

Management Plan "Wildnisgebiet Sulzbachtäler" wilderness area

2016 – 2024

Hohe Tauern National Park Salzburg



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Management Plan “Wildnisgebiet Sulzbachtäler” wilderness area

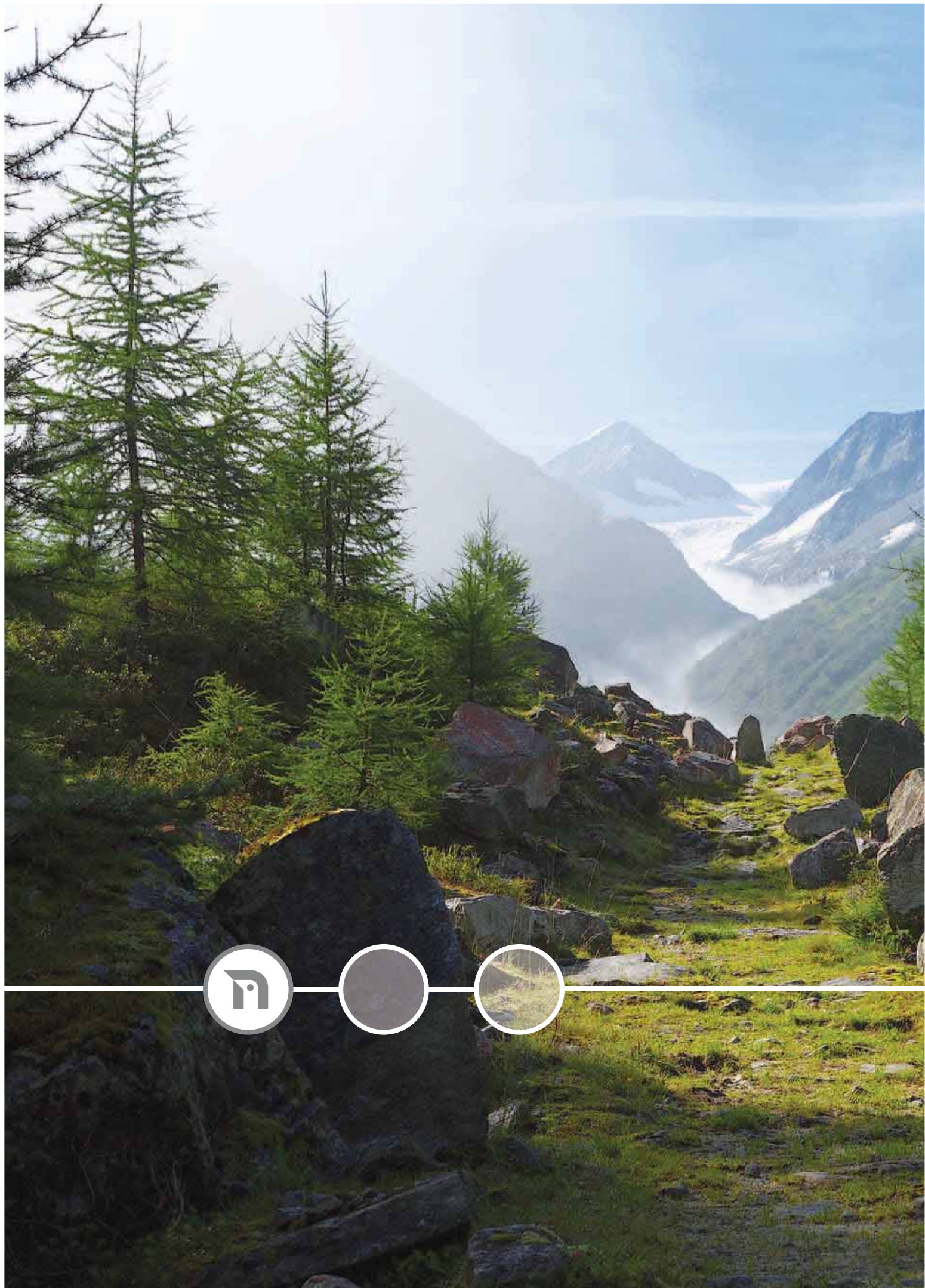
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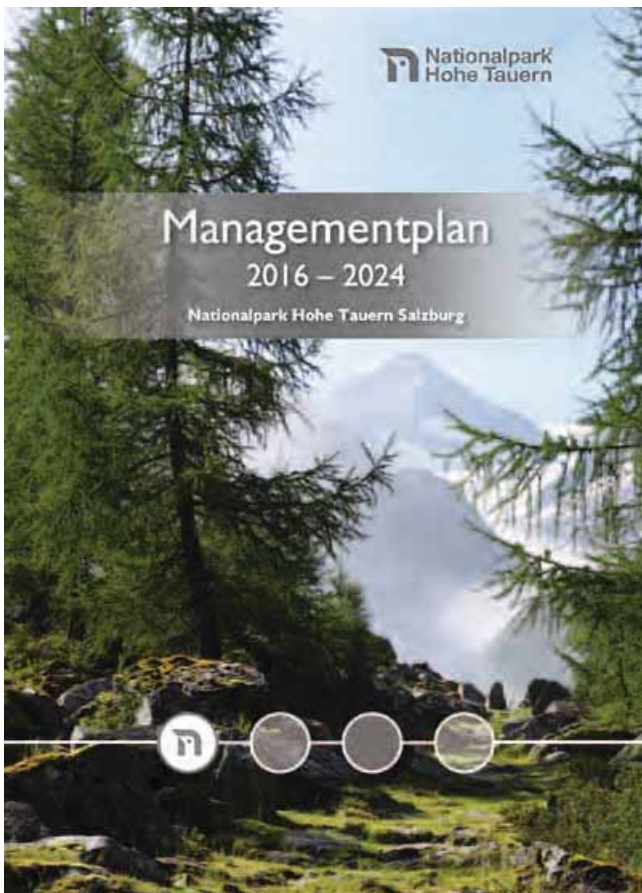
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PRINCIPLES AND CURRENT SITUATION

The management plan entitled *“National Park Hohe Tauern Salzburg, 2016-2024”* clearly shows a focus on the establishment and management of the “Wildnisgebiet Sulzbachtäler” wilderness area in addition to the well-known fields of activity which are key to all national parks. According to this, the business fields *“Landscape Management”, “Science and Research”* as well as *“Education and Visitor Information”* each have their own “wilderness”-related field of activity.



Managementplan 2016-2024, Hohe Tauern National Park Salzburg

This priority on the one hand, as well as the fact that a ‘finished’ wilderness area, as reflected in the management plan for *‘National Park Hohe Tauern Salzburg, 2016-2024’* is a separate protected area category, justify the creation of a separate detailed plan derived from the national park management plan for the *‘Wildnisgebiet Sulzbachtäler wilderness area’*.

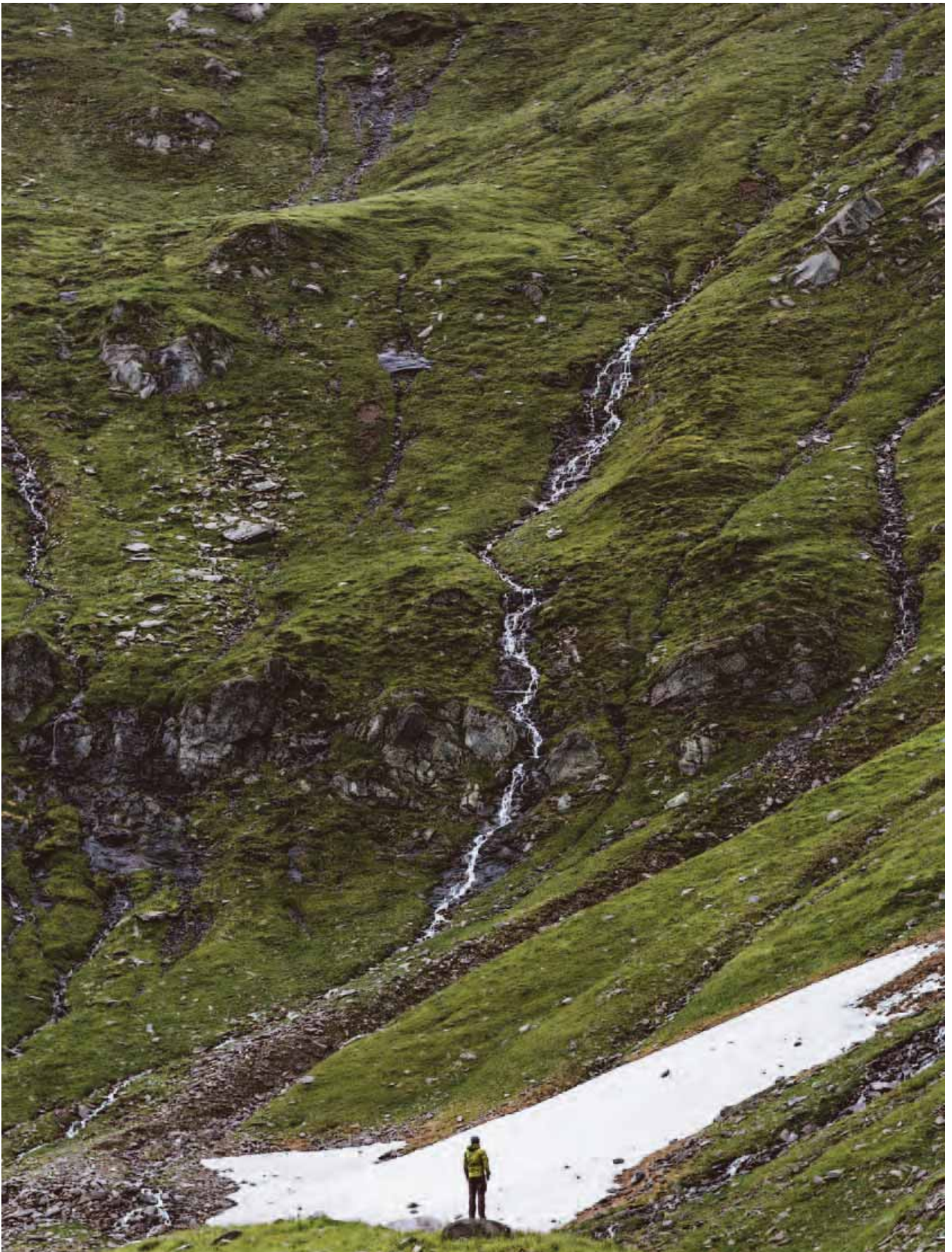
Numerous normative principles (refer to the section on “Normative principles”) already determine the course of action needed to establish and manage a wilderness area. The “Wildnisgebiet Sulzbachtäler” wilderness area should be uncompromising in its adherence to these international and national standards; consequently, this management planning should be structured and complete in terms of content so that it can also serve as a submission document for recognition according to IUCN Ib. Therefore, it is essential to follow a descriptive and also an evaluative discussion according to a

‘Wilderness Character Narrative’ that is common internationally and recommended in the National Parks Austria policy document on “Wilderness and process protection in Austrian National Parks” (chapter on “Wilderness narrative for the Sulzbachtäler valleys”).

In the area of landscape management (chapter on “Natural Resource Management”), questions of zoning in and around the wilderness area, as well as the interactions with the environment and its effects on top-priority process protection must be answered. Wilderness research (chapter on “Science and research”) is intended, firstly, to provide a factual basis for making management decisions, as well as to provide continuous documentation for the wilderness area and the autogenous processes occurring in it. To minimise the invasiveness of wilderness research, infrastructure and spatial restrictions, as well as suitable priority areas, will have to be decided upon in advance. In the course of implementation, it may be really interesting to integrate and use citizen science projects to promote awareness of the wilderness at the same time.

The latter will, of course, however, primarily be carried out through a wilderness school (section on “Education and visitor information”) in an effort to raise awareness of the wilderness as part of the natural habitat and for protection of natural processes as a nature conservation objective. In addition to the necessary infrastructure and the identification of spatial restrictions and suitable priority areas, environmental education programmes must be geared towards the special requirements of wilderness education, technical and human resources must be built up and, finally, bookable offers must be developed. There should of course, however, also be a wide-ranging awareness of the topic of wilderness outside of real experiences in the wilderness itself.





2.1 Guidelines for Applying Protected Area Management Categories

In its guidelines, the International Union for Conservation of Nature has defined wilderness areas as IUCN protected area category 1b (Wilderness area) and defines them as follows:

„Category 1b protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.“

The primary objective is to maintain the ecological integrity of those natural areas in the long term. They are areas that have largely remained free of significant human interference and modern infrastructure, and are largely subject to the forces of nature and natural processes.

In contrast to the protected area category 1a “Strict nature reserve”, which aims at the conservation of completely natural areas with its biodiversity primarily for scientific research purposes, the educational purpose of category 1b is also very significant. Therefore, a development for the public, which is compatible with nature and which does not adversely affect the area’s characteristic wilderness, is permissible in order to contribute to raising public awareness as guarantors that the wilderness areas will continue to exist for future generations to enjoy.

In 2016, the United Nations World Commission on Protected Areas (WCPA) issued management guidelines for areas with IUCN category 1b protection, prepared by the IUCN Wilderness Specialist Group. These guidelines provide decision-makers with instructions on how best to manage, control, assess and maintain wilderness areas worldwide.

2.2 A Vision for a wilder Europe

At European level, significant steps have been taken in the last 10 years or so to develop wilderness areas. On 3rd February 2009, the European Parliament adopted a resolution on wilderness in Europe (2008/2210(INI)), in which the Commission was asked to define the term ‘wilderness’ and to develop an EU strategy for the protection of wilderness in line with the Birds and Habitats Directives, among other things. At the same time, it called on the Member States to designate wilderness areas.

Important political manifestations in relation to wilderness followed. An “Agenda for Europe’s Wild Areas” was presented at the Wilderness Conference in Prague in 2009, for example, with 24 recommendations. Conferences in Brussels (2010) and Ireland (2013) were further milestones.

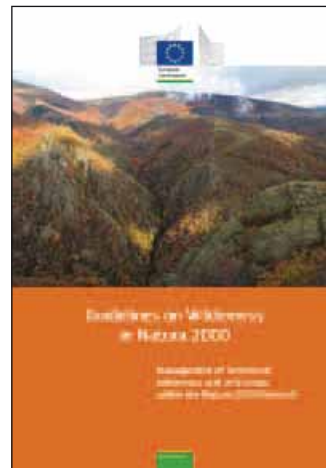
The organisations involved in the Wild Europe Initiative, which was founded in 2005, developed wilderness criteria in 2012,

ultimately leading to the establishment of a 10-point action plan at the 10th World Wilderness Congress in Salamanca, Spain in October 2013 to initiate the necessary change process at all levels.

The “Biodiversity Strategy” adopted by the European Commission in May 2011 specifically included wilderness for the first time. The protection of wilderness areas was specially mentioned in it as an action within forest management plans. This and other aspects such as connectivity, genetic diversity and resilience help to advance the significance and acceptance of wilderness.

2.3 Guidelines on Wilderness in Natura 2000

Based on the European developments mentioned previously, the European Commission issued “Guidelines on Wilderness in Natura 2000 – Management of terrestrial wilderness and



wild areas within the Natura 2000 Network” in 2013, containing guidance for the management and protection of wilderness within the management of the protected areas included in the Natura 2000 network. Only some 4% of Natura 2000 sites are currently designated as protected areas under IUCN categories 1a and 1b. In the context of protected area management, the establishment of wilderness

areas in Natura 2000 sites will be the most appropriate measure when the best conservation status of habitats and species can be achieved by ensuring natural processes. If, on the other hand, regular maintenance measures are required in order to achieve favourable conservation status, care must be taken in the designation of wilderness areas, and in the definition of their boundaries, in order to avoid disadvantages for Natura 2000-protected areas.

2.4 European Wilderness Quality Standards

Back in 2012, WWF Austria, with the support of the European Wilderness Society, investigated potential wilderness areas in the Hohe Tauern National Park Salzburg in areas of the Krimmler Achenal valley, Obersulzbachtal valley, Untersulzbachtal valley and Habachtal valley as part of a study and published a report on this in 2014. The report found that the areas examined are of above-average nature conservation value. Compliance with the criteria of the Wild Europe Initiative was checked and presented in detail.

The European Wilderness Society is a Europe-wide non-profit-making association which seeks to ensure the protection of wilderness areas in Europe. It has developed a European Wilderness Quality Standard and Audit System ("EWQA"), on the basis of which potential wilderness areas in Europe are scientifically identified, qualified and certified in accordance with a uniform standard. The certification ensures that the EWQA conforms to the European wilderness definition as defined by the Wild Europe Initiative.



Areas of the Hohe Tauern National Park Salzburg were assessed in 2015 on the basis of this EWQA. An area of 8,465.58 ha meets the criteria for EWQA gold status. The certificate issued by the European Wilderness Society is valid until 01/10/2025. These wilderness areas of the Hohe Tauern National Park Salzburg, therefore, come under the European Wilderness Preservation System. The 2016 review

report prepared by the European Wilderness Society includes the full analysis and 69 recommendations with different priorities and an implementation deadline of 2020. In addition to the long-term legal protection of the wilderness area, the development of a wilderness management plan is also recommended.

2.5 National Parks Austria Strategy 2020+

The "National Park Strategy Austria 2020+" adopted by the National Parks Austria Advisory Board in 2017 essentially builds on the strategy adopted in 2010, as well as the results of a comprehensive evaluation of all six Austrian national parks.

National parks, which are expansive and largely intervention-free protected areas, are symbolic of the preservation of the national natural heritage and contribute in the long term to increasing the survival chances of species, symbiotic communities and ecosystems and to achieving the national biodiversity targets set

out in the Austrian Biodiversity Strategy 2020+. The central task of every national park is the protection of nature in its original



form by allowing natural processes that are unaffected by humans. This is taken into account by modern protected area management. Within the framework of work programmes and projects, the twelve objectives contained in six fields of action of the strategy are to be achieved through the delegation of specific measures.

With regard to the wilderness and the increased approval of developments which are

uninfluenced by humans in accordance with IUCN guidelines, certain measures are envisaged in the following fields of action and their objectives:

- The following activities occur in nature area management and biodiversity under Objective 1, "Natural development in accordance with IUCN guidelines in the nature zone": if possible, designate suitable areas within the nature zones as wilderness areas according to IUCN protected area category Ib; specify procedures for the designation of wilderness areas within the scope of a specialist committee.
- The following activities occur in awareness raising and experiencing nature under Objective 4, "Nature offers many different experiences": Further development of the educational offers of the individual national parks in accordance with common standards with a focus on the protection of natural processes and wilderness.

2.6 National Parks Austria policy document

The policy document on "Wilderness and Protection of Natural Processes in Austrian National Parks" prepared by the committee on "Wilderness and Protection of Natural Processes" and adopted by the National Parks Austria Advisory Board in 2017 sets guidelines for wilderness and process protection in Austrian national parks. The international criteria for wilderness areas and national parks, the goals of the Austrian National Park Strategy 2020+ and the Austrian Biodiversity Strategy 2020+ are taken into account. The aim is to encourage national park administrations and decision-makers to focus more attention on this topic, so that existing and potential wilderness areas in the protected areas are recorded, safeguarded, developed or restored.

2.7 Salzburg National Park Act

The Hohe Tauern National Park is part of the coherent European ecological "Natura 2000" network under the Habitats Directive and the Birds Directive and is a category II (National Parks)-protected area under the IUCN guidelines. These international framework conditions are laid down in section 1 of the Salzburg National Park Act (S.NPG, LGBl. No. 3/2015). The National Park area is divided into the following protection zones: "core zones", "outer zones" and "special protected areas". The corresponding protection regulations are laid down by law.

According to article of law 8 S.NPG, areas located in the National Park can be declared Special Protected Areas for the full preservation of their scenic or ecological importance, including their flora and fauna. Any interference with nature and the landscape is strictly prohibited in those areas. Depending on the protection objective, measures may be prohibited, declared subject to authorisation or exempted from the prohibition.

Three special protected areas are currently identified in the Hohe Tauern National Park Salzburg:

- Pifflkar - Special Protected Area Ordinance (LGBl. (State Law Gazette) No. 107/1988), local authority area of Fusch an der Großglocknerstraße
- Wandl – Special Protected Area Ordinance (LGBl. No. 5/1992), local authority area of Rauris
- "Wildnisgebiet Sulzbachtäler" - Special Protected Area Ordinance (LGBl. No. 86/2017), local authority area of Neukirchen am Großvenediger

Special protected areas are the strictest category of protection and serve the preservation and protection of ecosystems of the highest priority. Above all, natural development should be made possible in the highlands, and the landscape of those areas and their unspoilt characteristics should be preserved.



Organizations involved in the planning process

2.8 "Wildnisgebiet Sulzbachtäler" wilderness area - Special Protected Area Ordinance

With the Special Protected Area Ordinance for the "Wildnisgebiet Sulzbachtäler" wilderness area (LGBl. No. 86/2017), which became effective on 07/09/2017, the areas of one of the special protection areas, the Inneres Untersulzbachtal valley, and other areas in the core zone of the National Park in the Unter- and Obersulzbachtal valleys were placed under special protection. This means that an area of 6,728 ha of the entire wilderness areas certified by the European Wilderness Society enjoys particular protection.

The purpose of protection is to safeguard the natural dynamics of the designated area, as well as its flora and fauna. The aim is to create a wilderness area that is primarily shaped by natural processes and which is free from human intervention.

The protection provisions list certain measures which are considered to be prohibited interventions, in particular, but also those measures that are exempt from the ban on intervention. Certain measures, in turn, are subject to an exemption granted by the state government.

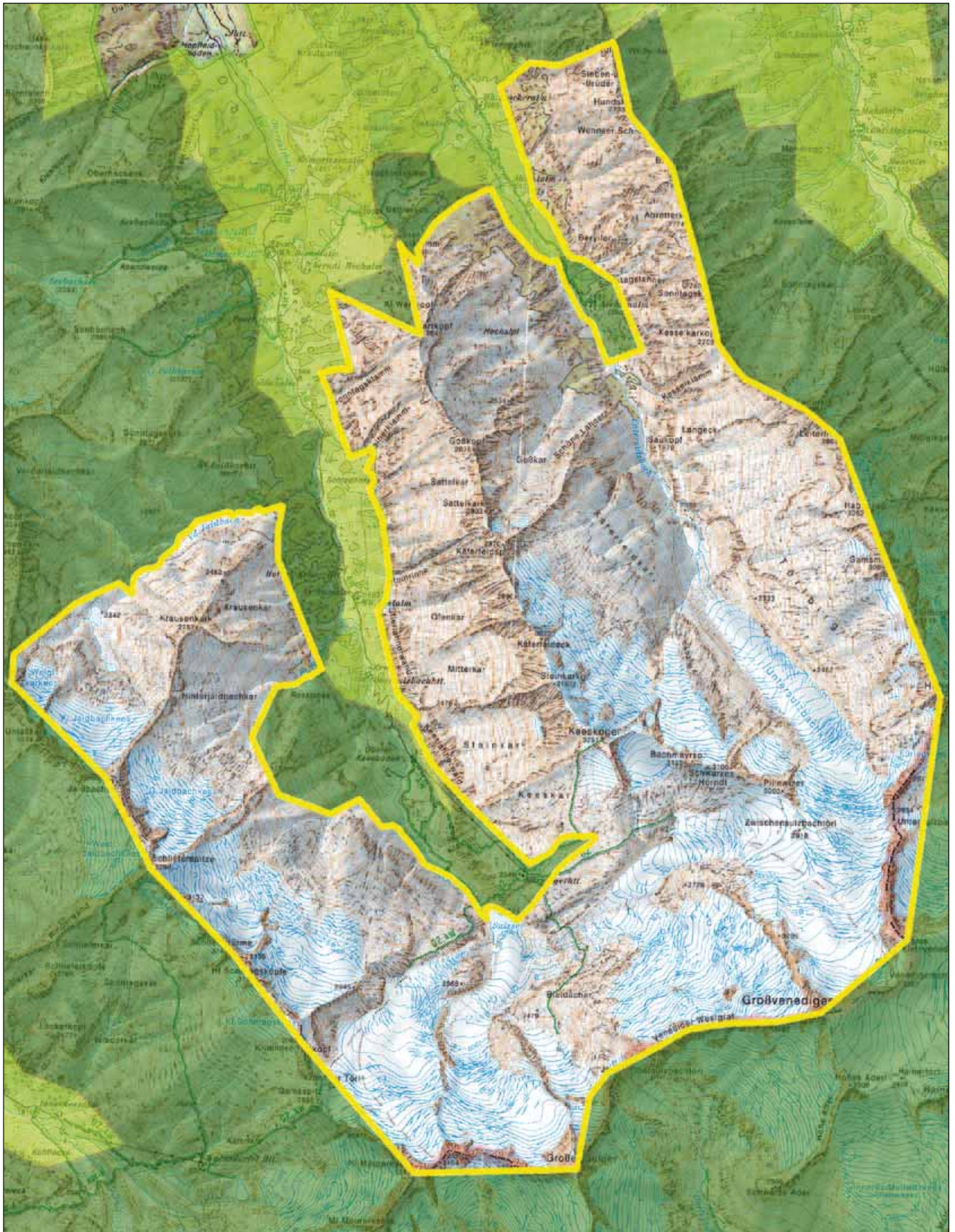
The entire Special Protected Area Ordinance for the "Wildnisgebiet Sulzbachtäler" wilderness area is printed in the appendix.

2.9 Contractual nature conservation

Contractual nature conservation plays an important role in the Hohe Tauern National Park Salzburg. The commitment of the state of Salzburg to contractual conservation is anchored in article of law I (4) S.NPG, according to which the National Park objectives are to be implemented by private law agreements instead of or in addition to sovereign measures.

In 2016, for example, a long-term contract was concluded with Austrian Federal Forests for the "Wildnisgebiet Sulzbachtäler" wilderness area, which provides for the contract to be extended beyond the term of three hunting lease periods (until 31/12/2042) to the duration of the validity of the Special Protected Area Ordinance. The contractual partner waives any agricultural and forestry use as well as the practice of hunting on the base areas located in the special protected area.

In order to protect the wilderness area with regard to the exercise of fisheries exempted from the ban as well, an equally long-term nature conservation contract/lease agreement has been concluded with the fishing rights owner registered in the fishing book at the Ober- and Untersulzbach rivers together with tributaries in the special protected area.



The initial initiatives in the EU Parliament in 2007 and the Wilderness Conference held by the EU Commission in Prague in 2009 demonstrated the intensive commitment of European nature conservation policy to the last 'wild' areas of the continent, following the model of the Wilderness Act passed in 1964 by the United States Congress. This was followed by numerous national and international documents that not only developed standards, but also attempted to identify the few genuine areas of wilderness potential in Europe. In all potential analyses concerning the alpine arc and the typical alpine ecosystems, the Venediger Group appeared from then on in the Hohe Tauern as a very important area of wilderness potential, one which was almost unique. At the same time, the management of the National Park evidently and consciously had a huge responsibility to boost this potential for conservation practice and in terms of conservation policy and 'to realise' this potential.

There is an interesting arch spanning more than 100 years in the development of the "Wildnisgebiet Sulzbachtäler" wilderness area, which is closely connected with "Naturschutzpark Lüneburger Heide" association and foundation. Of course, the focus of attention was not on the development of a wilderness area of today's content and standards, but on the establishment of a National Park; however, without these initiatives and the constant struggle for the highest and best nature conservation

standards on the available areas, the prerequisites for a wilderness area of the highest quality would not exist today either.

Back in 1913, the "Conservation Park Association", founded a few years before in 1909, acquired its first potential protected areas in the Stubachtal and Amertal valleys on the initiative of Dr. August Prinzing, a member of the Salzburg state parliament and later deputy governor. The idea behind this was to set up a National Park in the Hohe Tauern region akin to the first national parks in the United States. In Europe at that time, the Abisko National Park was founded in Sweden in 1909, and the first alpine National Park, the Swiss National Park, founded in 1914, was imminent.

World War I, between the wars, economic crisis, World War II and finally the unbelievable upturn in economic fortunes caused National Park and conservation ideas to fade into the background in subsequent years. The plans, which were soon realised, for the expansion of energy use in the Stubachtal valley with the inclusion of waters from the neighbouring Amertal valley to the west, ultimately forced the Conservation Park Association to reject the acquired areas and to take up new ownership in Ober- and Untersulzbachtal valleys as part of a basic exchange with Austrian Federal Forests in 1940. However, this switch to areas which were of even less economic interest would turn out to be an ecological stroke of luck in the decades to come.



Land acquisition in the Stubach and Amer valley by the Conservation Park Association

Following identical objectives since the association was founded in 1909, the Luneburg Heath Conservation Park Association contributed approximately 3,500 ha of property in the Sulzbachtäler valleys to the new major conservation area, Austria's first National Park, when it established the Hohe Tauern National Park in Salzburg in 1984. Given its ecological importance, the majority of it was also prescribed as the core zone area of the National Park. Back in 1995, 2,650 ha in the Untersulzbachtal valley were placed under an even stricter conservation regime, generally on a par with a wilderness area, as a special protected area called the "Inneres Untersulzbachtal valley". In addition to the areas of the Conservation Park Association, this special protection area also included areas belonging to Austrian Federal Forests. The strategy behind the designation of strictly regulated special protection areas at that time was to create the quantity of areas for the protection of natural processes required for international recognition of the National Park under IUCN Category II.

However, this identification of the special protected areas – besides the "Inneres Untersulzbachtal valley" (SPA), the "Piffkar" SPA in Fusch and the "Wandl" SPA in Rauris – proved to be unsuccessful due to the small total area in relation to the entire National Park. The Hohe Tauern National Park was denied international recognition under IUCN Category II for a long time, primarily because of the hunting and other rights of use not held by the National Park Administration, whether or not they were exercised. Stipulating even more and larger special protection areas was unimaginable as conservation policy was anchored on a very regional basis.

From the late 1990s onwards, contractual nature conservation was the means chosen as a solution, and this was well established for many years. Once again, it was the Conservation Park Association and Austrian Federal Forests which, as contractual partners for the National Park, made large areas of land available on the basis of private law, putting those areas completely out of use. In terms of content, i.e. in terms of conservation status and conservation regime, the Inneres Untersulzbachtal valley SPA was extended from 2004 onwards to include large neighbouring areas in the Habachtal valley, the Untersulzbachtal valley itself and in the Obersulzbachtal and Krimmler Achental valleys.

Placing the land out of use on a private law basis was sufficient for the IUCN and, together with numerous identical conservation easement agreements, mainly in the core zone of the National Park between Krimml and Muhr, exemption from use as a nature zone, required under IUCN category II, and, thus, international recognition were achieved in 2006.

However, nature zones that are not used in this way under private law do not yet determine a wilderness area per se, there must also be natural and ecological wilderness potential and meaningful and purposeful balancing with protection of natural processes, as well as ongoing safeguarding of the conservation status. The nature zones which were strictly protected by

easement in the core zones – with the exception of agricultural, forestry and hunting use – satisfy the IUCN's objective of external use in purely quantitative terms, but they are neither optimally balanced nor safeguarded for more than a 9-year hunting lease period. In this respect, conservation easement is by its very nature limited when it comes up against national protection standards.

Nevertheless, due to the apparent wilderness potential in the Sulzbachtäler valleys, WWF Austria was commissioned with compiling a potential study in 2013. It was published in 2014 under the title "The Potential Wilderness Area Grossvenediger – A Report to the Wild Europe Initiative". The outcome of the first coarsely screened potential survey has now been confirmed with more precise and closely related surveys, and the unique potential for primary wilderness and for wilderness development has been determined for the Venediger Group in the Hohe Tauern.

With the European Wilderness Quality Standard Audit by the European Wilderness Society, it was finally possible to enter the concrete planning phase in 2015. The Luneburg Heath Conservation Area Association was just as aware of its importance and responsibility for the development of a wilderness area as Austrian Federal Forests. While the latter was prepared to negotiate a conservation easement agreement for an indefinite period and for the duration of the designation of an extended special protected area, the Conservation Area Association finally offered to sell its property to the National Park after more than 100 years of involvement in conservation in the Hohe Tauern region. Property and settlement agreements under governmental designations are the safest and most attainable means of achieving the desired and necessary securing of land forever.

After lengthy, consistently constructive negotiations, the two contracting parties reached an amicable position in 2016. By applying additional wilderness area supplements, the conservation easement agreements with Austrian Federal Forests, which were relevant to the wilderness area, were renewed and extended to include the existence of a prescribed wilderness area; consequently, hunting rights also transferred directly to the National Park. Around 4,000 ha are available as a result. Finally, with the help of EU, federal and state funding, the National Park was able to acquire 3,000 ha from the Conservation Park Association, including a hut which is used as a research station in the Untersulzbachtal valley and the Hofrat-Keller hut as a base camp for the wilderness college in the Obersulzbachtal valley.

The requisite final stage in the protection process, governmental extension of the "Inneres Untersulzbachtal valley" special protected area to a 6,728 ha special protection area named the "Wildnisgebiet Sulzbachtäler wilderness area" took place when the special protected area ordinance issued by the Salzburg State Government became effective on 7 September 2017.

4

Facts and figures

6.728 ha

Size of the Sulzbachtäler wilderness area

1.389 m

Lowest point of the wilderness area

2.557 m

Average altitude of the wilderness area

3.657 m

Grossvenediger summit, highest point of the wilderness area

17

glaciers

75 %

of the area is in the alpine altitude range

25

peaks over 3,000 m above sea level

Approximately 20 km²

of glacier area

1.856 km²

Total area Hohe Tauern National Park therefrom 805 km² in Salzburg part

2

huts used as a base camp for wilderness college and for wilderness research

40 %

of the area is in the Untersulzbachtal valley

60 %

of the area is in the Obersulzbachtal valley

11 km

east-west route



1940

Land acquisition in the Sulzbachtäler valleys by the Conservation Park Association

1995

Special Protected Area Ordinance for the Inneres Untersulzbachtal valley

2016

Purchase of land by the Salzburg National Park Fund

2017

Ordinance on the "Wildnisgebiet Sulzbachtäler" wilderness area comes into force

58 %

in the property of the Austrian Federal Forests

70 %

of the area is unspoilt alpine landscape – glaciers, rocks and boulders

13 km

north-south route

42 %

of the wilderness area owned by the Salzburg National Park Fund

Description of the "Wildnisgebiet Sulzbachtäler" wilderness area

5.1 Geology, geomorphology, glaciers, characteristic landscape

The two Sulzbachtäler valleys are part of the western Tauerntäler valleys of Salzburg. To the west lies the Krimmler Achental valley, and in the east there is the Habachtal valley. They are located in the local authority area of Neukirchen am Großvenediger in the most glaciated mountain group of the Hohe Tauern, the Venediger Group. Both valleys end in the Salzachtal valley basin near the hamlet of Sulzau. Like all the Tauerntäler valleys north of the main ridge of the Alps, they cut through the mountains, from the Salzachtal valley to the main ridge of the Hohe Tauern, along an almost north-south axis. The Sulzbachtäler valleys include the Grossvenediger, the highest mountain in Salzburg, the Obersulzbachkees, the largest glacier in Salzburg and the Untersulzbachkees, the longest valley glacier in Salzburg, as well as the Obersulzbach and Untersulzbach, two of the most impressive glacier streams.

Geologically, both valleys are located in the area of the Hohe Tauern window, which stretches between the Brenner in the west and the Katschberg in the east. Given the absence of the tectonically higher layers of rock, the underlying units come to the surface in this geological window. Series of Penninic nappes, structurally the deepest stratum, crop out the Hohe Tauern window. The rocks of the Hohe Tauern window essentially consist of two rock units, the cores of the central gneiss and the slate mantle. The dominant feature of the wilderness area is the central gneiss, known as the Venediger Core, which makes up most of the Ober- and Untersulzbachtal valleys. This core is surrounded by the very colourful composition of the Older Slate Mantle, which is composed of the "old crystalline series" and the "Habachserie" outcrop. The geological conditions are also reflected in the landscape.

Both Tauerntäler valleys are classic trough valleys shaped by the glacier, which were formed by the glacial overshaping of the original V-notched valleys (V-valley) during the Ice Age, but they show great differences. The Obersulzbachtal valley is an asymmetrical valley about 16 km long with a wide valley floor divided by three steps. The first step, about 30 m high, is located in the area of the Blausee lake, where the rocks of the Older Slate Mantle have come loose from the central gneiss and extend to the Hopffeldboden area. Adjacent to that, a south-western strip of rock runs from the Older Slate Mantle to the Hütteltalkopf. North of the Berndlalm alpine pasture lies another 300 m high step, where a green slate belt crosses the valley at the Gamseckfall water falls. The remaining parts of the valley lie entirely in the central gneiss. The third step is south of the Obersulzbachhütte hut, with Obere Keesboden which sits 200 m higher. The four firn hollows, with their northerly exposure, which extend from the northern side of the Grossvenediger to the area further west below the Maurerkeesköpfe, bring the range to a magnificent end. With glaciers retreating due to global warming, the former Obersulzbachkees, which was the largest glacier in the state of

Salzburg and the third largest in Austria, has undergone much ablation and is now disaggregated into six separate glacier areas. The young Sulzsee lake has formed behind the one-time, famous "Turkish Tent City" glacier rift, and there is a new glacier lake at the end of the Sulzbacherkees glacier.

On the western slope of the valley, the remains of the high valley floor at an altitude of 2,000 m form wide cirques; the Foisskar and the Seekar are the only two of those used for alpine farming. Beautiful cirque lakes, the Seebachsee and Foisskarsee lakes are embedded in those cirques. Other smaller lakes are located in the catchment area of the Vorderer Jaidbach river. The right side of the valley, orographically speaking, is steeper and barely structured, so that it can only be used for alpine pasture management in the outer section of the Berndl- and Kampriesenalm alpine pastures.

The Untersulzbachtal valley, which is about 3 km shorter, has a very varied geological structure and possesses a classical stratum structure. At the entrance to the valley, there is a 150 m high step that is overcome by the Ache in the 50 m high Untersulzbachwasserfall waterfall with an adjacent gorge. The Untersulzbachfall water falls lie at the point where the "Habachserie" gives way inwards to the central gneiss. Above this, the valley rises gently at first, narrows south of the Knappenwand and widens again at the Stocker- and Finkalm alpine pastures. This valley expansion is linked to the Habachmulde trough, the band of slate that separates the central



typical trough valley – Untersulzbachtal valley

gneiss of the southern Sulzbach tongue from the Habach tongue. In the gneiss of the Habach tongue, the valley now takes on the classically pronounced trough shape, rising in smaller steps to the end of the trough and ending at the Untersulzbachtörl pass. Another small foothill of the much more extensive eastern amphibolite layers reaches down into the valley, albeit only in the area of the Kesselklamm.

The Untersulzbachtal valley does not have the asymmetry of the transverse profile which typifies the neighbouring valleys. The trough walls are steep on both sides of the valley and richly structured by rock pulpits, ditches and rockfall channels. Their steepness is further enhanced by the impact of weathering on the gneiss. The crevice systems of the gneiss often lead to the eruption of large cuboids of varying degrees of angularity, which form massive block heaps at the foot of the walls. In addition to these rockfalls and landslides, there is also rock debris, which is transported down to the valley by mudflows and avalanches in the rockfall channels, forming large areas of scree. In addition, glaciers leave a lot of moraine material as they retreat.

The valley is relatively short, narrow, high, heavily shaded and surrounded by steep flanks. Since the middle ridge section is only 3 km (the Obersulzbachtal valley, by comparison, is 5 km), large variations in altitude occur over short distances. Due to the narrowness of the valley, the steepness of the valley flanks is particularly marked. The remains of old forms that dominate the terrain above the trough end south of the Aschalmalm alpine pasture are missing on the valley flanks, where they could be key for alpine pasture management. The Poppbergalm alpine pasture, which has been abandoned for decades, only emerges on a slope at the end of the valley.

The Untersulzbachtal valley is the most extreme and inhospitable valley and has always been very unwelcoming to humans. Permanent settlement has never been possible, and there are only a few alpine pastures that are limited to the few extensions of the valley floor. In contrast to the rougher terrain of the Untersulzbachtal valley, the Obersulzbachtal valley has forever been used for forestry and alpine pasture management. The Untersulzbachtal valley is known for its wealth of minerals and especially for the famous epidote crystals of the Knappenwand. Mining probably occurred at the front end of the valley as far back as Celtic and Roman times, and the historic Hochfeld mine, which now opens up a view into the Hohe Tauern window as a visitor facility of the National Park and clearly illustrates the covering structure of the Hohe Tauern window, lies there too.

In climatic terms, this is a climate type VI (X)2 area – the temperate humid inter-alpine zone with abundant summer and moderate winter rainfall. The annual precipitation is about 1,500 mm; there is closed snow cover 225.6 days/year, and the maximum snow depth is 3.30 m. However, the locations on the main alpine ridge see well over 2000 mm of precipitation per year, reaching 1,250 mm in all wooded areas. The annual average temperature is only around 1.4°C, with extremes between -28.7°

and +24.4°. The climate is very rough, exacerbated by strong winds, especially in winter.

The designated “Wildnisgebiet Sulzbachtäler” wilderness area covers 6,728 ha in the interior of both valleys, and the Grossvenediger, the highest peak in the mountain group and the one which gives the group its name, connects this area with the land in the south. There are more than 25 named mountain peaks over 3,000 m and 17 glaciers within the wilderness area. The area ranges from a lowest altitude of 1,389 m to a high of 3,657 m, with an average altitude of 2,557 m. About 75 percent of the wilderness area is in the alpine altitude range, 15 percent in the subalpine, 9 percent in the nival, and 1 percent is in the montane altitude range. The landscape is characterised by rocks and mountain peaks, glaciers and snow fields, glacier forelands and unspoilt alpine landscape, alpine grassland and groups of dwarf shrubs, as well as forest borders. One of the special features is that the wilderness area in the Untersulzbachtal valley extends down to the high mountain pastures and woodland.



Untersulzbach glacier

The characteristic feature which defines the landscape in the wilderness area is the glaciers with their foreland and their glacier streams. Depending on their location in the mountain relief, they shape the landscape as karst, slope, suspended or valley glaciers. In total, about 20 km² of glacier cover the wilderness area. However, this expansion of surface area is only a snapshot: glaciers grow and shrink over years and millennia as

Description of the "Wildnisgebiet Sulzbachtäler" wilderness area

climate change evolves. The ice masses, up to a kilometre thick, which covered the Alps during the ice ages and slowly flowed down from the mountains with almost unimaginable weight and pressure over thousands of years, played an important force in shaping the landscape. They have significantly modified the preglacial mountain relief, leaving a characteristic treasure trove of shapes in their wake. Decisive features here are, firstly, the erosion and, secondly, the transport and deposition of rock material by the glaciers. Glaciers caused depth and lateral erosion through planing and grinding processes. Coupled with weathering caused by frost, especially in the area of the mountain crevice, rock steps such as the back walls of the cirque were formed at the rock/ice boundary. The characteristic cirques were formed from preglacial depressions and spring pits. The frost-induced steepening of the slopes and back walls of cirques changed many summit slopes to sharp ridges, with the intersection of several cirques leading to the characteristic summit form of the pyramidal

slope debris and rockfall deposits of the gneiss walls protruding up all around. The Sattelkar was caused by intensive glacial and periglacial activity. There are indications of a fossil block glacier, and several moraine walls bear testimony to the last glaciations. Since 2005, there has been increased momentum in the form of mass relocation processes within the cirque; enclosed areas of vegetation have been largely replaced by areas of debris. The loose material cover has started to move backwards rapidly, starting at the cirque threshold.

The rock and debris that the glaciers carry with them at the base or surface is deposited in the form of moraine walls: at the edge of the glacier tongues as lateral moraine and at the end of the tongue as end moraine. When two glacier streams merge, the so-called middle moraine is formed; moraine material deposited in the area of the former glacier foreland is called ground moraine. When the glaciers retreat, the moraine remains as characteristic



Sulzsee in the Obersulzbach valley

peaks. Striking examples of this are the Schwarze Hörndl, the Große Geiger, the Kleinvenediger and the Grossvenediger, the Gamsspitzl, etc. Many beautiful cirque lakes ultimately developed (such as Seebachsee lake and Foiskarsee lake) in the glacier pools and cirques after the ice melted away. Cirques are formative landscape elements of the high mountains and, like glaciers, they are especially sensitive to climatic changes, such as increases in temperature or liquid precipitation. Glacier shrinkage is one of the most visible consequences; as the ice retreats, areas of rock and loose material are exposed. However, there are also invisible changes, including changes in the permafrost, the substrate which is permanently frozen. This results in weakening of the rock and increased mobilisation of loose material due to heavy precipitation. Numerous debris flows from the high alpine cirques, most notably from the Sattelkar (Obersulzbachtal valley), have been documented, especially in recent years. This is located in the wilderness area and, like its neighbours, is characterised by

landscape-forming elements. The moraine walls of the post-glacial glacier advances, at least, can be found in the forelands of the current glaciers. The most conspicuous are the lateral and terminal moraine of the most recent advance period between the 17th and 19th centuries with the moraine walls of maximum expansion around 1850.

Besides the glaciers, the glacier forelands and the moraines, the two glacial streams, the Unter- and Obersulzbach, have a decisive impact on the valley. Both are particularly impressive glacial streams with their characteristic daily and seasonal run-off activity due to the strong glaciation of their hydrological catchment area and, due to their dynamics, they are the dominant elements of the two Tauerntäler valleys. However, only the inner section of the Untersulzbach river and the young tributaries of the Obersulzbach river behind the Sulzsee lake are integrated into the wilderness area. The Untersulzbach river is extremely

natural; it can flow freely through the valley without being forced into a narrow dam. Only at the end of the valley (outside the National Park) can you find a small power station which supplies energy locally to Neukirchen am Großvenediger.

The character of the landscape is defined as typifying a landscape, which is uniquely shaped by a certain composition of landscape components typical for this area. The wilderness area has a rich geomorphological and glaciological treasure trove of forms, with outstanding features and variation, which are also unique and complete. This ranges from recent phenomena and effects of climate, ice and water and the way in which they have shaped and formed the landscape to create this stunning trove of glacial forms, reflecting its strong influence during the Ice Age. The wilderness area shows the landscape character of the crystalline, glaciated high mountains of the Eastern Alps. What is special about it is that the wilderness of the area remains intact, undisturbed, unspoiled, desolate and untapped. As glaciers retreat as a result of global warming, areas that have remained hidden under the glacial ice for thousands of years are now being laid bare. Completely unaffected by direct anthropogenic influence, these glacier forelands boast wilderness in its most pristine form and momentum.

5.2 Flora and Fauna

When walking from Sulzau, the estuary for both Untersulzbach and Obersulzbach glacial streams into the Salzach river, to the Grossvenediger, you pass through all levels from the montane zone to the snow zone. Although both valleys open into the same basin in the Salzachtal valley and both originate at Grossvenediger, their climates and therefore growth conditions are very different.

According to the Austrian growing region classification, the Sulzbachtäler valleys belong to growing region I.3: Subcontinental Eastern Inner Alps. The main community of the high montane zone here is essentially the spruce pine forest, which would form the natural forest community for all main forest locations. Pine trees are commonly seen in the Untersulzbachtal valley from frequent admixtures down to small copses. The occasional appearance of a beech at the entrance of the valley and in the Mitterkopf area is a particular feature. Further into the valley, up to a height of approximately 1,500 m above sea level, there are some remarkable montane hardwood forests and mixed forests, which, on the one hand, demonstrates the unique climatic position of the growing area and, on the other hand, shows that in comparison to the spruce, these species of trees benefit from their ability to heal from damage caused by rockfalls. In contrast, in the Obersulzbachtal valley, the lower subalpine zone reaches far down into the valley and therefore pines and hardwood trees are only found at the entrance to the valley. Growing region I:3 is divided into two growing zones, which are characterised by the absence or presence of larch trees as the secondary tree species or tree species of specific locations. Larch trees are largely



Biodiversity - Untersulzbach waterfall

lacking in the western National Park valleys of Wildgerlostal, Krimmler Achenal valley and Obersulzbachtal valley due to extremely high levels of precipitation in the summer, which can inhibit the development of young larch trees as a result of fungal infestations.

Canyon forests and grey alder alluvial forests can be found alongside streams with an abundance of moss, fern, lichens and forbs. Depending on the local conditions, montane and subalpine coniferous forest communities can be found on the slopes. In some moist, steep slope areas and in steep flooded gullies, green elders are dominant with some birch trees in places. In the valley grazing areas, mat-grass pasture land is dominant. At higher altitudes, the alpine meadows have a wide variety of sedge. In the Obersulzbachtal valley, the forest further into the valley is situated almost exclusively on the less steep and more extensive left side of the valley. The tree line in both valleys is at 1,800 - 1,900 m above sea level and is formed of stone pine. In the Obersulzbachtal valley, it is notable that there are large areas of mountain pine in the drier areas above the tree line and moist gullies are covered with green elder bushes and forbs. Above the tree line, extensive dwarf-shrub heathlands dominate together with highly diverse alpine grass communities with sedge, which give way to cushion plant communities with their colourful flowering plants at higher altitudes. In these rough and barren rocky areas, plants nestle close to the ground or the rock surfaces and they need to be specially adapted to the short

Description of the "Wildnisgebiet Sulzbachtäler" wilderness area

vegetation period. Plants also need to be specially adapted in bowls and on flat areas that may be covered with snow for up to nine months of the year – snowpatch communities. Mosses and rock lichen also dominate the extensive scree slopes and the highest rocky regions.

The extreme habitats of glacial forefields are a special feature. In the direct proximity of the glacier, cold glacier winds, long periods of snow cover and mechanical stress caused by constantly moving rock material prevail. The ground may also occasionally be covered with loose rock or flooded with ice-cold glacier water so that only a few species can survive in these habitats. The natural succession and population of ice-free areas can be observed here. In these areas, the flora are subject to constant change in contrast to the alpine plant communities, the appearance of which remains largely unchanged during the course of the year at any particular location. As the ice-free areas last longer, the total vegetation coverage increases and the plant cover becomes thicker and denser. Soil formation continues to progress so that various species from the surrounding plant communities may be established.

Even the ice itself shows signs of algae growth; particularly in the summer months, the glacier has a red, yellow, green, brownish and black colouring caused by algae, most commonly spherical snow algae. The colour is commonly described as "Schneeblüte" (snow blossom).

A broad range of habitats that are typical to Hohe Tauern can be found in both Sulzbachtäler valleys from the montane zone up to the snow zone. In accordance with the variety of habitats, the range of species, particularly of vertebrate animals, is very diverse. At higher altitudes, living conditions become more difficult and habitats become more sparse. However, animal life exists from the valleys right up to the highest peaks. Generally, a significant reduction of the number of species and even the population density of the individual species and animals as a whole is notable here. As the climate becomes more and more extreme, the degree of specialisation also increases. There are



snow grouse

only a few species of vertebrate animals that withstand the extreme conditions of the high mountains all year round, e.g. the rock ptarmigan and snow finch. Most species of vertebrate animals leave the most extreme areas for at least part of the winter and stay outside of the wilderness area or below the tree line. In the Sulzbachtäler valleys, the wildlife that is typical to Hohe Tauern can be found. The following species in particular are typical and notable representatives:

The small ibex colony is a particular zoological feature. The first attempt to introduce ibex to the Obersulzbachtal valley was made in 1963. 3 bucks and 3 does from the Swiss National Park were released into the wild. However, this repopulation was unsuccessful so 11 further ibex were released in 1977 from the Alpine Zoo in Innsbruck and the Hohe Wand Nature Park. The population of this ibex colony fluctuated. The declines were attributable to cases of mange, which occurred fairly frequently. The population was reduced to just three does and their young and was on the brink of dying out on two occasions. However, after each period of decline, the population increased again within a just a few years, which, as a telemetry study showed, was similar to the situation in East Tyrol. Some of the ibex at the head of the Obersulzbachtal valley move through the Obersulzbachtal pass on an annual basis to spend the winter in East Tyrol; the rest spend the winter a little further out of the valley on the right orographic flank of the Obersulzbachtal valley. Several ibex have also independently settled in the Untersulzbachtal valley. The total number of ibex in both valleys increased to around 60 before mange caused another decline in recent years. The current population of ibex is thought to be at around 30.

The chamois, which has a very good population in both valleys, has a very similar winter strategy. This hoofed game species is also perfectly suited to the high mountain region with regard to its physique, nutritional requirements and behaviour and the wilderness area, particularly in the high alpine grass heath zone, provides an ideal habitat in summer. Due to the harsh weather conditions in winter with large amounts of snow, most chamois in the Untersulzbachtal valley migrate further out of the valley and into lower valley areas; others migrate over the main ridge of the Alps to the south side of the Tauern. The valley heads and areas further into both Sulzbachtäler valleys obviously offer perfect habitats in summer but provide little suitable shelter in winter.

In addition to chamois and ibex, red deer and roe deer also live in this wilderness area during the summer. They are primarily drawn back to these areas by the wildness, peace and quiet and make use of the high corries previously used as Alpine pastures.

Hazel grouse can be found along both Sulzbachtäler valleys and black grouse, ptarmigan and some rock partridge can be found above the tree line and the Krummholz belt. These landfowl are resident birds; they stay in more or less the same region throughout the whole year. They have special features such as thick down – provides good thermal insulation, feathered feet – act as snow shoes, sieve-like feathered nostrils, the use of snow



Ibexes

roosts up to 1.5 m under the snow cover even during the day and the conservation of energy that is associated with this whereby they restrict their activities and movements to a minimum so that the relatively low-value winter food is sufficient to cover the metabolic process. They are therefore perfectly suited to the winter. The ptarmigan can only be found below the tree line very rarely in winter. They search for food on windswept spines and ridges or on the snowless steep slopes where snow easily falls off.

In addition to the ptarmigan, another relic from the ice age, the snow hare, populates sedge and cushion plant communities in the wilderness area in the high alpine zone.

Further typical alpine fauna includes the marmot, which builds its burrows from the alpine pastures up to the high alpine boulders, particularly on south-facing slopes with ground that is good for burrowing. The marmot's main predator is the golden eagle, where only last year a fledged nest was discovered. Eagles of all ages can easily be observed while they are searching for prey. Since the young bearded vultures Lucky and Charlie were released into the wild in 2016, bearded vultures continue to be sighted in the Sulzbachtäler valleys.

Further species of birds that find ideal habitats in the wilderness area above the tree line include the snow finch, alpine accentor, water pipit, northern wheatear, black redstart, ring ouzel, alpine chough, common raven and wallcreeper. Typical forest species are the black woodpecker, three-toed woodpecker, spotted nutcracker, common redpoll and the Eurasian pigmy owl. The

grey wagtail and white-throated dipper have been spotted near areas with water.

In addition to the animals mentioned above, mammals include predators such as the fox, European pine marten, stoat and weasel. With regard to small mammals, evidence of the snow vole and bank vole has been found. The Sulzbachtäler valleys also offer an ideal habitat for microbats as, thanks to the abundance of insects, there is a bountiful feast for the "predator of the night".

Due to the small number of appropriate spawning waters in the wilderness area, the common frog is rare and has previously primarily been found outside of the special protected area. In contrast, the alpine salamander, which is viviparous and does not depend on spawning waters, is commonly found. As for reptiles, existence of the common lizard has been proven whereas snakes, particularly the common European viper, are lacking.

The invertebrates include a large number of high-altitude species that are particularly suited to specific habitats. In just one night-time study, 200 different species of butterfly were discovered. The clouded Apollo was one of the species found on the Salzburg side of Hohe Tauern west of the Stubachtal valley. Bumblebees and solitary bees can be found in high population densities in some areas. Most surprisingly, some invertebrates populate the most extreme habitats. For example, even on glacial ice and in crevasses, single-celled organisms, rotifers and tardigrades can survive, as can the well-known glacier flea. The ice-cold water of the glacial streams may be populated, even underneath the glacier in some places, by a species of non-biting midge; turbellaria, stonefly, caddisfly and black fly larvae populate this habitat downstream.

The wilderness area is a region of particular botanical and zoological significance. The natural sequence of all stages of development of the individual plant communities from the high montane zone up to the snow zone are represented and the species that are typical to Hohe Tauern find ideal habitats. With the exception of large predators (bear, wolf and lynx), the total range of species that potentially exists can be described as complete. The wilderness area, thanks to its size and its height, has a broad spectrum of various habitats and, particularly thanks to being unspoiled, private, natural, undeveloped and wild, also has comprehensive, in part highly specialised flora and fauna that are typical to the Alpine ecosystem. It is therefore a unique jewel of nature.

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6.1 Preliminary note

In the social sciences, the term “narrative” refers to a **story which defines how a group of people perceives and understands a certain issue**. In connection with wilderness, the term was first used in the U.S., when interagency efforts were made to improve the management and monitoring of wilderness areas). According to Landres et al. (2008) a “wilderness narrative” provides protected areas managers with a basic reference description of “wilderness character”, which is needed to detect and monitor changes in **wilderness quality**.

The wilderness character is a central, but often elusive asset of wilderness areas and National Parks. In a world that is in constant and accelerated change, where human pressure on nature and landscapes is ever present and where managers of protected areas frequently have to face difficult decisions that potentially impact wilderness quality, the wilderness character may easily fall prey to the “shifting baselines”-phenomenon. It may undergo unnoticed changes over time, because each generation of managers develops its own, subjective reference system regarding wilderness quality. If then each generation of managers also accepts seemingly minor deviations from its personal reference, major deviations may result over time, leading to a severe loss in wilderness quality. Certainty as to what constitutes the wilderness character and the typical features of a specific wilderness area could significantly counter the gradual and imperceptible loss of substance. For this reason, the production of so-called “wilderness character narratives” has been recommended and successfully put into practice in some US wilderness areas and National Parks (National Park Service Wilderness Character Integration Team 2014). In its recently published guidelines for the management of wilderness areas, the IUCN has recommended the production of such narratives for wilderness areas globally. From there, the recommendation found its way into the position paper “Wilderness and Process Protection in Austrian National Parks”. The present narrative for the wilderness area Sulzbachtäler is the first attempt to develop a wilderness narrative for a major protected area in Austria.

A wilderness narrative is a qualitative, affirming and holistic description of what is unique and special about a specific wilderness area. The description is usually focussing on the five qualities of wilderness character: **naturalness – wildness – lack of development – opportunities to experience wild nature – other features of value**. A wilderness narrative is not only concerned with the current state of the area, but also with possible future developments. It explicitly addresses any factors that could affect wilderness qualities either now, or in the future. The wilderness narrative

will therefore also provide an important basis for scientific monitoring activities targeting the area. These should primarily focus on its wilderness qualities and their preservation – despite the numerous other research opportunities a wilderness area might offer. The bases for the present wilderness narrative were jointly developed during a one-day interactive workshop held in Mittersill on 19 December 2017. The workshop was attended by a group of cc. 15 people and included National Park staff, as well as external experts.

6.2 The wilderness area Sulzbachtäler

Naturalness

The wilderness area Sulzbachtäler offers a view into a glaciated high mountain landscape of unique size, expanse and wildness. Everything here seems gigantic and vast: the size of the mountains, the glistening ice shields of the glaciers, the power of the torrents, the infinite scree slopes, the sweeping mountain slopes; veils of mist and waterfall spray hang in wild, craggy rocks; deeply carved canyons alternate with wide valley floors. The vast area covers all altitudinal levels in the National Park, from the charismatic summit of Grossvenediger at 3,657 m down to the uppermost mountain forest belt with its larches, stone pines, dwarf mountain pines and green alders. Examples of all natural habitats in the National Park can be found in the wilderness area, from the lichen crusts of the highest summits down to the lush moss and dwarf shrub thickets in the larch and stone pine forests. The vegetation does not show any signs of human use, as there has not been any grazing for decades – neither in the former special protection area of the Untersulzbach valley, nor in most parts of the Obersulzbach valley, which now lie within the confines of the wilderness area. When the wilderness area was established, grazing had only to be discontinued in a few small areas in Obersulzbachtal valley. In all tracts of the area that were not formerly used for grazing, the forbs and green alder bushes are remarkably lush and healthy, there are no cattle tracks and there are no cowpats and sheep droppings that would otherwise be found everywhere. Instead, all species of hoofed game that are typical for the National Park – red deer, chamois, roe deer and ibex – occur in the area, according to the carrying capacity of their respective habitat – which means at rather low densities. Still, due to the absence of hunting, game species are not as shy as elsewhere and human visitors may encounter them readily. Impressive birds such as bearded vultures, golden eagles and common ravens circle in the sky; nobody challenges them for the airspace above the valleys and mountains.

Thanks to the lack of human intervention, natural processes, rhythms and changes are much more in evidence within the wilderness area, than outside. The spectrum ranges from totally inconspicuous processes, such as the formation of ripple marks in the sand at the edges of streams, or the wool of dwarf-willow catkins drifting away in a soft breeze, up to major and sudden landscape-modifying events such as rockfalls, debris flows and avalanches. Large-scale, continuous processes are also ever-present, such as the erosion caused by glacial streams, which



manifests itself in the constant, deafening roar of the water, or the retreat of the glacier itself, releasing land that hasn't been trodden by humans for centuries. The steady and diverse interaction of high mountain organisms with their harsh abiotic environment produces a fascinating and ever-changing fabric, a living illustration of what the phrase "ecosystems in a constant state of flux" really means. From the narrow, hardly perceptible trails leading through the area, visitors can watch amazed as nature freely unfolds around them. In the wilderness, nature sets the programme with all its rhythms, processes and powers.

However undisturbed the landscape in the wilderness area may currently be, naturalness is a fleeting asset that needs to be protected carefully: too many visitors may increase the traces of human presence and could cause changes in the currently undisturbed vegetation cover. Increasing number of visitors could also prompt the managing authorities to gradually make concessions to human interests, needs and objectives. External influences affecting the area could also undermine its naturalness. With climate change, invasive species might spread into the area in the future, while atmospheric pollution could adversely affect the balance of nutrients and the composition of biotic communities. In Obersulzbach valley there is an occasional risk of cattle entering the area from adjoining pastures. Recurring,

large-scale wildlife epidemics (like sarcoptic mange, which affects chamois and ibex) could force the park management to cull diseased individuals, thus seriously impacting the undisturbedness of the area. The wilderness area with its area of 6,728 ha is not small by any means; however, it only represents a section of the vast high mountain landscape of the Venediger massif. The quality of the wilderness area also depends on the condition and further development of its surroundings. At present, the zonation of the National Park provides a secure buffer to the wilderness area; however, special attention has to be devoted to the continuous, long-term preservation of this buffer, as well as to the establishment of corridors, eventually linking the wilderness area to neighbouring undeveloped areas of similar quality.

Wildness

The main objective of wilderness areas is to protect freely unfolding, autogenous ecological processes. The extent of freedom that can be granted to these processes is a significant quality feature of such areas. The wilderness area Sulzbachtäler provides ideal conditions in this respect: it is not only characterised by a high degree of natural dynamics, but also allows for their unrestrained action, as there is no human infrastructure or habitation within the area requiring protection. Extreme weather events, floods, avalanches, rockslides,



landslides and debris flows continuously change the appearance of the landscape. In contrast to conventional alpine landscapes, there are no human economic interests to be defended in the wilderness area, nor have safety requirements for settlements and infrastructure to be met. Accordingly, there are no disaster prevention measures taken, nor is there any cleaning-up after natural events. Spontaneous and profound changes may occur, if these are the result of autogenous processes typical for the area. The most impressive changes currently taking place are certainly those associated with the recession of glaciers. Within a surprisingly short time span, the melting ice can create large lakes in glacier forefields. When the outflow of these lakes breaches the frontal moraine damming up the water, they may disappear as rapidly as they have formed. Alternatively, they may develop into a permanent water body, gradually silting up over the course of centuries and eventually becoming a raised bog in some distant future. The changes caused by the retreating ice are just as extreme and lasting: receding glaciers continually release land that was covered in ice for centuries. The visitor may witness processes similar to those occurring widely across our landscape at the end of the last Ice Age. Pioneer plants colonise the recently exposed areas at surprising speed, starting a typical primary succession. At first imperceptibly, a humus layer starts to develop and new and ever more complex communities develop and supersede each other. What's so unique about the wilderness area is that these processes remain largely unaffected by humans. Everywhere else in the Alps, sheep are driven on the greening

glacier forefields: the integration of previously untouched areas into the traditional Alpine commercial landscape begins almost instantly – maybe hardly noticeable at first, but nevertheless irrevocably. Within the wilderness area, the incredibly valuable tracts of virgin land emerging from the ice are protected against the encroachment of human land-use – out of respect for the intrinsic value of nature and as a source of inspiration, wonder and knowledge. Deliberately preserving wildness in these specific areas is not a backwards step to a romanticised past, but an act of civilisation and a future-oriented approach.

Although “wilderness” today is a much-used buzzword in advertisement and marketing, there are current trends pointing in an entirely different direction. With widespread concerns about our future and increasing uncertainty everywhere, a strong desire for more security, predictability and dependability is emerging in modern societies. This strong desire does not fit well with key attitudes and virtues required when dealing with wilderness areas: readiness to release our control and to accept unpredictable developments. To sustain and promote the acceptance of wilderness and wildness in a changing societal climate will require a lot of targeted information and educational work. Another trend must also be addressed: landowners, land users, and management authorities are increasingly held responsible for natural hazards and their consequences. Under such circumstances, the uncontrolled wildness of a wilderness area could quickly be construed as a looming threat to people

living nearby. Therefore, the management authority has not only to raise awareness for the value of untamed wilderness, but it must also provide a realistic picture of risks issuing from such an area. In addition, it will be essential to monitor the development of the surrounding region. Maintaining a sufficiently large buffer zone is a crucial condition for allowing natural processes in the area to unfold freely.

However, awareness on the value of wilderness and wildness must not only be raised externally, but also internally. Under the pressure of anthropogenic climate change, nature will display its own, autonomous reaction, even within the wilderness area Sulzbachtäler. Conservation authorities must resist the temptation to pre-define a desirable status for species, communities and ecosystems in the wilderness and they must refrain from giving priority to anything else than to the integrity and the unrestrained action of natural processes. In wilderness areas, even unexpected and unfamiliar natural developments must be allowed for. Dealing with wilderness and wildness constitutes an intellectual and cultural challenge for all parties involved. Communication about wilderness areas has to maintain a difficult balance between sober realism and the fascination associated with the wilderness concept.

Lack of development

The „Wildnisgebiet Sulzbachtäler“ wilderness area is impassable in the true sense of the word: off the very limited number of trails, the area is difficult to negotiate on foot. There are no permanent trails on scree slopes, in the thickets of dwarf mountain pine and green alders, or on the glaciers, but only approximate routes that may shift according to conditions. The larger streams can only be forded in a few places and only at certain times of the day and in certain seasons. Exploring the area requires fitness, stamina, orientation and mountaineering skills, as well as a suitable equipment – for the less experienced, hiring a guide is therefore strongly recommended. In any event, you have to work hard to experience the area, which you can feel as you go: your own breath becomes part of the acoustic backdrop of natural sounds, and while taking in the wild surroundings, you will also have to pay attention to your own body, to your own achievements.

Reaching the area is no problem in itself, but, particularly in the Untersulzbach valley, access routes become less and less clearly defined, the closer you get to the wilderness: the well maintained road at the entrance of the valley soon turns into a dirt track, then into a narrowing path and finally fades to an indistinct trail. After crossing the boundary of the wilderness area, even this trail disappears. Still, Obersulzbach valley and the Untersulzbach valley have different levels of development and accessibility. The latter is certainly the much wilder and less accessible part of the area.

The last outposts of “civilisation” are the Kürsinger hut and the two huts that now serve as “wilderness base camps” for the National Park (Hofrat-Keller hut and Ascham-Alm). All huts are located outside of the wilderness area, but in close proximity to its borders; beyond these there are hardly any further man-

made facilities. It is very telling that in large parts of the area there is no mobile phone connection. The absence of this safety anchor should compel visitors to take extra care and to plan ahead. In the wilderness area itself, there is no infrastructure except for occasional signposts; trail markings are inconspicuous (colour markings, stone piles, occasional snow poles), they comply with minimum requirements of visitor guidance and security. Other infrastructure at the edges of the area is rather inconspicuous. It consists of a small cable car transporting goods to the Kürsinger hut, a couple of access trails, one or two bridges across torrents, a rescue boat on the shores of a glacier lake, a meteorological station, a hydrological gauge, a chamois trap for research purposes and the information boards of the glacier discovery trail. All this infrastructure literally disappears in the spectacular and rugged landscape and is hardly noticeable from inside the wilderness area. No motors or other technical sounds can be heard in the area, except for the occasional helicopter on a rescue flight or for airliners overflying the area at great altitude. Helicopter use is limited to rescue operations, to a restricted number of transport flights supplying Kürsinger hut and to those rare instances, where a flight is inevitable for scientific and monitoring purposes. Although they are generally low in numbers, overflying airliners also leave their visual marks in sky, in the form of vapour trails. Even on the summits, which command an extremely wide view due to their altitude, the overwhelming wildness of the area and the total absence of man-made infrastructure is striking. Due to the distances involved, facilities and settlements located outside the National Park are hardly discernible. Of course, lights in the surrounding area can be seen from the summits at night, but they are far away as well. Generally, there is a minimal level of light pollution in the area and the starry night skies are spectacular.

The present low level of development in the area and the lack of infrastructure must be actively preserved. As more and more people will become aware of the wilderness area, visitation will increase. This could lead to calls for improved accessibility and to an extension of the trail network. Even if the current number of trails is not actively increased, the recession of glaciers will lead to the establishment of new permanent trails replacing the former shifting glacier routes. Also, due to thawing permafrost, existing routes and trails will increasingly have to be relocated, as rockfalls and landslides become more frequent. Limiting this relocation to the necessary minimum will present a particular challenge for the managing authority. As glaciers melt, the installation of technical means of assistance, such as ladders or cables, might become necessary on some frequently used routes. Recently, a metal ladder had to be installed just below the summit of Grossvenediger, to bridge the widening gap between rock and glacier, which could no longer be overcome by hikers. Without the ladder, access to that charismatic peak would have become impossible for most visitors. To minimize impacts of trail maintenance and marking is a daunting task and requires both empathy and sound judgment if wilderness qualities, accessibility and visitor safety are to be reconciled. Particular attention needs to be given to the most frequently used routes, such as the main

route to the Grossvenediger summit or to prominent viewpoints such as Keeskogel. Because of its location and accessibility, Keeskogel will probably become a popular viewpoint for visitors wishing to have a look on the wilderness area, without penetrating much deeper into it. Extra care must also be given to the management of routes for skiers and snowshoe hikers, since obstacles that keep people on existing trails in summer can easily be overcome in winter, which opens inaccessible parts of the area to visitors at a time of the year, when wildlife is most sensitive to repeated disturbance.

Developments in the wider surroundings of the wilderness area should be monitored: due to the difficult terrain, there might be no significant increase in the number of visitors in the wilderness area itself, but a larger number of tourists might wish to visit its periphery. This would certainly be an advantage for the huts located there, but it would also result in a higher frequency of supply flights by helicopter and in bus rides to the trailheads below the huts. An efficient and well designed visitor management scheme for the wider surrounding of the wilderness area, with a focus on traffic and catering issues will be necessary, if negative impact on wilderness quality are to be avoided. Active steps should be taken to ensure that the night skies remain unaffected by light pollution and appropriate measures should extend to the surroundings of the National Park. Attention needs to be given to the further development of air traffic. Measures that promote an economical and low-impact helicopter service should be supported; the current practice of using helicopters should be evaluated on a regular basis and should be analysed to see if any improvements can be made.

Opportunities to experience wild nature

One important role of wilderness areas is to bring visitors into contact with freely unfolding nature – on nature's own terms. As spaces deliberately kept free of technology and infrastructure, wilderness areas offer very specific recreational opportunities: here, people can still find the peace, seclusion and distance from civilisation that are no longer present in normal, man-dominated landscapes. What also sets wilderness areas apart from its surrounding, is that only simple, primitive modes of travel are allowed, stimulating hikers to enter into a direct and intense relationship with nature and themselves.

In this regard, the wilderness area Sulzbachtäler also meets all expectations. An encounter with the high mountain wilderness is multi-faceted: the ice-cold wind blowing from the glacier front; the indescribable blue of the ice in the cracks and clefts of the glacier; the sharp taste of the turbid waters flowing like milk from underneath the ice; the sensation of painful cold as you wade through the river; the ever-changing soundscape – from the incessant thundering of the river along its shores, to the tranquillity further up on the valley slopes, where only the wind, the occasional call of a bird or the whistle of a chamois break the silence. But a wilderness experience also includes the sense of awe at seeing a gigantic rock blocking the path, where none had been there the last time; getting soaked to the skin as you

fight your way through an alder thicket; the anxious glance at the darkening skies on a stormy day; the corpse of an ibex fawn that nobody removes, reminding us of the ephemeral character of life; the red flash of a wallcreeper's wings, conveying the impression of both strength and vitality.

Experiencing untamed nature also changes the perspective on our normal surroundings: we learn to read the landscape and to assess Man's ability to shape the environment according to his own needs. And our vision is extended: yes, natural hazards are still dangerous in the wilderness, but they are part and parcel of its whole, are to be respected and considered, but not branded as negative. They are simply natural processes that are beyond our control. The high mountain wilderness also opens a window to the past of our own familiar landscape. We observe the structures that have shaped the valley areas of today: moraines, riverbeds, hanging and U-shaped valleys gouged out by the glacier. At the same time, the landscape of the wilderness area is the benchmark and reference for changes brought about by Man in the past. Still, repeated visits to the area will not only reveal changes, but also the perseverance of nature. The intensity of a wilderness experience is closely linked to the fact that nature always has the upper hand, the distractions of civilisation are absent and the encounters with other visitors rare. In fact, people hiking in the Untersulzbach valley will hardly ever come across anyone else – the area is too forbidding and harsh. You can be walking alone or in a small group and feel like you're the first person to tread the barely recognisable path. Only in these conditions can you sense the full effect of the special qualities of "primitive travel". Wandering through the wilderness involves paying attention and being awake to what is going on in the landscape and within ourselves. You need mental and physical fitness to survive here. Assessing natural processes and situations is just as important as a critical appreciation of our own capabilities and limitations. All-powerful, untamed nature in the wilderness teaches us that not everything is possible – wild nature readjusts the proportions, for which we often lose all feeling in our technology-bound and over-secure world. The wilderness imposes its own rhythm on visitors: time and distance are now relative and the journey itself is the actual goal. Walking slows you down, but walking in the wilderness slows you down in a very special way. The regular features of a mountain walk are absent and there are no signposts, milestones or refreshments awaiting you at a hut. Thinking in terms of performance and competition has no place in the wilderness – it is just the moment and the experience that counts.

Wilderness areas are spaces where a respectful approach to nature can be practised and also conveyed to other people. Well-educated visitors are aware of their responsibility for keeping the wilderness wild. "Respect your limits" and "Leave no trace" aren't just slogans printed on flyers, but a state of mind and capabilities to be brought along with you – just as important as the appropriate equipment and preparation. Fostering such attitudes has received little attention in European environmental education so far. Since they are crucial in a context of wilderness



visitor management, new educational challenges will arise for National Park rangers, environmental educators, mountain guides and Alpine associations.

The area's specific structure currently offers a gentle, phased immersion into the wilderness. The fading paths, the absence of mobile reception, the very limited comfort in the huts, the need to plan ahead and to think about basic supply issues – it all offers wilderness educators unique opportunities to introduce people to the values and virtues of wilderness. We need to ensure that these benefits are not wiped out by well-meaning, but ill-considered "improvements". We all need to be aware that communicating wilderness values begins way before we reach the area itself – at the information centre, or when preparing for the wilderness in the classroom, for example. The extreme nature of the environment makes it ideal for teaching people about risk and for working with children and young people from difficult social backgrounds. Still, we need to ensure that wilderness is not simply exploited for our purposes and that the area is not misused as a playground for adventure-based education and tourism that wouldn't really require this remarkable and unique setting.

Those in charge of managing the area need to ensure that their communication and educational work does not support any inflationary, distorting or misleading use of the term "wilderness". If there is an attempt to introduce anything of the kind from outside or within the National Park, we should not refrain from insisting on a puristic understanding of the term wilderness. And we should stress that not everything in nature is wilderness. If the long-term integrity of the wilderness concept is to be maintained and the unique selling proposition of "genuine" wilderness is to be preserved, a fair amount of discipline and consistency will be needed, where communication is concerned. Maintaining the balance between the special opportunities wilderness offers to tourism and the sensitivity of that very wilderness to an excess of visitors will always be difficult. But since the diversity and size of Hohe Tauern National Park allows for a relatively sophisticated visitor management, excessive pressure on the wilderness area should be avoidable. Special attention must be paid to modern communication methods. Online reports from visitors, route suggestions and all kind of tips floating around on websites and social media could lead to a sudden and disproportionate rise in visitation. Maintaining contact with the respective platforms and forums and actively raising awareness on the wilderness concept among their users will be an important task for the National Park administration. Contact must also be kept with commercial providers, tour organizers, guides and outfitters, at least on a local and regional level. They should be persuaded not to focus their activities too much on the wilderness area, in order to preserve its special qualities. Vigilance is also required regarding trends based on new technologies, such as using drones during a hike, e.g. for support in orientation, photographing and filming. Such practices are fundamentally disruptive to a wilderness experience. Passive bans will not be sufficient to keep these developments at bay – they will require active awareness-raising initiatives among relevant target groups.



Other features of value

Every wilderness area has its own story – in Europe, this is almost always a story of human presence and land use. An appreciation of this story and an interest in it are part of the wilderness philosophy. It's not just topographic names, ruins, the condition of the vegetation and the landscape that point to the cultural aspects of the wilderness, but also local stories, fairy tales and sagas, reflecting the earlier, current and probably also future relationship between Man and Nature.

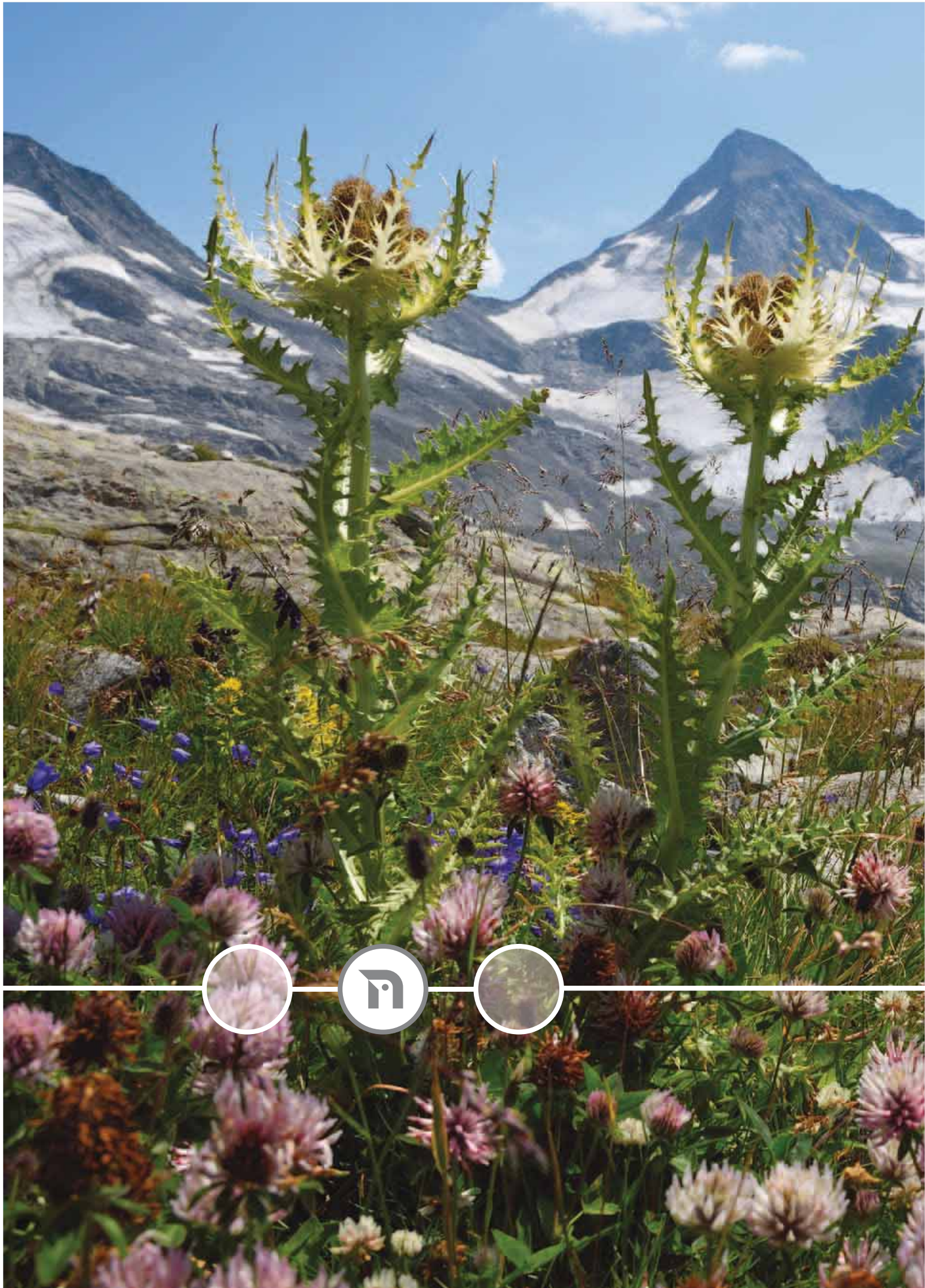
The Sulzbachtäler wilderness area also has its story and a history. The arc spans from the fabled "Venedigermandln"-figures to historical characters such as the writer, local politician, benefactor and Alpine pioneer Ignaz von Kürsinger. They all have a relationship with the area – and, on closer inspection, with the wilderness itself. Take for example the "Venedigermandln" – dwarf-like figures shrouded in secrecy, displaying a special affinity for minerals and a having a totally ambivalent attitude to Man, to whom they appear unexpectedly in remote locations. They can be seen as the embodiment of untamed natural forces and perhaps also as a vague memory of pre-agricultural people with a totally different, "wild" way of living. In any case, they remain outside, beyond the borders of pastoral civilisation and the associated cultural landscape. They are part of the eerie, at times threatening and then again familiar and bounteous natural landscape that has survived in the remotest valleys. Kürsinger had a quite different relationship with the wilderness. Living in the mid-19th century and serving as a mayor in Mittersill, he commissioned the drainage of the marshy valley floor of the Oberpinzgau and pushed ahead for the regulation of the Salzach river; he was also busy with educational reform and the renovation of numerous public buildings – in short with projects of civilisation and progress. He also opened the Krimml Waterfalls to tourism and was a driving force behind the first ascent of Grossvenediger peak in 1841, also joining the expedition. Not much later, he saw to the construction of the eponymous Kürsinger hut. Kürsinger embodies the ambivalent



attitude of the 19th century towards nature, and its thirst for progress. On the one hand, people had a great sense of mission when it came to taming the last vestiges of wilderness but on the other hand, they cherished and enjoyed the beauty and wildness of nature, and wanted as many people as possible to experience it. Kürsinger is also the source of the much-quoted description of Grossvenediger as the “ageless majesty”, towering above the province of Salzburg, which has become a firm part of local patriotic lore. So the highest peak of the province owes its dazzling sheen not only to its icy cap, but also to its elevation to an emblem of Salzburg. By the way, Kürsinger also represented Salzburg in the Frankfurt Parliament, in the aftermath of the revolution of 1848 - he was thus part of the romantically inspired, nationalist movement of the 19th century. A direct thread leads from this movement to the earliest conservationists in the German speaking world. In the late 19th /early 20th century, some of these pioneers in nature protection proposed the creation of National Parks all across “Germany”, based on the model of American National Parks. Parks should be created in the lowlands in the north, in the middle mountain regions of central Germany, and last, but not least, in the Austrian Alps. The principal force behind the idea was the German Verein Naturpark (VNP), which was able to acquire substantial tracts of land in the central Hohe Tauern region in 1913 through its connections with Salzburg Vice-Governor Dr August Prinzinger (Stubach-, Felber- and Amer- valleys). In the 1940s, parts of the VNP property in Stubach valley had to be ceded to a hydropower-plant project. This loss prompted the association to shift its protection efforts to the Venediger range in the west, where it was able to acquire large areas in Sulzbach valleys. At least among the conservation movement, the Zeitgeist had thus evolved fundamentally, from subduing the wilderness and opening areas up to tourism,

to the active preservation of wild land. Ultimately, the areas owned by the VNP became a key element of today’s National Park Hohe Tauern Salzburg, as “Sonderschutzgebiet Inneres Untersulzbachtal”. The acquisition of the VNP property by the Salzburg National Park Fund in 2016 created the nucleus of the Sulzbachtäler wilderness area. So in this area, we can witness a history of quite contrasting approaches to the alpine landscape, and we can also retrace some of the earliest successes of the European conservation movement. These few, selected examples should reveal the wealth of assets to be found even in such a remote and wild mountain landscape.

If we wish to promote the idea of wilderness, it will be vital to gather these assets, to have a closer look at them and to develop an overall vision. Both landscape and history of the wilderness area have a high potential for creating an identity, and the National Park needs to make clever use of this in its communication and education initiatives. Although at first glance, the concept of wilderness might appear as a rather foreign and artificial element in the region, it has deeper roots in the area and more links to it, than one might expect. When these roots and their connections to local and regional narratives are properly highlighted, there is less risk that wilderness will be perceived as just another foreign idea and a mere fancy of city-dwellers, far-removed from nature. If the wilderness idea can be made part of the regional history (and identified as a narrative thread of long tradition), then we need not to worry about its long-term acceptance. It will then be able to display its full power in future – in both the development and consolidation of the National Park and in the ethical, moral and socio-political opportunities that it offers to us all.





MANAGEMENT PLANNING

1	Business unit NATURAL RESOURCE MANAGEMENT	
<i>Strategic Goals</i>	SG 1.1	Preserving characteristic animal and plant species and their habitats
	SG 1.2	Ensuring the natural development and dynamics of ecosystems
<i>Operational Goals</i>	OG 1.1	Securing the required areas and their protection status
	OG 1.2	Enabling free development and dynamism, without defining specific preservation goals

1.1	Field of action Securing of areas and protection status	
<i>Measures</i>	M 1.1.1	Purchase of approx. 3,000 ha of the Lüneburger Heide nature conservation park in the Sulzbachtäler valleys
	M 1.1.2	Long-term nature conservation contract agreements on approx. 7,000 ha of ÖBF AG in the Sulzbachtäler valleys and the Krimmler Achenal valley
	M 1.1.3	Completion of an audit process according to the EWQS (European Wilderness Quality Standards) for approximately 9,000 ha of potential wilderness area
	M 1.1.4	Quantitative and qualitative extension of the 'Inneres Untersulzbachtal valley' special protected area to the size of the suitable wilderness area
	M 1.1.5	Nomination for the WEI (Wild Europe Initiative)
	M 1.1.6	Evaluation of the Wilderness Area and application for recognition as an IUCN category Ib protected area

1.2	Field of action Subdivision of the area	
<i>Measures</i>	M 1.2.1	Subdivision of the wilderness area according to management requirements (Education, Visitors, Documentation, Supervision)
	M 1.2.2	Protection of the wilderness area by means of a buffer of core zones, natural zones and outer zones of the surrounding National Park

1.3	Field of action Wildlife management	
<i>Measures</i>	M 1.3.1	No hunting – except for preventative killings in the case of animal diseases of national importance
	M 1.3.2	No exploitation of fish populations in the wilderness area – protection by leasing fishing waters in the wilderness area and adjacent water areas

1.4	Field of action Visitor management	
<i>Measures</i>	M 1.4.1	No new network of paths, and no new signposts or marking of paths and tracks
	M 1.4.2	Action to be taken on the conclusions of the visitor monitoring in the wilderness area and its surroundings

Abbreviations: SG: Strategic Goals / OG: Operational Goals / M: Measures

2. Business unit SCIENCE AND RESEARCH		
<i>Strategic Goals</i>	SG 2.1	Research, scientific documentation and monitoring of the protected area
	SG 2.2	Communication of research and monitoring results
<i>Operational Goals</i>	OG 2.1	Generation of long-term data series and analysis of their implications for primary ecosystems
	OG 2.2	Research questions of a general nature are to be dealt with in the National Park areas outside the wilderness area
	OG 2.3	No invasive research in the wilderness area
	OG 2.4	Research carried out in the wilderness area must be concerned exclusively with wilderness

2.1 Field of action Collection of basic data and monitoring		
<i>Measures</i>	M 2.1.1	Content, technical and organisational conception of a monitoring procedure focusing on the Sulzbachtäler valleys
	M 2.1.2	Selection and definition of the scientific institutions and research centres taking part
	M 2.1.3	Agreement on and extensive integration of wilderness research into the overarching long-term national monitoring policy
	M 2.1.4	Installation of measuring points and test areas in the Sulzbachtäler valleys priority area
	M 2.1.5	Establishment of a measuring point in the framework of the national waterways monitoring in the Untersulzbachtal valley
	M 2.1.6	Establishment of a geomorphological monitoring procedure in cooperation with the geological service in Sattelkar
	M 2.1.7	Training of National Park personnel in measurement, service and maintenance at measuring points and test areas
	M 2.1.8	Aerial interpretation in the framework of the CC-HABITALP-Project (throughout the Hohe Tauern National Park)
	M 2.1.9	Vegetation mapping as part of long-term monitoring (throughout the Hohe Tauern National Park)
	M 2.1.10	Periodic implementation of biodiversity days
	M 2.1.11	Assessment of selected taxa according to biodiversity day results
	M 2.1.12	Documentation of mineral deposits from the Citizen Science project
	M 2.1.13	Management of an incident database
	M 2.1.14	Telemetry and monitoring of ibex and chamois
	M 2.1.15	Installation and operation of the Untersulzbachtal valley weather station (on Saukopf)
	M 2.1.16	Data use agreement with the Kürsinger hut weather station
	M 2.1.17	Data use agreement with Hydrographic Services over Obersulzbach river discharge data
	M 2.1.18	Data use agreement with the Austrian Alpine Association over glacier measurement data
	M 2.1.19	Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Untersulzbachtal valley (core zone boundary / real estate SNPF and at the special protected area border)
	M 2.1.20	Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Obersulzbachtal valley (at the Klamml, Gletscherlehrweg, Keeskogel and Venediger ascent exits)

	M 2.1.21	Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Krimmler Achenal valley (Warnsdorferhütte in the direction of Gamsspitzl)
	M 2.1.22	Annual evaluation of the visitor counting systems
	M 2.1.23	Monitoring of Alpine paths and tracks

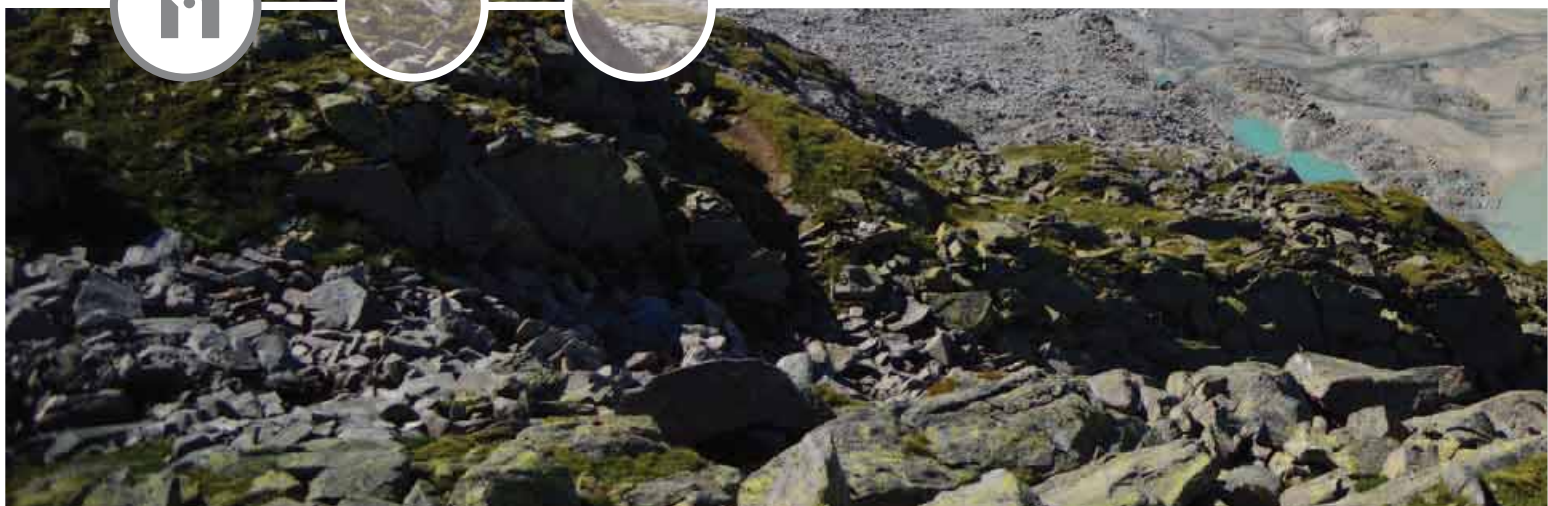
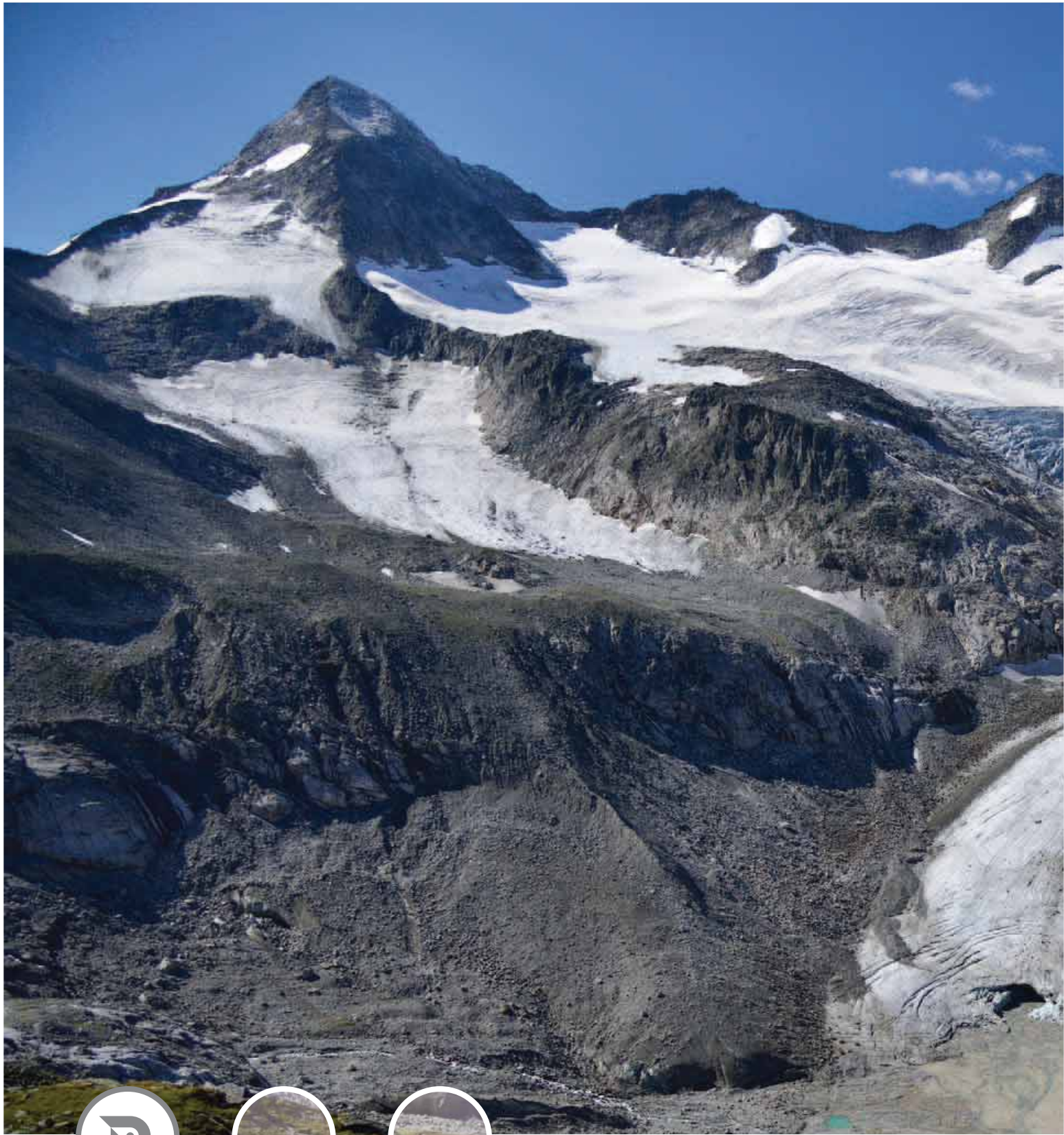
2.2 Field of action Data management and documentation		
<i>Measures</i>	M 2.2.1	Establishment of a data drive for the "Wildnisgebiet Sulzbachtäler" wilderness area with appropriate storage capacity and archive
	M 2.2.2	Installation and protection of the appropriate hard- and software
	M 2.2.3	Commissioning of measuring points and test areas, start and backup of the data collection
	M 2.2.4	Regular interpretation of earlier data series
	M 2.2.5	Establishment of and ongoing support for the wilderness image archive
	M 2.2.6	Integration of data delivery standards into project orders (determining formats for the analogue and digital delivery of results data, maps, reports and popular science publications, and for the interpretation of project results)

3. Business unit EDUCATION AND VISITOR INFORMATION		
<i>Strategic Goals</i>	SG 3.1	Educating the public in the natural history of the protected area and sharing the National Park story
	SG 3.2	Raising awareness around a sustainable use of nature and natural resources
	SG 3.3	Enabling mental-spiritual growth and a memorable experience of nature
<i>Operational Goals</i>	OG 3.1	Experimenting with and testing an alternative approach to nature
	OG 3.2	Anchoring the topic of wilderness within the population and raising awareness
	OG 3.3	Providing direct and indirect access to the wilderness

3.1 Field of action Wilderness education		
<i>Measures</i>	M 3.1.1	Collection of best practice on wilderness education, adventure education and wilderness schools
	M 3.1.2	Ranger workshops on the design of environmental education and adventure programmes in the wilderness context
	M 3.1.3	Content and organisational design of a wilderness school
	M 3.1.4	Establishment and expansion of wilderness school infrastructure in the Ober- and Untersulzbachtal valleys
	M 3.1.5	Conducting a pilot year, evaluation and revision
	M 3.1.6	Staff training and start of regular operations
	M 3.1.7	Development of theme-specific wildlife programmes in the Hofrat-Keller hut
	M 3.1.8	Annual running of wilderness camps
	M 3.1.9	Wilderness school curriculum (creation, co-operation with external wilderness education and experiential education experts)
	M 3.1.10	Continuing professional development in the field of wilderness education
	M 3.1.11	Annual safety training and first aid courses with particular reference to high mountains, including emergency plans
	M 3.1.12	Collaboration with experts in order to expand wilderness education for the target group Teambuilding and Social Skills

3.2 Field of action creation of awareness / Public relations		
<i>Measures</i>	M 3.2.1	Description of the term “wilderness” for the “Wildnisgebiet Sulzbachtäler” wilderness area for internal and external communication
	M 3.2.2	Strengthening and improving the quality of public relations work in general, with regard to use of the term “wilderness”
	M 3.2.3	Integration of the “Wildnisgebiet Sulzbachtäler” wilderness area into the general public relations work of the National Park
	M 3.2.4	Sensitising the population and stakeholders to issues of importance to the wilderness area through events and media-effective appearances (website, press, social media, National Park academy, TV)
	M 3.2.5	Annual information exchange with landlords (Kürsinger and Warnsdorfer hut, Postalm, Berndlalm, Finkalm, Stockeralm)
	M 3.2.6	Annual information exchange with the Alpine associations (ÖAV Krimml-Warnsdorf section, ÖAV Salzburg section) and the Oberpinzgau mountain rescue centres
	M 3.2.7	Annual information exchange with the mountain guide associations (Tauernguides)
	M 3.2.8	Annual information exchange with the feeder services for the Unter- and Obersulzbachtal valleys and the Krimmler Achenal valley
	M 3.2.9	Preparation of status report (German and English) on the “Wildnisgebiet Sulzbachtäler” wilderness area for stakeholders
	M 3.2.10	Award of wilderness scholarships (creativity=art, photography, literature, film)
	M 3.2.11	Integration into internal staff training of further professional development on the topic of wilderness, with an international orientation
	M 3.2.12	Development of behavioural recommendations for visitors in the wilderness area, based on the “Leave no trace” principles, and their integration into educational measures
	M 3.2.13	Offering exclusive tours of the wilderness area by the National Park rangers
	M 3.2.14	Dissemination of wilderness values in educational institutions, and their integration into the partner school programme
	M 3.2.15	No “exploitation” of wilderness, and avoidance of uncritical use of the word “wilderness” and of unrelated marketing

3.3 Field of action Infrastructure		
<i>Measures</i>	M 3.3.1	Maintenance and updating of existing infrastructure (glacier trail, Alpine paths and tracks) around the theme “Wildnisgebiet Sulzbachtäler wilderness area”
	M 3.3.2	Marking the wilderness area with National Park zone signs at relevant entrances
	M 3.3.3	Designation of the wilderness area in official and touristic maps and tour guides and with information boards at the relevant valley entrances
	M 3.3.4	Construction of the Info Point Kürsinger hut (German and English)
	M 3.3.5	Construction of the Info Point Warnsdorfer hut (German and English)
	M 3.3.6	Construction of the Info Point Cable car station Kürsinger hut (German and English)
	M 3.3.7	Construction of the Info Point Sattelkar (German and English)
	M 3.3.8	Construction of the Info Point Aschalmalm (German and English)
	M 3.3.9	Dissemination of wilderness values outside the wilderness area (National Park centre) (German and English)
	M 3.3.10	Maintenance of the Untersulzbach hut and the Hofrat-Keller hut





NATURAL RESOURCE MANAGEMENT





The Hohe Tauern National Park has met the challenges of its responsibility to protect Europe's last remaining wilderness areas. With the purchase of around 3,000 ha of land and the establishment of a nature conservation agreement stretching over three hunting-rights cycles of nine years each, it has laid the foundation for a quantitative and qualitative extension of the existing special protected area "Inneres Untersulzbachtal" over the Obersulzbachtal valley to the "Wildnisgebiet Sulzbachtäler" wilderness area. The "Wildnisgebiet Sulzbachtäler" wilderness area regulation has confirmed this in law. This means that this unique wilderness area is protected by governmental authority as well as by private law.

An important element of the present management plan is to safeguard for the long term the wilderness quality characteristics of closeness to nature, wildness and freedom from development, in the framework of the business unit Natural Resource Management. The "Wildnisgebiet Sulzbachtäler" wilderness area

extends from the montane area – 1,389 m above sea level at its lowest point – to the Grossvenediger, which at 3,657 m above sea level is the highest peak in the state of Salzburg. Here is to be found the typical glaciated high mountain landscape of the Eastern Alps, unique in size, extent and wildness. The vegetation shows no trace of human use and nature can develop freely here, with natural processes free to take their own independent course. The "Wildnisgebiet Sulzbachtäler" wilderness area is highly dynamic, and the area's freedom from development and human habitation will allow this dynamism to continue with hardly any restriction. The area is for the most part impassable, apart from a network of Alpine paths that has been established for decades; other than these, there are hardly any tracks to be found. The Wilderness Management Plan 2016-2024 is concerned not only with the present condition of the area, but also with possible developments in the near future. It proposes measures which should safeguard the quality of the wilderness area now and in years to come.





Strategic goals of the business unit Natural Resource Management

- SG 1.1 Preserving the characteristic animal and plant species and their habitats
- SG 1.2 Ensuring the natural development and dynamics of ecosystems



Operational goals of the business unit Natural Resource Management

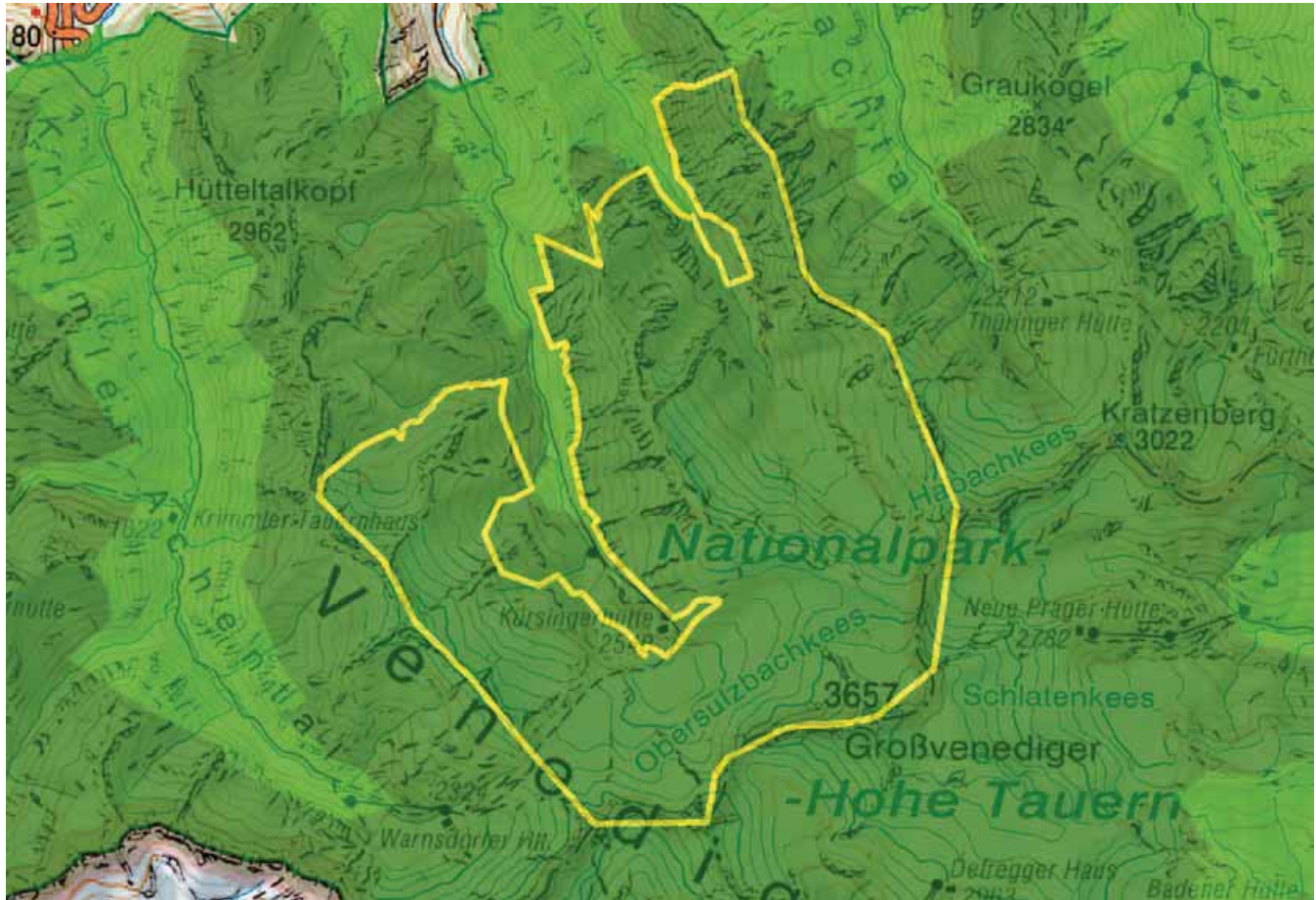
- OG 1.1 Securing the required areas and their protection status
- OG 1.2 Enabling free development and dynamism, without defining specific preservation goals

1.1

Securing of areas and protection status

In the Management plan 'Nationalpark Hohe Tauern, 2016-2024', the field of action 'Wildnisgebiet Sulzbachtäler Wilderness Area' is already cited under point 1.2. The measures listed there, whose main objective was the securing of areas, have all been

completed, with the exception of measure M 1.1.6, Evaluation of the wilderness area and application for recognition as an IUCN category Ib protected area. This should be achieved successfully in the next few years.



Overview Sulzbachtäler wilderness area

□ Sulzbachtäler wilderness area ■ Buffer zone ■ Core zone

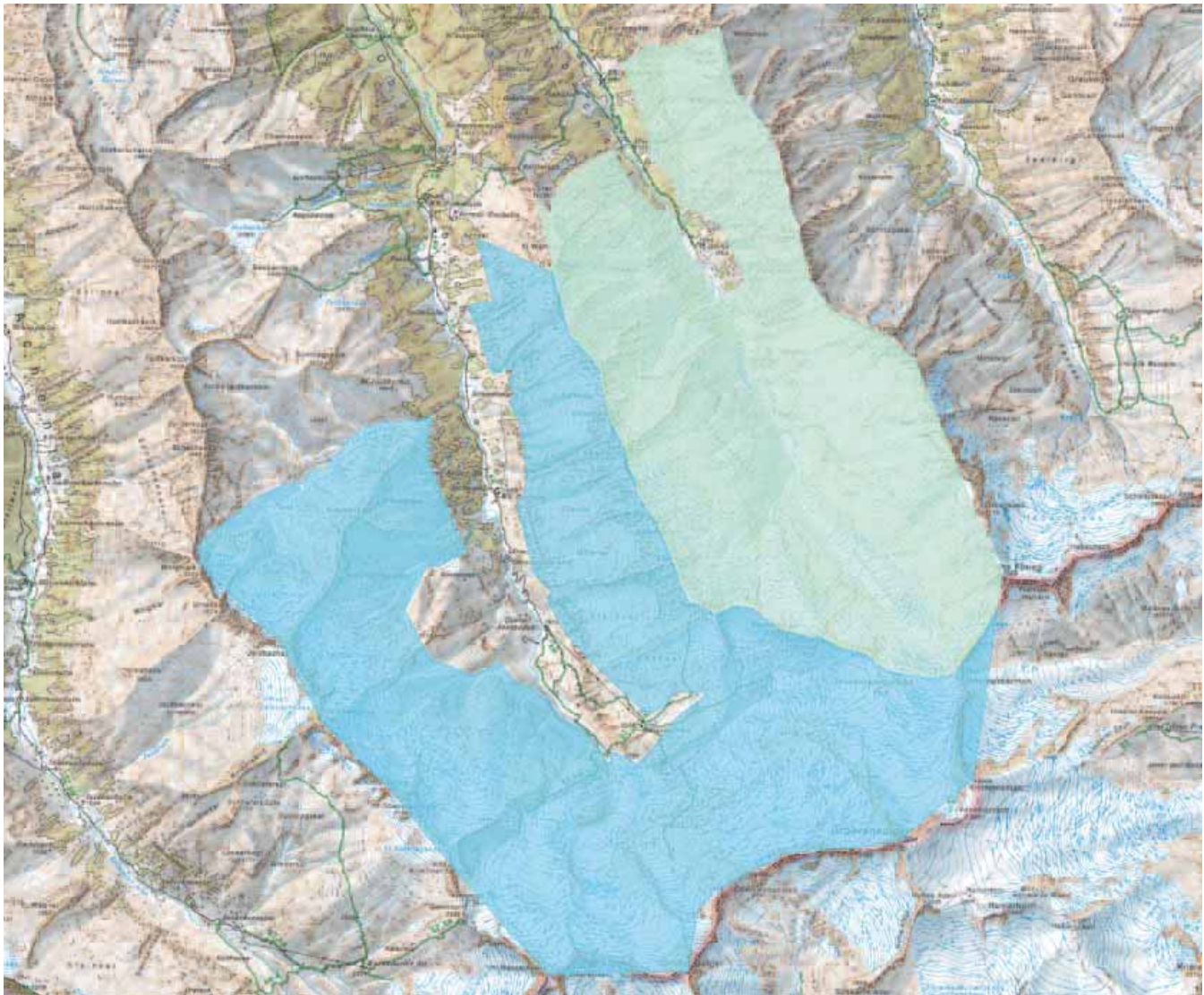




Measures in the field of action Securing of areas and protection status

- M 1.1.1 Purchase of approx. 3,000 ha of the Lüneburger Heide nature conservation park in the Sulzbachtäler valleys
- M 1.1.2 Long-term nature conservation contract agreements on approx. 7,000 ha of Austrian Federal Forests in the Sulzbachtäler valleys and Krimmler Achenal valley
- M 1.1.3 Completion of an audit process according to the EWQS (European Wilderness Quality Standards) for approximately 9,000 ha of potential wilderness area
- M 1.1.4 Quantitative and qualitative extension of the 'Inneres Untersulzbachtal' special protected area to the size of the suitable wilderness area
- M 1.1.5 Nomination for the WEI (Wild Europe Initiative)
- M 1.1.6 Evaluation of the Wilderness Area and application for recognition as an IUCN category Ib protected area

1.2 Subdivision of the area



Spatial subdivision of the wilderness area by watershed

It became clear at an early stage of discussions with the National Park Management, when experts were conducting potential surveys and an audit process, that a wilderness area should not contain zones which have not yet reached wilderness core area status and are at different stages of progress towards it. This means that the only areas which should be given the status of wilderness area are those which already meet the relevant criteria, and which can safely be left to develop dynamically without further management measures or legal restrictions. The wilderness area therefore has only one zone, which is to be understood as a core zone of 6,728 ha. Treatment or development zones do not exist. This is also in line with the requirements of the position paper "Wilderness and Process Protection in Austrian National Parks".

Nevertheless, for various aspects of natural area management, science and documentation, as well as for education and visitor information, it seems appropriate to subdivide the almost 7,000 ha of land. The main subdivision of the wilderness

area arises from the watershed between the Unter- and Obersulzbachtal valleys. The Untersulzbachtal valley contains 2,701 ha (40%) and the Obersulzbachtal valley 4,027 (60%) of the total wilderness area.

The two parts of the wilderness area have a comparable ecological value and process protection is fully possible in both, yet it should be noted that the Untersulzbachtal valley has already been subject to the very strict control of a special protected area for two decades, while the Obersulzbachtal valley could be said to represent the expansion area. In the Untersulzbachtal valley, the wilderness area also includes part of the valley floor, while in the Obersulzbachtal valley, the only contiguous area is that formed by the cirques at the slope shoulders; up to the Sulzsee lake, the valley floor is not part of the wilderness area.

The two areas are not equally suited for visiting mountain hikers; the inner Untersulzbachtal valley has no Alpine infrastructure, such as shelters or marked trails, while in the Obersulzbachtal

two major summits, the Keeskogel (3,293 m) and the Grossvenediger (3,657 m) and two well-known Alpine crossings, the Krimmler Törl (2,762 m) into the Krimmler Achental and the Obersulzbachtörl (2,918 m) into the Dorfertal, require the provision of marked or signposted Alpine tracks. The Kürsinger hut (2,548 m) itself, although it lies outside the wilderness area – as does all its technical infrastructure (cable car and power supply) – still requires the essentials of Alpine provision in the wilderness area. The private road in the Obersulzbachtal valley that leads to the valley station of the Kürsinger hut cable car, which is used by National Park taxis, also lies outside the wilderness area, but it is one of the reasons why the number of mountaineers in the wilderness area of the Obersulzbachtal has been increasing. In the Untersulzbachtal valley the section of the valley road that is suitable for National Park taxis ends far outside the wilderness area, and without further incentives such as summits or crossings there is therefore – as mentioned – no Alpine infrastructure to support further traffic.

Thus, although the wilderness has not been divided into zones of varying depth or stages of development or that have different management requirements, there is still a rough subdivision of the wilderness area into two parts, whose support documentation and supervision need different degrees of attention.

As well as defining areas of different wilderness quality and wilderness development, the division of wilderness areas into zones always involves 'buffering' the core wilderness area with less strictly protected outdoor areas or with those where it is less important for independent processes to continue undisturbed. This ecological buffering is especially necessary when wilderness areas exist in isolation and are not integrated with protected areas of other types, as is the case with the Hohe Tauern National Park in the "Wildnisgebiet Sulzbachtäler" wilderness area. This 1,856 km² National Park is itself divided into an outer and a core zone, where the outer zone of 643 km² (35%) buffers the core zone of 1,213 km² (65%) which lies beyond and above it, especially along the floors of the main valleys, a cultural landscape of Alpine pastures opening into the National Park region.

As well its seasonal use as Alpine pastures, the outer zone is also available for hunting and forestry. Neither activity can be extensively practised without high Alpine relief support, because both take place chiefly in the sub-Alpine areas. Maintaining these

practices in a sustainable way is an objective which underpins many regulations in the National Park laws and in other relevant legislation. In addition, a strong protection regime, governing the construction and operation of technical infrastructure, is already in place in the outer zone. Facilities and buildings connected with the agricultural and forestry use mentioned above are subject to authorisation by the National Park, while the introduction of other technical equipment and facilities such as energy management plants or skiing equipment is prohibited from the outset. Traffic in the outer zone is managed in a similar way: the area is open to licensed agricultural and forestry management vehicles and strictly regulated for wider use.

Around 25% of the core zone is still extensively used for seasonal sheep grazing and hunting activities. Around 75% of the area is removed from use by means of private contracts (see Chapter 1.3) and designated as a natural zone.



The natural zones in the Hohe Tauern National Park represent the most extensive protected zones in terms of process protection, with the exception of special protected areas. The "Wildnisgebiet Sulzbachtäler" wilderness area is now embedded in and surrounded by core, natural and outer zone areas, which offer the best possible buffering.



Measures in the field of action Subdivision of the area

- M 1.2.1** Subdivision of the wilderness area according to management requirements (Education, Visitors, Documentation, Supervision)
- M 1.2.2** Protection of the wilderness area by means of a buffer of core zones, natural zones and outer zones of the surrounding National Park.

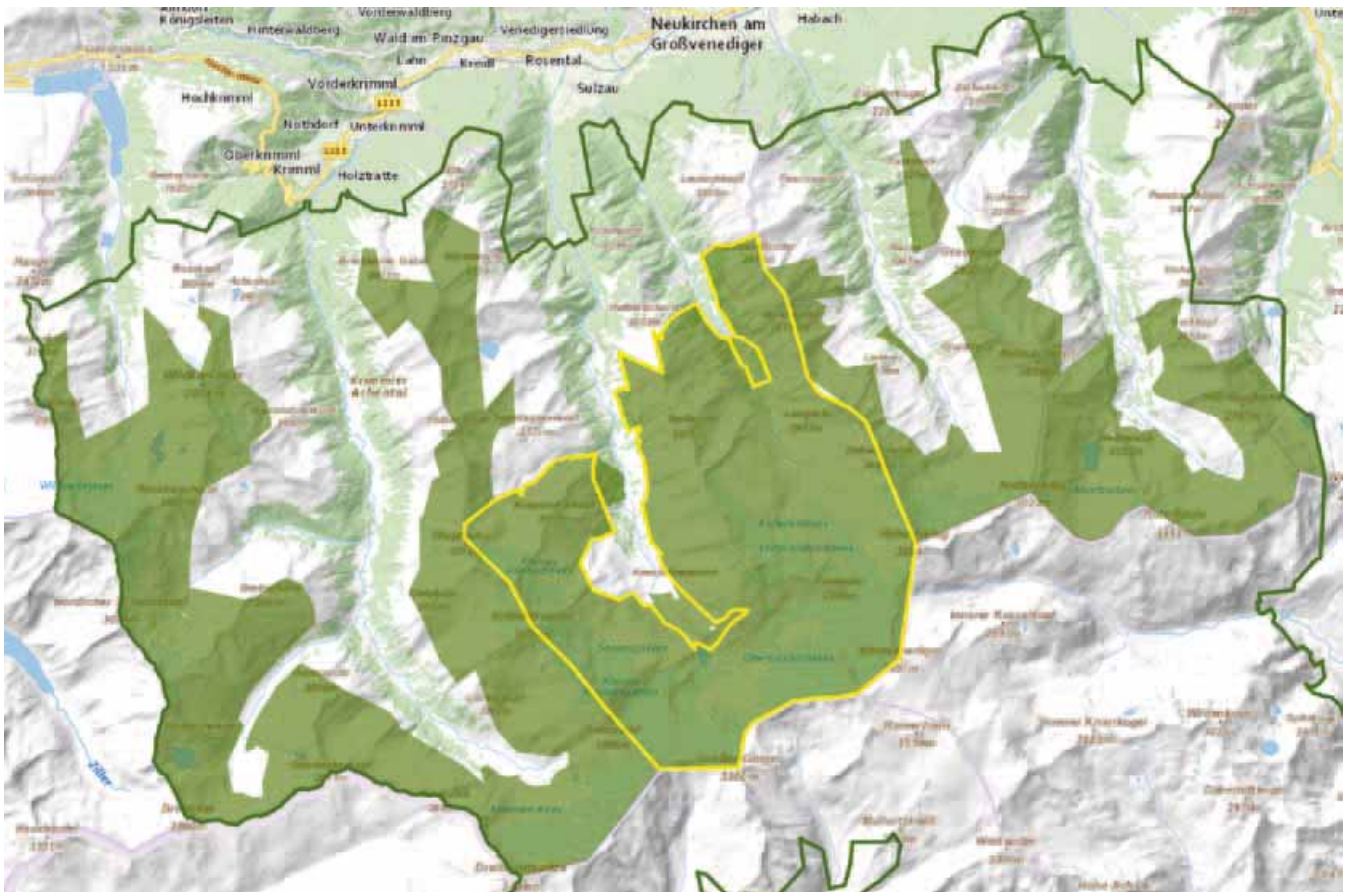
1.3 Wildlife management

As is the case throughout the entire National Park, wildlife management strategies, objectives and measures typically relate to those species of wildlife that usually require management in the cultural landscape and that are traditionally affected by hunting regulations. In the wilderness area, the relevant animals fall into two groups: those such as ibex, chamois, red and roe deer as well as marmots which may or should be killed only in the framework of an officially approved and prescribed shooting plan according to the Salzburg Hunting Law (minimum kill), and those such as foxes, beech martens, ermines or black grouse which are protected only during special seasons and which may otherwise be hunted. Bearded and griffon vultures, golden eagles, mountain hare, ptarmigans and black hens are protected all year round throughout the country. In the wilderness area, a number of these wild species may actually or potentially be present, although no populations or colonies could be said to exist autonomously in the wilderness area without connection to the surrounding countryside.

In accordance with the position paper, "Wilderness and Process Protection in the Austrian National Parks", wild animal management does not take place in wilderness areas. Animal population control is left to natural factors such as extreme weather conditions, food shortages, natural predators and disease.

In the „Wildnisgebiet Sulzbachtäler“ wilderness area, hunting is prohibited in accordance with the special protected area ordinance of the Salzburg State Government; the only circumstances in which it is permitted, subject to authorisation, are where preventative measures are urgently needed to combat wildlife diseases in situations where they threaten to spread beyond the natural zones surrounding the wilderness area. The most important factor in securing a 100% absence of hunting in the wilderness area is the presence of managers with hunting and legal skills in the National Park and wilderness area administration. From a legal point of view, the complete hunting ban remains subject to hunting law, which is why all hunting-relevant personal or territorial rights for the wilderness area are subject to the National Park and wilderness area administration. Hunting management, hunting and hunting protection is therefore exclusively the province of the protected area administration's own staff.

The hunting areas encompassing the wilderness area are either secured by landed property or by long-term leases in the hunting law of the National Park or wilderness area administration:



areas for the protection of natural processes in the western part of the Hohe Tauern National Park Salzburg

■ Sulzbachtäler wilderness area



Hunting areas	Total area [ha]	Area in wilderness area [ha]
6077 Private hunting ground Obersulzbachtal right bank and Untersulzbachtal	2,545	2,272
6080 Obersulzbachtal left bank	520	354
6083 Sulzbachtal: top of the valley	4,302	4,102
Total	7,367	6,728

However, adjacent hunting areas that do not form part of the wilderness area may also have the same personal and territorial rights, thus ensuring that, on the fringes of the wilderness area, wildlife in the outer zone and outside the National Park is managed in a way that complies with National Park policy, and that the core zone is kept free from hunting. These hunting areas cover an additional 5,996 ha. Due to the size of each wildlife habitat in the wilderness area, together with the surrounding core zones, it can be assumed that the only case where an exchange in hunting grounds and an associated regulatory agreement could be achieved would be with the red and roe deer living on the lower levels or the partial winter migration of the chamois and ibex south of the main Alpine ridge. These large-scale hunting leases guarantee the normal progression of ecological processes for wild animals in the wilderness area.

Since the Special Protected Area Ordinance of the Wildnisgebiet Sulzbachtäler wilderness area does not exclude fishing from its ban, a contractual nature protection regulation is required for fishing, to prevent the wilderness area from being adversely affected by fishery measures, either internally or externally. To match the long-term hunting leases of sections of the wilderness area granted by the Austrian Federal Forests, a long-term lease agreement has also been concluded with the fishery operator registered in the Fisheries Register, and a lease granted until 31.12.2042. In the process, relevant upstream river sections were included as buffer zones for the wilderness area. This guarantees the fish waters in the wilderness area and its upstream waters have 100% freedom from management and ensures that the National Park and wilderness area administration can maintain its fishing and legal powers. From a legal point of view, the total



fishing ban remains subject to fishing law; for this reason, all relevant personal or area-related fishing rights for the wilderness area have been placed under the control of the National Park and wilderness area administration. The fishery operator and fishery protection are therefore exclusively the province of the protected area administration's own staff.

In summary, wildlife management in the wilderness area means ensuring the progression of ecological processes. Regulating hunting and fishing according to the position paper "Wilderness and Process Protection in Austrian National Parks" therefore means that hunting and fishing are excluded.



Measures in the field of action Wildlife management

- M 1.3.1 No hunting – except for preventative killings in the case of animal diseases of national importance
- M 1.3.2 No exploitation of fish populations in the wilderness area – protection by leasing fishing waters in the wilderness area and adjacent water areas

1.4

Visitor management

Wilderness areas offer unique opportunities to experience nature in a state of free development. According to the position paper “Wilderness and Process Protection in Austrian National Parks”, thoughtful visitors who wish to encounter unspoiled nature and landscape, and who value tranquillity, remoteness from civilization and solitude, should, in principle, be able to experience wilderness areas. At the same time, care must be taken to ensure that the protected assets of a wilderness area do not suffer from excessive visitor numbers and inappropriate visitor behaviour. In the wilderness areas of Austrian National Parks, hiking, climbing and (ski) touring are allowed only on paths, access routes or glacier routes designated by or agreed with the National Park administrations. Access to parts of the wilderness area without paths is only permitted within limited specialist tours.

In the “Wildnisgebiet Sulzbachtäler wilderness area - Special Protected Area Ordinance”, however, the conventional forms of mountaineering, hiking, ski touring and the like, as well as the maintenance and marking of existing paths and tracks are excluded from the prohibition.

It must be assumed that interest in the wilderness area will continue to increase, due to an ever-increasing degree of popularity as well as professional targeted marketing. One of

the high priorities of the next few years will therefore be to organise the care and guidance of visitors in such a way that visitors respect the protective purpose of the wilderness area, its free natural development and dynamics, not to mention its flora and fauna untouched by human intervention, so that the securing of this unique area – the primary objective of a category Ib wilderness area according to IUCN criteria – is not violated. Care should also be taken that, with the increasing visitor crowds and other external influences, no creeping change should take place that would slowly and imperceptibly undermine the wilderness character. This is particularly problematic given the “shifting baselines” – “it’s always been this way”. For this reason, visitor monitoring within “wilderness research” should be quantitative (visitor numbers) and also qualitative (purpose of visit, motivation), so that developments which could be detrimental to the wilderness area may be identified in good time. It will then be the task of the Business Unit Nature Management to act on the conclusions of the visitor monitoring.

The predominant part of the „Wildnisgebiet Sulzbachtäler“ wilderness area is “impassable”, and access to the terrain is difficult outside the existing network of Alpine paths and trails. Apart from these, there are no permanent routes, but only approximate ones, whose course is always liable to change. The





quality criterion “freedom from development” must be actively preserved, maintaining the low degree of development of the area. There are no plans at present to lay out a new network of paths and tracks, since there has been no demand for this. The existing Alpine infrastructure, which works well and guides visitors successfully in a low-key way, needs to be continually kept up to date. It gives visitors a direct and intensive experience of this elemental, untamed and overwhelming natural landscape. The experience of travelling by simple means, encountering silence, seclusion, spaciousness and wildness, creates space for people to come to terms with the beauty and dangers of nature, to reflect and develop self-awareness, and also gives them the

chance to think about man’s relationship with nature. This is why the wilderness area contains no man-made structures or facilities, apart from the existing Alpine tracks and simple footpaths, which would make the region more accessible. People who want to visit and spend time in the area have essentially to rely on their own strengths and capabilities. A low degree of development guarantees that they not only discover wildness, but also experience something special. The Business Unit Education and Visitor Information will develop and offer complementary education and awareness raising programmes, as well as measures for public relations work.



Measures in the field of action Visitor management

- M 1.4.1 No new network of paths, and no new signposts or marking of paths and tracks
- M 1.4.2 Action to be taken on the conclusions of the visitor monitoring in the wilderness area and its surroundings





SCIENCE AND RESEARCH



IUCN category 1b wilderness areas are set up to protect large areas of unspoiled natural landscape in such a way as to give ecological processes unlimited opportunities to form and shape nature. Such areas not only provide a habitat for many species, especially those which thrive in unmodified and dynamic ecosystems, but also offer unparalleled reference frameworks to scientists and conservationists.

Science plays a more subordinate role in IUCN category 1b protected areas than in those of category 1a, which have an explicit research mandate. The primary protection goal here is to preserve the ecological integrity and natural character (see chapter “Sulzbachtäler wilderness narrative”) of unmodified natural landscapes, so that they can be experienced by later generations.

Wilderness research has its place in these areas too, however. Academic work on these “zero areas” can not only provide important data for basic research, but also help the managers of wilderness areas to make sound and justifiable management decisions. A scientific approach is extremely important, especially in answering specific management questions and gaining a better understanding of the current state of this sort of protected area and its development. It is essential that monitoring projects are set up for the very long term and with a minimally invasive sample design, as this is the only way to safeguard the preservation of the five wilderness qualities (naturalness, wildness, freedom from development, experience of nature, other qualities) over a long period and to counteract the phenomenon of shifting baselines.

The “Wildnisgebiet Sulzbachtäler” wilderness area is a mosaic of habitats that are characterised by large-scale disturbance processes. The landscape and the biota of these habitats are constantly changing. It is in fact these ecological succession processes which form the most important research subject for the natural sciences in this area. In addition, social science research projects (which are mostly carried out outside the protected area) are an important part of wilderness research, for the acceptance and respect which society shows to the area and the way in which individuals experience it will be decisive in ensuring that the wilderness qualities of the Sulzbachtäler enjoy long-term protection.

According to the management guidelines for IUCN category 1b protected areas, research projects in these areas should primarily take the form of long-term studies and observations of processes and developments. Their focus should be on the study of independent ecological processes and the way in which they are influenced by humans.

The most important goals of the scientific work in the “Wildnisgebiet Sulzbachtäler” wilderness area are to gain a better understanding of how ecological processes work and how they are influenced by external factors, and to establish principles to underpin the long-term preservation of wilderness qualities, through long-term studies in the framework of monitoring programmes.

In view of these goals, research projects should add value not

only to the scientific community, but also to the management and the territorial administration. They may be basic research projects as well as studies of specific questions on current and applied topics.

In the same way, research should be carried out outside the borders of the protected area, namely monitoring projects focusing on external influences and social science studies on

the acceptance and appreciation which society shows to the area, how close it is to nature and how visitors relate to the wilderness area and behave in it.

All the data gained can thus contribute to preserving the five wilderness qualities and can serve as a basis for justifying management decisions.



Strategic goals in the business unit Science and research

- SG 2.1 Research, scientific documentation and monitoring of the protected area
- SG 2.2 Communication of research and monitoring results



Operational goals in the business unit Science and research

- OG 2.1 Generation of long-term data series and analysis of their implications for primary ecosystems
- OG 2.2 Research questions of a general nature are to be dealt with in the National Park areas outside the wilderness area
- OG 2.3 No invasive research in the wilderness area
- OG 2.4 Research carried out in the wilderness area must be concerned exclusively with wilderness.

2.1

Collection of basic data and monitoring



Recording the status quo of a protected area is an important part of the monitoring programme. On this basis, an assessment can be made of the impact of external influences on the area and on its ecological processes and wilderness qualities.

This makes it possible to recognise the subtle or slowly progressing degradation of the five wilderness qualities over longer periods of time. Only a “baseline” described in detail and supported by a good database can serve as a point of reference for future generations of managers and so counteract the phenomenon of shifting baselines.

To establish the “baseline”, the current status of all five wilderness qualities should be presented as accurately as possible. Depending on the quality or factor considered, data should be collected over several years, so that the natural range of variations in processes can be recorded.

With well-documented basic data, it will be possible even in the distant future to use the same references to evaluate changes that

threaten the assets of the wilderness area. This helps to prevent changes from being overlooked or not taken seriously by future generations, as might happen if they were not aware of where others started from (“generational amnesia”, “it’s always been this way”).

A long-term monitoring programme with a minimally invasive sample design will be set up for the “Wildnisgebiet Sulzbachtäler” wilderness area, on the basis of the “baseline” data and in coordination with National Park-wide or other national projects. The respective recording methods as well as relevant taxa and parameters should be laid down in the form of a manual during the basic data survey. This will ensure a standardised and minimally invasive monitoring programme that may be easily repeated. The aim of the monitoring programme is to establish the basis for the long-term preservation of the five wilderness qualities of the protected area.

Since the “Wildnisgebiet Sulzbachtäler” wilderness area is highly dynamic and characterised by disturbance processes, successional



The frequency frame is a statistically highly evaluable, data collection method of vegetation ecology.



Construction of a weather station near the permanent areas in the Untersulzbachtal valley in the ecological long-term monitoring

processes play a particularly important role here. The only way to capture this dynamism appropriately and gain a thorough understanding of the ecological processes in the different habitats is to document them in a set of time series. A good understanding of the area is essential for detecting and countering threats from external factors at an early stage, as long as the countermeasures do not conflict with protection objectives.

Since the wilderness qualities of the Sulzbachtäler valleys are difficult or impossible to measure directly, a combined and coordinated programme of different measurements and observations is required in order to capture these qualities and their longer-term development in an adequate way.



Measures in the field of action Collection of basic data and monitoring

- M 2.1.1 Content, technical and organisational conception of a monitoring procedure focusing on the Sulzbachtäler valleys
- M 2.1.2 Selection and definition of the scientific institutions and research centres taking part
- M 2.1.3 Agreement on and extensive integration of wilderness research into the overarching long-term national monitoring policy
- M 2.1.4 Installation of measuring points and test areas in the Sulzbachtäler valleys priority area
- M 2.1.5 Establishment of a measuring point in the framework of the national waterways monitoring in the Untersulzbachtal valley
- M 2.1.6 Establishment of a geomorphological monitoring procedure in cooperation with the geological service in Sattelkar
- M 2.1.7** Training of National Park personnel in measurement, service and maintenance at measuring points and test areas
- M 2.1.8 Aerial interpretation in the framework of the CC-HABITALP-Project (throughout the Hohe Tauern National Park)
- M 2.1.9 Vegetation mapping as part of long-term monitoring (throughout the Hohe Tauern National Park)
- M 2.1.10 Periodic implementation of biodiversity days
- M 2.1.11 Assessment of selected taxa according to biodiversity day results
- M 2.1.12 Documentation of mineral deposits from the Citizen Science project
- M 2.1.13 Management of an incident database
- M 2.1.14 Telemetry and monitoring of ibex and chamois
- M 2.1.15 Installation and operation of the Untersulzbachtal valley weather station (on Saukopf)
- M 2.1.16 Data use agreement with the Kürsinger hut weather station
- M 2.1.17** Data use agreement with Hydrographic Services over Obersulzbach river discharge data
- M 2.1.18 Data use agreement with the Austrian Alpine Association over glacier measurement data
- M 2.1.19 Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Untersulzbachtal valley (core zone boundary / real estate SNPF and at the special protected area border)
- M 2.1.20 Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Obersulzbachtal valley (at the Klamml, Gletscherlehrweg, Keeskogel and Venediger ascent exits)
- M 2.1.21 Concentration of automatic visitor counting systems at the main entrances into the wilderness area in the Krimmler Achental valley (Warnsdorferhütte in the direction of Gamsspitzl)
- M 2.1.22 Annual evaluation of the visitor counting systems
- M 2.1.23 Monitoring of Alpine paths and tracks

2.2

Data Management and documentation

A separate field of action for data management and associated documentation is essential for the “Wildnisgebiet Sulzbachtäler” wilderness area, as it is also in the Management Plan 2016-2024 for the Hohe Tauern National Park Salzburg.

The measures planned for the “Wildnisgebiet Sulzbachtäler” wilderness area will generate diverse and sometimes extensive datasets that will need proper management. This collection of data, consisting of data sets of different origin (selected taxa, measurement data, telemetry data, mineral deposits from the Citizen Science project, data from visitor counting systems,



Visitor counting system at the main entrances into the Hohe Tauern National Park Salzburg



sensor for measurement of chemical parameters of water

image data, etc.) should be stored as simply as possible for the long term, and categorised so that it is easy to report on and interpret.

When setting up new projects, it is important to make use of the results of previous research projects and integrate them as far as possible. A data release standard should be developed, which is to be included with project orders. This data release standard is to define both the delivery formats and the desired results.

To make sure that data remains available for the long term, the collected data must be integrated into the existing infrastructure. This means that the appropriate hardware and software must be installed and protected, and a data drive set up.

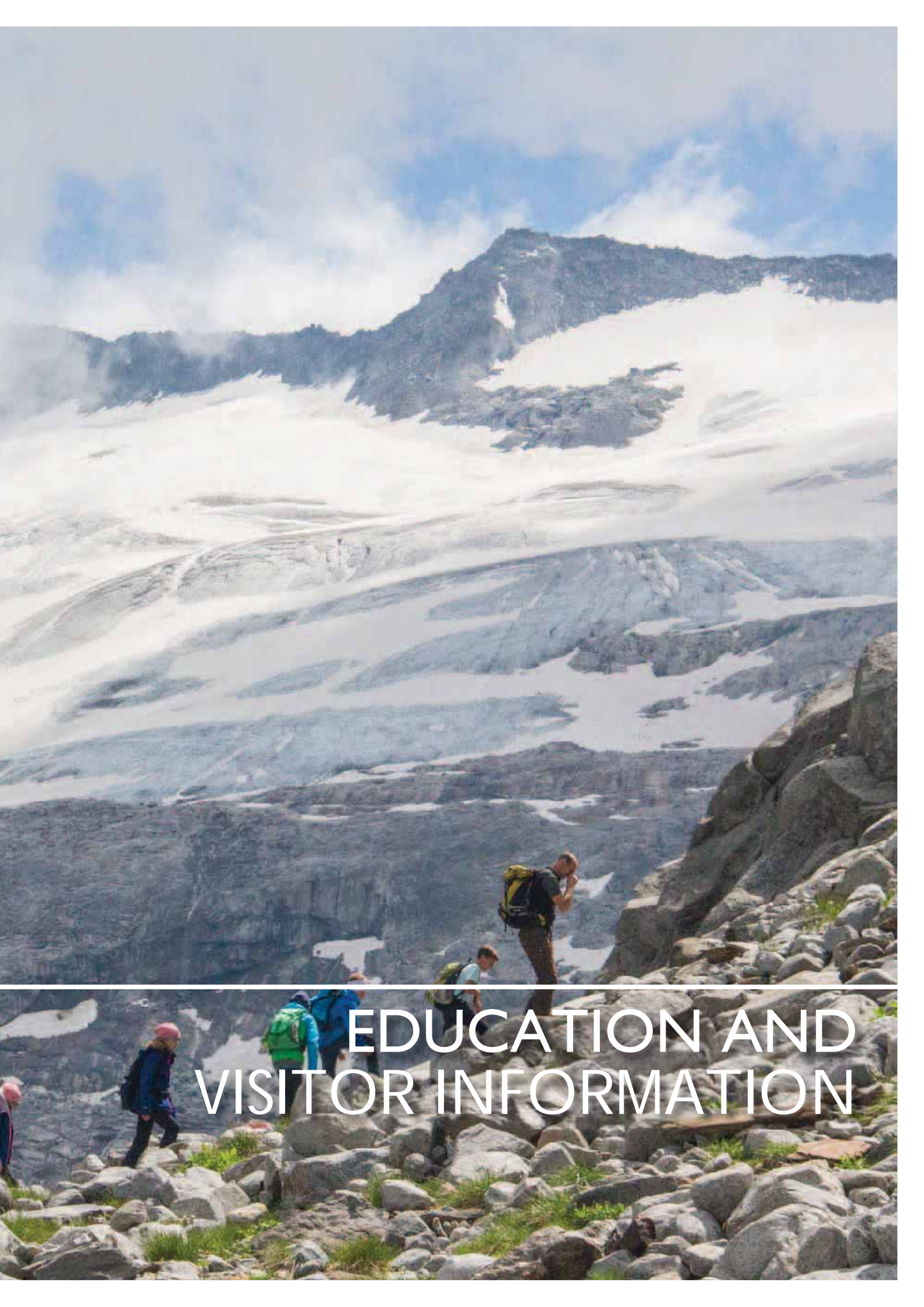


Measures in the field of action Data management and documentation

- M 2.2.1 Establishment of a data drive for the “Wildnisgebiet Sulzbachtäler” wilderness area with appropriate storage capacity and archive
- M 2.2.2 Installation and protection of the appropriate hard- and software
- M 2.2.3 Commissioning of measuring points and test areas, start and backup of the data collection
- M 2.2.4 Regular interpretation of earlier data series
- M 2.2.5 Establishment of and ongoing support for the wilderness image archive
- M 2.2.6 Integration of data delivery standards into project orders (determining formats for the analogue and digital delivery of results data, maps, reports and popular science publications, and for the interpretation of project results)







EDUCATION AND VISITOR INFORMATION



Some protected landscapes captivate the beholder from the start but reveal their significance only on closer acquaintance. This works best when people are moved by these landscapes and when they can link what they find there to their own personal experience. Wilderness education is characterised by the connection of hands-on experiences of nature with focused reflection on the relationship between man and nature. In protected areas such as the “Wildnisgebiet Sulzbachtäler” wilderness area, wilderness education makes authentic learning possible.

In the business unit Education and Visitor Information, the Hohe Tauern National Park’s objective for the “Wildnisgebiet Sulzbachtäler” wilderness area is to recognise its importance, not only by placing it at the centre of the educational programmes being developed and planned, but also by anchoring and integrating thematic priorities in society, raising awareness through public relations work and the maintenance and extension of infrastructure (Info Points, exhibitions, Alpine road network). Principally, the Sulzbachtäler Wilderness Area offers a guarantee of natural dynamics, and it also gives cultural and artistic expression to matters of great social importance.

Wilderness education is aimed at those seeking an immediate experience in the wild which they can share with others. Various tools should be used to make sure that the wilderness area

belongs to the local population and tourists outside the area: the establishment and maintenance of theme-specific infrastructure in the vicinity of the wilderness area (e.g. Info Points and themed trails) and PR campaigns for outreach activities and awareness raising. Visitors can gain an immediate experience of the wilderness through the various educational programmes of the Hohe Tauern National Park, such as wilderness camps, guided ranger walks, offers for companies, etc..

In order to respect the natural world of the “Wildnisgebiet Sulzbachtäler” wilderness area, which should be allowed to develop according to its own laws, without disturbance or direct human influence, a suitable educational concept needs to be developed, which nevertheless allows visitors to gain new self-knowledge by experiencing this original, untamed, overwhelming, absolutely unpredictable and uncontrollable nature directly and intensively. This multi-day programme, differing in its very essence from traditional infrastructure and educational tools and from standard learning, should provide a fundamentally different approach to nature as well as a broader understanding of man’s relationship to nature and to himself.

In summary, the central task of wilderness education is to encourage people to reflect on the individual and social relationship between man and nature through an intensive experience and exploration of nature in the wild. An important

element of this is gaining an understanding of the wilderness philosophy, “letting nature be nature”, which is also referred to as therapeutic idleness, with its call to experience nature in the wild as a guest and not to attempt to change it. The education concept also focuses on the “leave no trace” or “minimal impact” approach, i.e. as far as possible leaving nothing behind in the wilderness, so as to allow undisturbed wilderness to develop without disturbance from human influence. Wilderness education offers people the chance to transfer what they have experienced

and learned into their everyday lives. The question of how far one can integrate the simplicity of the wilderness camp into daily life, for example by taking conscious notice of wild areas, paying close attention to private consumption, discussing how to conserve scarce drinking water resources or plan meals or dealing with waste, provides authentic opportunities for reflection.

The measures planned aim to develop and gradually establish a corresponding programme in cooperation with external experts.



Strategic goals in the business unit Education and visitor information

- SG 3.1 Educating the public in the natural history of the protected area and sharing the National Park story
- SG 3.2 Raising awareness around a sustainable use of nature and natural resources
- SG 3.3 Enabling mental-spiritual growth and a memorable experience of nature



Operational goals in the business unit Education and visitor information

- OG 3.1 Experimenting with and testing an alternative approach to nature
- OG 3.2 Anchoring the topic of wilderness within the population and raising awareness
- OG 3.3 Providing direct and indirect access to the wilderness

3.1 Wilderness education

With the purchase of more than 3,000 ha in the Ober- and Untersulzbachtal valley in June 2016, two huts were transferred to the ownership of the Hohe Tauern National Park Salzburg: the Untersulzbach hut in the Untersulzbachtal valley and the Hofrat-Keller hut in the Obersulzbachtal valley.

While the Untersulzbach hut is intended primarily as a base for science and research, the Hofrat-Keller hut has been adapted as a base camp for wilderness education activities and will be available in future for wilderness camps, workshops, company incentives, etc..

The pedagogical concept behind wilderness camps is that of simplicity (renunciation of comfort) in order to sensitise participants to the topic of wilderness and the way that their own actions can have an influence on protected areas, and to encourage them to question their own life choices in the light of sustainable development. The target group of the wilderness camp is primarily children and adolescents. Its purpose is to foster an emotional bond with nature. As these young people become adults, their positive and negative experiences in the wilderness should have a lasting influence on their personality development and on the way they make everyday decisions. Rather than getting to know the characteristic properties of animals and plants from "lecture-format" teaching, they can gain lasting knowledge informed by experience and understanding, through direct contact with the wilderness characterised by intensive nature experiences. The emotional attachment to the wild which this gives young people leads to an informed and respectful relationship with protected areas such as, in

this case, a wilderness area. The wilderness camp concept is very different from that of previous nature experience camps in the Hohe Tauern National Park. Much more is asked of the participants, without making them feel that they are "working". By concentrating on how each participant's basic mental, physical, cultural and social basic needs are to be met, the wilderness camp contributes significantly to their personality development. Participants have to face up to how to meet basic human needs: confronted with substantial questions such as how a group should organise itself to "survive" in the high mountain wilderness, who makes fire, who secures a safe sleeping space, who takes responsibility for food and the fair distribution of rations or where lavatories are set up, they learn to care about the well-being of the other participants and how individual contributions are valued. These banal questions are, however, increasingly encouraging people in our current developed society to leave their comfort zone and immerse themselves in the growth zone. To plunge into the growth zone means saying goodbye to your usual environment and learning new things – driven by anxiety and a racing heart – in order to overcome obstacles and defy boundaries, and by doing so to acquire knowledge through one's own actions.

The management of the Hohe Tauern National Park Salzburg is focusing for the first time on developing wilderness education programmes specifically for company employees. Organisations may be of any size, from small and medium-sized companies to international corporations. Rather than emphasising the typical camp-like character of the programmes for children and young people, we use the wilderness as a tool in the context of company incentives, team building workshops and appraisals etc.



In cooperation with external mentors and trainers, proposals are developed for the target groups, from apprentices to the Chief Executive. The decision to embrace this market sector was a deliberate one, since it offers great potential to create contrasts. Employees who are available to their workplace 24 hours a day, seven days a week, who negotiate a journey to work

each day and spend hours in meetings where time is too short to allow space for creativity are suddenly faced with “therapeutic idleness”. In wilderness education, we find ways to develop a person’s understanding of natural connections, to increase their perceptual abilities and to help them gain new skills, so that they learn to expand their knowledge by asking targeted questions.



Measures in the field of action Wilderness education

- M 3.1.1 Collection of best practice on wilderness education, adventure education and wilderness schools
- M 3.1.2 Ranger workshops on the design of environmental education and adventure programmes in the wilderness context
- M 3.1.3 Content and organisational design of a wilderness school
- M 3.1.4 Establishment and expansion of wilderness school infrastructure in the Ober- and Untersulzbachtal valley
- M 3.1.5 Conducting a pilot year, evaluation and revision
- M 3.1.6 Staff training and start of regular operations
- M 3.1.7** Development of theme-specific wildlife programmes in the Hofrat-Keller hut
- M 3.1.8 Annual running of wilderness camps
- M 3.1.9 Wilderness school curriculum (creation, co-operation with external wilderness education and experiential education experts)
- M 3.1.10 Continuing professional development in the field of wilderness education
- M 3.1.11 Annual safety training and first aid courses with particular reference to high mountains, including emergency plans
- M 3.1.12 Collaboration with experts in order to expand wilderness education for the target group Teambuilding and Social Skills

3.2

Creation of awareness / Public relations

The designation of wilderness areas has its origin in the large protected areas of the National Parks.

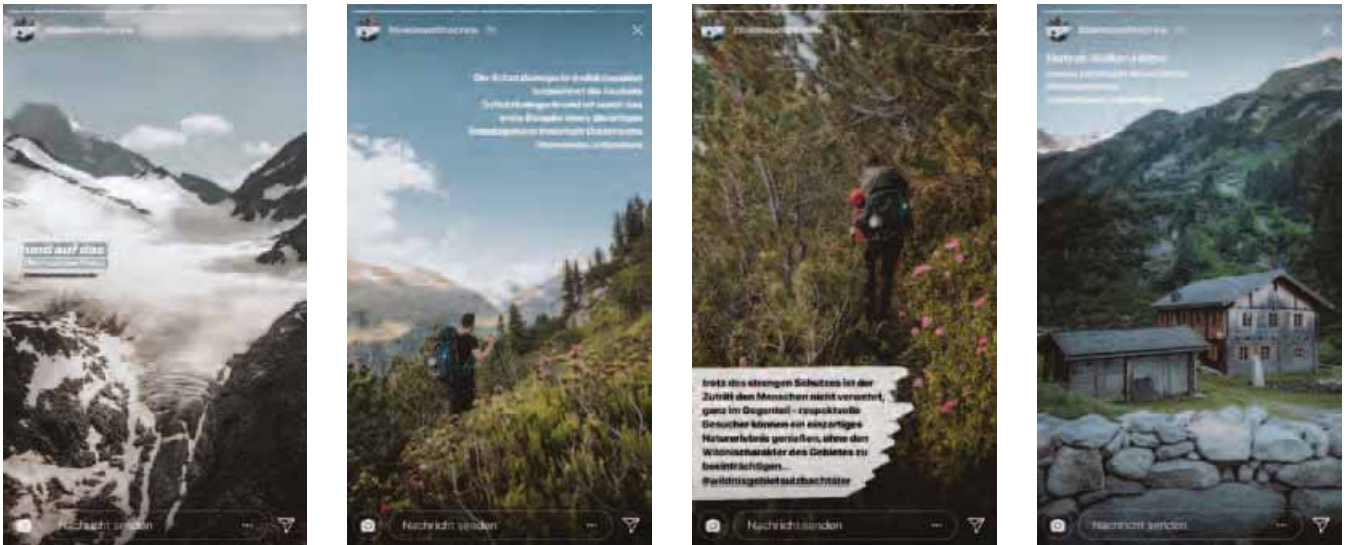
The term “wilderness” is not only defined in a wide variety of ways in literature, but also interpreted differently in everyday language because of demographic characteristics and basic value orientations. For some people, the city park is “wild”, while for others, wilderness means the open spaces of the Wrangell – St. Elias National Park in the United States. For this reason, an essential element in the management of a wilderness area is to reach an internal definition of the term “wilderness” which matches the protected area in question, so that concrete statements can then be made in public relations work. The best foundations for such a definition are the international criteria of the IUCN, the European Wilderness Society or other recognised institutions.

The communication strategy must be thought through by the management of the wilderness area, as messages are addressed to diverse interest groups that each require different information.

The “Wildnisgebiet Sulzbachtäler” wilderness area is a focus for various political, economic, cultural and social interest groups. Among the most important are the political players (European Union, Austrian State, Land Salzburg, regional communities), landowners, the local population, national and regional conservation organisations (WWF Austria, European Wilderness Society), scientists, tourist bodies, external users such as visitors and hikers, and many more.

A key element in the development of a public relations strategy for the “Wildnisgebiet Sulzbachtäler” wilderness area is the integration of the individual interest groups or their representatives into the planning and implementation of the wilderness area. The more successfully the management collaborates with these players during the planning process, the simpler it will be to adopt measures to protect the wilderness. The aim of the National Park Administration will be to integrate issues of importance to the wilderness area into the ongoing public relations work of the Hohe Tauern National Park (press relations, social networks, print media, homepage).





Use of up-to-date ways of communication of different influencers in social media (Instagram, Facebook)



Measures in the field of action creation of awareness / Public relations

- M 3.2.1 Description of the term “wilderness” for the “Wildnisgebiet Sulzbachtäler” wilderness area for internal and external communication
- M 3.2.2 Strengthening and improving the quality of public relations work in general, with regard to use of the term “wilderness”
- M 3.2.3 Integration of the “Wildnisgebiet Sulzbachtäler” wilderness area into the general public relations work of the National Park
- M 3.2.4 Sensitising the population and stakeholders to issues of importance to the wilderness area through events and media-effective appearances (website, press, social media, National Park academy, TV)
- M 3.2.5 Annual information exchange with landlords (Kürsinger and Warnsdorfer hut, Postalm, Berndlalm, Finkalm, Stockeralm)
- M 3.2.6 Annual information exchange with the Alpine associations (ÖAV Krimml-Warnsdorf section, ÖAV Salzburg section) and the Oberpinzgau mountain rescue centres
- M 3.2.7** Annual information exchange with the mountain guide associations (Tauernguides)
- M 3.2.8 Annual information exchange with the feeder services for the Unter- and Obersulzbachtal valley and the Krimmler Achental valley
- M 3.2.9 Preparation of status report (German and English) on the “Wildnisgebiet Sulzbachtäler” wilderness area for stakeholders
- M 3.2.10 Award of wilderness scholarships (creativity=art, photography, literature, film)
- M 3.2.11 Integration into internal staff training of further professional development on the topic of wilderness, with an international orientation
- M 3.2.12 Development of behavioural recommendations for visitors in the wilderness area, based on the “Leave no trace” principles, and their integration into educational measures
- M 3.2.13 Offering exclusive tours of the wilderness area by the National Park rangers
- M 3.2.14 Dissemination of wilderness values in educational institutions, and their integration into the partner school programme
- M 3.2.15 No “exploitation” of wilderness, and avoidance of uncritical use of the word “wilderness” and of unrelated marketing

3.3

Infrastructure



2016 the Hofrat-Keller-Hut became property of the Hohe Tauern National Park Fund, Salzburg

In the past few years, the Hohe Tauern National Park Salzburg has already made major investments in the development and maintenance of infrastructure throughout the protected area, as well as elaborating theme-specific visitor offers. In addition, visitor guidance measures – such as the glacier trail, guided theme-specific ranger hikes during the summer months, snowshoe tours during the winter months, selected special tours in winter and summer as well as the area supervision of the National Park rangers – have already been implemented in the Obersulzbachtal valley. Likewise, the two huts – Untersulzbach hut in the Untersulzbachtal valley and Hofrat-Keller hut in the Obersulzbachtal valley – have been transferred to the ownership of the Salzburg National Park Fund and are now used for wilderness education and as a base for science and research.

Our goal is to maintain the investments already made in visitor guidance in the Ober- and Untersulzbachtal valley (educational trails, Info Points, ...), to supplement them with information on the topic “Wildnisgebiet Sulzbachtaler” wilderness area and its importance in and for the region and to set up Info Points near the huts on the wilderness area borders and along frequently used hiking trails. These Info Points will mark where the wilderness area begins and set out a code of conduct for visitors.

Info Points can be used as an environmental education tool, to make visitors directly aware of special, locally recognisable natural phenomena. Visitors will receive targeted information on the area’s interesting natural features as well as more detailed explanations and background information. The content should be self-explanatory and kept deliberately simple and short. Texts are required which, without setting out prohibitions, help visitors not only to understand why this wilderness area has been implemented, namely to preserve this unique natural landscape in its original state and to protect sensitive habitats of flora and fauna, but also to appreciate the need for further implementation of wilderness areas, to preserve them for future generations.

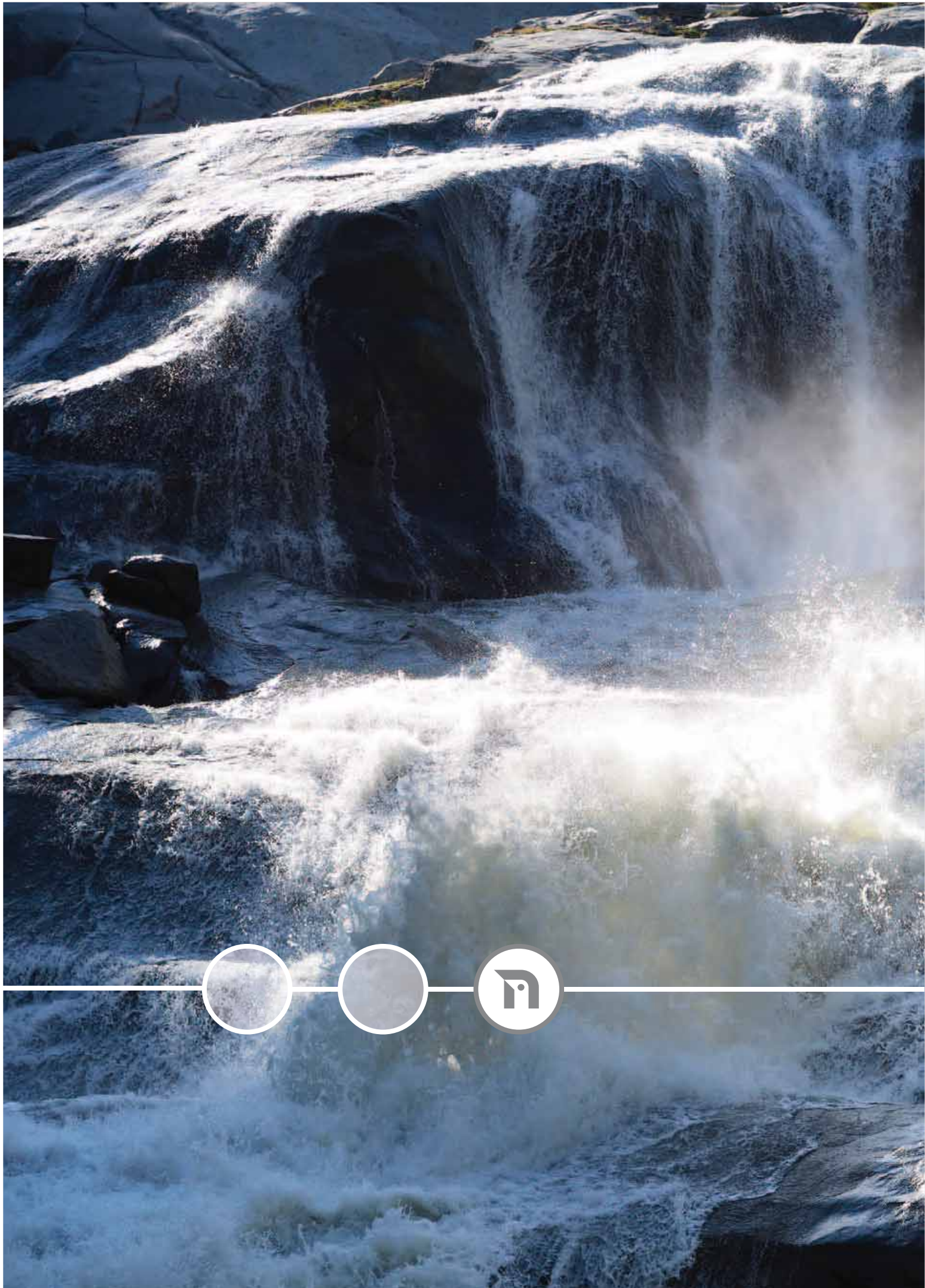
The Hofrat-Keller hut serves as a base for camps, workshops, corporate incentives, etc., and as a starting point for guided ranger hikes into the wilderness area as part of the wilderness education programmes. The Hofrat-Keller hut was renovated in 2017 and adapted to legal safety regulations, albeit in a simple appearance.

The Untersulzbach hut will mainly be put at the disposal of scientists and researchers as a base.



Measures in the field of action Infrastructure

- M 3.3.1 Maintenance and updating of existing infrastructure (glacier trail, Alpine paths and tracks) around the theme "Wildnisgebiet Sulzbachtäler" wilderness area
- M 3.3.2 Marking the wilderness area with National Park zone signs at relevant entrances
- M 3.3.3 Designation of the wilderness area in official and touristic maps and tour guides and with information boards at the relevant valley entrances
- M 3.3.4 Construction of the Info Point Kürsinger hut (German and English)
- M 3.3.5 Construction of the Info Point Warnsdorfer hut (German and English)
- M 3.3.6 Construction of the Info Point Cable car station Kürsinger hut (German and English)
- M 3.3.7** Construction of the Info Point Sattelkar slides (German and English)
- M 3.3.8 Construction of the Info Point Aschalmalm (German and English)
- M 3.3.9 Dissemination of wilderness values outside the wilderness area (National Park centre) (German and English)
- M 3.3.10 Maintenance of the Untersulzbach hut and the Hofrat-Keller hut





APPENDICES



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APPENDICES AND PLANS

Source of figures

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PAGE 58, 59: SZOPORY, V. (OBERSULZBACHTAL)

PAGE 60: KASER, T.

PAGE 64: RATTEY, M. (OBERSULZBACHTAL)

PAGE 65: WIPFLER, M. (OBERSULZBACHTAL)

Consolidated legal regulation for Wildnisgebiet Sulzbachtäler wilderness area, special protection area ordinance as amended on 12.04.2018

Full title

Order of the Salzburg State Government dated 4 September 2017 declaring parts of the Neukirchen am Großvenediger community to be a special protection area in the Hohe Tauern National Park (Wildnisgebiet Sulzbachtäler wilderness area, special protection area ordinance) StF: LGBl (Law Gazette) No. 86/2017

Preamble/promulgation clause

On the basis of § 8 of the Salzburg National Park Act 2014 - S.NPG, LGBl No. 3/2015, as amended, the following is ordered:

Text

Protected area § 1

- (1) The areas of Untersulzbachtal and Obersulzbachtal valleys in the Neukirchen am Großvenediger community, Zell am See political district, in the National Park Hohe Tauern are declared to be a special protected area within the scope stated in paragraph 2. It is referred to as the "Wildnisgebiet Sulzbachtäler wilderness area".
- (2) The protected area includes the property plots 655, 669/1, 669/2, 670, 673/2, 676, 677/1, 677/2, 679/1, 679/2, 680, 682, 684/1, 704, 705/1 and 705/2 as well as part areas of the property plots 681, 683, 684/4 and 757, all KG 57025 Sulzau. The boundaries of the protected area are set out in the site plans on a scale of 1:5,000. These plans are essential content of the order and are available for inspection by anyone during the official opening hours for the public (§ 13 (5) AVG (General Administrative Procedures Act)).

Purpose of protection § 2

The protective purpose of this order is to guarantee the natural dynamics of the protected area including its flora and fauna in order to create a wilderness area characterised primarily by natural processes and free of human interventions.

Protective provisions § 3

- (1) Any temporary or permanent intervention in nature and the landscape is prohibited in the area protected in

accordance with § 1. An intervention is constituted even if the measures themselves originate outside the protected area.

- (2) Exceptions to the prohibition, insofar as nothing to the contrary is specified below, are only:
 - a) conventional forms of mountaineering, hiking and ski touring etc.;
 - b) fishing in accordance with the provincial legal regulations;
 - c) measures carried out in the course of work by employees or agents of the National Park Administration;
 - d) measures taken in the course of work by rescue and help organizations;
 - e) maintenance and marking of existing routes and trails as well as maintenance of existing facilities or markings to identify property boundaries, in each case by agreement with the owners of the relevant land plots;
 - f) measures carried out by the Salzburg National Park Fund or under their instruction to implement the management plan (§ 40 S.NPG).
- (3) The following in particular are prohibited interventions as defined by paragraph 1:
 - a) agriculture and forestry work as well as hunting, with the exception of the pursuit of wounded quarry regulated in the Jagdgesetz (Hunting Act) 1993 as well as the stipulations of private law and by the hunting authority concerning necessary hunting as defined by the Hunting Act 1993;
 - b) the creation and installation of buildings and other facilities;
 - c) new creation of hiking trails and via ferratas;
 - d) dismantling and collection of ground elements, minerals and fossils as well as other damage to the ground;
 - e) contaminating and spoiling of the area by storing, depositing or discarding materials or waste of any type;
 - f) camping and bivouacking as well as creation of furnaces, igniting and burning of open fires;
 - g) collecting and picking mushrooms, plants, fruit and other parts of plants;
 - h) spoiling and changing vegetation;
 - i) letting dogs off the lead apart from tracker dogs and avalanche dogs when used in accordance with paragraph 2 d, use in accordance with § 3 paragraph 1 S. 2 and 4 S.NPG or an exercise in accordance with § 4 paragraph 2 c as well as hunting dogs within the framework of necessary hunting;
 - j) any avoidable noise;
 - k) horseback riding and driving vehicles;
 - l) use (flying over, takeoff, landing) by aircraft, aircraft devices, model aircraft and unmanned air vehicles below an altitude of 5,000m above sea level.

Approved exceptions

§ 4

- (1) Upon request in an individual case, the Provincial Government may approve exceptions from the prohibitions of § 3 with regard to the measures mentioned in paragraph 2, insofar as such measures are not in conflict with the protective purpose of the protected area in accordance with § 2. Such an approval may be granted subject to conditions and on a time-limited basis.
- (2) Measures eligible for approval in accordance with paragraph 1 are the following:
 - a) scientific research work;
 - b) measures to combat epidemics, only to the degree that is absolutely necessary;
 - c) Measures in the course of an exercise by rescue and help organisations as well as measures carried out by the army that serve the purpose of operational preparation (§ 2 (2) S 1
- (3) Wehrgesetz (National Service Act) 2001, BGBl (Federal Law Gazette) I No. 146, as amended, BGBl I No. 65/2015).
- (4) The owners of the relevant land must be heard before granting and approval in accordance with paragraph 2.

Identification of the protected area

§ 5

The protected area is identified by signs with the wording "Nationalpark Hohe Tauern - Sonderschutzgebiet Wildnisgebiet Sulzbachtäler" and a national park icon. Further notices about the protective purpose are permissible.

Notice of penalties

§ 6

Breaches of the provisions of § 3 or of the decisions issued in accordance with § 4 as well as damage, arbitrary removal, occlusion or other impairment of the effectiveness of the identification of the protected area will be prosecuted as administrative offences in accordance with § 25 S.NPG.

Coming into force

§ 7

This order comes into force on 7 September 2017. At the same time the Inneres Untersulzbachtal valley Special Protection Area Ordinance, LGBl No. 131/1995 is repealed.



