



## **Action Plan National Park Kalkalpen (NPK)**

***ECO KARST WP4 - Deliverable 4.2.1  
April 2019***

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## 1. Introduction

The Danube Region is home to a rich biodiversity, in large part, due to its varied landscapes and special karstic conditions. The region is also composed of diverse countries, some of which can be counted among the world's most developed, while others are still rapidly developing. Consequently, conflicts among local populations and the nature conservation objectives, of the protected areas in particular, can often arise. The perception that nature conservation is hindering the progress and local development is still present in many protected areas. Therefore, it is crucial to devise ways in which these conflicts can be avoided and move forward to foster fruitful collaborations between conservationists and the local population to the mutual benefit of both people and biodiversity preservation.

### a. Purpose and scope of the action plan

This Action Plan is a direct result of the activities undertaken within the ECO KARST project, through a structured and participatory approach, to assist the park authority in managing its environment, ecosystem services, and the pro-biodiversity businesses. The present Action Plan is a non-binding,

guiding document, that should assist in steering the management decisions within the park in the short to mid-term future, alongside or integrated into the existing management structures.

As NPK is a strictly protected area, where no commercial activities are allowed, beside pastures and meadows, also the surroundings of the protected area were considered. Based on the gap analysis (deliverable 4.1.1) and the internal and external workshops held, several objectives were set.

After this process, the planning process started. Objectives were broken down into goals, activities, and steps. Combined with a timeframe, the tables in this document should give an effective guidance for implementation within next years.

#### b. Creation and ownership of the plan

This Action Plan was developed in the last period of the ECO KARST project and is the result of many activities, such as desktop research, workshops, and discussions with experts. Therefore, numerous stakeholders and experts of the NPK team had been involved. These results had been summarized by the ECO KARST team of the National Park Kalkalpen. There is also a very detailed management plan for the next 10 years for the NPK. Therefore, this action plan is an additional tool for the management of the National Park Kalkalpen. Efforts had been taken to harmonize these two management tools. So, one should not be surprised that parts of this Action Plan are focusing on a very specific part of the management and are found in the management plan also and vice versa.

The implementation of this Action Plan depends on the financial and human resources available. If any differences should occur, the general Management Plan will overrule this Action Plan.

#### c. General characteristics

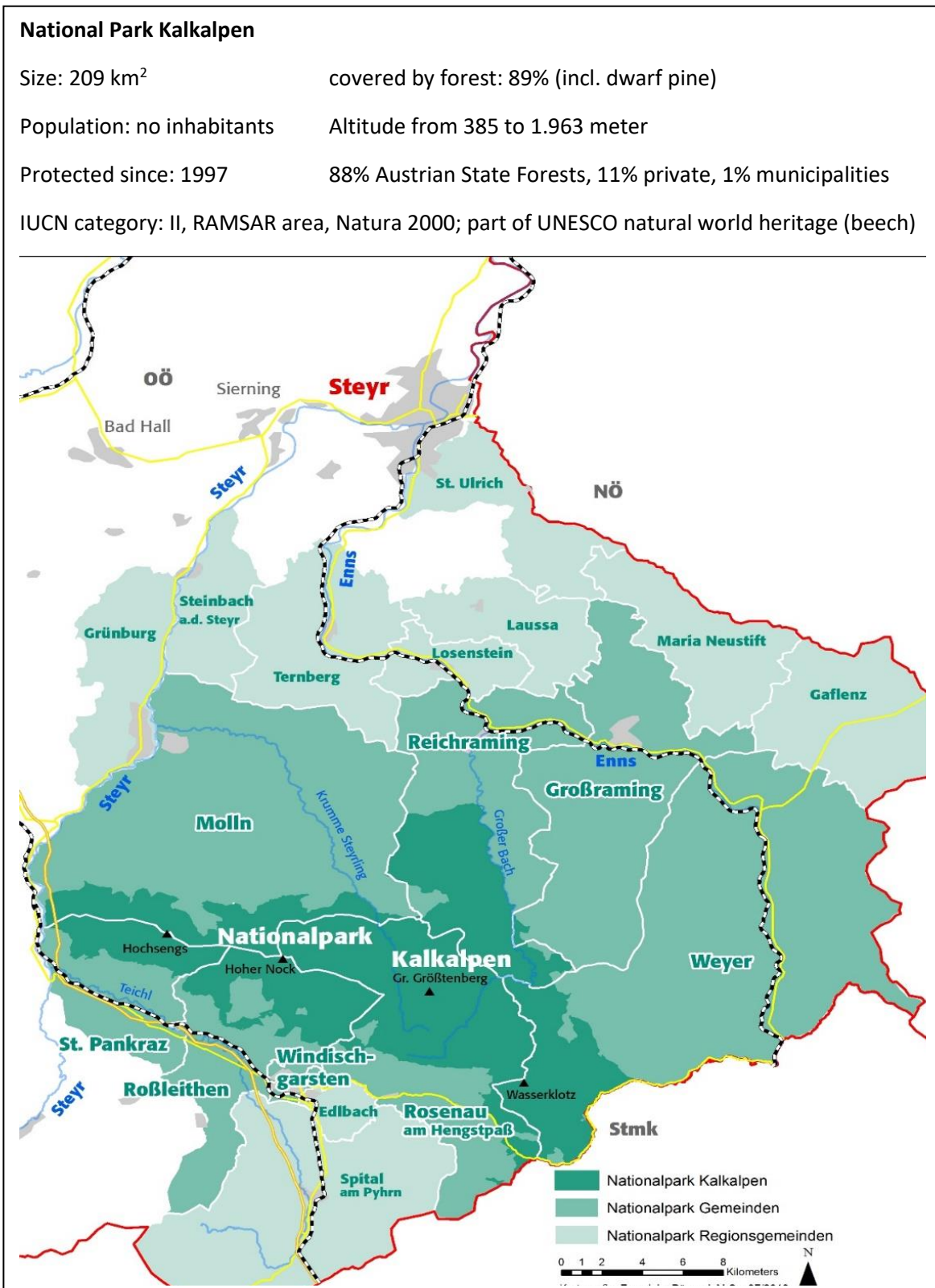


Figure 1: General map of NPK: dark green shows the protected area, green marks national park Municipalities, light green are national park regional Municipalities who signed the framework agreement with the National Park. Red line is the border of the Province of Upper Austria.

## 2. Situation analysis of the site

### a. Description of features characterising biodiversity

#### i. Map of habitat/ecosystem types with identification of factors influencing them

As NPK is the largest protected area covered by forest in Austria, forests are the main gemstones of the protected area. Many other protected areas in the European Alps are larger, but nearly all of them are much higher in altitude. So, the natural and near natural forests in the NPK are a very rare type of habitat. As the park was established in 1997, every commercial activity had been stopped (no logging, hunting, etc.). Main management goal is non-intervention management. The so-called wilderness zone, covers 75% of the area, where no intervention is taken at all. Thus, the area is on its way back to secondary primeval forest. Even some patches of primeval forests could remain here. Already now, the protected area is a refuge for endangered species, especially those reliant on the phases of the decay phase with its substantial amounts of dead wood.

#### ii. Description of species acquiring special attention and description of factors influencing them

- The National Park Kalkalpen protects the largest forest wilderness in Austria, with the longest natural stream system in the Eastern Alps.
- Nowhere else in Austria are so many butterfly species known.
- NPK is part of the European network of protected areas (Natura 2000) and is home to a wide variety of habitat types.
- Primeval forest bird species such as the white-backed woodpecker, the grouse owl, and the pygmy flycatcher exist in particularly high density in the national park.
- The scarlet flat beetle, a rare relic of the primeval forest, is an absolute rarity in the Alpine region and has only been recorded three times in Austria. The National Park Kalkalpen is the only place in the mountain forest, where this beetle occurs very frequently.
- In the subterranean fissures and karst caves of the Sengsengebirge, another cave beetle species has developed in isolation, which can only be found here in the world.
- The National Park alpine pastures and meadows are particularly rich in flowering and vascular plant species. Over 800 species, 126 of which are endangered species according to Austria's Red List, have already been identified.

#### iii. Assessment of condition of ecosystem types with maps and description of influencing factors caused by:

##### Forestry

There has been no forestry within NPK for more than 20 years. There is some bark beetle management, at the borders, to protect neighbouring forests, but there is no logging. Therefore, forests are on their way to very natural forests. -> very, very low impact at ESS

##### Agriculture

The only form of agriculture in NPK are pastures. Here one can find some spots prone to erosion by cattle and sometimes visitors. Sensitive areas like bogs are protected by fences from the cattle. -> low impact on ESS

#### Hunting and fishing

Hunting and fishing are banned in the NPK. Due to absence of carnivores, some regulation is necessary. It is done by professional hunters, in a special zonation and due to regulation criteria (e.g. no trophies etc.). -> very low impact at ESS

#### Tourism

There are some touristic hotspots, while the main area does not get a significant impact from tourism, as it is very remote. Management goal is to keep 90% of visitors at 10% of the area. This seems to work quite well. At several problematic spots (e.g. trail where bikers occur), mitigation measures are already being implemented. -> medium impact on ESS.

#### Other factors

As any other area, the NPK is also influenced by global and regional factors; may it be climate change or pollution by aerial dispersion. NPK has a long-term monitoring project together with the Austrian Environmental Agency, where these impacts are analysed.

### b. Description of ecosystem services

- i. Map and description of each ecosystem service selected and its importance for sustainable development of the local community and PBBs

#### Touristic attractiveness of nature

As NPK is a very important attraction for tourists in Upper Austria, this ecosystem service is the most direct one for the region around NPK. People are attracted by the outstanding natural landscape, on the one hand, and by the pastures and huts, on the other hand. As no other commercial activities within the protected area are allowed, the touristic attractiveness is the most promising one, if one thinks about PBBs.

#### Hay and Fodder

To keep the high biodiversity at pastures and meadows, their preservation is a management goal. Where it is feasible, it is preferred to have farmers undertaking the management in a traditional way (grazing cattle, sheep, horses). Management of other areas is very expensive, due to remoteness and steepness. Often it is even not possible to bring hay down to the valley. In cases when it is possible, the hay will be used for red deer feeding in winter times. Possibilities for PBBs are scarce.

#### Carbon sequestration

Forests tend to keep a lot of carbon stored, if they are left unattended. But there is a peak, where old grown forests do not store much additional carbon. At the moment, the NPK is a carbon sink, but as forests are already quite old, the possibility to store additional carbon will diminish. The main benefit of old grown natural forests is their biodiversity and not carbon sequestration, which also occurs in managed forests. The carbon topic should be used for awareness raising in guided tours.

#### Erosion protection

As the main management principle within NPK is the protection of natural processes, erosion is seen as one of these, as long as no human activity is responsible for it. As no inhabitants and villages can be found within the park, direct erosion protection is not necessary due to security reasons. Only at the borders, there are some spots where infrastructure (e.g. roads) has to be protected. An important ESS is the indirect erosion protection for the lowlands, as the forests of NPK are a very effective retention in case of heavy rain. Some spots prone to erosion, especially at pastures, will be focused on by different measures (e.g. more rangers on duty during high season, establishment of new forms of pastures with larch and other selected tree species (wooded pasture with larch)).

#### Water quality

With its karstic mountain ranges, the protected area is an important water basin in the region. Especially, the natural rivers and creeks with their unpolluted water are outstanding. They are and could be used for aquaculture once they have left the national park. Only very few springs are used for potable water in the park (at pastures) and outside (neighbouring settlements).

#### c. Description of pro-biodiversity businesses

The concept of Pro Biodiversity Businesses is a step further than sustainable use of natural resources. It is not only about not exploiting nature but even doing a business, which enhances biodiversity. It is difficult to link the Kalkalpen National Park with Pro Biodiversity Businesses within the National Park, as almost all business activities are not allowed.

So, the action of NPK will focus on raising attractiveness of the brand of NPK and to do even more better education and awareness raising for the visitors.

#### d. Stakeholder analysis and participation

In the Annex there is enclosed a list of stakeholders and internal experts who were involved in the process, during ECO KARST project. Beside the involvement of regional experts there was an exchange within the ECO KARST project team, which was very important. The goal was to gather as much information as possible for this Action Plan. The Action Plan was then done by the ECO KARST team of NPK, as a summary of the work done before.

### 3. Goals, Objectives, and Implementation

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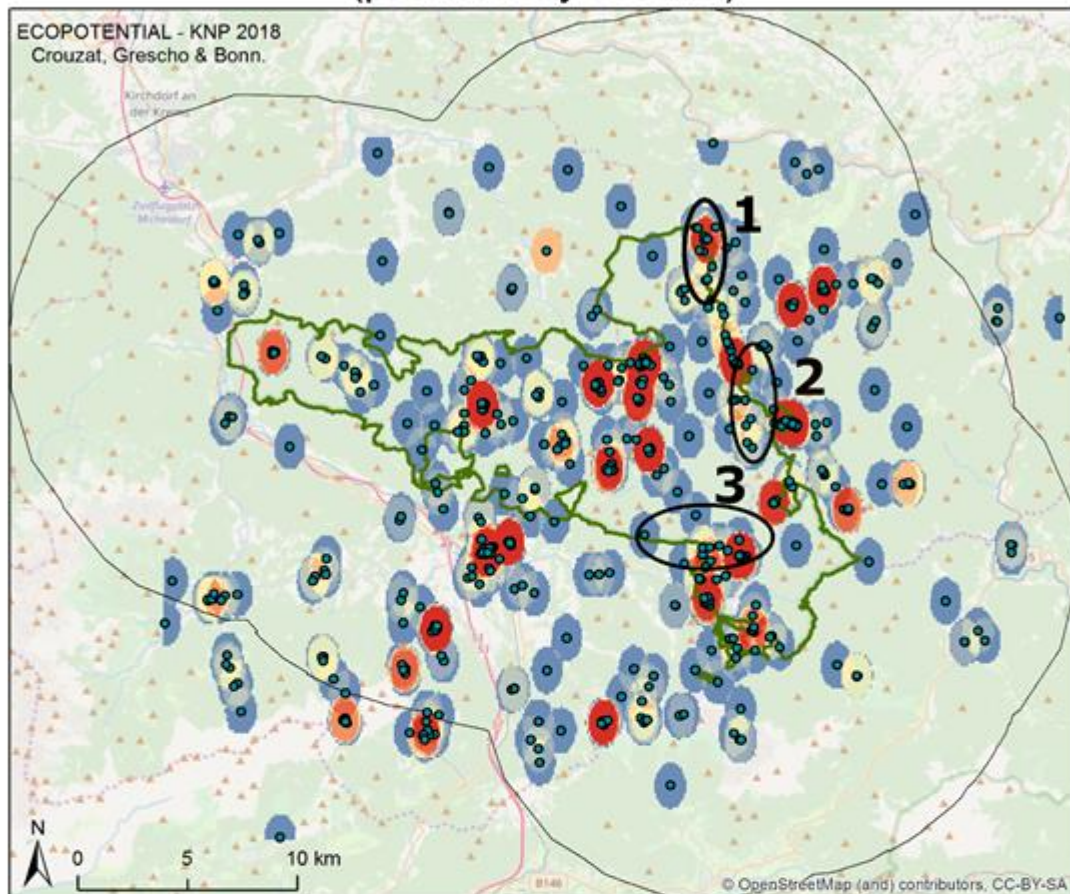
Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
<b>THEME: TOURISM</b>								
A Enhance nature-friendly tourism	A1 Protect more sensitive natural areas	A1.1 Increase security and control	<ol style="list-style-type: none"> <li>1. Identify areas where most infractions occur and their temporal distribution</li> <li>2. Engage more rangers at the peak periods (e.g. weekends) to control the sensitive areas</li> </ol>	Location 3 on the BIO map below	NPK	from July 2019 on	NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- 5 more rangers involved in control duties</li> <li>- The number of known infractions lowered by 50%</li> </ul>
		A1.2 Raise awareness of the sensitive areas	<ol style="list-style-type: none"> <li>1. Prepare 3 more guided tours on selected special topics</li> <li>2. Carry out the educational tours regularly</li> </ol>	Location 3 on the BIO map below	NPK, local tourist guides, NP partners (bed and breakfast)	from season 2020 on	fees, NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- Carrying out of 3 guided tours regularly per year</li> <li>- Increased awareness of visitors by 20%</li> </ul>
	A2 Improve cooperation based on partnerships	A2.1 Create new signpost concept and infrastructure to improve visitors experience	<ol style="list-style-type: none"> <li>1. Design the new signpost concept</li> <li>2. Ensure that the concept is agreed within the region (to ensure that everyone will use the same format)</li> </ol>	the NPK region	NPK, external experts, designers, municipalities, region; tourism	from 2020 to 2024	LEADER project; EU co-funding; department visitors	<ul style="list-style-type: none"> <li>- All signposts within the park and the NPK region use same format</li> <li>- Superfluous signs are removed</li> </ul>




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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
			<ol style="list-style-type: none"> <li>3. Replace the existing signposts with new ones</li> <li>4. Provide new signposts and install them</li> </ol>					- Infrastructure is in proper condition
B Raise the environmental awareness	B1 Increase the awareness and biodiversity knowledge of visitors	B1.2 Create two new educational thematic trails	<ol style="list-style-type: none"> <li>1. Design two new thematic trails</li> <li>2. Signpost the two new trails</li> <li>3. Maintenance</li> </ol>	<ol style="list-style-type: none"> <li>1. valley of "Großer Bach" (location 1 on the BIO map)</li> <li>2. Weißwasser (location 2 on the BIO map)</li> </ol>	NPK, tourism	Start January 2021	LEADER project; department visitors	- thematic trails installed and ready to walk

## Participatory mapping (preliminary results)




• Points - all categories (updated 2018-06-11) (639)

 High point density

 Low point density

 Kalkalpen NationalPark

 Buffer 10 km



### Measures:

- 1) develop of thematic path "Unesco Buchenwälder"
- 2) develop of thematic path "Weißwasser & Waldbahntrasse"
- 3) Territory protection

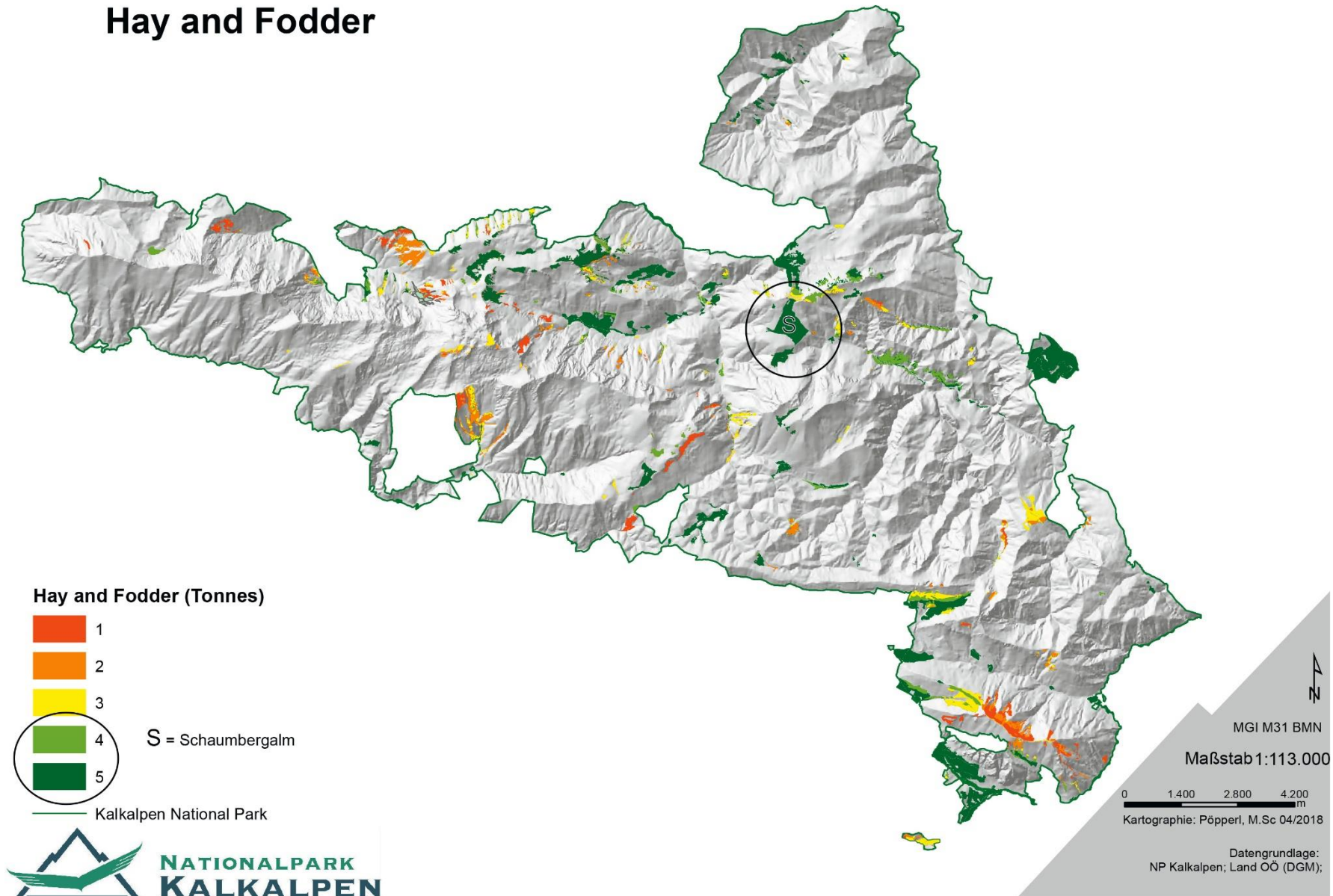
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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
THEME: HAY AND FODDER								
C Conservation of open lands	C1 Conserve pastures	C1.1 Create a seal of quality for pilot pastures, which comply with all specifications set for good management	<ol style="list-style-type: none"> <li>1. Prepare the certification scheme (criteria, etc.)</li> <li>2. Publicize the seal of quality</li> <li>3. Implement the scheme</li> </ol>	areas with category 4 and 5 on the BIO map	NPK, chamber for agriculture	2020	NPK core financing; department pastures and meadows	<ul style="list-style-type: none"> <li>- Certification scheme implemented</li> <li>- Pilot areas conserved as open lands in their entirety</li> </ul>
		C1.2 Maintain open land with volunteer work and education	<ol style="list-style-type: none"> <li>1. Educate the volunteer task groups on the maintenance of pastures</li> <li>2. Carry out regular actions with volunteers cutting the saplings and so on (twice a year)</li> </ol>	areas with category 2-3 on the BIO map	NPK, locals, eco tourists	2021	Fundraising; NPK core financing	<ul style="list-style-type: none"> <li>- 2 work actions per year</li> <li>- 20 participants each year</li> </ul>
		C1.3 Establish a wooded pasture with larch (= E1.3)	<ol style="list-style-type: none"> <li>1. planning zonation for the measure</li> <li>2. Mandate for Austrian State Forests and experts of NPK</li> <li>3. realization at Schaumbergalm (planting, fence, etc.)</li> </ol>	Schaumbergalm	NPK, Austrian State Forests, Farmers	2022	NPK core financing; department pastures and meadows	<ul style="list-style-type: none"> <li>- 3-7 ha of this pasture protected</li> <li>- Information board for visitors installed</li> </ul>

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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
	C2 Conserve meadows	C2.1 Research the biodiversity of meadows and evaluate the ones worthy of conservation	<ol style="list-style-type: none"> <li>1. Finance and implement regular research activities on the meadows</li> <li>2. Incorporate the results into the park management</li> </ol>	Areas with category 1-5 on the BIO map	NPK, Universities	2021	Fundraising; NPK core financing	- One new study per year

## Hay and Fodder



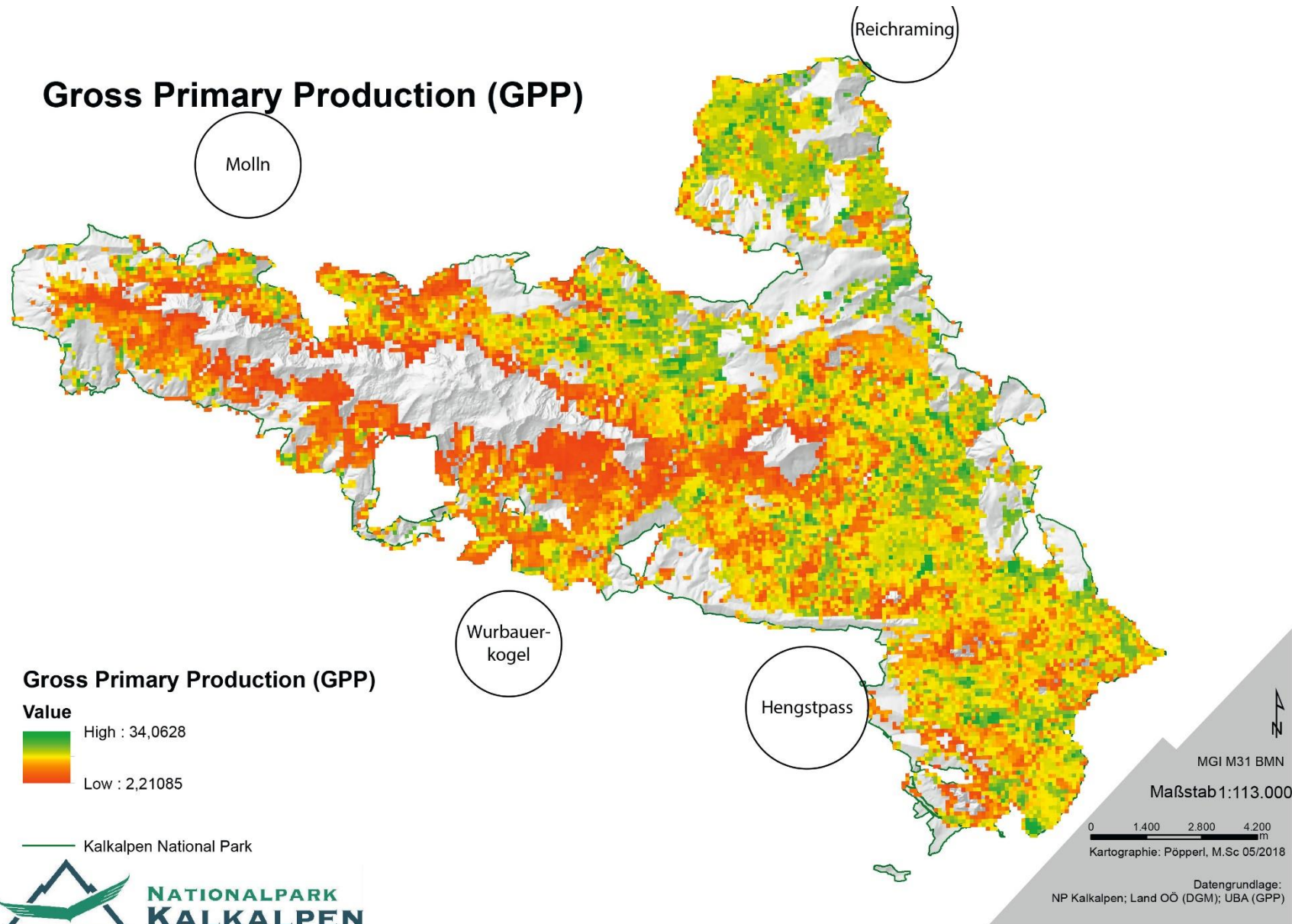
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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
THEME: CARBON SEQUESTRATION								
D Mitigation of climate change	D1 Optimize carbon sequestration and reduce emission	D1.1 Awareness raising – carbon sequestration on the one hand – biodiversity and protection of natural processes, on the other hand (no trade off for carbon sequestration!)	<ol style="list-style-type: none"> <li>1. Info flyers for visitors, where the carbon cycle is shown</li> <li>2. Engage rangers to speak about this topic during their guided tours</li> <li>3. A special guided tour about carbon</li> </ol>	visitor centers, NP partners (bed and breakfast)	NPK, NP partners (bed and breakfast)	from July 2019 on	NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- Info flyers carbon designed and printed</li> <li>- Info flyers available in every visitor center</li> <li>- topic addressed in 75% of guided tours</li> <li>- a new guided tour is designed</li> </ul>
		D1.2 Enhance eco-friendly travelling	<ol style="list-style-type: none"> <li>1. Public transport will be enhanced to bring people to the national park and back home -&gt; "Wanderbus"</li> <li>2. New infrastructure for e-bikes and e-cars around the national park</li> </ol>	main entrances to the national park: Molln, Wurbauerkogel, Reichraming, Hengstpass	NPK, tourism, NP partners (bed and breakfast)	from season 2020 on	fees, NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- "Wanderbus" is offered every weekend in the tourist season</li> <li>- 5 more spots to charge e-bikes and e-cars</li> </ul>



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## Gross Primary Production (GPP)



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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
<b>THEME: EROSION PROTECTION</b>								
E Conservation of soil	E1 Conserve soil from negative human impacts	E1.1 Protection of sensitive areas at trails	<ol style="list-style-type: none"> <li>Analyses of endangered spots</li> <li>Guiding infrastructure to hinder shortenings (new trails)</li> <li>Awareness raising at info points</li> <li>Monitoring of cycling restrictions</li> </ol>	whole network of hiking and biking trails	NPK	2020	NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- Trails do not widen any more</li> <li>- Cycling restrictions are kept</li> <li>- shortenings are closed</li> </ul>
		E1.2 Protection of sensitive areas at pastures	<ol style="list-style-type: none"> <li>Analyses of endangered areas</li> <li>Guidance of visitors and cattle in sensitive areas</li> <li>Enhance use of old breeds of cattle for pastures (lightweight)</li> </ol>	Sensitive areas at selected pastures; Schaumbergalm, Blahbergalm, Anlaufalm, Ebenforstalm	NPK, chamber of agriculture; farmers	2021	NPK core financing	<ul style="list-style-type: none"> <li>- 3 areas at pastures protected</li> <li>- 50% of appropriate old breeds of cattle on pastures</li> </ul>
		E1.3 Establish and test a special form of pasture	<ol style="list-style-type: none"> <li>planning zonation for the measure</li> </ol>	Schaumbergalm	NPK, Austrian State Forests, Farmers	2019	ECO KARST project	<ul style="list-style-type: none"> <li>- 3-7 ha of this pasture protected</li> </ul>

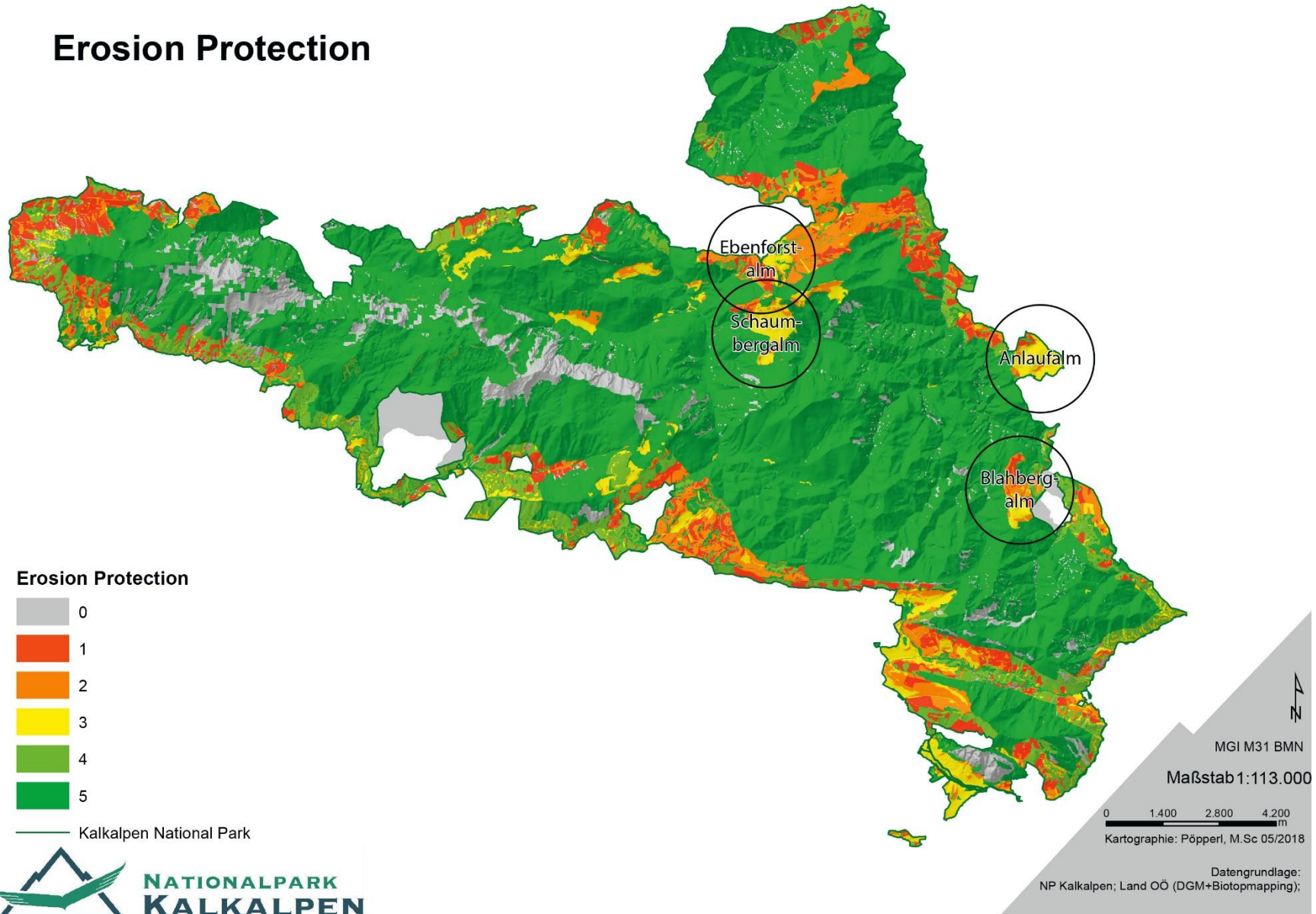


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Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
		wooded pasture with larch (= C 1.3)	<ol style="list-style-type: none"> <li>2. Mandate for Austrian State Forests and experts of NPK</li> <li>3. realization at Schaumbergalm (planting, fence, etc.)</li> </ol>					- Information board for visitors installed

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# Erosion Protection



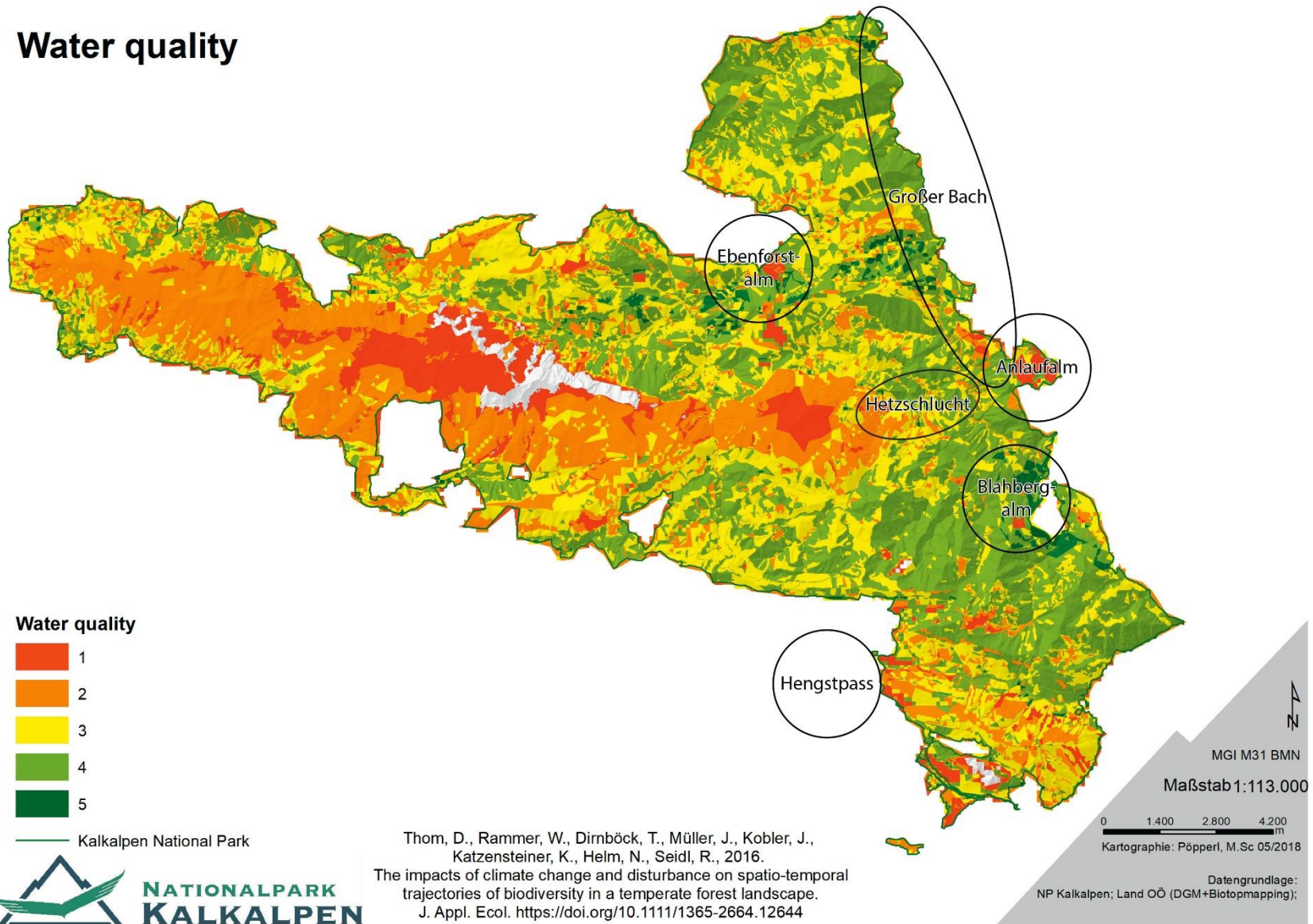
Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
<b>THEME: WATER QUALITY</b>								
F Maintain natural status of water and creeks	F1 Reduce pollution of water bodies	F1.1 Evaluation and restoration of sewage systems	<ol style="list-style-type: none"> <li>1. Evaluation of existing sewage systems within NPK</li> <li>2. Evaluation of impacts</li> <li>3. Concept for improvements, if necessary</li> <li>4. Improvement</li> </ol>	Pastures where high tourist frequency occurs; e.g. Ebenforstalm, Hengstpass, Anlaufalm, Blahbergalm	NPK, farmers	from 2020 on	NPK core financing; department infrastructure	<ul style="list-style-type: none"> <li>- All sewage systems evaluated</li> <li>- New systems installed if necessary</li> <li>- Possible negative impacts by sewage stopped</li> </ul>
		F1.2 Evaluation of pollution by bathing guests – awareness raising	<ol style="list-style-type: none"> <li>1. Evaluation of the pollution by bathing guests (litter, sunscreen products)</li> <li>2. Information board or flyer</li> <li>3. More presence of Rangers during high season</li> </ol>	Großer Bach	NPK	From 2019 on	NPK core financing; department visitors	<ul style="list-style-type: none"> <li>- 50% less litter left behind</li> <li>- Raised awareness regarding sunscreen products while bathing (type, usage, etc.)</li> </ul>
	F2 Protection of sensible water organisms	F2.1 Strict management of prohibited activities in creeks	<ol style="list-style-type: none"> <li>1. The restrictions on canyoning will be monitored and penalized</li> <li>2. Hooks and bolts will be removed</li> </ol>	remote gorges e.g. Hetzschlucht	NPK, tourism, alpine clubs	from season 2019 on	NPK core financing; department visitors, infrastructure	<ul style="list-style-type: none"> <li>- Known hooks and bolts removed</li> <li>- canyoning activities in NPK reduced by 90%</li> </ul>



Objective	Specific goals	Measure	Steps	Location	Responsible and collaborators	Timeframe	Financing	Indicator of success
			3. Awareness raising within the community					



# Water quality



#### 4. Monitoring and Communication

The Action Plan will be reviewed twice a year to monitor its progress. This will be done in the management meetings in January and June. Implementation of the measures will depend on presence of financial and human resources. As the general Management Plan of NPK and this Action Plan ran parallel and are harmonized, as far as this had been possible, the implementation will also depend on the progress of the general Management Plan.

