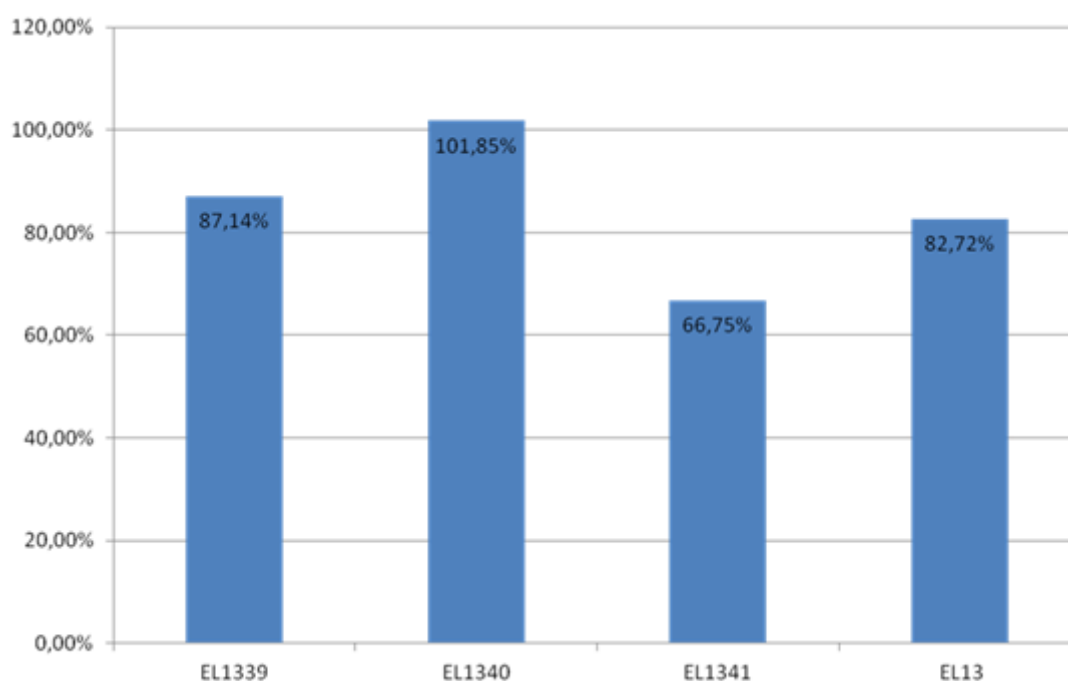
With regards to the industry, it is estimated that the weighted consumption is 750.000 m<sup>3</sup>. In the RB examined (EL13), the water service providers operating for the industry are mainly water suppliers, such as the Cretan Development Organization and Municipal Enterprises for Water Supply and Sewerage (MEWSS). For those areas MEWSS' do not operate, Municipalities offer water supply services. The weighted water price for industrial use is estimated as 1€/m<sup>3</sup>.

### 7.1.2 Water services for Agricultural usage

The total financial cost of Water services for Agricultural usage in Crete RBD (EL13) was estimated at 9.599.660 €. The recovery of the financial cost at RBD level is 82,72%, with the revenue at € 7,9 million versus cost at € 9,6 million.

**Table 7-2 Agricultural usage financial cost recovery at RBs of Crete RBD (EL13)**

| RB               | Total financial cost (€) | Average financial cost per unit (€/m <sup>3</sup> ) | Total revenue (€) | Average revenue per unit (€/m <sup>3</sup> ) | Financial cost recovery |
|------------------|--------------------------|---|-------------------|--|-------------------------|
| EL1339           | 4.152.260                | 0,14  | 3.618.367         | 0,12   | 87,14%                  |
| EL1340           | 1.955.394                | 0,07  | 1.991.623         | 0,07   | 101,85%                 |
| EL1341           | 3.492.007                | 0,14  | 2.330.775         | 0,10   | 66,75%                  |
| <b>TOTAL RBD</b> | <b>9.599.660</b>         | <b>0,12</b>   | <b>7.940.765</b>  | <b>0,10</b>                                  | <b>82,72%</b>           |



**Chart 7-2 Agricultural usage financial cost recovery at RBs of Crete RBD (EL13)**



## 7.2 Environmental and resource cost

### 7.2.1 Environmental cost estimation

The environmental cost at RBD level amounts to 212.000 € (**Table 7-3**). 69.4% is attributed to the RB of the Northern Part Chania-Rethymno-Irakleio Streams (EL1339), 26.3% to the RB of the Southern Part Chania-Rethymno-Irakleio Streams (EL1340) and 4.3% to the RB of the Eastern Crete Streams (EL1341). The environmental cost per unit at RBD level is estimated at 0.0001 €/m<sup>3</sup>.

**Table 7-3 Environmental cost per RB of Crete RBD (EL13)**

| RB   | Total environmental cost (€) | Environmental cost per unit (€/m <sup>3</sup> ) |
|--|------------------------------|---|
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | 147.220                      | 0,0001  |
| RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340) | 55.684                       | 0,0001  |
| RB of the Eastern Crete Streams (EL1341)                                 | 9.096                        | 0,00002   |
| <b>TOTAL RBD</b>   | <b>212.000</b>               | <b>0,0001</b>                                   |

**Table 7-4 Distribution of Environmental Cost per Water Use in the RBs of Crete RBD (EL13)**

| Environmental Cost  | Public water supply | Livestock      | Irrigation     | Industry         | Total          |
|---|---------------------|----------------|----------------|------------------|----------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                     |                |                |                  |                |
| Total cost for all years of measures implementation (€)                         | 98.882              | 625            | 47.360         | 353              | 147.220        |
| Annual cost per use (€)   | 24.721              | 156            | 11.840         | 88               | 36.805         |
| Participation of the use (%) in total annual cost                               | 67,17%              | 0,42%          | 32,17%         | 0,24%            | 100,00%        |
| <b>Annual Cost per unit (€/m<sup>3</sup>)</b>                                   | <b>0,0003</b>       | <b>0,0001</b>  | <b>0,0001</b>  | <b>0,000001</b>  | <b>0,0001</b>  |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                     |                |                |                  |                |
| Total cost for all years of measures implementation (€)                         | 4.836               | 363            | 50.289         | 196              | 55.684         |
| Annual cost per use (€)   | 1.209               | 91             | 12.572         | 49               | 13.921         |
| Participation of the use (%) in total annual cost                               | 8,68%               | 0,65%          | 90,31%         | 0,35%            | 100,00%        |
| <b>Annual Cost per unit (€/m<sup>3</sup>)</b>                                   | <b>0,0001</b>       | <b>0,0001</b>  | <b>0,0001</b>  | <b>0,0000004</b> | <b>0,0001</b>  |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |                     |                |                |                  |                |
| Total cost for all years of measures implementation (€)                         | 0                   | 18             | 9.078          | 0                | 9.096          |
| Annual cost per use (€)   | 0                   | 4              | 2.269          | 0                | 2.274          |
| Participation of the use (%) in total annual cost                               | 0,0%                | 0,20%          | 99,80%         | 0,0%             | 100,00%        |
| <b>Annual Cost per unit (€/m<sup>3</sup>)</b>                                   | <b>0</b>            | <b>0,00001</b> | <b>0,00002</b> | <b>0</b>         | <b>0,00002</b> |

In the RB of the Northern Part Chania-Rethymno-Irakleio Streams (EL1339), 67,17% of the total annual cost of the RB is attributed to public water supply, 0,42% to livestock, 32,17% to irrigation and finally 0,24% to the industry.

With regards to the RB of the Shouthern Part Chania-Rethymno-Irakleio Streams (EL1340), 8,68% of the total annual cost is attributed to public water supply, 0,65% to livestock, 90,31% to irrigation and 0,35% to the industry.

Finally, the total annual cost of the RB of the Eastern Crete Streams (EL1341) is attributed to irrigation (99,80%) and to livestock (0,20%).

## 7.2.2 Resource cost estimation

The resource cost at RBD level amounts to 198.000 € (Table 7-5). 78,4% is attributed to the RB of the Northern Part of Chania-Rethymno-Irakleio Streams (EL1339), 21,2% to the RB of the Southern Part of Chania-Rethymno-Irakleio Streams (EL1340) and 0,4% to the RB of the Eastern Crete Streams (EL1341). The resource cost per unit at RBD level is estimated at 0.0001 €/m<sup>3</sup>.

**Table 7-5 Resource cost per RB of Crete RBD (EL13)**

| RB   | Total resource cost (€) | Annual resource cost per unit (€/m <sup>3</sup> ) |
|--|-------------------------|---|
| RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | 155.176                 | 0,0001  |
| RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340) | 42.072                  | 0,0001  |
| RB of the Eastern Crete Streams (EL1341)                                 | 752                     | 0,000001  |
| <b>TOTAL RBD</b>   | <b>198.000</b>          | <b>0,0001</b>                                     |

The resource cost distribution per usage is presented in the table that follows.

**Table 7-6 Distribution of Resource Cost per Water Use in the RBs of Crete RBD (EL13)**

| Resource Cost   | Public water supply | Livestock       | Irrigation    | Industry        | Total         |
|---|---------------------|-----------------|---------------|-----------------|---------------|
| <b>RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339)</b> |                     |                 |               |                 |               |
| Total cost for all years of measures implementation (€)                         | 27.779              | 60              | 126.953       | 385             | 155.176       |
| Annual cost per use (€)   | 6.945               | 15              | 31.738        | 96              | 38.794        |
| Participation of the use (%) in total annual cost                               | 17,90%              | 0,04%           | 81,81%        | 0,25%           | 100,00%       |
| <b>Annual Cost per unit (€/m<sup>3</sup>)</b>                                   | <b>0,0001</b>       | <b>0,00001</b>  | <b>0,0002</b> | <b>0,0003</b>   | <b>0,0001</b> |
| <b>RB of the Southern Part of the Chania-Rethymno-Irakleio Streams (EL1340)</b> |                     |                 |               |                 |               |
| Total cost for all years of measures implementation (€)                         | 1.075               | 21              | 40.969        | 7               | 42.072        |
| Annual cost per use (€)   | 269                 | 5               | 10.242        | 2               | 10.518        |
| Participation of the use (%) in total annual cost                               | 2,55%               | 0,05%           | 97,38%        | 0,02%           | 100,00%       |
| <b>Annual Cost per unit (€/m<sup>3</sup>)</b>                                   | <b>0,00002</b>      | <b>0,000005</b> | <b>0,0001</b> | <b>0,000006</b> | <b>0,0001</b> |
| <b>RB of the Eastern Crete Streams (EL1341)</b>                                 |                     |                 |               |                 |               |
| Total cost for all years of measures implementation (€)                         | 0                   | 0,42            | 751           | 0,09            | 752           |
| Annual cost per use (€)   | 0                   | 0,10            | 188           | 0,02            | 188           |

| Resource Cost                                     | Public water supply | Livestock | Irrigation | Industry  | Total    |
|---|---------------------|-----------|------------|-----------|----------|
| Participation of the use (%) in total annual cost | 0,00%               | 0,06%     | 99,93%     | 0,01%     | 100,00%  |
| Annual Cost per unit (€/m <sup>3</sup> )          | 0,00                | 0,0000003 | 0,000002   | 0,0000003 | 0,000001 |

In the RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339), 17,90% of the total annual environmental cost of the RB is attributed to public water supply, 0,04% to livestock, 81,81% to irrigation and finally 0,25% to the industry.

With regards to the RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1340), 2,55% of the total annual cost is attributed to public water supply, 0,05% to livestock, 97,38% to irrigation and 0,02% to the industry.

Finally, the total annual cost of the RB of the Eastern Crete Streams (EL1341) is attributed to irrigation (99,93%), to the industry (0,01%) and to livestock (0,06%).

## 8 ENVIRONMENTAL OBJECTIVES - EXEMPTIONS

### 8.1 Summary of environmental Objectives and Exemptions

The following table summarizes the objectives for the 153 surface WBs of Crete RBD (EL13) by 2021:

**Table 8-1 Objectives of surface WBs by 2021**

| Objective   | Number of surface WBs |
|---|-----------------------|
| No deterioration in good and high ecological status / potential | 103                   |
| No deterioration in good chemical status                        | 153                   |
| Achievement of good ecological status                           | 1                     |
| Achievement of good chemical status                             | 0                     |
| Determination of ecological status/potential                    | 18                    |
| Determination of chemical status                                | 0                     |
| Exemption - Article 4.4   | 47                    |
| Exemption - Article 4.5   | 0                     |
| Exemption - Article 4.6   | 0                     |
| Exemption - Article 4.7   | 3                     |

The following table summarizes the objectives for the 91 GWBs of Crete RBD (EL13) by 2021:

**Table 8-2 Objectives of GWBs by 2021**

| Objective                                    | Number of GWBs |
|--|----------------|
| No deterioration in good quantitative status | 82             |
| No deterioration in good chemical status     | 82             |
| Achievement of good quantitative status      | 0              |
| Achievement of good chemical status          | 0              |
| Exemption - Article 4.4– quantitative status | 9              |
| Exemption - Article 4.4– chemical status     | 9              |
| Exemption - Article 4.5                      | 0              |
| Exemption - Article 4.6                      | 0              |
| Exemption - Article 4.7                      | 0              |

### 8.2 Deadline Extension (Article 4.4, Directive 2000/60 /EC)

**Table 8-3 Exceptions of WB's by 2021**

|                             | Exception                       |   | Number of WBs |
|-----------------------------|---------------------------------|---|---------------|
|                             | Category                        | Subcategory   |               |
| Ecological status of WBs    | Article 4.4/ Deadline extension | Technical feasibility. Solving the problem requires more time than is available.  | 46            |
| Ecological status of WBs    | Article 4.4/ Deadline extension | Technical feasibility. There is no information about the cause of the problem and therefore the solution cannot be detected | 1             |
| Quantitative status of GWBs | Article 4.4/ Deadline extension | Technical feasibility. Solving the problem requires more time than is available.  | 9             |
| Chemical status of GWBs     | Article 4.4/ Deadline extension | Technical feasibility. Solving the problem requires more time than is available.  | 9             |

### **8.3 Less stringent environmental objectives (Article 4.5, Directive 2000/60 /EC)**

In this revision of the RBMP less stringent environmental objectives are not set for any GWB or surface WB. This exemption category will be reviewed in the next revision of the RBMP, taking into account new monitoring data and after the assessment of technically feasible measures.

### **8.4 Temporary deterioration in the status of WBs (Article 4.6, Directive 2000/60 /EC)**

The status of GWBs and SWBs is not temporarily deteriorate in this revision of the RBMP. This exemption category will be reviewed in the next revision of the RBMP, taking into account new monitoring data and after the assessment of technically feasible measures.

### **8.5 New And Planned Water Resources Development Projects (Article 4.7, Directive 2000/60 /EC)**

In the 1<sup>st</sup> revision of the RBMPs the assessment process of the potential subsumption in paragraph 7 of Article 4 of Directive 2000/60/EC was determined for WBs which are affected by planned projects.

For this aim a special analytical methodology was drawn up, which is available via the relevant webpage of Special Secretariat for Water <http://wfdver.ypeka.gr/>. The implementation of subsumption process in article 4.7 is described in detail. This process is valid from the approval of the current RBMP and refers to planned projects for which no environmental licensing request has been submitted, or, in cases which based on the current legislature, Decision for the Approval of Environmental Terms is not needed, or no permission request for construction/establishment/operation is submitted to the competent authorities.

In the 1<sup>st</sup> RBMP, five (5) river WBs were defined, which based on the provisions of article 4.7 are considered as exemptions due to new modifications caused from projects. In the current 1<sup>st</sup> revision of the RBMP, from five (5) WBs of the 1<sup>st</sup> RBMP which have been subsumed under the provisions of Article 4.7, the following three (3) river WBs still remain under the above referred provisions:

- EL1339R001401042N
- EL1340R000301029N
- EL1340R000301030N

## 9 PROGRAMME OF MEASURES

### 9.1 Introduction

The Programme of Measures is part of the Management Plan, it constitutes a "mechanism" for the achievement of 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 "Good" ecological and chemical status, and the mitigation of the pollution through the discharge and the emission of hazardous substances.
- the protection, the improvement and the remediation of groundwater bodies' status, the prevention of their pollution and the deterioration of their status in order to achieve balance between abstraction and discharge.
- the conservation of Protected Areas

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

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

- Measures for the implementation of Community and national legislation on water protection (**Group I**).
- Other basic measures (**Group II**). These measures are related to the basic principles of community and national legislation on water management and related to the horizontal implementation of actions per water bodies groups, in order to achieve or maintain Good status.

The **Supplementary Measures** are established and implemented in addition to the Basic Measures, in order to achieve the objectives identified in accordance with Article 4 of Directive 2000/60/EC. Member States may establish further supplementary measures for additional protection or improvement of the status of the water bodies of the Directive.

## 9.2 Progress In Implementing The Programme Of Measures of the 1<sup>st</sup> Management Plan

The programme of measures of the 1<sup>st</sup> RBMP included 46 Basic Measures.

**Table 9-1 Number of Basic Measures of the 1<sup>st</sup> Management Plan per action**

| Actions related to measures   | Measure number |
|---|----------------|
| Administrative acts   | 16             |
| Constructions   | 1              |
| Studies   | 7              |
| Measures related to administrative acts but demand more study or expertise research | 7              |
| Measures related to services/consultancy actions                                    | 15             |
| Total   | 46             |

**Table 9-2 Summary of the implementation progress of the Basic Measures during the 1<sup>st</sup> Management Plan**

| Measure category  | Total number of Measures | Number of measures completed | Number of measures in progress/under construction | Number of measures that have not commenced |
|---|--------------------------|------------------------------|---|--|
| Measures to Implement the Cost Recovery Principle of Water Services (Article 9)   | 3                        | 1                            | 0   | 2  |
| Measures to Promote Efficient and Sustainable Use of Water, in order not to jeopardize the Achievement of the Objectives of the Directive (Article 4) | 12                       | 2                            | 5   | 5  |
| Measures for the Protection of Water for Human Consumption (Article 7)  | 7                        | 1                            | 3   | 3  |
| Measures for the Control of Surface and Groundwater Abstractions  | 6                        | 1                            | 3   | 2  |
| Measures to Control and License the Artificial Recharge of GWBs   | 2                        | 0                            | 0   | 2  |
| Measures for Point Sources of Pollution   | 7                        | 3                            | 3   | 1  |
| Measures for Diffuse Sources of Pollution   | 3                        | 0                            | 1   | 2  |
| Measures to Address Adverse Effects on the Status of Surface WB's, in particular by Hydromorphological Alterations                                    | 3                        | 1                            | 0   | 2  |
| Specific Measures for Priority Substances and Other Pollutants  | 1                        | 0                            | 0   | 1  |
| Measures for the Protection against Pollution Incidents due to Accidents/Extreme Natural Phenomena  | 2                        | 0                            | 1   | 1  |
| <b>Total</b>  | <b>46</b>                | <b>9</b>                     | <b>16</b>   | <b>21</b>                                  |

In addition to the Basic Measures above, the Measure Programme of the 1<sup>st</sup> RBMP includes **45 Supplementary Measures** related to 11 measure categories of the Directive 2000/60/EC. The number of measures per category, along with their implementation progress are summarized on the table that follows.



**Table 9-3 Summary of the implementation progress of the Supplementary Measures during the 1st Management Plan**

| Measure category                                 | Total number of Measures | Number of measures completed | Number of measures in progress/under construction | Number of measures that have not commenced |
|--|--------------------------|------------------------------|---|--|
| Measures related to Administrative Legislation   | 1                        | 0                            | 0   | 1  |
| Abstraction Control                              | 6                        | 0                            | 6   | 0  |
| Pollutant Emission Control                       | 6                        | 0                            | 1   | 5  |
| Codes of Good Agricultural Practice              | 2                        | 0                            | 1   | 1  |
| Efficiency and Reuse Measures                    | 1                        | 0                            | 1   | 0  |
| Artificial Recharge of Aquifers                  | 2                        | 0                            | 1   | 1  |
| Reconstitution and Restoration of Wetland Areas  | 7                        | 1                            | 0   | 6  |
| Construction Works                               | 8                        | 0                            | 4   | 4  |
| Research, Development and Demonstration Projects | 6                        | 1                            | 0   | 5  |
| Educational Measures                             | 3                        | 0                            | 2   | 1  |
| Post-Negotiation Environmental Agreements        | 3                        | 0                            | 0   | 3  |
| <b>Total</b>                                     | <b>45</b>                | <b>2</b>                     | <b>16</b>   | <b>27</b>                                  |

### 9.3 Basic and Supplementary Measures Programme

#### Measure Implementation Timeline

In relation to the referring to the Measure Implementation Timeline, these are distinguished as:

- Short-term, which can be immediately applied.
- Mid-term, for which a preparation period is required for their implementation. This period estimated up to 2 years.
- Long-term, for which the preparation and/or construction period of measures exceeds the period of 2 years.

With regards to the mid-term and long-term implementation measures, the competent bodies responsible for the implementation should include in their immediate schedule all these acts needed for the maturation of the actions of measures, with the scope of including them in funding programmes. For the implementation progress of the programme, Water Directorates and the SSW should inform the competent bodies involved to design a wholistic time schedule for the action implementation, within their administrative boundaries of competence.

#### Bodies for measure implementation

In relation to the bodies for the implementation of measures, the following clarifications are made:

- For every measure its implementation body is mentioned. All the bodies responsible for supervising the programme implementation are defined by law, and these are the SSW and the Water Directorates of the Decentralized Administrations.
- The SSW coordinates and supervises the implementation of measures which are executed by Ministries and/or bodies of the Central Government. The Water Directorate coordinates and

supervises the implementation of measures that are executed by regional services and/or bodies.

- The selection of the implementation bodies was made based on their competence, as it came up from the current institutional framework and the public administration structure.
- Reference on the implementation bodies is made on the basis of the senior administrative level of each body. In cases where lower administrative levels are referred to (e.g. Directorate or Department), this reference should only be indicative. The implementation body is the only one responsible for the inner distribution of competences for the implementation of measures based on the services provided. Additionally, the body should define the means and human resources needed for the implementation of its obligations.
- It is clarified that for the measures and actions the competent Water Directorate of the Decentralized Administration is referred to as implementation body, in cases where it would be incapable of implementing any phase or stage or even the measure as a whole, for any reason, this could be implemented in coordination with the SSW or with other competent services of the Decentralized Administration and the Administrative Regions.
- Regarding the implementation of the current Measure Programme, the spatial competence of the Regions and Decentralized Administrations, excluding the Water Directorates, is taking place within their administrative boundaries.
- In cases where more than one body is referred to, the first one is the implementation body of the measure and the following are supplementary.
- The National Water Committee, according to the No.706/2010 Decision (GG 1383/B/2010 and GG 1572/B/2010 - correction of Annex II) and the approval of the various River Basin Management Plans, defines the competent Decentralized Administrations per River Basin for each River Basin District of the country.
- According to the No. 160817/20.12.2016 Decision of MEE (ΑΔΑ: 7ΔΠΘ4653Π8-8ΓΡ), the members of the Regional Task Team for each RBD were defined, which is responsible for the coordination of the measure implementation in the RBD level.
- The measures could be also implemented by additional bodies, provided that this is predicted by the current institutional framework.

### **New projects and activities**

It is clarified that in cases where during the current Programme of Basic and Supplementary Measures, prohibitions or restrictions or certain requirements for “new” projects or activities are predicted, these do not refer to projects or activities or extension/modifications which, during the time the 1<sup>st</sup> Revision of the RBMP was in force, are either in progress or under construction or they belong to more than one of the following cases:

1. An approval of environmental terms has been granted or a positive advice by the competent Water Directorate of the Decentralized Administration has been given, during the Environmental licensing process.
2. A permit application has been submitted, in relation to the execution of water utilization projects or to water usage, and has not been rejected from the request body.
3. They have not been included in funding programmes.

4. The execution permit of the projects or activities has been expired, but their execution has not been commenced and renewal is requested, while their technical characteristics have not been changed.
5. An administrative act for the project implementation has been occur, which provides the capability for the permit process of the project to advance.

In cases where projects fall into case 5 above, the Water Directorate could set additional specific terms/measures for the project or activity installation, with the scope of protecting the related WB's and according to the 1<sup>st</sup> Revision predictions.

In case of serious reservations and doubts by the Water Directorate of the Decentralized Administration with regards to the inclusion or not of a certain project/activity in one of the above cases, the SSW should be consulted.

It is clarified that the current projects mentioned in the RBMP are not related to the current ones or the current water usages mentioned in the JMD 146896/2014 (completed water abstraction works or usages before 27-10-2014).

### 9.3.1 Actions implementing EU Directives (Group I of Basic Measures)

The following table lists the provisions for the incorporation of the EU Directives into National Law. In the column of directives the amendments to these Directives from 2000 onwards are also mentioned.

**Table 9-4 Provisions for the incorporation of the EU Directives into National Law**

| DIRECTIVE  | INCORPORATION INTO NATIONAL LAW   |
|--|---|
| <b>Bathing Water Directive (2006/7/EC)</b>                               | <b>JMD 8600/416/E103/23.02.2009 (GG 356/B/2009)</b> concerning the "quality and management measures of Bathing waters in compliance with the provisions of Directive 2006/7/EC "concerning the management of bathing waters quality and repealing Directive 76/160/EEC"" as amended and in force.   |
| <b>Birds Directive (2009/147/ EC) and Habitats Directive (92/43/EEC)</b> | <b>JMD 37338/1807/E103/1.9.2010 (GG 1495/B/2010)</b> "Determination of measures and procedures for the conservation of wild birdfauna and its habitats, in compliance the provisions of Directive 79/409/EEC "on the conservation of wild birds", of the European Council of 2 April 1979 as codified in Directive 2009/147/EC" and its amending <b>JMD 8353/276/E103/2012 (GG 415/B/2010)</b><br><b>JMD 33318/3028/11.12.1998 (GG 1289/B/1998)</b> "Determination of measures and procedures for the conservation of natural habitats and wild fauna and flora" and its amendment <b>JMD 14849/853/E103/2008 (GG 645/B/2008)</b> in compliance with the Directive 92/43/EEC "on the conservation of natural habitats and of wild fauna and flora".<br><b>Law 3937/2011 (GG 60/A/2011)</b> "Biodiversity conservation and other provisions"<br><b>JMD 50743/2017 (GG 4432/B/2017)</b> "Revision of the national list of sites of the Natura 2000 European Ecological Network" |
| <b>Drinking Water (Directives 98/83/EC, 2015/1787/EU)</b>                | <b>JMD no. C1 (d)/ 67322/06.09.2017 (GG 3282/B/2017)</b> "Quality of water intended for human consumption in compliance with the provisions of Directive 98/83/EC of 3 November 1998 as amended with Directive 2015/1787/EU (L260/7.10.2015)"   |
| <b>Environmental Impact Assessment from Projects/ Activities</b>         | <b>Law 4014/2011 (GG 209/A/2011)</b> "Environmental licensing of projects and activities, regulation of arbitrary in connection with the creation of an   |

| DIRECTIVE  | INCORPORATION INTO NATIONAL LAW  |
|--|--|
| (Directives 2011/92/EU, 2014/52/EU)  | environmental balance and other provisions of competence of Ministry of Environment”   |
| Prevention – Control of Pollution (Directive 2010/75/EU)   | <b>JMD 36060/1155/E.103/2013 (GG 1450/B/2013)</b> “Setting a framework of rules, measures and procedures for the integrated prevention and control of environmental pollution from industrial activities, in compliance with the directive 2010/75/EU “on industrial emissions (integrated prevention and control of pollution)” of the European Parliament and of the Council of 24 November 2010”  |
| Protection from Nitrates (Directive 91/676/ EEC)   | <b>JMD 16190/1335/19.05.1997 (GG 519/B/1997)</b> “Measures and conditions for the protection of waters against pollution caused by nitrates from agricultural sources”<br><b>MD. 19652/1906/1999 (GG 1575/B/1999)</b> “Identification of waters that are affected by pollution caused by nitrates from agricultural sources – Designation of vulnerable zones, in accordance with paragraphs 1 and 2 of article 4 of JMD 16190/1335/19.05.1997 “Measures and conditions for the protection of waters against pollution caused by nitrates from agricultural sources”(B 519). Amendment of articles 3,4,5 and 8 of the decision” as amended by <b>MD 20419/2522/2001 (GG 1212/B/2001)</b> , <b>MD 24838/1400/E103/2008 (GG 1132/B/2008)</b> , <b>MD 106253/2010 (GG 1843/B/2010)</b> , <b>MD 190126/2013 (GG 983/B/2013)</b> , <b>MD 147070/2014 (GG 3224/B/2014)</b> and in force.<br><b>MD 1420/82031/2015 (GG 1709/B/2015)</b> “Code of Good Agricultural Practice for the protection of waters against pollution caused by nitrates from agricultural sources” as amended by <b>MD 2001/118518/2015, (GG 2359/B/2015)</b> “Amendment of Deputy Minister for Productive Reconstruction, Environment and Energy Decision 1420/82031/2015 (GG 1709/B/2015) “Code of Good Agricultural Practice for the protection of waters against pollution caused by nitrates from agricultural sources”” |
| Plant Protection Products (Directive 2009/128/EC, Regulation (EC) No. 1107/2009, Regulation (EU) No. 652/2014) | <b>Law 4036/27.01.2012 (GG 8/A/2012)</b> “Placing of pesticides on the market, rational use and relevant provisions” as amended and in force.  |
| Responding to the risks of major accidents (Directive 2012/18/EU)  | <b>JMD 172058/2016 (GG 354/B/2016)</b> “Determination of rules, measures and conditions for the control of major-accident hazards involving dangerous substances in facilities or units , in compliance with the provisions of Directive 2012/18/EU “on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC” of the European Parliament and of the Council of 4 July 2012. Replacement of no. 12044/613/2007 (376/B2007), as corrected (GG 2259/B/2007)”  |
| Sewage sludge (Directive 86/278/EEC)   | <b>JMD 80568/4225/05.07.1991 (GG 641/B/1991)</b> “Methods, conditions and restrictions for the use of sewage sludge from domestic and urban waste waters in agriculture”   |
| Urban Waste Water Treatment (Directives 91/271/ ECC, 98/15/ EC)  | <b>JMD 5673/400/05.03.1997 (GG 192/B/1997)</b> “Measures and conditions for Urban Waste Water Treatment” and its amending decisions <b>MD 19661/1982/2.8.1999 (GG 1811/B/1999)</b> and <b>MD 48392/939/28.3.2002 (GG 405/B/2002)</b>   |

The planned actions for the implementation of the Community and National Legislation on water protection are listed in the following table.

**Table 9-5 Actions for the implementation of EU Directives**

| DIRECTIVE  | PLANNED ACTIONS   | IMPLEMENTING BODIES   |
|--|---|---|
| <b>Bathing Water (Directive 2006/7/ EC)</b>  | <ul style="list-style-type: none"> <li>Continue to monitor the quality of bathing waters in accordance with Directive 2006/7 / EC.</li> <li>Updating the Bathing Water Register</li> </ul>  | SSW, Directorate of Water of the Decentralized Administration of Crete                  |
| <b>Protection of wild birds (Directive 2009/147 / EC) and habitats (Directive 92/43 / EEC)</b> | <ul style="list-style-type: none"> <li>Establishment/ approval of Management Plans for protected areas of Natura 2000 Network directly related with water, with particular reference to water management issues.</li> <li>Monitoring/Assessment of the conservation status of habitats and species directly depending on water in Natura 2000 sites.</li> </ul>   | Ministry of Environment and Energy, Management Bodies of Protected Areas                |
| <b>Environmental Impacts from Projects/ Activities (Directives 2011/92/EU, 2014/52/EU)</b>     | <ul style="list-style-type: none"> <li>Amendment of the MD 170225/2014 (Specifications for the contents of environmental licensing dossiers for projects and activities of A category) so that for certain projects categories, which should be identified beforehand, to make the following mandatory: <ul style="list-style-type: none"> <li>Emissions of pollutants by category,</li> <li>Impacts of pollution impacts on WBs defined in the Management Plans and</li> <li>Comparison of these concentrations to the Environmental Quality Standards.</li> <li>Establishment of a monitoring program and notification of its results to the relevant Water Directorate.</li> </ul> </li> </ul> | Ministry of Environment and Energy  |
| <b>Prevention – Control of Pollution (Directive 2010/75/EU)</b>                                | <ul style="list-style-type: none"> <li>Keeping records – registry of facilities included in the provisions of Directive</li> </ul>  | Decentralized Administration of Crete (Directorate of Spatial and Environmental Policy) |
| <b>Protection from Nitrates (Directive 91/676/ EEC)</b>  | <ul style="list-style-type: none"> <li>Delimitation of a new vulnerable zone GWB “PORODES IERAPETRAS-KENTRIOU” (code EL1300121)</li> </ul>  | SSW, Ministry of Rural Development and Food   |
|  | <ul style="list-style-type: none"> <li>For the area of" PORODES IERAPETRAS-KENTRIOU ", as well as for the Messara area, which has already been included in the vulnerable zones, it is necessary to establish Action Programs and to take any additional supplementary measure or reinforced action, in accordance with article 5 of JMD 16190/1335/1997. The study on the drafting of Action Programs in all vulnerable zones of the Country has been entrusted by the Ministry of Rural Development and Food to the Agricultural University and is under implementation.</li> </ul>   | Ministry of Rural Development and Food  |
|  | <ul style="list-style-type: none"> <li>Systematic monitoring of nitrate levels in WBs that are or may be subjected to nitrate pollution</li> </ul>  | SSW, Ministry of Rural Development and Food   |

| DIRECTIVE   | PLANNED ACTIONS  | IMPLEMENTING BODIES   |
|---|--|---|
| <b>Plant Protection Products (Directive 2009/128/EC, Regulation (EC) No. 1107/2009, Regulation (EU) No. 652/2014)</b> | <ul style="list-style-type: none"> <li>Rational use of plant protection products</li> </ul>  | Ministry of Rural Development and Food  |
| <b>Responding to the risks of major accidents (Directive 2012/18/EU)</b>  | <ul style="list-style-type: none"> <li>Keeping records – registry of facilities included in the provisions of Directive</li> </ul>   | Decentralized Administration of Crete (Directorate of Spatial and Environmental Policy) |
| <b>Sewage sludge (Directive 86/278/EEC)</b>   | <ul style="list-style-type: none"> <li>Setting up a JMD, 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 JMD 80568/4225/1991 and promotion of actions related to the safe disposal of treated sludge.</li> </ul> | Ministry of Environment and Energy  |
| <b>Urban Waste Water Treatment (Directives 91/271/ ECC, 98/15/ EC)</b>  | <ul style="list-style-type: none"> <li>Completion of sewerage and waste water treatment projects of settlements that concerns the provisions of the Directive (covering all agglomerations with a population greater than 2,000 equivalent residents.).</li> </ul>   | Region of Crete, MEWSS, Municipalities  |
|   | <ul style="list-style-type: none"> <li>Reinforcement of actions that control the effective operation of existing wastewater treatment and drainage projects.</li> </ul>  | Region of Crete   |

### 9.3.2 Basic Measures of other Categories (Group II of Basic Measures)

Table 9-6 Basic measures of other categories

| Code - Name of Measure   | Category  | Connection with the 1 <sup>st</sup> RBMP | Implementing Bodies   |
|--|---|--|---|
| <b>M13B0201</b><br>Update of the organizational function of <b>Organizations of Land Reclamation</b> for the compliance with the financial and other management data in order to meet the requirements of the Decision No. 135275 (GG 1751/B/2017) of the National Water Committee “Adoption of general costing and pricing rules for water services. Method and procedures for recovering the cost of water services in its various uses” | Measures to implement the cost recovery principle of Water Services (Article 9) | New measure                              | Organizations of Land reclamation (Local, General), Region of Crete, Ministry of Environment & Energy (Special Secretariat for Water), Ministry of Rural Development & Food |
| <b>M13B0202</b><br>Upgrade of the organizational function of <b>Municipal Water Supply and Sewerage Companies</b> , for the compliance with the financial and other management data in order to  | Measures to implement the cost recovery principle of Water Services (Article 9) | New measure                              | Municipal Water Supply and Sewerage Companies, Ministry of Environment & Energy (Special Secretariat for  |



| Code - Name of Measure  | Category  | Connection with the 1 <sup>st</sup> RBMP   | Implementing Bodies  |
|---|---|--|--|
| meet the requirements of the Decision No. 135275 (GG 1751/B/2017) of the National Water Committee "Adoption of general costing and pricing rules for water services. Method and procedures for recovering the cost of water services in its various uses"   |   |  | Water), Ministry of Interior   |
| <b>M13B0203</b><br>Upgrade of the organizational function of <b>Local Administration Authorities</b> , for the compliance with the financial and other management data in order to meet the requirements of the Decision No. 135275 (GG 1751/B/2017) of the National Water Committee "Adoption of general costing and pricing rules for water services. Method and procedures for recovering the cost of water services in its various uses"  | Measures to implement the cost recovery principle of Water Services (Article 9)   | New measure  | Local Administration Authorities, Ministry of Environment & Energy (Special Secretariat for Water), Ministry of Interior |
| <b>M13B0204</b><br>Training and education of all the stakeholders (Decentralized Administrations, Regions, Municipal Water Supply and Sewerage Companies, Organizations of Land Reclamation, Local Administration Authorities) for the implementation of the requirements of the Decision No. 135275 (GG 1751/B/2017) of the National Water Committee "Adoption of general costing and pricing rules for water services. Method and procedures for recovering the cost of water services in its various uses" | Measures to implement the cost recovery principle of Water Services (Article 9)   | New measure  | Ministry of Environment & Energy (Special Secretariat for Water),  |
| <b>M13B0301</b><br>Implementation / Update of General Public Water Supply Masterplans   | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Specialization of measure OM03-02  | MEWSSs, Municipalities, Public water suppliers, Decentralized Administration (Water Directorate)                         |
| <b>M13B0302</b><br>Actions for the reinforcement, rehabilitation, modernization of public water supply networks and leakage control   | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the   | Amendment /Specialization of measures OM02-02, SM11-01, SM11-02, SM11-04 and SM11-06 | Municipalities, MEWSSs, Public water suppliers, Region of Crete, Decentralized Administration (Water Directorate)        |

| Code - Name of Measure   | Category  | Connection with the 1 <sup>st</sup> RBMP   | Implementing Bodies  |
|--|---|--|--|
|  | objectives of the Directive (Article 4)   |  |  |
| <b>M13B0303</b><br>Increase the efficiency of water use in land reclamation infrastructures                          | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Amendment /Specialization of measures OM02-03, OM02-09, OM02-10, SM11-02, SM11-03 and SM11-05. | Ministry of Rural Development and Food, Region of Crete  |
| <b>M13B0304</b><br>Investments for saving water in agriculture   | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Amendment /Specialization of measures OM02-10, OM02-11 and OM02-12                             | Individuals, Irrigation water providers, Ministry of Rural Development and Food, Region of Crete   |
| <b>M13B0305</b><br>Determination of maximum irrigation requirements for crops for private water abstractions         | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Amendment /Specialization of measure OM04-02   | Decentralized Administration (Water Directorate), Directorate of Agricultural Economy & Veterinary of the Region of Crete                            |
| <b>M13B0306</b><br>Reinforcement of actions of loss reduction on collective irrigation networks                      | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Amendment /Specialization of measure OM02-09   | General Organizations of Land reclamation, Local, Organizations of Land reclamation, Municipalities, Collective Irrigation Networks, Region of Crete |
| <b>M13B0307</b><br>Implementation of a manual of technical specifications for the application of water reuse methods | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuation of measure OM02-06  | Ministry of Environment & Energy (Special Secretariat for Water),  |
| <b>M13B0308</b><br>Implementation of a Strategic Plan to Address Drought and Water Scarcity events                   | Measures to promote efficient and sustainable use of water, in order not to jeopardize the achievement of the objectives of the Directive (Article 4) | Continuation of measure OM02-01  | Decentralized Administration (Water Directorate), Ministry of Environment & Energy (Special Secretariat for Water),                                  |
| <b>M13B0401</b><br>Designation and delimitation of zones and / or measures for the                                   | Measures for the protection of water for human  | Amendment of measures OM03-  | Decentralized Administration (Water Directorate) and Public  |

| Code - Name of Measure   | Category   | Connection with the 1 <sup>st</sup> RBMP           | Implementing Bodies   |
|--|--|--|---|
| protection of water abstraction points, intended for human consumption from groundwater bodies   | consumption (Article 7)  | 01, OM03-02 and OM03-03                            | water suppliers (MEWSSs, Municipalities etc.)   |
| <b>M13B0402</b><br>Protection of GWBs included in the register of protected areas for human consumption and establishment of an institutional framework of protection  | Measures for the protection of water for human consumption (Article 7)                     | Amendment /Specialization of measure OM03-04       | Decentralized Administration (Water Directorate)  |
| <b>M13B0403</b><br>Protection of surface water abstraction works for public water supply   | Measures for the protection of water for human consumption (Article 7)                     | New measure  | MEWSSs, Municipalities, Public water suppliers, Decentralized Administration (Water Directorate)                                    |
| <b>M13B0404</b><br>Implementation of Water Safety Plans  | Measures for the protection of water for human consumption (Article 7)                     | Amendment of measure OM03-06                       | MEWSSs, Municipalities, Public water suppliers, Decentralized Administration (Water Directorate)                                    |
| <b>M13B0501</b><br><br>Restrictions, terms and conditions for the construction of groundwater abstraction works (boreholes, wells, etc.) for new uses, as well as for the extension of existing water use permits to:<br>(a) area of GWBs with a Poor quantitative status<br>(b) the protection zone II of the abstraction works of public water supply networks operated by Municipalities, Municipalities links, MEWSSs, Intermunicipal Water Supply and Sewerage Companies and Public Water Supply companies<br>(c) zones of collective irrigation networks<br><br>(d) coastal GWBs of Poor chemical status due to salinity intrusion of human origin | Measures for the control of surface and groundwater abstractions and surface water storage | Amendment of measures SM04-02, SM04-04 and SM04-05 | Decentralized Administration (Water Directorate)  |
| <b>M13B0502</b><br>Annual electronic recording of surface water and groundwater abstractions   | Measures for the control of surface and groundwater abstractions and surface water storage | Amendment /Specialization of measure SM04-06       | Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate), Region of Crete |
| <b>M13B0601</b><br>Investigation of the conditions of application of artificial recharge of  | Measures to control and license the  | Continuation of measure OM05-02                    | Region of Crete, Municipalities, Decentralized  |

| Code - Name of Measure  | Category  | Connection with the 1 <sup>st</sup> RBMP  | Implementing Bodies  |
|---|---|---|--|
| underground aquifers as a mean of quantitative enhancement and quality protection of GWBs, with a priority for GWBs with poor condition and treatment of salinity intrusion   | artificial recharge of GWBs                                     |   | Administration (Water Directorate)   |
| <b>M13B0602</b><br>Establishment of a National Register of treated wastewater disposal sites (JMD 145116/2011, GG 354/B/2011)   | Measures to control and license the artificial recharge of GWBs | Continuation of measure OM05-01   | Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate)       |
| <b>M13B0701</b><br>Reinforcement of environmental inspections and audits  | Measures for point sources of pollution                         | Continuation and Specialization of measures OM06-01, SM05-05, SM05-06 and OM07-02 | Region of Crete  |
| <b>M13B0702</b><br>Modernization of national legislation on wastewater and industrial waste management  | Measures for point sources of pollution                         | Continuation of measure OM06-03   | Ministry of Environment & Energy (Special Secretariat for Water), Ministry of Health                                     |
| <b>M13B0703</b><br>Programme of surveillance monitoring of the quality status in groundwater and surface water bodies in areas of existing Landfill Sites   | Measures for point sources of pollution                         | Continuation and Specialization of measure SM05-04                                | Operating bodies of Landfill Sites, National Monitoring Network Bodies coordinated by the Water Directorate              |
| <b>M13B0704</b><br>Conditions for the licensing of new / extension of existing aquaculture units  | Measures for point sources of pollution                         | Continuation of measure OM06-06   | Ministry of Environment & Energy, Decentralized Administration, Region of Crete  |
| <b>M13B0705</b><br>Establishment of rules for sinkholes protection  | Measures for point and diffuse sources of pollution             | Amendment of measure SM05-02  | Decentralized Administration (Water Directorate)   |
| <b>M13B0801</b><br>Biological agriculture   | Measures for diffuse sources of pollution                       | New Measure   | Ministry of Rural Development and Food (Directorate of Quality Systems, Organic Production and Geographical Indications) |
| <b>M13B0802</b><br>Modernization of the institutional framework for sludge management from urban waste water treatment plants with emphasis on widening the scope and updating the quality characteristics of the applicable sludge | Measures for diffuse sources of pollution                       | Continuation of measure OM07-03   | Ministry of Environment & Energy (Environmental Certification Directorate), Ministry of Rural Development and Food       |
| <b>M13B0803</b><br>Reduce diffuse pollution from agriculture in the vulnerable zones of Directive 91/676/EEC  | Measures for diffuse sources of pollution                       | New Measure   | Ministry of Rural Development and Food, Region of Crete  |

| Code - Name of Measure  | Category   | Connection with the 1 <sup>st</sup> RBMP  | Implementing Bodies   |
|---|--|---|---|
| <b>M13B0902</b><br>Determination of minimum level of natural lakes & determination of maximum range of reservoirs' level  | Measures to address adverse effects on the status of surface water bodies, in particular by hydromorphological alterations | Amendment of measures SM10-03 and SM10-04 | Project owner, Region of Crete, Protected Areas Management Bodies, Decentralized Administration (Water Directorate)                 |
| <b>M13B0903</b><br>Establishment of national methodology and specifications for the determination of ecological flow of River WBs   | Measures to address adverse effects on the status of surface water bodies, in particular by hydromorphological alterations | Amendment of measure OM04-06              | Ministry of Environment & Energy (Special Secretariat for Water)  |
| <b>M13B0904</b><br>Special Measures for the achievement of Good Ecological potential in HMWBs   | Measures to address adverse effects on the status of surface water bodies, in particular by hydromorphological alterations | New Measure                               | Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration (Water Directorate), Region of Crete |
| <b>M13B0905</b><br>Determination of selected areas for river sediment deposits removal to meet the needs of technical projects  | Measures to address adverse effects on the status of surface water bodies, in particular by hydromorphological alterations | Continuation of measure OM08-02           | Region of Crete, Decentralized Administration (Directorate of Environment and Spatial Planning, Water Directorate), Municipalities  |
| <b>M13B0906</b><br>Monitoring, recording and rehabilitation of coastal erosion  | Measures to address adverse effects on the status of surface water bodies, in particular by hydromorphological alterations | Amendment of measure OM08-01              | Ministry of Infrastructure, and Transport, Region of Crete, Decentralized Administration (Water Directorate)                        |
| <b>M13B1101</b><br>Compilation of pollution sources registry (emissions, discharges and leaks)  | Measures for Priority Substances and other pollutants.   | Amendment of measure OM10-01              | Ministry of Environment & Energy (Special Secretariat for Water)  |
| <b>M13B1102</b><br>Establishment/ determination of pollutants emission limits in RB level for priority substances and other pollutants of the JMD 51354/2641/E103/2010 as in force, as well as for Physicochemical parameters in relation to the quality objectives of the Management Plans | Measures for Priority Substances and other pollutants.   | New Measure                               | Decentralized Administration (Water Directorate). Ministry of Environment & Energy (Special Secretariat for Water)                  |

### 9.3.3 Supplementary measures

For achieving the goals of the RBMP, the implication of the basic measures is essential to be supported by supplementary measures.

Methodologically, supplementary measures were suggested:

- a) For the conservation of the status of the SWB's and the GWB's, along with increasing the knowledge and awareness related to the rational water usage of targeted users. In this case, the supplementary measures are horizontally implied and the WB's to be impacted are not exclusively defined.
- b) For WB's estimated that, despite the measure programme implication, won't reach their "good status" goal by 2021, and more specifically:
  - For WB's that, according to measurements of their qualitative and quantitative parameters or to the new grouping methodological approach, have a "lower than good" status.
  - For WB's that, while they have an unknown or good status, there are certain indications through the analysis of the pressures, that they are in danger of not achieving their environmental goals.

Measurements of (b) case are taken into consideration for the calculation of the environmental cost and/or the resource cost, according to the predictions of the JMD 135275 of the National Water Committee (GG 1751/B/22-05-2017).

The table that follows records the WB's of the RBD for which the adoption of specific supplementary measures is required.



**Table 9-7 Waterbodies of the Crete RBD (EL13), for which the adoption of supplementary measures is considered necessary**

| WB Code           | WB Name         | Category     | Current Status/Potential            | Pressures   |
|-------------------|-----------------|--------------|-------------------------------------|---|
| EL1339R000401012H | KERITIS         | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture and Public Water Supply |
| EL1339R001001026H | SFAKORIAKO      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1339R001001063H | SFAKORIAKO      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1339R001603048H | APOSELEMIS      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Public Water Supply                 |
| EL1340R000104108H | ANAPODARIS      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1340R000109012H | ANAPODARIS      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1340R000204124H | GEROPOTAMOS     | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1341R000501010H | BRAMIANOS       | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture and Public Water Supply |
| EL1339RL01001002H | R. POTAMON      | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL1339RL01605003H | R. APOSELEMI    | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Public Water Supply                 |
| EL1340RL00109102H | R. PLAKIOTISSAS | River        | Unknown Ecological<br>Good Chemical | Water abstraction-Agriculture                         |
| EL133901T0001N    | TAVRONITIS      | Transitional | Unknown Ecological<br>Good Chemical | Urban development<br>Diffusive-Agriculture            |
| EL133901T0002N    | KERITIS         | Transitional | Unknown Ecological<br>Good Chemical | Diffusive -Agriculture                                |
| EL133901T0003N    | KOILIARIS       | Transitional | Unknown Ecological<br>Good Chemical | Diffusive -Agriculture                                |
| EL133901T0004N    | MOUSELAS        | Transitional | Unknown Ecological<br>Good Chemical | Diffusive -Agriculture                                |

| WB Code      | WB Name   | Category    | Current Status/Potential             | Pressures   |
|--------------|---|-------------|--------------------------------------|---|
| EL1339C0003N | ORMOS SOUDAS  | Coastal     | Moderate Ecological<br>Good Chemical | Urban development, Chania Port<br>Cretan Naval Base     |
| EL1300064    | KARSTIKO KERIS-<br>TYLISSOU                           | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Public Water Supply                   |
| EL1300072    | PORODES PARAKTIO<br>VOREIOU IRAKLEIOU                 | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture and Public Water Supply   |
| EL1300101    | PORODES KASTELIOU                                     | Groundwater | Poor Quantitative<br>Good Chemical   | Water abstraction-Agriculture                           |
| EL1300312    | KARSTIKO PARAKTIO<br>IRAKLEIOU-GOUVON-<br>CHERSONISOU | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture and Public Water Supply   |
| EL1300082    | PORODES PARAKTIO<br>TYMPAKIOU                         | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture                           |
| EL1300083    | PORODES MOIRON  | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture<br>Diffusive -Agriculture |
| EL1300102    | PORODES<br>ROUSOCHORION                               | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture<br>Diffusive -Agriculture |
| EL1300270    | PORODES GAYDOU  | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture and Public Water Supply   |
| EL1300121    | PORODES IERAPETRAS-<br>KENTRIOU                       | Groundwater | Good Quantitative<br>Poor Chemical   | Diffusive -Agriculture                                  |
| EL1300144    | PORODES GOUDOURA                                      | Groundwater | Poor Quantitative<br>Poor Chemical   | Water abstraction-Agriculture and Public Water Supply   |

The Measure Programme of the examined RBD includes 21 Supplementary Measures which are presented in the table following:

**Table 9-8 Supplementary measures**

| Code - Name of Measure  | Category                | Connection with the 1 <sup>st</sup> RBMP | Affected WBs  | Implementing Bodies   | Cost       |
|---|-------------------------|--|---|---|------------|
| <b>M13Σ0201</b><br>Development of a Monitoring System for the Programme of Measures of the RBMP   | Administrative measures | New Measure                              | All WBs of RBD  | Decentralized Administration of Crete (Water Directorate)   | 650.000 €  |
| <b>M13Σ0202</b><br>Additional restrictive administrative measures   | Administrative measures | New Measure                              | All WBs of RBD  | Decentralized Administration of Crete (Water Directorate)   | 0 €        |
| <b>M13Σ0203</b><br>Measures to control / save water in areas with greenhouse crops  | Administrative measures | Continuation of measure SM08-01          | All GWBs of RBD   | Decentralized Administration of Crete (Water Directorate)   | 0 €        |
| <b>M13Σ0204</b><br>Protection of riparian vegetation of streams, lakes and wetlands   | Administrative measures | Continuation of measure SM10-02          | All inland surface WBs of RBD   | Decentralized Administration (Forests Directorates, Directorate of forests coordination and supervision, Water Directorate) | 0 €        |
| <b>M13Σ0501</b><br>Implementation of investments in agriculture and livestock holdings, aiming to improve environmental performance.  | Emission controls       | New Measure                              | All WBs of RBD  | Ministry of Rural Development and Food, Region of Crete   | 372.000 €  |
| <b>M13Σ0801</b><br>Controlling artesian boreholes   | Abstraction Controls    | Amendment of measure SM04-06             | All GWBs of RBD   | Owner of the borehole, Decentralized Administration of Crete (Water Directorate)  | 0 €        |
| <b>M13Σ0802</b><br>Replacement of the existing public water supply boreholes that abstract water from GWBs of Poor Chemical or Quantitative status with new boreholes, in nearby aquifers of Good Chemical or Quantitative status | Abstraction Controls    | Continuation of measure SM04-03          | EL1300064, EL1300072, EL1300082, EL1300083, EL1300270, EL1300102, EL1300121, EL1300085, EL1300052, EL1300021, EL1300044, EL1300093, EL1300086, EL1300123, | MEWSSs, Municipalities, Decentralized Administration of Crete (Water Directorate)   | 1.100.000€ |

| Code - Name of Measure   | Category                      | Connection with the 1 <sup>st</sup> RBMP | Affected WBs   | Implementing Bodies   | Cost      |
|--|-------------------------------|--|--|---|-----------|
|  |                               |  | EL1300112, EL1300101,<br>EL1300144, EL1300312,<br>EL1300116, EL1300141,<br>EL1300322 |   |           |
| <b>M13Σ0803</b><br>Development of an operational plan for the regulation of the Agia spring  | Abstraction Controls          | Continuation of measure SM14-04          | EL1300031,<br>EL1339R000401012H  | Decentralized Administration of Crete (Water Directorate)   | 10.000 €  |
| <b>M13Σ1001</b><br>Utilization of treated wastewater of WWTP of Heraklion for artificial recharge of aquifers not intended for human consumption | Efficiency and reuse measures | Specialization of measure SM09-02        | EL1300330  | MEWSS of Heraklion, Decentralized Administration of Crete (Water Directorate)   | 100.000 € |
| <b>M13Σ1401</b><br>Artificial recharge projects of basin Thrapsano - Nipiditou   | Artificial recharge of GWBs   | Amendment of measure SM09-01             | EL1300101  | MEWSS of Heraklion, Decentralized Administration of Crete (Water Directorate)   | 100.000 € |
| <b>M13Σ1501</b><br>Professional training of farmers/breeders for the protection of water bodies  | Educational measures          | Amendment of measure SM15-01             | All WBs of RBD   | Ministry of Rural Development and Food, Region of Crete   | 190.000 € |
| <b>M13Σ1502</b><br>Consultancy Services, Farming management Services   | Educational measures          | Amendment of measure SM15-01             | All WBs of RBD   | Ministry of Rural Development and Food, Region of Crete   | 500.000 € |
| <b>M13Σ1503</b><br>Informing and raising public awareness on water issues  | Educational measures          | Continuation of measure SM15-02          | All WBs of RBD   | MEWSSs, Municipalities, Region of Crete, Decentralized Administration of Crete (Water Directorate)                          | 20.000 €  |
| <b>M13Σ1504</b><br>Reinforcement of environmental programs' actions in Primary & Secondary Education   | Educational measures          | Continuation of measure SM15-03          | All WBs of RBD   | Ministry of Environment & Energy (Special Secretariat for Water), Decentralized Administration of Crete (Water Directorate) | 20.000 €  |

| Code - Name of Measure  | Category   | Connection with the 1 <sup>st</sup> RBMP | Affected WBs   | Implementing Bodies  | Cost      |
|---|--|--|--|--|-----------|
| <b>M13Σ1601</b><br>Pilot measures for precision farming implementation  | Research, development and demonstration projects | New Measure                              | All WBs of RBD   | Ministry of Rural Development and Food, Region of Crete  | 330.000 € |
| <b>M13Σ1602</b><br>Studies on the use of brackish coastal karst springs   | Research, development and demonstration projects | Specialization of measure SM14-02        | EL1300064, EL1300114, EL1300035  | Decentralized Administration of Crete (Water Directorate)  | 73.000 €  |
| <b>M13Σ1604</b><br>Installation of continuous flow monitoring stations at River HMWBs, downstream of dams   | Research, development and demonstration projects | Amendment of measure SM14-05             | EL1339R001603048H<br>EL1339R001001026H<br>EL1340R000109012H<br>EL1340R000204124H<br>EL1341R000501010H<br>EL1340R000104108H | Decentralized Administration of Crete (Water Directorate)  | 92.000 €  |
| <b>M13Σ1605</b><br>Implementation of special reckoning studies of coastal water bodies  | Research, development and demonstration projects | Specialization of measure SM14-01        | EL1339C0003N<br>EL1341C0011N   | Decentralized Administration of Crete (Water Directorate)  | 30.000 €  |
| <b>M13Σ1606</b><br>Implementation of special reckoning studies of transitional water bodies   | Research, development and demonstration projects | New Measure                              | EL133901T0004N,<br>EL133901T0003N,<br>EL133901T0002N,<br>EL133901T0001N  | Decentralized Administration of Crete (Water Directorate)  | 20.000 €  |
| <b>M13Σ1607</b><br>Record and monitor the operation of the reservoirs of unknown ecological potential   | Research, development and demonstration projects | Amendment of measure SM11-08             | EL1339RL01001002H,<br>EL1339RL01605003H,<br>EL1340RL00109102H  | Decentralized Administration of Crete (Water Directorate)  | 35.000 €  |
| <b>M13Σ1608</b><br>Design and implementation of a special surveillance monitoring program to collect data for the revision of HMWBs downstream of dams. | Research, development and demonstration projects | New Measure                              | EL1339R001001026H,<br>EL1339R001001063H  | Ministry of Environment & Energy (Special Secretariat for Water),<br>Decentralized Administration of Crete (Water Directorate) | 35.000 €  |

## 10 NEXT STEPS

The objective of the 1<sup>st</sup> Revision of the RBMP is the prevention of further deterioration, the protection and improvement of the status of inland surface WBs, transitional WBs, coastal WBs and groundwater bodies, as well as of the dependent terrestrial ecosystems and wetlands. For the achievement of this objective, the implementation of the Programme of Basic and Supplementary Measures is required.

The Programme of Measures is designed in a way that the priority of each intervention is clearly defined according to its cost, its effectiveness, the importance of the water bodies on which is implemented and the necessary time for its preparation.

All elements of the Programme of Measures are important, however programming and prioritization is required in order to monitor the progress and detect the elements which need amendments, when deviation from objectives is identified.

With responsibility of the competent Water Directorate of Decentralised Administration an **Action Plan for the implementation of the 1<sup>st</sup> Revision of the RBMP** of Crete RBD is drawn up.

To this end, the Regional Task Team for the Implementation of The Programmes of Measures of the RBMPs of RBDs of the country, which was already established during the implementation of the 1<sup>st</sup> RBMPs, is required to set up the above Action Plan.



## 11 SUMMARIZED STATISTICS FOR CRETE RBD (EL13)

The following tables include aggregated statistics for Crete RBD (EL13).

**Table 11-1 Categories of WB per RB of Crete RBD (EL13)**

| WB Categories  | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | RB of the Eastern Crete Streams (EL1341) | TOTAL RBD  |
|--|--|---|--|------------|
| River WBs  | 63   | 44  | 16                                       | 123        |
| Lake WBs   | 1  | -   | -  | 1          |
| Transitional WBs   | 4  | -   | -  | 4          |
| Coastal WBs  | 10   | 6   | 9  | 25         |
| <b>TOTAL Surface WBs</b>   | <b>78</b>  | <b>50</b>   | <b>25</b>                                | <b>153</b> |
| <b>Groundwater WBs</b>   | <b>34</b>  | <b>27</b>   | <b>30</b>                                | <b>91</b>  |
| <b>TOTAL WBs</b>   | <b>112</b>   | <b>77</b>   | <b>55</b>                                | <b>244</b> |
| Heavily modified water bodies (HMWB) and artificial Water bodies (AWB) | 6  | 7   | 3  | 16         |
| WBs Connected to protected areas                                       | 62   | 31  | 31                                       | 124        |

**Table 11-2 Typology of Surface WBs per RB of Crete RBD (EL13)**

| Typology of Surface WBs                   | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1339) | RB of the Eastern Crete Streams (EL1341) | TOTAL RBD |
|---|--|---|--|-----------|
| <b>River WBs</b>                          |  |   |  |           |
| Type R-M1                                 | 15   | 6   | 1  | 22        |
| Type R-M2                                 | 6  | 1   | -  | 7         |
| Type R-M3                                 | -  | -   | -  | -         |
| Type R-M4                                 | 1  | 2   | 4  | 7         |
| Type R-M5                                 | 39   | 33  | 10                                       | 82        |
| Type R-L2                                 | -  | -   |  |           |
| <b>Lake type River HMWBs (Reservoirs)</b> |  |   |  |           |
| Type L-M5/7                               | -  | 1   | -  | 1         |
| Type L-M8                                 | 2  | 1   | 1  | 4         |
| Type GR-SR                                | -  | -   | -  | -         |
| <b>Lake WBs</b>                           |  |   |  |           |
| Type GR-DNL                               | 1  | -   | -  | 1         |
| Type GR-SNL                               | -  | -   | -  | -         |
| Type GR-VSNL                              | -  | -   | -  | -         |
| <b>Transitional WBs</b>                   |  |   |  |           |
| Type TW 1                                 | -  | -   | -  | -         |
| Type TW 2                                 | 4  | -   | -  | 4         |
| <b>Coastal WBs</b>                        |  |   |  |           |
| Type IIIE                                 | 10   | 6   | 9  | 25        |

**Table 11-3 Assessment (classification) results of WBs status per RB of Crete RBD (EL13)**

| Status/ Potential |                              |                         | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |             |             |             | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |             |             |             | RB of the Eastern Crete Streams (EL1341) |             |             |             | TOTAL RBD |             |             |             |
|-------------------|------------------------------|-------------------------|--|-------------|-------------|-------------|---|-------------|-------------|-------------|--|-------------|-------------|-------------|-----------|-------------|-------------|-------------|
|                   |                              |                         | Number   | % of Number | Length (km) | % of Length | Number  | % of Number | Length (km) | % of Length | Number                                   | % of Number | Length (km) | % of Length | Number    | % of Number | Length (km) | % of Length |
| RIVERS WBs        |                              |                         |  |             |             |             |   |             |             |             |  |             |             |             |           |             |             |             |
| TOTAL River WBs   | ECOLOGICAL STATUS/ POTENTIAL | High                    | -  | -           | -           | -           | 2   | 4,8         | 20,0        | 7,8         | -  | -           | -           | -           | 2         | 1,7         | 20,0        | 3,0         |
|                   |                              | Good                    | 41   | 67,2        | 195,4       | 58,6        | 24  | 57,1        | 124,8       | 48,4        | 12                                       | 80,0        | 58,5        | 81,5        | 77        | 65,3        | 378,7       | 57,1        |
|                   |                              | Moderate                | 10   | 16,4        | 69,1        | 20,7        | 11  | 26,2        | 80,4        | 31,2        | 1  | 6,7         | 5,1         | 7,1         | 22        | 18,6        | 154,5       | 23,3        |
|                   |                              | Poor                    | 6  | 9,8         | 49,0        | 14,7        | -   | -           | -           | -           | -  | -           | -           | -           | 6         | 5,1         | 49,0        | 7,4         |
|                   |                              | Bad                     | -  | -           | -           | -           | -   | -           | -           | -           | -  | -           | -           | -           | -         | -           | -           | -           |
|                   |                              | Unknown                 | 4  | 6,6         | 20,2        | 6,0         | 5   | 11,9        | 32,6        | 12,6        | 2  | 13,3        | 8,2         | 11,4        | 11        | 9,3         | 61,0        | 9,2         |
|                   | CHEMICAL STATUS              | Good                    | 61   | 100         | 333,7       | 100         | 42  | 100         | 257,8       | 100         | 15                                       | 100         | 71,8        | 100         | 118       | 100         | 663,2       | 100         |
|                   |                              | Failing to achieve Good | -  | -           | -           | -           | -   | -           | -           | -           | -  | -           | -           | -           | -         | -           | -           | -           |
|                   |                              | Unknown                 | -  | -           | -           | -           | -   | -           | -           | -           | -  | -           | -           | -           | -         | -           | -           | -           |

| Status/ Potential                  |                              |                         | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |             |                         |           | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |             |                         |           | RB of the Eastern Crete Streams (EL1341) |             |                         |           | TOTAL RBD |             |                         |           |
|------------------------------------|------------------------------|-------------------------|--|-------------|-------------------------|-----------|---|-------------|-------------------------|-----------|--|-------------|-------------------------|-----------|-----------|-------------|-------------------------|-----------|
|                                    |                              |                         | Number   | % of Number | Area (km <sup>2</sup> ) | % of Area | Number  | % of Number | Area (km <sup>2</sup> ) | % of Area | Number                                   | % of Number | Area (km <sup>2</sup> ) | % of Area | Number    | % of Number | Area (km <sup>2</sup> ) | % of Area |
| LAKE TYPE RIVER HMWBs (RESERVOIRS) |                              |                         |  |             |                         |           |   |             |                         |           |  |             |                         |           |           |             |                         |           |
| TOTAL RESERVOIRS                   | ECOLOGICAL STATUS/ POTENTIAL | Good and Above          | -  | -           | -                       | -         | 1   | 50          | 0,9                     | 36,1      | 1  | 100         | 1                       | 100       | 2         | 40          | 1,8                     | 32,2      |
|                                    |                              | Moderate                | -  | -           | -                       | -         | -   | -           | -                       | -         | -  | -           | -                       | -         | -         | -           | -                       | -         |
|                                    |                              | Poor                    | -  | -           | -                       | -         | -   | -           | -                       | -         | -  | -           | -                       | -         | -         | -           | -                       | -         |
|                                    |                              | Bad                     | -  | -           | -                       | -         | -   | -           | -                       | -         | -  | -           | -                       | -         | -         | -           | -                       | -         |
|                                    |                              | Unknown                 | 2  | 100         | 2,4                     | 100       | 1   | 50          | 1,5                     | 63,9      | -  | -           | -                       | -         | 3         | 60          | 3,9                     | 67,8      |
|                                    | CHEMICAL STATUS              | Good                    | 2  | 100         | 2,4                     | 100       | 2   | 100         | 2,4                     | 100       | 1  | 100         | 1                       | 100       | 5         | 100         | 5,7                     | 100       |
|                                    |                              | Failing to achieve Good | -  | -           | -                       | -         | -   | -           | -                       | -         | -  | -           | -                       | -         | -         | -           | -                       | -         |
|                                    |                              | Unknown                 | -  | -           | -                       | -         | -   | -           | -                       | -         | -  | -           | -                       | -         | -         | -           | -                       | -         |

| Status/ Potential      |                   |                         | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |             |            |           | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |             |            |           | RB of the Eastern Crete Streams (EL1341) |             |            |           | TOTAL RBD |             |            |           |
|------------------------|-------------------|-------------------------|--|-------------|------------|-----------|---|-------------|------------|-----------|--|-------------|------------|-----------|-----------|-------------|------------|-----------|
|                        |                   |                         | Number   | % of Number | Area (km²) | % of Area | Number  | % of Number | Area (km²) | % of Area | Number                                   | % of Number | Area (km²) | % of Area | Number    | % of Number | Area (km²) | % of Area |
| LAKE WBs               |                   |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| TOTAL LAKE WBs         | ECOLOGICAL STATUS | High                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Good                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Moderate                | 1  | 100         | 0,7        | 100       | -   | -           | -          | -         | -  | -           | -          | -         | 1         | 100         | 0,7        | 100       |
|                        |                   | Poor                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Bad                     | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        | CHEMICAL STATUS   | Good                    | 1  | 100         | 0,7        | 100       |   |             |            |           |  |             |            |           | 1         | 100         | 0,7        | 100       |
|                        |                   | Failing to achieve Good | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| TRANSITIONAL WBs       |                   |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| TOTAL TRANSITIONAL WBs | ECOLOGICAL STATUS | High                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Good                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Moderate                | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Poor                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Bad                     | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Unknown                 | 4  | 100         | 0,2        | 100       | -   | -           | -          | -         | -  | -           | -          | -         | 4         | 100         | 0.2        | 100       |
|                        | CHEMICAL STATUS   | Good                    | 4  | 100         | 0,2        | 100       | -   | -           | -          | -         | -  | -           | -          | -         | 4         | 100         | 0.2        | 100       |
|                        |                   | Failing to achieve Good | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| COASTAL WBs            |                   |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| TOTAL COASTAL WBs      | ECOLOGICAL STATUS | High                    | 1  | 10          | 15,8       | 2         | 3   | 50          | 119,9      | 24        | 3  | 33,6        | 97         | 13        | 7         | 28          | 232,7      | 11,5      |
|                        |                   | Good                    | 8  | 80          | 739,4      | 95        | 3   | 50          | 379,7      | 76        | 6  | 66,7        | 648,7      | 87        | 17        | 68          | 68         | 86        |
|                        |                   | Moderate                | 1  | 10          | 23,2       | 3         | -   | -           | -          | -         | -  | -           | -          | -         | 1         | 4           | 4          | 2,5       |
|                        |                   | Poor                    | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Bad                     | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                        |                   | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |

| Status/ Potential |                     |                         | RB of the Northern Part of the Chania-Rethymno-Irakleio Streams (EL1339) |             |            |           | RB of the Shouthern Part of the Chania-Rethymno-Irakleio Streams (EL1340) |             |            |           | RB of the Eastern Crete Streams (EL1341) |             |            |           | TOTAL RBD |             |            |           |
|-------------------|---------------------|-------------------------|--|-------------|------------|-----------|---|-------------|------------|-----------|--|-------------|------------|-----------|-----------|-------------|------------|-----------|
|                   |                     |                         | Number   | % of Number | Area (km²) | % of Area | Number  | % of Number | Area (km²) | % of Area | Number                                   | % of Number | Area (km²) | % of Area | Number    | % of Number | Area (km²) | % of Area |
|                   | CHEMICAL STATUS     | Good                    | 10   | 100         | 778,3      | 100       | 6   | 100         | 499,5      | 100       | 9  | 100         | 745,7      | 100       | 25        | 100         | 2.023,6    | 100       |
|                   |                     | Failing to achieve Good | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                   |                     | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
| GWBs              |                     |                         |  |             |            |           |   |             |            |           |  |             |            |           |           |             |            |           |
| TOTAL GWBs        | CHEMICAL STATUS     | Good                    | 30   | 88,2        | 3.483,80   | 94,6      | 23  | 85,2        | 2.526,80   | 96,6      | 29                                       | 96,7        | 2.025,30   | 99,9      | 82        | 90,1        | 8.036,00   | 96,5      |
|                   |                     | Poor                    | 4  | 11,8        | 198,6      | 5,4       | 4   | 14,8        | 88,9       | 3,4       | 1  | 3,3         | 2,3        | 0,1       | 9         | 9,9         | 289,9      | 3,5       |
|                   |                     | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |
|                   | QUANTITATIVE STATUS | Good                    | 31   | 91,2        | 3.508,90   | 95,3      | 23  | 85,2        | 2.526,80   | 96,6      | 28                                       | 93,3        | 1.997,60   | 98,5      | 82        | 90,1        | 8.033,30   | 96,5      |
|                   |                     | Poor                    | 3  | 8,8         | 173,6      | 4,7       | 4   | 14,8        | 88,9       | 3,4       | 2  | 6,7         | 30,1       | 1,5       | 9         | 9,9         | 292,6      | 3,5       |
|                   |                     | Unknown                 | -  | -           | -          | -         | -   | -           | -          | -         | -  | -           | -          | -         | -         | -           | -          | -         |