

**Draft Strategic Environmental Assessment Report  
of the Management Plan for National Park Galichica  
for the period from 2021 – 2030**



**Skopje, September 2020**

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## **ABBREVIATIONS**

SEA – Strategic Environmental Assessment

MoEPP – Ministry of Environment and Physical Planning

RNM – Republic of North Macedonia

PI NPG – Public Institution National Park Galichica

NPG - National Park Galichica

NP - National Park

MPNPG – Management Plan of the National Park Galichica

PIPM - Public Institution for Pasture Management

IUCN - International Union for Nature Conservation

LNP - Law on Nature Protection

LE - Law on Environment

MN – Monument of Nature

SRNR - Scientific-research natural reserves

## 1. INTRODUCTION

National Park Galichica (NPG) is located in the South East area of the Republic of North Macedonia, on the mountain massif Galichica, includes also areas of its branches Istok and Precna Planina, as well as the island Golem Grad in the Prespa Lake.

National Park Galichica is recognizable by its rich and rare nature and unforgettable beauty, and was declared a national park in 1958, with the scope to preserve the flora and fauna as well as the natural appearance of the mountain Galichica. With the Law on the declaration of an area of the mountain Galichica for a national park (Off. Gazette of the RM, no. 171/10) an area of the mountain Galichica was declared a national park, for the protection of its biological and landscape diversity, which are of exceptional significance for nature protection.

The Park represents a hotspot of biodiversity in the region, however even wider, on a global level. The Park distinguishes itself from other areas with similar size because of the exceptional richness of habitats and species on a relatively small territory. As a complex entirety, the Park together with Ohrid and Prespa Lake, represents a relatively limited area with a very rich biodiversity, a high grade of heterogeneity and endemism and in these terms, it is deemed an extraordinarily valuable locality in Europe.

NP Galichica is managed by the Public Institution “National Park Galichica” (PINPG), Ohrid, Republic of North Macedonia. PINPG manages integrally the complete territory of the protected area.

For the realization of the protection of NP Galichica, PINPG carries the management plan and annual programs for nature protection. The management plan for NP Galichica (PINPG), is prepared in accordance to article 98, paragraph 1, from the Law on nature protection (LNP) (Off. Gazette of the RM no. 67/04, 14/06, 84/07, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13, 41/14, 146/15, 39/16, 63/16 and 113/18 and 18/19), prescribes the measures and activities for the protection of the natural values of the Park and plans the management of the Park for a period of 10 years. In accordance to article 98, paragraph 2 from the LNP, the protected areas management plans must be in accordance to the Aerial plan of the Republic of North Macedonia.

The content of the protected areas management plans and the annual programs for nature protection is determined in accordance to article 98, paragraph 2 from the LNP and the Rulebook for the content of the protected areas management plans and the content of the annual programs for nature protection (Off. Gazette of the RM, no. 26/12).

The management plan for NPG is prepared by PINPG and regards the period of 2020-2030. The plan sets the frame for project implementation and other activities with the assistance of the established protection and management regime in the diverse areas, by respecting the activities that are allowed, i.e. forbidden in each of the zones of the protected area. All proposed measures and activities in the Management plan for NPG are directed to nature protection, the key values of the park and the environment in its entirety. A significant part of the activities is related to the monitoring and preservation of the biodiversity, the sustainable development of tourism and environmental education. Because of that the Management plan will have a direct and significant contribution to the environmental protection and sustainable development.

The Strategic Environmental Assessment Directive (2001/42/EC) and the Law on Environment („Official Gazette of the Republic of Macedonia“ no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13, 42/14, 44/15, 129/15, 192/15, 39/16), require

specific plans, programs and strategies, which will probably could have significant influence onto the environment, to be subject of the Strategic Environmental Assessment (SEA).

The planning document (Management plan for NP Galichica) is a document for which in accordance to the Decree for the strategies, plans and programs, including also the amendments on these strategies, plans and programs, it is obligatory to realize the procedure for the assessment of their environmental impact and onto the life and health of people, article 3, point 18 – Planning documents for the management of protected areas.

## 2. INTRODUCTION TO THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

Strategic Environmental Assessment (SEA) represents the process of impact assessment of the plans, strategies and programs onto the environment and the health of people. Besides the impact assessment measures are forecasted that have the scope of environmental protection from all possible impacts even in the process of planning and decision-making for specific strategies, plans and programs, i.e. planning documents. Through the timely realization of the SEA procedure, identification is provided of potential negative and positive impacts from the environmental plan, program or strategy realization, and at the same time also alternative and possible measures are defined for the prevention, decrease and mitigation of the negative impact on all elements of the environment.

National legislation suggests that the process of strategic impact assessment on the planning document be performed in parallel with the development of the planning document, in order for the environmental goals to be promptly taken into consideration during the definition of the goals of the planning document itself.

The Strategic Environmental Impact Assessment of the MPNPG for the period 2021-2030, is realized in accordance to article 17 from the Law on nature protection and article 65 from the Law on Environment, however also because of the need for a timely review of the possible negative environmental impacts and health of the people, as well as the socio-economic aspects from the realization of the complete process.

The SEA procedure has to provide a high level of environmental protection, implementation of the directions of the relevant strategic and planning documents and integration of the environmental goals into the preparation and approval of strategies, plans and programs (planning documents), and in the direction of promoting sustainable development.

The SEA procedure is implemented in several stages / steps:

**Verification:** determining whether the planning document will have significant impact onto the environment and whether the implementation of the SEA is necessary. This stage represents preparation of the decision for the implementation of the SEA.

**Scoping definition:** information scoping definition and the level of details that the SEA Report will contain. This stage represents preparation of the SEA scoping review.

**The SEA report** is the main mechanism for reporting with regard to the description and evaluation of the significant impacts (positive and negative) onto the environment from the implementation of the planning document, as well as the activities for the prevention, decrease and as much as possible, neutralization of the significant negative impacts. The SEA Report must contain information, which are accurately defined in the Decree for the content of the Strategic Environmental Assessment Report (Off. Gazette of the RM, no. 153/07).

**Public consultations:** covers a consultation with the parties and the stakeholders during the definition of the SEA scoping, the draft SEA Report and placement of the same for public examination (publishing). This step presupposes plan preparation for the inclusion of the stakeholders in the process. The modality of public participation in this process is specifically prescribed in the Decree for public participation during the preparation of regulations and other documents, as well as plans and programs from the environmental area (Off. Gazette of RM, no. 147/08).

**Acceptance:** provision of information for the approved planning document, i.e. how many of the comments received during the consultations were taken into consideration and the monitoring methods of the significant impacts from the implementation of the planning document.

**Monitoring:** activities implementation monitoring, the possible impacts onto the environment and the social aspects in the early stage for the authorized authorities to undertake measures for improvement during the implementation of the planning documents.

## 2.1. Goals of the Strategic Environmental Assessment

The main goals of the SEA are to identify, describe and assess:

- The possible significant environmental effects/impacts from the implementation of the Management plan for NP Galichica for the period 2021-2030, as well as their monitoring in order to provide identification of unforeseen negative impacts in the early stage of implementation of the planning document and undertaking measures for improvement of the status if necessary;
- The most important environmental limitations, natural resources and climate change related to the implementation of the Management plan for NP Galichica;
- The measures for prevention, decrease and neutralization of the negative environmental impacts;
- The possibilities that the Management plan for NP Galichica offers to contribute for the improvement of the status of the environment, building resilience towards climate change.

This assessment will then be taken into consideration during the preparation, review and/or implementation of the Management plan for NP Galichica. The SEA Report must provide the decision-makers with the relevant information for environmental risk and possibilities assessment regarding the Management plan for NP Galichica for the period from 2021-2030. This information will assist to secure that the environmental concerns are adequately integrated in the decision-making processes and the implementation of the Plan.

The SEA Report also must:

- Provide transparent and timely consultations, as well as engagement of the stakeholders, other competent bodies, government bodies and the public yet in the early stages of preparation of the planning document;
- Provide the public opinion, i.e. preparation of reports from public consultations on a national level and/or transboundary level with which we will show how the results from the environmental assessment and the opinions, presented during the SEA procedure, have been taken into consideration in the final version of the planning document;

The specific goals of the strategic environmental assessment are defined in accordance with the national and international legislation and are shown through the biodiversity status, the



population, the health of the people, the material goods, the cultural heritage and the region, such as:

- identification of areas where the planned activities will improve the economic conditions, quality of life and increase the living standard;
- environmental protection by implementation of the planning document;
- rational and planned management of the area because of maintenance of the existing level of flora and fauna;
- air quality improvement;
- water quality preservation;
- integral communal waste management and its selection, transport and recycling, and with that also minimizing the disposed waste;
- minimizing the occurrence of accidents and disasters;
- natural and cultural heritage preservation;
- preservation of the characteristics of the region and the environment.

## **2.2. Benefits for the implementation of SEA**

The benefits from the implementation of the strategic environmental assessment are:

- integration of the social, economic and environmental aspects in the spirit of sustainable development;
- taking into consideration the goals for environmental protection;
- inter-sector cooperation realization and taking into consideration the national, regional and local needs and goals;
- realization of transboundary cooperation depending on the area of realization of the planning document;
- review of the current status and obtaining realistic information, that will assist the decision-makers on a higher level with the carrying of the same.

## **2.3. Legal frame for the regulation of the SEA procedure**

During the preparation of the Strategic Environmental Assessment, we have taken into consideration the Directive 2001/42/EC for the assessment of the impacts of specific environmental plans and programs, transposed into the national legislation.

The implementation procedure for the Strategic Environmental Assessment is defined in Chapter X from the Law on Environment, during which the strategic assessment is implemented in planning documents that are prepared in the area of agriculture, forestry, fishery, energy, industry, mining, transportation, regional development, telecommunications, waste management, water management, tourism, area and urban planning and land use, of the National Environmental Action plan and of the Local Environmental Action plans, as well as on all the strategic, planning and program documents with which implementation of projects is planned and for which an environmental assessment of the project is performed. By-laws that regulate the SEA procedure are:

- Decree on the strategies and programs, also including the amendments of these strategies, plans and programs, for which the procedure for their environmental impact assessment and their impact onto the life and health on people is obligatorily performed (Off. Gazette of the RM, no. 153/07 and 45/11);

- Decree on the criteria based on which the decisions have been carried whether specific planning documents could have a significant environmental impact as well as on the health of people (Off. Gazette of the RM, no. 144/07);
- Decree on the content of the Strategic Environmental Assessment Report (Off. Gazette of the RM, no. 153/07);
- Decree on public participation during the preparation of regulations and other legal documents, as well as plans and programs in the environmental area (Off. Gazette of the RM, no. 147/08 and 45/11);
- Rulebook on the modality of implementation of transboundary consultations (Off. Gazette of the RM, no. 110/10);
- Rulebook on the form, content, and template of the Decision for the implementation, i.e. nonexecution of the strategic assessment and of the forms for the need of implementation, i.e. nonexecution of the strategic assessment (Off. Gazette of the RM, no.122/11).

#### **2.4. Goal of the SEA Report and Methodology applied**

The SEA Report and the MPNPG for the planning period from 2021–2030, must perform the identification and analysis of the environmental impacts by the implementation of the forecasted planning document yet in the stage of planning and preparation and to foresee the relevant measures for the prevention and decrease of the impacts. The preparation of the report is the obligation of the developer of the planning document which forecasts the procedure for the environmental impact assessment of the planning document also on the life and health of people, prescribed in Chapter X (Environmental Impact Assessment of specific strategies, plans and programs) from the Law on Environment.

In accordance to article 3, point 18 – Planning documents for the management of protected areas from the Decree for strategies, plans and programs, including their changes, for which a procedure is obligatorily performed for the assessment of their environmental impact as well as onto the life and health of people, MPNPG, is a planning document for which we obligatorily perform a Strategic Environmental Assessment. The Report is prepared in accordance with the content of the Report prescribed in the Decree for the content of the SEA Report.

The Methodology that was used for the preparation of the SEA Report for the MPNPG for the planning period 2021 – 2030, is based on the implementation of research, assessments and analytic approach consisting of several steps:

- Review and analysis of the current environmental status of NP Galichica, as well as the surroundings in terms of transboundary impacts;
- Introduction with the content of the draft Management plan for NP Galichica;
- Identification of the already defined goals for the protection and improvement of the environment in the existing strategic documents on a local, national and international level;
- Review of the existing status of the most important elements from the environment on the area defined with the MPNPG that would be most vulnerable during the realization of the planning document;
- Identification and assessment of all possible impacts (with regard to type, nature, strength, duration, reversibility and cumulative impacts);

- Preparation of a plan with preventive measures for the mitigation of the environmental impacts from the realization of the MPNPG;
- Informing all the decision-makers and stakeholders of the consequences from the realization of the plan onto the environment through providing a clear insight of the draft version of the SEA Report, on a national level as well as in transboundary context (The Hellenic Republic and the Republic of Albania);
- Provision of a transparent process of public inclusion and execution of public debates;
- Preparation of a report from public consultations, that will contain minutes from the held public debates, a list of stakeholders that gave comments, as well as a list of answers;
- Finalization of the SEA Report by incorporating the comments from the stakeholders.

### **3. CONTENT SUMMARY OF THE MPNPG**

#### **3.1. Brief review of the content of the MPNPG**

The National Park Galichica is located in the South East area of the RNM, on the mountain massif Galichica, includes also areas of its branches Istok and Precna Planina, as well as the island Golem Grad in the Prespa Lake. The mountain Galichica is a part of the Shara and Pind Mountainous system. The wide-open surfaces towards the Ohrid and Prespa Lake that limit the mountain from the East and the West contribute to its clear visual separation as an isolate entirety.

The National Park Galichica comes under two municipalities in the RNM, Ohrid and Resen. Seventeen inhabited places are located within the limits of the Park, fourteen of which in the municipality of Ohrid and 3 in the municipality of Resen.

The Management plan for NP Galichica, subject of this report, is second and regards the period from 2021-2030.

The Management plan for NP Galichica represents a strategic document for the regulation of the management of the protected area and a representation of the realistic status of the natural values based on the complete performed assessment of the natural values, the threats that the area faces, the national and international significance of the area, the socio-economic values, as well as recommendations for the management and administration of the protected area.

The Management plan for NP Galichica is prepared in accordance with the Rulebook for the content of the management plans for protected areas and the annual programs for nature protection ("Off. Gazette of the RM", no. 26/12), and the following chapters are covered in it:

#### **Area description**

This part contains general information such as the location of the NPG, the legal state and land ownership inside the NPG, legal rights review on a part of the owners or users of the land in the Park, as well as information on the status of the protected area. Also, a review is given of other physical, urban and management plans, programs and projects that regard the territory of the NPG in order to determine the compliance of the MPNPG with the same, and in order to efficiently and effectively implement it.

The physical-geographic characteristics, such as climate characteristics, relief, geologic, hydrologic, and geomorphologic characteristics, soil characteristics and soil types within the NP Galichica.

The biodiversity, i.e. environmental characteristics, where types of habitats and plant communities in the NPG are given included as in Annex I from the Habitats Directive and their relation to the types of habitats from the EUNIS classification and the European legal instruments for habitat protection.

Socio-economic and cultural characteristics, where information is given about the use of the area of the NPG, the demographic characteristics, population and populated places within the NPG, the economic activity, as well as migrations of the population in the NPG. A special accent is given to the cultural heritage, the values of the protected area for the region, cultural values, and cultural scenery.

The values of the area and status assessment, where the key natural values of the NPG are described, whose preservation must be the highest priority of the management. In this part, we also review the threats, limitations, pressures and possibilities of the area that the NPG covers. The prospects of the area are represented through the rational management with key habitats and species and the development of sustainable tourism in the NPG.

### **Management strategy**

This part contains information about the vision of the NPG for the period 2020-2035, with the tendency the NPG to be a functional part of the European environmental network „NATURA 2000“, as well as the goals for the protection of the area and preservation of the natural values. The basic and with these related specific goals are given, as well as the subprograms. The borders and the zones of the NPG, as well as the activities that are allowed i.e. forbidden in each of the zones of the protected area are given in this chapter.

### **Operational plan**

The MPNPG for the period 2021-2030, also includes the operational plan as well as its implementation. In the process of management of the protected area following specific leadership principles is necessary, i.e. the application of obligatory responsibilities and liabilities related to the management of the NPG, application of the principle of caution and information in accordance to UNESCO, integral management, national and transboundary cooperation, stakeholder's participation. Table review is given of the specific goals developed within the seven basic goals for the protection of the NPG and the proposed indicators and measures for evaluation of their realization for the period of 5 years.

### **Management and administration**

This part promotes the management and administration plan for the NPG, through the work of the authorities and the organizations within the NPG, the management structure, and the Rulebook for the internal organization of the PINPG. With this Rulebook the general provisions are defined, the internal organization - number and type of organizational units, working sphere of the organizational units, management and administration of the institution, specific, transitory, and final provisions. This chapter includes also the mechanisms and procedures for consultations and participation of the stakeholders in the management of the NPG, as well as the procedure for administration of the Management plan for NPG, and the evaluation and reporting on the implementation of the MPNPG, obligation in accordance to the Law on nature protection.

### **Annexes**

An integral part of the MPNPG are also: the Strategy for the development of sustainable tourism in the National Park Galichica for the period from 2020-2025, with the scope of

development of sustainable tourism of the NPG through the rational usage of the potential for tourism development, and with the application of the legal provisions and limitations for tourism development in the protected areas and the Strategy for education on the environment and public relations, which will provide regular information and education of the target groups about the knowledge on biodiversity and other significant natural characteristics of NPG.

### **3.2. Legal grounds for the declaration and the status of the area**

The National Park Galichica was declared in the year 1958 in order to preserve the flora and fauna and the natural appearance of the mountain Galichica.

In accordance to Article 1 from the Law on the declaration of an area of the mountain Galichica for a national park, an area of the mountain Galichica was declared a national park, for the protection of its biological and landscape diversity, which are of exceptional significance for nature protection. Article 3 from the same Law and Article 66 from the LNP define that the category of the protected area is „National park“, which coincides with the IUCN<sup>1</sup> categorization). Article 4 from the Law on the declaration of an area of the mountain Galichica for a NP defines the borders of the Park, and the surface amounts 24.151,4 hectares. The limit of NP Galichica begins at the border passage at Sv. Naum, from where it moves along to the North all along the lake shore of Ohrid Lake, up until the village Dolno Konjsko. From there, near the archaeological site named Antic Furnace („Antichka Furna“) the limit rises on the asphalt road R501 (Ohrid – Sveti Naum – border with Albania) on which it moves up until the tunnel at the locality Sv. Stefan. Here the limit sharply turns to the East, leads along the valley on the right side of the road and climbs the rocky segment at the Monastery Sveti Stefan. From here the limit moves towards North-East along the local road through the small town of Sveti Stefan, above the forest, it surfaces on the line of the new road R501 (under construction) and follows the same up until before the small town of Racha, where again it surfaces on the old lane of the road no. R501. Moving North, besides the left lane of this road, the limit passes above the springs named Biljanini Izvori until the point where the local road separates and leads to the village Velestovo. From there, the limit continues to go North until the spring named Bejbunar, and then along the side road, which merges with the street „Momchilo Jordanoski“. Before the crossroad, the limit turns sharply towards East and following the edge of the forest with a culture of coniferous species, surfaces on the walking trail, goes shortly on it towards South, up until the spot height of 765 meters. Further on, following the walking trail, the limit shortly goes South, then East up until the locality Krst, where it sharply turns North and following the trail, surfaces on the asphalt road that leads to the village Ramne. Following the asphalt road Ohrid-Ramne, the limit moves North, lowering into the valley of the river Sushica. Here, the limit sharply turns East and follows shortly the local road that leads to the church Sveti Atanasij. Moving along the local road the limit cuts through the river Sushica and immediately after continues along the earthen trail towards North-West, passing over the spot height of 826 meters, to the spot height of 776 meters, where the local road cuts through the river Chardashnica. From this point, the limit moves along the local road towards North, until the bridge on the stream North from the Monastery Sveta Petka. From the bridge on the stream, the limit moves towards North-East and surfaces on the peak Vishesla (1563 meters). From there, the limit stretches towards

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<sup>1</sup> International Union for Nature Conservation

South-East until the spot height of 1571 meters, from where it surfaces on the spot height of 1554 meters, and then on the peak Skala (1576 meters). Then the limit moves along the crest of Samar, through the spot height of 1 608 meters and surfaces on the spot height of 1 646 meters. From there, the limit moves East and surfaces on the peak Kukolj (1319 meters), and then it turns towards South-West and surfaces on the peak Pecilin (1424 meters). From there the limit continues to lead South and surfaces on the spot height of 1141 meters on the hill Sirhansko kale. From there, cutting the asphalt road, the limit moves towards South-East until the shore of Prespa Lake. The limit stretches along the West shore of the Prespa Lake until the Macedonian-Albanian border, at the locality Zandanana, including also the island Golem Grad. From the locality Zandanana the limit stretches West along the Macedonian-Albanian border until the initial point at the border passage Sv. Naum.

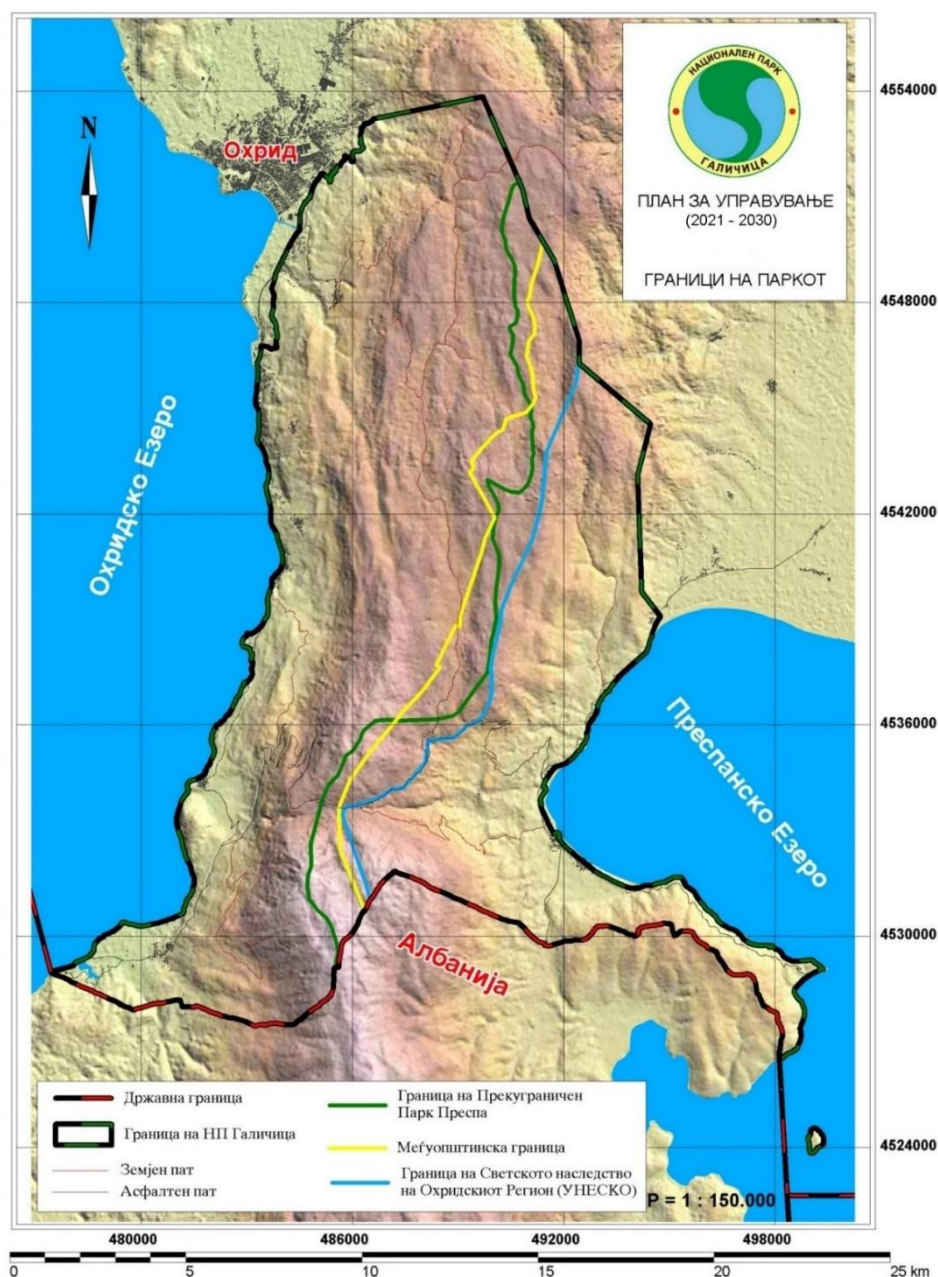


Figure 1. Limits of NP Galichica

Articles 6, 7 and 8 from the Law on the declaration of an area of the mountain Galichica for a NP, define the Public Institution that manages the National park, and also the responsibilities, such as the preparation and carrying of the management plan for the National park and the annual programs for nature protection where specific measures are defined and activities for nature protection, and also implementation of accurately defined activities for nature protection, biological and landscape diversity and natural heritage.

Today the Park is recognized as one of the most important areas or „nucleus“ of biodiversity in Europe, which is confirmed with numerous international nominations, such as: „World heritage of UNESCO<sup>2</sup>“, „EMERALD area<sup>3</sup>“, „Significant vegetation area<sup>4</sup>“, „Primary butterfly area<sup>5</sup>“, and potentially also „NATURA 2000 area“.

In accordance to the declaration signed by the presidents of the governments of the Republic of North Macedonia, Republic of Albania and the Hellenic Republic from February 2000, as well as the Agreement for the protection and sustainable development of the area of the Park „Prespa, PINPG has become a part of the Park „Prespa“.

### **3.3. Ownership and user rights**

The biggest part of the land in the limits of the Park is in state ownership, approximately 19.502 ha or 79%, and the surface of the lots in private ownership is approximately 5180 ha. A large part of the land in the Park which is in state ownership is given on permanent usage to the PINPG.

Besides PINPG, the management right or administration for parts of state land in the Park belongs also to other legal entities, for example usage and protection of water from pollution is the responsibility of MoEPP, and the PINPG is obligated to perform the monitoring of the waters in the Park and submit the results to MoEPP, (in accordance with Article 155 from the Law on waters). In accordance with Article 4 from the Law on pastures, the management of the pastures is given to the Public Institution for pastures management (PIPM), during which an agreement is concluded with the livestock breeders that live in the populated locations and PIPM, while the maintenance and protection of the pastures that pass through the territory of the NPG, are under the competence of the Public Institution for State Roads (PISR).

### **3.4. Protected area zoning**

With the act of declaration foreseen in Article 92 from the Law on nature protection, in the protected areas are defined 4 zones, while the activities and trades that can be executed in the zones are defined in Article 105 from the same law.

1. Strict protection zone, in accordance with Article 104 from the LNP represents a part of the protected area with the highest protection interest, which is characterized with original, unmodified eco-system characteristics, or has very small modifications as a result of traditional management practices. This zone in the frames of NP Galichica is with the surface of 2117 ha or (9%), where scientific research activities are allowed, if they are not contrary to the primary goals for the protection of the area. Because of

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2 Convention Concerning the Protection of the World Cultural and Natural Heritage of the United Nations Educational, Scientific and Cultural Organization. Ratified with the ratification law (“Official Gazette of the SFRJ” no. 56/74).

3 Convention on the Conservation of European Wildlife and Natural Habitats „Bern Convention“. Ratified with the ratification law (“Official Gazette of the RM, no. 49/97).

4 Convention on Biological Diversity. Ratified with the ratification law (“Official Gazette of the RM, no. 54/97).

5 Initiative to support other initiatives such as the establishment of the environmental network NATURA 2000, the Bern Convention, Pan-European Ecological Network and the Pan-European Biological and Landscape Diversity Strategy.

maintaining of the characteristics of the strict protection zone, the entity that manages the protected area, i.e. PINPG is obligated to take care and undertake the relevant measures in the protected belt in order to decrease the threats for the protection area. PINPG is obligated to provide permanent monitoring.

2. Active management zone, in accordance with Article 105 from the LNP represents a zone with high protection interest, where larger management interventions are necessary in order to restore, revitalize or rehabilitate the habitats, eco-systems and other elements of the area. This zone within NP Galichica is with a surface of 12.275 ha or (51%), where management activities are performed that regard manipulation with habitats and manipulation with species. In the Active management zone activities are allowed that have economic character and no negative influence on the primary protection goal, such as eco-tourism or traditional extensive agriculture. In accordance with the same article, successful management with this zone, as well as its further permanent maintenance, can lead to obtaining characteristics of the strict protection zone.
3. Sustainable usage zone, in accordance with Article 106 from LNP represents a significant part of the protected area that does not own high protection values, where infrastructure facilities are located, cultural heritage facilities, types of forest plantations that are not characteristic for the region, as well as populated places with surrounding agricultural land. This zone within the NP Galichica is with the surface of 9612 ha or (40%). Long-term interventions and measures undertaking can lead to obtaining characteristics of the zone for active management.
4. Protected belt, in accordance with Article 107 from the LNP, it is foreseen as the surface outside of the protected area and has the role to protect, where necessary, the above-mentioned zones. A protected belt as needed is established also within the protected area between the zones whose protection and management regime are mutually excluded. It is obligatory to apply the protection measures determined with the LNP during trade activities within the protected belt. This zone within the NP Galichica is with the surface of 147 ha or (1%). The entity managing the protection area, i.e. PINPG is obligated to take care and undertake the relevant measures in the protected belt in order to decrease the threats for the protection area.

With the establishment of the new zoning in the Park, about 60% of the territory of the Park will be covered by the natural zone. According to Articles 104 and 105 from the LNP, the natural zone will include the Strict Protection Zone and the Active Management Zone.

Table 1. Review of zones and activities performed

	Strict protection zone	Active management zone	Sustainable usage zone	Protected belt
<b>Size</b>	2117 ha (9% of the Park)	12.275 ha (51% of the Park)	9612 ha (40% of the Park)	147 ha (1%)
<b>Attributes</b>	<b>Natural zone</b> with insignificantly modified habitats from primary origin and insignificant human impact after the declaration of the Park. A large number	<b>Natural zone</b> where the largest part of the habitats is of secondary origin. After the declaration of the Park, human impact gradually decreases to an	Zone dedicated for housing and trade activities. Several key habitats and species are present, that also, in the largest part, are covered within the natural zone.	Natural or semi-natural habitats or urban surfaces with or without significant infrastructure and human impact.



	of key habitats, species and geomorphological occurrences are present. Infrastructure facilities do not exist, except an (inert) radio communication panel.	insignificant level. A large number of key habitats and species are present. Telecommunication towers with supporting facilities are present as infrastructure, as well as asphalt and land roads and smaller facilities under the ownership of PINPG.	Several communities, touristic complexes and significant infrastructure are present.	
<b>Primary management goal</b>	Unrestricted development of natural processes in order to have long-term protection of the characteristic eco-systems and accompanying species.	Unrestricted development of natural processes in order to have long-term protection of the characteristic eco-systems and accompanying species.	Environmental connection of habitats and control of human impact on the natural zone.	Control of human impact on the natural zone for sustainable use on the strict protection zone.
<b>Secondary management goal</b>	Scientific research. In specific areas of this zone visits are allowed under strictly regulated conditions and as follows: walk on the trail of the island Golem Grad, rowboat tour on the springs of Sveti Naum organized by PINPG and climbing the peak Magaro on the dedicated mountain trail.	Environmentally compliant spiritual, scientific, educational, and recreational activities.	<ul style="list-style-type: none"> <li>- Housing</li> <li>- Touristic activities</li> <li>- Wood production (for heating)</li> <li>- Collecting medicinal plants and fungus</li> <li>- Agricultural production</li> </ul>	Environmentally compliant spiritual, scientific, educational, and recreational activities.

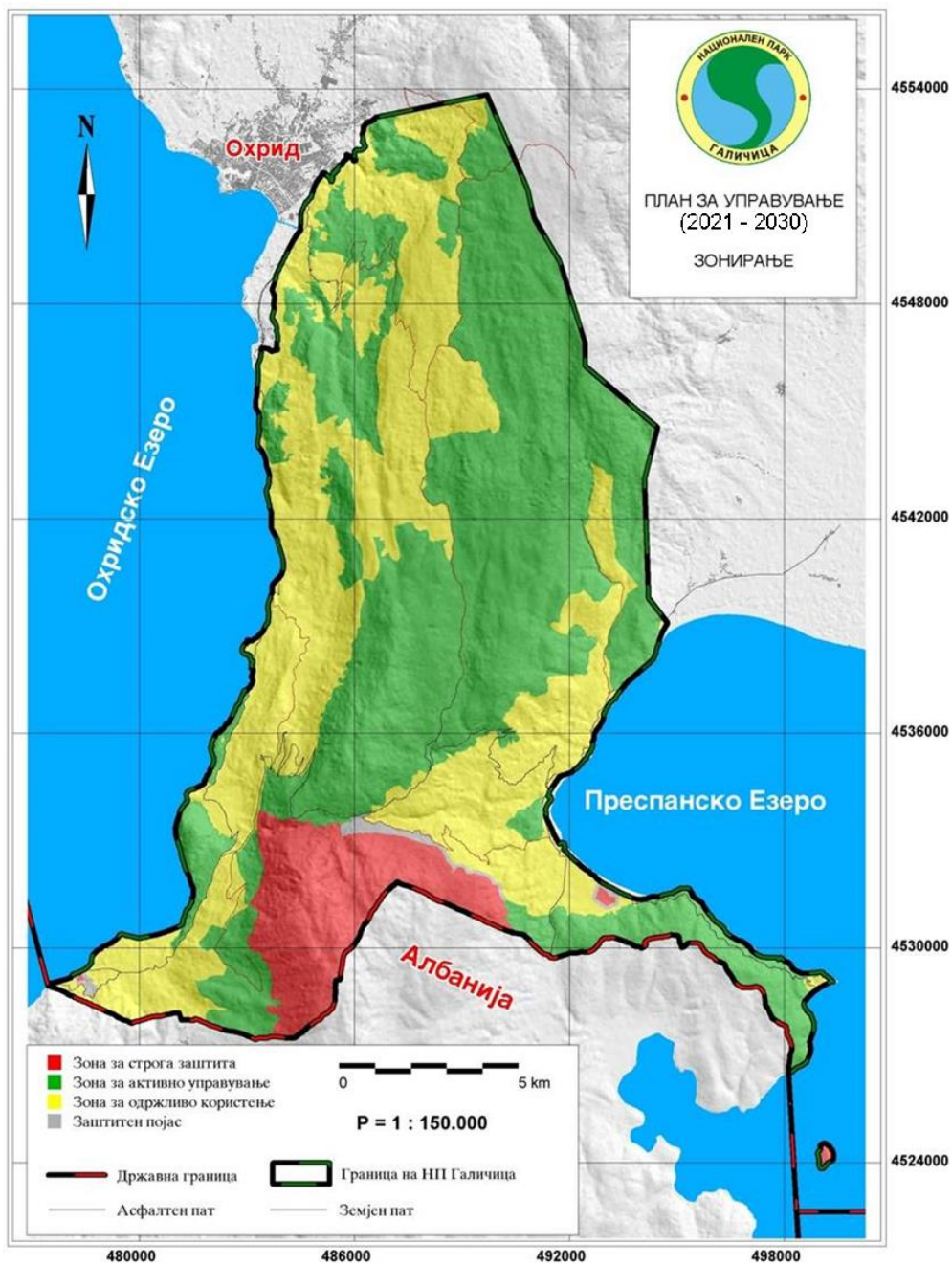


Figure 2. Zoning of NP Galichica

Table 2: Permitted and forbidden activities in the zones

ACTIVITIES	ZONES			
	Strict protection	Active management	Sustainable usage	Protected belt
Scientific research, including also archaeological (with previous permit only)	YES	YES	YES	YES
Walking (on dedicated trails)	YES	YES	YES	YES
Walking (outside of dedicated trails)	NO	NO	YES	YES
Cross-country skiing	NO	YES	YES	YES
Info-board placement	NO	YES	YES	YES
Roadmap placement	YES	YES	YES	YES
Arranged rest areas (tables, benches, canopies)	NO	YES	YES	NO
Camping and open space and under tent lodging (except on locations arranged for the purpose)	NO	NO	NO	NO
Observation decks and view platforms	NO	YES	YES	YES
Open fire burning (except on locations arranged for the purpose)	NO	NO	NO	NO
Collecting wooden forest products (fungus, fruits, plants and etc.)	NO	NO	YES	NO
Collecting animals (for ex. butterfly, turtles, and etc.)	NO	NO	NO	NO
Livestock grazing	NO	NO	YES	YES
Agriculture products growing the traditional way	NO	NO	YES	NO
Mowing grass	NO	NO	YES	YES
Beekeeping – temporary placement of beehives	NO	YES	YES	YES
Beekeeping – supporting facilities	NO	NO	YES	NO
Commercial forestry	NO	NO	YES	NO
Intensive agriculture production	NO	NO	YES	NO
Collection of wood and branches	NO	NO	YES	NO
Fishery	NO	NO	NO	NO
Hunting	NO	NO	NO	NO
Alpine skiing (on locations not organized)	NO	YES	YES	YES
Rock climbing on organized locations	NO	YES	YES	YES
Mountain biking on organized trails	NO	YES	YES	YES
Paragliding take-off platform	NO	YES	YES	NO
Motor vehicles (cars and motorcycles) on existing asphalt and local roads	NO	YES	YES	YES
Equestrianism	NO	YES	YES	YES
Disorganized springs arrangement	NO	NO	NO	NO
Arrangement of existing puddles	NO	YES	YES	YES
Water well arrangement	NO	YES	YES	YES
New facilities for capturing water from springs and streams in the Park	NO	NO	NO	NO
New housing facilities	NO	NO	YES	NO
New touristic facilities (hotels, restaurants, camps etc.)	NO	NO	YES	NO
New facilities for other purposes (PINPG management facilities)	NO	YES	YES	YES
New facilities for agricultural activities (warehouses, sheep pans, sheds, barns)	NO	NO	YES	NO
New infrastructure – water supply piping	NO	NO	YES	NO
New infrastructure – touristic purposes	NO	NO	YES	YES
New infrastructure – energy	NO	NO	YES	YES
New infrastructure – asphalt roads	NO	NO	YES	YES
New infrastructure – local roads	NO	NO	YES	YES
New infrastructure – drainage	NO	NO	YES	YES
New infrastructure – erosion control structures	NO	YES	YES	YES

### **3.5. Area protection goals**

NPG is widely known for its rich and rare nature and unforgettable beauty. In the biggest area of the Park the processes develop unhindered, which provides a long-term protection of the characteristic eco-systems and the species depending on the same. The main assignment for the protection of the existing values, the biodiversity and the natural heritage, must be directed towards the components which are or could be concerned by humans and the components that can be controlled.

PINPG Galichica and the key stakeholders in the process of preparation of the MPNPG have defined a mutual vision, that specifies the wishes of the visitors, employees, local communities and the CSO's on the territory of the NP Galichica and regards the maintenance of the Park in the interest of the current and future generations, through the maintenance of the natural and cultural values, limited and controlled urbanization, good cooperation and participation in the decision-making processes.

„NP Galichica“ is a significant and functional part of the European Environmental Network „NATURA 2000“ and we are all proud of our contribution for the maintenance of the nature in Europe and the world.

The main goals for the protection of the area are:

- Preservation and monitoring of the natural heritage,
- Sustainable use of natural resources of the area,
- Forest habitats and eco-system management,
- Sustainable tourism and recreation development,
- Local development,
- Informing, raising public awareness and education, and
- Administration, management and finance.

On the basis of the LNP and the Rulebook on the content of the management plans for the management of the protected areas and the annual programs for nature protection (“Off. Gazette of the RM”, no. 26/12), and in order to protect and preserve the values of NP Galichica, we have identified eight protected area management programs.

Program 1 - Preservation and monitoring of the natural heritage

Program 2 - Sustainable use of natural resources of the area

Program 3 - Forest habitats and eco-system management

Program 4 - Cultural heritage management

Program 5 - Sustainable tourism and recreation development

Program 6 - Local development

Program 7 - Informing, raising public awareness and education.

Program 8 - Administration, management and finance

### **3.6. Protected area management programs**

#### **3.6.1. Preservation and monitoring of the natural heritage**

The main goal of this program is preservation of the diversity of the species and habitats, as well as stabilization of the natural processes, through which the unique beauty of the natural scenery and preservation of the universal value of NP Galichica will be provided. For the realization of this goal, i.e. for the realization of the integrated protection of the natural resources, it is necessary to undertake specific activities and measures in order to protect and improve the exceptional values of the biodiversity and the geological diversity of NP Galichica.

This will be succeeded only by respecting the provisions of the LNP, i.e. especially the defined protection regimes in each of the zones.

The establishment of the long-term monitoring of the populations of the species from Annex II of the Habitats Directive, Annex I of the Directive for birds and others species, in accordance with the concept for an integral, long-term monitoring of NP Galichica, with the methodology for monitoring of the species and habitats which is internationally accepted.

In the direction of provision of a continuous monitoring of the cultural heritage we must provide scientific research such as in the area surrounding the springs of Sv. Naum by students, biologist, scientific institutions with previously obtained permission from MoEPP, based on article 24 from the LNP. The results of the monitoring will assist the PINPG in the preparation of internal reports and studies, as well as in the planning of the future activities related to the protection of the natural heritage.

Table 3: Program for preservation and monitoring of the natural heritage

Main goal	Sub-program	Specific goal
<b>The preserved diversity of species and habitats, as well as the stable environmental processes, provide a unique beauty of the natural scenery, and with that also the preservation of the universal value of the Park, for the current and future generations.</b>	Monitoring of the biodiversity of the species.	The diversity of the species is in the preserved natural state with stable populations of the significant species.
	Monitoring of the biodiversity of the habitats.	The diversity of the habitats in the preserved natural state with stable populations of the significant communities.
	Realization of activities for the protection and conservation of the species and habitats.	The relevant activities have been realized for the protection of significant species and habitats.
	Methodology for the monitoring of the status of the habitats and species.	The relevant internationally accepted methodology for the monitoring of species and habitats has been developed and applied.
	Monitoring and protection of the geological diversity and the regional values of the NPG	The methodology for monitoring of the geological diversity and regional values has been developed and applied.

### 3.6.2. Sustainable use of natural resources of the area

The use of the natural resources has significant impact on the main goals for the protection of the Park. The sustainable use of the natural resources is limited only of the zone for sustainable use. The rational use of the forests in the NPG for the financing of the PINPG as well as the habits of the local population for provision of heating wood from the surrounding forests are taken into consideration during the achievement of the set management goals. The collection of wild plants and fungus and their parts in the NP Galichica is subject to limitations, in accordance with the legal protection of specific species, and it is permitted only in the sustainable use zone.

Sustainable use of natural resources for touristic recreational activities as well as some activities of traditional agriculture i.e. cultivation of medicinal plants is practiced also in the zone for active management.

Table 4: Program for sustainable use of natural resources in the area

Main goal	Sub-program	Specific goal
<b>Natural resources in the NPG are used sustainably. Their use provides revenue for the local communities and stable financing of the PINPG.</b>	Sustainable use of the forests in NPG in accordance with the specific plans for cultivation and protection of forests.	The use of forests in the Park is controlled and sustainable.
	Assessment of the status of the populations of wild species that are being collected for commercial purposes.	PINPG possesses information regarding the status of the populations of wild species that are being collected for commercial purposes.
	Support of plantation cultivation of Ohrid tea ( <i>Sideritis raeseri</i> ).	Pressure onto wild species that are being collected for commercial purposes is decreased, and the local development is supported and approved.

### 3.6.3. Forest habitats and eco-systems management

Taking care of the organized forest management in the NP Galichica initiates yet in the year 1972 with the preparation of the first programs for forest management, in accordance with the Law on forests. Because the use/exploitation of the forests represents for years the main modality of financing of the PINPG, the need occurs for a different approach in the forest management in this area, with an accent on the term „protection“.

The existing forest administration plans do not take into consideration the integral management of the forests because of the preservation of the biodiversity, however they only forecast the removal of species of quality such as heating wood, and do not consider the fact that with the removal of old stems, the habitats of a large number of fauna are being destroyed, with which we obtain the inadequate protection of the biodiversity and naturalness of the region.

Considering such omissions, the employees of the PINPG have decided on a different approach in forest management. Even though the financing of the PINPG comes in the biggest part from the use of the forests, the Management plan for the NP Galichica defines the goals, measures and activities for the management of the forest habitats and eco-systems, which are in accordance to the Habitats Directive, the provision of the LNP and the already established regime of protected zones.

Table 5: Program for forest habitat and eco-systems management

Main goal	Sub-program	Specific goal
<b>Forest habitats and eco-systems management in accordance with the Habitats Directive</b>	Forests mapping in accordance with the Habitats Directive.	PINPG possesses the information regarding the habitats in accordance with the EU Directives in the relevant format.
	Use of a part of the forests in the zone for sustainable use in order to satisfy the needs for heating wood for the vulnerable categories of local population.	PINPG is a socially responsible institution that helps vulnerable categories of people in a strictly determined modality of forest management.
	Supporting scientific research.	PINPG actively participates in the creation and implementation of the scientific research in accordance with the management goals.

### 3.6.4. Cultural heritage management

Because of its natural and cultural values, the Ohrid-Prespa region is one of the most representative regions in the RNM. Because of these reasons, the Ohrid Lake is inscribed on the UNESCO list as the “Natural and Cultural Heritage, historical aspects and environment of the Ohrid region”.

In the previous period we have been facing with the construction of new building and reconstruction of old ones besides the very chore of the lake, some of them with unresolved infrastructure and inadequate architecture which disturb the regional values. Another problem are the private owners of facilities that do not have the feeling of value for their own facilities or do not have the possibilities to perform conservation and restoration of the originally saved facilities.

Even though the cultural heritage of the territory of the NP Galichica is various and rich, the management competences do not belong to the PINPG, however they belong to the Directorate for protection of cultural heritage – Skopje, the institutes and museums. In order to provide complete protection and conservation of cultural heritage, the PINPG must undertake measures and actions to prevent the activities that lead to the damage and destruction of the cultural heritage.

### 3.6.5. Sustainable tourism and recreation management

The program for the development of sustainable tourism and recreation in the NPG regards the support, development and promotion of the touristic activities and projects in the direction of an increased and sustainable local economic development. The local community, the municipalities where the NP is extended on, as well as the national economy have direct and/or indirect benefits from the existence and regular management of the NPG.

The direct benefits come because of the development of the tourism section in the region that is supported by the natural and cultural values characterize the region. Because of that, PINPG, the local population, and the municipalities must strongly support the development of the sustainable tourism in this region.

The goal of the management of the NPG is to maintain the quality of your stay on a high level, the control of the urbanization and maintenance of the authentic look of the area are in the function of developing the alternative forms of tourism and nurturing the local traditions will contribute to the attraction of the relevant number of tourists.

These activities are all directed towards touristic-recreation development adequately to the zoning of the National park.

Table 6: Program for sustainable tourism and recreation

Main goal	Sub-program	Specific goal
<b>Visits do not endanger the natural and cultural values of the Park, offering the visitors unhindered and overall experience, with which they represent it in the best possible way, at the same time providing the revenues necessary for its preservation, building public support for nature preservation and opening</b>	Socio-economic and market research and marketing.	The Park is a sustainable destination, model for other protected areas and touristic destinations in the region, where preserved nature, cultural heritage and local population are intertwined on a sustainable way.
	Development and implementation of a monitoring system for visitors.	Diverse visiting programs improved with the offer of the local population provides a safe visit and presentation of the saved values of the Park.
	Construction and maintenance of infrastructure.	The adequate and modern touristic infrastructure is continuously maintained and upgraded.



<b>possibilities for sustainable development of the local community.</b>	Improved touristic offer and activities for alternative tourism.	Visitors stay supported by adequate, interesting and modern activities and offer.
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### 3.6.6. Local development

The program for Local development has the goal to support the cooperation of the NPG with the local communities, to build a mutual relationship filled with trust, that will contribute to the strengthening and improvement of the sustainable development of tourism and will assist in the realization of the vision of the Park. Tourism, service businesses, agriculture and forestry are the main economic activities of the local population. One of the goals of the Park is to assist these activities, in the direction of good use of natural resources and improvement of the possibilities for sustainable development of the touristic activities.

The use of the natural resources must be based on the sustainable development principles and limited to a small area of the Park (up to 25 % of the territory). For ex. to incite plantation organic production of the local mountain tea and other medicinal plants with commercial interest and decrease the activities such as: exploitation of natural resources (cutting trees, collection of medicinal plants and other fruits for sales, hunting etc.). A part of the traditional pastures must be available for stock breeding, also to preserve the components of biodiversity related to these habitats. The control of urbanization and the care for achievement and maintenance of the authentic look of the communities must be in function of tourism development.

Table 7: Local development program

Main goal	Sub-program	Specific goal
<b>Management incites cooperation of the PINPG with the local communities, to build a mutual relation filled with trust, that will contribute to the strengthening and improvement of the sustainable local development.</b>	Contribution of NPG in the local development.	PINPG provides information and data for the contribution of the Park in the development of sustainable tourism.
	Continued and enriched stay of visitors.	PINPG contributes to a continued and enriched stay of visitors, in the direction of sustainable tourism development.
	Active participation of local communities in the management of NPG.	Local communities take active participation in planning the development and management of the tourism of the Park.

### 3.6.7. Informing, raising public awareness and education

The program for informing, raising public awareness and education has the goal to provide transparent information dissemination, provide an educational platform for the realization of positive experience with the nature, as well as an emotional and scientific basis necessary for the responsible behavior and raising the public awareness for nature protection. Through raising of the awareness for nature and the environment we expect to raise the support and participation of local citizens and the general public in solving the problems in the Park related to urbanization, solid waste, forest fires, water pollution, uncontrolled collection of herbs and other impacts that adversely reflect on its natural values.

Table 8: Program for informing, raising public awareness and education

Main goal	Sub-program	Specific goal
<b>Functional infrastructure, developed communication strategy for regular</b>	Maintenance and upgrade of the existing infrastructure for environmental education.	The existing infrastructure for informing and environmental education of visitors is continuously maintained and upgraded.



<b>informing of the target groups, diverse informative content and knowledge of biodiversity and other significant natural characteristics, provides an educational platform for the realization of positive experiences with nature, as well as emotional and scientific basis necessary for responsible behavior for nature protection.</b>	Establishment of a system for public information.	The wider public is regularly informed about the activities of the PINPG in the field of nature protection.
	Preparation and distribution of informative and educational material.	Promotion material with educational and informative character is regularly prepared and distributed.
	Raising public awareness about nature protection.	The activities of the PINPG contribute to raising public awareness about the need for nature conservation.

### 3.6.8. Administration, management and finance

The program for administration, management and finance regards the personal, material, institutional capacities of the PINPG necessary for the management of NP Galichica, as well as the memberships and status of the PINPG on a national and international level. The PINPG is established by the Government of the RNM with the goal of management of the protected area NPG. While managing it is necessary to establish and maintain the cooperation with other institutions, such as MoEPP, the Environmental Inspectorate etc. The PINPG has formed the Stakeholder Council and the Scientific Council as consultation bodies.

A very important element for efficient management of the protected area is the provision of sustainable financing, that is realized through entrance and visit fees for the protected area, sustainable use of natural resources, visiting specific facilities and stay in the protected area, fee for trade activities or activities in the protected area and other sources (donations, grants, and etc.).

Table 9: Program for administration, management and finance

Main goal	Sub-program	Specific goal
<b>PINPG has the resources for management and uses them for the continuous improvement of all segments of the management and developing of the organizational culture, at the same time building the cooperation with the stakeholders.</b>	Provision of the legal and planning frame necessary for management.	The internal regulations of the public institution are reconciled with the legal obligations.
	Development of institutional and human resources and competences.	Institutional and individual capacities necessary for the efficient and effective management of the Park and for the affirmation of the Public Institution are provided through the continuous improvement, management of the knowledge and development of the organizational culture.
	Infrastructure	Adequate general, transport and communal infrastructure without negative impact on the values of the Park is provided through cooperation with stakeholders.
	Financing	The main business of the PINPG is financed by public revenues, while the development of the Park is financed by public revenue or by revenues that the Institution realizes, donations and projects.

Table 10. Programs and sub-programs, the goals and estimated activities in the MPNPG

Program	Main goal	Sub-program	Specific goal	Activity
<b>Program for the preservation and monitoring of the natural heritage in the NPG</b>	Preserved diversity of species and habitats, as well as stable environmental processes, provide a unique beauty of the natural scenery, and with that also the preservation of the universal value of the Park, for the current and future generations.	Monitoring of the biodiversity of species.	The species diversity is in the preserved natural state with stable populations from the significant species.	Monitoring of the biodiversity of the species according to the „Program for long-term monitoring of the biodiversity in the NPG“
				Amendment and updating the program for long-term monitoring of new species (Ramonda serbica, Angelica palustris, Rupicapra rupicapra balcanica, Bombina variegata, Cervus elaphus и Ursus arctos).
				Data processing and development of species distribution maps.
				Preparation and implementation of the plan for participation determination and distribution of invasive and non-native species in NP Galichica and management of the same.
		Monitoring of the biodiversity of the habitats.	The diversity of the habitats is in the preserved natural state with stable populations from the significant communities.	Monitoring of the biodiversity of the habitats according to the „Program for long-term monitoring of the biodiversity in the NPG“.
				Amendment and updating the program for long-term monitoring of new habitats („Patagoniar forests with wild chestnuts in canyons“).
				Preparation of the plan for environmental restoration of the puddles on Stara Galichica and the puddle Kosto Bachilo.
				Preparation of the plan for population research and protection of the spring of Sv. Naum.
				Maintenance of the reproduction center for the European deer.
				Data processing and development of habitat maps.
		Implementation of activities for the protection and conservation of species and habitats.	The relevant activities for protection of significant species and habitats have been implemented.	In-situ and ex-situ protection of endangered species.
				Preparation of the plan for reintroduction of the European ground squirrel (Spermophilus citellus).
		Methodology for the monitoring of the status of the habitats and species.	Developed and applied the relevant methodology for monitoring of species and habitats which is internationally accepted.	Proposed and accepted methodology for the monitoring of species and habitats according to the „Program for long-term monitoring of biodiversity in the National Park Galichica“.
				Preparation, development and integration of the methodology for the new species and habitats that are subject of monitoring in this planning period in the „ Program for long-term monitoring of biodiversity in the National Park Galichica “.
Monitoring and protection of the geological diversity and the regional values in the NPG.	Developed and applied the relevant methodology for monitoring of the geological diversity and the regional values.	Mapping of the underground karst forms (caves and abysses).		
		Preparation of the study for evaluation of regional or scenery values.		

<b>Sustainable use of natural resources in the area</b>	The natural resources in the NPG are sustainably used. Their use provides revenues for the local communities and stable financing of the PINPG.	Sustainable use of forests in the NPG in accordance with the Specific plans for cultivation and forests protection.	The use of the forests in the Park is controlled and sustainable.	Implementation of the Specific plans for cultivation and forests protection as of the year 2022.
				Preparation of new Specific plans for cultivation and forests protection for the period from 2023-2032.
		Status assessment of populations of wild species that are collected for commercial purposes.	PINPG possesses information about the status of the populations.	Preparation of the list of wild species that are collected for commercial purposes.
				Preparation of the list of collectors of wild species that collect for commercial purposes.
				Assessment of the yield of Ohrid tea in the sustainable use zone.
<b>Management of forest habitats and eco-systems</b>	Management of forest habitats and eco-systems in accordance with the Habitats Directive.	Support of plantation cultivation of Ohrid tea ( <i>Sideritis raeseri</i> ).	The pressure onto the wild species that are collected for commercial purposes is decreased, and the local development supported and improved.	Determination of the quantity of Ohrid tea that can be collected in the sustainable use zone.
				Preparation of the business plan for organic cultivation of Ohrid tea.
				Organization of training with interested local citizens for organic cultivation of Ohrid tea.
		Mapping of forests in accordance with the Habitats Directive.	PINPG possesses information on habitats in accordance with the EU Directives in the adequate form.	Definition of priority forest habitats in accordance with the Habitats Directive.
				Data processing and development of forest communities and eco-systems maps.
Use of a part of the forests in the sustainable use zone for satisfying the needs for heating wood for the vulnerable categories of local citizens.	PINPG is a socially responsible institution that helps the vulnerable groups through a strictly defined modality of forest management.	Preparation of the Rulebook and criteria for defining the consumers that will have the right to purchase heating wood from the PINPG.		
Supporting scientific research.	PINPG actively participates in the creation and realization of scientific research in accordance with the management goals.	Realization of activities for the production of heating wood only for households defined in the Rulebook, Specific plans and criteria.		
<b>Development of sustainable tourism and recreation</b>	The visit does not endanger the natural and cultural values of the Park, offering the visitors unhindered and overall experience, with which the same is represented in the best possible	Socio-economic and market research and marketing.	The Park is a sustainable destination, a model for other protected areas and touristic destinations in the region, where the preserved nature, the cultural heritage	Preparation of priority list for scientific-research business.
				Market research on the trending touristic demand, types of touristic activities and possibilities for increased revenues from tourism.
				Determination of the capacity of load/tenacity of the locality Sv. Naum.
			Marketing and promotional activities and creation of a pricing policy in accordance with the approved Pricelist of the Government of the RNM.	

	way, providing at the same time the revenues necessary for its preservation, building public support for nature preservation and opening possibilities sustainable development of the local community.		and the local citizens are intertwined on a sustainable way.	Monitoring and undertaking of corrective activities.
		Development and implementation of the monitoring system for visitors.	Diverse programs for visits improved with the offer of the local citizens provides a safe visit and presentation of the preserved values of the Park.	Informing the visitors of the Park about the possibilities, offer, rules of conduct, risks and etc.
				Control of the behavior of the visitors in the Park.
				Management with distribution of visits in the Park.
		Visitor safety.		
Construction and maintenance of infrastructure.	The adequate and modern touristic infrastructure is continuously maintained and upgraded.	Regular maintenance and improvement of the infrastructure in the NPG.		
Improved touristic offer and activities for alternative tourism.	Visitor stay is supported with relevant, interesting and modern activities and offer.	Continuous maintenance and improvement of the touristic offer in the NPG.		
<b>Local development program</b>	The management supports the cooperation of the PINPG with the local communities, to build a mutual relationship filled with trust, that will contribute to the strengthening and improvement of the sustainable local development.	Contribution of the NPG in the local development.	PINPG provides information and data about the contribution of the Park in the development of sustainable tourism.	Preparation of the Annual Report for the current year about the touristic activities in the Park, available to the local citizens, however also for the wider public.
				Establishment and support of local working groups (through the Environmental Forum) for discussion, coordination and cooperation in the natural resources' management.
				Leading workshops and webinars for education of users on new scientific content and instruments for natural resources management.
	Continued and enriched visitor stay.	PINPG contributes to the continued and enriched visitor stay, in the direction of sustainable tourism development.	Promotion of lodging capacities and restaurants on the territory of the Park, through the web page of the PINPG.	
			Implementation of the program for small grants for the local communities in the Park through the Environmental Forum.	
			Providing support for the organization of the Annual Fair for the local producers.	
	Support when organizing diverse events (Ohrid Trail, Tour de Galichica and etc.).			
Active participation of the local communities in the management of the NPG.	Local communities take active participation in the planning of the development and management of the tourism in the Park.	Revision and regular update of the Strategy for the development of sustainable tourism in the National Park Galichica through the participation of the local communities and other key stakeholders. (Through the Environmental Forum, The Stakeholders Council).		
<b>Program for informing, raising public awareness and education</b>	Functional infrastructure, the developed communication strategy for regular informing of the target	Maintenance and upgrade of the existing infrastructure for	The existing infrastructure for informing and environmental education of the visitors is	Maintenance and upgrade of the Educational trail – „Galichica in your hand“.
				Maintenance and functionality of the green classroom, which is within the educational trail.

	groups, diverse informative content and knowledge of biodiversity and other significant natural characteristics, provides the educational platform for the realization of positive experiences with nature, as well as emotional and scientific basis necessary for responsible conduct in nature protection.	environmental education.	continuously maintained and upgraded.	Establishment and maintenance of thematic trails in the NPG.
		Establishment of the public information system.	The wider public is regularly informed about the activities of the PINPG in the environmental protection field.	Providing transparency in the information sharing to local and national media.
		Preparation and distribution of informative and educational material.	Promotion material of educational and informative character is regularly prepared and distributed.	Preparation, design and printing promotion material with thematic content or custom-made promotion material.
				Distribution of the promotion material to the target group.
				Development of educational packages, with adapted educational content for different age groups.
		Raising public awareness for nature protection.	The activities of the PINPG contribute to raising public awareness about the need of nature preservation.	Organizing workshops on different topics, according to the target group.
				Continuing with the celebration of traditional days significant for the NPG.
				Celebrating World-wide significant nature protection days.
				Educational walks on the educational trail, mostly dedicated to the youth.
<b>Program for administration, management and finance</b>	PINPG has the resources for management and uses the same for continuous improvement of all segments of management and developing the organization culture, at the same time building cooperation with the stakeholders.	Provision of legal and planning frame necessary for management.	The internal regulations of the public institution are reconciled with the legal obligations.	Preparation, regular updating and implementation of internal and external documents, rules and regulations.
		Development of institutional and human resources and competencies.	Institutional and individual capacities necessary for the efficient and effective management of the Park and for the affirmation of the public institution are provided through continuous improvement, management of knowledge and development of the organizational culture.	Organization of work, human resources management and building organizational culture.
				Competence development, institutionalization of cooperation and memberships.
	Infrastructure	Adequate general, transportation and communal infrastructure without negative influence onto the values of the Park is provided through the	Maintenance and upgrade of the general, transportation and communal infrastructure.	

			cooperation with the stakeholders.	
		Financing	The main business of the PINPG is financed by public revenues, while the development of the Park is financed by public revenues or revenues that the institution makes, donations and projects.	Implementation of activities for the efficient financing on the principle of self-financing.

### 3.7. Strategy for the environmental education of the NP Galichica for the period from 2021–2025

With the preparation of the Strategy for environmental education of the NPG for the period from 2021–2025, we continue with the informing, raising public awareness and public education.

#### Main goal

The functional infrastructure, developed communication strategy for regular informing of the target groups, the diverse informative content and knowledge of the biodiversity and other significant natural characteristics, provides the educational platform for the realization of positive experiences with the nature, as well as an emotional and scientific basis necessary for responsible conduct for nature protection.

#### Specific goals

- The existing infrastructure for informing and environmental education of visitors is continuously maintained and upgraded.
- The wider public is regularly informed about the activities of the PINPG in the field of nature protection.
- The promotion material with educational and informative character is regularly prepared and distributed.
- The activities of the PINPG contribute to raising public awareness about the need of nature preservation.

Table 11: Action plan for the Strategy for environmental education in the NPG from 2021-2025

Priority strategic goals	Activities
<b>Maintenance and upgrade of the existing infrastructure for environmental education</b>	Maintenance and upgrade of the Educational trail – „Galichica in your hand“.
	Maintenance and functionality of the green classroom, which is within the educational trail.
	Establishment and maintenance of thematic trails in the NPG - History trail and maintenance of the same.
<b>Preparation and distribution of informative and educational material</b>	Preparation, design and printing of promotion material with thematic content or custom-made promotion material.
	Distribution of promotion material to the target group.
	Development of educational packages, with adapted educational content of different age groups.
	Preparation of type lectures and standardized presentations.
<b>Establishment of public information system</b>	Providing transparency in the information sharing to local and national media.
<b>Raising public awareness for nature protection</b>	Organizing workshops on different topics, in accordance to the target group.
	Continuing the celebration of traditional days significant for NPG.
	Celebration of world-wide significant nature protection days.
	Educational walks on the educational trail, mostly dedicated to the youth.
	Preparation of type lectures and standardized presentations.
<b>Training and dissemination</b>	Training of guards for visitor support.
	Training of employees for communication skills.
	Dissemination for environmental education of all employees in the PINPG by collaborators for environmental education and alternative activities.
	Dissemination for environmental education of touristic guides, rowboat drivers (Sv. Naum and Golem Grad) and the seasonal workers for collection of payments and all other interested business traders within the NPG.
	Dissemination of key values of the Park for the teachers that will apply walks by the Educational trail and open-space teaching.

### 3.8. Strategy for sustainable tourism development in the NPG from 2021 – 2025

The Strategy for sustainable tourism development in NP Galichica, for the period from 2021–2025 is a document developed by the employees of the Public Institution “National Park Galichica” (PINPG), a constitutional part of the MPNPG for the period from 2021 – 2030. The goal of this Strategy is to give directions for sustainable tourism development of the NPG using the potential that exists in the region for tourism development, during which the provisions from the legislation were taken into consideration that regard the tourism development in protected areas, as well as limitations that exist in the region, considering that almost 2/3 of the Park are located in the natural and cultural heritage of the Ohrid Region inscribed on the list of UNESCO.

Table 12. Action plan for the implementation of the Strategy for sustainable tourism development in the NPG from 2021–2025

Strategic areas	Strategic priority goals	Measures
<b>Human and institutional capacities development</b>	Strengthening the institutional capacities for the management of the NPG as a touristic destination.	<ul style="list-style-type: none"> <li>- Improvement of institutional capacities for the management of the touristic destination NPG.</li> <li>- Improvement of the cooperation and the support of the stakeholders in the tourism section.</li> <li>- Development of public awareness with the business traders about the significance of the NPG in tourism development.</li> <li>- Public awareness development with the local self-government about the share of NPG in the local economic development.</li> </ul>
	Skills and knowledge development with the working forces about the needs of the touristic section in the NPG.	<ul style="list-style-type: none"> <li>- Strengthening human capacities of the PINPG about tourism development in the NPG and education of the rest of the stakeholders.</li> <li>- Strengthening human capacities in the tourism section from the aspect of knowing the NPG and its values.</li> <li>- Capacity building of citizens in the NPG about tourism development from the aspect of knowing the NPG and its values.</li> </ul>
<b>Tourism infrastructure development</b>	Providing a better approach and movement (mobility) of the visitors in the NPG.	<ul style="list-style-type: none"> <li>- Providing and maintaining access to touristic attractions in the NPG</li> <li>- Providing and continuous maintenance of touristic signalization.</li> </ul>
	Providing the relevant information and communal capacities for diverse application.	<ul style="list-style-type: none"> <li>- Construction and reconstruction of information capacities in the NPG.</li> <li>- Construction of a new and reconstruction of the existing communal infrastructure of touristic localities in the NPG.</li> <li>- Providing internet access for some localities, strengthening the network mobile coverage and construction of a small infrastructure for a safe and comfortable stay.</li> </ul>
	Infrastructure arrangement and maintenance of the touristic localities.	<ul style="list-style-type: none"> <li>- Construction, reconstruction and maintenance of the touristic localities.</li> </ul>
<b>Touristic offer development</b>	Development of touristic products and offer that will attract new and old visitors.	<ul style="list-style-type: none"> <li>- Support of stakeholders in the development of touristic products in the NPG.</li> <li>- Development of touristic products based on the natural heritage in the NPG.</li> <li>- Development of touristic products based on cultural-historic heritage in the NPG.</li> <li>- Development of touristic products based on the traditions in the NPG.</li> <li>- Design and touristic packages in the NPG.</li> </ul>
	Optimizing the mutual benefit of the citizens and the business section through sustainable tourism.	<ul style="list-style-type: none"> <li>- Providing integral protection of the natural and cultural heritage.</li> <li>- Building the touristic chain of values in the NPG through diverse tourism types.</li> </ul>



<b>Marketing</b>	NPG can persist he pressure from the visitors without damaging the natural and cultural values of the Park.	<ul style="list-style-type: none"> <li>- Implementation of activities for determination of the persistence capacity of the NPG and/or on locations with most pressure from visitors.</li> <li>- Results and recommendations for the regular management of the NPG in terms of development of sustainable tourism without the damaging impact on the natural and cultural values.</li> <li>- Adaptive management of visiting locations based on the persistence capacity results.</li> </ul>
	Creation of a positive look for the NPG as an attractive geographic-touristic area and regular target marketing.	<ul style="list-style-type: none"> <li>- Target marketing for the touristic destination of concrete target groups and tourists.</li> <li>- Branding of touristic products from the NPG.</li> </ul>

### 3.9. Reconciliation of the goals of the MPNPG with other relevant strategic and planning documents

The Management plan for NP Galichica, who is subject to this report is second and regards the period from year 2021-2030.

The Management plan for NP Galichica represents a tool for the management of the protected area and a review of the actual status of natural values based on the overall performed assessment of natural values, threats that the area faces, the national and international significance of the area, socio-economic values, as well as recommendations for the management of the protected area.

The Management plan for NP Galichica al obligation and is prepared in accordance to the LNP, the Law on the declaration of a part of the mountain Galichica for NP and the Rulebook for the content of the management plans for the protected areas and the annual programs for nature protection.

All proposed measures and activities in the Management plan for NP Galichica are directed to the protection of the nature, the key values of the Park and the environment in its entirety. According to Article 100 from the LNP, the Management plans for the protected areas have to be reconciled with the goals, measures and activities for the protection and management of the protected areas determined with this LNP, the act on declaration of the protected area, international standards and international agreements ratified by the Republic of North Macedonia, as well as the urban planning documentation.

In order to determine whether the goals of the MPNPG are related to the goals of the already carried strategic and planning documents on a national, regional and local level and how will they contribute to the achievement of the goals of these documents, a table review has been prepared represented in Table 13, given below.

The MPNPG gives directions, provisions and measures, that must take into consideration during the preparation of the documentation on a lower level, i.e. strategic and planning documents on a local level, that regard the use of the area and the land.

Table 13. Reconciliation of the MPNPG with other strategic and planning documents

Strategic/planning documents on a local, regional and national level	Goals of the document	Connection of the goals to the MPNPG with the document
<b>Strategic/planning documents on a national level</b>		
<b>Urban planning of the Republic of Macedonia (2002-2020)</b>	<ul style="list-style-type: none"> <li>- protection and improvement of all areas with natural values that are of extraordinary value for the science, culture, education and other spheres;</li> <li>- provision of sufficient quantities of quality drinking water and modernization of the watering and water supply systems;</li> <li>- increase of employment and improvement of material, cultural, social, and other aspects of life and work of the citizens;</li> <li>- equal regional development, with faster development of the trade insufficiently developed areas;</li> <li>- rational use, organization and area arrangement;</li> </ul>	<p>The goals of the MPNPG are in accordance with the Urban planning of the R. Macedonia and their realization will contribute especially in the part for sustainable, rational use of the natural resources and maintenance of the NP as the area with exceptional natural values. Also, through the efforts for the establishment of local development and sustainable tourism, will contribute to the increase of the employment and improvement of the quality of life of the population.</p>
<b>Strategy for the regional development of the Republic of Macedonia (2009-2019)<sup>6</sup></b>	<ul style="list-style-type: none"> <li>- competitive planning regions that are characteristic for the dynamic and sustainable development,</li> <li>- development of a contemporary modern (traffic-transport and communal) infrastructure in the planning regions,</li> <li>- creation of competitive advantages of the planning regions,</li> <li>- optimum use and valorization of the priority resources and energy potentials,</li> <li>- environmental protection in the planning regions.</li> </ul>	<p>The goals of the MPNPG are in accordance with the main goals of this Strategy, because they are directed to the nature protection and improvement through measures for sustainable use of nature available resources.</p>
<b>National strategy for nature protection, 2017-2027</b>	<ul style="list-style-type: none"> <li>- rational use of the mineral raw materials,</li> <li>- provision of sustainable use of the wild species and eco-systems,</li> <li>- strengthening and improvement of the protected area system,</li> <li>- preservation of the regional diversity in accordance to the requirements of the Convention for the region,</li> <li>- strengthening the institutional capacities for nature protection on a central and local level,</li> <li>- establishment and development of environmental networks for the effective protection and management of the natural heritage,</li> <li>- achievement of integrated nature protection through the promotion of a holistic approach in the protection of biodiversity, geodiversity and regional diversity.</li> </ul>	<p>The goals of the MPNPG are in accordance with the main goals of this Strategy, because in general they are directed towards the rational use of nature available resources.</p> <p>In the MPNPG, within the programs and sub-programs activities are forecasted directed towards the execution of continuous monitoring of the status of the habitats and the species, as well as monitoring and protection of the geological diversity and regional values of the NPG, with the assistance of internationally recognized methodology.</p>
<b>Strategy and action plan for the protection of the biodiversity of the Republic of Macedonia (2004 – 2014)</b>	<p>This Strategy explains the goals and assignments of the protection of the biodiversity and defines the integrated approach in the protection and sustainable use of the components of the biodiversity.</p>	<p>The goals of the MPNPG are in accordance with the main goals of this Strategy, because they are directed towards the protection and preservation of the biodiversity of habitats and species, through the</p>

<sup>6</sup> According to the Law on Regional Balanced Development (Official Gazette of the Republic of Macedonia, No. 63/2007), the Republic of Macedonia has eight planning regions: Vardar, East, Southwest, Southeast, Pelagonija, Polog, Northeast and Skopje planning region. NPG belongs to the Southwest planning region.

		implementation of continuous monitoring and activities for the protection and conservation of species and habitats.
<b>Environment and climate change Strategy 2014-2020</b>	<p>Some of the operational goals in the area of the environment and climate changes are:</p> <ul style="list-style-type: none"> <li>- higher level of environmental legislation implementation, in accordance with the EU requirements and the obligations from the international agreements;</li> <li>- integration of environmental protection in sections that impact the environment;</li> <li>- monitoring, analysis and environmental status assessment and status report;</li> <li>- raising awareness about environmental issues;</li> <li>- decreasing negative effects of climate change and establishment of system measures in order to limit greenhouse gases;</li> <li>- support for „clean“ technologies and changes whose goal is to use renewable energy sources and decrease energy consumption.</li> </ul>	The goals of the MPNPG are in accordance with the main goals of this Strategy, because they are directed towards the protection and improvement of nature and the environment, through rational use of natural resources, management of forest eco-systems in terms of their preservation and renewal, as well as support of trade businesses that do not pollute the environment.
<b>National Environmental Action Plan of the RM, NEAP 2</b>	- to provide integration of the environmental protection policy in the rest of the sector policies as the means for improvement of the decision-making process, including making balance between economic efficiency and effectiveness of environmental protection, through focusing, amongst other, on the possibilities that economic instruments offer.	MPNPG is in accordance with the goals of the NEAP, because it promotes integrated management of the NP Galichica and nature protection, that is based on the concept of sustainable development.
<b>Third National Plan of the Republic of Macedonia towards the United Nations Framework Convention on Climate Change (2014)</b>	<p>One of the goals of this Plan is the prevention or decrease of the loss of biodiversity, because of the climate changes impact. Because of measures have been proposed in the Plan for climate change adaptation:</p> <ul style="list-style-type: none"> <li>- monitoring of the status with foreign (and invasive) plant species;</li> <li>- monitoring of the status of the wildlife species-disease vectors;</li> <li>- elaboration of the species list for which „ex situ“ preservation is necessary;</li> <li>- adjustment of the forest management plans in the main forest biological corridors in order to make them better in functionality from the aspect of climate change impacts;</li> <li>- definition of biological corridors for movement and migration of animal and plant species under climate change threat;</li> <li>- detailed protected area system revision in Macedonia with regard to climate change adaptation;</li> </ul>	<p>MPNPG is concordant with this Plan in the part of follow up and monitoring of the status of habitats and species in accordance with the Habitats Directive and preparation of new plans for rational forest management.</p> <p>The part that must be improved in the Plan is to assess the climate change impact onto biodiversity, forests, agriculture land, water etc., and measures to be foreseen for the adaptation and/or mitigation of climate changes.</p>
<b>National Sustainable Development Strategy (2009-2030)</b>	The goals of this Strategy are directed towards sustainable integration of tourism, forestry, agriculture and the industrial section with	The goals of the MPNPG are in accordance with the main goals of this Strategy, because they are directed towards sustainable local

	sustainable support from the energy section, infrastructure and transportation section.	development, tourism and recreation, sustainable management of forest eco-systems, that will not damage the protected area, NP Galichica. In the MPNPG, within the programs and sub-programs activities are foreseen that will contribute to the local and sustainable development, biodiversity and natural heritage protection, forest eco-systems protection etc., which is in accordance to the goals of the Strategy.
<b>National Agriculture and Rural Development Strategy (2014-2020)</b>	The goal of this strategy is increased competitiveness of agriculture production and food industry, development of rural environments and sustainable use of natural resources, which can be achieved through: <ul style="list-style-type: none"> <li>- improvement of life conditions and of execution of economic activities in rural environments,</li> <li>- continuous access to knowledge and investment in human capital in agriculture,</li> <li>- completion of the functionality of the system for food safety,</li> <li>- sustainable management of natural resources and mitigation of the climate changes impact on agriculture.</li> </ul>	The goals of the MPNPG are in accordance with the main goals of this Strategy, because they are directed towards the sustainable management with natural resources and mitigation of climate change impact on agriculture.
<b>Forestry Sustainable Development Strategy in the Republic of Macedonia (2006)</b>	Some of the goals of this Strategy are: <ul style="list-style-type: none"> <li>- raising awareness about environmental and social values of forests;</li> <li>- reconciliation of forest legislation with national interests and international obligations;</li> <li>- multifunctional forest management and sustainable development of forestry;</li> <li>- improvement of possibilities for finding national and international support funds for the development of the section;</li> <li>- creation of the necessary organizational structures for the adequate capacity, in order to provide integrated management of the area;</li> <li>- creation of conditions for public financing of the activities related to sustainable forest management, maintenance of the protective and public forest functions;</li> <li>-preparation of forestry climate change adaptation programs.</li> </ul>	The goals of the MPNPG are in accordance with the main goals of this Strategy, because the Program for forest habitats management is in accordance with the Habitats Directive. Forest management is one of the modalities of financing the NP Galichica, and according to this we have to find the modality/model for sustainable forest management. The MPNPG also must forecast measures for forest adaptation to climate changes.
<b>National Tourism Development Strategy (2016-2021)</b>	Leading goals for tourism development support are: <ul style="list-style-type: none"> <li>- raising awareness of Macedonia as an attractive touristic destination,</li> <li>- improvement of the attractiveness of Macedonia as a touristic destination,</li> <li>- improvement of organizational structures in tourism,</li> <li>- improvement of the investment climate for Macedonian entrepreneurs with regard to the development of additional lodging facilities,</li> <li>- quality and quantity improvement of available tourism data,</li> <li>- improvement of the framework conditions for tourism development,</li> </ul>	NP Galichica is recognized as a touristic attraction rich with natural and cultural landmarks. The MPNPG works through a program for the development of sustainable tourism. One of the goals of the MPNPG is the development of sustainable tourism and recreation.

	<ul style="list-style-type: none"> <li>- improvement of tourism knowledge and quality of services,</li> <li>- awareness improvement of local citizens with regard to tourism.</li> </ul>	
<b>National Rural Tourism Strategy (2012-2017)</b>	<p>The main goals of this Strategy for rural tourism development are:</p> <ul style="list-style-type: none"> <li>- identification of the concept and the development strategy,</li> <li>- placement of a frame for the stimulus of the development as a part of the complete touristic offer of the RNM.</li> </ul>	<p>Even though the Ohrid-Prespa Region is known for the developed conventional tourism, yet one of the goals of the MPNPG is the development of sustainable tourism and recreation, with the possibility of inclusion in the touristic offer of RNM and realization of additional revenues for the citizens.</p> <p>PINPG has prepared a Strategy for the development of sustainable tourism in the National Park Galichica for the period from year 2021 – 2025.</p>
<b>Waste Management Strategy (2008 – 2020)</b>	<p>Some of the goals of this Strategy are:</p> <ul style="list-style-type: none"> <li>-increase of the grade of use of the waste energy potential;</li> <li>-introduction of technologies for cleaner production and sustainable management of natural resources and waste;</li> <li>-decrease of greenhouse gas emissions that waste creates, which will result in significant benefits for the citizens and the community as a whole;</li> <li>- regular management of biodegradable waste which represents a significant fraction in communal waste and waste from waste water treatment, agriculture waste, can contribute towards the decrease of greenhouse gas emissions.</li> </ul>	<p>A functional system exists for the collection and disposal of solid communal waste in the area of NP Galichica.</p> <p>It is necessary to define in the MPNPG also the activities for other types of waste removal.</p>
<b>National Strategy for Culture Development for the period from year 2018-2022</b>	<p>One of the specific goals of this Strategy is to provide the protection, management and valorization of the cultural heritage in accordance with the modern European practices.</p>	<p>The Ohrid-Prespa Region according its natural and cultural values is one of the most representative regions of the RNM. Ohrid Lake is inscribed on the UNESCO List, as the Ohrid Region with its cultural and natural-historic aspects and its environment. In the MPNPG a program exists for the management of the cultural heritage, that has to promote measures and actions in order to prevent activities that lead to the damage and destruction of the cultural heritage.</p>
<b>National Transportation Strategy (2018-2030)</b>	<p>General goals of this Strategy are:</p> <ul style="list-style-type: none"> <li>- Strengthening of the EU integration and promotion of regional cooperation,</li> <li>- Contribution towards the improvement of the economic sustainability on a national level,</li> <li>- Introduction of green mobility and logistics focused on environmental efficiency of the transportation section,</li> <li>- Establishment of a safe and secure transportation system.</li> </ul>	<p>The MPNPG has not forecasted investments in the area of improved transportation structure, because the road infrastructure in the area of the NPG is managed by the PISR, however promotes and supports improvement of the transportation systems in the direction of environmental protection and decrease of carbon emissions.</p>
<b>National Water Strategy (2011-2041)</b>	<p>The main goal of the Strategy is prevention of water pollution and preservation of the water in a good state.</p> <p>Some of the specific goals of the Strategy are:</p> <ul style="list-style-type: none"> <li>-Protection of people and material goods from harmful water effects;</li> </ul>	<p>Water management, shore land and water habitats are under the authority of MoEPP. Management of river basins is also made by MoEPP. The territory of the NP Galichica belongs to the basin of the river Crn Drim.</p>

	<ul style="list-style-type: none"> <li>-To achieve and maintain the good water status of surface and underground water bodies;</li> <li>-Water and eco-systems dependent on water protection;</li> <li>-Reconciliation of measures for water management with the users of the area from the other sections;</li> <li>-Sustainable water management with rational and sustainable water resources use.</li> </ul>	<p>Assigning a permit for water usage, for drainage in the water, i.e. excavating sand, gravel and rocks from the beds and shores of surface water bodies is under the authority of MoEPP.</p> <p>For the construction of new facilities, reconstruction or extension of existing water management facilities, that are located in the surface waters, or beside them, facilities that pass over the surface waters, or under them, or facilities located near the surface waters, or shore land, the MoEPP issues the water management consent.</p> <p>PINPG is obligated to perform the monitoring of the waters in the Park and to submit the results to the MoEPP, with which contributes indirectly to the water and eco-systems dependent on water protection. The goals of the MPNPG are in accordance with this Strategy.</p>
<b>Strategy and Action Plan for the implementation of the Aarhus Convention (2005)</b>	This Strategy forecasts an analysis of the status of the implementation of the Convention, as well as to provide directions and recommendations for the successful implementation of the Convention.	The MPNPG is in accordance with the goals of this Strategy, especially in the area of the second pillar that promotes public participation in the decision-making processes on a local level. The PINPG promotes public participation yet in the most early stages of preparation of the planning documents.
<b>Strategic/planning documents on a regional level</b>		
<b>Program for the development of the South-west planning region 2015-2019</b>	<p>Strategic goals of the Program for development are:</p> <ul style="list-style-type: none"> <li>- modern regional economy based onto high technology and knowledge,</li> <li>- education adjusted to the needs of the economic development, efficient social and health protection for the citizens of the Region and creation of conditions for stopping migration,</li> <li>- tourism development related to the natural and cultural heritage,</li> <li>- environmental quality preservation.</li> </ul>	The goals of the MPNPG are in accordance with the strategic goals of this Program, especially with tourism development related to the natural and cultural heritage and environmental quality preservation as well as with the priorities of these strategic goals that regard biodiversity and natural heritage protection.
<b>Regional Waste Management Plan for the South-West Region</b>	<p>The goals of this plan are:</p> <ul style="list-style-type: none"> <li>- Minimizing negative impact on the environment and health of people occurred because of waste creation and management.</li> <li>- Minimization of negative society and economic impact and maximizing society and economic possibilities.</li> <li>-Reconciliation with legal requirements, goals, principles and policies set by the European and national legal frame.</li> </ul>	<p>The goals of the MPNPG are in accordance with the goals of this Program. There is a functional system for collection and disposal of solid communal waste on the area of NP Galichica.</p> <p>It is necessary to define in the MPNPG also the activities for removal of other types of waste.</p>
<b>Strategic/planning documents on a local level</b>		
<b>Strategy for sustainable tourism development in the National Park Galichica for the period from 2021 – 2025</b>	The goal of this Strategy is to give directions for sustainable tourism development of the NPG through the use of the potential that exists in the region for touristic development, however taking into consideration the provisions from the legislation that regard touristic development in protected areas, as well as limitations that exist in the region, considering that almost 2/3 of the Park are located in the Natural and cultural heritage of the Ohrid Region inscribed on the UNESCO List.	<p>This Strategy is prepared by the PINPG and represents an integral part of the MPNPG.</p> <p>The goals of the MPNPG are in accordance with the goals of this Strategy. Within the MPNPG a program is prepared for sustainable tourism development, with activities directed towards sustainable tourism development on the territory of this area.</p>

<p><b>Strategy for Environmental Education of the National Park Galichica for the period from year 2021–2025</b></p>	<p>Specific goals of the Strategy are:</p> <ul style="list-style-type: none"> <li>-The existing infrastructure for informing and environmental education of visitors is continuously maintained and upgraded.</li> <li>- The wider public is regularly informed about the activities of the PINPG in the field of nature protection.</li> <li>- Promotional materials with educational and informative character are regularly prepared and distributed.</li> <li>- The activities of the PINPG contribute to raising public awareness about the need of nature preservation.</li> </ul>	<p>This Strategy is prepared by the PINPG and represents an integral part of the MPNPG.</p> <p>The goals of the MPNPG are in accordance with the goals of this Strategy. Within the MPNPG, a program is prepared for informing, raising public awareness and education, with activities that contribute to raising public awareness about the needs of nature conservation.</p>
<p><b>Draft urban plan for the Ohrid-Prespa Region (for the period from 2005-2020)</b></p>	<p>With regard to the area of the Park, several facilities are proposed for protection until the year 2020, such as, scientific-research natural reserves, on several localities (SRNR „Golem Kotel“, SRNR „Kula“, SRNR „Ostrov Golem Grad“, SRNR „Osoj“), i.e. several natural landmarks (NL „Leska“, NL „Leskoechka Peshtera“, NL „Makedonski dab“, NL „Ostrovo“, NL „Peshtera Samotska Dupka“).</p> <p>In this Plan the development of alpine skiing is forecasted on the territory of NP Galichica.</p>	<p>Because of the need of larger infrastructure, the development of alpine skiing in the Park is considered a potential danger for biodiversity. The proposal of the PINPG is to replace it with cross-country skiing that can be organized along the existing trails, with insignificant upgrading of the existing infrastructure, which will then not inflict additional pressure onto nature and biodiversity.</p>
<p><b>Urban planning of the National Park Galichica (2010-2020)</b></p>	<p>For the integral economic development of the complete area of NP Galichica, it is necessary to provide cooperation of the local and national governance, the Management of the Park, the local citizens, the business community and the NGO section in order to increase investments, open new working positions as a prerequisite for economic growth and improvement and prosperity of the economic location of the population within the National Park. The development concept forecasts the domestication of the tourism business in all available types, in all communities on all of the area of the NP excluding the strictly protected zones, then agriculture, trade and crafts development.</p>	<p>The goals of the MPNPG are in accordance with the goals and the concept of the Urban Planning of the National Park Galichica.</p>
<p><b>Management Plan for the Natural and Cultural World Heritage of the Ohrid Region</b></p>	<p>The main goal of this Plan is to valorize, protect and promote the universal natural and cultural values of the area of the World Heritage of the Ohrid Region, through the achievement of the General goals: controlled urbanization; protection of the natural and cultural heritage; sustainable economic development; strengthening the management capacities of the competent institutions and raising awareness and education.</p>	<p>The goals of the MPNPG are in accordance with the general goals of the Management Plan for the Natural and Cultural World Heritage of the Ohrid Region. The MPNPG has developed programs for the protection and improvement of the natural and cultural heritage; then the program for local development and the program for raising public awareness about the meaning of nature.</p>
<p><b>Strategic Action Plan for sustainable development of the Park „Prespa“</b></p>	<p>The main goal of the Park „Prespa“ is to promote the integrated management of the eco-system through the strengthening of the cooperation between the three states that share Prespa Lake with the participation of all concerned stakeholders.</p>	<p>The PINPG is a part of the Park „Prespa“, and the goals of the MPNPG are in accordance with the Strategic Action Plan.</p>



## 4. RELEVANT ASPECTS OF THE CURRENT STATUS OF THE ENVIRONMENT

### 4.1. Location

National Park Galichica (NPG) is located in the South-East area of the Republic of North Macedonia, on the mountain massif Galichica, includes also areas of its branches Istok and Precna Planina, as well as the island Golem Grad in the Prespa Lake. The large open surfaces towards Ohrid and Prespa Lake that limit it from the East and the West, contribute in its clear visual separation as a unique entirety.

The territory of the Park belongs in the administrative borders of municipalities Ohrid and Resen.

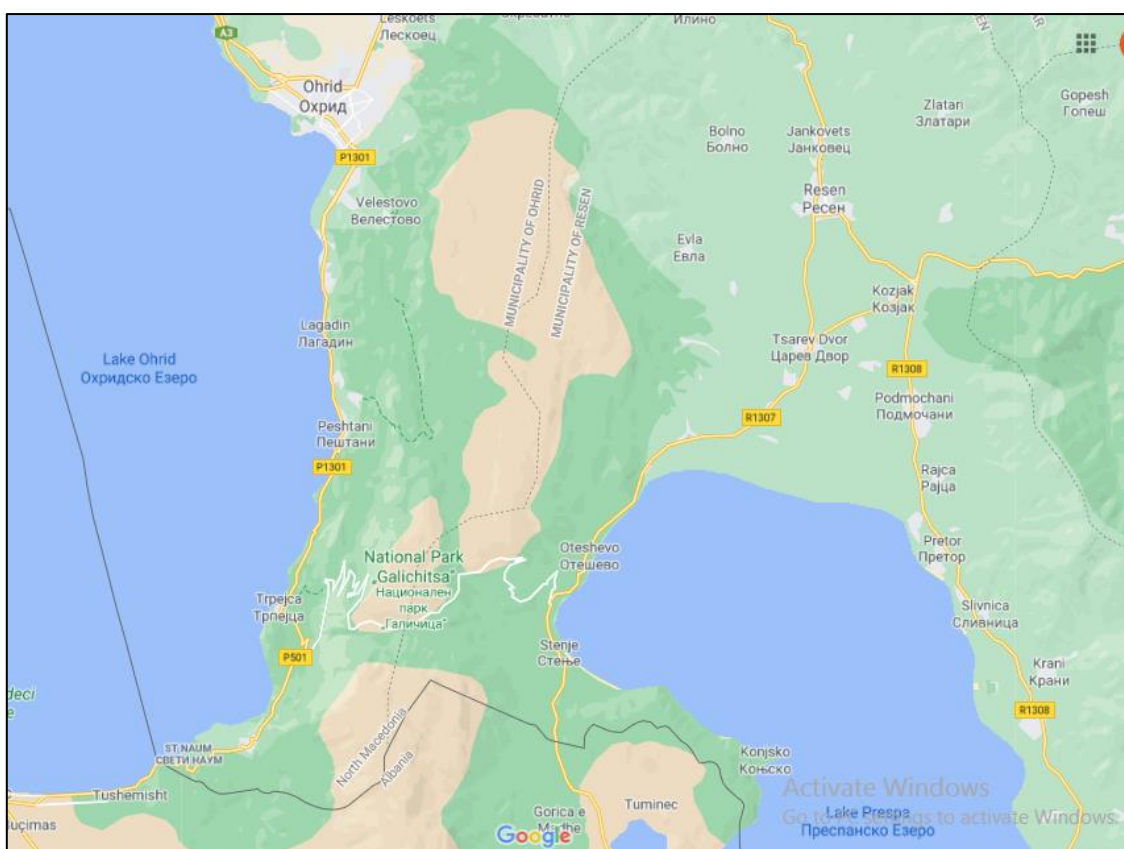


Figure 3. Location of NP Galichica

#### 4.1.1. Limits of the planning scope

Article 4 from the Law on the declaration of an area of the mountain Galichica for a NP has defined the limits of the Park.

The limit of NP Galichica initiates from the border passage at Sv. Naum, from where it moves along to the North all along the lake shore of Ohrid Lake, up until the village Dolno Konjsko. From there, near the archaeological site named Antic Furnace („Antichka Furna“) the limit rises on the asphalt road R501 (Ohrid – Sveti Naum – border with Albania) on which it moves up until the tunnel at the locality Sv. Stefan. Here the limit sharply turns to the East, leads along the valley on the right side of the road and climbs the rocky segment at the Monastery Sveti Stefan. From here the limit moves towards North-East along the local road through the



small town of Sveti Stefan, above the forest, it surfaces on the line of the new road R501 (under construction) and follows the same up until before the small town of Racha, where again it surfaces on the old lane of the road no. R501. Moving North, beside the left lane of this road, the limit passes above the springs named Biljanini Izvori until the point where the local road separates and leads to the village Velestovo. From there, the limit continues to go North until the spring named Bejbunar, and then along the side road, which merges with the street „Momchilo Jordanoski“. Before the crossroad, the limit turns sharply towards East and following the edge of the forest with a culture of coniferous species, surfaces on the walking trail, goes shortly on it towards South, up until the spot height of 765 metres. Further on, following the walking trail, the limit shortly goes South, then East up until the locality Krsti, where it sharply turns North and following the trail, surfaces on the asphalt road that leads to the village Ramne. Following the asphalt road Ohrid-Ramne, the limit moves North, lowering into the valley of the river Sushica. Here, the limit sharply turns East and follows shortly the local road that leads to the church Sveti Atanasij. Moving along the local road the limit cuts through the river Sushica and immediately after continues along the earthen trail towards North-West, passing over the spot height of 826 metres, to the spot height of 776 metres, where the local road cuts through the river Chardashnica. From this point, the limit moves along the local road towards North, until the bridge on the stream North from the Monastery Sveta Petka. From the bridge on the stream, the limit moves towards North-East and surfaces on the peak Vishesla (1563 metres). From there, the limit stretches towards South-East until the spot height of 1571 metres, from where it surfaces on the spot height of 1554 metres, and then on the peak Skala (1576 metres). Then the limit moves along the crest of Samar, through the spot height of 1 608 metres and surfaces on the spot height of 1 646 metres. From there, the limit moves East and surfaces on the peak Kukolj (1319 metres), and then it turns towards South-West and surfaces on the peak Pecilin (1424 metres). From there the limit continues to lead South and surfaces on the spot height of 1141 metres on the hill Sirhansko kale. From there, cutting the asphalt road, the limit moves towards South-East until the shore of Prespa Lake.

The limit stretches along the West shore of the Prespa Lake until the Macedonian-Albanian border, at the locality Zandanana, including also the island Golem Grad. From the locality Zandanana the limit stretches West along the Macedonian-Albanian border until the initial point at the border passage Sv. Naum.

## **4.2. Socio-economic basis**

### **4.2.1. Demographic characteristics**

The area scope of the plan coincides with the territory determined with the administrative borders of 2 municipalities: Ohrid and Resen. Furthermore, 15.586 ha of the territory of the Park belong to municipality of Ohrid, while 9.368 ha are in the borders of municipality of Resen. The total population of the Park in the year 2015 amounted 5281 citizens, of which 91% (4828) live in the municipality of Ohrid, which covers 62% of the territory of the Park. The number of citizens in the populated areas of the Park in the municipality of Resen amounts 453. In the populated areas located very near the Park – the City of Ohrid, Velgoshti and Shurlenci – the number of citizens amounts 42.032.

Witin the limits of the Park are located 17 populated places, of which 14 in the municipality of Ohrid (Konjsko, Dolno Konjsko, Eleshec, Elshani, Lagadin, Ljubanishta, Naselba Istok,

Peshtani, Ramne, Racha, Sveti Stefan, Shipokno, Trpejca, Velestovo and 3 in the municipality of Resen (Konjsko, Leskoec, Stenje).

Of the total of 5.467 citizens within the limits of the Park, approximately 54,5% (2462), belong to the category of economically active population. From the economically active population in these villages 60,3% are employed, i.e. they realize salaries and revenues on diverse basis. Tourism, service businesses and jobs related to the use of land surfaces (agriculture, forestry and similar), predominate the economy in the limits of the Park.

Migration movements in the region of the Park have happened mostly in war actions and because of economic reasons. Internal migration is noted yet in the Ottoman period, when the peasants moved into cities where life was better and safer. Also, considerable migration is noted after the Second World War, when many young fit-for-work population moved on the relation village-city. In the period from the year 1961 to 1981, as a result of the bad socio-economic status, the process of population migration from the villages within the Park into the cities is notable, as well as the leaving of mountain villages and settling in the existing populated locations, near the main roads or formation of new settlements.

#### **4.2.2. Use of the Park area**

In accordance to article 72 from the LNP, the category of protected area national park is dedicated first of all for maintaining the original natural treasure, however also for scientific-research, cultural, educational and touristic-recreational application.

##### **Nature protection**

We have previously accentuated that the Park was declared in order to preserve the forest area and the accompanying flora and fauna of the mountain Galichica. Therefore, the area management institutions have given significant attention to forest protection which contributed to the maintenance and improvement of the overall natural values of the Park. This has been confirmed several times, and recently also through the declaration of the Park for an Emerald-area, significant vegetation area and primary butterfly area. The management of the forests in the Park was closely correlated with provision of finances, mainly the sales of heating wood. This management and financing model, on the other hand, contributed that the other aspects of protection be insufficiently developed, and some of the other potentials of the area neglected, especially the development of tourism forms that value the natural features of the area, the environmental education, scientific-research work and other possibilities.

##### **Agriculture**

Land use in the Park for agriculture production marks a trend of persistent decrease in the last decades, as a result of population migration in the largest urban communities and tourism orientation.

Local population in the past on the territory of the NP Galichica worked on breeding sheep because of meat production, wool and cheese.

Production of hay for livestock nutrition on the territory of the Park, also decreases adequately. In the last years, local livestock breeders mow only the most suitable locations in the Park.

The lots that were cultivated before with several grain cultures, today are in the largest part abandoned. Today, agriculture production is mainly limited on smaller arable surfaces, near the villages where access to water for watering exists. On such locations are vegetable plants

are cultivated (potato, onion, garlic, tomatoes, cabbage, etc.), and in a smaller area grain cultures also (maize, wheat, etc.).

The plains beside the lake shores are intensively used for fruit production or grain cultures are being sown.

### **Forestry**

One of the basic management goals of the Park was forest protection and improvement. Operational costs of the Park, in the largest part are covered through the sales of heating wood in the Ohrid and Prespa Region, but also through revenues realized from touristic activities, donations and projects. Production of heating wood is planned through a ten-year “Specific plan for the maintenance and protection of the forests in the NPG” and the annual execution plans which are a part of the annual nature protection programs of the Park that MoEPP approves.

The larger part of the forests in the Park are being managed as low stem-level forests (approximately 9000 ha), and only a small part as high stem-level forests (approximately 600 ha). High stem-level forests are not used for wood production, because of the high transportation costs and low sales. A small part of the forests in the Park, represent plantations of foreign species (Black locust, Douglas-firs, Spruce and Eastern white pine). Because of the low number of livestock in the Park, on a large portion of the lower pastures diverse shrubs grow intensively. The succession at some is in a more improved stage and the same have already been categorized as low stem-level forests.

### **Recreation**

The richness of natural and cultural values, but also the location of the mountain Galichica between the Ohrid and Prespa Lake, contribute to the attractiveness of the Park for the visitors. Namely, as a part of the larger Ohrid-Prespa region, the Park enters the most significant tourism determinant of the RNM. The possibility of vacation, recreation and the natural values of the Park, represent the main reason to visit the area. Visiting the Monastery Complex „Sveti Naum”, as well as the closeness of the beaches of Ohrid Lake, are the most significant categories in the decision of the visitors to see the Park. The number of visitors on this locality is estimated to be approximately 200 000 a year, of which the largest part are visits from local citizens, from the communities in the Park. Visits are more frequent in the summer, as well as for the state and religious holidays. Increased visits of the mountainous area of the Park by local citizens is noted during the summer when the Ohrid tea, medicinal herbs and forest fruits are collected.

In the past attempts were made to develop the infrastructure for winter sport and recreational activities on the locality Korita and the North slope of Stara Galichica.

The PINPG, the local communities and CSO’s in several attempts marked and cleaned a larger number of walking trails in the Park, that have the relevant infrastructure for the support of visitors (roadmaps, informative boards, rest areas etc.): the cycling road from the visitor centre Ohrid to the locality Dva Javori i.e. to the v. Konjsko, the environmental education trail near the visitor centre Ohrid, the walking recreational trail from the v. Trpejca to the locality Chokolsko, the natural historic road on the island Golem Grad, the mountain trail from the locality Lipona Livata to the peak Magaro, and the road from the locality Dva Javori to the mountain house Sharbojca and its two sides to the peak Goga and the cave Samatska Dupka. Of the other visitor infrastructure, we have to mention the mountain house Sharbojca, the new centre for visitors Ohrid, the excursion locations Korita and Jadera and the viewpoint

location of Koritski Rid. The locality Pogled, near the village Velestovo has a paragliding starting point that was used also during the World Cup in precise landing of paragliders.

### **Hunting and fishery**

In accordance to the Law on hunting (Off. Gazette of the RM, no. 26/09, 82/09, 136/11, 1/12, 69/13, 164/13, 187/13, 33/15, 147/15, 193/15 and 83/18), if the Government of the Republic of North Macedonia upon the proposal of the Minister for agriculture, forestry and water economy, in accordance with Article 28 paragraph 3 has established the Hunting locations with specific purpose on the area of the National Park Galichica, the same will be given for the management to PINP Galichica in accordance to Article 29 paragraph 2. These provisions from the Law on hunting are contrary to the provisions of the LNP where in Article 23 paragraph 13 is defined that the collection of the concerned and protected species of plants, fungi, animals and their parts on the territory of the protected area is forbidden. Still, besides the ban, in the Park we notice cases of poaching. Within the Park there are no larger fish populations of commercial significance. Of the several permanent streams in the area, fish is noted only in the river Cherava. Illegal fishery of smaller size is noted at the springs of Sveti Naum.

### **Medicinal herbs and forest fruits collection**

The population of the Park, but also from the region, collects several herbs and forest fruits, for their needs or for further trade. The PINPG in the past did not perform systematic control of the collection and did not collect payments for the right to use of this natural treasure.

From the medicinal herbs that are being collected in the Park, the most significant is the Ohrid tea (*Sideritis raeseri*). The tea is collected for personal use or for sales. From the other products in the Park the female berry/cones of the common juniper (*Juniperus communis*) are economically more significant.

In the Park a small number of mushroom collectors have been noted, due mostly to the unfavourable conditions for the development of the species with market value.

### **Metals and minerals usage**

On the territory of the Park there are no permanent capacities for the use of metals and minerals. We found specific reserves of clay in the vicinity of the village Stenje, however these do not have economic potential. In the past, from Trpejchko Pole chalk/limestone has been exploited for construction work. Besides that, on several locations in the Park in the past rocks for construction work have been excavated or for the production of quicklime, for example near Ohrid, at the locality named Gluvchi Dol and Bejbunar, in the vicinity of the villages Oteshevo and Leskoec and on other locations. Also, in the beginning of the 60's, during the construction of the rock filled dam on the Globochica accumulation, larger quantities of sand were excavated from the South shore of Ohrid Lake and Ljubanisko Pole. Besides these, from time to time we note also the illegal sand digging by the local population around Stenje and Ljubanishta.

### **Water usage**

The Park has a small number of springs and surface water flows. The most significant streams and rivers are found in the North area of the Park, on the contact line between the gneiss and the karst (Letnica, Velgoshka and Chardashnica). On the Ohrid side of the mountain, the largest part of the affluent springs is captivated for the needs of the water supply system of the City of Ohrid or the local water supply grids of the villages.

The mountain area of the Park has several small wells that are being used mainly for the needs of livestock. In the past, the mountain belt, along the larger karst fields and besides the villages the farmers have built several pools for livestock water feeding.

The natural and artificial pools are important habitats for several groups of animals in the Park, especially some of the species invertebrates, amphibians, birds and large mammals. The pools have a key role for these species during the summer months when the other natural surface waters dry up.

At a part of the pools the ingrowth and build-up of deposit and erosion sediments contribute to the decrease of the water flow, i.e. the volume of the pool, and with that also the quantity and time of retention. The pools with concrete base, except the one at Kosto Bachilo, are completely dry because of cracks in the concrete and/or grass ingrowth and forestation of their bed area. Because of the environmental, and economic significance, rehabilitation has been performed on several pools.

### **Environmental education and scientific-research activities**

In accordance to the LNP, the national parks in the Republic of North Macedonia are dedicated to the protection of natural areas because of cultural, scientific, educational, touristic and recreational goals. As previously mentioned, this is in line with the IUCN recommendations. Still, in the period after the declaration of the Park modest results were achieved in the field of environmental education. Among the main reasons for this status we deem also the model of (self)financing of the Park that supported mainly employment of personnel with forestry education i.e. Investments in infrastructure, facilities and technical assets mainly for the needs of the forestry and related activities.

In order to improve the status, the five-year Strategy for environmental education and PR is a part of the MPNPG, that has the goal to prepare and distribute informative content about biodiversity and other significant natural characteristics.

The mountain Galichica with its natural rarities, the rich flora and fauna was subject of many studies and scientific research in the past.

### **4.2.3. Economic development**

During the review of the economic development of the NP Galichica, activities in the municipalities of Ohrid and Resen have been reviewed.

On the wider city area of Ohrid is located the industrial zone of the city, that stretches on the periphery, in the suburbs Kosel and Leskoec where the largest factories in Ohrid are located. Besides tourism, industrial capacities and diverse businesses make Ohrid attractive also for business, therefore, the last years more and more foreign companies look for partners and market placement in the RNM through companies from Ohrid.

In the tourism sphere the largest companies are the complex „Metropol i Belvi“, „Ineks Gorica“ and „Ohrid Turist“.

While the largest companies with other businesses in Ohrid are:

- Food industry: „Labrador“, dairy industry;
- Milling-baking industry: AD „Zhito leb“, for the production of bread and pastries;
- Metal-processing industry: „Vior-Rostfraj“ for production of utensils and eating dishes for from rostfrei, „Alatnica“, for the production of special tools, MG „Learnica“, for the production of zinc and aluminium castings, „Elkom“ for the production of springs, nails and pins, DOOEL „Melin“;

- production of traffic vehicles: AMAK-SP, for the production of vehicle parts and household appliances;
- production of electric appliances and machines: „EMO“ for the production of energy transformers, low-voltage systems, automatics and electronics;
- non-metal industry: „Mineral“ for the production of concrete base, marble and granite products;
- chemical industry: AD „Lihnida“ for the production of plastics for households, transportation products, „Andros“ for production of cosmetic products;
- wood industry: „Zem-Promet“ for the production of steamed beech timber and beech elements, „Immobilare“ for the production of furniture, DOOEL „Shikomak“ for the production of furniture, „KENTERS“ for the production of furniture, DOOEL „Ago dekor“ for the production of furniture, DOO „SUIL“ for the production of wood;
- production and processing of paper and graphics: Print house „Kosta Abrash“, graphics and paper processing;
- textile industry: „Timeks“, „Toma-teks“, DOOEL „Evro-dzins“, „Vesumar“;
- leather-processing industry and rubber production: RR „Bambini“, „Trijus“, and „Sab“ for shoe production;
- alcoholic and non-alcoholic beverages: „Slovin Tem-Hem Product“, DOOEL for the production of non-alcoholic beverages;
- tobacco industry „Tabak Tutun“ for the production and processing of tobacco-fermented tobacco.
- PN metal.

The economic structure of municipality of Resen consists of approximately 400 smaller and larger business subjects. The main industrial branches are:

- textile industry: „Hateks“, „Stenje-teks“, „Krznoteks“, AD Konfekcija Resen, „Bambiteks“;
- chemical industry: AD „Prespaplast“ for the production of PVC profiles, „Hemiski vlakna“ for the production of plastic packaging;
- food industry: „Agroplod“ for the production of pastry products, „Zhito Resen“ for the production of bread and pastries, „Proimpeks-IPOZ“ for the production of juices and juice concentrate;
- metal-processing industry: „Algreta“ for the production of aluminium alloy;
- wood industry: „Interbrauk“ for furniture production, „Interna“ for the production of final products from wood, DOO „Prespa“ for the production of wooden construction materials;
- construction materials industry: IGM „Sloga“ for the production of baked clay products;
- tobacco industry: „Maktutun“, for the production and processing of tobacco-fermented tobacco;

The local population in the villages works mostly with agriculture production. Dominant agriculture branch is orcharding and most of all apple production. Climate conditions and altitude are adequate for apple cultivation.

The touristic business in the municipality of Resen, now is relatively small and developed seasonally. Several hotels exist in the v. Stenje, v. Carev Dvor, the touristic community Pretor, and rural tourism is represented by renting house rooms in the villages Ljubojno, Brajchino, Pretor, Dolno Dupeni, Konjsko and Stenje. The biggest part of the capacities is operational only in the months of July and August.

#### **4.2.4. Tourism**

Ohrid-Prespa region is one of the most significant touristic locations in the Republic of North Macedonia, even wider. According to data from the Agency for tourism support and the State Statistics Office, in the RNM continued growth of tourism exists from the year 2000 to 2018 and there is a continuous increase of domestic and foreign tourists. For ex. If in the year 2000 the number of tourists was something less than 200.000, in the year 2018 this number increases above 1.000.000. Statistical data in the area of lodging and tourists in the mountain regions of the Republic of North Macedonia show increase also in the area of lodging as well as in the area of visits by domestic and foreign tourists.

For the larger part of these touristic visitors of the Republic of North Macedonia the touristic capacities within the Park are a final or one of their destinations.

The mountain Galichica is a known touristic destination in the state, but also in the region thanks to the impressive natural characteristics that characterize and distinguish it from the rest of the mountains in the state and the region. The quality of the natural environment represents more often the main attraction for the tourists and a larger number of protected areas around the world attract numerous visitors.

The development of sustainable tourism of the NPG is in tight correlation with certain characteristics that can be considered the basis for touristic activities. Sustainable tourism must lean on comparative area benefits, such as the rich and significant biodiversity, the natural surroundings, peace and quiet, characteristic location between the two lakes, the typical karst region and other. Such possibilities can be drawn to visitors in several modalities, for example through walking, mountaineering, birdwatching, photo-safari, phyto-safari, mountain biking, paragliding, panoramic rides, cross-country skiing, monastery tourism, speleological-tourism, rural tourism and other. For a successful development of sustainable tourism, the Park must integrate within the larger touristic offer of the region and the state. NPG offers to visitors numerous recreational and touristic offers. For those that like recreation and enjoy nature access is provided to dedicated walking, cycling and mountaineering trails. A large number of visitors decide for a one-day excursion in the locality Korita, that is located along the regional road Ohrid-Trpejca-Carina-Resen, on the West slopes of the mountain, above the village Trpejca. You can arrive to this locality also through the marked walking trail from the community Peshtani. The most visited destination in the Park, is still the recreational-touristic complex at the Monastery of Sv. Naum, close to the border with Republic of Albania. Each year a large number of tourists come to enjoy this place where the natural, spiritual and cultural heritage of the Republic of North Macedonia intertwine in a harmonic entirety with exceptional beauty.

Still, some of the most beautiful part of the Park are hardly reachable, such as the island Golem Grad in the large Prespanko lake - the only island in the Republic of North Macedonia. The National Park Galichica is also a popular destination for paragliding. The starting off platform is mostly the locality of Baba, on the regional road Ohrid-Trpejca-Carina-Resen, and you can safely land on the beach at the camping „Ljubanishta“, but also the starting off platform at „Pogled“ near Velestovo, from which you can safely land on the sports stadium in Ohrid. The two platforms are adequately arranged and registered with the Agency for aviation of the Republic of North Macedonia.

A large part of the touristic and restaurant capacities in Ohrid and Prespa are located in the limits of the NPG. Besides numerous hotels from medium and high category, you can find

lodging also in the houses in the several villages and communities on the shore, as well as in the several camping sites.

NP Galichica has the potential for the development of other types of tourism also, such as for ex. Cultural tourism, religious tourism, archaeological tourism, health tourism, scientific tourism, religious-monastery tourism, gastronomic tourism, congress tourism, mountain tourism etc.

#### **4.2.5. Health of population**

NPG thanks to its climate characteristics has a therapeutical value. Of the climate factors and elements that impact the therapeutic effects, the most important are the daily and nightly temperature oscillations of air, the duration of the annual insolation and the strength of luminosity, as well as the day and night air currents. Such climate characteristics and balanced temperatures have a calming effect on people that stay on the territory of the Park.

Of all stated characteristics of the NPG we can conclude that, excellent possibilities exist for the development of health tourism in this region.

Except for these characteristics of the Park, a basis or a prerequisite for the development of health tourism in Ohrid, is the presence of both specialized health institutions, the Prevention, treatment and rehabilitation institution for cardiovascular diseases "Sveti Stefan" and the Special orthopaedics and trauma hospital "Sveti Erazmo". Data from the Prevention, treatment and rehabilitation institution for cardiovascular diseases "Sveti Stefan".

### **4.3. Geologic, geomorphologic and relief characteristics**

#### **4.3.1. Geologic characteristics**

The main geologic base of Galichica is from Palaeozoic metamorphic silicates, covered with a layer of massive porous limestones, thick 500-550 m. Because of the porosity of the massive limestones an underground connection exists of the Prespa and Ohrid Lake that is scientifically confirmed. The waters of Prespa Lake on the western slopes of Galichica gush at many shore and underwater karst springs. The most impressive karst springs of the Ohrid Lake are the springs with the Monastery Sv. Naum.

#### **4.3.2. Geomorphologic appearances**

The mountain Galichica has an explicitly tectonic character (horst), risen between the two lake basins. On the mountain Galichica dominant morphogenetic processes that have participated or participate today in the creation of relief forms are: karst, glacial and periglacial.

Micro and macro-relief surface karst forms are noted, initiating with karren, numerous sinkholes and karstified dry slopes to karst fields. Of the underground karst forms there are registered a dozen caves and two vertical shafts.

The biggest surface karst forms on the mountain Galichica are represented with karst fields: Suvo Pole, Sharbojca (Acan Gjura), Vardulj and Gjafa.

On the mountain Galichica there are built a dozen underground karst forms (caves and vertical shafts).

**Naumova Peshtera** is one of the most interesting caves beside the shore of Ohrid Lake. A specific characteristic for this cave is the richness of cave ornaments, and also represents a significant habitat for some types of bats.



**The cave near the village Leskoec (Prespa)** is located in the immediate proximity of the village Leskoec, i.e. under the peak Strnina. This cave also represents a significant habitat for some types of bats.

**Cave Voila**, or also known under the name Skalana is located west from the road Ohrid - Suvo Pole, towards the village Konjsko. The cave Voila, represents the richest with ornaments (numerous stalactites, basins and cave pillars) of all caves of Galichica.

**Cave Samotska Dupka**, is located on the East side of the karstified valley Studino, basically represents a fossil river cave, i.e. a cave through which an underground water flow leaks.

**Propast `Rblok**, is located on the East of the village Peshtani, i.e. on the South-East of the village Elshani on the area named Gumenci.

#### **Fossil (relict) glacial relief**

The sea level of Galichica and the adequate morpho-plastics have provided during the Pleistocene on specific part an ice mass to be accumulated, which has resulted with the creation of a glacial relief. On all the mountain Galichica located on the territory of the Republic of North Macedonia only two nivation cirques have been built.

#### **4.3.3. Relief characteristics**

Mountain Galichica is a part of the Shara Mountain and Pind Mountainous system. It covers the most South part of the geotectonic unit of the West-Macedonian zone.

Today's format of the relief is basically due to the tectonic activities along the two main faults: Kosel-Ljubanishta and Oteshevo. Furthermore, to the final shaping of the relief contribute the massive limestones, the radial tectonics and the glacial and river erosion. All this contributed that Galichica has a developed and interesting relief, with characteristics that separate it from other mountains.

The crest of Galichica is a wide fluvial denudation limestone surface, interrupted with the fault line from the village Leskoec on the side of Prespa, to the village Trpejca on the side of Ohrid.

The fault line Leskoec – Trpejca divides the only massif in two parts. The South part is known as Stara Galichica (Old), while the rest is mostly called Galichica. The North part of Galichica, is being separated by local citizens into two parts, named Petrino and Istok.

#### **4.4. Climate characteristics**

Ohrid-Prespa Region has a moderate continental climate. The climate is being impacted by the closeness of the Adriatic Sea, the large quantity of water in the Ohrid and Prespa Lake and the tall mountains that surround both valleys.

Ohrid valley belongs to the warm continental climate area and up to altitude of approximately 800 m.

The climate of Prespa valley belongs to a moderate continental climate area and up to altitude of approximately 1100 m.

On Galichica, on altitudes above 1100 m also cold continental climate area is located as well as high mountain climate area.

Cold continental climate area covers the parts of Galichica with altitude of 1100 to 1700 m. During the vegetation period the average air temperature amounts 12,6°C, and autumn (8,3°C) is warmer than spring (6,7°C). The distribution of rainfall is irregular, winter with 335 mm water deposit and autumn with 326 mm have the most rainfalls, while summer with 138 mm water deposit is the driest period. During the vegetation period 379 mm water deposit

falls or 35,5% of the total amount of rainfall. This regards the area of forests where humid climate spreads.

High mountain climate area is connected to cold continental climate area and stretches on altitude of 1700 to 2200 m. The impact of the high mountain climate area is felt in the zone of the high mountain grass communities of Stara Galichica, but also on the rest of the higher peaks of Galichica. That this regards a crude climate area, indicates undoubtedly the overgrowing vegetation, and which is mostly low-level grass with rare and small lying half-bushes and bushes.

#### **4.5. Seismic characteristics**

Contemporary tectonic activity, as the consequence of the basic stages of the Alpine orogeny, represents a continuation of oscillating movements of separate blocks connected mutually with diverse discontinuities. It can even be felt today through the frequent seismic activity of specific parts of the terrain of the region. This seismic activity connected to the border zones regards the South part of the region that covers the Ohrid-Struga and Prespa depression, as well as a part of the terrain along the river Crn Drim, starting at Struchko pole up until the Debar Neogene basin. A permanent and irregular raising of the terrain with the creation of flexures and faults is present in this area. From a seismic aspect of special significance are the faults that stretch along the East shore of Ohrid Lake towards the mountain Galichica and the East part of Strushko pole. A smaller number of hypocentres are connected to these faults with mostly seismic intensity of 70 MCS and several with higher intensity of 8-90 MCS. These shocks, as well as the ones occurring on adjacent terrains, have conditions the complete terrain of Ohrid-Struga valley and the Prespa rim area of the mountain Galichica and Pelister, to belong to the zone of 80 MCS according to the maximum seismic intensity, the next to shore areas in the zone of 90 MCS, and the rest of the region in the zone of 70 MCS.

The biggest part of the terrain in the region belongs in the zone of intensive raising. In the direction of Struga, Ohrid, Resen and Bitola intensive irregular raising is noted, which represents one of the basic factors for seismic shocks. This confirms that the biggest part of the region is exposed to contemporary shocks.

#### **4.6. Hydrological characteristics**

The massif of Galichica is one of the poorest with surface and groundwater in the RNM. This especially regards its higher parts and Stara Galichica. Because of this status it has gotten the name Suva Planina (Dry Mountain).

##### **4.6.1. Groundwater**

The underground connection of Ohrid and Prespa Lake was the scope of research of a large number of hydrologists. With diverse methods, i.e. with the use of diverse tracers this connection has been confirmed several times.

- the quantity of water with origin from Prespa Lake in the springs Sveti Naum and Tushemishta (Republic of Albania) moves approximately around 50%. The rest of the 50% are rainfalls. Different from these two springs, the underground connection at Biljanini Izvori near Ohrid is rarely confirmed:

- with regard to the speed with which the water passes under Galichica data are very diverse. Briefly until now we have noted the time of 6 hours for which the tracer dropped into the waters of Prespa Lake has appeared in the spring Tushemishte. However, a part of this extreme in the most part of the cases the water under Galichica stands for at least a year;

- the standing of the water for a longer time period indicates that at the beginning of the mountain there are large reservoirs of water sinking from Prespa Lake where the water is stored, and then through channels and cracks comes into the Ohrid Lake. The different speed of coming of the water confirms also that under Galichica there is no unique channel with which the lakes are connected however there are numerous channels/cracks;
- significant changes in water level of the Prespa Lake are the result of several factors. Besides others, the status also has an impact (openness for water flow) of underground channels/cracks and the quantity of deposited sediments in the reservoirs.

#### **4.6.2. Surface water**

The only water that flows within the limits of the Park is the river Cherava and only its lowest flow to the entrance into Ohrid Lake. The source and the largest part of the river are located in the Republic of Macedonia.

The rare springs are with small capacity and in the largest part are covered (in concrete reservoirs) for drinking water supply for the communities formed on the slopes of the massif. This is the case with the springs in the locality Vojtino above the village Ljubanishta, the spring Vrshtek above the village Elshani, the spring Selishte above the village Velestovo and surely the largest and highest capacity springs in the locality of Letnica above the village Ramne that are captivated for the needs of the city of Ohrid.

Because of the high water need for the herds of sheep that in the past spent the summer grazing on the pastures of Galichica, 19 pools have formed that were regularly maintained. Besides the pools also 19 wells have been built in the past and 3 concrete reservoirs. Same as the pools the biggest part of them have dried up.

Because of the large natural value, including also the hydrologic, special attention is to be given to the spring at the Monastery Sveti Naum. It is located on the end South-East part of Ohrid Lake. It consists of two portions. The first is elongated looking like a lowland river and by its characteristics is a typical representative of karst springs. We note numerous underwater springs on its bottom. Besides them and especially along the South shore there are shore springs. The second portion is located downstream from the first and is wider and with a circular form. Two islands have formed inside it. The end North part of the spring through a draining long 10 to 12 is connected to the Ohrid Lake.

The small lake is formed by 15 shore springs and around thirty underwater springs. Because of the stability of the springs the water line of the small lake varies very little. The water line of the small lake is not impacted by the changes in the water line of Ohrid Lake. The depth of the small lake is different, however in the biggest part it moves between 2 and 3 m. The biggest depth is 3,5 m.

#### **4.7. Pedological characteristics**

The soil as a natural historic body is created as the consequence of the mutual complex action of all paedogenic factors (climate, vegetation, parent substrate, animal organisms, relief, time and people). Because of the heterogeneity of the environmental conditions: climate, orographic, geologic-petrographic, hydrographic and vegetative, on the mountain massif have been created a large number of soil types and sub-types.

You can find the following soil types on the mountain massif Galichica:

**Entisols:** type leptosol and type egosol

**Fluvisols:** type fluviatile (alluvial) soil (fluvial fluvisol)

**Mollisols:** type limestone - dolomite chernozemic (kalkomelanosol), ranker soil type and rendzina soil type

**Vertisols:** type smolnica

**Cambisols:** type cinnamon-coloured forest soil, type red podzolic soil, type brown podzolic soil on limestone and dolomite and type brown forest soil

**Luvissols:** type ilimerized soil.

## 4.8. Biodiversity

### 4.8.1. Flora

#### Algae

Special significance for algae flora has the spring of Sveti Naum, located within the limits of the Park and represent at the same time one of the largest water resources of Ohrid Lake.

According to available knowledge, you can find 117 algae taxa in the springs of Sveti Naum which belong to several diverse types, such as blue-green algae (bacteria) (*Cyanophyta*), silicate algae (*Bacillariophyta*), red algae (*Rhodophyta*), yellow algae (*Xanthophyta*) and green algae (*Chlorophyta*). The most richly represented is the group of silicate algae (*Bacillariophyta*), represented with 27 taxa known only for Ohrid Lake and the springs of Sveti Naum (*Gomphonema balcanicum*, *Amphora sancti-naumii*, *Caloneis meridionalis*, *Cocconeis robusta*, *Cyclotella hustedtii*, *Epithemia lunata*, *Epithemia lunata var. obesa*, *Navicula xastate*, *Navicula jakovljevici*, *Navicula perturbata*). Besides local endemism, in the spring of Sveti Naum live also significant algae populations that are rare in North Macedonia or wider, such as: *Sellaphora pupula f. rostrata*, *Sellaphora seminulum*, *Caloneis alpestris*, *Cocconeis placentula var. Lineata*. Besides local endemism, in the spring of Sveti Naum live also significant populations of algae that are rare in North Macedonia or wider, such as: *Sellaphora pupula f. rostrata*, *Sellaphora seminulum*, *Caloneis alpestris*, *Cocconeis placentula var. lineata*, *Cocconeis pseudothumensis*, *Audouinella pygmaea* and *Navicula xasta*.

#### Lichen

Lichens (lichenicolous fungi) in the RNM are insufficiently researched and the number of registered species (340) is very small in comparison to some West European countries. It is stated that the coverage of the trees with lichen thallus on the Ohrid side of Galichica (above 80%) that originates from the representatives of the generation: *Usnea*, *Bryoria*, *Ramalina* and *Parmelia*. Because of low research of the area, some especially rare and endangered species are not listed, however as rare we could note the following species: *Physconia enteroxantxa*, *Usnea filipendula*, *Bilimbia lobulata*, *Lecanora chlorotera*, *Lecanora varia*.

#### Embryophytes

The mountain Galichica is located between our largest natural lakes (Ohrid and Prespa Lake), that represent a type of a thermostat, that regulates the climate of the larger space, not permitting extremely high summer temperatures as well as extremely low winter temperatures, which leads to the presence of one mellow continental climate with medium sub-Mediterranean impact. Therefore, from the side of Ohrid, in the lowest parts of the mountain, in its feet between Sveti Naum and the v. Peshtani, a large number of Mediterranean and sub-Mediterranean wooden and bush-like vegetation species are present, such as the Oriental hornbeam (*Carpinus orientalis*), the downy oak (*Quercus pubescens*), the Macedonian oak (*Quercus trojana*), Greek juniper (*Juniperus excelsa*), Common fig (*Ficus carica*), cade juniper (*Juniperus oxycedrus*), wild asparagus (*Asparagus*

*acutifolius*), together with a large number of grass plants with Mediterranean, i.e. sub-Mediterranean areal of spreading, such as *Convolvulus elegantissimus*, *Hyssopus officinalis* var. *pilifer*, *Biarum tenuifolium* and other. From the side of Prespa the impact of the Mediterranean can be noted the best on Precna Planina (between the v.Stenje and the v.Konjsko), as well as on the island Golem Grad, where you can also see a large number of Mediterranean and sub-Mediterranean species (*Juniperus excelsa*, *Euphorbia characias* subsp. *wulfenii*, *Lilium heldreichii*, *Biarum tenuifolium*, *Celtis glabrata*, *Centaurea graeca* and others). A larger number of vegetative elements from the parts farthest on the South of the Balkan Peninsula and the Anatolian Peninsula, in its tendency to extend its areal toward more Northern parts of the Balkan Peninsula, on the mountain Galichica have reached its farthest to the North border or that is one of the farthest North points, such as - *Rindera graeca*, *Acantholimon ulicinum*, *Sideritis raeseri*, *Morina persica*, *Jurinea micevskii* and others. At the same time, some alpine species here reach farthest to the South border (*Sibbaldia procumbens*). Some species on the mountain Galichica reach its East limit of spreading on the territory of the Republic of North Macedonia, as is the case with the Bosnian pine (*Pinus heldreichii* var. *leucodermis*), which on the Balkan Peninsula mainly stretches from the South Dalmatian and mountains of Herzegovina to the South up to the Pind.

Some parts of the mountain Galichica, especially the locality Zli Dol, represent true shelters (refugiums) of specific species from the old tertiary flora which here, because of the favourable local environmental conditions, have found their shelter during the Ice Age, when a large number of old tertiary plants have withdrawn before the glaciers. This is the case with the tertiary relict *Aesculus hippocastanum* (European horse-chestnut) that represents a floristic rarity of the mountain Galichica and can be found only on this locality, and is with a very limited spread in the rest of the Republic of North Macedonia (Crn Drim, Garska Reka, Lopushnik). This locality represents a refugium also for the Balkan tertiary relict *Ramonda serbica*, which represents a remainder of the tropical family *Gesneriaceae*.

The vegetative species that have been found for the first time on this mountain and represent its trademark have a special significance for the mountain Galichica. Namely, on the mountain Galichica classic places of finding (locus classicus) of more than 30 vegetative taxa are found, of which the largest number are with a valid taxonomic status. The bigger number of species, described from the mountain Galichica, are for now only known within the limits of the Macedonian part of this mountain and represent its local endemic species. This is the case with the following species: *Bupleurum mayeri* Micev., *Centaurea galicicae* Micev., *Centaurea tomosii* Micev., *Dianthus galicicae* Micev., *Dianthus ochridanus* Micev., *Edraianthus horvatii* Lakušić, *Festuca galicicae* Mgf-Dbg, *Helichrysum zivojinii* Černjavski & Soška, *Laserpitium ochridanum* Micev., *Micromeria kosaninii* Šilič, *Nepetaernesti-mayeri* Diklić & Nikolić and *Sempervivum galicum* Micev. Every one of them has a specific meaning and a special place in the biodiversity of the mountain Galichica, however it is necessary to separate between these the two endemic species from the gender *Centaurea* – *C. soskae* and *C. galicicae*, that are with a very limited spreading and develop on the steep limestone cliffs that rise above the Ohrid Lake – between the monastery of Sveti Zaum and the v. Peshtani (*C. soskae*), as well as on the limestone cliffs besides the Prespa Lake, between the v. Stenje and the v. Konjsko (*C. galicicae*). In order to define the biodiversity of a specific protected area, the present taxa that represent a part of diverse internationally accepted conventions or red lists have a special significance, such as the world-wide **IUCN Red List of Threatened Species**, the **Bern Convention (Annex I)**, the **Habitats Directive (Annex IVb)** and others. The mountain Galichica

has present taxa from the world-wide IUCN Red List of Threatened Species also present mostly in all the areas of the mountain, from the lowest parts up to the sub-alpine belt.

Furthermore, it is important to note that within the limits of the Park the only finding places have been registered of a larger number of vegetative taxa such as: *Angelica palustris* (Besser) Hoffm., *Alyssum subvirescens* Form., *Astragalus gremlii* Burnat, *Celtis glabrata* Steven ex Planchon, *Cepxalaria setulifera* Boiss. & Heldr., *Coronilla vaginalis* Lam., *Crepis vesicaria* L., *Cytisus procumbens* (W.K.) Spr., *Damasonium bourgaei* Cass., *Euphorbia cvaracias* L. subsp. *wulfenii* (Hoppe ex W. Koch) A.R. Smith var. *sibthorpii* (Boiss.) E.S.Boiss, *Gnapxalium hoppeanum* Koch. and others.

### **Fungi**

PINPG, in comparison to the other parts of the country, is one of the mycologically best known regions. As a result of all stated research until now more than 200 species of fungi have been published for the area of the Park. Based on research until now of the diversity of fungi in the Park we have found more than 480 species, of which the largest part are macromycetes that belong as a taxonomy to the type Basidiomycota, and a smaller part to Ascomycota. Macromycetes are researched very little and data exist only for a small number of parasite species, while for aquatic fungi no data exist at all.

The most species collected are the Oak (*Quercus* spp.) and the Beech. The biggest part of registered species is not characterized with substrate specificity even though species come specialized for one gender, even a host specie. The fungi of the Park are rich with very rare species which are a part of several national and global red lists or have been covered in another modality in documents that treat significant, rare and endangered species. It is important to note that the communities of the Greek juniper are rich with very rare species of fungi and from a mycological aspect these are the best researched forests of this kind in Europe.

With regard to threatened species the status is the following: 25 species are on the European Red List of threatened macromycetes, 20 species belong to the preliminary Red List of fungi in the Republic of North Macedonia, 5 species are a part of the globe of 50 threatened species in Europe (ECCF project) and one specie is a candidate for protection within Annex 1 from the Bern Convention. As key species for identification of primary fungi areas have been selected 10 species of macromycetes. Eight species are economically significant, and local communities massively collect ceps (*Boletus edulis*, *B. aereus* and *B. reticulatus*), the Caesar's mushroom (*Amanita caesarea*) and Chanterelle (*Cantxarellus cibarius*).

### **4.8.2. Fauna**

Besides the fact that the mountain Galichica is not comparable with other mountainous massifs with similar dimensions and altitude, as well as the fact that a lot of the taxonomic groups have been very superficially tested, Galichica has the highest level of treasure with species of fauna and presence of relict and endemic species, not only in comparison to other mountains on a national or regional level, but also within Europe.

### **Specie treasure**

The total number of taxa from the fauna noted until now on the territory of the Park amounts above 3230, which represents an abnormally high diversity of an area of only 25.000 ha. According to the existing knowledge this number is probably even higher considering that a dozen of species, even though not yet registered in the Park, there is a high probability that they populate it.

### **Specie heterogeneity**

Besides the richness of species, another exceptional characteristic of the fauna in the Park is the heterogeneity. The origin and the genesis of the fauna in the Park are tightly connected with the regional geologic history and climate changes during the glacial era, in the Pleistocene, the interglacial stages and the post-glacial period, as a result of several massive fauna migrations and mixing of fauna with diverse zoo-geographical regions. According to this, by its structure, the current fauna in the Park is highly heterogeneous, consisting of diverse complexes of fauna elements, concentrated in a relatively small area. This results with the situation where Mediterranean species coexist with Alpine, Siberian and steppe species.

### **4.9. Natural Heritage**

On the Ohrid region territory, the following localities have been identified as world heritage with natural values:

- Sveta Bogorodica Kalishka - sublacustrine springs;
- Kalishta - the unique natural heritage of the yellow waterlily (*Nuphar lutea*) on Ohrid Lake;
- Podmolje - the most distributed common reed belt (*Phragmites australis*) on Ohrid Lake, natural habitat of threatened bird species and carp spawning ground;
- Mazija - revitalized natural habitat of the yellow waterlily (*Nuphar lutea*), carp spawning ground and bird habitat and nesting ground;
- Studenchishko - macrophyte vegetation and carp-like fish spawning ground;
- Veli Dab - sublacustrine springs, trout spawning ground and biodiversity of bental fauna;
- Velja Pesh - sublacustrine springs, trout spawning ground and biodiversity of bental fauna;
- Sveti Petar - shore and sublacustrine springs, trout spawning ground and biodiversity of bental fauna;
- Springs of Sv. Naum - the richest springs of the Ohrid Lake, trout and carp-like fish spawning ground and biodiversity of bental fauna.

The monument of nature - Ohrid Lake is known as a superlative natural phenomenon. With a geological and biological history of 2 -5 million years, it is recognized as the oldest natural lake in Europe and one of the oldest lakes in the world. The lake basin supports the same rich and significant biodiversity and a large number of endemic species. This water eco-system from the scientific point of view, is between the most significant water eco-systems, such as the Ohrid Lake and Tanganyika. Transboundary biosphere reserve the Prespa Park is distributed on a surface of 14.339,25 ha (13.457,81 ha land; 881,44 ha water). The area is a combination of water (lakes, streams), forests and mountainous reliefs while the flat zones limit the external borders of the territories extending through both the countries. Together, the system of Ohrid and Prespa Lake is one of the largest in Europe of this kind. Both the lakes are with specific value on a national and international level because of their geological and biological specificity.

Zmiski Ostrov or Sveti Petar is an island in the Prespa Lake and is the largest island in Republic of North Macedonia. It has an elliptical shape in the length of 750 m, 450 m wide, with the highest area of 50 m above the lake. The island Golem Grad is an exceptionally significant area of the National Park Galichica because of the existence of several environmental phenomena. From the vegetative world we can clearly define two forest communities and more specifically the forest of the Greek juniper and the forest of the wild almond and smooth nettle. From the animal world we have present the Great Cormorant (*Phalacrocorax carbo*) and the Dalmatian Pelican (*Pelecanus crispus*). A characteristic occurrence on the island is that the specimens of the Dice snake and the common wall lizard are larger than the specimens from

the land populations, while the specimens from the venomous vipers (*Vipera ammodytes*) are dwarfish in growth.

The monastery complex Sveti Arhangel Mihail - Sveti Naum is built on a high steep shore with a breath-taking view of the lake. East from the monastery, in its immediate surroundings, the vast springs of the karst stream are widely distributed. The impressive view of the clear and cold waters that inflow the Ohrid Lake, create a very colourful location rich with vegetative and animal species, with numerous relict and endemic species.

Of the other natural values of the Park, we find significant: Stara Galichica and the island Golem Grad, that by their overall geomorphological characteristics are rare or unique forms in South-East Europe, as well as the grass terraces on Stara Galichica which with specific own characteristics are unique or exceptionally rare in the Euro-Mediterranean region, however also globally.

#### AREAS PROTECTED BY INTERNATIONAL PROTECTIONR REGIME

- Ramsar areas

Monument of nature – Prespa Lake (1995) and

- Natural heritage areas (UNESCO)

Monument of nature – Ohrid Lake (1979)

- Tentative (temporary) UNESCO list

Monument of nature - the cave Slatinski Izvor (2004).

- Transboundary biosphere reserve Ohrid - Prespa declared according to the criteria of the UNESCO “Humans and biosphere” Program (2014)

#### 4.10. Cultural heritage

For its natural and cultural values, the Ohrid-Prespa region is one of the most representative regions of the RNM. Because of these reasons, Ohrid Lake is inscribed in the UNESCO List, under the name: „Natural and Cultural Heritage of the Ohrid region.” Firstly, in 1979 it has been inscribed as a natural heritage, and in 1980 also as a cultural heritage. Upon the proposal of the competent institutions, MoEPP and the Ministry of culture, the NI Institute for Protection of Monuments of Culture and Museum – Ohrid, the Directorate for the protection of cultural heritage and DE, a new title has been proposed for the nomination - Natural and Cultural Heritage of the Ohrid region.

The surface of the natural and cultural heritage of the Ohrid region amounts 83.350 ha of which 17.974 ha are within the limits of the Park.

The Monastery complex „Sveti Arhangel Mihail – Sveti Naum”, located on the most South area of the Ohrid Lake, represents one of the most distinguished elements of the cultural scenery.

The Monastery complex „Sveti Bogorodica-Zahumska”, located immediately besides the shore of the Ohrid Lake, surrounded with rocky terrain that rises in the back of the church and endemic greenery, represents one of the most characteristic construction expressions occurred in the centurial symbiosis of human actions and iconic beauty.

The Roman castrum that rises above the rocky shore besides which the palafitte Neolithic village has been constructed in the Bay of the bones represents also a symbiosis of the natural characteristics of the rocky terrain that intertwine with the rocky walls of the castrum.

The fishery villages Trpejca and Peshtani are characterized with the original modality of location besides the lake shore, as testimony of life and culture of living in the lake shore area.



Known churches and monasteries in the populated locations of NP Galichica are:

- The cave church Sveta Bogorodica (Peshtanska), „Sveti Vrachi”, „Sveti Gjorgjija”, „Sveti Nikola”, „Sveti Petka”, „Sveti Nikola” and „Sveti Trojca” in Peshtani;
- the Monastery Sveti Naum, dating from the year 900, in Ljubanishta;
- The church „Uspenie na Presveta Bogorodica” from the 15<sup>th</sup> century, in Velestovo;
- The church „Sveta Bogorodica-Zahumska” from the 14<sup>th</sup> century and the church „Sveti Nikola”, in Trpejca;
- The church „Sveti Prorok Ilija”, in Ramne;
- The church „Sveti Machenik Mino”, in Konjsko (Ohrid);
- The church „Sveta Nedela”, in Dolno Konjsko;
- The church „Sveti Ilija”, the church „Sveta Mina”, in Elshani;
- The church „Sveti Kiril i Metodij”, the church „Sveti Atanasij” and the church „Sveti Ilija”, in Stenje;

In 1997, the first underwater archaeological research was performed in the Republic of North Macedonia, on the locality named Plocha Mikjov Grad, in the Bay of bones, besides the South shore of the half-island Gradishte, near the village Peshtani.

Based on the results from these underwater terrain research, we can certainly say that, this village on stakes belonged to the late Bronze Age and at the beginning of the Iron Age, i.e. the period from 1500 to 700 BC. The locality Plocha Mikojv Grad in the Bay of bones is today an attractive museum complex that has more content: reconstructed palafitte village above the lake water, a conserved Roman castrum, restored and presented on the highest plateau of the hill Gradishte, an entrance facility with museum glass cupboards and a facility underwater tourism.

In November 1998, remainders were discovered of another village on stakes, this time near the village Trpejca, the locality Na Dol in the Bay of the ram. The wooden stakes and moving archaeological material (ceramics, stone tools) were registered in the depth of 5-7 metres under the water surface. Test underwater research were performed then that were mainly based in recognition and photo-documenting of the remainders of this village. According to the character and specificity of the findings, it has been found that also this village belongs at the end of Bronze Age.

In July 1999, also a third village has been discovered besides the East shore of the Ohrid Lake. This time it regards an area that covers the North shore of the village Peshtani, in the area of the so-called Bay of the bombs. Here a wooden stake was accidentally discovered on the shore itself, as well as numerous fragmented ceramics which by its typological characteristics are almost identical to the production of ceramics in the previous two villages on stakes.

On two kilometres via water from the village Konjsko (Prespa), the island Golem Grad is located – the only Macedonian island. It rises on the height of 30 m above the lake and has the surface of 22 ha. On the island you can find numerous archaeological reminders from diverse historic periods, and these say that in the past it has been populated.

#### **4.11. Material goods**

##### **4.11.1. Water supply in the area of the Park**

In all urban centres in the region a town system for water supply exists. Rural places supply their drinking water from local water supplies and wells. In the City of Ohrid central water supply is performed for: the City of Ohrid, the populated locations Orman, Racha, Sv. Stefan, Dolno Konjsko, Lagadin, Peshtani and the touristic localities along the lake shore. From local

water supplies are being supplied the populated places Velgoshti, Trpejca, v. Ljubanishta and in the v. Leskoec.

The City of Resen supplies with water through the regional supply system Krushje-Resen-Sir Han. Besides this, three wells have been built in Carev Dvor from where additional quantities are collected with which complete coverage with water grids is reached. On this system we have connected 15 village communities: Volkoderi, Gorna Bela Crkva, Dolna Bela Crkva, Gorno Dupeni, Gorno Krushje, Dolno Perovo, Drmeni, Ezerani, Izbishta, Jankovec, Kriveni, Preljubje, Carev Dvor, Shurlenci and the touristic community Sir Han.

#### **4.11.2. Wastewater treatment on the territory of NP Galichica**

The public enterprises responsible for the treatment of communal, atmospheric and industrial wastewater manage a total of 263.3 km collecting and city grid that is mostly located in the urban centres in the communities. In the Ohrid Region a secondary sewage grid has been built in the length of approximately 108 km in the City of Ohrid and the populated locations of Dolno Konjsko and Lagadin. Atmospheric sewage has been built in the length of 8629 m. The percentage of connection of users to the sewage system for the City of Ohrid is 92%. The wastewater treatment plant for the cities of Ohrid and Struga, as well as the populated locations and touristic capacities that are located on the Ohrid Lake shore, is found on approximately 4 km from the City of Struga (between the villages Vranishta and Lozhani). The plant provides mechanical and biological wastewater treatment.

For industrial wastewater a pre-treatment is obligatory before releasing the wastewater into the sewage. The capacity of the built plant is for 120.000 equivalent citizens, and the clarified water is drained into the river Crn Drim.

The City of Resen has a separation sewage system. Almost all the territory has a faecal sewage grid. Wastewater from the city are taken away through the wastewater treatment plant with the capacity of 12.000 m<sup>3</sup>, built near the village Ezerani. Only 20% of the city is covered with atmospheric sewage, and the water is released into Golema Reka. Faecal sewage grid is made in the villages Ezerani 95%, Jankoec 40% and Carev Dvor 95%, and the waters are released through the wastewater treatment into the village Ezerani. The villages: Aravati, Asamati, Bolno, Brajchino, Dolno Dupeni, Grnchari, Drmeni, Konjsko, Nakolec, Stenje and Podmochani, do not have a sewage grid, i.e. they use septic ditches.

#### **4.11.3. Solid waste treatment on the territory of the NP Galichica**

On the territory of municipality of Ohrid, the disposal of communal waste is performed on the landfill „Bukovo“ and the construction material landfill „Maucher“. From the total population on the territory of the municipality, only 31% is covered with the service for solid waste removal and as follows: on the area of the City of Ohrid, the weekend communities and the villages Peshtani, Trpejca, Ljubanishta, Orman, Dolno Lakoheraj and Racha. Solid waste selection is made minimally (plastic bottles and paper partially). Waste removal from Kosel, Vapila, Openica, Zavoj and Rasino is performed in the regional landfill Bukovo.

Waste from the City of Resen and nearby villages is disposed near the village Zlatarim, in an area inadequate for this purpose. Complete waste removal is performed in the village communities: Asamati, Gorna Bela Crkva, Grnchari, Dolna Bela Crkva, Drmeni, Jankoec, Kozjak, Krani, Kurbinovo, Lavci, Ljubojno, Nakolec, Oteshevo, Pokrvenik, Stenje, Carev Dvor, Shtrbovo and Shurlenci. The coverage of municipality of Resen with the service of waste collection is approximately 81%.

#### **4.11.4. Roads through the territory of NP Galchica**

The main road directions that connect this region with the other regions are the state road A2 Skopje - Gostivar- Kichevo - Struga - the border with Albania and the state road A3, connection to A2 - Ohrid - Resen. The road network in this region is not developed yet, especially the regional road network of 2 category.

The current status on a part of the road direction A2 Gostivar – Kichevo - Struga - border with Albania is in a relatively bad shape, mostly because of damaged road surfaces and inadequate technical elements on these roads. The highway solution is underway on the direction from Kichevo to Ohrid that will improve very much the travel on this road.

It is necessary to mention also the regional road direction R1301 Ohrid – Peshtani - Ljubanishta - border with Albania that also, has damaged asphalt and inadequate technical elements, which represents an issue for the normal traffic arrangement, especially in the summer period when the vehicle flow is larger. The regional road direction R1208 Ohrid - Struga (old road) - Radozhda, as well as R1303 Kichevo - Makedonski Brod and R1305 (connection to A2 - Demir Hisar) are in a bad condition on specific parts of the road. The regional road grid of second category is not completely constructed and a good part of the road directions have earthen lanes.

For the maintenance and protection of the roads that passthrough the territory of the NPG the competent entity is the PISR. Through the territory of the Park pass the following regional roads and their branches:

- R501: Ohrid (connection to M5)-Sveti Naum-border with Albania, asphalt road 32,420 km; the area in the Park is 27,445 km;
- R503: Makazi (connection to R505)-Customs-border with Albania (Stenje), asphalt road, 24,125 km, the area in the Park is 11,522 km;
- R503–branch 1: Stenje (connection to P503)–Konjsko, 1,4 km asphalt road and 9,4 km earthen road;
- R504: Customs (connection to R503)-Trpejca -(connection to R501), asphalt road, 27,590 km.

Through the territory of the Park pass a large number of local roads and streets i populated places. From the local roads more significant are the following:

- Local road to v. Oteshevo (from the separation from R503 to the centre of the village), earthen road, 0,56 km;
- local road to v. Leskoec (from the separation from R503), asphalt road, 2,1 km;
- Local road Gola Buka/Lozina–Dva Javori (end of the asphalt road), asphalt road, 3 km;
- Local road to sentry Sveti Ilija (from the separation to R501 at Ljubanishta), earthen road, 1,9 km;
- Local road to v. Elshani (from the separation from R501 at auto-camping Eleshec), asphalt road, 2,1 km;
- Local road to v. Konjsko (from the separation from R501 at hotel Metropol), asphalt road, 3,8 km;
- Local road to v. Velestovo (from the separation from R501 at Studenchishta), asphalt road, 4,1 km;
- Local road to v. Ramne (from the centre of the community Vidobishta), asphalt road, 3,2 km;
- Local road to the church Sveti Ilija (from the centre of v. Velgoshti), asphalt road, 3,1 km;

- Local road to the church Sveti Nikola (from the centre of v. Velgoshti), a total of 2,9 km of which 1,7 asphalt and 1,2 km earthen road;
- Local road to the church Sveti Atanasij (from the centre of the community Vidobishta), a total of 1,7 km of which 0,9 km asphalt road and 0,8 km earthen road;
- Local road to v. Shipokno (from the separation of R501 at community Racha), earthen road, 3,2 km.

Through the territory of the Park pass also a larger number of earthen roads that are used for diverse purposes and in accordance to the Law on public roads are not classified (earthen) roads of which more significant are:

- Velestovo – Dva Javori (through Krstec, Dofa, Sharbojca and Suvo Pole; 16,5 km);
- Ponik – Letnica (3,0 km);
- Dva Javori - Gjereka (through Kosto Bachilo; 3,6 km);
- Suvo Pole – Tomoros (2,7 km);
- Suvo Pole – Gjereka (1,64 km);
- Suvo Pole – Mechkina Lokva (1,0 km);
- Sharbojca (mountain house) – Shargule (1,8 km);
- Sharbojca (mountain house) – Dzamivcheno (through Simoncheska Lokva; 2,6 km);
- Dzafa – Ramni Dol (through Kucho Pole; 3,8 km);
- Igralishte Peshtani – Glajsho (through Dobra; 3,8 km);
- Glajsho – connection to R-504 (1,7 km);
- Konjsko (church Sveti Martinija) – Sveta Petka (through Trgulajsh; 2,1 km);
- Veli Dab – Glajsho (4,4 km);
- Derven – Vojtino – border with Albania (9 km);
- Belkov Izvor – Popov Izvor (1,5 km);
- Izvor Kalino – Propas (1,3 km);
- Church Sveti Atanasij – Koshtuna (1,7 km);
- Church Sveti Ilija – Petrinsko Pole (preku Gorni Istok; 8,8 km);
- Gorni Istok – Crven Kamen (through Istochka Bigla; 3,1 km);
- Skala – Dofa (through Letnichki Bunari i Gjafa; 7,2 km);
- Gjafa – Konjski Merizi (through Vardulj; 2,4 km);
- Konjski Merizi – Dupkana (through Ramnenska Livada and Gumenje; 2,5 km);
- Oteshevo - Lomje (6 km);
- Oteshevo - Livada (3 km);
- Ramni Pat – Sirhan (1,46 km);
- Chavkalica - Golem Rid (4 km);
- Turska Livada - Zajakoj Nivje - Kotaron (3 km);
- Stenje (factory) – Kotaron (5 km);
- Passage Stenje - Voden Kamen (3 km);
- Oteshevo (tunnel) - Kale - Oteshevo (6 km);
- Lipona Livada – Stenje (through Volko Legalo, Vrshinana, Turska Livada; 10 km);
- Baba – Lako Signoj (2,8 km);

## 5. ENVIRONMENTAL CHARACTERISTICS IN THE AREAS OF SIGNIFICANT RELEVANCE IN THE ABSCENSE OF MPNPG IMPLEMENTATION

In order to define the benefits and/or omissions during the implementation of the Management plan for NP Galichica, we must take into consideration also the “do nothing” scenario or the status without implementation of the MPNPG, i.e. what would happen if implementation does not occur of the planning document.

Table 14. Environmental assessment without implementation of the MPNPG

SEA area	Environmental characteristics
Population and socio-economic development	<b>Current status</b>
	<ul style="list-style-type: none"> <li>- the mountainous populated places, because of limited possibilities for economic growth, are in a large part under the impact of the depopulation process;</li> <li>- the unemployment rate with the population on the Ohrid side of the Park (40,49%), is significantly higher than the average unemployment rate in the municipality of Ohrid in 2002 (39,68%), while the unemployment rate with the population of the villages on the Prespa side of the Park (29,73%), is significantly lower than the average unemployment rate in municipality of Resen (30,06%);</li> <li>- as a result of the bad socio-economic status, population migration has been noted from the villages within the limits of the Park into the cities, as well as leaving mountain villages and populating the existing towns, near the main roads or formation of new communities;</li> <li>- not undertaking the relevant measures for status improvement and stopping these processes has contributed to the village Oteshevo remaining without the presence of permanent residents. Such tendency is noted also in the villages Leskoec and Konjsko on the Prespa side of the Park;</li> <li>- a significant number of households that realize their basic or additional revenues from tourism and private lodging;</li> <li>- in some populated places there is no adequate road network, the water supply and sewage grid are absent, the communal waste collecting service does not exist;</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- the depopulation trend of the hill-mountain villages on the territory of the NPG will continue;</li> <li>- the unemployment rate with the population on the territory of the NPG will remain the same or will increase;</li> <li>- a small number of households that would be included in sustainable tourism development;</li> <li>- the socio-economic status will remain the same or will worsen;</li> <li>- the quality of life will decrease or remain the same;</li> <li>- absence of new investments;</li> <li>- limited touristic offers;</li> <li>- insufficiency of promotional activities for the area;</li> </ul>
	<b>Status with implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- sustainable management of the NPG;</li> <li>- new possibilities for employment in accordance to the concept for sustainable tourism and other alternative tourism types;</li> <li>- decrease of the positive migration trend;</li> <li>- improvement of local economic development;</li> <li>- bigger promotion of the region as a touristic destination;</li> <li>- development of new touristic products and improvement of the quality of the current contents of touristic offers;</li> <li>- increase of the number of visitors from the state, transboundary regions and from other EU states in general;</li> <li>- increase of the number of households that can offer services (rural tourism);</li> <li>- continuation of the touristic season, as a result of the development of new forms of tourism;</li> <li>- improvement of the quality of life of the local population;</li> <li>- new investments attraction;</li> </ul>

<b>Population health</b>	<b>Current status</b>
	<ul style="list-style-type: none"> <li>- Inadequate quality of life in some populated places;</li> <li>- Inadequate waste management in most of the populated places;</li> <li>- No drinking water and sewage in some populated places;</li> <li>- Wild landfills in some populated places;</li> <li>- Low quality of energy;</li> <li>- Inadequate land use;</li> <li>- Uncontrolled urbanization;</li> <li>- Availability of health services and unsatisfactory quality of health institutions;</li> <li>- Low grade of environmental awareness;</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	The status of the health of people will be the same or worsened because of the existence of wild landfills near populated places and the inadequate waste management, uncontrolled urbanization and inadequate land use, unsustainable natural resources management and similar.
<b>Air quality and climate characteristics</b>	<b>Current status</b>
	<ul style="list-style-type: none"> <li>- not determined extreme air pollution;</li> <li>- existence of air pollutants: industrial capacities;</li> <li>- inadequate waste management, uncontrolled waste disposal and occurrence of wild landfills that emit greenhouse gases;</li> <li>- inadequate treatment of organic waste that creates terrific smells;</li> <li>- open air waste burning, during which greenhouse gas emissions are created</li> <li>- inexistence of analysis, studies of renewable energy resources use;</li> <li>- uncontrolled cutting of forests;</li> <li>- there are no measurement stations on the area of NPG;</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- air quality will remain on the same level or will worsen;</li> <li>- greenhouse gas emissions from inadequate waste management;</li> <li>- uncontrolled open-air waste burning in existing and wild landfills;</li> <li>- uncontrolled forests cutting;</li> </ul>
<b>Water quality</b>	<b>Current status</b>
	<p>Because of the karst character of the mountain Galichica, the water habitats in the Park are rare and exceptionally sensitive to human activities impact. In the Park exist solely few permanent waterflows, a larger number of permanent and temporary springs and 19 pools of natural origin or built by people, mostly for livestock feeding water supply.</p> <ul style="list-style-type: none"> <li>- decreased maintenance of the pools, today a large part of them have dried up or with decreased capacity.</li> <li>- uncontrolled pesticide and other chemicals use in agriculture;</li> <li>- unregulated drain of faecal water from residential and commercial facilities within the borders of the springs Sveti Naum;</li> <li>- disposal of solid waste and liquid waste by tourists;</li> <li>- floating on the springs with rafts, rowboats, can represent danger to the vegetative and animal world on the bottom of the springs</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- drying of the pools will have a negative impact on the animal world in the NPG</li> </ul>

	<ul style="list-style-type: none"> <li>- same or worsened water quality in the Ohrid Lake, Prespa Lake and shore habitats because of pesticides and other chemicals that are being used in agriculture, especially in the surrounding orchards;</li> <li>- eutrophication trend of the Prespa Lake;</li> <li>- illegal construction of facilities along the shore of Ohrid Lake, especially in and around the strict protection zone in the direction from Peshtani to Gradishte, from Gradishte to Trpejca, the locality Nadol, South from the village Trpejca and Konjsko (Prespa);</li> <li>- uncontrolled fishery;</li> </ul> <p style="background-color: #d9ead3; padding: 2px;"><b>Status during the implementation of the MPNPG</b></p> <p>The MPNPG foresees sustainable management of the NPG, which presupposes rational management of water resources, adequate waste management, foresees the ban of pesticides usage, arrangement of existing pools and wells and building new ones</p>
<b>Soil</b>	<p style="background-color: #d9ead3; padding: 2px;"><b>Current status</b></p> <ul style="list-style-type: none"> <li>- decrease of the surfaces under arable land, and especially surfaces under pastures;</li> <li>- erosion because of uncontrolled cutting of wood;</li> <li>- intensive urbanization of more fruitful surfaces within the shore belt;</li> <li>- illegal transformation of fruitful agricultural land into construction land;</li> <li>- pesticides use;</li> <li>- inadequate waste disposal</li> </ul> <p style="background-color: #f4cccc; padding: 2px;"><b>Status without implementation of the MPNPG</b></p> <ul style="list-style-type: none"> <li>- same or increased trend of decrease of the surfaces under arable land in the NP;</li> <li>- same or increased trend of illegal forest cutting;</li> <li>- same or decrease soil quality</li> </ul> <p style="background-color: #d9ead3; padding: 2px;"><b>Status during the implementation of MPNPG</b></p> <p>The MPNPG foresees sustainable management of NPG, which presupposes adequate waste management, foresees the ban for use of pesticides in accordance with the Park zoning, rational use of natural resources, decrease of illegal construction</p>
<b>Biodiversity and natural heritage</b>	<p style="background-color: #d9ead3; padding: 2px;"><b>Current status</b></p> <ul style="list-style-type: none"> <li>- destruction and fragmentation of habitats as a result from urbanization;</li> <li>- uncontrolled collection of medicinal herbs and plants;</li> <li>- illegal tree cutting;</li> <li>- illegal hunting and fishery;</li> <li>- increased noise, as a result of the increase of the number of visitors;</li> <li>- loss of endemic plants and animals</li> </ul> <p style="background-color: #f4cccc; padding: 2px;"><b>Status without the implementation of the MPNPG</b></p> <ul style="list-style-type: none"> <li>- same or increased urbanization trend;</li> <li>- illegal hunting and fishery;</li> <li>- illegal tree cutting;</li> </ul> <p style="background-color: #d9ead3; padding: 2px;"><b>Status during the implementation of the MPNPG</b></p> <p>The MPNPG foresees the sustainable management of the NPG, which presupposes rational use of natural resources, decrease of illegal construction, establishment of a hunting and fishery ban, sustainable forest eco-systems management</p>
<b>Region</b>	<p style="background-color: #d9ead3; padding: 2px;"><b>Current status</b></p> <ul style="list-style-type: none"> <li>-because of the uncontrolled urbanization degraded reviews occur;</li> <li>- illegal tree cutting;</li> <li>- forests and other areas of exceptional values burning;</li> <li>- illegal surface soil and rocks digging;</li> <li>- inadequate waste disposal</li> </ul> <p style="background-color: #f4cccc; padding: 2px;"><b>Status without the implementation of the MPNPG</b></p> <ul style="list-style-type: none"> <li>- the same or worsened modality of waste management;</li> <li>- same or increased tree cutting;</li> <li>- uncontrolled urbanization;</li> </ul> <p style="background-color: #d9ead3; padding: 2px;"><b>Status during the implementation of the MPNPG</b></p> <p>The MPNPG foresees the sustainable management of the NPG, which presupposes the rational use of natural resources, decrease of illegal construction, establishment of a ban for hunting and fishery, sustainable management of forest eco-systems</p>

<b>Cultural heritage</b>	<b>Current status</b>
	<ul style="list-style-type: none"> <li>- uncontrolled urbanization;</li> <li>- inadequate cultural heritage conservation;</li> <li>- endangering of the visual integrity of the traditional entirety;</li> <li>- use of inadequate construction materials;</li> <li>- insufficient financial power for heritage conservation</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- the same or increased trend of uncontrolled urbanization;</li> <li>- inadequate cultural heritage conservation;</li> <li>- absence of a plan/program for activities for the protection of cultural heritage</li> </ul>
<b>Material goods</b>	<b>Current status</b>
	<ul style="list-style-type: none"> <li>- inexistence of water supply systems in some populated locations along the NPG;</li> <li>- inexistence of drainage and wastewater treatment systems;</li> <li>- inadequate status of road infrastructure</li> <li>- no practice and possibilities for the use of renewable energy sources</li> </ul>
	<b>Status without implementation of the MPNPG</b>
	<ul style="list-style-type: none"> <li>- the same or worsened status of material goods</li> </ul>
<b>Material goods</b>	<b>Status during the implementation of the MPNPG</b>
	The MPNPG does not foresee sustainable management of the NPG. The MPNPG does not forecast reconstruction and construction activities for new material goods.

## 6. AREAS OF SPECIFIC ENVIRONMENTAL MEANING, FROM THE ASPECT OF WILD BIRDS AND HABITATS PROTECTION

The National Park Galichica has been declared in 1958 in order to preserve the vegetative and animal world and the natural view of the mountain Galichica.

With the Law on the declaration of a part of the mountain Galichica for a National Park (Off. Gazette of the RM, no. 171/10) a part of the mountain Galichica is declared for a National Park, because of the protection of its biological and regional diversity, which are of exceptional meaning for nature protection.

The Law on the declaration of a part of the mountain Galichica for NP defines the limits of the Park, and the surface amounts 24.151,4 hectares.

The Park represents a focal point of biodiversity in the region, as well as wider, in global frames. The Park distinguishes itself from other area of similar size by its exceptional richness of habitats and species on a relatively small territory. As a complex entirety, the Park together with Ohrid and Prespa Lake, represents a relatively limited are with very rich biodiversity, a high grade of heterogeneity and endemism and in these terms, it is deemed a really very valuable locality in Europe.

For the definition of the components of biodiversity during the preparation of the MPNPG, the following criteria were applied:

- Components of biodiversity: (globally interested species, significant populations of rare species or species protected in the Republic of North Macedonia or in Europe, species that have a large part of their bio-geographic dispersion or global population within the Park (endemic species), rare or concerned habitat types (in Europe or in North Macedonia) and characteristics of large environmental value or interest.



- Components of biodiversity that have wide socio-economic significance (other forest products, pastures, habitats and species with large attractiveness for tourists, eco-system services such as erosion and flooding protection and similar).
- Components of biodiversity that have cultural meaning (specific forests and areas, habitats and species that have huge value on their own).
- Components of biodiversity that have significance for environmental education of the local population and visitors.

In accordance to the above-mentioned criteria, the following components of biodiversity in the Park are deemed key:

**Rich biodiversity.** On a surface of approximately 25.000 ha, are found more than 37 types of habitats, 40 vegetative communities, around 1600 taxa from vascular plants, more than 143 types of lichenoid fungi, more than 480 species of fungi and over 3230 taxa from the fauna.

**Globally threatened species.** According to the IUCN criteria, in the Park are found several species deemed globally threatened (status „EN“) of which 4 species are invertebrates, while 13 are vertebrates. To this group can be added also 19 taller plants from the Park that are deemed globally rare, as well as 15 species of fungi of global meaning. With regard to the aquatic invertebrates, according to the latest research with the exception of representatives from the group of snails, assessment has not been made of the status of the species with the remainder groups of the bental fauna nor for the Ohrid Lake or its coastal waters. The unique classification is made based on the criteria of the Red list of the IUCN, during which it has been defined that the following species that inhabit the springs of Sveti Naum: *Gyraulus fontinalis*, *Ohridoxauffenia sanctinaumi* и *Lyhnia gjorgjevicice* endangered (EN-endangered), the species *Pyrgohydrobia sanctinaumi* и *Ohridohoratia polinskii* are vulnerable (VU-vulnerable) while the specie *Ohridohoratia pygmaea* is near threatened (NT-near threatened).

**Significant populations of species that are rare or concerned in North Macedonia in Europe or globally.** Of the algae, in the Park are found significant populations of 7 taxa that are rare in North Macedonia or wider. Of the taller plants, in the Park are found 56 taxa that are rare in North Macedonia. Of the macromyceti, in the Park are found 47 species that are rare or threatened in North Macedonia or Europe. With its populations in the Park, 38 of them have national significance, 22 are with European significance, and 10 have a global significance. From the invertebrates that are legally protected in Europe in the Park are found 11 species whose populations are significant on a national level. Among those we have also a specie whose population in the Park has European significance. Of the rare invertebrates, in the Park are found 15 species whose population are significant on a national level. Of the vertebrates that are legally protected in Europe, in the Park are found 77 taxa whose populations are significant on a national level, and the populations in the Park, 8 of them have European or global significance. Because of the presence of significant populations of a large number of species that are rare and concerned in Europe, the Park qualifies as a Specific area for protection within the frames of the European Environmental Network NATURA 2000.

**Endemic plants and animals.** In the Park is found an exceptionally large number of endemic vegetative and animal taxa, and as follows: 29 taxa of algae, 12 species of vascular plants, 68 taxa of invertebrates and 4 taxa of vertebrates. Besides this, in the Park are found a large number of other taxa that are endemic for North Macedonia or for the Balkan Peninsula and as follows: 46 taxa from the higher plants, 89 taxa from invertebrates and 14 taxa from

vertebrates. Because of the presence of these species, the Park has a large significance for the preservation of biodiversity in North Macedonia, however also for science, globally.

**Species with large socio-economic significance.** In the Park are found a large number of plants and fungi whose parts are collected because of their nutritional, medicinal and aromatic characteristics, for personal use or commercial application. Among them, by their significance are distinguished the Ohrid tea (*Sideritis reaseri*) and the Common junipers (*Juniperis communis*).

**Species highly recognizable and attractive for local citizens and visitors.** From the higher plants these are: Galichica daisy (*Helichrysum zivojini*), Galichica iris (*Crocus cvijici*), Ohrid tea (*Sideritis raeseri*), Galichica Leguminosae (*Astragalus mayeri*), Greek juniper (*Juniperus excelsa*), Persian morina (*Morina persica*), Galichica stonecrop (*Sempervivum galicum*), Macedonian oak (*Quercus trojana*), Dyer's green weed (*Genista radiata*) and *Lilium heldreichii*. Of the fungi, in this group of species are included the Caesar's mushroom (*Amanita caesarea*), *Battarraea pxalloides*, *Hymenocxaete cruenta*, *Myriostoma coliforme*, *Pisolithus arhizus* and *Pyrofomes demidoffii*. Of the invertebrates these are: the bush cricket (*Saga pedo*), the Alpine longhorn beetle (*Rosalia alpina*), the stag beetle (*Lucanus cervus*), the emperor dragonfly (*Anax imperator*), *Paracaloptenus caloptenoides*, *Calosoma sycopxanta* and *Carabus gigas*. Of the vertebrates a large number of birds are included in this group, especially predatory birds, pelicans and lots more. Of the mammals these are the brown bear (*Ursus arctos*), the Balkan lynx (*Lynx lynx balcanicus*), the wolf (*Canis lupus*), the Balkan Chamois (*Rupicapra rupicapra balcanica*), the red deer (*Cervus elaphus*) and the roe deer (*Capreolus capreolus*).

**Forests.** The forests in the Park have a large environmental significance and include several types of habitats that are deemed threatened or rare in Europe i.e. are significant for the preservation of several species that are also deemed for key values. According to the EUNIS classification of types of habitats from 2017, in the Park we can find ten types of habitats (with a total of 13 vegetative communities) which are protected by the Habitats Directive. Considering their spreading, a basis existed that a part of the area of the Park be identified as a potential NATURA 2000 area, within the frames of the Program for nature conservation in North Macedonia - stage II. Among these, by their significance, are distinguished the **juniper forests** (Paeonian Grecian juniper forests, EUNIS 2017:T3-D73) that in the Park cover three vegetative communities: *Pruneto-Celtetum* (Em 1989), *Biara tenuifolii - Juniperetum excelsae* Em and *Querco- Juniperetum excelsae* Matevski et al. (prov.). The forests in the Park also have a large soci-economic significance, for example for the production of heating wood, other forest products, provision of eco-system services, tourism development and other. They also have cultural significance, for example holy forests in Glajsho and other places near the mountain villages in the Park.

**Shrub vegetation.** You can find in the Park two types of habitats with shrubs that are deemed threatened or rare in Europe or are deemed significant for the conservation of some key species in the Park. The habitats that belong here are with **shrubs from boxwood** (Habitats with shrubs from *Buxus sempervirens*, EUNIS 2017:S3-52) and habitats with **shrubs from common juniper** (Pre-Mediterranean habitats with shrubs from the common juniper, EUNIS 2017:S3-14). Shrubs from the common juniper have economic significance considering that the juniper seed cones are enlisted between the most significant other forest fruits in the Park.

**Pastures.** In the Park, according to the EUNIS classification from 2017, 4 types of habitats are found, with a total of 8 vegetative communities, deemed threatened or rare in Europe. Among these, **hill pastures** (Balkan steppe with *Satureja montana*, EUNIS 2017:F1.21) are especially significant for a large number of orchids in the Park. Previously the pastures have had a large socio-economic significance for the population of the Park.

**Chasmophytic vegetation and vegetation of cushion plants.** In accordance to the EUNIS classification from 2017, we can find in the Park two types of chasmophytic vegetation (EUNIS 2017:H3.2A1 and EUNIS 2017:H3.2A11, with four vegetative communities) and one type of cushion plants vegetation (EUNIS 2017:H2.6, with one vegetation community), that are deemed threatened or rare in Europe.

**Water habitats.** Because of the limestone character of the mountain, the water eco-systems in the Park have a large environmental significance for a big number of key species, however also in general. Among these we can distinguish two types of habitats that are rare or threatened in Europe (temporary surface flows (wet phase) – EUNIS 2017:C2.26 and vegetation of oligotrophic fast-flowing streams rich with limestone – EUNIS 2017:C2.5). Besides these we can find at least another 5 types of water habitats which are of specific significance for the conservation of a large number of key species invertebrates and vertebrates. Of these, a specific significance has **the springs of Sveti Naum, Crvena Lokva**, other natural and artificial pools, as well as **mountain and shore springs**. The springs of Sveti Naum with their immediate surroundings are distinguished by their big socio-economic and cultural meaning and are numbered between the most significant touristic destinations in the North Macedonia and wider.

**Caves.** The limestone character of the mountain is the reason behind the richness of underground geomorphological forms, such as for example **caves and abysses** that represent significant habitats of several key species. According to the EUNIS classification from 2017, in the Park we can find three types of habitats that are rare or endangered in Europe (EUNIS 2017:H1.1, H1.221 и H1.231). In the caves of Galichica above 15 highly specialized endemic species live with specific adjustments (reduced eyes, long legs and antennas) such as *Neobisium ohridanum*, *Roncus lychnidis*, *Ceutophyes karamani*, *Troglophilus cavicola* etc. In some of the caves you can find enormous colonies of bats. From the caves as significant habitats you can distinguish **Mechkina Dupka, Voila, Leskoska Peshtera** and others.

**Rare geomorphologic phenomena.** Besides the biodiversity, between the key values of the Park are listed also the rare geomorphologic phenomena. Stara Galichica and the island Golem Grad for their overall geomorphologic characteristics are rare or unique forms in Southeast Europe. From the specific relief forms of Stara Galichica we can distinguish the grass terraces towards the Prespa side of Stara Galichica that with some of their characteristics are unique or exceptionally rare in the Euro-Mediterranean region, but also globally. Besides these also the rock horseshoes are significant inside the cirques of Stara Galichica which are rare or unique forms in Southeast Europe, while the cirques themselves are of national significance.

The international significance of the biodiversity in the Park is confirmed with numerous nominations, such as: „Emerald area“, „Significant vegetation area“, „Prime butterfly area“, „UNESCO World Heritage“, and potentially also „NATURA 2000 area“.

The NPG is a part of the transboundary biosphere reserve Ohrid-Prespa, declared by the international council of UNESCO in June 2014. The reserve covers the basin area of Prespa and Ohrid Lake together with the territory of the basin area of the river Crn Drim. In the RNM, the

reserve completely covers the municipalities of Ohrid, Struga, Vevchani and Resen, also partially the municipalities of Debrca and Bitola. In the Republic of Albania, the limit coincides with the limits of Korcha, and the Hellenic Republic is not included now.

## **7. ENVIRONMENTAL PROTECTION GOALS DETERMINED ON A NATIONAL AND INTERNATIONAL LEVEL**

The basic principles for environmental protection in the country are established with the Constitution of the RNM (Off. Gazette of the RM, no. 52/91, 1/92, 31/98, 91/01, 84/03, 107/05, 3/09), as the highest legal document of the country where in accordance with Article 8, one of the principal values of the constitutional order represents also the environmental protection and improvement of natura.

Article 43 regulates the right to a healthy environment for every person, and that person has the responsibility to improve and protect the environment and the nature. The RNM provides the conditions for the realization of the right of the citizens to a healthy environment, through the carrying and implementation of the relevant legislation.

Chapter 10 from the LE clarifies the procedure for impact assessment of specific strategies, plans and programs onto the environment, which is of special significance for the legal protection of national parks.

SEA is prepared in accordance with the national legislation and the provisions of other relevant international legal acts, including also the Directive for SEA 2001/42/E3, the Aarhus Convention, the ESPOO Convention, and the UNECE Protocol of Kiev for the ESPOO Convention.

The planning document (Management plan for NP Galichica) is determined with the Decree for strategies, plans and programs, including also the amendments on these strategies, plans and programs, for which the environmental impact assessment procedure is obligatorily realized as well as the impact on the life and health of people, article 3, point 18 – Planning documents for protected area management.

The targets for environmental protection are incorporated in many other legal acts and bylaws and these regard:

- identification, prioritization and problem solving of environmental issues of national significance;
- provision of investments based on the principle the “polluter pays” and the available EU Environmental protection funds;
- increase of responsibility towards environmental protection, by polluters, but also by every person in the country;
- building and strengthening institutional and administrative capacities for efficient management of procedures during environmental protection;
- promotion and provision of active participation of citizens in the creation of opinions and policies, as well as in the decision-making process;
- improvement of cooperation between institutions and inclusion of the provisions for environmental protection also in other policies;
- fulfilment of commitments that arise from national, regional and international agreements and ratified conventions in the environmental area;

Specific environmental protection goals:

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- Protection and improvement of the air quality through the decrease of greenhouse gas emissions;
- Protection and improvement of surface and underground water quality;
- Protection and improvement of soil quality;
- Integral management of communal waste and its selection, transport and recycling for soil conservation, therefore waste minimization;
- Noise and vibration protection;
- Minimizing accidents and damages occurrence;
- Protection and improvement of biodiversity, natural and cultural heritage;
- Protection and improvement of the region and the environment;
- Protection and improvement of material goods;

Provisions from the international legislation are incorporated in the national legislation in the form of legal documents and bylaws and Conventions, that are ratified by the RNM with specific laws:

- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, February 1991), Law on ratification (Off. Gazette of the RM, no. 44/99);
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki), Law on ratification (Off. Gazette of the RM, no. 117/15);
- Strategic environmental assessment protocol, Law on ratification (Off. Gazette of the RM, no. 120/2013);
- Vienna Convention for the Protection of the Ozone Layer, Law on ratification (Off. Gazette of the RM, no. 1/90);
- The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), Law on ratification (Off. Gazette of the RM. 40/99);
- Stockholm Convention on Persistent Organic Pollutants, Law on ratification (Off. Gazette of the RM. 19/94);
- Biodiversity Convention, Law on ratification (Off. Gazette of the RM. 54/97), that has the goal of biodiversity conservation, sustainable use of the biodiversity components and equal distribution of the benefits arising from the use of genetic resources.
- The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar), Decree on ratification (Off. News of SFRJ 9/77)
- The Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Law on ratification (Off. Gazette of the RM. 40/05)
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), Law on ratification (Off. Gazette of the RM. 38/99);
- Agreement on the Conservation of Populations of European Bats (Off. Gazette of the RM, no. 38/99 и 13/02);
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), Law on ratification (Off. Gazette of the RM. 49/97);
- The Convention concerning the Protection of World Cultural and Natural Heritage, ("Off. Gazette of the SFRJ" 56/74);
- Convention on the Value of Cultural Heritage for Society (Faro Convention, 2005), Law on ratification (Off. Gazette of the RM. 25/11);

- Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985); - Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta, 1992), Law on ratification (Off. Gazette of the RM. 56/05);
- UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (New York), Law on ratification (Off. Gazette of the RM. 6/97);
- The Kyoto Protocol which extends the 1992 United Nations Framework Convention on Climate Change, Law on ratification (Off. Gazette of the RM. 49/04);
- The United Nations Convention to Combat Desertification in those countries experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD), Law on ratification (Off. Gazette of the RM. 13/02);

### **7.1. Goals of the Strategic Environmental Assessment**

In the SEA procedure the goals of environmental protection are presented through the goals of the strategic environmental assessment. The goal of the SEA procedure is to assess whether the Management plan for NPG is in accordance to the set goals for the environment on a national and international level.

The goals of the strategic environmental assessment are shown through the status of: the population, the socio-economic development, human health, air and climate change, water, soil, natural and cultural heritage and material goods.

In the table are given the goals of SEA with regard to the goals defined in the Management plan of NPG.

The basic goals of the management with the Management plan for NP Galichica arise and are in accordance with the forecasted management programs:

- Conservation and monitoring of natural heritage,
- Sustainable use of natural resources in the area,
- Forest habitats and eco-systems management,
- Sustainable tourism and recreation development,
- Local development,
- Information, raising public awareness and education, and
- Management, administration and financing.

Table 15. Connection between the goals of the SEA and the goals of the Management plan for NP Galichica

SEA area	General goal of the SEA	Specific goals of the SEA	Goals of the MPNPG	Indicators
<b>Population and socio-economic development</b>	Improvement of quality of life of the population on the territory of the NPG	<ul style="list-style-type: none"> <li>- improvement of the infrastructure status (road grid, water supply, water drainage, collection and treatment of communal waste);</li> <li>- improvement of socio-economic status (employment, migration prevention, depopulation decrease, revenue increase, demographic development);</li> </ul>	<ul style="list-style-type: none"> <li>- protection and conservation of existing infrastructure;</li> <li>- sustainable management of the NPG;</li> <li>- sustainable use of agriculture land;</li> <li>- regular collection and waste removal, ban for throwing and disposal of waste on the territory of the NPG, wild landfills cleaning;</li> <li>- realization of the strategy for sustainable tourism of the NPG, with which new employment possibilities will be created for the local population;</li> <li>- improvement of the touristic offer;</li> <li>- local economic growth;</li> </ul>	<ul style="list-style-type: none"> <li>- number of households that offer services in the area of sustainable tourism (rural);</li> <li>- number of tourists and revenues realized from this type of tourism;</li> <li>- (un)employment rate;</li> <li>- (de)population trend;</li> <li>- migration rate;</li> </ul>
<b>Population health</b>	Protection and improvement of population health on the territory of the NPG	<ul style="list-style-type: none"> <li>- protection and improvement of health of people;</li> <li>- improvement of the status of media and environmental topics;</li> </ul>	<ul style="list-style-type: none"> <li>- definition of possibilities for the development of health tourism;</li> <li>- cleaning wild landfills;</li> <li>- raising public awareness of population about the significance of nature and biodiversity;</li> </ul>	<ul style="list-style-type: none"> <li>- reports regarding the health of the population and visitors;</li> <li>- pollution trends of media and environmental topics;</li> <li>- increased public awareness for nature protection on the territory of the NPG;</li> <li>- number of cleaned wild landfills</li> </ul>
<b>Air quality and climate change</b>	Protection and improvement of air quality and decrease of greenhouse gas emissions	<ul style="list-style-type: none"> <li>- protection and improvement of air quality;</li> <li>- regular collection and adequate disposal of communal waste;</li> <li>- decrease of greenhouse gas emissions;</li> <li>- increased renewable energy sources use;</li> </ul>	<ul style="list-style-type: none"> <li>- fire prevention;</li> <li>- wild landfills cleaning;</li> <li>- sustainable forest management;</li> <li>- prevention of soil and rock digging on the territory of the NPG;</li> </ul>	<ul style="list-style-type: none"> <li>- number of prevented and extinguished fires;</li> <li>- number of cleaned wild landfills;</li> <li>- surface of removed and newly planted forest vegetation</li> </ul>
<b>Water quality</b>	Protection and improvement of surface and underground water quality	<ul style="list-style-type: none"> <li>- sustainable management and rational use of water resources;</li> <li>- improvement of the status of the shoreline land;</li> </ul>	<ul style="list-style-type: none"> <li>- sustainable management of the NPG;</li> <li>- rational water usage on the territory of the NPG;</li> <li>- ban for throwing and disposal of waste near water bodies;</li> </ul>	<ul style="list-style-type: none"> <li>- trends in the creation of wild landfills</li> <li>- number of measures/activities for the rational use of water resources;</li> </ul>

		<ul style="list-style-type: none"> <li>-prevention of drainage, i.e. liquid waste and other dangerous materia emission into the water;</li> <li>- ban for disposal of communal waste near surface water bodies;</li> </ul>		
<b>Soil</b>	Soil quality protection and improvement	<ul style="list-style-type: none"> <li>- protection of the soil from pollution;</li> <li>- protection of the soil from degradation and losing fertility;</li> <li>- decrease of pesticide use;</li> <li>- improvement of the status of waste and wild landfills management</li> </ul>	<ul style="list-style-type: none"> <li>- sustainable management of forest eco-systems;</li> <li>- controlled tree cutting;</li> <li>- decrease of soil erosion;</li> <li>- wild landfills cleaning;</li> <li>- regular collection and disposal on locations foreseen for this purpose;</li> <li>- decrease of urbanization, i.e. construction on fertile agricultural land;</li> <li>- illegal transformation of fertile agricultural land into construction;</li> <li>- ban for the pesticide and other harmful matera use;</li> <li>- application of good agricultural practices</li> </ul>	<ul style="list-style-type: none"> <li>- trend of forest cutting;</li> <li>- erosion trend;</li> <li>- number of cleaned wild landfills;</li> <li>- applied good practices in the agriculture;</li> </ul>
<b>Biodiversity and natural heritage</b>	Biodiversity and natural heritage Protection and improvement	<ul style="list-style-type: none"> <li>-decrease of pressure and threats onto biodiversity,</li> <li>- decrease of degradation of habitats;</li> <li>- continuous monitoring of biodiversity;</li> </ul>	<ul style="list-style-type: none"> <li>- implementation of monitoring of biodiversity of species and habitats with the assistance of the adequate methodology;</li> <li>- set up in function of the laboratory and equipment for nature protection (within the PINPG);</li> <li>- sustainable management of biodiversity and natural heritage;</li> <li>- implementation of the strategy for environmental education;</li> <li>- controlled collection of medicinal fruits and plants;</li> <li>- decrease of illegal tree cutiing;</li> <li>- hunting and fishery ban;</li> <li>- fire prevention</li> </ul>	<ul style="list-style-type: none"> <li>- results from the performed monitoring;</li> <li>- trend of forest cutting;</li> <li>- number of fires;</li> <li>- number of campaigns/education held;</li> </ul>



<b>Region</b>	Protection and improvement of regional characteristics	<ul style="list-style-type: none"> <li>- decrease of regional degradation;</li> <li>- fire prevention;</li> <li>- adequate waste disposal;</li> </ul>	<ul style="list-style-type: none"> <li>- implementation of monitoring and protection of the geological diversity and regional values of the NPG;</li> </ul>	<ul style="list-style-type: none"> <li>- results from the performed monitoring;</li> </ul>
<b>Cultural heritage</b>	Protection and improvement of the cultural heritage	<ul style="list-style-type: none"> <li>-Maintenance and improvement of the status of the cultural heritage and archeological localities.</li> </ul>	<ul style="list-style-type: none"> <li>- implementation of conservation activities for the protection of the cultural heritage;</li> <li>- development of special programs for the protection and management, as well as promotion of the rich cultural heritage</li> </ul>	<ul style="list-style-type: none"> <li>- number of realized activities;</li> <li>- number of developed programs/plans;</li> <li>- number of registered facilities;</li> </ul>
<b>Material goods</b>	Protection and improvement of material goods	<ul style="list-style-type: none"> <li>- reconstruction and maintenance in good shape the existing infrastructure (road network, water supply systems and waste water treatment);</li> <li>- establishment of an efficient waste management system;</li> <li>- maintenance of the existing touristic localities (facilities, trails and similar);</li> </ul>	<ul style="list-style-type: none"> <li>- maintenance of the existing touristic localities in good shape;</li> <li>- establishment of an efficient waste management system</li> <li>- maintaining in good shape the existing infrastructure on the territory of the NPG</li> </ul>	<ul style="list-style-type: none"> <li>- number of interventions</li> <li>- complaints and praises from visitors</li> <li>- trend of waste removal;</li> </ul>

## **8. IDENTIFICATION OF SIGNIFICANT ENVIRONMENTAL IMPACTS**

Potential environmental impacts, the health of the population and socio-economic aspects that can be caused by the realization of programs, sub-programs and activities forecasted in the operational plans and management programs for the protected area, that are a part of the Management plan of NP Galichica.

The potential environmental impacts, the health of population and socio-economic aspects can be reviewed from the aspect of negative impacts and from the aspect of future benefits, i.e. positive impacts.

The SEA Report takes into consideration the impacts on all media and environmental topics, the population and health of people and the socio-economic characteristics, but from one more general aspect.

Implementation of forecasted activities will to the decrease of pressures and threats onto biodiversity and natural heritage on the territory of the NP Galichica, however on the other hand they can contribute to the damaging of the quality and status of media and environmental topics as well as the health of people.

It is necessary to state that for a part of the activities that are not precisely defined and are planned to be implemented in the following 5-10 years in accordance to the programs and sub-programs for the management of the protected area, additionally a procedure will be led for a more detailed environmental impact assessment, on the level of the concrete planning documentation or on the level of project for which a study for environmental impact assessment will have to be prepared or an elaborate for environmental protection for each project/facility separately.

Environmental impact and socio-economic aspects will be prevented or decreased, if during the implementation of the measures and activities forecasted by the MPNPG, the measures for the decrease of the impact defined in the SEA Report are taken into consideration, as well as the measures that will be given in the elaborates for environmental protection and the environmental impact assessment studies.

Table 16. Review of impacts caused by the implementation of the MPNPG and measures for decrease of the impacts

Environment									
Description of impact	<p>The defined activities in the operational plan for the MPNPG are forecasted to be realized in the following period, 5-10 years in order to protect the area covered by the MPNPG, подобрување на improvement of the status of the media and environmental topics on the territory of the NPG and improvement of the health and quality of life of the population on the territory of the NPG.</p> <p>The PINPG is responsible for the implementation of the continuing monitoring of the media and environmental topics, and based on the obtained results to define the protection measures and for the improvement of the status with the media and environmental topics. The results from the monitoring of the topics and media are submitted to MoEPP by the PINPG.</p> <p>Significant impact expected to be caused are in the stage of construction and reconstruction of information capacities in the NPG, construction of a new and reconstruction of the existing communal infrastructure of touristic localities in the NPG and the construction, reconstruction and maintenance of the touristic localities.</p>								
Impact Assessment	population	Human health	Air	Climate change	Biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	-/+	-/+	-/+	-/+	-/+	+/+	-/+	-/+	+/+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- preparation of the elaborate/s for environmental protection or an EIA study before the construction of the existing communal infrastructure, as well as the construction of new and reconstruction of the existing touristic localities;</li> <li>- application of the measures for the decrease of the impact in the stage of construction/reconstruction (decrease of exhaust gases, sprinkling the land surface where earthen and construction work has to be done, as well as the use of water based sprinkles - to decrease the dust, collect the created waste, decrease the level of noise and etc.)</li> </ul>								
Natural values and natural heritage									
Description of impact	<p>The defined activities for the protection of natural values and the natural heritage which are defined in the operational plan of the MPNPG, are expected to contribute to the protection of the natural heritage, i.e. conservation of the geological and biological richness on the territory of the NPG.</p> <p>By implementing the monitoring of the species and habitats, data will be obtained that can be used for the preparation of additional reports/studies for mapping biodiversity and cultural heritage on the territory of the NPG.</p> <p>Negative impact can be the uncontrolled collection of medicinal plants and fruits, as well as hunting and fishery, that are forbidden activities in accordance to the zoning regime.</p>								
Impact Assessment	population	Human health	air	Climate change	biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	+	+	+	+	+/-	+	+	+	+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- implementation of education about the importance of biodiversity and natural values</li> <li>- forbidding or controlled collection of medicinal herbs and plants</li> <li>- ban of hunting and fishery</li> <li>- respecting allowed activities within the zones</li> </ul>								

<b>Forest habitats and eco-systems</b>									
Description of impact	The defined activities for management of forest habitats and eco-systems that are defined in the operational plan of the MPNPG, is expected to contribute for a sustainable management with forest habitats, mapping of forest eco-systems in accordance with the Habitats Directive. Within this program activities are forecasted such as the preparation of the Rulebook for the definition of consumers that will have the right to purchase heating wood from the PINPG, from the vulnerable categories, with which cutting will decrease of the forests for the production of heating wood. Negative environmental impact and on the health of people from the implementation of these activities are not expected.								
Impact Assessment	population	Human health	air	Climate change	Biodiversity and natural heritage	water	soil	cultural heritage	Material goods
	+	+	+	+/-	+/-	+	+	+	+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- implementation of education about the importance of biodiversity and natural values;</li> <li>- preparation of a plan for sustainable management/administration of the forests</li> <li>- controled tree cutting</li> <li>- respecting allowed activites within the zones</li> </ul>								
<b>Cultural heritage</b>									
Description of impact	With the forecasted activities for the protection of the cultural heritage, as well as with the implementation of activities, that arise from the action plan, it is expected to generate direct and indirect measures that will contribute for the protection of the cultural heritage on the territory of the NPG. Conservation activities of specific facilities identified as cultural heritage ill be realized based on the plan and in cooperation with the Directorate for cultural heritage protection.								
Impact Assessment	population	Human health	air	Climate change	Biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	+	+	+	+	+	+	+	+	+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- implementation of education about the importance of biodiversity and natural values</li> <li>- forbidding or controlled collection of medicinal herbs and plants</li> <li>- ban of hunting and fishery</li> <li>- respecting allowed activites within the zones</li> </ul>								
<b>Sustainable tourism - Strategy for sustainable tourism development in NP Galichica</b>									
Description of impact	The defined activities in the Strategy for sustainable tourism development in NP Galichica, which is a part of the MPNPG forecasts the development of sustainable tourism in the area of NPG. In the Strategy research has been made of development possibilities of other types of alternative tourism (culture tourism, religious tourism, archeological tourism, health tourism, scientific tourism, religious-monastery tourism, gastronomic tourism, congress tourism, mountain tourism). The development of sustainable tourism of the NPG is in tight correlation with certain characteristics that can be deemed the basis for touristic activities. Sustainable tourism must rely on comparative advantages of the area, such as the rich and significant biodiversity, the natural surroundings, peace and quiet, the characteristic location between the two lakes, the typical karst area and other.								

	Significant impact that is expected to be caused in the stage of construction and reconstruction of informative capacities in the NPG, construction of a new and reconstruction of the existing communal infrastructure of touristic localities in the NPG and the construction, reconstruction and maintenance of touristic localities.								
Impact Assessment	population	Human health	air	Climate changes	Biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	-/+	-/+	-/+	-/+	-/+	+/+	-/+	-/+	+/+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- preparation of an elaborate/s for environmental protection or an EIA Study before the construction/reconstruction of the existing communal infrastructure, as well as the construction of new and reconstruction of the existing touristic localities;</li> <li>- application of the measures for decrease of the impact in the stage of construction/reconstruction (decrease of exhaust gas emission, sprinkling the land surface where earthen and construction work has to be done, as well as the use of water based sprinkles - to decrease the dust, collect the created waste, decrease the level of noise and etc.)</li> </ul>								
<b>Socio-economic aspects (population, communities, housing, public functions, economic aspects)</b>									
Description of impact	<p>Forecasted activities in the program for local development include regular updating of the strategy for sustainable tourism, publishing the gram for grants and support of projects from local communities which are based on sustainable development, support and organization of the fair for producers of traditional products, promotion of the region as an attractive location and etc.</p> <p>With the reconstruction of the existing water supply grid of the touristic localities, increase of the number of visitors will be provided, from which local population will realize financial revenues. The number of households that will generate revenues from service providing in alternative tourism types is expected to increase.</p>								
Impact Assessment	population	Human health	air	Climate change	Biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	+	+	+	+	+	+	+	+	+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- implementation of education about the importance of biodiversity and natural values</li> <li>- respecting allowed activities within the zones</li> </ul>								
<b>Material goods – Infrastructure for water management</b>									
Description of impact	The defined activities that regard the reconstruction of the existing water supply systems and waste water treatment of the existing tourist facilities, can cause negative impact only in the construction stage.								
Impact Assessment	population	Human health	air	Climate change	biodiversity and natural heritage	Water	soil	Cultural heritage	Material goods
	-/+	-/+	-/+	-/+	-/+	+/+	-/+	-/+	+/+
Measures to decrease impact	<ul style="list-style-type: none"> <li>- provision of the participation of all interested parties in the decision-making process for the realization of the activities defined in the MPNPG;</li> <li>- preparation of an elaborate/s for environmental protection or an EIA Study before the construction/reconstruction of the existing communal infrastructure, as well as the construction of new and reconstruction of the existing touristic localities;</li> </ul>								

	- application of the measures for decrease of the impact in the stage of construction/reconstruction (decrease of exhaust gas emission, sprinkling the land surface where earthen and construction work has to be done, as well as the use of water based sprinkles - to decrease the dust, collect the created waste, decrease the level of noise and etc.)								
<b>Material goods – Infrastructure for waste management</b>									
Description of impact	The PINPG has prepared a Plan for waste management on the territory of the NP Galichica, that forecasts the placement of containers and bins for waste selection, regular pick up and its disposal, waste disposal ban, wild landfills cleaning and prevention of the occurrence of new ones. In the operational plan of the MPNPG additional investments and changes in the waste management system are not forecasted.								
Impact Assessment	population	Human health	air	Climate change	Biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	+	+	+	+	+	+	+	+	+
Measures to decrease impact	Only positive impact is expected, regular management of communal waste and raising public awareness for waste management on the territory of the NP Galichica.								
<b>Raising public awareness – Strategy for environmental education</b>									
Description of impact	In accordance with the LNP, the national parks in North Macedonia are intended for the protection of natural areas because of cultural, scientific, educational, touristic and recreational goals. As previously mentioned, this is in line with the recommendations of the IUCN. Yet, in the period after the declaration of the Park modest results were achieved in the field of environmental education. Among the main reasons for such status is listed also the model of (self)financing of the Park that supported mainly employment of personnel with forestry education i.e. investments in infrastructure, facilities and technical assets mainly for the needs of the forestry and with them related activities. The Strategy for environmental education and public relations, has the scope of preparation and distribution of informative content about biodiversity and other significant natural characteristics.								
Impact Assessment	population	Human health	air	Climate change	biodiversity and natural heritage	water	soil	Cultural heritage	Material goods
	+	+	+	+	+	+	+	+	+
Measures to decrease impact	By implementing the Strategy for environmental education only positive impact is expected, i.e. raising public awareness of the population on the territory of the NPG about the significance of the natural values.								

## 9. ANALYSIS OF ALTERNATIVES

The SEA procedure forecasts the review and comparison of the offered one or several alternative solutions to the planning document, based on the analysis of several criteria, including also the estimated environmental impacts. The economic and society aspects are also recommended to be included in the analysis, in order to obtain the adequate solution that will satisfy the social and economic needs, however not causing significant negative environmental impacts.

The Management plan for NP Galichica regards 10 years, contains the operational plan with programs, subprograms and activities for the development of the area.

The Management plan for NP Galichica, subject to this report is second issued and regards the time period from the year 2021-2030.

The Management plan for NP Galichica represents the link for the management of a protected area and a review of the actual status of natural values based on the overall performed natural values assessment, threats that the area faces, national and international significance of the area, socio-economic values, as well as recommendations for management of the protected area.

The MPNPG also gives a review of the actual status of the biodiversity, the natural and cultural heritage of the NPG, the limits of the NPG and the zoning inside the protected area, pressures and threats onto the key natural values, and foresees activities that will obtain the protection of the natural values and richness and the environmental protection, at the same time creating conditions for local development and sustainable tourism.

In the MPNPG alternative solutions have not been reviewed for the foreseen activities for protection and sustainable management of the protected area, but the proposed activities are based on the determined needs for establishment and further functioning of the PINPG and the implementation of the Management plan for the NPG, as well as fulfilment of legal obligations.

The proposed operational plan is directed towards the future functioning and development of the NPG based on the possibilities, potentials and rational use of available resources, in order to satisfy the needs and requirements on the local, regional and national level, as well as reconciliation of the future development of the NP Galichica in accordance with the requirements of the EU for spatial planning, protection of biodiversity and natural heritage, as well as protection of media and environmental topics.

Two alternatives are reviewed in this chapter, i.e. status without and with the implementation of the Management plan for the National Park Galichica.

### **Alternative 0: Status without the implementation of the Management plan for the National Park Galichica**

- Socio-economic development of the population in NP Galichica, will remain on the same level or maybe worse, as well as the quality of life;
- Demographic characteristics will remain the same or a worse level (unemployment rate with the population on the territory of the NPG will remain the same or will increase, the positive migration trend from villages to cities, however also outside of the country, will continue the depopulation trend of the hill-mountain villages on the territory of the NPG);
- The status of the health of people will remain the same or will worsen because of the existence of wild landfills near populated locations and the inadequate modality of waste

management, uncontrolled urbanization and inadequate land use, unsustainable natural resources management and similar;

- A small number of households that would be included in sustainable tourism development;
- Absence of new investments;
- Limited touristic offers;
- Insufficiency of promotional activities for the area;
- Air quality will remain on the same level or will worsen;
- Harmful gas emissions from inadequate waste management;
- Uncontrolled waste burning in the existing and wild landfills;
- Uncontrolled forest cutting;
- Drying of pools will have a negative impact on wildlife in the NPG;
- Same or worsened water quality in Ohrid Lake, Prespa Lake and lakeshore habitats because of pesticides and other chemicals used in agriculture, especially the local orchards;
- Eutrophication of Prespa Lake;
- Illegal construction of facilities along the shore of Ohrid Lake, especially in and around the strict protection zone in the direction from Peshtani to Gradishte, from Gradishte to Trpejca, the locality Nadol, South from the village Trpjca and Konjsko (Prespa);
- Uncontrolled hunting and fishery;
- Same or increased trend of decrease of surfaces under arable land in the NP;
- Inadequate cultural heritage conservation;
- Absence of a plan/program with activities for the protection of the cultural heritage;

### **Alternative 1: Status with the implementation of the Management plan for National Park Galichica**

With the implementation of the activities and measures foreseen in the Management plan for the National Park Galichica, it is expected to achieve:

- Sustainable management of the NPG;
- New possibilities for employment in accordance to the sustainable tourism concept and other alternative tourism types;
- Decrease of the positive migration trend;
- Improvement of local economic development;
- Possibilities for the introduction of a new tourism type – health tourism;
- Improvement of the waste management status;
- Education on increasing the awareness for the significance of natural resources;
- Rational natural treasures management,
- Promotion of non-polluting industries;
- Sustainable management of forest habitats and eco-systems;
- Fulfilment of legal obligations for planning the activities defined in the LNP;
- Conservation of natural values of the area, use of the touristic potentials for the promotion and development of sustainable types of tourism and other alternative businesses and activities;
- Supporting the local socio-economic development of the area;



- Defined responsibilities and competencies for the implementation of measures and activities;
- Planning, spatial and economic development and management of the NP Galichica;

Conclusion: Acceptable alternative is the realization of the Management plan for NP Galichica.

## **10. MONITORING PLAN OF THE IMPLEMENTATION OF THE MPNPG**

The SEA procedure defines obligatorily the implementation plan for the realization of the activities and measures forecasted in the MPNPG. The goal of this monitoring plan is to forecast and realize the monitoring of the implementation of the measures defined in order to decrease or prevent potential negative impacts.

In order to perform the monitoring over the effectiveness of the Plan, monitoring is necessary of the set-up indicators and their development, during which we must consider also the data about the current environmental status.

The monitoring plan for the environment gives a possibility for systematic monitoring, testing and assessment of the status of the pollution and the status of the media and the environmental topics overall as well as identification and registration of the pollution sources of separate media and environmental areas to:

- Provide data for further monitoring of the environmental status;
- Have a better insight into the changes of the environment in the subject locations;
- Confirm that the contracted conditions during the approval of the planning documentation are adequately implemented;
- Confirm that the impacts are within the forecasted or approved limit values;
- Monitoring of the environmental status in order to timely view unforeseen impacts from the implementation of the planning documentation and management of the same;
- Confirm that by applying the measures for mitigation benefits increase with regard to environmental protection;
- Determination of activities that have to be undertaken in order to reduce the environmental impacts.

In order to perform the monitoring of efficiency of the planning document, monitoring is necessary of the set-up indicators and their development with which the goals of the same will be confirmed. For the monitoring of the indicators it is necessary to take into consideration also the data about the current environmental status.

By monitoring the environmental status, the justification and application will be confirmed of the proposed measures for mitigation and their functionality, which represents a large benefit with regard to environmental protection.

Monitoring of the media status will be realized with defined parameters for the monitoring of each media and with the defined frequency for each activity separately.

The type and the frequency of the monitoring will be proposed in the studies/elaborates for environmental impact assessment from each project separately. About the monitoring and the measures proposed for the decrease of harmful environmental impacts the local self-governance will be responsible, i.e. Local inspectors (sanitary, communal, environmental inspectors and etc.).

Other very important monitoring aspect is that it can provide the basis for obtaining information, that in the future would be implemented in the planning processes.

PI National Park Galichica has the legal obligation for records keeping, i.e. monitoring of the status of the natural and cultural heritage, but also the other values of NP Galichica. The results from the obtained research are submitted to the competent body for the implementation of environmental protection, i.e. MoEPP.

Table 17. Monitoring plan for implementation of measures

SEA area	General goal of the SEA	Monitoring	Indicators	Verification sources
<b>Population and socio-economic development</b>	Improvement of quality of life of the population on the territory of the NPG	<ul style="list-style-type: none"> <li>- Monitoring of touristic offer;</li> <li>- Monitoring of construction and reconstruction of water supply grid and touristic localities;</li> <li>- Monitoring of the modality of waste water treatment, waste and other emissions in the environment;</li> <li>- Monitoring of the demographic structure of the population;</li> </ul>	<ul style="list-style-type: none"> <li>- Number of households offering services in the area of sustainable tourism (rural);</li> <li>- number of tourists and revenue realized from this type of tourism;</li> <li>- (un)employment rate;</li> <li>- (de)population trend;</li> <li>- migration rate;</li> </ul>	<ul style="list-style-type: none"> <li>- PINPG</li> <li>- Government of RNM,</li> <li>- MoEPP,</li> <li>- Municipality of Ohrid,</li> <li>- Municipality of Resen,</li> <li>- Ministry of transportation and communications,</li> <li>- Ministry of economy,</li> <li>- Ministry of finance,</li> <li>- Ministry for local self-governance,</li> <li>- Ministry of agriculture, forestry and water economy,</li> <li>- Ministry of health,</li> <li>- Ministry of labour and social policy,</li> <li>- Ministry of culture,</li> <li>- Ministry of education and science,</li> <li>- Crisis management centre,</li> <li>- Directorate for protection and saving,</li> <li>- PISR</li> <li>-PIMP</li> <li>- ELEM Elektrani na Makedonija,</li> <li>- MEPSO Macedonian energy system operator</li> <li>- Public Enterprise „Makedonski shumi“ and affiliates,</li> <li>- Communal enterprises,</li> <li>- Makedonski Telekom and other operators, operators in mobile telephony, Makedonska radiodifuzija, Makedonska poshta,</li> <li>- CSO's, institutes,</li> <li>- State statistics office;</li> </ul>
<b>Population health</b>	Protection and improvement of population health on the territory of the NPG	<ul style="list-style-type: none"> <li>- Monitoring of the health status of the population.</li> </ul>	<ul style="list-style-type: none"> <li>- reports regarding the health of the population and visitors;</li> <li>-pollution trends of media and environmental topics;</li> <li>-increased public awareness for nature protection on the territory of the NPG;</li> <li>- number of cleaned wild landfills;</li> </ul>	<ul style="list-style-type: none"> <li>- Ministry for local self-governance,</li> <li>- Ministry of agriculture, forestry and water economy,</li> <li>- Ministry of health,</li> <li>- Ministry of labour and social policy,</li> <li>- Ministry of culture,</li> <li>- Ministry of education and science,</li> <li>- Crisis management centre,</li> <li>- Directorate for protection and saving,</li> <li>- PISR</li> <li>-PIMP</li> <li>- ELEM Elektrani na Makedonija,</li> <li>- MEPSO Macedonian energy system operator</li> <li>- Public Enterprise „Makedonski shumi“ and affiliates,</li> <li>- Communal enterprises,</li> <li>- Makedonski Telekom and other operators, operators in mobile telephony, Makedonska radiodifuzija, Makedonska poshta,</li> <li>- CSO's, institutes,</li> <li>- State statistics office;</li> </ul>

				<ul style="list-style-type: none"> <li>- Reports, project/planning documents, permits, approvals, opinions and etc.</li> <li>- PINPG</li> <li>- Ministry of health,</li> <li>- Crisis management centre,</li> <li>- Directorate for protection and saving,</li> <li>- Communal enterprises,</li> <li>- CSO's, institutes,</li> <li>- State statistics office;</li> </ul>
<b>Air quality and climate change</b>	Protection and improvement of air quality and decrease of greenhouse gas emissions	<ul style="list-style-type: none"> <li>- Monitoring the practices for management in forestry and agriculture;</li> <li>- Monitoring the modality of waste management;</li> </ul>	<ul style="list-style-type: none"> <li>- number of prevented and distinguished fires;</li> <li>- number of cleaned wild landfills;</li> <li>- surfaces of removed and newly planted forest vegetation</li> </ul>	<ul style="list-style-type: none"> <li>- PINPG</li> <li>- Government of RNM,</li> <li>- MoEPP,</li> <li>- Municipality of Ohrid,</li> <li>- Municipality of Resen,</li> <li>- Ministry of transportation and communications,</li> <li>- Ministry of economy,</li> <li>- Ministry of finance,</li> <li>- Ministry for local self-governance,</li> <li>- Ministry of agriculture, forestry and water economy,</li> <li>- Ministry of health,</li> <li>- Crisis management centre,</li> <li>- Directorate for protection and saving,</li> <li>- ELEM Elektrani na Makedonija,</li> <li>- Public Enterprise „Makedonski shumi“ and affiliates,</li> <li>- Communal enterprises,</li> <li>- CSO's, institutes,</li> <li>- State statistics office;</li> <li>- Reports, project/planning documents, permits, approvals, opinions and etc.</li> </ul>
<b>Water quality</b>	Protection and improvement of surface and underground water quality	<ul style="list-style-type: none"> <li>- Monitoring the modality of water supply and waste water treatment;</li> <li>- Monitoring the water quality in the Ohrid and Prespa Lake;</li> </ul>	<ul style="list-style-type: none"> <li>- trends of creation of new wild landfills</li> <li>- Number of measures/activities for the rational use of water resources;</li> </ul>	<ul style="list-style-type: none"> <li>- PINPG</li> <li>- Government of RNM,</li> <li>- MoEPP,</li> <li>- Municipality of Ohrid,</li> </ul>

		<ul style="list-style-type: none"> <li>- Monitoring the application of measures for water protection;</li> <li>- Control of the modality of waste management;</li> <li>- Monitoring the health status of the population.</li> </ul>		<ul style="list-style-type: none"> <li>- Municipality of Resen,</li> <li>- Ministry of transportation and communications,</li> <li>- Ministry of economy,</li> <li>- Ministry of finance,</li> <li>- Ministry for local self-governance,</li> <li>- Ministry of agriculture, forestry and water economy,</li> <li>- Ministry of health,</li> <li>- Crisis management centre,</li> <li>- Directorate for protection and saving,</li> <li>- ELEM Elektrani na Makedonija,</li> <li>- Public Enterprise „Makedonski shumi“ and affiliates,</li> <li>- Communal enterprises,</li> <li>- CSO's, institutes,</li> <li>- State statistics office;</li> <li>- Reports, project/planning documents, permits, approvals, opinions and etc</li> </ul>
<b>Soil</b>	Protection and improvement of soil quality	<ul style="list-style-type: none"> <li>- Monitoring the application of measures for protection of soil from erosion, rainfalls, degradation and pollution;</li> <li>- Control of the modality of waste management;</li> <li>- Monitoring the health status of the population.</li> </ul>	<ul style="list-style-type: none"> <li>- trend of forest cutting;</li> <li>- trend of erosion;</li> <li>- number of cleaned wild landfills;</li> <li>- applied good practices in agriculture;</li> </ul>	
<b>Biodiversity and natural heritage</b>	Protection and improvement of biodiversity and natural heritage	<ul style="list-style-type: none"> <li>- Monitoring the use of land in accordance with the applications from the MPNPG;</li> <li>- Monitoring the process of protection of significant species and habitats;</li> <li>- Monitoring of the status of the habitats and species;</li> </ul>	<ul style="list-style-type: none"> <li>- results from the performed monitoring;</li> <li>- trend of forests cutting;</li> <li>- number of fires;</li> <li>- number of held campaigns/education;</li> </ul>	
<b>Region</b>	Protection and improvement of regional characteristics	<ul style="list-style-type: none"> <li>- Monitoring of the use of land in accordance with the applications from the MPNPG;</li> <li>- Monitoring the modality of waste management;</li> </ul>	<ul style="list-style-type: none"> <li>- Results from the performed monitoring;</li> </ul>	
<b>Cultural heritage</b>	Protection and improvement of cultural heritage	Monitoring of applied conservation measures for cultural heritage protection.	<ul style="list-style-type: none"> <li>- number of realized activities;</li> <li>- number of developed programs/plans;</li> <li>- number of registered facilities;</li> </ul>	
<b>Material goods</b>	Protection and improvement of material goods	<ul style="list-style-type: none"> <li>- Monitoring the construction and reconstruction of facilities and infrastructure;</li> <li>- Monitoring the modality of waste management;</li> </ul>	<ul style="list-style-type: none"> <li>- number of interventions</li> <li>- complaints and praises from visitors</li> <li>- trend of waste removal;</li> </ul>	

## 11. CONCLUSIONS AND RECOMMENDATIONS

### 11.1. Conclusions and views

- ✓ National Park Galichica (NPG) is located in the Southwest part of the Republic of North Macedonia, on the mountainous massif Galichica;
- ✓ The mountain Galichica is recognizable by its rich and rare nature and unrepeatability of beauty, declared a national park in 1958;
- ✓ The surface of the NPG amounts 24.151,4 ha;
- ✓ The territory of the NPG belongs to 2 municipalities: Ohrid and Resen. According to the proposal for the new limit, 15.586.ha from the territory of the Park belong to municipality of Ohrid, while 9.368.ha are within the limits of municipality of Resen. The total population in the Park in 2015 amounted 5281 citizens, of which 91% (4828) live in the municipality of Ohrid, that covers 62% of the territory of the Park. The number of citizens in the populated locations of the Park in municipality of Resen amounts 453. In the populated places located immediately near the Park – the city of Ohrid, Velgoshti and Shurlenci – the number of citizens amounts 42.032.
- ✓ With the Law on declaration of a part of the mountain Galichica for a National Park, a part of the mountain Galichica has been declared for a NP, because of the protection of its biodiversity and regional diversity, which are of exceptional significance for nature protection;
- ✓ In accordance to article 136 paragraph 1 from the LNP, because of performing the management and protection work on the Park, the Government of RNM established the Public Institution „National Park Galichica”. The basic business of the PINPG is the management and protection of nature, biological and regional diversity and natural heritage through:
  - protection of natural habitats of national and international significance for cultural-scientific, educational and touristic-recreational goals;
  - establishment of stable environmental processes as well as biological and regional diversity through the permanent conservation of representative physical-geographic regions, biocenosis, genetic resources and authentic status species;
  - creation of conditions for tourism development in accordance to the sustainable development principle;
  - realization of cultural, scientific, educational and recreational goals, that at the same time maintain the natural status of the National Park;
  - sustainable use of the natural treasure in the interest of current and future development, without significant damage of the parts of nature and with as small as possible disbalance of natural balance;
  - creating conditions and undertaking measures for the protection of the National Park in order to preserve and rationally manage specific components of biological and regional diversity as well as sustainable and rational use of the natural treasure;
  - analysis, research and processing of scientific methods about the issues from interest for the protection of the national park;
  - records keeping and documenting the natural and other values and beauty in the national park (location, threat grade, protection measures);
  - carrying and implementation of strategies, programs, management plans, conditions and measures for the protection of the national park;
  - undertaking measures for the protection of defined zones in the national park;

- provision of support and assistance for the protection of the national park through raising public awareness, and especially in the educational process;
  - definition of components of biological and regional diversity and their threats;
  - establishment of a protection regime for the national park;
  - prevention of harmful activities of individuals and legal entities and disruptions of the national park as a consequence of technological development and business performance, i.e. provision of maximum adequate conditions for the protection and nature development;
  - supporting scientific-research work in the area of protection of the national park;
  - issuing scientific and expert publications, guides, diapositives, postcards, and other informative and promotional material for the national park;
  - support and development of interest and a relation towards the maintenance of the national park through the organization of exhibitions, showing movies, lectures and other formats;
  - production, buy-out and sales of medicinal and aromatic plants, fruits and seeds;
  - construction of infrastructure and arrangement of springs, fountains, excursion localities and recreational places and other;
  - performing protection, breeding and shooting wild species of animals, such as protection and collection of wild species of plants and fungi and other non-wooden forest products;
  - protection, breeding and additional fishery on the fish fund;
  - performing and other operations that contribute for the protection and improvement of the national park.
- ✓ The Management plan of the National Park „Galichica“ 2021 - 2030, is a second Plan for the management of this protected area;
  - ✓ The Management plan of the National Park foresees an efficient organization and use of the area, sustainable resources use and maintenance, protection and management of the environment and life of people, in order to provide sustainable development of the National Park, and at the same time environmental protection.
  - ✓ The Management plan of the National Park Galichica does not forecast measures for adaptation and/or mitigation of forests, biodiversity, water, natural and cultural heritage towards climate change, as well as the relevant breeding measures;
  - ✓ The plan estimates activities through which demographic development will be achieved, i.e. opening of new workplaces, migration decrease, social differences decrease, quality of life improvement and etc.
  - ✓ Within the Plan is enclosed the Strategy for the development of sustainable tourism on the NP Galichica and other types of alternative tourism (cultural tourism, religious tourism, archaeological tourism, health tourism, scientific tourism, religious-monastery tourism, gastronomic tourism, congress tourism, mountain tourism).
  - ✓ The plan forecasts activities that will contribute towards the enrichment of the touristic offer, formation of a new touristic product, with the goal to attract domestic and foreign tourists.
  - ✓ Within the Plan is enclosed the Strategy for environmental education that has the goal of preparation and distribution of informative content regarding biodiversity and other significant characteristics.
  - ✓ The Plan forecasts measures and activities for improvement of the status of the biodiversity and natural heritage, as well as activities and measures for improvement of
-

media and environmental topics that will contribute to the decrease of pressures onto biodiversity and achievement of protection and improvement of the same.

- ✓ The Plan contains an Operational plan with programs that regard the maintenance and monitoring of the natural heritage, sustainable natural resources use, management of forest habitats and ecosystems, management of cultural heritage, sustainable tourism development, local development, information, raising public awareness and education, administration, management and finance.
- ✓ The Management plan of the National Park foresees measures for the establishment of the monitoring with which the status will be monitored of the environmental media, data will be provided and their availability, which will assist future processes of planning and use of the area.

### **11.2. Recommendations**

- ✓ Accurate implementation of the activities stated in the MPNPG, in accordance with the zoning of the area and the distribution of allowed and forbidden;
- ✓ Inventory of greenhouse gases to be made, measures to be defined for the adaptation and mitigation of climate change relevantly for each vulnerable section (biodiversity, natural and cultural heritage, forest eco-systems, water, agriculture, tourism and etc.);
- ✓ Avoiding the construction of touristic facilities and supporting infrastructure on locations with significant biodiversity or that have localities with cultural heritage;
- ✓ Revise the waste management plan of the PINPG in order to adequately and permanently manage the generated waste on the territory of the NP Galichica, where new treatment technologies will be considered for diverse types of waste that can be generated on the territory of the NP Galichica;
- ✓ Take into consideration the quantity of created biodegradable waste and treatment modalities, such as composting;
- ✓ The selection of locations for the set-up of the water supply systems and waste water treatment to be based on detailed testing and analysis, in order to avoid locations that are identified as sensitive from the aspect of presence of rich biodiversity, protected species, protection zones, material goods and etc.;
- ✓ Accurate implementation of SEA and EIA procedures, as well as the relevant impact assessment on the level of a concrete planning/project documentation or project during the performance of the forecasted activities;
- ✓ Provide active participation and inclusion of the stakeholders in the processes of opinion creation and decision-making processes;



## 12. NON-TECHNICAL SUMMARY

### 12.1. Introduction

National Park Galichica (NPG) is located in the South East area of the Republic of North Macedonia, on the mountain massif Galichica, includes also areas of its branches Istok and Precna Planina, as well as the island Golem Grad in the Prespa Lake.

National Park Galichica is recognizable by its rich and rare nature and unforgettable beauty, and was declared a national park in 1958, with the scope to preserve the flora and fauna as well as the natural appearance of the mountain Galichica. With the Law on the declaration of an area of the mountain Galichica for a national park (Off. Gazette of the RM, no. 171/10) an area of the mountain Galichica was declared a national park, for the protection of its biological and landscape diversity, which are of exceptional significance for nature protection.

NP Galichica is managed by the Public Institution “National Park Galichica” (PINPG), Ohrid, Republic of North Macedonia. PINPG manages integrally the complete territory of the protected area.

For the realization of the protection of NP Galichica, PINPG carries the management plan and annual programs for nature protection. The management plan for NP Galichica (PINPG), is prepared in accordance to article 98, paragraph 1, from the Law on nature protection (LNP), prescribes the measures and activities for the protection of the natural values of the Park and plans the management of the Park for a period of 10 years. In accordance to article 98, paragraph 2 from the LNP, the protected areas management plans must be in accordance to the Aerial plan of the Republic of North Macedonia.

The planning document (Management plan for NP Galichica) is a document for which in accordance to the Decree for the strategies, plans and programs, including also the amendments on these strategies, plans and programs, it is obligatory to realize the procedure for the assessment of their environmental impact and onto the life and health of people, article 3, point 18 – Planning documents for the management of protected areas.

### 12.2. Introduction to the strategic environmental assessment (SEA)

Strategic Environmental Assessment (SEA) represents the process of impact assessment of the plans, strategies and programs onto the environment and the health of people. Besides the impact assessment measures are forecasted that have the scope of environmental protection from all possible impacts even in the process of planning and decision-making for specific strategies, plans and programs, i.e. planning documents. Through the timely realization of the SEA procedure, identification is provided of potential negative and positive impacts from the environmental plan, program or strategy realization, and at the same time also alternative and possible measures are defined for the prevention, decrease and mitigation of the negative impact on all elements of the environment.

The SEA procedure is implemented in several stages / steps:

**Verification:** determining whether the planning document will have significant impact onto the environment and whether the implementation of the SEA is necessary.

**Scoping definition:** information scoping definition and the level of details that the SEA Report will contain.

**The SEA report** is the main mechanism for reporting with regard to the description and evaluation of the significant impacts (positive and negative) onto the environment from the

implementation of the planning document, as well as the activities for the prevention, decrease and as much as possible, neutralization of the significant negative impacts.

**Public consultations:** covers a consultation with the parties and the stakeholders during the definition of the SEA scoping, the draft SEA Report and placement of the same for public examination (publishing).

**Acceptance:** provision of information for the approved planning document, i.e. how many of the comments received during the consultations were taken into consideration and the monitoring methods of the significant impacts from the implementation of the planning document.

**Monitoring:** activities implementation monitoring, the possible impacts onto the environment and the social aspects in the early stage for the authorized authorities to undertake measures for improvement during the implementation of the planning document.

### **Goals of the Strategic Environmental Assessment**

The main goals of the SEA are to identify, describe and assess:

- The possible significant environmental effects/impacts from the implementation of the Management plan for NP Galichica for the period 2021-2030, as well as their monitoring in order to provide identification of unforeseen negative impacts in the early stage of implementation of the planning document and undertaking measures for improvement of the status if necessary;
- The most important environmental limitations, natural resources and climate change related to the implementation of the Management plan for NP Galichica;
- The measures for prevention, decrease and neutralization of the negative environmental impacts;
- The possibilities that the Management plan for NP Galichica offers to contribute for the improvement of the status of the environment, building resilience towards climate change.

### **Benefits for the implementation of SEA**

The benefits from the implementation of the strategic environmental assessment are:

- integration of the social, economic and environmental aspects in the spirit of sustainable development;
- taking into consideration the goals for environmental protection;
- inter-sector cooperation realization and taking into consideration the national, regional and local needs and goals;
- realization of transboundary cooperation depending on the area of realization of the planning document;
- review of the current status and obtaining realistic information, that will assist the decision-makers on a higher level with the carrying of the same.

### **Legal frame for the regulation of the SEA procedure**

During the preparation of the Strategic Environmental Assessment, we have taken into consideration the Directive 2001/42/EC for the assessment of the impacts of specific environmental plans and programs, transposed into the national legislation.

By-laws that regulate the SEA procedure are:

- Decree on the strategies and programs, also including the amendments of these strategies, plans and programs, for which the procedure for their environmental

impact assessment and their impact onto the life and health on people is obligatorily performed;

- Decree on the criteria based on which the decisions have been carried whether specific planning documents could have a significant environmental impact as well as on the health of people;
- Decree on the content of the Strategic Environmental Assessment Report;
- Decree on public participation during the preparation of regulations and other legal documents, as well as plans and programs in the environmental area;
- Rulebook on the modality of implementation of transboundary consultations;
- Rulebook on the form, content, and template of the Decision for the implementation, i.e. nonexecution of the strategic assessment and of the forms for the need of implementation, i.e. nonexecution of the strategic assessment;

### **Goal of the SEA Report and Methodology applied**

The SEA Report and the MPNPG for the planning period from 2021–2030, must perform the identification and analysis of the environmental impacts by the implementation of the forecasted planning document yet in the stage of planning and preparation and to foresee the relevant measures for the prevention and decrease of the impacts.

The Methodology that was used for the preparation of the SEA Report for the MPNPG for the planning period 2021 – 2030, is based on the implementation of research, assessments and analytic approach consisting of several steps:

- Review and analysis of the current environmental status of NP Galichica, as well as the surroundings in terms of transboundary impacts;
- Introduction with the content of the draft Management plan for NP Galichica;
- Identification of the already defined goals for the protection and improvement of the environment in the existing strategic documents on a local, national and international level;
- Review of the existing status of the most important elements from the environment on the area defined with the MPNPG that would be most vulnerable during the realization of the planning document;
- Identification and assessment of all possible impacts (with regard to type, nature, strength, duration, reversibility and cumulative impacts);
- Preparation of a plan with preventive measures for the mitigation of the environmental impacts from the realization of the MPNPG;
- Informing all the decision-makers and stakeholders of the consequences from the realization of the plan onto the environment through providing a clear insight of the draft version of the SEA Report, on a national level as well as in transboundary context (The Hellenic Republic and the Republic of Albania);
- Provision of a transparent process of public inclusion and execution of public debates;
- Preparation of a report from public consultations, that will contain minutes from the held public debates, a list of stakeholders that gave comments, as well as a list of answers;
- Finalization of the SEA Report by incorporating the comments from the stakeholders.

### **12.3. Content summary of the MPNPG**

#### **Brief review of the content of the MPNPG**

The National Park Galichica is located in the South East area of the RNM, on the mountain massif Galichica, includes also areas of its branches Istok and Precna Planina, as well as the island Golem Grad in the Prespa Lake.

The National Park Galichica comes under two municipalities in the RNM, Ohrid and Resen. Seventeen inhabited places are located within the limits of the Park, fourteen of which in the municipality of Ohrid and 3 in the municipality of Resen.

The Management plan for NP Galichica, subject of this report, is second and regards the period from 2021-2030.

The Management plan for NP Galichica is prepared in accordance with the Rulebook for the content of the management plans for protected areas and the annual programs for nature protection and the following chapters are covered in it:

- Introduction
- Area description
- Management strategy
- Operational plan
- Management and administration
- Annexes

### **Ownership and user rights**

The biggest part of the land in the limits of the Park is in state ownership, approximately 19.502 ha or 79%, and the surface of the lots in private ownership is approximately 5180 ha. A large part of the land in the Park which is in state ownership is given on permanent usage to the PINPG.

Besides PINPG, the management right or administration for parts of state land in the Park belongs also to other legal entities, for example usage and protection of water from pollution is the responsibility of MoEPP, and the PINPG is obligated to perform the monitoring of the waters in the Park and submit the results to MoEPP, (in accordance with Article 155 from the Law on waters). In accordance with Article 4 from the Law on pastures, the management of the pastures is given to the Public Institution for pastures management (PIPM), during which an agreement is concluded with the livestock breeders that live in the populated locations and PIPM, while the maintenance and protection of the pastures that pass through the territory of the NPG, are under the competence of the Public Institution for State Roads (PISR).

### **Protected area zoning**

With the act of declaration foreseen in Article 92 from the Law on nature protection, in the protected areas are defined 4 zones, while the activities and trades that can be executed in the zones are defined in Article 105 from the same law.

1. Strict protection zone, with the surface of 2117 ha or (9%), where scientific research activities are allowed, if they are not contrary to the primary goals for the protection of the area.
2. Active management zone, with a surface of 12.275 ha or (51%), where management activities are performed that regard manipulation with habitats and manipulation with species.
3. Sustainable usage zone, with the surface of 9612 ha or (40%). Long-term interventions and measures undertaking can lead to obtaining characteristics of the zone for active management.

4. Protected belt, with the surface of 147 ha or (1%). The entity managing the protection area, i.e. PINPG is obligated to take care and undertake the relevant measures in the protected belt in order to decrease the threats for the protection area.

### **Area protection goals**

The main assignment for the protection of the existing values, the biodiversity and the natural heritage, must be directed towards the components which are or could be concerned by humans and the components that can be controlled.

PINPG Galichica and the key stakeholders in the process of preparation of the MPNPG have defined a mutual vision, that specifies the wishes of the visitors, employees, local communities and the CSO's on the territory of the NP Galichica and regards the maintenance of the Park in the interest of the current and future generations, through the maintenance of the natural and cultural values, limited and controlled urbanization, good cooperation and participation in the decision-making processes.

„NP Galichica“ is a significant and functional part of the European Environmental Network „NATURA 2000“ and we are all proud of our contribution for the maintenance of the nature in Europe and the world.

The main goals for the protection of the area are:

- Preservation and monitoring of the natural heritage,
- Sustainable use of natural resources of the area,
- Forest habitats and eco-system management,
- Sustainable tourism and recreation development,
- Local development,
- Informing, raising public awareness and education, and
- Administration, management and finance.

On the basis of the LNP and the Rulebook on the content of the management plans for the management of the protected areas and the annual programs for nature protection and in order to protect and preserve the values of NP Galichica, we have identified eight protected area management programs.

Program 1 - Preservation and monitoring of the natural heritage

Program 2 - Sustainable use of natural resources of the area

Program 3 - Forest habitats and eco-system management

Program 4 - Cultural heritage management

Program 5 - Sustainable tourism and recreation development

Program 6 - Local development

Program 7 - Informing, raising public awareness and education.

Program 8 - Administration, management and finance

### **Reconciliation of the goals of the MPNPG with other relevant strategic and planning documents**

All proposed measures and activities in the Management plan for NP Galichica are directed to the protection of the nature, the key values of the Park and the environment in its entirety. According to Article 100 from the LNP, the Management plans for the protected areas have to be reconciled with the goals, measures and activities for the protection and management of the protected areas determined with this LNP, the act on declaration of the protected area, international standards and international agreements ratified by the Republic of North Macedonia, as well as the urban planning documentation.

In order to determine whether the goals of the MPNPG are related to the goals of the already carried strategic and planning documents on a national, regional and local level and how will they contribute to the achievement of the goals of these documents, a table review has been prepared.

The MPNPG gives directions, provisions and measures, that must take into consideration during the preparation of the documentation on a lower level, i.e. strategic and planning documents on a local level, that regard the use of the area and the land.

#### **12.4. Relevant aspects of the current status of the environment**

This chapter provides an overview of the relevant aspects of the current state of the environment at the regional level, on the territory of the NPG, in terms of demographic characteristics, economic development, tourism, population health, air quality and climate characteristics, water quality, soil quality, forests and forest land, biodiversity and natural heritage, cultural heritage and condition of material goods (water supply, wastewater management, waste management and road network).

#### **12.5. Environmental characteristics in the areas of significant relevance in the absence of MPNPG implementation**

This chapter of the Report provides an overview of the conditions, trends and threats to the population, population health, air and climate change, waters, soils, biodiversity and natural heritage, cultural heritage, material goods, as well as the situation without implementation and with implementation of MPNPG.

#### **12.6. Areas of specific environmental meaning, from the aspect of wild birds and habitats protection**

The National Park Galichica has been declared in 1958 in order to preserve the vegetative and animal world and the natural view of the mountain Galichica.

With the Law on the declaration of a part of the mountain Galichica for a National Park a part of the mountain Galichica is declared for a National Park, because of the protection of its biological and regional diversity, which are of exceptional meaning for nature protection.

The Park represents a focal point of biodiversity in the region, as well as wider, in global frames. The Park distinguishes itself from other area of similar size by its exceptional richness of habitats and species on a relatively small territory.

As a complex entirety, the Park together with Ohrid and Prespa Lake, represents a relatively limited area with very rich biodiversity, a high grade of heterogeneity and endemism and in these terms, it is deemed a really very valuable locality in Europe.

#### **12.7. Environmental protection goals determined on a national and international level**

The basic principles for environmental protection in the country are established with the Constitution of the RNM, as the highest legal document of the country where in accordance with Article 8, one of the principal values of the constitutional order represents also the environmental protection and improvement of natura.

Article 43 regulates the right to a healthy environment for every person, and that person has the responsibility to improve and protect the environment and the nature. The RNM provides the conditions for the realization of the right of the citizens to a healthy environment, through the carrying and implementation of the relevant legislation.

Chapter 10 from the LE clarifies the procedure for impact assessment of specific strategies, plans and programs onto the environment, which is of special significance for the legal protection of national parks.

SEA is prepared in accordance with the national legislation and the provisions of other relevant international legal acts, including also the Directive for SEA 2001/42/E3, the Aarhus Convention, the ESPOO Convention, and the UNECE Protocol of Kiev for the ESPOO Convention.

The planning document (Management plan for NP Galichica) is determined with the Decree for strategies, plans and programs, including also the amendments on these strategies, plans and programs, for which the environmental impact assessment procedure is obligatorily realized as well as the impact on the life and health of people, article 3, point 18 – Planning documents for protected area management.

The targets for environmental protection are incorporated in many other legal acts and bylaws and these regard:

- identification, prioritization and problem solving of environmental issues of national significance;
- provision of investments based on the principle the “polluter pays“ and the available EU Environmental protection funds;
- increase of responsibility towards environmental protection, by polluters, but also by every person in the country;
- building and strengthening institutional and administrative capacities for efficient management of procedures during environmental protection;
- promotion and provision of active participation of citizens in the creation of opinions and policies, as well as in the decision-making process;
- improvement of cooperation between institutions and inclusion of the provisions for environmental protection also in other policies;
- fulfilment of commitments that arise from national, regional and international agreements and ratified conventions in the environmental area;

Specific environmental protection goals:

The objectives of the strategic environmental assessment are presented through the state of: population, socio-economic development, human health, air and climate change, water, soil, natural and cultural heritage and material goods.

The table shows the objectives of the SEA in relation to the objectives defined in the Management Plan of NPG.

The basic goals of the management with the Management plan for NP Galichica arise and are in accordance with the forecasted management programs:

- Conservation and monitoring of natural heritage,
- Sustainable use of natural resources in the area,
- Forest habitats and eco-systems management,
- Sustainable tourism and recreation development,
- Local development,
- Information, raising public awareness and education, and
- Management, administration and financing.

## **12.8. Identification of significant environmental impacts**

Potential environmental impacts, the health of the population and socio-economic aspects that can be caused by the realization of programs, sub-programs and activities forecasted in the operational plans and management programs for the protected area, that are a part of the Management plan of NP Galichica.

The potential environmental impacts, the health of population and socio-economic aspects can be reviewed from the aspect of negative impacts and from the aspect of future benefits, i.e. positive impacts.

Implementation of forecasted activities will to the decrease of pressures and threats onto biodiversity and natural heritage on the territory of the NP Galichica, however on the other hand they can contribute to the damaging of the quality and status of media and environmental topics as well as the health of people.

It is necessary to state that for a part of the activities that are not precisely defined and are planned to be implemented in the following 5-10 years in accordance to the programs and sub-programs for the management of the protected area, additionally a procedure will be led for a more detailed environmental impact assessment, on the level of the concrete planning documentation or on the level of project for which a study for environmental impact assessment will have to be prepared or an elaborate for environmental protection for each project/facility separately.

Environmental impact and socio-economic aspects will be prevented or decreased, if during the implementation of the measures and activities forecasted by the MPNPG, the measures for the decrease of the impact defined in the SEA Report are taken into consideration, as well as the measures that will be given in the elaborates for environmental protection and the environmental impact assessment studies.

## **12.9. Analysis of alternatives**

The SEA procedure forecasts the review and comparison of the offered one or several alternative solutions to the planning document, based on the analysis of several criteria, including also the estimated environmental impacts. The economic and society aspects are also recommended to be included in the analysis, in order to obtain the adequate solution that will satisfy the social and economic needs, however not causing significant negative environmental impacts.

In the MPNPG alternative solutions have not been reviewed for the foreseen activities for protection and sustainable management of the protected area, but the proposed activities are based on the determined needs for establishment and further functioning of the PINPG and the implementation of the Management plan for the NPG, as well as fulfilment of legal obligations.

The proposed operational plan is directed towards the future functioning and development of the NPG based on the possibilities, potentials and rational use of available resources, in order to satisfy the needs and requirements on the local, regional and national level, as well as reconciliation of the future development of the NP Galichica in accordance with the requirements of the EU for spatial planning, protection of biodiversity and natural heritage, as well as protection of media and environmental topics.

Two alternatives are reviewed in this chapter, i.e. status without and with the implementation of the Management plan for the National Park Galichica.



### **Alternative 0: Status without the implementation of the Management plan for the National Park Galichica**

- Socio-economic development of the population in NP Galichica, will remain on the same level or maybe worse, as well as the quality of life;
- Demographic characteristics will remain the same or a worse level (unemployment rate with the population on the territory of the NPG will remain the same or will increase, the positive migration trend from villages to cities, however also outside of the country, will continue the depopulation trend of the hill-mountain villages on the territory of the NPG);
- The status of the health of people will remain the same or will worsen because of the existence of wild landfills near populated locations and the inadequate modality of waste management, uncontrolled urbanization and inadequate land use, unsustainable natural resources management and similar;
- A small number of households that would be included in sustainable tourism development;
- Absence of new investments;
- Limited touristic offers;
- Insufficiency of promotional activities for the area;
- Air quality will remain on the same level or will worsen;
- Harmful gas emissions from inadequate waste management;
- Uncontrolled waste burning in the existing and wild landfills;
- Uncontrolled forest cutting;
- Drying of pools will have a negative impact on wildlife in the NPG;
- Same or worsened water quality in Ohrid Lake, Prespa Lake and lakeshore habitats because of pesticides and other chemicals used in agriculture, especially the local orchards;
- Eutrophication of Prespa Lake;
- Illegal construction of facilities along the shore of Ohrid Lake, especially in and around the strict protection zone in the direction from Peshtani to Gradishte, from Gradishte to Trpejca, the locality Nadol, South from the village Trpjca and Konjsko (Prespa);
- Uncontrolled hunting and fishery;
- Same or increased trend of decrease of surfaces under arable land in the NP;
- Inadequate cultural heritage conservation;
- Absence of a plan/program with activities for the protection of the cultural heritage;

### **Alternative 1: Status with the implementation of the Management plan for National Park Galichica**

With the implementation of the activities and measures foreseen in the Management plan for the National Park Galichica, it is expected to achieve:

- Sustainable management of the NPG;
- New possibilities for employment in accordance to the sustainable tourism concept and other alternative tourism types;
- Decrease of the positive migration trend;
- Improvement of local economic development;
- Possibilities for the introduction of a new tourism type – health tourism;

- Improvement of the waste management status;
- Education on increasing the awareness for the significance of natural resources;
- Rational natural treasures management,
- Promotion of non-polluting industries;
- Sustainable management of forest habitats and eco-systems;
- Fulfilment of legal obligations for planning the activities defined in the LNP;
- Conservation of natural values of the area, use of the touristic potentials for the promotion and development of sustainable types of tourism and other alternative businesses and activities;
- Supporting the local socio-economic development of the area;
- Defined responsibilities and competencies for the implementation of measures and activities;
- Planning, spatial and economic development and management of the NP Galichica;

Conclusion: Acceptable alternative is the realization of the Management plan for NP Galichica.

#### **12.10. Monitoring plan of the implementation of the MPNPG**

The SEA procedure defines obligatorily the implementation plan for the realization of the activities and measures forecasted in the MPNPG. The goal of this monitoring plan is to forecast and realize the monitoring of the implementation of the measures defined in order to decrease or prevent potential negative impacts.

In order to perform the monitoring over the effectiveness of the Plan, monitoring is necessary of the set-up indicators and their development, during which we must consider also the data about the current environmental status.

The monitoring plan for the environment gives a possibility for systematic monitoring, testing and assessment of the status of the pollution and the status of the media and the environmental topics overall as well as identification and registration of the pollution sources of separate media and environmental areas to:

- Provide data for further monitoring of the environmental status;
- Have a better insight into the changes of the environment in the subject locations;
- Confirm that the contracted conditions during the approval of the planning documentation are adequately implemented;
- Confirm that the impacts are within the forecasted or approved limit values;
- Monitoring of the environmental status in order to timely view unforeseen impacts from the implementation of the planning documentation and management of the same;
- Confirm that by applying the measures for mitigation benefits increase with regard to environmental protection;
- Determination of activities that have to be undertaken in order to reduce the environmental impacts.

In order to perform the monitoring of efficiency of the planning document, monitoring is necessary of the set-up indicators and their development with which the goals of the same will be confirmed. For the monitoring of the indicators it is necessary to take into consideration also the data about the current environmental status.

By monitoring the environmental status, the justification and application will be confirmed of the proposed measures for mitigation and their functionality, which represents a large benefit with regard to environmental protection.

Monitoring of the media status will be realized with defined parameters for the monitoring of each media and with the defined frequency for each activity separately.

The type and the frequency of the monitoring will be proposed in the studies/elaborates for environmental impact assessment from each project separately. About the monitoring and the measures proposed for the decrease of harmful environmental impacts the local self-governance will be responsible, i.e. Local inspectors (sanitary, communal, environmental inspectors and etc.).

Other very important monitoring aspect is that it can provide the basis for obtaining information, that in the future would be implemented in the planning processes.

PI National Park Galichica has the legal obligation for records keeping, i.e. monitoring of the status of the natural and cultural heritage, but also the other values of NP Galichica.

The results from the obtained research are submitted to the competent body for the implementation of environmental protection, i.e. MoEPP.

### **13. BIBLIOGRAPHY**

- Draft Management Plan for the National Park "Galichica" for the period 2021-2030;
- Rulebook on internal organization;
- Rulebook on systematization;
- Analysis of the legal framework;
- Law on declaring part of the mountain Galichica a NP;
- SEA Directive (2001/42 / EC);
- Implementation of Directive 2001/42 / EC on the assessment of the effects of certain plans and programs on the environment;
- Laws and bylaws relevant for the preparation of the Report;
- Other national, regional, local and international legal documents, strategies, plans and programs;