Principles of Protected Area Management in Finland



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Contents

1 INTRODUCTION	. 11
2 ROLE OF PROTECTED AREAS IN CONSERVATION AND SUSTAINABLE USE OF	
BIODIVERSITY	
2.1 Convention on Biological Diversity and the Programme of Work on Protected Areas	
2.2 Habitats and Birds Directives and the Natura 2000 network	
2.3 Water and Marine Framework Directives and the strategies of water protection	
2.4 National Biodiversity Strategy and Action Plan	
2.5 Parks & Wildlife Finland's Action Plan 2012–2020	
2.6 Ecosystem services and the ecosystem approach in planning	. 20
2.7 Adapting to climate change	. 21
3 PROTECTED AREAS IN FINLAND	22
3.1 Objectives of the protected area network	
3.2 Defining and categorising protected areas	
3.3 National parks	
3.4 Strict nature reserves	
3.5 Other state-owned nature reserves.	
3.6 Private nature reserves and other protected sites on private lands	
3.7 Wilderness reserves	
3.8 Sites designated in Nature Conservation Programmes	
3.9 Natura 2000 sites	22
5.7 Natura 2000 Sites	. 55
4 BASIS OF PROTECTED AREA MANAGEMENT	35
4.1 The Nature Conservation Act.	
4.2 Conservation objectives of the Natura 2000 sites	
4.3 Protected area enactments and the Nature Conservation Programmes	
4.4 Management plans	
4.5 Site regulation orders	
4.6 Broad-scale planning of landscapes and seascapes	
4.6.1 National Land Use Guidelines and plans, natural resource plans	
4.6.2 Marine spatial planning	
4.7 Other legislation	
4.8 Principles of Protected Area Management and other guidelines	
4.9 Research and monitoring	
1.9 research and monitoring	
5 ADAPTIVE MANAGEMENT OF PROTECTED AREAS	. 42
5.1 Adaptive management framework	
5.2 Protected area management planning	
5.3 Protected area monitoring and evaluation	. 45
5.4 Protected area information management	
5.4.1 Protected area information and management databases	
5.4.2 Theme-based information systems	
5.5 Participation of locals and stakeholders in planning and management	
5.6 Akwé: Kon guidelines and action plan	
6 CONSERVATION AND MANAGEMENT OF HABITATS AND SPECIES	
6.1 Preserving habitats in their natural state	. 52
6.2 Habitat restoration and management	. 53
6.2.1 General principles	. 53

6.2.2 Restoring habitats	53
6.2.3 Managing habitats	55
6.3 Species protection and management	
6.3.1 General principles	
6.3.2 Preserving species occurrences	
6.3.3 Managing species habitats	
6.3.4 Transferring species	
6.3.5 Eradicating invasive alien species	60
7 CONSERVATION AND MANAGEMENT OF CULTURAL HERITAGE	62
7.1 Starting points for the management of cultural environments	62
7.2 Preserving and managing landscapes	
7.3 Preserving and managing built cultural environments	
7.4 Conserving and managing archaeological sites	
7.5 Safeguarding Sámi cultural heritage	
7.5.1 General background	
7.5.2 The role of Metsähallitus	68
7.6 Securing the cultural heritage of the archipelagos	
8 NATURE RECREATION AND TOURISM	71
8.1 Demand-based development under limits of sustainability	
8.2 Directing recreational use in protected areas	
8.3 Applying everyman's right in protected areas	
8.3.1 Access to sites and camping out	
8.3.2 Temporary "arks" and floating lodges	
8.3.3 Making campfires	
8.3.4 Picking berries and fungi, collecting dry wood, and catching fish	
8.4 Nature sports and other activities in protected areas	
8.4.1 Nature photography	
8.4.2 Geocaching and letterboxing	
8.4.3 Rock climbing	
8.4.4 Mountain biking	
8.4.5 Orienteering	
8.4.6 Horseback riding	
8.5 Organised activities and events	
8.5.1 Cross-country competition events	83
8.6 Nature tourism entrepreneurship	
8.6.1 Dog-sled riding as an enterprise service	
8.7 Interpretative communication and marketing	
8.8 Recreational facilities and their maintenance	88
8.8.1 Building service facilities	89
8.8.2 Organising maintenance	
9 BASIC SURVEYS, MONITORING, AND RESEARCH	
9.1 Basic surveys and monitoring carried out and commissioned	92
9.1.1 Basic surveys and inventories	92
9.1.2 Monitoring	95
9.2 Research and monitoring use of protected areas	97
9.2.1 Research supporting protected area management	
9.2.2 Other research and monitoring in protected areas	98

10 FISHING, HUNTING, AND SUBSISTENCE LIVELIHOODS	99
10.1 Fishing and hunting	
10.1.1 General principles in protected areas	99
10.1.2 Fishing	
10.1.3 Regulation of hunting based on the Nature Conservation Act	
10.1.4 Regulation of hunting based on the Hunting Act	
10.1.5 Large carnivores	
10.2 Reindeer husbandry	
10.3 The rights of local residents and subsistence livelihoods	109
11 OTHER USE OF PROTECTED AREAS	110
11.1 Off-road traffic	
11.1.1 Regulating off-road traffic in protected areas	
11.1.2 Snowmobile routes and tracks	
11.1.3 Off-road traffic outside of snowmobile routes and tracks	
11.2 Roads, waterborne traffic, and aviation	
11.3 Mineral prospecting and mining	
11.4 Leasing and granting rights of use	
11.4.1 Plots rented for leisure construction	
11.4.2 Leasing of buildings and land	
11.4.3 Pasture lease contracts	118
11.5 Scattering the ashes of the deceased	120
12 OTHER ACTIVITIES RELATED TO PROTECTED AREA MANAGEMENT	121
12.1 Establishing protected areas	
12.1.1 Preparing protected area site enactments	
12.1.2 Forming real-estate units and marking boundaries	
12.2 Undertaking new sites and built property	
12.2.1 Taking possession of transferred sites	
12.2.2 Opening new sites to the public	
12.2.3 Taking built property in hand	
12.3 Supervising and enforcing the law	126
12.4 Land use issues outside protected areas	126
BIBLIOGRAPHY	129
APPENDICES	
Appendix 1 Description of Certain Area Types	133
Appendix 2 IUCN Protected Area Management Categories: Definitions	135
Appendix 3 IUCN Protected Area Categories: Objectives of Management and Use	136
Appendix 4 Indicative IUCN Management Categories for State-owned Protected	
Area Types	137
Appendix 5 Legislation Pertaining to Governance, Management and Use of	100
Protected Areas	
Appendix 6 Principles and Guidelines Directing Management of Protected Areas	
Appendix 7 Menu of Protected Area Values	143

1 Introduction

Since the 1930s, Finland has been systematically building a comprehensive and diverse protected area network that has become an important part of the growing terrestrial and marine networks in Northern Europe. The core of the network consists of nature reserves established on state-owned land, and of sites designated in Nature Conservation Programmes to be established as nature reserves, as well as wilderness reserves established based on the Wilderness Act. The national protected area network also forms the foundation of the Natura 2000 network, which is based on the European Union (EU) Habitats and Birds Directives. The national network covers some 12% of the total surface area. With additional coverage of the Natura 2000 sites, almost 15% of the land and sea area of Finland is protected. Most of the protected area is state owned and managed by the government agency Metsähallitus Parks & Wildlife Finland (P&WF), formerly known as Metsähallitus Natural Heritage Service (NHS).

The book of recommendations "The Principles of Protected Area Management in Finland – Guidelines on the aims, functions and management of State-owned protected areas" was first approved in 1992 for publication by Metsähallitus (then known as the Finnish Forest and Park Service). The document defined the various types of state-owned protected areas under the administration of the Finnish Forest and Park Service and the Finnish Forest Research Institute (then governing parts of the state-owned protected areas), along with the conservation aims associated with these areas, and the general principles to be observed in their use and management.

The document describes the role of protected areas in the conservation and sustainable use of biodiversity, defines protected areas in Finland, and explains the basis of their adaptive planning and management. It also covers the practices and principles of conservation and management of habitats, species, and cultural heritage, as well as those of securing sustainable protected area use.

The recommendations were slightly updated in 1999 and 2004, and completely revised in 2007, after changes in the protected area management tasks of Metsähallitus NHS. The document coverage was extended in 2010 and further in 2014. The structure and thematic emphasis were somewhat revised and quite a few supplements and specifications were added. In particular, the management of built cultural heritage and of visitor use in protected areas are discussed more thoroughly. The establishment of protected areas, management of data, and law enforcement duties are also presented for the first time.

The present Principles of Protected Area Management pertain to the following protected area types managed by Parks & Wildlife Finland:

- statutory nature reserves
- wilderness reserves
- sites designated in Nature Conservation Programmes and in the EU Natura 2000 network that will be established as statutory nature reserves by proper site-specific enactments.

These guidelines may also be used to support the management of protected forests and national hiking areas, which are managed by P&WF. They do not directly concern the management of private protected areas, even though these are often managed by P&WF in cooperation with land-owners and the regional Centres for Economic Development, Transport and the Environment (ELY Centres). Separate guidelines have been compiled for this purpose.

These protected area management principles are partly determined directly by national legislation, and partly they are defined by Parks & Wildlife Finland as the landowner and site manager. Many

principles are also national and regional best practice, which has been developed and agreed over time.

This document is not intended to set out binding rules under the legislation or standards, but rather to provide a practical guide for the management of protected areas. However, clear deviations from the recommendations should be approved by the P&WF steering groups. The guide is also part of the ISO 14001 standard certified Environmental and Quality Management System of Metsähallitus.

The principles set out here are accompanied by a set of more detailed guidelines (listed in Appendix 6) containing practical instructions for various tasks. These principles and guidelines also form the basis for protected area management planning. In addition to guiding agency best practice, the document is one way to communicate the activities of P&WF to stakeholders.

The Principles of Protected Area Management document is updated regularly, normally at two to three-year intervals. The revisions are coordinated by the Management Planning Steering Group, and each of the Parks & Wildlife Finland thematic processes is responsible for following up on modification needs and for providing the necessary updates. The principles are approved by the director of Parks & Wildlife Finland.

This document was approved and published in Finnish in 2014. In this translation of the document, the statistics on protected area numbers and surface area, as well as those on habitat restoration and management, are updated as of 31 December 2014.



Dr. Rauno Väisänen, Director of Parks & Wildlife Finland. Photo: Jari Kostet.

2 Role of Protected Areas in Conservation and Sustainable Use of Biodiversity

Nature conservation objectives and the principle instruments in their implementation are depicted on different geographical scales in Figure 1. The conservation of Finnish nature is part of the regional effort in Northern Europe and the Baltic Sea area. The most important instruments in Finland are the Nature Conservation Act and the action plans to implement the National Biodiversity Strategy and the Programme of Work on Protected Areas, which are based on the Convention on Biological Diversity. Cooperation for the well-being of the Baltic Sea and the maintenance of its biodiversity is promoted in the context of the Convention on the Protection of the Marine Environment of the Baltic Sea, headed by the Helsinki Commission (HELCOM). Polar nature conservation is the focus of many programmes of the Arctic Council (e.g. Conservation of the Arctic Flora and Fauna, CAFF).

At the European level, the most important conservation instruments are the Bern and Bonn Conventions, and the Habitats and Birds Directives issued by the European Council to promote action towards the goals of the two conventions. The most important practical means in the preservation of biodiversity and natural resources in the European Union is the Natura 2000 network, in which most of Finland's protected areas are included (see Chapter 2.2). Water protection is promoted by large-scale water management plans that are based on the EU Water and Marine Framework Directives (Chapter 2.3).

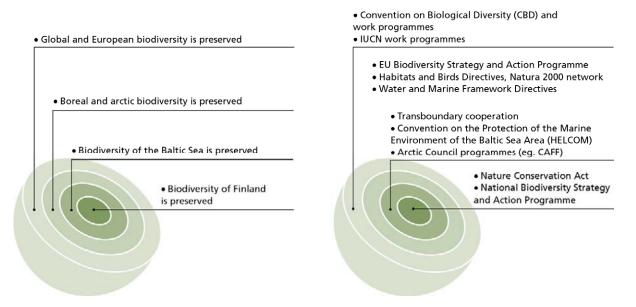


Figure 1. Objectives and means of nature conservation and protected area management.

2.1 Convention on Biological Diversity and the Programme of Work on Protected Areas

Finland is a party to all global or relevant regional international conventions where the conservation and sustainable use of biodiversity are significant objectives. The most important such agreement is the United Nations **Convention on Biological Diversity** (CBD), which Finland signed in 1992 in Rio de Janeiro. The Finnish Parliament ratified the Convention in summer 1994. A total of 196 countries are parties to the Convention, of whom 168 are signatories. The CBD aims to protect global ecosystems, plant and animal species, and their genetic diversity, and also to promote the sustainable use of natural resources and the equitable sharing of the consequent benefits. One main idea behind the CBD is that the maintenance of biodiversity should be integrated into all activities that shape natural environments, including farming, forestry, fishing and hunting, tourism, construction, planning, and housing.

To work towards the objectives of the CBD, the parties have defined a set of thematic programmes for different habitats and ecosystems, and a series of programmes of work on common or cross-cutting issues, which have all been approved by Conferences of Parties (COP). The 10th COP, held in Japan in 2010, set twenty so-called Aichi Targets as part of the Strategic Programme to promote implementation of the CBD. Many international organisations also work to promote the objectives of the CBD, including the World Conservation Union (IUCN), the World Wide Fund for Nature (WWF), and the United Nations Environment Programme (UNEP), all of which provide significant funding for biodiversity conservation work, especially in developing countries.

The most important programmes of work from a Finnish perspective concern the biodiversity of forests, inland waters, marine and coastal areas, agricultural environments, and protected areas. In 2004, the 7th COP approved the **Programme of Work on Protected Areas** (PoWPA), which aims to create a global network of protected areas, incorporating national and regional networks. National parties committed themselves to objectives and schedules defined to enhance the coverage of protected areas and to improve their management. The PoWPA also emphasises the need for better linkages between protected areas and land use in their surrounding areas, as well as the desirability of exploiting opportunities for the multiple use of protected areas. Attention was particularly drawn to the need for indigenous and other local communities to participate in the establishment, use, and management of protected areas. The National Action Plan to implement the PoWPA in Finland was completed in 2012.

In spite of efforts made under the CBD, biodiversity has continued to decline on a global scale. This is clearly shown in the country reports on CBD implementation, drawn up by the parties to the convention. This reporting is carried out every four years and the Global Biodiversity Outlook Report is compiled based on these reports. The most recent country reports of Finland (the 4th delivered in 2009 and the 5th in 2014) utilised national biodiversity indicators that have been developed to monitor relevant trends. Progress on the implementation of the national PoWPA Action Plan was assessed for the first time in connection to the fifth country report.

Finland is also a party to significant international agreements on cultural issues, including the World Cultural and Natural Heritage Convention of the United Nations Educational, Scientific and Cultural Organisation (UNESCO), which was adopted in 1972 and ratified by Finland in 1987. On the basis of this convention, UNESCO maintains the **World Heritage List**, which contains sites considered to be of global value as humanity's cultural or natural heritage. At the end of 2014, the list included 779 cultural and 197 natural heritage sites, as well as 31 sites of combined heritage. In Finland, there are six cultural sites and one natural heritage site. The Kvarken Archipelago was inscribed on the List in 2006 as a unique example of the geological land uplift phenomenon. Parks & Wildlife Finland coordinates the management planning and directs the use of this unique area.

2.2 Habitats and Birds Directives and the Natura 2000 network

The aim of the Natura 2000 network is to secure conservation of the habitat types and living environments of species specified in the **Habitats Directive** (92/43/EC) and special protected areas defined by the **Birds Directive** (79/409/EC). The Natura 2000 network is the most important instrument for securing the favourable conservation status of habitats and species in the manner required by the directives. Finland's Natura 2000 network is described in Chapter 3.9.

Article 6 of the Habitats Directive defines how Natura 2000 sites are to be managed and protected.

Paragraphs 6(1) and 6(2) require that, within Natura 2000 sites, member states:

- take appropriate conservation measures to maintain and restore the habitats and species for which the sites have been designated, to a favourable conservation status;
- avoid such damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types.

In practice, these measures mean establishing nature reserves, restoring and managing habitats, directing site use, and assessing impacts of projects and plans inside and outside Natura 2000 sites. Measures will also include, if need be, drawing up appropriate management plans that are specifically designed for the sites or integrated into other development plans.

The favourable conservation status of natural habitat types and species specified by the Habitats Directive is assessed based on multiple grounds, which refer to the definition of the status.

Conservation status for natural habitat types is defined in Article 1(e) as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure, and functions, as well as the long-term survival of its typical species. The conservation status is taken to be favourable when:

- its natural range and the areas it covers within that range are stable or increasing, and
- the specific structure and function which are necessary for its long-term maintenance are present and are likely to continue to exist for the foreseeable future;
- the conservation status of typical species that live in these habitat types is favourable.

Conservation status for species is defined in Article 1(i) as the sum of influences acting on the species

- concerned that may affect the long-term distribution and abundance of its populations. It is taken as
- favourable when:
- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitat, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
- there is and will probably continue to be a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation status of natural habitat types and species defined in the Habitats Directive is assessed every six years. In the 2013 report, the status was assessed for the period 2007–2012 in the entire Alpine and Boreal Regions of the EU. Member states were also obliged for the first time

to assess the impact of the Natura 2000 network on development of the conservation status. The conservation status for the period 2013–2018 is to be assessed in 2019.

The general aim of the Birds Directive is to maintain natural bird populations at a level "which corresponds in particular to ecological, scientific and cultural requirements". The Annex to the Directive lists the species of Community interest, for which Special Protection Areas (SPA) are to be created. Many migratory species, especially occurring in wetland areas, also require such areas to be designated. Altogether, 62 bird species occur in Finland that are protected by Natura 2000 sites. Assessments of the implementation of the Birds Directive have been carried out every three years; the period 2010–2012 was reported in 2013. Further assessments shall take place every six years, following the implementation reporting of the Habitats Directive.

2.3 Water and Marine Framework Directives and the strategies of water protection

The **Water Framework Directive** (2000/60/EC) came into force in 2000. The Directive commits EU member states to achieving good qualitative and quantitative status of all ground and surface waters (rivers, lakes, transitional waters, and coastal waters) by 2015.

In Finland, the Water Framework Directive is implemented by provisions in national legislation on water resource management. The actions required by the Directive are implemented in extensive regional river basins through management and action plans compiled under the direction of the Centres for Economic Development, Transport and the Environment (ELY Centres). The Finnish Government approved seven regional river basin management plans in 2009. These management plans and the related action plans include information on the condition of water bodies, the factors affecting them, and the measures that will restore inland and coastal waters in these regions to a good condition by 2015. The implementation of the river basin management plans was assessed for the first time in late 2012. Each river basin management plan is revised every six years. Plans for the period 2016–2021 will be completed and approved by the end of 2015.

The **Marine Strategy Framework Directive** (2008/56/EC) was adopted in 2008. The Marine Directive aims to achieve good environmental status (GES) of the EU's marine waters by 2020, and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES.

The Marine Directive enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use. In order to achieve its goal, the Directive establishes European marine regions and sub-regions on the basis of geographical and environmental criteria. The Directive lists four European marine regions – the Baltic Sea, the North-east Atlantic Ocean, the Mediterranean Sea, and the Black Sea – located within the geographical boundaries of the existing Regional Sea Conventions. Cooperation between the EU member states of the Baltic Sea region, and with other neighbouring countries that share the same marine waters, is already taking place through HELCOM. Finland cooperates with Estonia and Sweden, in particular, in order to ensure coherence.



Taking water for evening tea from the lake in Kolovesi National Park. The ecological status of Finland's many inland waters is generally good. Photo: Markus Sirkka.

In order to achieve GES by 2020, each member state is required to develop a strategy for its marine waters. The Ministry of the Environment prepares the National Marine Strategy of Finland. The first stage of the Strategy involves assessing the current state of the marine environment, laying down targets for good environmental status, and defining indicators for monitoring the situation. The Marine Strategy covers the Finnish territorial waters and the exclusive economic zone (EEZ). It also includes a monitoring programme. The last step of the Strategy is an action plan for management of human activities, to be developed and approved by the end of 2015. Implementation of the Marine Strategy will be assessed in 2018, and a review of the strategy will then be initiated.

In 2006, some 350 Natura 2000 sites were selected for the national protected area register required by the Water Framework Directive. These were chosen by coherent criteria that stress factors related to habitat types and species directly dependent on surface or ground waters. Inclusion in the registry does not bring any new statutory conservation obligations. It does, however, underline the significance of these areas and the need to take them in account in the river basin management plans and water permit processes. The environment administration has also drawn up general guidelines to integrate the objectives of the Water Framework Directive and the Habitats and Birds Directives.

Metsähallitus governs a significant part of Finland's inland waters (6,300 km², equalling one fifth of the total inland water area) and of coastal and marine waters (27,800 km², equalling one third of the total territorial waters). Most Natura 2000 sites in these areas are also managed by Parks & Wildlife Finland. Almost all protected areas include small water bodies. Waters that are not protected by the national protected area network have also been included within the Natura 2000 network. There are more than 100 Natura sites managed by P&WF containing a marine component.

P&WF completed an Action Plan for Conservation of Inland Waters 2013–2015, describing the objectives and operational framework involved. The aim has been to commence an inventory programme within state-owned inland waters and to survey the hydrology and morphology of small waters and streams, especially in areas involved in the Forest Biodiversity Programme METSO 2008–2025. An action plan is being drawn up for restoration measures for these inland waters. The methodology and guidelines are being developed. A watershed approach is the basis of water protection planning and operations.

P&WF has also drawn up an Action Plan for Protection of Marine Nature 2012–2020, positioning the marine areas governed by Metsähallitus and operations therein in the broader context of national and international marine conservation strategies. P&WF operations focus on three task areas: (1) protection of species, (2) protection of habitat types and sites, and (3) management planning and monitoring of natural and cultural heritage values and sites.

2.4 National Biodiversity Strategy and Action Plan

The National Strategy for the Conservation and Sustainable Use of Biodiversity, entitled "Saving Nature for People", was approved by a Government resolution in 2012 and the complementary Action Plan 2013–2020 in 2013. The main objective of the Strategy is to halt biodiversity loss in Finland by 2020. It places economic and cultural values related to biodiversity at the heart of making decisions on the use of natural resources. The goal is to establish favourable development of the condition of Finnish nature, and to prepare, by 2020, for global environmental changes threatening it - especially those brought on by climate change. The aim is also to produce and communicate science-based information for cost-effective and adaptive policies on conservation and sustainable use of biodiversity, and to promote integration of these into the planning and activities of different sectors. Finland's role in protecting biodiversity on a global level is increased by international cooperation.

The National Biodiversity Strategy implements the decisions made in 2010 at the meeting of the CBD COP, intended to improve global implementation of the Convention. The National Strategy also takes account of the multiple objectives of the European Union, and it is based on a number of comprehensive national studies on the state of biodiversity in Finland and the factors influencing it.

Conservation of biodiversity is promoted especially by developing the protected area network and improving the efficiency of habitat and species protection. Measures include establishing statutory nature reserves on sites designated in national **Nature Conservation Programmes** and increasing forest protection in the **METSO Programme** (see Chapter 3.8). Connectivity of the protected area network is enhanced by regional land use planning and natural resource planning (see Chapter 4.6.1).

2.5 Parks & Wildlife Finland's Action Plan 2012–2020

The updated **Parks & Wildlife Finland Action Plan 2012-2020** is an important tool in guiding practical work towards the national and international goals of conservation and sustainable use of biodiversity. The mission and vision of the P&WF unit are also interconnected with the strategic policies of Metsähallitus as an enterprise:

Mission: Wealth in and from nature

- We cherish Finland's most valuable nature.
- We offer diverse and good quality services in outdoor activities for well-being, and enhance environmental awareness.
- We are an active public operator working together with enterprises.

Vision: We are a forerunner in green markets

- A well-managed and developing protected area network creates the basis for the favourable conservation status of habitat types and species, and for the preservation of cultural values in our areas.
- Diverse and sustainable use of state-owned lands and waters brings well-being and maintains the heritage and vitality of our national culture.
- National parks are a significant part of the Finnish nature brand.
- Partnerships increase our capacity and impact nationally and internationally.

The Parks & Wildlife Finland action plan for 2012–2020 consists of:

- long-term goals for social impact (10 year goals)
- mid-term development targets (5years)
- short-term objectives and measures (implementation within 2–3 years).

Long-term goals of Parks & Wildlife Finland are that:

- the value of our national heritage is enhanced,
- people get well-being from nature
- partnership with the tourism industry creates growth.

The P&WF action plan emphasises not only ecological, but also socio-economical points of view, as well as the importance of interaction with citizens and of cooperation with stakeholders. The aim is to manage our national heritage in a systematic, efficient, and effective way, based on research and monitoring information, and on cooperation with stakeholders and local communities. The goal is to enhance the state of the biodiversity and the cultural heritage that have been entrusted to P&WF governance. At the same time, the objective is to encourage citizens into the outdoors and to promote nature tourism in protected areas by active cooperation, and to produce benefits to public health and to local economies from protected area use.

The main development targets include improvement of the protected area network and implementation of conservation measures, based on the objectives of the Natura 2000 network, the National Nature Conservation Programmes, the National Biodiversity Strategy and Action Plan, and the Programme of Work on Protected Areas. In protected area management planning, P&WF strives to amalgamate multiple and even conflicting conservation and use objectives through broad-based cooperation. Habitat restoration and management measures are concentrated particularly on threatened habitat types and on habitats of red-listed species. Harmful effects of climate change, invasive alien species, and other pressures are combatted more efficiently than before. Input on monitoring of protected area management effectiveness will be increased. On the other hand, P&WF shall raise public awareness of the many benefits that protected areas bring to society. Development objectives shall be brought forward by concrete measures, and implementation is assessed using metrics. Information management is developed continuously to support and bring efficiency to the management, planning, and monitoring of protected areas.

The strategic steering of nature conservation work in Finland is the responsibility of the Ministry of the Environment. The Ministry of Agriculture and Forestry is responsible for strategic steering of the game and fisheries sector. Annual performance targets and funding of Parks & Wildlife Finland are agreed with the two Ministries, based on primary goals approved by Parliament.

2.6 Ecosystem services and the ecosystem approach in planning

Ecosystems, with their associated structures and functions, offer diverse products and services that are both a prerequisite for preservation of biodiversity and a source of many benefits to people living in and visiting different habitats. There are many ways of classifying these ecosystem services. One of the most utilised is the division into provisioning, supporting, regulating, and cultural services, made popular by the UN Millennium Ecosystem Assessment in 2005.

Provisioning services in ecosystems that benefit humans directly include such material products as water, game, and berries. Natural environments guarantee many local communities their livelihoods - by offering reindeer pastures, for example. On the other hand, commercially exploited products include timber, wind energy, and land extracts. Supporting services form the basis of ecosystem structures and natural cycles in different habitats. These services include soil renewal, nutrient cycles, and insect pollination. The self-regulating and purifying capacities of ecosystems buffer the harmful impacts that human activities have on nature. Coastal and wetland habitats may offer flood protection to human habitations.

Some forms of natural resource use are detrimental to ecosystem structures and functions. Others may conflict with social values, such as recreational use. Utilisation of ecosystem services always involves questions of rights and fairness. Because enjoyment of all ecosystem services simultaneously is seldom possible, their use often has to be reconciled, regulated, and restricted.

The ecosystem approach, which has its roots in the basic premises of the CBD, is increasingly prominent in planning protected area management and use. This approach emphasises the importance of understanding and maintaining ecosystem structures and functions, but at the same time, it accentuates the role of people associated with them, and promotes the development of flexibility in management procedures. Central principles are to delegate responsibility for management decisions closer to stakeholders, and to raise the effects of protecting and using natural resources, as well as the distribution and acceptability of the effects, as criteria in decision-making.

In practice, applying the ecosystem approach to protected area management means that planning is done coherently, based on best available information, together with those local communities and stakeholders that, in one way or another, utilise the areas. The starting point is not to compromise the conditions for preservation of biodiversity and specific conservation values, but to try to find ways to continue local traditions of nature use and to secure the livelihoods dependent on it. The Programme of Work on Protected Areas is carried out following the principles of the ecosystem approach. According to the objectives of the PoWPA, the established and pending protected areas are to be integrated with the surrounding landscape and land use.

2.7 Adapting to climate change

Climate change presents new challenges in the planning and management of protected areas. The distribution and interspecific relationships of different species will change as vegetation zones and the growth ranges of major tree species slowly move northwards. So far, little is known about the effects of temperature rise on the ecological and evolutionary developments that effect biodiversity in protected areas. One of the tasks included in the updated Adaptation to Climate Change Action Plan (2011), drawn up for the environmental administration sector, is to gather relevant basic information on protected areas for impact monitoring and decision-making. The aim is to anticipate necessary measures as early as possible, to mitigate harmful effects.

Experts believe that the following actions would promote adaptation to climate change:

- ensuring the geographical and temporal comprehensiveness of the protected area network by improving its connectivity, especially where environmental gradients are steep (e.g. where variations in altitude are great) or where habitats exhibit zoning (e.g. along land uplift coasts)
- expanding ecological networks into economically exploited areas (e.g. by creating ecological corridors and buffer zones connected to nature reserves, which would require larger-scale planning, encompassing private lands)
- effectively preventing other harmful changes (e.g. actively eradicating invasive alien species, restoring habitats, and steering land use)
- giving special attention to species and biotopes that are scarce or that occur in Finland on the edges of their ranges, especially if they are poorly represented in protected areas
- improving monitoring and indicators for sensitive species, especially those associated with Arctic fells and nutrient-poor waters
- in extreme cases, resorting to reintroductions of species that have disappeared from their natural habitats.

Many of these measures would probably promote the preservation of biodiversity regardless of the rate of climate change and its ecological effects.

By focusing on relevant issues and indicators in ecosystem research and national biodiversity monitoring, data will become available for the assessment of climate change effects (e.g. monitoring Arctic fell and water habitats and their vulnerable species). In the future, extended protected area site condition assessment and the evaluation of management effectiveness will better enable planning of management measures, including on a larger scale.

3 Protected Areas in Finland

Concepts related to protected areas in Finland are used in the context of this document in the following manner:

Nature reserve refers to an area established under the previous Nature Conservation Act (71/1923) or under the present one (1096/1996), by act or decree on state-owned land, or on privately owned land by resolution of the ELY Centre (previously the Regional Environment Centre). Nature reserves are reviewed in Chapters 3.2–3.6.

Protected areas mean nature reserves and also wilderness reserves established under the Wilderness Act (see Chapter 3.7) and other sites reserved for nature protection (see Table 1), which include Nature Conservation Programme sites (Chapter 3.8), Natura 2000 sites (Chapter 3.9), and sites designated in regional land use plans. These Principles of Protected Area Management pertain to state-owned areas governed by Metsähallitus and managed by Parks & Wildlife Finland.

	Neuroben		Area (ha)		
	Number	Total	Land	Water	
National parks	38	983 810	806 213	177 597	
Strict nature reserves	19	153 495	150 630	2 865	
Mire reserves	171	463 387	451 316	12 071	
Old-growth forest reserves	90	9 774	9 494	280	
Herb-rich forest reserves	47	1 133	1 122	11	
Other state-owned nature reserves	336	134 843	94 877	39 966	
Total statutory state-owned nature reserves	701	1 746 442	1 513 652	232 790	
State-owned sites designated in Nature Conservation Programmes	2 234	739 059	609 645	129 414	
State protected forests	405	97 601	81 674	15 927	
Other state-owned protected sites	170	204 668	5 637	199 031	
Wilderness reserves	12	1 489 114	1 377 291	111 823	
Other state-owned areas reserved for nature protection	2 821	2 530 443	2 074 247	456 196	
Private nature reserves (136 sites, 8 712 ha state-owned)	9 506	299 063	131 654	167 409	
Temporarily protected areas	170	1 304	1 299	5	
Habitat protection areas	1 151	2 133	1 734	399	
Species protection areas	202	457	425	33	
Total privately owned protected areas	11 029	302 957	135 112	167 845	
TOTAL PROTECTED AREAS	14 551	4 579 842	3 723 011	856 831	

Table 1. Protected area numbers and surface area in Finland as of 31 December 2014. Source: Metsähallitus.

The **protected area network** includes, in addition to the previously mentioned areas, sites designated in land use plans and other areas reserved for site protection, Natura 2000 sites that are not included in the national protected area network, and certain other areas designated in international conservation programmes and conventions (e.g. Ramsar sites and Baltic Sea Marine Protected Areas; see Appendix 1). Also included in the protected area network are the national hiking areas and protected forests established by Metsähallitus; these are managed by P&WF, applying the same management principles, as appropriate. This definition of protected areas is slightly more limited than that defined by the IUCN (for an explanation, see Chapter 3.2).

Today, Finland's network of protected areas includes areas that differ greatly in terms of their size, location, nature, and protected status, but that complement each other in forming a single coherent entity. It has been possible to designate a network of protected areas that is very extensive and valuable in European terms, and that forms an important part of the global network of protected areas.

The present protected area network of Finland is shown on the map in Figure 2. The wilderness reserves cover half of the network surface, but the established and pending nature reserves are most important for the conservation of biodiversity. The network is being further developed in many ways. Forest protection is enhanced in the METSO programme. A new mire conservation programme is being drafted by a broadly based working group, to be approved by the end of 2015 (see Chapter 3.8).

3.1 Objectives of the protected area network

The aims of protected areas and the role of the network of protected areas have been described in various documents and reports related to legislation on nature conservation and the designation of protected areas. The role of the protected areas network can be defined as follows:

Finland's nature reserves and other protected areas, established under the Nature Conservation Act (1996), form a varied network intended to preserve for present and future generations a suitable number of representative and ecologically viable areas of all the ecosystems and natural habitat types occurring in Finland, taking into account geographical variations and the various stages of natural succession. Protected areas also have a very significant role in achieving and maintaining the favourable conservation status of habitat types and species (for a definition of conservation status, see Chapter 2.2).

The network of protected areas must primarily preserve:

• areas of natural habitat, particularly habitat types characteristic of the Finnish landscape, and habitats, land forms, and features that are endangered.

As part of this aim, or additionally, the following should be preserved:

- natural gene pools and ecosystem diversity
- species, geological and geomorphological features, especially species and features, that are either naturally rare or threatened or declining as a consequence of human activity
- landscapes and habitats shaped by previous generations, including the cultural heritage associated with the Finnish countryside, along with threatened domesticated plant and animal breeds
- the natural succession of ecosystems and other natural processes at various stages
- areas of outstanding natural beauty
- undisturbed wild areas.



Figure 2. Protected area network in Finland as of 31 December 2014. Source: Metsähallitus.

Within the limitations set by the requirements of conservation, the network of protected areas should also aim to facilitate and promote:

- research and monitoring work on the state of the environment
- environmental education, understanding of nature, and interest in nature
- outdoor recreation in harmony with the natural surroundings.

The economic utilisation of protected areas for activities such as ecotourism is possible where it does not endanger the achievement of conservation aims.

3.2 Defining and categorising protected areas

The network of protected areas is growing rapidly both in Finland and throughout the world. On an international level, attempts have been made to create a consistent classification, terminology, and system of agreements. Based on the CBD COP decisions, the Finnish protected area system should also be designed to comply with this global system.

In order to develop and coordinate a coherent global network of protected areas, while also standardising conservation concepts, a comprehensive list of the most important protected areas around the world is maintained. The "United Nations List of National Parks and Other Protected Areas" was set up according to a resolution of the UN General Assembly of 1962. The list is maintained and updated by the World Conservation Monitoring Centre (WCMC) under the UN Environmental Programme (UNEP). The IUCN World Commission on Protected Areas (WCPA) first defined protected area criteria and the protected area management categories in 1994.

The protected area definition and management category application guidelines were updated by the IUCN in 2008. The principles for applying these to the protected areas of Finland were agreed on in a broad-based process with stakeholders, and the guidelines were approved by the Ministry of the Environment in 2013. The official Finnish translation of a protected area and the management categories were also approved by the national IUCN Committee.

All areas reported to the World Database on Protected Areas (WDPA) maintained by the WCMC must comply with the present IUCN definition of a **protected area**:

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

There are seven IUCN protected area management categories in all (see Appendix 2 for the category definitions). Each site complying with the protected area definition is assigned a category based on the conservation and other objectives of the site. In Appendix 3, protected area types are matched with relevant primary and secondary conservation and management objectives. These general objectives are largely integrated into the Finnish Nature Conservation Act and the enactments of specific protected areas.

In Finland, the concept of a nature reserve is defined in the Nature Conservation Act as follows:

A nature reserve is a special area established under the Nature Conservation Act either to preserve an unspoilt area of natural habitat as it stands, or to preserve and maintain or restore certain natural features, natural processes, species, landscapes, or man-made habitats. This protection is permanent and planned with future needs in mind. Other possible land uses must be carried out so that they do not endanger the achievement of conservation aims. According to Chapter 3 of the Nature Conservation Act, nature reserves can be classified as:

- national parks,
- strict nature reserves, or
- other nature reserves.

The general basic conditions for the designation of such protected areas include:

- the occurrence of a threatened, rare, or declining species, ecosystem, or habitat in the area
- the occurrence of breeding or migration sites of species listed in Habitats Directive Annex IV(a)
- the presence of a special or rare natural feature
- the area exhibiting outstanding natural beauty
- the area containing a declining traditional agricultural habitat type
- the preservation of a certain habitat or species in a favourable conservation status requiring the protection of the area
- the area being otherwise so representative, characteristic, or valuable that its protection can be justified in terms of the preservation of biological diversity or natural beauty.

In Finland, certain protected areas cannot, strictly speaking, be considered as nature reserves, if their designation has not been based directly on the nature conservation legislation, even though they may have been designated primarily to conserve nature.

Similarly, other designated areas that partially serve nature conservation aims, but have been designated on the basis of other types of legislation (i.e. eskers protected under the Land Extraction Act, rapids protected under the Act on the Protection of Rapids, national hiking areas protected under the Outdoor Recreation Act, waterfowl preservation areas protected under the Hunting Act, and wilderness reserves protected under the Wilderness Act) cannot in this sense be classified as nature reserves. Certain protected areas established under the Nature Conservation Act itself, such as protected valuable landscapes, cannot be classified as protected nature reserves. Likewise, certain areas included in the Natura 2000 network (see Chapter 3.8) may not necessarily qualify as protected nature reserves as defined in Chapter 3 of the Nature Conservation Act, unless they are separately designated as such.

All the protected area types mentioned above do comply with the IUCN definition of a protected area, however. Each of Finland's protected area types has been given a proposed management category (see Appendix 4 for proposed categories of state-owned areas). The site-specific categories are assigned based on the agreed national guidelines, on designation resolutions, and on site-specific enactments, as well as management plans and objectives. All established state-owned protected areas have been assigned a category, but only a few privately owned protected areas. The assigned categories of state-owned protected areas are approved by the Ministry of the Environment, and those of privately owned sites by the ELY Centres. The IUCN protected area management category is registered in national and international databases (national Protected Area Information System SATJ, European CDDA, and international WDPA).

3.3 National parks

All the national parks designated in Finland up until 1996 were established under the old Nature Conservation Act (71/1923) as special nature reserves, and were legally defined as national parks on their designation. So far, ten new national parks have been established under the new Nature Conservation Act (1996), the last two in 2014 (Southern Konnevesi National Park) and 2015 (Teijo National Park). There are now 39 national parks with a total area of 987,000 ha. The 40th park is planned to commemorate the centennial of Finland's independence in 2017.

The conservation practices in Finnish national parks largely meet international recommendations (see Chapter 3.1 and Appendix 2). National parks and their functions are defined in Finland as follows:

A national park is a large, state-owned nature reserve characterised by its diverse or otherwise significant natural features, and considered valuable at least at a national level. Such an area must also constitute a significant natural attraction or be important in terms of increasing public awareness and interest in nature. National parks should be permanently preserved by excluding economic activities that would disturb nature, and should be maintained in, or restored to, their natural state. Under the 1996 Nature Conservation Act, new national parks must be at least 1,000 hectares in extent.

The most important function of national parks is (1) nature conservation. Conservation is aimed at both the abiotic and biotic original natural features of an area, including species and ecosystems, but may also aim to preserve traditional landscapes shaped by human activity, and the ecosystems and constructions associated with them. National parks may stray from the generally accepted principles of protection where the maintenance of a traditional way of livelihood (such as reindeer husbandry) is concerned, as long as these activities do not result in significant or lasting damage regarding the wider conservation aims.

Within the limitations imposed by the conservation aims, national parks must also contribute to (2) environmental education, instruction, and raising of environmental awareness by providing the opportunity for independent and guided nature observation. National parks should also facilitate (3) scientific research and monitoring of the state of the environment. In addition, they should offer opportunities for (4) outdoor recreation by providing a public open space, and opportunities for hiking and experiencing natural surroundings.

The central aim of the management of national parks is that they should fulfil, as well as possible, all the functions listed above. National parks should therefore be developed towards fulfilling these various functions and providing a wide range of opportunities for their use. The conservation function must be given priority, however, and all other activities must be adapted so that the conservation aims are not endangered. Since there are great differences between Finland's national parks in terms of their size, location, and characteristics, they are developed to cope with different levels of use intensity, accessibility, and visitor numbers. A statutory management plan and site regulation orders are drafted for each national park.

All of Finland's national parks fulfil the criteria of IUCN protected area management category II. However, Lemmenjoki National Park, which is very large (2,850 km²) and wilderness-like, is assigned to category Ib.

All the present national parks are state owned and governed by Parks & Wildlife Finland. The new Nature Conservation Act allows for parcels owned by other public bodies (such as municipalities) to be annexed to national parks. Negotiations for such an annexation to the Bothnian Sea National Park are underway with the city of Rauma, due to be completed by the end of 2015.



Kitsiputous Falls in the Malla Strict Nature Reserve. The Malla Fells, located in northwestern Lapland, were first protected as early as 1916 and the strict nature reserve was established in 1938. Photo: Jari Ilmonen / Metsähallitus.

3.4 Strict nature reserves

Strict nature reserves are general protected areas defined on their designation as strict nature reserves according to the old Nature Conservation Act. Altogether, 19 have been established, with a coverage of 154,000 hectares. So far, no new strict nature reserves have been designated under the 1996 Nature Conservation Act. Previously existing regulations on the protection of strict nature reserves have been transposed into Section 13 of the 1996 Act, but various exceptions set out in the earlier decrees designating strict nature reserves areas are still in force.

Under the 1996 Nature Conservation Act, strict nature reserves must have a significant role in guaranteeing the continuation of natural succession, and in scientific research or education. In strict nature reserves, visitors may only leave the marked paths, roads, or areas with the permission of the authority or institute responsible for the administration of the reserve. Numerous exceptions to this strict protection have been decreed, however.

Although the old Nature Conservation Act expressed an attempt to preserve strict nature reserves untouched, this cannot be considered as the sole aim of the management of strict nature reserves – and this was not the intention behind their designation. Several strict nature reserves contain valuable habitat types and traditional agricultural habitats whose protection requires continuous management, although such areas make up only a small part of the total area of strict nature reserves.

Strict nature reserves resemble national parks in that they are nationally significant and typically extensive and diverse protected areas. Their role is, however, somewhat different. In strict nature reserves, the conservation and research functions are more dominant. Opportunities for environmental education and instruction are limited to a few reserves, and even in these they are constrained according to the requirements of nature conservation.

In the international IUCN classification system for protected areas, Finland's strict nature reserves mainly come under category Ia. Karkali Strict Nature Reserve is a small herb-rich forest area that needs repeated management measures to maintain the habitat, and as such, is a typical category IV site.

3.5 Other state-owned nature reserves

Other state-owned nature reserves vary greatly in their size, characteristics, conservation aims, and management objectives. Most of the "other" nature reserves have been established under the old Nature Conservation Act. The nature conservation objectives and regulations are stated in the relevant designation documents, and site-specifically in establishing enactments. For those nature reserves that are established under the present Nature Conservation Act, the provisions concerning national parks and strict nature reserves apply as far as applicable. There is a very large number of pending nature reserves designated in the National Nature Conservation Programmes, to be established statutorily by 2020 (see Chapters 3.8 and 12.1).

Mire reserves (171 sites, with a total area of 462,000 ha) are special nature reserves defined as protected mires on their designation under the old Nature Conservation Act. Mire reserves were established in the 1980s primarily to protect peatland habitats, flora, and fauna. They are intended to preserve peatland species and examples of the peatland ecosystems they form, along with their associated geomorphological features and landscapes.

All peatland habitats within the protected mires are preserved as close to their natural state as possible. An essential aspect of this protection is that paludification and other natural processes should be allowed to continue undisturbed. The decrees establishing many of these mire reserves originally permitted forestry, within certain conditions, on areas of mineral soil within the designated area. However, following a decision made by Metsähallitus in 1994, forestry has been abandoned in protected mires.

Under "everyman's right", the freedom to walk, camp, pick berries and mushrooms, fish and hunt (in accordance with associated legislation), and otherwise enjoy the natural surroundings can only be restricted where these activities endanger the conservation aims of the mire reserves (this concept of public right of access is explained in more detail in Chapters 8.3-8.4). To facilitate conservation, facilities or services to attract visitors are only provided in a few protected mires – mainly those near built-up areas or alongside well-used roads and paths. Possible restrictions are stated in site regulations. Regulation orders have been issued for half of the mire reserves.

Scientific research may be carried out in mire reserves. Indeed, such studies are especially important for the purposes of comparative studies when the environmental impact of forest drainage or peat extraction on hydrology is being assessed.

Old-growth forest reserves (90 sites, total area of 9,800 ha) were established in Southern Finland by decree in 1994. Forestry is naturally prohibited. Otherwise, the site regulations are similar to mire reserves, but making open fires and camping are prohibited.

Herb-rich forest reserves (47 sites, total area of 1,100 ha) were established by decree in 1992. The nature conservation objective is to preserve representative examples of herb-rich forest in the different vegetation zones, and to manage these so that their biologically valuable characteristics are maintained. Freedom of access is allowed, but making open fires and camping, as well as hunting, are prohibited.

Seal reserves (7 sites, total area of 18,800 ha) were established in state-owned waters by decree in 2001. These nature reserves have particularly been designated to protect Baltic grey seals and their habitats in the Baltic Sea, but some reserves will also benefit the populations of the Baltic ringed seal. Access is prohibited in the immediate proximity of the reserves and hunting is completely forbidden within the sites. The designated seal reserves also facilitate scientific research and monitoring. The protected islands and the surrounding waters also host other valuable marine ecosystems. The seal reserves are all fully or partly protected within the Natura 2000 network.

In addition to the protected area types described above, various other types of nature reserves have been established on state-owned lands. They may be subject to strict conservation legislation similar to those applied in strict nature reserves (e.g. Annalonji). They may also contain cultural heritage landscapes requiring continuous management (e.g. Telkkämäki). In some areas, management is directed primarily at maintaining the outstanding natural beauty of the landscape (e.g. Vehoniemenharju).

Friendship Park is a group of five nature reserves on the Finnish side of the border, and the Kostamus Reserve on the Russian side, established through a joint agreement between Finland and the Soviet Union in 1990. In addition to protecting the area's flora, fauna, and natural ecosystems, this project was intended to promote cooperation in the fields of nature conservation, the sustainable use of natural resources, and long-term scientific research and monitoring work.

Other state nature reserves may be assigned to any of the IUCN protected area management categories. Extensive areas (of over 1,000 hectares) that have few visitors and threats, and no need for intervention measures, may comply with category Ia or Ib definitions. Small sites, situated close to habitation or roads, those subject to human interference or needing active management measures, and with (defined) natural values, are typically category IV sites. Proper management plans or operational plans for management measures are drawn up for these nature reserves when deemed necessary.

3.6 Private nature reserves and other protected sites on private lands

Private nature reserves are established on privately owned land based on the Nature Conservation Act. The landowner can be a private citizen, estate, enterprise, association, foundation, congregation, or municipality, for example. Private nature reserves have been established since the 1920s and 30s. At the end of the year 2014, there were 9,500 sites established, with a total area of 300,000 hectares. Some of these sites have since been acquired for the state, but retain their original designation status.

The ELY Centres (earlier the Regional Environment Centres) are responsible for establishing private nature reserves and marking them on the ground. Enactment resolutions indicate the sitespecific provisions (i.e. conservation objectives, use restrictions). ELY Centres also coordinate management of private nature reserves, but the role of Metsähallitus Parks & Wildlife Finland as an active participant in management measures, working together with landowners, has increased in recent years. Because of the great number of private sites, the data management involved has been difficult. This situation has been much improved since the new Protected Area Information System was launched (see Chapter 5.4).

In addition to permanent private nature reserves, temporary reserves may be established, normally for 20 years, by contract between an ELY Centre and a private landowner. These are based on the Nature Conservation Act. ELY Centres also define, make resolutions on, and define the boundaries of statutory protection sites for habitats and species on private lands. A number of these kinds of resolutions have also been made for sites within state-owned commercial forestry areas.

3.7 Wilderness reserves

In 1991, twelve wilderness reserves were established in Lapland, based on the Wilderness Act. Their total surface area is close to 1.5 million hectares (equalling 15,000 km²). Wilderness reserves were established to preserve their wilderness-like nature, to safeguard Sámi culture (see Chapter 7.5) and subsistence livelihoods, and to develop the diverse use of nature and its potential. They also have an important role in maintaining biodiversity, and they are included in the Natura 2000 network. All of the wilderness reserves are managed by Metsähallitus P&WF.

The Wilderness Act places fewer restrictions on land use than the Nature Conservation Act on nature reserves. However, mining, building of roads, and granting of land use rights (for other reasons than subsistence livelihoods or official duties of military and other authorities, or contracts involving use of recreational or other infrastructure) are subject to Government resolution. In principle, the Wilderness Act allows restricted forestry practices in five of the wilderness reserves, but since the 1990s, Metsähallitus has resolved to leave all of them entirely outside forestry use, in accordance with the requirements of the Habitats Directive. Besides the Wilderness Act, management and use of the wilderness reserves is directed by other legislation – such as Acts on fishing, hunting, off-road traffic, and reindeer husbandry. Reindeer herding is practised throughout the entire extent of the wilderness reserves.

The wilderness reserves fulfil the IUCN protected area definition specified in 2008, and these areas are now included in category Ib, in accordance with the agreements reached with Nordic protected area managers in 2012 and with stakeholders in 2013. A statutory management plan is drawn up for each of the wilderness reserves following the same requirements as are valid for nature reserves. Within the Sámi Homeland, planning processes follow the so-called Akwé: Kon guidelines that have been defined in the context of Article 8j of the CBD (see Chapter 5.6 for details).

In 2010, the Finnish Environment Institute carried out an evaluation of the nature conservation legislation in Finland, and recommended updating the Wilderness Act. No decisions on commencing this work have yet been made.

3.8 Sites designated in Nature Conservation Programmes

The national **Nature Conservation Programmes** are Government resolutions that define the sites specified in each programme, as well as the conservation measures by which the conservation objectives of the programmes are to be reached. In the years 1976–1996, seven Nature Conservation Programmes were approved (see Table 2).

These programmes are implemented by establishing nature reserves on state-owned land by act or decree, by acquiring privately owned land for the state for this purpose, or by establishing nature reserves on privately owned land. Corresponding procedures are involved when realising the con-

servation objectives of the Natura 2000 network sites that are not included in the older national Conservation Programmes. Financial support for implementation of the Nature Conservation Programmes was granted by Government resolution in 1996 and extended until 2006. In most parts of the country, implementation was completed by this time. Financial support was extended for another three years, but implementation of the last programme sites has been ongoing even thereafter. Most of the remaining sites are included the Waterfowl and Shoreline Conservation Programmes.

Table 2. Nature Conservation Programmes in Finland.	Source: Ministry of the Environment. The Council of State
decisions and supplementary decisions made between	1976 and 2012.

Nature Conservation Programmes	Council of State Decisions
National Parks and Strict Nature Reserves Development Programme	1976, 1980, 1985, 1988
Mire Conservation Programme	1987, 1991
Waterfowl Habitats Conservation Programme	1982
Shoreline Conservation Programme	1990
Herb-rich Forest Conservation Programme	1989
Old-growth Forest Conservation Programme	1993, 1995,1996
Esker Protection Programme	1984
Natura 2000 Sites (SCI, SPA)	1998, 1999, 2002, 2004, 2005, 2006, 2012

SCI = European Union (EU) Site of Community Importance,

SPA = EU Special Protection Area

A Supplementation Programme for Mire Conservation is being finalised by the Ministry of the Environment. The aim of the programme is to improve the state of mires and their protection. Despite completion of the earlier Conservation Programmes approved in 1979 and 1981, the state of mires is poor, particularly in Southern Finland. Inventories and conservation criteria have been used to define sites of national value on both state-owned and private lands. Over 36,000 ha of state-owned sites have been proposed for protection in the programme in 2015. Voluntary protection of privately owned sites is promoted.

The **Forest Biodiversity Programme METSO** (2008–2025) aims to halt the ongoing decline in the biodiversity of forest habitats and species, and to establish stable favourable trends in Southern Finland's forest ecosystems. The objective of the programme is to ensure that Finnish forests will continue to provide suitable habitats for threatened and declining species. The preliminary phase began in 2003 and the first phase in 2008. The METSO programme was extended in 2014 by Government resolution, to continue until 2025.

The METSO programme covers both private and state-owned lands. The programme involves measures to enhance the protected area network and to develop sustainable management of commercial forests. Conservation is based on landowners' voluntary motivation to safeguard the biodiversity in their forests. It is a collaborative effort between the Ministry of the Environment, the Ministry of Agriculture and Forestry, the Finnish Environment Institute, and the Finnish Forest Centre. The aim of the METSO programme is to protect a total of 96,000 ha of valuable forest sites, either by acquiring them for the state or by establishing permanent statutory nature reserves or temporary ones (for 20 years) by means of contracts with landowners. Voluntary contributions are compensated. By the end of 2014, a total of 17,000 ha had been acquired for state ownership as designated protected areas, and 18,000 ha established as private nature reserves. 10,000 ha of state-owned forestry area, fulfilling conservation criteria, has been selected for protection in 2009. Another 13,000 ha was chosen for permanent protection and agreed on in 2014.

At the end of 2014, Parks & Wildlife Finland governed 2,200 protected sites (740,000 ha) designated in the National Nature Conservation Programmes, and several hundred other sites reserved for conservation that were due to be established as nature reserves or annexed to existing nature reserves. An estimated 1,600 new nature reserves will be enacted by 2020. Most of these are small in area, with exceptions being certain coastal sites of the Shoreline Conservation Programme and old-growth forest sites in Northern Finland. The enactment process to establish nature reserves is described in detail in Chapter 12.1.1.

The designated sites are ultimately assigned IUCN protected area management categories during the enactment process. Most of the small southern protected sites, including those in the METSO programme, are designated for the conservation of valuable habitats, and thus will typically be assigned to category IV.

3.9 Natura 2000 sites

The Natura 2000 network is designed to protect important declining habitat types and endangered species within the European Union, as well as habitats important for wild birds. The habitat types and species of community importance are listed in the annexes of the Habitats and Birds Directives. Within the present 28 member countries, there are more than 200 such habitats and almost 1,200 species. Of these, 69 habitat types and 132 species occur in Finland. The Natura 2000 network is to include areas designated by Finland for the conservation of wild birds as special protection areas (SPAs) under the Birds Directive, and also areas approved by the EU Commission under the Habitats Directive as sites of community importance (SCIs).

The Government submitted initial proposals for Finland's Natura 2000 network to the EU in 1998, and supplementary proposals were added in 1999, 2002, and 2004. The EU Commission made a final decision in December 2003 on areas to constitute the Alpine Region of the Natura 2000 network, including 19 areas in northern Finnish Lapland, with a total extent of 1.79 million hectares. Other parts of Finland lie within the Boreal Region. The Commission made a decision on Boreal sites in 2005, but the network was further supplemented in 2005, 2006, and 2012. Finland's present network consists of 1,865 areas that meet the criteria within the Birds Directive or the Habitats Directive, with a total extent of about 56,000 km² – amounting to 14.3% of the country's total area (Figure 3).

SCIs are to be established as special areas of conservation (SAC) within six years of being approved by the EU Commission. The approved SCIs were established as SACs in spring 2015 by the Ministry of the Environment Decree on Areas Designated in the Natura 2000 Network (354/2015). To be clear, Natura areas designated as SPAs were also listed in the Decree. The SCI/SACs and SPAs may overlap partly or completely.

The areas approved for the Natura network in Finland largely coincide with existing nature and wilderness reserves, and sites designated in National Nature Conservation Programmes. The network also protects natural habitats that had previously been inadequately protected, including

aquatic ecosystems in coastal waters and archipelagos, lakes, major rivers, smaller water features, rocky habitats, and cultural landscapes.

Almost 80% of the total area of the Natura 2000 network in Finland is owned by the state and governed by Metsähallitus P&WF. A total of 200,000 ha of privately owned land will be established as private nature reserves, or the land will be acquired by the state for protection. Another 800,000 ha will implement other conservation measures. The protection of Natura sites may be based on legislation (including the Nature Conservation Act, Wilderness Act, Outdoor Recreation Act, Forest Act, Water Act, Building Act, and Land Extraction Act), on administrative orders, or on voluntary agreements. Activities that do not threaten the natural features under protection may be practised. In areas adjacent to Natura sites, activities potentially affecting site values are to be assessed.

Natura 2000 sites in Finland comply with the IUCN definition of a protected area. However, the protected area management category is only assigned to national site designations included therein, not to all Natura sites as separate entities. Some Natura sites are also included in other international protected area networks, such as those of the Ramsar and HELCOM Conventions.

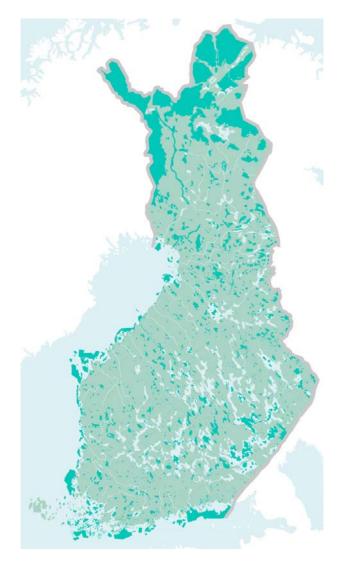


Figure 3. The Natura 2000 site network in Finland. Source: Metsähallitus.

4 Basis of Protected Area Management

The basis of protected area management and use varies according to the site and type of site. As shown in Figure 4, the information, documents, and guidelines that direct protected area management include the Nature Conservation Act and other general legislation, as well as site-specific establishing enactments and the provisions therein, the conservation objectives of Natura 2000 sites, these Principles of Protected Area Management, site-specific management plans, and other land use plans, as well as research and monitoring information.



Figure 4. The main aspects of management in state-protected areas.

4.1 The Nature Conservation Act

The Nature Conservation Act (1096/1996) is the central legislation on the protection of nature and landscapes in Finland. Several amendments have been made to the Act and the decrees based on it. The Act contains the definitions of different types of nature reserves and their general provisions. The Act also gives provisions on management plans, issuing regulation orders, marking borders, and so on. There are also general provisions concerning nature conservation outside protected areas, pertaining to habitat types and species, for example.

4.2 Conservation objectives of the Natura 2000 sites

In Finland, the EU Habitats and Birds Directives are primarily implemented by the Nature Conservation Act (1096/1996), which includes provisions pertaining to the Natura 2000 network. Most of the established nature reserves, wilderness reserves, and pending sites designated in the Nature Conservation Programmes are also designated as Natura 2000 sites. Consequently, the provisions of the directives must be adhered to and taken into account in management of the Natura sites and also in land use activities outside the sites. Recent amendments (2014) to the Nature Conservation Act have specified administrative procedures to control activities potentially significantly harmful to the natural features for which the Natura sites have been designated.

According to the Nature Conservation Act, the site-specific conservation objectives are based on the Natura 2000 Standard Data Form (SDF). When establishing nature reserves or making other decisions on relevant activities, the authorities must promote activities targeted at maintaining or improving the ecological requirements of the habitat types and species listed in the forms (in the Natura 2000 database).

The necessary conservation measures for each Natura site are primarily based on the legislation chosen for its implementation. This has been documented in the Government proposals for the sites. The bulk of the sites designated in the network are already designated as national protected areas based on the Nature Conservation Act and the Wilderness Act. The Natura 2000 conservation objectives will also be implemented by provisions of other legislation, as listed previously (see Chapter 3.9). In management planning and other decisions concerning the sites, emphasis must be placed on the ecological requirements of the habitat types and species for which the sites are established.

The general conservation objective of any Natura 2000 site is to support maintenance of the favourable conservation status within the site. More specifically, site conservation objectives focus on the need to pinpoint active measures to maintain or improve the state of habitat types or species. In connection to updating the Standard Data Forms in 2014, general site conservation objectives were defined using one or more of the following statements:

- The prevailing state of habitat types and species, as well as their environments, will be preserved by securing site development by natural processes.
- The prevailing state of habitat types and species, as well as their environments, will be preserved by directing site use.
- The prevailing state of habitat types and species, as well as their environments, will be preserved by active management measures.
- The extent of a habitat type, species' living environment or population will be increased by restoration and management measures.
- The quality of a habitat type or species' living environment or the vitality of a species' population will be enhanced by restoration and management measures.

Conservation objectives and measures for habitat types and species at each Natura 2000 site are defined in connection to site condition assessments (NATA) and management planning at different levels. For most of Finland's Natura 2000 sites, the conservation objective is to maintain the naturalness of the site. No active intervention or management measures are needed. Establishing statutory nature reserves and securing natural development by site provisions is sufficient.

4.3 Protected area enactments and the Nature Conservation Programmes

On established state-owned nature reserves, the document primarily directing management and use of the site is the establishing statute (act or decree), and correspondingly on wilderness reserves, the directing document is the Wilderness Act. These statutes formulate the conservation (and other) objectives, as well as prohibited and permitted activities. The Wilderness Act, for instance, defines the objectives of a wilderness reserve: to preserve the wilderness-like character of the areas, to safeguard the culture of the indigenous Sámi and the local subsistence livelihoods, and to develop the potential for diversified [sustainable] use of nature.

The new Nature Conservation Act (1096/1996) gives very specific provisions concerning national parks and strict nature reserves. These are also applied to other nature reserves as far as feasible. Specific regulations are given in site-specific decrees. The establishing statutes of protected areas designated under the previous Nature Conservation Act (1923) remain in force. These have been issued over a long period and are quite varied. It is thus important to be familiar with the site-specific documents.

For sites not yet established as statutory nature reserves, management direction is to be found in documentation of the relevant specific Nature Conservation Programmes. These committee reports define the general conservation objectives and the activities potentially harmful to the designated sites. State authorities are obliged to see that other activities do not hinder implementation of the objectives of the Nature Conservation Programmes. The principles defined in enactments of already established nature reserves may be used to support management decisions on similar sites within the same programme.

4.4 Management plans

A management plan is statutorily drawn up for all national parks, wilderness reserves, and national hiking areas. For strict nature reserves and other nature reserves and protected sites, a management plan is drafted if this is seen as necessary. A management plan is composed in order to "organise" the management and use of a site, and to elaborate on the measures needed to attain the conservation and other objectives of the designated area. The Ministry of the Environment approves management plans for national parks and wilderness reserves. Most other plans are approved by the director of P&WF.

Management plans are also quite frequently drafted for sites not yet statutorily established. In this case, the objectives are usually stated in the relevant Nature Conservation Programmes, and the management plans serve the enactment process by focusing on issues needing provisions. More and more management plans are drawn up for an extended area, including several established protected sites and sometimes also sites not yet established as proper nature reserves. Nowadays, planning areas mostly follow the borders of Natura 2000 site designations.

Protected area management plans define the strategic choices and development directions for a given site for 10–20 years. A management plan defines the zoning of different land uses (conservation, recreation, etc.) and the placement and volume of management activities, as well as the timetable and monitoring of implementation and impact. The plan also presents the baseline information needed for management decisions, including analysis of natural and cultural values and the threats and pressures affecting them. More detailed management resolutions are defined in short-term operational plans, which are generally drawn up for prescribed habitat restoration activities and for the construction of visitor infrastructure. These types of plans are often needed for sites even if a proper management plan is not required.

Some sites are designated within protected area networks of international conventions and programmes. These special designations include sites on the UNESCO World Heritage List and in the Man and Biosphere Programme, Baltic Sea Marine Protected Areas, and Ramsar Convention sites (see Appendix 1). The objectives and obligations of these programmes need to be taken in account when planning management of the sites.

Today, the process of management planning of protected areas is preceded by the Natura 2000 site condition assessment of sites that are included in this network (which, in Finland, pertains to most state-owned protected areas). The assessment procedure is explained in Chapter 5.3.

4.5 Site regulation orders

Protected area site regulation orders are statutorily drawn up for national parks and national hiking areas and, if necessary, also for strict nature reserves and other nature reserves. This document outlines the rules and restrictions of use or movement in certain parts of the nature reserve and/or during a certain time period. These restrictions must be based on conservation priorities, such as threatened plant occurrences or bird breeding places and/or times. The site regulation orders are tied together with management plans and are approved by the director of P&WF.

Not all protected areas need a management plan or site regulation orders. A management plan is drawn up for wilderness reserves, but no regulations are required. Other sites need only regulations - some southern mire reserves, for instance - in order to direct hunting, for example.



Hossa in Eastern Finland will be established as the 40th national park in 2017 to commemorate the centennial of Finland's independence. Photo: Eero Vilmi / Vastavalo.

4.6 Broad-scale planning of landscapes and seascapes

The proportional land cover of protected areas is very different in Southern Finland, where population density is bigger and protected sites are small, than it is in northern Finland, where population density is quite low and protected area coverage is very extensive. This being the case, the role and significance of protected areas and their management planning is also very different in the broader land use planning processes.

In the context of this document, these broad-scale planning processes refer to the National Land Use Guidelines and to land use planning according to the Land Use and Building Act, to natural resource planning of state-owned lands executed by Metsähallitus, and to marine spatial planning, which methodologically has only recently been introduced into the regional planning palette. These processes help to integrate protected areas with the land use and activities of surrounding land and seascapes. The broad-scale plans and the decisions made in connection them also need to be taken into account in the planning of protected area management and use.

General master planning of Natura 2000 and national protected area networks at regional level is discussed in Chapter 5.2 and broad-scale nature tourism planning in Chapter 8.1. Unlike the broad-scale planning processes described in the following, these planning procedures focus predominantly on the specific protected areas, not so much on the land use of the entire region surrounding them.

4.6.1 National Land Use Guidelines and plans, natural resource plans

The Government sets the National Land Use Guidelines; these were last updated in 2008. Objectives promoted through the Guidelines include the preservation of national cultural landscapes and built heritage, and of valuable natural areas and their biodiversity, as well as the enhancement of nature recreation and cultural tourism. The Guidelines also define "special natural landscapes" in the coastal and lake regions, as well as in the fell region of Lapland. Metsähallitus has a prominent role in safeguarding the natural and cultural environments of all these landscapes.

Regional land use plans and local master plans define the main features of land use policy. The regional land use plan is a map prepared according to the Land Use and Building Act, displaying the region's land use and community structure plans. It outlines building and environmental development in the coming decades. The regional plan provides instructions on municipal land use planning and other official activities that affect land use. Regional land use plans are drawn up by the regional councils and confirmed by the Ministry of the Environment. These plans also take a stance on land use both inside and outside protected areas. As an authority defined in the Land Use and Building Act, Metsähallitus is obliged to adhere to ordinances of legally binding land use plans. To ensure the preservation of natural and landscape values in protected areas, it is essential that P&WF takes part in land use planning and other advocacy processes (see also Chapter 12.4).

Natural resource planning is long-term multi-objective planning of state-owned lands and waters that involves defining the regional focus and scale of operations and the development of local ecological networks. These plans also set the direction for management and use of protected areas (nature tourism focus, habitat restoration, and management planning needs etc.). Protected sites and their surrounding state land holdings are scrutinised on a broad scale as a single entity. A landscape ecological plan is formulated for subsections of the whole planning area. The planning methodology has been used since the 1990s and includes many elements of the ecological approach described above (see Chapter 2.5).

Metsähallitus has completed several rounds of natural resource planning (1997-2001, 2002-2008). Seven large-scale plans cover the whole country and all state-owned land holdings that are governed by Metsähallitus. Each plan is valid for ten years and has a mid-assessment and update, where necessary, after five years. The most recent natural resource planning round commenced at the end of 2014.

4.6.2 Marine spatial planning

Marine spatial planning is an important tool in the development of integrated marine policy in Europe (see Chapter 2.3). Common principles for comprehensive planning have been developed to incorporate activities such as marine transportation, energy production, fisheries, hunting, and environmental protection.

In July 2014, the European Parliament and the Council adopted legislation to create a common framework for maritime spatial planning in Europe. While each EU country will be free to plan its own maritime activities, local, regional, and national planning in shared seas will be made more compatible through a set of minimum common requirements. Within the Baltic Sea area, common principles and a road map for integrated marine spatial planning has been formulated under HELCOM.

In the Finnish National Marine Strategy (2013), the related activities include the development of legislation and guidelines, monitoring, and communication. Marine spatial planning follows the ecosystem approach and is based on best available information on underwater biodiversity and ecosystem services, as well as on the spatial and temporal distribution of human-induced pressures. Marine planning should be seamlessly integrated with terrestrial land use planning. The direct and cumulative effects on the marine environment of land use in the entire watershed area is to be taken into account in these planning processes. Directing the placement of activities such as fish cultivation, wind-power construction, and gravel extraction from the sea bottom in regional land use plans helps to minimise environmental impacts. Through broad-scale planning, it is also possible to ensure a protected area network that secures the natural distribution of marine ecosystems, habitats, and species, thus enabling sufficient levels of marine biodiversity conservation to meet targets of the European Marine Strategy.

Many of the valuable coastal habitat types have developed through human interaction over a long period of time, and their survival will require traditional land use and the preservation of local culture. Parks & Wildlife Finland needs to work together with local stakeholders to find solutions for preserving the natural and cultural environment, as well as for retaining local livelihoods (see also Chapter 7.6). The complex mosaic of land ownership and multiple stakeholders renders co-operation very challenging. By taking a broader regional view in management planning, it is possible to examine, for example, the development of nature tourism and recreation opportunities in an ecologically and culturally sustainable way.

4.7 Other legislation

In addition to the Nature Conservation Act and Wilderness Act, and the already mentioned Land Use and Building Act, other legislation pertains to the management of protected areas. Some of the most relevant statutes are (see Appendix 5 for a more complete list):

- Antiquities Act (295/1963)
- Hunting Act (615/1993)
- Fishing Act (286/1982)
- Skolt Sámi Act (253/1995)
- Reindeer Husbandry Act (848/1990)
- Act on Financing of Reindeer Husbandry and Indigenous Livelihoods (45/2000)
- Off-road Traffic Act (1710/1995)
- Mining Act (621/2011)
- Private Roads Act (358/1962)
- Public Water Rights Act (204/1966)
- Real Estate Formation Act (554/1995).

Fishing, hunting, and subsistence livelihoods are elaborated in Chapter 10 and other use of protected areas in Chapter 11. The formation of nature conservation real-estate units is covered in Chapter 12.

4.8 Principles of Protected Area Management and other guidelines

The management of protected areas complies with the management principles explained in this guidance document, which is approved by the director of Parks & Wildlife Finland. These principles guide the activities, in particular, on sites not yet established statutorily and often still lacking a management plan. In addition to these management principles, P&WF has drawn up other guidelines to direct the management and use of protected areas. Examples of these are the Principles of Sustainable Nature Tourism and the Principles of Visitor Infrastructure Construction (see Chapter 8, and Appendix 6 for a list of others).

4.9 Research and monitoring

Directing the management and use of protected areas requires adequate site-specific basic data, as well as other science-based background information. The compilation of necessary basic data is still incomplete, and information is supplemented continuously while simultaneously developing the information management and information systems (see Chapter 5.4).

Monitoring information is gathered continuously on the management effectiveness and on the condition and status of protected areas. Monitoring is focused on many topics and undertaken at many levels (see Chapters 5.3, 9.1.2 and 9.2.2). Achievement of the targets set in the protected areas management plans is monitored through indicators and metrics. These are also used in periodic assessments of the need to update the plans. In the most important nature tourism areas, the ecological and socio-economic impact is monitored in a uniform manner. The conditions of indicator species, as well as vegetation changes, are monitored continuously, and visitor surveys are undertaken at regular intervals.

5 Adaptive Management of Protected Areas

5.1 Adaptive management framework

In the adaptive management framework, management planning of protected areas and the implementation of measures are closely linked to the operational environment (see Figure 5). The state of protected areas is assessed, considering their natural, cultural, and recreational values and the ecosystem services provided by the areas, as well as the factors affecting these values and services. The achievement of the long-term objectives that are set out for management and use is monitored. The effectiveness of management is assessed in relation to broader goals, such as the natural habitat types and species remaining viable in the long term (favourable conservation status). This concept framework has been integrated into the protected area management work of Park & Wildlife Finland by long-term development of planning and monitoring practices.

The idea in adaptive management and planning is to take advantage of all the available information. It applies the latest research and monitoring information, and uses feedback from the local communities and stakeholders, as well as the users of protected areas and their services. It also involves learning best practices through experience and cooperation, and duplicating them actively in operational practice. Potential problems are addressed through systematic auditing; by solving them, the performance quality is improved.

Operating in a complex and ever-changing environment – where other parties are also developing their own operations – means that no complete and ultimate knowledge about protected area values, their state, or the factors affecting them, is attainable. Thus, continuous testing of new ideas is needed in management and planning. Effects must be monitored and actions adapted through accumulated knowledge and learning.

The idea of 'continuous improvement', embedded in the adaptive management concept, is also a key feature of the Metsähallitus **environmental management system**. Within the environmental management system, environmental aspects and risks are first defined. On the basis of these environmental goals, the operational objectives are set. The different elements of the environmental management system (aspects and risks, goals and objectives) are reviewed annually, based on monitoring the achievement of the objectives, and on audits and other feedback.

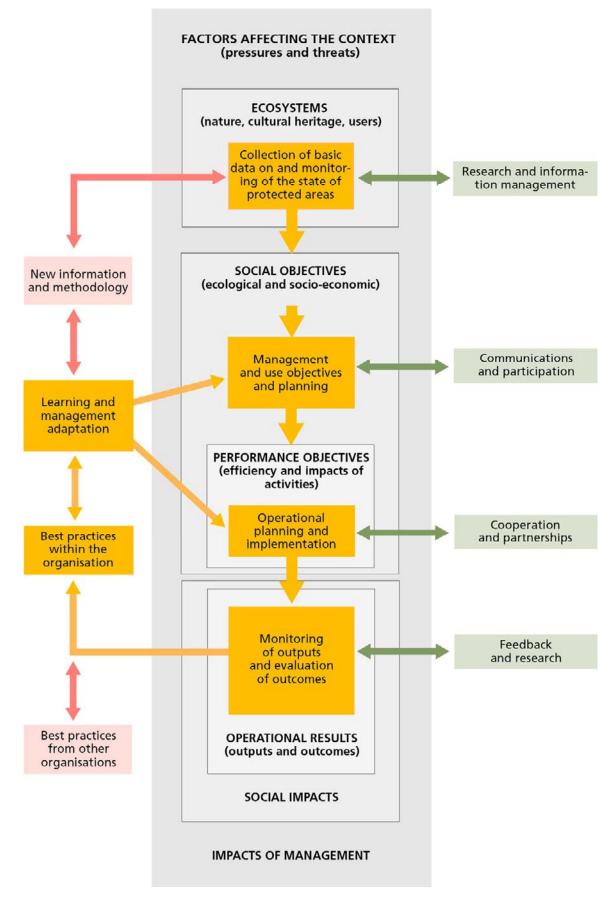


Figure 5. Protected area adaptive management framework.

5.2 Protected area management planning

Management planning of protected areas is a multi-level framework - the main elements are shown in Figure 6. Master planning, site management planning, and operational planning are primarily planning processes, although they also involve monitoring, which is elaborated in Chapter 5.3. The Natura site condition assessment (NATA) is primarily an evaluation and monitoring process, but it is also closely linked to the entire planning framework due to its role in evaluating planning needs at different levels. The conservation and other measures required in protected areas are primarily defined through management and operational planning, but assessment of needs for action also takes place in the NATA evaluations.

The operational processes contained within the planning framework are incorporated into the SASS information system. These processes include regional master planning, site-level management planning, and NATA assessments, as well as work programming of the latter two. In practice, operational planning is executed in separate GIS systems that have been designed for information management on habitats and built infrastructure (see Chapter 5.4).

Management planning at site level is the core protected area planning process. The actual management plan is presented in Chapter 4.4. Guidance on the management planning was revised entirely in 2009, when the presentation of the plan was also formalised. This heralded the transition from paper-based to data-based protected area planning.

A site-specific plan for management and use is to be drawn up for all protected areas, "when necessary". Planning needs were initially assessed regionally in Natura 2000 master plans by the ELY Centres (formerly Regional Environment Centres) a decade ago. P&WF (then NHS) compiled a national work programme for Natura 2000 site management planning in 2008, using these master plans.

Operational plans are drafted to specify concrete measures in protected areas that have been prescribed in management plans. In some areas, such as small private protected areas, operational plans alone are sufficient.

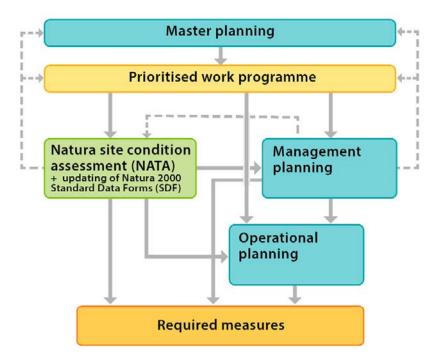


Figure 6. Management planning framework.

Natura site condition assessments (NATA) involve evaluation of much the same site information that is used in more extensive management planning. In fact, these assessments are nowadays also carried out in connection with the management planning process. For this reason, the NATA assessments, as such, can be used as a "means of implementation" of the required conservation measures on Natura 2000 sites, where more elaborate management planning is not considered necessary. As these assessments are ultimately meant to cover all the individual Natura sites, the needs for active conservation measures and planning in the entire Natura 2000 network will eventually be mapped out. The NATA process is further explained in the following chapter (5.3).

Master planning at regional level has recently also been developed into a formalised data-based procedure, ideally including assessment of private protected areas. As a result of the master planning, it will be possible to compile a prioritised work programme for management planning and NATA-assessments several years in advance. In addition to assessing the required management measures, the process includes an analysis of the state and development of regional protected area networks. Regional network assessments form the basis for evaluation of the protected area network at national level. A new round of master planning is commencing in 2016, led by the ELY Centres in cooperation with P&WF.

5.3 Protected area monitoring and evaluation

Adaptive management and management planning require monitoring of protected areas to support them. In the international Protected Area Management Effectiveness (PAME) framework, the monitoring and evaluation of protected area condition is assessed at regular intervals. Assessment involves evaluation of the efficiency and impact of implemented management measures and the need for revisions. In this way, systematic updating of monitoring information supports adaptive management and planning.

In practice, protected area assessment and monitoring consists of several complementary elements:

- 1. Continuous monitoring of protected areas (PAs) and the PA network using indicators and key figures
- 2. Natura site condition assessment (NATA) and updating of Natura Standard Data Forms (SDF)
- 3. Management effectiveness evaluation (MEE) of national parks
- 4. Monitoring of implementation and the effects of measures laid out in management and operational plans
- 5. Monitoring of sustainability of nature tourism (against set limits of acceptable change, LAC)
- 6. Monitoring and reporting of international sites (Ramsar and HELCOM Conventions)
- 7. Assessment of regional PA networks in connection with master planning
- 8. State of the Parks reporting: regular reports on the national PA network, which may include evaluation by national and international experts
- 9. Habitats and Birds Directives implementation reporting: the role of Natura 2000 sites (the next assessment is due in 2019, focusing on the years 2013–2018)
- 10. Programme of Work on Protected Areas implementation reporting: every 3–4 years, as part of Convention on Biological Diversity (CBD) reporting at national level.

Site-specific monitoring (2-6) forms the basis of much of the network-level assessment and evaluation of protected areas (7-10). Aspects of both the national protected area designations and the Natura 2000 network are documented and reported, following commitments to national strategies and international agreements. The newly constructed protected area information systems will play a central role in this monitoring.

Natura site condition assessments (NATA) have growing significance in site monitoring. Assessments are executed by Parks & Wildlife Finland in cooperation with the ELY Centres in a continuous manner, taking several dozen to hundreds of sites under scrutiny each year, with the ultimate aim of assessing each site and the whole network regularly in a cycle (at 6-12 year intervals).

NATA assessments involve defining the key on-site natural, cultural, and use values and their status, the pressures and threats having an impact on them, as well as the measures and planning needed to maintain these values or restore them to the target condition (see Figure 7). A menu of the key value types, as well as the attributes and indicators that are used in protected area assessments, are presented in Appendix 7. Key values are one way of depicting ecosystem services on a site, and impact assessment is a method of analysing conflicting use pressures directed at the natural environment and resources (see Chapter 2.6).

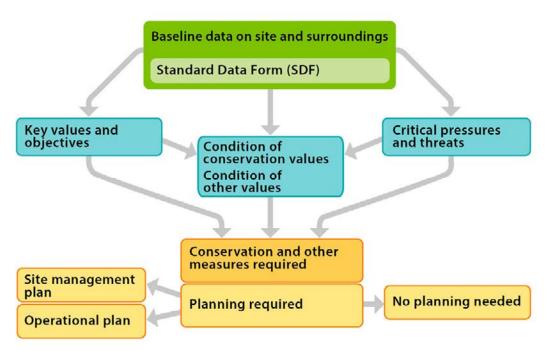


Figure 7. Natura 2000 site condition monitoring and assessment.

The status of the features based on the Habitats and Birds Directives that are found on the Natura sites, and the adequacy of conservation measures to secure them, is specifically assessed. The features that have been the justification for establishing such sites are documented in the Standard Data Forms (Natura 2000 database). This information is required by the EU Commission for all Natura 2000 sites and is being updated and quality checked by the end of 2015, and routinely thereafter. In practice, SDF updating in Finland will be largely integrated within the NATA assessment process.

The NATA assessment may be considered a "light" examination of management effectiveness and of the need for further measures, although it covers the most relevant elements needed in site condition evaluation. As such, it is suitable for comprehensive analysis of a large number of sites (there are more than 1,800 Natura sites). However, for large protected areas with multiple objectives, such as national parks, more than a superficial review is needed. This involves insight into the role and impact of the site in its surroundings, as well as extending the evaluation to resource use analysis (input-output-outcome). This type of in-depth management effectiveness evaluation was first tested in Finnish national parks in 2010.

5.4 Protected area information management

Geographic information systems (GIS) have long been in use at Metsähallitus to support the tasks of commercial forestry (of the Forestry Unit) and protected area management (Parks & Wildlife Finland). Until recently, there have been four different applications to handle the extensive stateowned protected area data and information management processes: SUTIGIS (habitat compartments), KIHTIGIS (properties and land use), REISKA (buildings, constructions, routes), and VUOKRAGIS (leasing and land use contracts). This entire complex of GIS applications has been under reconstruction since 2008, and the last new application will be completed in 2016.

Ultimately, the new GIS environment will include six applications (see Figure 8) and incorporate most state-owned lands and waters that are managed by Metsähallitus. The protected area information systems also include most sites on privately owned lands and serve not only P&WF, but the entire administration responsible for nature conservation. The goal has been to bring all the basic processes involved in the management of protected areas into one integrated system of GIS-based applications. The long-term aim is to enhance productivity, quality of performance, and cooperation within and between the different organisations.

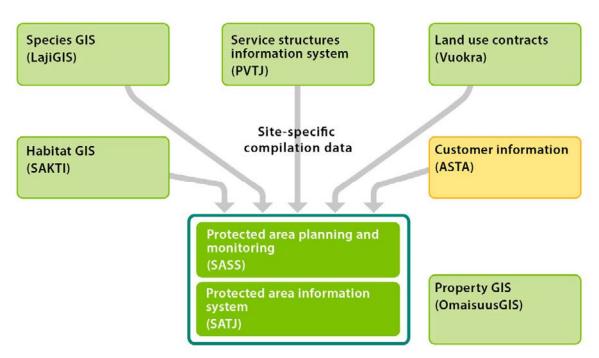


Figure 8. Information systems involved in the tasks of protected area management.

5.4.1 Protected area information and management databases

OmaisuusGis ("property GIS") contains data on all real-estate properties owned by the state and administered by Metsähallitus. It also incorporates the data on land use types and sites, including both commercial forestry areas managed by the Forestry Unit and protected areas and other area types governed by Parks & Wildlife Finland. The protected areas' boundary geometries are mostly maintained in this system, but protected area attribute data is very basic and is supplemented by the separate protected area databases.

Protected areas cover a major part of state-owned lands and waters, and also a significant total surface area of privately owned land. The core of protected area information management is formed by two GIS databases owned and maintained by P&WF. These systems incorporate data on almost all protected sites in Finland, regardless of the landowner. They are also used and the data is updated by ELY Centres, the Finnish Environment Institute, and the Ministry of the Environment.

SATJ (an acronym for "protected area information system") contains the basic data on the different types of protected sites, such as date of establishment, land and water area, and governing organisation.

SASS (an acronym for "protected area planning and monitoring") is a database, built "on top" of the first, containing the data and tools for management planning and monitoring of the protected areas. The working modules of the latter system include protected area master planning, management planning, NATA assessment, updating of Natura 2000 site information (SDF), and protected area monitoring and network reporting – all processes described above.

5.4.2 Theme-based information systems

In addition to the two core protected areas databases, the new GIS environment includes updated and completely revised versions of the four theme-based applications that were used by Metsähallitus previously, as well as a completely new database for management of species information. These have been developed to support, even better than before, the multiple land use and management tasks both inside and outside of protected areas.

SAKTI ("habitat GIS") is a database containing all habitat information compiled in protected area surveys, established by planning procedures and management measures and through monitoring. The system also has tools for operational planning (of habitat restoration and management) and reporting.

LAJIGIS ("species GIS") is a database for managament of species information compiled by basic surveys and through active management measures and monitoring. The system also has tools for planning (of inventories and monitoring) and reporting.

PVTJ (an acronym for "service structures information system") is a database containing information on all buildings, visitor facilities, and routes, as well as on archaeological structures and sites. Attributes are technical, qualitative, and descriptive. The system includes tools for site/feature condition management and monitoring, and for versatile reporting and visualisation of assets and services.

Vuokra (land use contracts) is a database used for drawing up and maintaining tenant contracts and land use agreements, including invoicing. It serves all the Metsähallitus units.

ASTA (customer information) contains information collected by visitor surveys carried out in protected areas and at visitor centres. Data is used, for example, to focus resources and to develop customer services and visitor infrastructure. The database is also widely used for reporting, research, and monitoring of sustainability and the impact of recreation and nature tourism on local economies. This system is not a proper GIS application, although information is attributed to individual protected areas and groups of sites.

The theme-based GIS databases are "office applications". However, most of the data on habitats and species, as well as on buildings and structures, is collected in the field, and tools to do this using hand-held computers are being developed.

5.5 Participation of locals and stakeholders in planning and management

The participation of stakeholders and citizens in natural resource planning and protected area management planning on state lands and waters has been standard procedure in Finland since the 1990s. Participation is made possible in many ways, often by establishing a cooperation group for the duration of the planning process (which may continue working afterwards). With an interactive way of working, Metsähallitus is able to enhance knowledge of the surrounding environment and also to prevent possible conflicts.

In the northern regions of Oulu and Lapland, as well as in Northern Karelia (eastern Finland), the Ministry of Agriculture and Forestry has appointed advisory boards with representatives of various interest groups. Their task is to advise Metsähallitus on regionally significant land issues concerning state-owned lands. According to the Nature Conservation Act, such advisory boards can also be appointed for national parks. Urho Kekkonen National Park has an advisory board appointed by the Ministry of the Environment. In Northern Lapland, there are cooperation groups appointed for each larger municipality. Particularly within the Sámi Homeland, the Sámi Parliament is consulted on matters related to land use (see Chapter 7.5 for elaboration on the Sámi and Figure 9 for map of the Homeland). In accordance with Article 8j of the Convention on Biological Diversity, the Akwé: Kon procedure was tested in 2010-2012 and developed in cooperation with stakeholders in connection with management planning of the Hammastunturi Wilderness Reserve (see Chapter 5.6).

Protected area management planning should be as open and as interactive as possible. Planning procedures are to comply with the Participatory Planning Guide published by Metsähallitus. The P&WF management planning guidelines include a toolkit of participatory methods. The level of participation needed may be dependent on the number, variability, and importance of the protected areas included in the planning area, as well as on the fragmentation of land ownership or the number of stakeholders and the consequent quantity and quality of expected conflicts. Planning does not necessarily require any organised participatory events, while in some situations a whole spectrum of different methods, from public events to bilateral discussions, is needed. In the last few years, feedback has been collected using interactive GIS-based Internet tools. Posting information on planning projects on the Metsähallitus websites and in local newspapers is a basic part of participatory management planning.

The ELY Centres have a stronger role in protected area planning than other stakeholders, because of their statutory role as authorities responsible for the conservation measures at the Natura 2000 sites. Always, when private protected areas are included, participation of the ELY Centre is also justified. Where appropriate, planning is supported by cooperation groups, involving key stakeholders, or expert groups tackling specific themes. Especially in management planning projects involving national parks, the cooperation groups often have a significant role and cooperation can continue beyond the project.

When privately owned lands are included in planning projects, landowners are in a special position and need to be contacted at different stages. Public opportunities to participate in planning and to comment on plans are also arranged during the whole process. Operational planning of state lands usually involves specifying methods and timetables, and there is seldom a need for participation. However, operations on privately owned lands are always planned in cooperation with and implemented with the consent of landowners.

In addition to participatory planning, practical management work is also carried out together with stakeholders. Through associations organised as "friends" of national parks, people can get involved in activities for the benefit of the parks. Different local and regional organisations and volunteers support park management by organising work camps and events. Voluntary experts collect valuable information on threatened species in protected areas. Hunting associations help to eradicate harmful (invasive alien) predators from bird wetlands and the archipelago, and also to collect information on game populations. In addition, with the support of environment subsidies, traditional agricultural habitats are managed in cooperation with landowners. On the basis of an agreement between Metsähallitus and the Criminal Sanctions Agency, open prison work has been done especially to construct recreational visitor facilities.

In 2014, altogether more than 40 national organisations and 130 local associations worked together with Metsähallitus Parks & Wildlife Finland for the protected areas. Over 2,500 volunteers were involved.

5.6 Akwé: Kon guidelines and action plan

In 2009, the Ministry of the Environment set up a national expert group to work on the indigenous traditional knowledge specified by Article 8j of the Convention on Biological Diversity. Its task was to coordinate actions and to enhance general awareness of the work programme associated with the Article, particularly from the point of view of the Finnish Sámi. The working group's goal was to promote the implementation of the work programme, though cooperation between various ministries and stakeholders, and to provide recommendations on the application and implementation of the so-called Akwé: Kon guidelines in Finland.

In its final report, the working group outlined the measures for application of the Akwé: Kon guidelines in land use planning of the Sámi Homeland area. Voluntary application of the Akwé: Kon guidelines is part of the implementation of the Convention. The guidelines map out the procedure by which indigenous peoples' participation in the preparation of projects and plans, in impact assessment, and in decision-making can be safeguarded. By following the guidelines, possible harmful effects on indigenous peoples can be identified and minimised. In Finland, the Akwé: Kon guidelines are to be applied to cultural, environmental, and social impact assessments of such projects, and to plans carried out in the Sámi Homeland, which may affect the Sámi culture, livelihood, and cultural heritage.

The Akwé: Kon guidelines are best suited for application in interactive land use planning processes, where there is already a procedure for citizen and stakeholder consultation. In the context of Metsähallitus's tasks, such processes are natural resource planning of state-owned lands and site management planning of nature reserves and wilderness areas. Metsähallitus used the Hammastunturi Wilderness Reserve as a pilot site and model for application of the Akwé: Kon guidelines and has subsequently decided to apply the guidelines in corresponding protected area management planning projects.

Applying the Akwé: Kon guidelines at various stages of the planning processes helps to identify and respond to issues that are important in terms of preserving the Sámi culture and to the concerns of the Sámi. For Metsähallitus, it is also a tool in identifying those preconditions for practising traditional livelihoods that must be taken into account in land use planning. It is essential to ensure effective participation of the Sámi in the whole process and cooperation with other stake-holder groups.

Application of the Akwé: Kon guidelines will not remove the consultation obligation set by the Act on Sámi Parliament (974/1995) concerning land use issues on the Sámi Homeland. However, in the case of any minor update to a management plan, Metsähallitus and the Sámi Parliament can collectively agree that the Akwé: Kon guidelines will not be applied. In the Skolt area (in north-eastern Lapland), the Skolt Sámi Village Meeting shall also be consulted.

Metsähallitus benefits from applying the Akwé: Kon guidelines. The Akwé: Kon working group is a supplement to the participatory planning system, supports the work of the coordination group, and increases interaction between Metsähallitus and users of the planning areas. In this regard, the impact assessment becomes part of the planning process and is not a separate phase that is only completed afterwards. Changes to the plan can be made as early as in the drafting stage.

In connection with other activities, Metsähallitus also seeks active interaction and cooperation with the Sámi Parliament, the Skolt Sámi Village Meeting, and with other representatives of the Sámi. Important matters, such as strategic resolutions about nature tourism, are negotiated in accordance with the Act on Sámi Parliament. The Sámi Parliament and the Skolt Sámi Village Meeting are also invited to make statements on locally significant individual projects, and are consulted on land use planning projects prior to their initiation.



Most of the Sámi Homeland is designated protected area administered by Metsähallitus. Parks & Wildlife Finland works with the Sámi Parliament on issues concerning land and natural resource use in the area. Photo: Pirjo Seurujärvi / Metsähallitus.

6 Conservation and Management of Habitats and Species

Besides strict nature protection, active restoration and habitat management measures are also applied to conserve and safeguard biodiversity in protected areas. Measures are part of the national action plans for the conservation of natural habitats and species, and they are implemented using nationally standardised methods and regional prioritisation. Practical guidance that is relevant in conservation and management activities is compiled in Appendix 6.

6.1 Preserving habitats in their natural state

The main principle in the management of protected areas in Finland is not to interfere with the natural processes without justified reasons related to nature conservation.

Most of the total area under protection is kept in as natural a state as possible. This leaves ecosystems free to develop and change through **natural processes**, according to the laws of nature, without interference from people. One especially important function of protected areas is to guarantee the undisturbed action of natural processes that are normally prevented or curbed outside protected areas (e.g. paludification, flooding, decomposing of humus, decaying of wood, storm damage, and even natural forest fires). Pristine nature and conditions for such natural processes should be adequately preserved in areas of all habitat types in all vegetation zones.

Even in nature reserves, it is impossible to achieve a completely natural state. Human activities induce changes in their state, whether directly through the use of such an area for outdoor pursuits or educational activities (see Chapter 8), for research (Chapter 9), in the commercial utilisation of the area (Chapter 10 and 11), or indirectly, as a consequence of temporary changes in conditions induced by human activity outside the protected areas themselves, or through the spread of pollution (Chapter 12). Nevertheless, the management of protected areas aims to minimise such impacts.

Measures to preserve the natural state of protected areas include:

- a) planning land use and the location and organisation of activities, such as by using zoning and placing visitor infrastructure so that valuable natural areas remain intact
- b) restricting access or other activities, in order to control visitors, and to reduce erosion and disturbance to wildlife
- c) directing use by agreements and permits
- d) providing guidance, instruction, and information to influence people's views and behaviour
- e) supervising area use
- f) influencing land use outside protected areas
- g) promoting research and monitoring of change in the condition of the areas.

Many of the wider human-induced environmental changes, such as climate change, the acidification of soil and water bodies, and the permanent establishment of invasive alien species in natural ecosystems, also inevitably affect ecosystems in protected areas. In many cases, it is futile to attempt to prevent such effects through management, owing to the excessive costs or undesirable side-effects involved, even where this might be theoretically possible. When ecologically and economically feasible, efforts are made to recover habitats in protected areas towards their natural state.

6.2 Habitat restoration and management

6.2.1 General principles

Most of Finland's protected areas were, to some extent, exploited economically in various ways before their designation, and their ecosystems have been affected by such activities. Forestry has affected nature most widely, as well as habitation and the building of transportation infrastructure. Many of these degraded habitats can be restored and then maintained close to their natural state.

The main principle in habitat restoration and management in protected areas is that the measures are primarily taken for reasons of nature conservation, to maintain or restore biodiversity. Habitat restoration is a one-off activity, which aims to speed up the recovery of a human-impacted ecosystem towards the targeted natural state. Habitat management, on the other hand, is an ongoing or recurrent activity. With repeated management measures, the aim is to halt the progression of succession and to preserve the habitat in a particular stage of development, to maintain the prevailing natural values.

Measures can also be taken to restore the cultural and landscape values. Other values of the protected areas are also taken into account. A site with nature conservation values may also have value for recreation or fishing (e.g. many running waters). Measures are planned cooperatively by P&WF experts in different fields.

The precautionary principle should be observed in all restoration work. The likely risks and benefits of restoration should be evaluated. Restoration work must not endanger any of the valuable protected features of an area. Measures need generally not be undertaken, if natural development is going in the desired direction and is likely to lead to conditions similar or comparable to the original natural state in a sufficiently rapid timeframe. When restoration measures are undertaken, they should be directed to areas where the need for nature conservation is greatest, and the risks are smallest. When examining the conservation benefit, the wider interests of biological diversity must be considered at ecosystem level, and the need for restoration should not be resolved exclusively according to local considerations, for instance.

Restoration and management measures must be based on approved plans that are sufficiently precise, considering the nature of the site and the extent of the measures. In addition to the conservation objectives and measures, information should also be included on the natural and cultural values and their condition. Good operational planning, implementation, and documentation are important. The success of implementation and the effects of the measures are monitored according to uniform policy and practice (see Chapter 9.1.2).

6.2.2 Restoring habitats

Restoring forest habitat in protected areas aims to accelerate the achievement of the natural state in areas previously utilised commercially, thus preserving the specialist forest species of each area. Forests are restored by controlled burning, diversifying their structure by small clearings and by increasing the amount of decaying wood.

Occasional natural forest fires are an integral part of taiga ecosystems. Due to effective fire prevention, there are seldom larger forest fires in the country any more. Because of this, natural forest fires are mimicked in protected areas using controlled burning. Restoration by controlled burning is concentrated in fire continuum areas. A network of such areas aims to secure the preservation of species dependent on occasional fires. **Peatland restoration** aims to comprehensively restore the landscape, flora, and fauna of an area. Returning the hydrology of the area close to its original state is a fundamental requirement for peatland restoration. Marshy ditches are usually either dammed or blocked in order to raise the water level to the level predominant before ditching. The hydrological conditions created must put an end to the dehydration and decomposition of peat, and saturation and paludification must resume. If the drainage of the area is only quite recent, it is likely that the area will revert to its original prevailing peatland habitat type. The longer the area has been drained, the more difficult it is to fully recreate the original state. In such cases, it is acceptable to aim to restore the area to a "new natural state", different from that which prevailed in the area before drainage, but nevertheless recognisable as a peatland habitat type where paludification is occurring.

In most cases, the trees that have grown in the area after drainage will be removed entirely or in part. If the original habitat has been wooded swamp, trees are left in place. When operating in small protected areas and on the edges of large protected areas, care must be taken to ensure that flooding is not caused on private lands.

Restoration measures in forests and peatlands are targeted on sites that are in the vicinity of valuable natural sites – for example, near concentrations of red-listed species or areas likely to be important for these species. Mire restoration is primarily focused on complete catchment areas. Mire complexes are often associated with small water bodies, and their restoration needs are best considered in the context of the restoration of the peatlands.

By the end of 2014, about 40,000 ha of forests and mires under the management of Parks & Wildlife Finland had been restored (about 37,000 ha in the framework of the METSO Action Programme). According to expert estimates, restoration is still needed in at least 20,000 ha.

Restoration of natural waters has so far been limited mostly to lake habitats, and in particular to flowing waters. Natural processes of flowing waters, such as water flooding and natural erosion of riverbeds, are restored, as well as the natural structures and species – rocks, tree trunks, water mosses, and other water plants.

By introducing flow-retaining structures, the capacity to retain leaf litter in the flowing water improves. In small woodland streams, this litter is a necessary factor for maintaining nutrition cycles in the ecosystem. Rapids will be restored as close as possible to their original state after log floating structures are removed, in order to recover salmon stocks and to restore other water biodiversity. These measures contribute to reaching national goals set for the restoration of migrating fish stocks in the National Fish Passage Strategy (2012).

In protected areas, there are many ponds and lakes where the water surface level has been altered to increase agricultural land or to reduce flood harm. Restoration aims to return the surface level to the previous average height. The achievement of the conservation objectives in wetlands may, however, also require repeated management activities, such as mowing reeds (see also Chapter 6.2.3).

The aim in restoring springs is to remove structures obstructing the occurrence of spring species and to enable the natural discharge of waters, allowing the nearby habitats that are affected by groundwater to gradually recover. Before initiating measures, it should be carefully evaluated whether natural recovery of the spring has already progressed so that restoration is no longer essential, and the possibly still remaining threatened species surveyed, in order to minimise adverse effects on them.

The restoration of marine habitats to preserve biodiversity has been very limited. Marine environments are constantly changing, through primary and secondary uplift processes (sedimentation and silting) and human activity (e.g., sea transport, waste water emissions, condensation waters of nuclear power plants, the construction of marine and coastal environment). Because of these changes, many rehabilitation efforts are also needed in marine areas. The concrete measures will be specified in the next few years, as underwater surveys progress.

Rehabilitation measures in maritime areas may be needed, for example, on sandy bottoms and in lagoons, as well as in wetlands and shallow bays (some of these are bird waters, explained below, in Chapter 6.2.3). Before restoration or management action, it is essential to study the stage, condition, and future development of the lagoons in the particular coastal area. The measures should be planned so that they safeguard the natural succession of these coastal wetland habitats.

6.2.3 Managing habitats

The quality and characteristics of sites needing habitat management vary so greatly that it is difficult to set any common quantitative objectives for the structural features or other properties in their management. For example, herb-rich groves, valuable hardwoods, and traditional rural biotopes are so diverse that management objectives have to be set for different types of areas separately, even site-specifically.

Traditional rural biotopes are agricultural habitats, mostly formed by mowing and extensive grazing practices. These include various types of open semi-natural grasslands and wooded meadows, wood- pastures, slash-and-burn woods, and heaths. Traditional rural biotopes can be part of wider traditional cultural landscapes, complete with structures and buildings. Traditional methods of management include so-called "basic clearance" – meaning the clearing and removal of trees, shrubs, and undesired plants – as well as the establishment of pasture areas, mowing, burning, coppicing and pollarding, (collecting small leafy branches for animal fodder) and flooding of fen meadows.

The aim of the clearance is to improve transparency, in order to bring open light and warmth, to regenerate meadow vegetation, and to save sturdy stands of broad-leaved trees and decaying wood. With the establishment of grazing areas and by mowing, the goal is to restore the structure and diversity of pasture vegetation, to reduce high-growing, overshadowing, and nitrogen-favouring vegetation, and to recover naturally occurring and red-listed species. By burning, coppicing, pollarding, and flooding, the aim is to preserve vegetation characteristic of the traditional cultural landscapes, and to maintain traditional agricultural land use practices. Management of traditional rural biotopes is usually continuous, and measures are repeated annually, although in some places biennial measures (e.g. flooding or mowing) or even less frequent measures (e.g. slashing and burning) are sufficient.

Habitat management also includes measures in herb-rich forests and hardwood stands (*Quercus, Tilia, Acer, Fraxinus, Ulnus*), as well as in sun-lit habitats (e.g. esker slopes open to the light and scorching sun) and habitats of red-listed species. Management methods include the removal of spruce trees, creating space for hardwood and other broad-leaved trees, the removal of alien and planted species, and restoration of herb-rich woods by replanting cleared fields. Although the measures in some cases are targeted only at the habitat of one species (e.g., the white-backed woodpecker), usually such actions will simultaneously help to enhance the environment for other red-listed species as well (see also Chapter 6.3).

These measures are generally not required annually; some measures may be repeated after tens of years. The aim of the measures is to reduce shade and prevent the growth of spruce, to revitalise species characteristic of herb-rich habitats, and to protect red-listed species, to secure regeneration of hardwood trees, and to launch the succession processes producing decaying wood.

At the end of 2014, Parks & Wildlife Finland had about 6,100 ha of traditional rural biotopes under continuous management, and the area has been extended by several tens of hectares each year. In addition, the area under P&WF management has increased with transferred (private) nature reserves, where management procedures are already in place. Traditional rural biotopes and their management are concentrated in Southern Finland. Management measures in other types of habitats covered approximately 3,500 ha, most of which also lies within Southern Finland. According to estimates, areas needing continuous management should be increased by about 200 ha per year. Most of these sites are sunlit ridges, groves, hardwood stands, and red-listed species habitats.

Valuable bird waters that are growing over as a result of human activity or naturally, are rehabilitated and managed, often in cooperation with other authorities and local residents. The urgency and prioritisation of the restoration of the bird waters has been evaluated using the following data:

- the category of urgency, which is based on the adverse changes that have occurred in the vegetation from the point of view of the bird life
- occurrence of red-listed bird species (the review included only species whose populations may be affected by management measures)
- the index of change in conservation value, which indicates the value change as a percentage from the end of the 1970s to the end of the 1990s
- so called ESA value, which is the conservation value of the environment based on the breeding birds in the area.

Bird water restoration measures include dredging, vegetation removal, digging of ditches and channels, construction of breeding islands, and uplifting of the water surface.

While implementing construction and management measures for water birds, the conservation and management needs of the rest of the aquatic biota must also be taken into account. Dredging operations in shallow water areas can be made off the ice in the winter time or after the breeding season in the summer time. The removal of water plants is done in quantities sufficient to reduce significantly the growth of the plant stand. On shore meadows, it is important to maintain sufficiently strong grazing after basic clearance of vegetation and, if necessary, to break tough vegetation mechanically.

6.3 Species protection and management

6.3.1 General principles

The majority of native species do not require active protection measures, because they are common and also get along well in commercial forests and cultivated or otherwise human-impacted environments. The species-specific conservation measures are mainly focused on species that are considered threatened or otherwise in need of protection. Conservation measures include preservation of species occurrences and management and restoration of their habitats. The need for and the effectiveness of the conservation measures will be assessed by monitoring (for more details, see Chapter 9.1.2).

In many cases, species protection requires co-operation with the authorities, companies, and various other groups of stakeholders, in order to affect legislation and to mitigate land use pressures, for example. For many of the red-listed species, the only practical management measures are conservation and management of their habitat, because species identification and locating of occurrences are often difficult. Certain species have considerable importance as indicators of biological diversity, in ensuring the sustainability of protected area use, and in prioritising management actions. Species and habitat conservation measures are closely linked in Metsähallitus's operational work.

Species groups needing special protection that are emphasised in the management and use of protected areas (PA) include:

- threatened species and species under strict protection (Nature Conservation Act and Decree)
- species specified by the Habitats and Birds Directives, especially in Natura 2000 sites
- Habitats Directive Annex IV species in all protected areas
- near threatened (NT) and regionally threatened species
- species that are rare outside PAs, and for which the significance of the PAs in their preservation is exceptionally high
- species that are easily disturbed or vulnerable to collection
- other species that are important in conservation terms, and in danger of disappearing from the PA, or whose populations in PAs are low
- other species relevant in the context of objectives in the PA, such as species connected to cultural heritage, including ancient and war-related newcomers.

In addition to the species groups mentioned, Metsähallitus P&WF has special conservation responsibility for the threatened species that occur mainly in state-owned areas. Such species include the Saimaa ringed seal (*Pusa hispida saimensis*), the golden eagle (*Aquila chrysaetos*), the white-backed woodpecker (*Dendrocopos leucotos*), the hairy stonecrop (*Sedum villosum*), and the hairy melic (*Melica ciliate*).

The statutory conservation programmes or other protection plans drawn up for species under strict protection usually concentrate on a single species - its biology and occurrences, and the conservation measures it needs. The protection plans will cover all known occurrences of the species concerned, and compile prioritised conservation and management recommendations for them.

So far, protection plans have been drawn up mainly for vascular plants, and some fungi, sporebearing plants, and insects. Conservation measures may, however, be carried out without the species-specific protection plan, provided that adequate information needed for planning the intended measures is otherwise available. In particular, occurrences of strictly protected species may be secured by site protection decisions made by the ELY Centres.

6.3.2 Preserving species occurrences

The objective of establishing protected areas has generally been the conservation of the typical native forest, mire, water, and/or fell environments of a particular region, and the protection of the associated species in these areas.

The operational activities of Parks & Wildlife Finland itself are not to jeopardise species in need of protection. A significant decrease in species populations as a result of construction or habitat restoration and management measures is not acceptable. Nor may recreational use or possible permission for hunting or fishing in protected areas be allowed to compromise the protection of any species. In order to take account of the occurrences of the species in need of protection, necessary data is compiled using surveys in protected areas and in their vicinity, and is recorded in the relevant information systems (see Chapter 9.1.1).

Species occurrences are safeguarded through planning, by directing the location of recreational structures and routes, and by defining restricted zones where access is prohibited (e.g. during the breeding season). Regional land use planning can be used to protect the habitats of species with larger territories, such as the Saimaa ringed seal and the white-backed woodpecker.

Preserving habitats with favourable structural characteristics – for example, forests with enough decomposing wood – is often sufficient means of protection for the preservation of certain species. If monitoring data or other findings prove that species populations remain stable and above minimum target levels, and the habitat is still appropriate for the species, no specific active management measures are needed. The vast majority of protected plant and animal species will survive without special care. As a general rule, natural processes are allowed to continue in protected areas, and it is accepted that some of the initial species may be lost due to succession.

When authorising permits for activities in protected areas, the known occurrences of red-listed and other species in need of protection must be clear and taken into account. This also applies to nests of birds of prey, which must be taken into account with protection zones. Restrictions necessary for the conservation of particular species shall be included in the terms of a permit or, where appropriate, authorisations shall be refused.

There are numerous protected and non-protected buildings in conservation areas that are inhabited by bats. According to the Habitats Directive, the destruction and deterioration of breeding and resting places of bats is prohibited (species listed in Annex IV). The only exceptions to the ban are on the basis of a derogation granted by the ELY Centre. This should be taken into account in building renovation and demolition projects.

6.3.3 Managing species habitats

If there is a detected or suspected decrease in the population of a species in need of protection, active habitat management measures may be necessary. The need for management measures may be due to deteriorating quality of the habitat or may be required because there is a justified objective to increase the population in the protected area to exceed the natural state. In this case, the ecology of the species should be known well enough not to cause negative effects on populations of the target species, or on other protected species. The need for protection of the species may be amplified in small-scale sites that do not necessarily have sufficient replacing habitat, if the habitat quality of the site is weakened. If management measures are likely to result in effects or restrictions outside the protected area, these must always be agreed with landowners.

Assessments of necessary conservation measures often have to be made as an expert estimate, based on status surveys, without information based on long-term monitoring. The measures must be carefully planned and implemented gradually and with care, using the best knowledge available. Monitoring results are used for assessing whether set objectives are reached, and necessary corrective measures are then carried out.

The management of threatened species occurrences is done in order of importance. The priority of activities is determined by the species red-list status, the importance of the occurrence or area to the conservation of the species, the urgency of the measures, and the conservation objectives of the area.



The Clouded Apollo (*Parnassius mnemosyne*) is one of the threatened species targeted by management of traditional rural biotopes. Many such sites are included in the Species-rich LIFE Project funded by the EU. Photo: Mikko Kuussaari.

Other habitat management and restoration (described in Chapter 6.2) should be carried out so as to most effectively support the survival and recovery of the species in need of protection. Measures should be targeted in proximity to the existing occurrences of the species and implemented very carefully, taking into account the structural features important to this species and other threatened native species in the environment.

General habitat restoration and management will contribute to the preservation of species in need of conservation in the longer term, and also to slowing down the decline of more common species, even preventing them from becoming threatened. The number of suitable habitats for these species will increase and the quality will be improved, providing opportunities for the species to extend their distribution.

Measures targeted at species occurrences may involve small-scale improvement of the living conditions of the population (e.g. bringing light by felling individual trees, uncovering soil to improve conditions for wild thyme), or more extensive improvement of the quality of the environment (removing spruce undergrowth from herb-rich woods, mowing meadows, filling up peatland ditches). It is essential to define the primary goal of the management measures, so as not to unintentionally undermine the conditions for other species or groups of species by favouring one species or species group.

Species management may also mean removing individuals of competing species (e.g. a red fox from bird wetlands or from territory of the Arctic fox), treating soil surface to revive the seed bank, or strengthening occurrences of threatened species using seeds or plant cuttings. Original strains of the particular species should be used to retain genetic diversity. It is recommended that

seedlings or seeds grown in botanical gardens, especially for the purpose, are used (see Chapter 6.3.4).

Where appropriate, artificial nests and nesting boxes may be built for animals. Need is determined by the naturalness of habitats in the area and by nature conservation requirements. If the habitats are close to the natural state and preconditions for nesting are present, the construction of boxes or artificial hives is usually not necessary. Sometimes it may be necessary to attract the species to nest in a safer location, for example attracting them to a protected area from outside. The construction of artificial nests may also be justified by scientific research. As a general rule, the use of carrions or other artificial feeding is only allowed for reasons of nature conservation or academic research (see, however, feeding the reindeer, Chapter 10.2).

6.3.4 Transferring species

A species in need of protection and previously present, but no longer found in a nature reserve, can be reintroduced in the area. In exceptional cases, a species in need of protection, which is not known to occur there, may be trans-located if the reserve provides the only possible habitat or one that is difficult to replace. Reintroduction of a species to, or its transfer from, a protected area is undertaken if there are biological conservation grounds, such as the threat of disappearance of the needed habitat type, the need for maintenance of genetic diversity or for restoration of the species habitat, or the recovery of population viability. In addition, assessments should be made of the suitability of the target area, and of the effect of the measures in the site of origin and at the destination, including management and monitoring of the target population. Species reintroduction should be primarily carried out in habitats under restoration or continuous management measures.

The principles and needs of species transfers will be evaluated and developed further as a means of adapting to the effects of climate change. So called ex-situ methods should be used and developed in transplanting. The objectives of protecting genetic diversity must be taken into account in the transfers.

Within conservation areas, non-threatened species can be transferred and added, for example as nutrition for threatened species, such as wild thyme (*Thymus serpyllum*) for certain butterfly species. Old crop and weed species classified as non-threatened can also be returned to the gardens and fields of heritage farms, if they do not pose a threat to protected biotopes or species. However, these cannot be harmful alien invasive species. Indigenous livestock breeds are prioritised in the management of heritage farms and traditional rural biotopes.

6.3.5 Eradicating invasive alien species

Finland's National Strategy on Invasive Alien Species was completed in 2012. According to the Strategy, an alien species refers to a species that has invaded native nature, does not belong to the ecosystem, and could not have spread on its own. Alien species are classified as invasive when they threaten native biodiversity. Alien species can threaten native species by competing with them for the same resources, by predation, or by interbreeding with native species. Alien species may also limit the range of the native species and may even displace them altogether. An established alien ("newcomer") species is not regarded as an alien invader when it is naturally spreading to the area, even if human activity is accelerating its spread.

Protected areas are intended to protect native species' composition. The primary goal in alien species management is to prevent the spread of invasive species to protected areas, because this is best for biodiversity and also the most cost effective for the management of protected areas. How-

ever, many alien species have already invaded the lands and waters of protected areas. Some of the most widespread invasive alien species in protected areas are the plants lupine (*Lupinus polyphyllus*), rugosa rose (*Rosa rugosa*), and Himalayan balsam (*Impatiens glandulifera*) in terrestrial habitats, and Canadian waterweed (*Elodea canadensis*) in inland waters, as well as the animals American mink (*Mustela vison*) and raccoon dog (*Nyctereutes procyonoides*) in forests and wetlands, and the bay barnacle (*Balanus improvises*) in marine areas.

Occurrences of invasive alien species will be destroyed or, if this is no longer possible because of their extent, numbers must be kept as small as possible, so that the effects on the protection of the most valuable native species are kept as minimal as possible. Invasive alien species and habitats will be included in surveys and recorded in the databases so that systematic removal or reduction may be undertaken as soon as possible.

Mink and raccoon dog populations are reduced and controlled around bird waters in particular, and efforts are extended outside protected areas to enhance the effect. Reduction of the Canadian beaver (*Castor canadensis*) in conservation areas should be considered only if the species threatens other species in need of special protection. Even then, effort should also be directed outside the conservation area, if possible.

Invasive alien plants are removed primarily by mechanical means. In exceptional cases, the elimination of large occurrences may require well-planned and careful use of pesticides. Plant waste of removed invasive plants is disposed of properly, so that the seeds or other reproductive parts of the species are not left in the area.

The eradication of alien species not classified as invasive is necessary, if the species clearly threatens or decreases the conservation value of the area, and the measures are considered justified and possible. The measures are to be based on adequate information and must be well planned. For example, measures are usually justified if the species is clearly newly imported from another vegetation zone, elimination is practically possible, and the species will not disappear without measures (e.g., planted stands of foreign wood species). Eliminating or reducing species is always justified if the alien species clearly threatens native species or habitat types in need of protection.

The reduction of alien species, and of plant and animal species that have become excessively abundant or otherwise harmful, with permission from the administrative authority, became possible in nature reserves after the amendment of the Nature Conservation Act in 2011 (58/2011, Section 15; see Chapter 10.1.3 for details). Consideration concerning derogation permits for a reduction of non-native species and, in particular, for a reduction in the number of native species, must be based on the conservation objectives of the site and on the risk of threat or harm to the conservation value.

On established nature reserves where hunting is allowed, and also in protected sites not yet established as such, the hunting of invasive alien game species and the reduction of otherwise harmful species is possible without the derogation permit required by the Nature Conservation Act, Section 15 - in other words, with a hunting permit issued by the owner of the right. The regulation of animal stocks often involves special conditions that are included in the permits or contracts.

Removal of invasive alien species is suitable as voluntary work. In particular, the removal of invasive species of vascular plants and small predators provides opportunities for volunteers and for various forms of cooperation with hunting associations.

7 Conservation and Management of Cultural Heritage

Cultural heritage consists of spiritual and material heritage that is created by impact of human activity. Spiritual heritage refers, for example, to the story tradition connected to hunting and fishing or other land use. Material heritage includes buildings, structures, immovable ancient relics, and artefacts.

Parks & Wildlife Finland has an important role in the protection of the cultural heritage and landscape values on state-owned lands. The conservation and management of cultural values and regional characteristics of protected areas contribute to the achievement of social, economic, and cultural sustainability. Protection of the cultural values of protected areas helps to strengthen local cultural identity and ties protected areas more closely to local communities.

In 2014, the significance of P&WF's role in the conservation of national cultural heritage grew as a result of the transfer of 29 cultural heritage sites from the administration of the National Board of Antiquities (NBA). In addition, several other sites that have significant cultural historical value (e.g. Vallisaari, Kuninkaansaari and the Söderskär Islands) have been transferred from Senaatti Properties (government enterprise in charge of state-owned properties).

As a reflection of the growing role of P&WF in the management of cultural heritage, Metsähallitus has introduced a new land use category: the "cultural heritage site". The main purpose of these areas is the protection of their cultural historical values (landscape, built heritage, archaeological features). Such areas are usually protected by the Antiquities Act (295/1963), the Act on the Protection of Architectural Heritage (498/2010), the Decree on the Protection of State-owned Buildings (60/1985), and/or on the basis of the National Principles of Land Use. The first sites classified in this category are those recently transferred to P&WF from the NBA.

7.1 Starting points for the management of cultural environments

According to the Land Use and Building Act (132/1999) and the National Land Use Principles based on it, there is a general obligation to ensure that nationally significant cultural and natural heritage values are preserved. In the management and use of areas, one must take into account the international agreements on cultural and natural heritage, the Government resolutions and national surveys on valuable cultural landscape areas, cultural historical environments, and prehistoric features. Provincially significant landscape and cultural heritage sites are determined in the process of regional land use planning.

Parks & Wildlife Finland manages valuable cultural historical sites in accordance with the Cultural Environment Strategy (2014–2020) that has been prepared by the Ministry of the Environment and the Ministry of Education. In principle, P&WF is committed to safeguarding the values of both the natural and cultural heritage. The safeguarding of cultural heritage means that the cultural environment and its constituents – the landscape, built heritage, and archaeological sites – are recognised at an adequate level. The features and sites are evaluated, and valuable cultural historical sites are placed under systematic care. In choosing sites for active management, consideration is to be given to the whole set of values in a given area. Those sites on which multiple values can be conserved are prioritised.

Parks & Wildlife Finland manages cultural environments in such a way that the traces of human and natural interactions remain. Protected areas contain a wide range of different traditional land-

scape features and environments shaped by human activities, such as agriculture, forestry, traditional rural livelihoods, and transport. These features have significant value for archaeological, ethnological, and historical studies, and for the conservation of buildings and landscapes.

Such cultural sites also enhance biodiversity, as they often provide suitable habitats for many threatened species. One function of protected areas is to preserve and maintain samples of habitat types created by former traditional agriculture and other livelihoods in the countryside, along with their characteristic species, buildings, and structures. Some protected areas have been designated specifically for this purpose (e.g. Archipelago National Park and Telkkämäki Nature Reserve).

When protecting the cultural heritage, it is important that management is sustained and continuous, and that planning, implementation, and documentation are properly done. Traditional working techniques can serve visitors as work demonstrations and engage volunteers. If the traditional working methods cannot be used, the methods should be chosen so that the biological result is the same.

Many of the cultural heritage features in protected areas are also important as tourist attractions. These are classified as heritage farms, traditional sites, or other culture sights. The general aim is to maintain the authenticity of the features and to improve their condition. A cultural sight may be a managed landscape, ancient remains, or a building.

When selecting cultural features as sights for tourism, special attention must be paid to preconditions of preservation, authenticity, and ethical use of the feature. The accessibility and security of the sites must be planned so that no heavy protective structures are needed on the feature itself. Their use must not endanger the survival of the tourist attraction, and the condition of the features should be monitored. Sacred places, such as Sámi "seita" sites, must be respected.

7.2 Preserving and managing landscapes

The European Landscape Convention, adopted in 2000 and ratified by Finland in 2006, is the first international agreement pertaining exclusively to landscape issues. In Finland, the objectives of the Convention are implemented by a number of laws. On the basis of the Nature Conservation Act, the Ministry of the Environment or the ELY Centre can establish landscape conservation areas (so far, only a few have been established). In Southern Finland especially, small protected areas may include valuable parts of broader landscapes. In Lapland, valuable landscapes are fully conserved within protected areas. Protected areas are important for preserving national landscapes, as they are less exposed to land use pressures.

Cultural landscapes in protected areas are often environments created by traditional and subsistence livelihoods in the remote backcountry and wilderness, or they are more recent small-scale landscapes formed by recreational use. As manager of the protected areas, P&WF is an important preserver of intact natural landscapes and maintainer of agricultural landscapes formed by traditional use of nature. P&WF also has a key role in the protection of underwater landscapes, because it governs most of the public water areas in Finland.

Safeguarding the natural and cultural landscape values is called **landscape conservation**, and the practical activities to maintain them are called **landscape management**. The main conservation sites are landscape sights and traditional landscapes. The majority of nationally valuable landscape sights are located in protected areas. These are largely natural areas, but they almost always also have cultural historical value. Such well known "national landscapes" include the Pallastunturi Fell and the Kuusamo Rapids in Northern Finland, and the Koli Hills, Punkaharju Ridge, and Aulanko Heights in Southern Finland.

Natural beauty is one of the reasons for the establishment of nature conservation areas. According to visitor studies, the natural landscape is one of the most central factors in the attractiveness of protected areas. In many of the protected areas, the sound and light landscapes are also relatively free of interruptions. In order to conserve the natural landscapes in protected areas, scenic areas are left unconstructed. Some protected areas have been treated historically as park-like sights and recreational destinations, with the aim of preserving scenic grandeur or maintaining particular vegetation (e.g. Vehoniemenharju Ridge).

Traditional landscapes often include traditional agricultural biotopes (covered in detail in Chapter 6.2.3), as well as buildings and structures. Sites selected to be maintained by continuous management should reflect a diverse and representative entity within the protected area network. Those traditional landscapes in which the historical features that characterise traditional livelihoods and land use practices have been preserved, are often part of a broader cultural landscape. For management purposes, it is therefore necessary to determine the main historical features of the landscape (e.g., dwellings, transportation routes, and livelihoods).

Past land use effects on vegetation may sometimes be maintained, despite not being natural (e.g. ancient or wartime invasive plants). Old crops or cultural species associated with them may be replanted on heritage farms. The farms can also be used as a gene bank for old crop varieties and livestock breeds. Cultural associate species found around the heritage farms may be transferred to gardens of other old buildings.

Newer buildings and structures needed for the maintenance of the protected area, or for guidance and instruction, or for providing services to hikers and other visitors, should be planned and located so that they do not detract from the protected heritage landscape areas as a whole.

7.3 Preserving and managing built cultural environments

In accordance with the state's Real Estate Strategy (Government resolution issued in 2010), the state-owned built assets are divided into strategic and non-strategic assets. Strategic real-estate assets, including strategic archaeological sites, should remain in state ownership, because of the nature of government tasks or the value of the actual property, and ownership and control of these sites should not be waived. The strategic cultural historical real-estate assets administered by Metsähallitus were defined in 2013. A classified quality standard has been set for management of this property. Parks & Wildlife Finland maintains these sites within the given budgetary framework. The quality standards are also to be set for the sites that are transferred to Metsähallitus from other Government organisations and that have been defined as strategic cultural historical real estate.

The built heritage under P&WF management consists of a variety of buildings of different ages and uses. The majority of the old buildings in the protected areas are individual or small groups of buildings or separate barns. Often the buildings recount previous land use history. They are an essential part of the surrounding landscape: small farms or open meadows, seasonal habitation, fishing bases, or reindeer round-up places. Some of the buildings were constructed before they became the property of Metsähallitus.

Some of the built assets have been value-assessed, some officially protected, and some are protected indirectly by international agreements to which Finland is party. The conservation value of much of the built heritage has not yet been assessed. The basic information concerning the building stock and conservation decisions made by the authorities is registered in the GIS database owned by P&WF. Information is gradually supplemented by surveys and value assessments.



The Raseborg Castle ruin in southwestern Finland. The castle was a provincial administrative centre in the Middle Ages when Finland was part of Sweden. This is one of the national cultural heritage sites now governed by Metsähallitus. Photo: Kimmo Mustonen / Vastavalo.

The built heritage in protected areas is tended in such a way as to convey information on responsible and systematic use, repair, and restoration methods. The valuable real estate (state strategic cultural historical property) is safeguarded and, as far as possible, the values of the protected buildings are preserved. Because the majority of the buildings in protected areas are still not value-assessed, rehabilitation and maintenance decisions cannot be limited just to buildings that are already protected. Metsähallitus has developed a "valuation key" for assessing built heritage. The aim is also to maintain local, even less valuable buildings, as examples of local culture and older use of protected areas.

As far as applicable, sites should be managed using cultural heritage quality classification tools. Maintenance books are always based on condition assessments. Rescue plans are drawn up for protected building groups, and must not be more than five years old. Valuable buildings and structures for which no use is found are sheltered in such a way that their survival is assured.

In protected areas, buildings may have original artefacts, interiors, or utensils. P&WF does not maintain museum collections, so these may be offered as a donation to professionally managed museum collections. Some of the items can then be placed back in the buildings by deposit agreement. If donations of artefacts are accepted, the gift book should include details of their origin and photos. Original movable things should be distinguishable from the materials that have been acquired, using registers or photos. Copies of original artefacts can be used when a building is used as a tourist site.

On traditional landscape sites that are under continuous management, generally the buildings and structures are also maintained in the original state or carefully reconstructed close to it. The buildings in heritage landscapes often serve as attractions for visitors. Once restored, they can be used

for instruction, as facilities for visitors, for services related to the management of the area, or in exceptional cases for other purposes related to the administration of the protected area, as long as their new usage does not result in any damage to the character of the buildings under protection or to any associated features.

If the rehabilitation of buildings in poor condition is no longer justified, they should, nevertheless, be carefully documented (including photography, measurement, and descriptions of characteristics and materials). If a building is demolished in a protected area, its foundations or some other suitable remnant should normally be left as evidence of different stages of land use. Before demolishing buildings, it must be checked that they are not homes to threatened bats or the like (see Chapter 6.3.2).

Historically significant sites may also be left to decompose and, if necessary, the features may be sheltered. The safety of the sites must also be ensured. These sites are documented in the GIS system as archaeological sites.

When real estate is transferred to Metsähallitus from other public authorities, the value of accompanying buildings should be assessed. If a valuable building owned by P&WF is leased, the agreements must ensure preservation of the conservation value (see also Chapter 11.4).

7.4 Conserving and managing archaeological sites

Protected areas contain both historic and prehistoric archaeological remains. As well as being protected under the legislation associated with the designation of protected areas, they are also protected under the Antiquities Act (295/63). These sites are supervised by the National Board of Antiquities, and their management and signposting is planned in cooperation with this authority. In addition to recognised sites, there are many archaeological sites that have not yet been registered as such.

In the low salinity water of the Baltic Sea, unique maritime structures and shipwrecks have survived since the Middle Ages. Dozens of shipwrecks are known in waters governed by Metsähallitus. Marine biologists gather information about the wrecks while surveying underwater habitats. The integrity of the wrecks is secured in protected areas, in cooperation with the National Board of Antiquities. Underwater cultural heritage is much less known in inland waters than in coastal areas. Timber floating structures and fishing dams are known along older waterways within protected areas.

Often, knowledge of the existence of archaeological sites is sufficient to preserve them in protected areas. The National Board of Antiquities maintains a register of prehistoric and historic archaeological remains, and the data has also been transferred to Metsähallitus GIS databases. The data is still incomplete, but it is gradually supplemented as surveys progress (see Chapter 9.1.1). P&WF notifies the NBA of any newly found sites and also of those already ruined.

While surveying archaeological sites, P&WF makes assessments of their management and restoration needs. Measures are undertaken only on significant archaeological sites. Measures may be implemented in connection with habitat management of traditional cultural biotopes, when natural and cultural values can be amalgamated. Sometimes sites and their management tasks may be "adopted" by other parties, such as voluntary organisations or individuals. This is agreed with the NBA.

Management and planning procedures involving historical remains and archaeological relics always require cooperation with the P&WF regional cultural heritage experts. Habitat restoration

and management, as well as any construction of visitor facilities, are to be done in a manner that ensures the integrity of the cultural heritage sites and features. Because data is lacking, this often means archaeological surveys have to be conducted before other measures.

To inflict any action on stationary prehistoric remains in protected areas, there has to be a valid scientific goal. For excavation, a researcher needs to obtain a research permit issued by Metsä-hallitus, and also one from the NBA. The work must comply with accepted quality requirements of archaeological field work.

Some of the archaeological sites are suitable as tourist attractions, as long as their integrity can be ensured. Such sites include hunting pits, rock paintings, and certain ruined fortifications. Visiting sites are signposted and their condition is monitored in cooperation with the NBA.

7.5 Safeguarding Sámi cultural heritage

7.5.1 General background

Today, the Sámi are the only indigenous people within the European Union. They are descendants of the people who first inhabited the northern regions of Fennoscandia shortly after the end of the last Ice Age, some 10,000 years ago. In all, there are an estimated 75,000 Sámi in the different northern countries. The majority of the Sámi live in Norway. There are about 9,000 Sámi in Finland.

Ethnically, the Sámi people formed around 2000 BC, when Sámi and Finnish became distinct languages due to differences in livelihoods and culture. Before the 11th century, the Sámi inhabited an area covering most of the area that is now Finland, with the exception of the southern and southwestern coast. Under pressure from Finnish settlers, some of the Sámi in Southern Finland became assimilated into the Finnish population. Others migrated northwards.

Article 27 of the UN Convention on Human Rights secures the rights of the contemporary Sámi to livelihoods considered part of their culture. According to the Constitution of Finland, revised in 1995, the Sámi have the right to maintain and develop their own language and culture. Sámi culture refers broadly to the Sámi way of life, including the economies tied to it.

Since 1996, in accordance with the Constitution, the Sámi have had autonomy concerning language and culture in their Homeland in Northern Lapland. The tasks of self-government are executed by the Sámi Parliament, elected by the Sámi people. The Skolt Sámi Village Meeting represents those in the Skolt area, which is part of the Sámi Homeland. The Homeland area consists of the municipalities of Enontekiö, Utsjoki, Inari, and the part of Sodankylä that belongs to the Lappi Reindeer Herding District. The Sámi Homeland covers 35,000 km² in total.

In Finland, the basis of being Sámi is in the language. According to the law, the Sámi are persons who consider themselves to be Sámi, provided that they themselves, or at least one of their parents or a grandparent or grandparent of their parents, has learned Sámi as their first language. The use of the Sámi language with the authorities is statutorily guaranteed (the Sámi Language Act 1086/2003). Over 60% of Sámi now live outside their Homeland, which presents new requirements for education, services, and communication using the Sámi language.

The traditional Sámi culture is based on diverse and sustainable use of their own area and its nature, to satisfy the basic needs of the Sámi population. Good knowledge about nature and animal behaviour has been a precondition for the traditional use of natural resources. In the Sámi Home-



land, nature is fragile, scantly productive, and slowly renewing fell and forest, which is ill-suited to commercial exploitation of natural resources.

Reindeer herding, fishing, hunting, gathering, and small-scale agriculture, as well as handicrafts and use of wild products, are traditional livelihoods of the Sámi. These are also practised in combination, along with tourism and other service economies. The livelihood of a Sámi family in the Sámi Homeland typically comes from many different income sources. Nevertheless, reindeer husbandry is still of great cultural importance, and has significant economic value in its own right. The Sámi own 85% of the estimated 85,000 reindeer in the Sámi Homeland (see also Chapter 10.2). The Sámi Homeland and Reindeer Husbandry Area are shown in Figure 9.

Figure 9. The Reindeer Husbandry Area and the Sámi Homeland. The Reindeer Husbandry Area is depicted in green. The area above the yellow line is the Special Reindeer Herding Area, where other land use by the state may not hinder it, and that above the red line is the Sámi Homeland area, where the Sámi Parliament must be consulted on land use issues.

7.5.2 The role of Metsähallitus

In the northern part of Finnish Lapland, Metsähallitus has a statutory responsibility for safeguarding the culture of the indigenous Sámi people. There are provisions on this in many enactments, including the Act on Metsähallitus (1378/2004), the Land Use and Building Act, the Act on Skolt Sámi (253/1995), the Act on Financing of Reindeer Husbandry and Subsistence Livelihoods (45/2000), and the Sámi Language Act. One of the main objectives of the Wilderness Act (62/1991) is the safeguarding of the Sámi culture. In accordance with the Act on the Sámi Parliament (974/1995), Metsähallitus negotiates with the Sámi Parliament on all significant measures – in particular concerning issues of the management, use, and leasing of state-owned land, nature reserves, and wilderness areas – within the Sámi Homeland.

Metsähallitus pays particular attention, in planning and implementing actions, to the rights of the Sámi people to practice their own culture in the Sámi Homeland. Parks & Wildlife Finland fosters the Sámi cultural landscape and built heritage in collaboration with local actors. Little of the built Sámi heritage has been protected so far, so the sites conserved by Metsähallitus are significant even at national level.

P&WF endeavours to identify and understand the value and meaning of the sacred places of the Sámi. It is responsible for the ethical use of information, and the survival of known sites and features. P&WF also supports research in the Sámi Homeland. The most important partners in protecting the Sámi cultural heritage are the Sámi Museum, the Sámi Parliament, the Skolt Sámi Village Meeting, the Board of Antiquities, and various research organisations.

P&WF staff are trained in and encouraged to use the Sámi language in meetings and negotiations in the Sámi Homeland. In this area, all management and operational plans of the wilderness areas and national parks are translated into the three Sámi languages (North Sámi, Skolt Sámi, and Inari Sámi). Guidance material is also produced in all three languages. P&WF maintains a very extensive website, Lundui.fi, in Sámi. It also actively collects information on traditional Sámi place names.

Metsähallitus uses the Akwé: Kon guidelines in the context of drafting natural resource plans and protected area management plans in the Sámi Homeland. This procedure ensures the participation of the Sámi in the preparation of projects and plans, impact assessments, and decision-making, and minimises harmful effects on Sámi culture, livelihoods, and cultural heritage. The procedure is explained in detail in Chapter 5.6.

7.6 Securing the cultural heritage of the archipelagos

The coasts and archipelagos of Finland (including major inland waters) have been inhabited since the late Iron Age. There has been agriculture on the coast since then, until the present. In addition to the basic archipelago livelihoods, navigation and trading were practised early on, and signs of these are still seen all over the coast.

Metsähallitus has a statutory obligation to promote the preservation of the remaining archipelago cultural heritage in areas under its care. In management planning of protected areas on the coast and inland waters, the preconditions for maintaining these cultural environments and traditions are taken into account. These goals are also part of Finland's Coastal Strategy (2006), which is based on the Recommendation of the European Parliament and Council on the implementation of Integrated Coastal Zone Management (ICZM) in Europe. The Island Committee, working under the Ministry of Agriculture and Forestry, has recently published a brochure Finland – Land of Islands and Waters that describes the life, sources of livelihood and the nature on islands and island-like areas in Finland. Today, the number of islands with either permanent or part-time inhabitants amounts to around 20,000.

Parks & Wildlife Finland governs five coastal national parks and two in the inland Lake Saimaa water system. The management solutions in these parks have evolved over time, following management plans drafted in cooperation with local actors. There are more than 150 coastal sites with a marine component belonging to the Natura 2000 network, of which about 100 are state owned. In addition, Metsähallitus is responsible for the coordination, planning, and development of the Kvarken Archipelago World Heritage Site (on the west coast).

On the coast and the islands, as well as the major inland waters, management planning of the protected areas must be based on an integrated ecosystem approach. The extent and zonal structure of the protected areas in the archipelago require recreation and tourism, as well as service facilities, to be planned on a larger regional scale. By contrast, the involvement of local inhabitants and landowners requires planning at municipal or village level. The aim is to find, together with local actors, the kinds of solutions for the management and use of protected areas that will allow preservation of the natural and cultural environment, as well as continuation and development of local livelihoods. Fishing and hunting, for example, belong to traditional land use in the archipelago. The small-scale fishing industry still brings important income for coastal and island communities.

The vitality of the archipelago culture is supported in a variety of ways. For example, the traditional landscapes of the Archipelago National Park and the Kvarken Archipelago are managed actively. Old fisherman's cottages, as well as former properties used by maritime pilots, the Coast Guard and the Defence Forces, have been renovated for interpretational use. Several nature huts have exhibitions on the nature and life on the islands. On many of the islands, there are nature trails that take visitors to explore the most interesting natural and cultural sites, including underwater. Plenty of facilities have been built for boaters and hikers. Tourism-related services are developed and maintained in cooperation with local entrepreneurs. Services offer livelihoods for locals, and nature tourism has a significant impact on the economy of the archipelago municipalities.

Particularly in the Swedish-speaking coastal and archipelago regions, the requirements for bilingual communication are taken into account.



The Kvarken Archipelago is a living world heritage site where local people live in harmony with their unique natural setting. The area has a long cultural history related to fishing, seal hunting and seafaring. Photo: Metsähallitus.

8 Nature Recreation and Tourism

Being in nature and enjoying activities outdoors enhances human well-being and appreciation of nature. The use of protected areas for recreation is supported by facilities and services corresponding to demand and by active communication. Sustainable nature tourism in protected areas brings benefits to the local economy and increases employment, without compromising conservation objectives.

8.1 Demand-based development under limits of sustainability

Outdoor recreation as a concept includes nature tourism and local recreation. The precondition for all recreation and tourism in protected areas is that these activities are not in conflict with the conservation objectives of the sites.

Sustainable nature tourism is practised in protected areas governed by Parks & Wildlife Finland so that:

- Natural values are preserved and all activities promote nature conservation.
- The environment is subjected to as little pressure as possible.
- Local traditions and cultures are respected.
- Visitors increase their understanding and appreciation of nature and cultures.
- Improved recreational facilities are provided for visitors.
- Visitors are encouraged to enjoy both mental and physical recreation.
- Local economies and employment are promoted.
- Publicity materials are produced responsibly and carefully.
- Activities are planned and organised cooperatively.

These Principles of Sustainable Nature Tourism formulated and adopted by Parks & Wildlife Finland in 2004, spell out what sustainability means in practice: the headline goals are broken down into actions. The principles apply to all nature recreation and they are binding for Metsähallitus, as well as any enterprises, visitors, and stakeholders using protected state lands and waters. The principles are updated in 2015, to accommodate cultural heritage sites and accumulated experience on using the tool.

The sustainability of protected area use is monitored using selected indicators (see Chapter 9.1.2). P&WF has developed a method for appraisal and monitoring of the sustainability of use, based on the Limits of Acceptable Change approach. This method is used if a tourist and recreation area is considered significant. Sustainability monitoring of nature tourism is part of the broader surveillance of protected areas (see Chapters 5.3 and 9.1.2).

The services offered by P&WF in protected areas, such as recreation opportunities, recreational facilities (hiking routes and structures and buildings), and interpretational communication products, are social services and should be available to all visitors, both tourists and local communities. The services of P&WF support independent recreation, but also create opportunities for nature tourism business. The most diverse services are offered in the protected areas that are most in demand. In such areas, there is also more nature tourism business that depends on these versatile services than in areas with less demand. These are generally areas consisting of several protected sites, and are often significant tourism attractions as part of a larger tourism area. For those national parks and other areas that are very important to tourism, a strategic nature tourism plan is drawn up to support the site-specific management plan. This plan describes the current situation in the tourism area and defines the general objectives, joint actions, and development programme, as well as the evaluation and monitoring of sustainability in the tourism area. In areas where the demand for recreational use is lower, the services offered are correspondingly reduced. For a large number of the protected areas, visitor facilities are not offered, and visitors are not actively directed to them.

Facilities for disabled access are concentrated in areas where the demand is highest and the terrain is naturally suited for these kinds of services. Where available, the aim is to make services comprehensive, so that barrier-free accessibility is also taken into account in interpretation and services provided by other operators in the area (e.g. enterprises with contracts).

8.2 Directing recreational use in protected areas

In protected areas, the needs of various forms of recreation are coordinated in management plans. Hobby and tourism activity are directed towards routes and parts of the areas where the conservation values and goals are not compromised. The best solutions for all visitors and users of the areas are sought in cooperation with interest groups, organisations, and local communities.

Ways to direct recreational use of protected areas include land use zoning, placement of facilities and services, licencing, and contracting procedures.

In management plans, protected areas are divided into zones for: 1) hiking and nature tourism with facilities, 2) remote use with minimal or no services, and 3) nature value conservation with restricted access. The recreational use in protected areas is planned taking into account the area's demands, the most attractive features, and the conservation objectives. Recreation and supporting services are concentrated in suitable locations from both conservation and logistical viewpoints. Visitors are directed to the recreation zone, primarily by marking routes, placing facilities, and guiding access appropriately. Restricted zones can be set up, if securing the viability of the valuable fauna or vegetation in the area requires them.

Activities that strongly interfere with nature will be directed to sites outside protected areas. The aim is also to minimise the disturbance that the different recreation activities in protected areas cause to each other. The different forms of use can be directed towards the same routes, as long as the desired customer experience and safety are not compromised. Routes and service facilities are scaled based on the demand, the environmental impact, the desired customer experience, and demands of visitor safety.

8.3 Applying everyman's right in protected areas

The public right of access, or so-called "everyman's right", gives, by international standards, citizens (and foreign visitors) in Finland exceptionally equal and diverse opportunities to go and act in the outdoors.

Everyman's rights are considered a traditional right to move around on foot or by other "musclepowered" means, to camp temporarily, and to collect natural products on the land of another without the owner's consent. In a broad sense, everyman's rights concern any activity for which the legal consent of the landowner is not required, no authorisation is needed from an authority, or is not otherwise prohibited. However, everyman's rights are not actually specifically defined by law. Reference is made to the rights in criminal law and the Nature Conservation Act. The Water Act also contains certain provisions concerning general use of waters that correspond to these rights. The Ministry of the Environment has published a guide "Everyman's rights and acting on another's land. Legislation and good practices", in which public rights of access are dealt with extensively and comprehensively.

Operating under everyman's rights may not cause any greater harm to the environment or to the landowner. Man-powered hiking and wildlife observation generally do not have adverse effects on the conservation objectives of a protected site. Therefore, hiking is generally permitted in protected areas, and to a limited extent even in some of the strictly protected areas (IUCN management category Ia Strictly protected area; see Appendix 2).

However, in nature reserves, it may be necessary in some situations to restrict public rights of access due to conservation objectives. The restrictions in different areas are based on the Nature Conservation Act, the provisions in the establishing enactments of each area, and the site regulation orders. Situations will vary depending on the type of protected area, the site objectives, and the operating pressures directed towards it. Public rights of access may be restricted (only) for legitimate reasons.

The Nature Conservation Act (1096/1996) defines the provisions of the national parks and strict nature reserves, as well as the general derogations to them and those requiring a permit. These clauses also apply largely to other nature reserves. In wilderness reserves, there are usually no specific restrictions to public rights of access. Belonging to the Natura 2000 network does not, in itself, affect everyman's rights within a site. However, many of the Natura sites consist, in whole or in part, of national nature reserves, where the rights may be limited.

The tourism business may be based on activities (e.g. hunting, fishing, and off-road traffic) that, on the basis of specific legislation, require the landowner's authorisation or consent. Other types of tourism business may often be carried out in nature reserves under public rights of access, unless this is expressly prohibited or limited by the provisions of the area. These rights do not, however, entitle anyone to engage in a permanent activity on another's land. Events and tourism business may possibly involve such endangering effects on the conservation values, or special effects on other use of the area, that they require the landowner's permission or consent (see Chapters 8.5 and 8.6).

The use of maintained visitor facilities, such as resting sites with fireplaces, are not considered an everyman's right, and consent is needed from the landowner. This is also the case in protected areas, even though most facilities are intended for general free use and authorisation is usually not needed. When facilities are used for business activity, this requires authorisation from or agreement with Parks & Wildlife Finland, and a fee is charged. For most booking and rental services, fees are charged from all users.

8.3.1 Access to sites and camping out

As described above, the use of nature by everyman's rights does not require the permission of the landowner, and a fee may not be charged for it. Man-powered access and temporary camping, and the picking of berries and fungi, are generally allowed.

In nature reserves, public access is also generally allowed, with the exception of strict nature reserves and the restriction zones of other nature reserves. In national parks or nature reserves, the provisions laid down in establishing enactments, and the specific regulations issued, may prohibit or restrict access if preservation of the fauna and flora so requires. Such a restriction may apply throughout the year, during the summer season or breeding time for animals, or can be limited to certain routes. In some situations, movement may be restricted in protected areas, also for security reasons – such as biking on crowded hiking routes. Access to sites with dogs is usually not restricted as long as they are kept on a leash.

Moving on or in waters (by boat or swimming/diving) and taking or using water for your own need (e.g. drinking, cooking, or bathing) are so-called general use rights corresponding to everyman's rights, including in protected areas. Boating on open waters and anchoring temporarily are allowed, as long as it does not cause any unnecessary disruption to wildlife or to the landowner. In nature reserves, regulations can be issued for conservation reasons - such as landing restrictions (e.g. on bird breeding islands), which are usually in force only for part of the year. Swimming and diving in the waters of protected areas are allowed everywhere if access is otherwise not restricted. It should be noted, when diving, that shipwrecks that are more than a hundred years old are protected by the Antiquities Act and must not be touched. Motorised water transport is covered in Chapter 11.2.

Temporary camping that is based on everyman's rights (which do not include the right to make a fire, and may not cause disturbance to other users in the area) does not require the permission or consent of the landowner. However, in protected areas, public access camping is often prohibited or restricted by site-specific enactments or regulation orders. In strict nature reserves and small conservation areas, camping is generally prohibited entirely by the provisions. In most national parks and other large nature reserves, camping is allowed in designated camping areas, which are maintained. In remote zones of the largest national parks and in the wilderness-like mire reserves and old-growth-forests, temporary camping is generally allowed.

Long-term camping in protected areas may easily cause disturbance. For this reason, P&WF's objective is that long-term camping is notified in advance using the form provided on the Metsa.fi website. In this way, P&WF can make an assessment in advance of whether the intended camping might have adverse effects on threatened species or vulnerable habitat types. If necessary, the party concerned may be contacted directly and possibilities to reduce the adverse effects can be negotiated.

In the past few years, tent saunas have become more popular and P&WF interprets these as "camping", so campsite rules and restrictions apply to them. The firewood brought to campsites by P&WF is not meant for heating tent saunas, so use of the wood for this purpose is prohibited. Some of the sauna stoves used in tent saunas are comparable to open fires, so the provisions applied to open fires are applied to these stoves (see Chapter 8.3.3). In addition, the user must take care of the ashes after heating the sauna stove.

8.3.2 Temporary "arks" and floating lodges

Particularly in the far north in Lapland, where distances to accommodations are long, movable base camps, or so called "arks", are used for resting and spending the night out in the field. The structure and use of these temporary lodgings are variable, so defining whether they need a permit has to be resolved case by case, depending on their construction and the duration of use.

The "arks" are interpreted as fixed base camps if they are held in place and used throughout the year or even for years in the same place. In this case, they are regarded as a structure that needs a building permit. P&WF interprets the "arks" as temporary lodgings if they are not fixed in position and they are kept in place for a few months at most. If the "ark" is transported on a one-off

basis or repeatedly, and is not stored out in the field or on the ice in between, it does not require a separate permit (however, a permit for off-road traffic is needed). If the "ark" is left in the field or on the ice, it requires a permit or the consent of P&WF. The applicant must also obtain the necessary permits from the local municipality.

Matters relating to buildings and structures are within the jurisdiction of the municipal building authority, so it should control compliance with the Land Use and Building Act. However, the problem is often that these installations can be transferred after being ordered to be removed, and may be brought back again. Sometimes these semi-permanent and unlicensed constructions may also pose a problem because of littering, and are then within the jurisdiction of the municipal environment authority.

Comparable principles apply to different types of floating saunas and lodgings that are used on waters during the summer time. Anchoring is normally a part of boating, but when anchoring is more or less permanent, this type of "device" needs an authorisation.

8.3.3 Making campfires

Making a fire in the countryside requires permission from the landowner, so it is not considered an everyman's right. Many protected area enactments prohibit or restrict the making of fire. If an area has a management plan and/or regulation orders have been issued, these are applied. In most protected areas, making fire is only allowed in designated places. In many of the extensive wilderness reserves and other protected areas of Northern Finland, making fire is allowed more freely, using dry dead wood and small branches. In Southern Finland, a free permit to make a campfire outside the designated places may be granted when designated places are not available. When official forest fire warnings have been given by authorities, making open fires is prohibited.

Parks & Wildlife Finland takes a positive view of twig cookers, because they are a good alternative to a campfire and save wood. A large number of the cookers can be compared to an open fire, because the bottom heats up and sparks fly. Because of this, they cannot be used during forest fire warnings or in parts of the country where their use requires the permission of the landowner. Safe cookers can be compared with camp cookers, but the user always has responsibility for any damage caused.

8.3.4 Picking berries and fungi, collecting dry wood, and catching fish

Picking berries and fungi, as well as gathering dry sticks and cones that have dropped on the ground, is normally allowed wherever access is not restricted. In nature reserves, collecting live plants and plant parts (e.g., mosses, lichens, polypores), as well as the capture of insects, is generally prohibited, but derogations may be granted for research or other scientific purposes or instruction (Nature Conservation Act).

Certified organic growth areas may be established in protected areas for commercial berry pickers. This requires, however, an agreement with Metsähallitus as the landowner. In some situations, the certified areas may result in conflicts with local non-commercial berry pickers who are using their public right of access. In order to prevent such conflicts, locally preferred picking sites may be left out of certification areas. It should be noted that the area certificate does not in any way affect the rights of other users and the free picking of berries.



Autumn colours in the Riisitunturi National Park. Picking berries is an everyman's right and allowed in most protected areas in Finland. Photo: Ismo Pekkarinen.

The collection of *Inonotus obliquus*, commonly known as the "chaga mushroom", from forests has increased in the last few years, for both household and commercial use, due to its alleged health benefits. Polypores are wild fungi and their collection, as a general rule, is allowed by everyman's right. The chaga mushroom growth (i.e. the part that is collected) is not a polypore, however, but a gnarl of the fungus that grows on the tree, and removing it is not possible without damaging the tree. The collection of this fungus is not allowed by everyman's right. Metsähallitus does not issue permits for the collection of the fungus in forest nature reserves, other than for the purposes of research.

Angling with hook and line and jigging (ice fishing) are considered so-called general use rights that are analogous to everyman's rights. In some nature reserves, angling and ice fishing have been restricted by establishing enactments and, in some cases, by regulation orders. Normally, the orders may restrict these rights only by setting up access restriction areas, and the nature conservation criteria for establishing these must be clear (Nature Conservation Act). In addition to angling and ice fishing, fishing with one rod, reel, and lure is also included in the general rights, with some restrictions (Fishing Act).

8.4 Nature sports and other activities in protected areas

Protected areas are often attractive natural sites and interesting places for engaging in outdoor activities, including nature observation and photography. Hiking and being outdoors in nature have significant health effects – both physical and spiritual – and promotion of these activities is in line with the objectives of Metsähallitus. A variety of sports enthusiasts form new visitor groups in protected areas, and for many sporting is also a novel way to explore the national parks.

Hiking on foot, using snowshoes, skis, or skates, riding a kick bike, and riding on horseback, driving a reindeer or dog sled, or moving around in any other non-motorised manner, are allowed using everyman's rights wherever access is otherwise permitted.

In some situations, it is necessary to restrict the sport or hobby activities for nature conservation reasons. Each activity is assessed separately according to its nature and the amount of pressure it creates. Generally, the suitability of such activities in protected areas may become questionable when activities are organised as events and the number of participants becomes very large.

Protected areas are exposed to a wide variety of activities and their specific needs. This calls for coordination of these needs, sharing of facilities, and tolerance between the various interest groups. Through careful and participatory planning of protected areas, P&WF seeks to find and show, from the point of view of both nature conservation and of all visitors, the most suitable locations and routes for a variety of sports activities. Using positive communication, the special activity groups are encouraged to take into account other user groups, and the safety factors related to each type of activity (see Chapter 8.7).

The following chapters describe examples some of the customary types of sports and pastimes practised in protected areas. Some of these are briefly also highlighted in Chapter 8.5, which discusses organised activities and events.

8.4.1 Nature photography

Photography is permitted in protected areas within the framework of access restrictions, provided that it does not harm or disturb the fauna and flora in the area. Deliberate disturbance of protected animal species, particularly during the reproductive period, is prohibited by the Nature Conservation Act. Thus, photography of birds' nests is not allowed; any deviation from this provision requires the ELY Centre's permission. Permits allowing access to strict nature reserves or to restricted areas of other nature reserves shall not be granted for professional or non-professional photography.

Authorisations will not be granted for nature photography in caches or other structures within established nature reserves. In sites not yet statutorily established, such authorisations may be granted with careful consideration. Using light tent-like hides for nature photography is analogous to temporary camping by everyman's right, so it does not require the permission of the landowner. If, however, such nature photography in a hide takes a long time on the same spot, it is the recommendation of P&WF that the activity should have the landowner's consent. If camping is prohibited in the protected area, this also applies to a similar photography hide.

Permits for keeping carrion for the purposes of nature photography or tourism will not be granted in established nature reserves or sites designated for conservation. In the Reindeer Husbandry Area, this also applies to other types of protected sites; this is part of the cooperation agreement signed between Metsähallitus and the Reindeer Herders' Association in 2013. If an authorisation to keep carrion is granted for reasons of nature conservation or research (see Chapter 6.3.3), photography on the spot is allowed for the keeper. If it is necessary to regulate the visits of other nature photographers, these constraints should be included in the permit or agreement. To the extent permitted by the authorisation, the keeper of the carrion is able to control the number of visitors.

Permits for snowmobiles needed by professional nature photographers may be granted in protected areas on a case-by-case basis, in accordance with the Off-Road Traffic Act. This type of permit applies only to limited maintenance transportation in the winter time, and off-road vehicle permits are not granted for transport of equipment or customers in the summer time. Regional offroad vehicle licences are not granted; the licences are always allocated to certain routes or tracks.

Camera installation in the field always requires the permission of the landowner. P&WF generally has a very strict attitude towards installing cameras in areas under its governance. Outside parties may have a need to mount cameras in the field for purposes of research or general non-profit nature observation. In some cases, P&WF may have its own need for camera observation (e.g. nest monitoring).

In established nature reserves, permits may only be granted to install cameras for research and non-commercial, non-profit purposes. In other protected areas governed by P&WF, the criteria may be looser. Authorisations may be granted only when the monitoring is targeted at a clearly limited nature or game feature, and when there is no risk that persons moving within the target area will also be exposed. P&WF may grant a permit for camera surveillance of people only in quite exceptional cases.



Photographing *Calypso bulbosa*, known as the Venus's slipper. This threatened orchid is one of the beautiful natural attractions of the Oulanka National Park. Photo: Ismo Pekkarinen.

8.4.2 Geocaching and letterboxing

Geocaching is a hobby that involves hiding caches outdoors and searching for them using coordinates obtained via the Internet, using a GPS device. Letterboxing involves searching for caches with descriptions or clues pointing to the hide. The size of the cache may vary from a film container to a freezer box. Every such cache has to have an owner, who is responsible for it and any harm possibly caused by the searching.

Geocaching and letterboxing entice people to move around in the outdoors, which is why P&WF welcomes these activities. However, the caches must be set up without harm or disturbance to wildlife or other users in the protected areas. If the caches are connected to service structures in the field, these may not be damaged in any way.

When a cache is established in a nature reserve, P&WF must be informed. This enables P&WF to contact the responsible party if there is reason to remove the cache, such as when trails become eroded or species are disturbed. Caches may not be set up in parts of protected areas where restrictions to access are valid. Practical information on notifications of caches is provided on the Outdoors.fi website maintained by P&WF.

In other areas governed by Metsähallitus, geocaches may be established, taking into account the constraints mentioned above and the need to inform P&WF.

8.4.3 Rock climbing

Rock climbing is nowadays a popular recreational activity and a fast-growing form of exercise. Rock climbers are mostly common outdoor hobbyists who climb safely. Rock and ice climbing, descending on a rope, and bouldering (i.e. climbing on large boulders) can be practised anywhere where public right of access is not otherwise restricted.

In Finland, on the other hand, only a small number of cliffs are ideal for climbing, which is why these few rocky outcrops are very important for climbers. A large number of well-known climbing venues are located inside nature reserves. For example, one of the best climbing cliffs in the country is found in the Repovesi National Park, and it is one of the key attractions of the national park. The cliffs facing in the south-southwest direction are often most suitable for climbing, because they tend to be dry and have less vegetation. Only certain types of stone, which allow getting a good grip, are suitable for climbing purposes. Every now and then, new rock climbing sites are found, and these may also be located in protected areas.

The landowner's permission or consent is required, if climbing requires the installation of permanent bolts and so on. The removal of small amounts of eroded stone material from a cliff-top is possible by everyman's right, but the removal of moss, lichen, or other vegetation is not allowed, nor is damaging shrubs or trees without the landowner's permission and their case-by-case consideration. Based on the Nature Conservation Act, it is possible to set local restrictions on climbing, in order to protect the valuable species in a nature reserve. The maintenance of existing routes for climbing, by cleaning accumulated soil and vegetation, is allowed.

The climber always has responsibility for ensuring their own safety. The same principle applies to any permanently installed security anchors, so the climber takes responsibility for using them. The anchors that are mounted on a rocky surface are small and often almost invisible to other visitors. They may not pose any risk of entangling animals and so on.

The Finnish Climbing Association works as an umbrella organisation to promote climbing hobbies in Finland. Ensuring that climbers' interests are taken into account is best done by contacting local climbing clubs or the Climbing Association directly. Several climbing clubs maintain the climbing cliffs in their region by voluntary work. The Climbing Association maintains a database of climbing sites, and has actively developed climbing-related good practices.

8.4.4 Mountain biking

Cycling and mountain biking are allowed by public right of access, generally also in protected areas. They are usually practised using existing trails, routes, and roads. In Finnish circumstances, biking outside the path network is very difficult and, in practice, rarely occurs.

Mountain biking can cause erosion on hill slopes, fell areas, and other vulnerable habitats, such as sandy heaths and rocky areas with light vegetation cover. The packing or breaking effects on path surfaces caused by mountain biking are quite similar to the effects caused by hiking or running. The possible harmful effects caused by mountain biking on the nature conservation objectives in protected areas can be prevented by limiting cycling to clearly visible paths, maintained hiking routes, and side-roads.

Mountain bikers and other path users can generally use the same routes. Touring mountain bikers can enhance the safety of hikers on forest trails by reducing speed in situations where they meet. On the other hand, on hard-surfaced dirt roads, the speed differences between bikers and walkers may be great. For this reason, during peak times or on the most crowded route sections, it may be appropriate to guide cyclists to wheel their bikes or to reduce speed, and to advise hikers to take into account other routes users. Cooperation may be encouraged by positive advice: when encountering others, "an attentive biker" will slow down, give way, and act considerately. On the busiest routes, mountain biking can be restricted for security reasons, on the basis of the Consumer Safety Act (920/2011).

If a management plan is drawn up for a protected area, it should take mountain bikers into account and should involve enthusiasts and mountain biking clubs in the planning process. Hobbyists often have knowledge of local conditions, and appropriate mountain biking trails can be defined and possible restrictions agreed in cooperation. Trails can be marked, renovated, and reinforced together with active bikers by arranging voluntary work events. Possible restrictions on mountain biking are put into force by a site-specific regulation order. Mountain biking opportunities are worth highlighting in the guidance material for the site, and trails should be marked on the ground and on site maps, if necessary. The guidance helps to direct cyclists to the most appropriate routes. Natural routes could be, for example, those cultural historical forest bicycle trails that were once built to connect logging cabins.

8.4.5 Orienteering

In areas where access is allowed by everyman's right, orienteering is normally also possible. Orienteering is practised in many different ways, from individuals going out with a map to large, organised mass events. A large part of the sport consists of small-scale fitness events organised by orienteering clubs that involve only a few participants and cause no more than slight harm or disturbance to protected area objectives, so it is considered everyman's right. Even at fitness gatherings that are organised in larger urban areas, the number of participants may become so high that the event requires the consent of or agreement with the landowner. Organised orienteering events in protected areas are dealt with in Chapter 8.5.

Orienteering sport activities are organised, and competitions are arranged, by local orienteering clubs. Orienteering clubs regularly use some of the recreation and protected sites in the vicinity of urban areas. With respect to these areas, long-term agreements can be made with the clubs to agree on the frequency, location, and other principles of use.

Orienteering clubs are also largely responsible for the preparation of orienteering maps. During the mapping phase, clubs are often in contact with the landowners. In the same context, it is also possible to discuss the terms and conditions of land use. This may be appropriate when protected areas are concerned.

The general aim is that fixed control points for orienteering are located close to urban areas and potential users. These are usually intended for trials or individual practice, or for basic education, and they are often maintained by municipalities or educational institutions. The placement of fixed control points requires the landowner's permission. Check-mark locations can be agreed with the maintainer and thus the land use and erosion effects directed away from sensitive sites and features.

8.4.6 Horseback riding

Horseback riding is generally considered everyman's right, but may cause erosion to the terrain. Separate trails and routes are often needed for horse riding. Trails that are meant for other outdoor activities are, in practice, not suitable for riding, because the horses' hoofs break the surface of such routes. Horse riding is largely an organised activity, but not all enthusiasts belong to organised clubs.

Horse trekking routes in Finland are developed by the Equestrian Federation of Finland and the Trail Riding Union of Finland. The vast majority of cross-country riding, however, takes place outside official horse-riding routes, such as on forest roads and paths that are relatively near the stables. Riders may also have an interest in the use of protected areas, and wishes concerning the planning and marking of routes and trails. Horse-riding routes may be planned in protected areas, according to the opportunities offered by the individual area, either in connection with management planning or as separate projects.

An individual rider does not usually require separate routes and an agreement with the landowner. When the horse-riding activity is widespread or persistent, and thus erosive to the terrain, it has to be agreed on with the landowner. In protected areas, such activities require a cooperation agreement with P&WF, in which the routes available for use are defined. Local devotees can be contacted by searching for members of the Equestrian Federation, or by approaching the local stables and private horse owners directly.

A towable sleigh or horse trailer is defined as a horse vehicle and thus it must comply with the provisions laid down for vehicles on the road. Off-road traffic legislation does not, however, apply to these horse vehicles. Horses may not be left to graze without the landowner's consent, but can be taken into water to swim without specific consent.

8.5 Organised activities and events

Organised activities may generally be seen as private occasions, public events, or public meetings. Private occasions include excursions or tours (e.g. bird watching organised by a birding club), recreation days, interpreted hikes, and nature trips. The organisation of such small-scale activities is usually possible based on public right of access.

All organised events that are open to the public are either public meetings or public events, and provisions about organising them are laid down in the Assembly Act (530/1999). Public meetings are gatherings to which the public has free access and where the point is distribution of information or formation of opinion (e.g., demonstrations and processions). Public events are organised happenings that are open to the public, such as recreational opportunities (e.g. midsummer festivities), demonstrations (e.g. rafting events), or competitions (e.g. orienteering races). Public events and public meetings that are organised outside public areas (e.g., market areas and squares) require the consent of the landowner.

The aim of P&WF is that organisers give advance notice of events (with the exception of the very smallest) using the form provided on the Metsa.fi website; the same form may also be used for notifications of long-term camping. On the basis of the notification, P&WF estimates whether the event (or camping) requires the consent/written permission of the landowner. If so, the informant is contacted.



A guided botanical walking tour in the Pallas-Yllästunturi National Park in Lapland. Photo: Seija Olkkonen / Metsähallitus.

Recreational use that is based on the use of motor vehicles is possible in protection areas only in exceptional cases. However, it is possible to get permits for off-road vehicles for service operations connected to organised activities and events. In some protected areas, it is also possible to use snowmobiles on designated routes or on snowmobile trails, which require a licence from Metsähallitus (see Chapter 11.1 for more details). Recurrent or permanent organisation of a competition or exercise in the same water-catchment area using a motor-powered water vehicle does not fall within the scope of the general use rights (see Chapter 8.2.1).

Organisers of camping events, such as scouting camps and camping schools, may reserve camping sites where large groups are able to put up tents. The campsites are equipped with, among other things, campfire places and dry toilets. These kinds of larger campsites are available in some of the national hiking areas (Evo and Hossa) and national parks (Teijo and Tammisaari).

8.5.1 Cross-country competition events

Protected areas are attractive environments for organising various types of outdoor competitions. Such events include orienteering and running races, mountain biking and adventure competitions, contests for army reserves, scouts, and wilderness hikers, and various skiing races and other winter games.

The suitability of the activities and events in protected areas must be resolved on a case-by-case basis, taking into account the nature of the protected area and the conservation objectives, the time and the size of the event, and the role of the area in the event. The competition must have a responsible organiser, and P&WF should always be notified in advance, using the Metsa.fi web service, for example.

Cross-country race events can cause soil erosion, trampling of vegetation, and disturbance to animals. There is a very wide range of protected areas, and some of them can endure more disturbance than others. The recovery speed also varies. In spring and early summer, when birds are breeding, events can cause greater harm than later in the summer or autumn. Within a protected area, the effects may also vary depending on the habitat types. For example, rich marshes and rocky areas may be particularly sensitive.

In Finland, the Jukola orienteering competition is by far the largest of all cross-country events, with approximately 15,000 participants. Because of the large number of participants and the resulting treading and disturbance, it is usually not possible to arrange the event in protected areas. Other cross-country competitions, fitness events, and exercises are substantially smaller, but their suitability must be resolved on a case-by-case basis. Cross-country race events are usually non-recurring and, as such, usually cause just a temporary disturbance to nature.

The event notification given to P&WF must include information on what kind of event is planned. The role of the protected area can be discussed with the director of the competition and the track master. The location of the venue centre in relation to the protected area is a key factor in the resulting environmental impact. The largest pressure is usually at the centre and in the surrounding area, and the peripheral areas are used only by competitors taking part in the longest races. Competitors can well be directed by route design, and by working with the track master, the landscape points potentially sensitive to erosion or disturbance can be circumvented or marked as closed to access. If necessary, the competition centre, the sites for the start and finish, and maintenance and sleeping facilities, may be fully or partly placed outside the protected area.

In trail-running and mountain-biking events, erosion may be caused to the existing trail network and temporary disturbance to other users of the area. In the most popular hiking destinations, it may be appropriate to organise the event outside the high season and possibly to use quieter trails. The most vulnerable routes may be fortified by different structures. Special attention should be paid to informing other users about the event. Restrictions may be set by specifying the maximum number of participants at the event.

8.6 Nature tourism entrepreneurship

The impact of protected area-based tourism is significant in many regions. Activities promote the local economy and employment, help to give a positive image of environmental protection, and have a positive influence on actual nature conservation. Parks & Wildlife Finland creates the conditions for sustainable tourism in protected areas. The services produced by P&WF for visitors to protected areas are part of the tourism service package that is mainly produced by tourism companies.

The aim of cooperation with enterprises is to secure the sustainability of nature tourism in national parks and other protected areas. In addition, other common objectives are that awareness of Parks & Wildlife Finland and its affiliated companies is raised, and that the attractiveness of the protected areas to visitors is enhanced. The cooperation also seeks to promote product development and communication, and to serve common customers as well as possible.

A cooperation agreement is drawn up with tourism businesses that rely on the protected areas and their visitors. The agreement defines the purpose, mutual objectives, and commitments of the cooperation. Through the cooperation agreement, the company undertakes to comply with the Principles of Sustainable Nature Tourism in protected areas and to report on its activities on an annual basis. Correspondingly, P&WF commits to maintaining the quality of the protected area services and to communicate the company's services through different marketing and information channels.

There are two kinds of cooperation agreements:

- 1) An agreement without granted right of land use (free of charge)
- 2) An agreement that includes granted land use rights (a fee is charged).

The bulk of the social recreational services produced by P&WF are statutorily offered free of charge. The payments for P&WF products and services are laid down in the decrees issued by the Ministry of the Environment (1326/2013) and the Ministry of Agriculture and Forestry (835/2013). If a company, a professional person, or another business community uses a facility maintained by P&WF to produce any fee-based product, this requires a cooperation agreement that includes a land use permit.

Land and water areas located in protected areas are not rented out for tourism purposes. P&WF may, however, rent facilities for nature tourism, such as for coffee shop services. Maintained facilities may be used for business (with an appropriate agreement), provided that this does not restrict the public use of the facilities and services. Free and open huts, or pre-booked wilderness huts, by their very nature, are unsuitable as tourism business platforms. The tourism enterprises are directed to rentable facilities, including resting places, wilderness huts, and lodges.

In the following, dog sledding is used as an example of the kinds of activities that, on a small scale, can be carried out based on everyman's right, but that on a massive scale and as a continuous programme service, may result in harm to wildlife and other users, and therefore requires agreement and/or permission.

8.6.1 Dog-sled riding as an enterprise service

Dog sledding, especially as a programme service, has increased sharply throughout the past few decades. Dog sledding is, in principle, interpreted as an everyman's right. Individual hobby dogsled teams and entrepreneurs' non-recurring dog-sled rides may qualify for such public access use. However, some of the dog-sled riding organised by entrepreneurs uses maintained routes or tracks. In practice, tracks are always maintained using snowmobiles, which requires the permission of the landowner or an agreement. The repeated and regular use of these routes and tracks for dog sledding can cause harm to reindeer herding and can thus make it more difficult for the Sámi to pursue their traditional culture in their Homeland. For this reason, entrepreneurs in the Homeland area are required to obtain a dog-sledding operation licence or to make an agreement with Metsähallitus.

The authorisation procedure aims to prevent any conflicts between dog sledding and other user groups in the protected area. Conflicts may arise if public open cabins and break places are used for dog-sledding operations. In some cases, for example, dog droppings can foul the surroundings of the cabins. At some of the sites to which dog-sledding activity is directed, so-called dog parks have been set up at sufficient distance from the resting places.

If a company opens up cross-country dog-sledding routes without an agreement with Metsähallitus in advance, many kinds of conflicts may arise with other activities. At the same time, the company may, in some circumstances, also work adversely from a nature conservation point of view. P&WF has information on the habitats and nesting places that require protection. Only by negotiating and agreeing on the transport routes can these be taken into account. Metsähallitus consults the Reindeer Herding Districts on planned routes, to avoid larger conflicts with reindeer husbandry. Consultations are always carried out before agreements are made on tracks and resting places.

The contracting policy has been proven to work well for the interests of the different parties and also to be a good method to promote implementation of the Principles of Sustainable Nature Tourism. With good planning and cooperation, the achievement of conservation objectives can also be improved, by avoiding causing disturbance to vulnerable species and destruction to habitat types.

In some national parks, dog-sledding operations are limited and take place in accordance with the management plan and guidelines laid down by the site regulation orders. In the national parks that are located within the Sámi Homeland, dog-sled driving is generally prohibited. In wilderness reserves, the general principles for dog-sledding operations, and the limits of using everyman's rights, are outlined in the management plans. In protected areas that do not have a management plan, these principles and the details of the dog-sledding routes can be defined in permits or agreements.

Dog-sledding operations should, if possible, be guided to areas outside the nature reserves, and to areas in which they will cause the least harm to others users.

8.7 Interpretative communication and marketing

Interpretative communication is part of the protected area service palette and the overall nature conservation work of Parks & Wildlife Finland. Interpretation guides visitors towards sustainable, considerate, and responsible behaviour. The aims of interpretative communication are:

- to improve the accessibility and security of the sites (on the ground)
- to give basic information on the areas (in multiple formats)
- to promote the protection of the natural and cultural heritage
- to deepen the visitors' natural and cultural experience
- to give ingredients for environmentally responsible and active civil behaviour.

Interpretative communication has three levels: 1) supplying basic information, 2) promoting awareness, and 3) providing deeper insight. Guidance will always include basic information on the facilities and services, so that the visitor can navigate safely in protected areas, taking into account the principles of sustainability. Awareness-awakening guidance aims to increase the visitor's interest in the natural environment, cultural heritage, and conservation. In-depth interpretation (nature education) aims to deepen the visitors' nature experience, and to get them to act on behalf of nature.

Guidance communications are basic services of P&WF. General advice, guidance, and information are statutorily provided free of charge when they cause only minor costs. Those interpretative services and products that are separately ordered from P&WF are usually charged.

Interpretative communication about specific protected areas is developed according to service demand and the character and location of the area, taking into account the limitations imposed by the conservation objectives of the site. Information is provided on the boundaries and the regulations of all the protected areas.

Marketing development is concentrated mainly on the sites that are most important for nature tourism and recreation, but even for these areas, interpretative material is offered in line with demand. Following policy decisions made by the P&WF Steering Group, the most important visitor centres will be profiled as promoters of nature tourism, environmental education, or both. Other visitor centres are integrated more strongly into the local operating environment than they have been previously.

The most important target groups for interpretation are recreational visitors and educational groups. These groups have significant differences in their motives. The first group visits the protected areas in their leisure time and comes to refresh themselves, the other visits for spontaneous or curriculum-based learning.

Distribution channels for interpretative communications are:

- web-based services (Outdoors.fi, Excursionmap.fi, Metsa.fi, Eraluvat.fi, and social media)
- nature centres and other customer service points
- P&WF ranger guides and certified external guides (including volunteers)
- contracting companies (nature tourism entrepreneurs)
- travel info, hotels, and other external actors.

In addition to the services provided by P&WF, tourist enterprises often offer guided activities. With careful planning and cooperation, it must be ensured that the services of both actors complement each other.

While guiding the use of protected areas and in interpretation activities, the principles of the P&WF Communications Programme are adhered to. The programme aims to support the goals of the P&WF Action Programme (see Chapter 2.5) and to enhance the reputation of P&WF. In all aspects of communications, the idea is to strengthen the target image, which reflects the essence of the P&WF mission as "Manager of Finland's most splendid nature – for the benefit of nature and people". There are three core messages to strengthen the image in the minds of the target audience, and they are formulated in different versions for different situations:

- Parks & Wildlife Finland manages Finland's most splendid nature in a responsible way.
- The unique nature produces health, income, and employment.
- Parks & Wildlife Finland brings nature experiences to everyone.

The more specific messages for interpretational communication are the following:

- By safeguarding biodiversity, we ensure the adaptability of nature in the future.
- By managing the unique and diverse cultural environments and historical features, we cherish our cultural heritage.
- The conservation of biodiversity requires that we change our consumer habits.
- Being and moving in nature refreshes us, and enhances our health and well-being.
- Everyone is responsible for the enjoyable atmosphere and the preservation of natural values in protected areas.

The **customer communication** associated with protected areas includes pre-visit marketing, communication and service on-site, and interaction after the visit. The desired site image and customer experience are defined for national parks and hiking areas. The site image tries to emphasise the unique qualities of each site, and it should be visible at all stages of customer communication and interaction. Protected areas, the national parks in particular, are promoted as well-managed quality destinations with unique conservation values, where one can experience "genuine contact with nature".

The aim is to enhance the significance of national parks as attractions, to increase nature tourism. The idea is to create demand and to extend visitor stay time in the tourism areas. Awareness and demand increase the positive attitude towards management and sustainable use of the national parks, and of other conservation and wilderness areas. This helps to improve the operational conditions and resources, and to strengthen the reputation of Metsähallitus and Parks & Wildlife as an attractive and reliable partner that can help in bringing benefits to the local economy.

Customer communication channels include printed media and e-newsletters, web services and social media, visitor centres, and other customer service points where protected areas are presented, as well as other communications material that is produced separately on demand. One aim is to support partner communications, so that tourism industry partners communicate about state-owned protected areas with the same objectives and messages as P&WF.

Each of the national parks and national hiking areas, and some of the other protected areas, have their own logos, which are also registered trademarks. These logos are used in marketing and communication. Common principles on the use of the trademarks have been drawn up.

Operating as a public administration body, Parks & Wildlife Finland is a bilingual authority, obliged to serve in the official national languages, Finnish and Swedish (Language Act 423/2003). The customer has the right to use their own mother tongue, including in a monolingual region. In the Sámi Homeland, the Sámi language is also used in the manner required by law (the Sámi Language Act 1086/2003). In addition to service in the Finnish language, the other language that is primarily used is North Sámi, which is the most commonly used Sámi language. These principles apply to authority resolutions, web pages, and customer service. Other communications materials, such as exhibitions, brochures, signs, newsletters, and publications are produced, regardless of channel, in languages other than Finnish, when it is important from the point of view of the target groups. In addition to Swedish and Sámi, materials are produced most commonly in English for international customers and interest groups.

8.8 Recreational facilities and their maintenance

The purpose of the service facilities in protected areas (hiking and orientation structures, buildings, and trails) is to improve the conditions for recreational use of the areas, as well as to direct the use in accordance with the objectives of nature conservation and other use. The dimensions, quantity, and quality of facilities are based on the nature and location of the protected areas, on the structure of demand, and on the types of customers, as well as on where and how recreational use is distributed in the area.

The profile of each protected area, which is derived from its nature and the opportunities it offers, as well as the site-specific establishing objectives and conservation provisions, also sets certain limiting preconditions. In popular areas with heavy recreational use, service facilities are concentrated in the recreation zone. According to demand and supply, and the intrinsic properties of the protected area, it can be profiled as a tourist attraction or a site for hiking, sports, nature observation, or environmental education.

In particular, near tourism centres and urban areas, there is usually high demand for easy-to-reach and versatile daytime customer services. These are easy (and accessible) trails, resting places, and services supporting observation and learning (such as nature trails and natural or cultural sights). In these areas, programme services are usually also offered by tourist enterprises. In general, these sites are suitable for inexperienced hikers, and are used all year round.

The majority of national parks and a number of other protected areas are equipped so that basic skills in hiking are adequate for exploring them. These are sites for a short stay, with marked trails, including resting places, also suitable for an overnight stay, and they may have services to support learning. The trails are generally not as easily accessible as in the busy daytime destinations.

Hiking in large and remote wilderness areas requires good camping skills. As a general rule, they do not have marked trails, but are equipped with resting places such as open and booked cabins.

The busiest summer hiking trails are classified by difficulty. The rating is intended to help visitors to find the trails best suited for their physical condition and skills. The rating information is always found in the web services: Outdoors.fi/Nationalparks.fi and Excursionmap.fi. The ratings are also included in the signposting, when new trails are constructed or old signs are renewed. Descriptions of the suitability of routes and destinations provide important advance information for the customers.

8.8.1 Building service facilities

The guiding principle used in construction within protected areas is that, preferably, old buildings and structures are renovated. This preserves the old built heritage and ensures the maintenance of the cultural heritage values.

When building new constructions, the goals are safety, longevity, environmental sustainability, aesthetics, cost-effectiveness, and the reinforcement of the "genuine contact with nature" in the customer experience. Construction solutions should take into account that dismantling later is also possible.

Technological solutions that make use of renewable energy are favoured (e.g., geothermal and solar power). High quality is required in architectural, structural, and engineering design, at least when new visitor centres are built. For each property, there is a defined real-estate manager and person in charge. The condition of the buildings is inspected and monitored by regular assessments. Maintenance books are established for the most important buildings. For larger buildings and special structures, inspections can be bought as specialist services, but their level and information content must correspond to the objectives set by P&WF.

The desired customer experience and the maintenance requirements are taken into account in the design and construction of routes and trails. The busiest trails have to be built using the sturdiest re-enforcement (crushed stone, filter fabrics), in order to prevent wear and erosion. Duckboards, where possible, shall be replaced by mineral land-based trails. Durable material that is rot-resistant is used in the construction of new duckboards (non-toxic treated wood or other material options). The P&WF Drawing Collection for Construction of Hiking Structures is utilised wherever appropriate. (The Collection is also available for external use and is found on the Metsa.fi website.)

When selecting new materials and methods, not only are the life-cycle and costs to be taken into account, but so are the environmental effects and other objectives for sustainable construction, as mentioned above. Bringing extensive built complexes into Finland's finest wilderness-like natural landscapes is to be avoided. Different solutions may be used in protected areas in the vicinity of cities and urban areas. In addition, the surrounding cultural heritage will be taken into account in the selection of methods and materials for buildings and constructions. The expected increase in rainfall caused by climate change will be considered in the construction of routes and trails. Particularly in Southern Finland, the current season of summer routes will be extended as a result of global warming.

The use levels of service facilities should be examined periodically, at the latest before their renewal. The specific service requirements may have changed significantly since the original construction of facilities. Rerouting of trails may have to be considered in the light of acquired experience, for reasons of erosion, safety, tourist attractions, and so on. When a service facility is added, changed, or reduced (e.g., routes closed or the number of resting places reduced), it is important that the new situation is updated immediately in the relevant information systems, on the Outdoors.fi website, and in the area maps and guide materials.

8.8.2 Organising maintenance

The maintenance services in protected areas should be organised so that they cause the least possible burden on wildlife and interference to visitors. Waste management is arranged along environmentally friendly principles. Visitors are asked to take their waste to a sorting facility. Enterprises operating in protected areas are responsible for their customers' waste management. Guidance on reducing non-decomposing waste is provided for visitors. Bio-waste is composted, including waste from dry toilets.

Firewood is provided at most constructed and maintained resting places, with cooking gas in some of them. To reduce the environmental impact of fuel use, P&WF tries to influence customer behaviour, assesses consumption and maintenance needs, and develops methods of energy management. Customers are recommended primarily to use camping cookers of their own, and they are urged to save firewood and gas. A good way to reduce the consumption of wood fuel is to allow customers to prepare their own firewood, by sawing and chopping up the dry round wood that has been provided. Customers are also informed about the environmental impact of energy use and supply.

Firewood is usually imported from outside the protected areas. Wood that is taken from protected areas for management reasons, when opening the landscape for instance, can also be used as firewood. In some of the largest protected areas (e.g. Urho Kekkonen National Park, 2550 km²), firewood has previously been taken from remote parts within the area, following a separate plan. This practice has mostly been abandoned, because over time, it has adverse effects on the landscape and on forest biodiversity.

Various temporary accommodation and permanent bases and structures need to be constructed for use in P&WF's own building and maintenance operations in protected areas. The minimum burden on nature and the environment is sought in their building and use. Construction inside the protected areas should be avoided, especially in the most valuable parts.

Parks & Wildlife Finland is responsible for the maintenance of services in the protected areas. This is regulated, among other legislation, by the Customer Safety Act (920/2011). The services provided for visitors must be safe, and may not endanger a person's health or property. Customers are provided with adequate and correct information about the services, as well as about their use and the risks involved. The condition of buildings, structures, and routes is monitored, and the information maintained in the Reiska GIS database, to ensure the quality of the facilities and services.

Customer safety is comprehensively covered in the Parks & Wildlife Guidelines for Customer Safety. Rescue plans have been provided for all visitor centres, to anticipate emergency situations. It is important that the emergency notification number, 112, appears on noticeboards and elsewhere. The names of the facilities must also be clearly visible at resting places and on the terrain, and the names must correspond to those used on the Outdoors.fi website and in the GIS database (on which the public maps are based). Rescue service codes can be marked, mainly in places of accommodation or on signposts. P&WF has liability insurance, which pertains to management operations in the nature reserves and hiking areas, to surveillance work, and to activities promoting conservation and the recreational use of state lands and waters.



The Karhunkierros Trail in Oulanka National Park is Finland's most popular hiking trail. Hanging bridges take hikers safely over flowing waters. Photo: Minna Koramo / Metsähallitus.

9 Basic surveys, monitoring, and research

According to the Nature Conservation Act, one of the aims of establishing nature reserves is the promotion of nature research. Protected areas provide opportunities to study the structure and functioning of ecosystems that remain close to their natural state. Because the protected areas are permanent, they offer good potential for long-term monitoring of natural development and environmental changes. As environmental change accelerates, the significance of natural areas such as nature reserves will grow, because control areas are needed in research.

Metsähallitus Parks & Wildlife Finland carries out or commissions the necessary basic surveys needed for management of protected areas. P&WF is also a key player in monitoring protected areas (see Chapter 9.1). The actual research in protected areas is carried out mostly by external research bodies, many of which also have various monitoring projects in protected areas (see Chapter 9.2).

Protected area site and network condition monitoring and assessment are closely linked to adaptive management. These were discussed previously in Chapter 5.3.

9.1 Basic surveys and monitoring carried out and commissioned

9.1.1 Basic surveys and inventories

According to the operating principles of P&WF, protected areas are managed adaptively, supported by research and experience-based best practices (see Chapter 5.1). Management measures are to be based on sufficient information. The required knowledge base is continually supplemented and updated by basic surveys and inventories. The level of knowledge needed to guide management and use varies, depending on the nature of the protected area. More detailed information is needed in areas where habitat restoration and ecological management or recreation use are important priorities.

The long-term goal is to get adequate information on the natural and cultural features of all protected areas, as well as on the use of the areas. P&WF has compiled information on research and studies carried out in the protected areas in a bibliographic database, and the survey data is registered in GIS databases and study reports are archived.

Protected area management and operational plans can only be drawn up if sufficient basic knowledge is available on the area concerned. Data often needs to be supplemented by additional surveys and studies before planning can be initiated. At least occurrences of threatened species have to be known, as well as the most valuable sites for the protection of vegetation and bird life. Depending on the nature of the area, more detailed information may be needed, such as on certain habitat types and species, or the history and former land use of the area, as well as its recreational use. Operational plans often require even more accurate and detailed information about the area.

The collection of basic information on protected areas provides information for the monitoring and assessment of threatened habitat types and species. Data is also used for assessment of the site condition and the economic impact of individual areas, for comparisons between protected and commercially used forests and to evaluate protected area network coverage, quality, and representativeness. In addition, the information may serve interpretational and research purposes.

Habitat types and species

Information on the structure, representativeness, and naturalness of habitat types is collected from protected areas. The habitat data is assembled and supplemented by inventories, which are carried out almost exclusively in the field in southern parts of the country. In the vast northern areas, surveys are aided by interpretations of aerial photography. The survey data includes compartmental information on growth places, tree canopy, decayed wood, and naturalness. The inventory data is stored in the SAKTI habitat information database (see Chapter 5.4).

In Southern Finland, habitat surveys were mostly completed by 2006 in the established protected areas. All newly acquired sites are surveyed in the context of the METSO programme (see Chapter 3.8). In addition, complementary mapping is carried out to monitor nationally threatened habitats and Habitat Directive habitat types that have been assessed as unfavourable. The first nation-wide assessment of threatened habitat types was completed in 2008, and an action plan to improve the state of these habitat types was approved in 2011.

There is already a long tradition of habitat surveys in terrestrial environments. In contrast, the data concerning water habitats have been scarce and partly unreliable, because of poor field guidance. Management planning of marine areas and inland waters also requires information on underwater habitats and species. Parks & Wildlife Finland has carried out underwater biodiversity surveys as part of the national VELMU programme since 2003. Methods and guidelines have continuously been developed. A complementary programme is being developed for underwater surveys in inland waters. A pilot project for an inventory of the habitat types and species in inland waters was launched in 2013.



Survey diving in the Baltic Sea. The VELMU Programme has collected data since 2003 on the occurrence of underwater biotopes, species and communities in Finland's marine waters. Photo: Metsähallitus.

Species information is needed, in particular, on nationally and regionally threatened and vulnerable species, and on species specified by the Habitats and Birds Directives, meaning the so-called "species to be conserved". In addition, information is required on other species in need of protection, species that are rare or especially sensitive to disturbances, and on indicator species expressing the condition of their habitat. Data on occurrences of all these species is registered in the "species GIS" database (LajiGIS; see Chapter 5.4), and several species-specific datasets. In recent years, a lot of effort has been put into transferring older data from different sources into the databases. This information forms the basis for planning systematic mapping and monitoring schemes and habitat management.

Cultural heritage and land use

Sufficient information about the cultural heritage should also be available when management and operational plans are drawn up for protected areas. If appropriate, an inventory of the cultural heritage in the area is undertaken, compiling basic information on landscape, ancient relics, and old buildings and structures. In the next few years, such surveys will be carried out for management planning, especially in nature tourism priority areas and areas that are important for the protection of cultural heritage.

Immovable ancient relics are registered in the Antiquities Register of the National Board of Antiquities and in the information systems of Metsähallitus. Basic data on the building stock, and protection decisions made by the authorities, are found in the GIS application "Reiska". Data on the old building stock is gradually added. In addition to the basic data, the goal is to evaluate the potentially valuable cultural historical buildings. In the future, the new GIS application for buildings and structures will also include tools for operational planning of construction activities.

Details on the quantity and quality of environmental education and of recreation and nature tourism are also important basic information necessary for management planning in protected areas. In national parks and other areas where nature tourism and recreational use are significant, the number of annual visits is monitored. In addition, visitor surveys on recreational activities and entrepreneur surveys on business use are carried out in these areas when management plans are drafted. It is recommended that these studies are renewed every five years.

In nature centres, feedback data are collected annually in a specified format, as well as data on the number of guided customers. A customer survey is undertaken every five years. This information, including survey responses, is archived and analysed in the ASTA customer information system. The visitor data and surveys also produce the necessary information for assessment of the sustainability of the recreational use and for calculation of its economic impact on the local communities.

In the context of protected area management planning, data are compiled comprehensively on the use of natural resources (reindeer husbandry, hunting, fishing, mineral claims, etc.), as well as on land use rights (rental contracts, etc.) and the permit situation, to serve as a basis for the definition of relevant objectives and measures in the area.

9.1.2 Monitoring

Monitoring of habitat restoration and management effectiveness

Habitat restoration and management have expanded strongly in the last decade. This has increased the need for related monitoring. The monitoring and evaluation of the implementation and the impact of restoration activities and management measures require the harmonisation of monitoring methods and a comprehensive network of monitoring areas.

The basic information on protected areas is gathered using repeatable methods so that it can be used to monitor the long-term effects of active management. In addition, the effects of restoration and management are observed using fixed monitoring sites. Follow-ups are carried out in a uniform manner. The accuracy and frequency of monitoring vary. For example, monitoring on occurrences of threatened species, and other species in need of special protection, may be intense and ongoing.

Monitoring of the implementation of restoration and management measures aims to ensure that action is taken technically correctly – for example, that the dams clogging marsh ditches effectively prevent the flow of water. While monitoring the implementation measures, data is also collected on performance quantities, such as the surface areas covered and the increase in the amount of decaying wood.

In order to monitor the effectiveness of measures, the effects of restoration and management activities on different species groups are observed. These include beetles, butterflies, vascular plants, mosses, and polypores. When restoring peatlands, it is important to monitor the consequent hydrological effects on the mires and adjacent waters. Monitoring results are also used to develop methods of habitat restoration and management, and to direct research into problematic issues that have arisen. To evaluate the effects of measures, it is necessary to have information on the sites before the measures were taken, and also to have comparative non-intervention sites.

Monitoring of species and habitats

The European Union's Habitats Directive obliges member states to monitor and evaluate the conservation status of the habitat types and species listed in the corresponding annexes, as well as to report to the Commission on this every six years (see Chapter 2.2). It is the duty of the Ministry of the Environment to organise the monitoring of species and habitat types in such a way that the conservation status of the Directive species and habitat types can be estimated. In addition to the habitat types and species listed by the Habitats Directive, the assessment may concern entire Natura areas. In practice, the Finnish Environment Institute (SYKE) is responsible for compiling the monitoring the data required by the Habitats Directive, but Parks & Wildlife Finland has an important role in monitoring and reporting on the areas under its governance.

Monitoring of threatened species in protected areas is part of the national biodiversity monitoring programme. SYKE has a key role in the development of monitoring activities. For most species, monitoring will start with a basic survey of occurrences. Species inventories should be compiled using methods that can be utilised as part of the nationwide biodiversity monitoring scheme. Managed occurrences require more intensive monitoring that also enables assessment of the adequacy of management actions.

Parks & Wildlife Finland has a special national responsibility for monitoring some of the threatened species listed by the Habitats Directive. These species occur mostly in areas governed by Metsähallitus. The best-known species are probably the Saimaa ringed seal, the golden eagle,

and the white-backed woodpecker. The intensity and methods of monitoring activities for these "responsibility species" are defined specifically for each species (see also Chapter 6.3.1).

The monitoring of fish stocks in the protected areas will be defined in management plans that are drawn up for specific fishing waters. In particular, this monitoring will concentrate on the economically and biologically valuable Salmonid species and populations. Monitoring consists of a variety of repeatable sample fishing methods. The monitoring data are stored in the species information system (LajiGIS), and they are used as base data in the Fisheries Planning and Monitoring System (KSSJ). The catch data from protected areas, which is collected from fishermen, is also stored in this database.

The quality of the information relating to game species in the protected areas can be improved by increasing censuses that are part of the monitoring maintained by the Game and Fisheries Research Institute (e.g., game triangle surveys and water bird censuses). In particular, the monitoring of forest game bird populations will continue to be developed. In those protected areas where hunting is allowed, the aim is to improve the catch statistics and monitoring, so that site-specific data is available for management planning. Information related to monitoring of the game populations and catches will be stored in the Game Planning and Monitoring System (RSSJ) and used for planning game management.

Visitor monitoring and built property condition assessment

Conservation and other objectives of protected areas are conciliated. Monitoring results can be used to make management and use resolutions so that recreation and eco-tourism are sustainably based and support the objectives for conservation of natural and cultural heritage.

Monitoring of the recreational use of nature is carried out using indicators of sustainable nature tourism, which are also part of the indicator set used for monitoring the implementation and impact of management plans. These indicators are used to monitor all dimensions of sustainability (environmental, social, and economic), and they are based on the Principles of Sustainable Nature Tourism in protected areas drawn up by P&WF (see Chapter 8.1). In areas where outdoor recreation is significant, at least those common indicators that have been agreed for monitoring of all areas are used. If necessary, a variety of other area-specific metrics may be used. The monitoring is carried out within the framework of Limits of Acceptable Change (LAC). The approach involves defining the target of the monitored metric and comparing it to the present state. Management planning is used to define the means to achieve and maintain the desired status.

The data for monitoring the sustainability of nature recreation are mostly metric data that are needed and collected as part of the management of protected areas. The information is stored in the information systems: data on recreational use are obtained from the ASTA system, data on the condition of facilities and waste management from the Reiska information system, and information on contracts with entrepreneurs from the VuokraGis system. In addition to using these data, the sustainability of recreational use is assessed by studies of trail erosion and littering levels.

Through visitor monitoring and customer surveys, P&WF obtains valuable information on visitors' motives, the use of money, and customer satisfaction, which can help to address problems, to develop services, and to assess the impact of recreational use on local economies. By monitoring the condition of structures and repairing them as soon as possible, P&WF ensures that their use is safe. By keeping track of the numbers of cooperation agreements, land use contracts, and permits, and by using erosion studies, the use pressures and the need for regulation can be evaluated in protected areas. Inspections of the condition of the most valuable building stock owned by P&WF are carried out at fixed intervals. The status of the well-known (i.e. registered) archaeological cultural heritage is monitored as part of the site condition and management impact assessments in protected areas.

9.2 Research and monitoring use of protected areas

9.2.1 Research supporting protected area management

Parks & Wildlife Finland is not a research organisation, so the research in protected areas takes place in cooperation with external research partners. These research organisations also have a significant role in the basic inventories and monitoring of protected areas, although P&WF is responsible for them and carries some of them out.

Some of the research and monitoring of protected areas serves P&WF's own activities and their development. P&WF supports this kind of research and monitoring by providing, among other things, background materials and facilities. P&WF may also participate in studies that directly serve the management of the protected areas.

P&WF maintains active contact with research institutions, in order to ensure the research that is needed for guidance of management and use in protected areas. The principles of research cooperation were included in the Research Strategy adopted in 2003.

Metsähallitus has concluded cooperation framework agreements and project agreements with, among others, the Finnish Environment Institute, the Geological Survey of Finland, and the National Board of Antiquities, as well as the Finnish Forest Research Institute and the Game and Fisheries Research Institute (the last two have been integrated into the Natural Resources Institute Finland since 2015). Similar agreements have also been drawn up with universities and colleges, as well as with marine and coastal research institutes.

To develop the steering of management and use in protected areas, the following kinds of research activities are promoted:

- assessments of protected area network connectivity and representativeness
- studies on the ecological function of protected areas: sufficient size, scope, and frequency; the appropriateness of their boundaries; and the need for buffer zones
- monitoring of key species in order to evaluate the impact of climate change
- surveys of small populations in danger of extinction
- development of methodology for the management of:
 - species demanding special measures (e.g. threatened and rare species and those occurring at certain phases of ecological succession)
 - traditional landscapes and biotopes
 - game and fish populations
 - invasive alien species
- assessments of the effects on biodiversity of:
 - restoration of forests, peatlands, and small waters
 - \circ habitat management of traditional biotopes and other important habitat types
- studies on the use of protected areas, including:
 - visitor numbers, behaviour, and expectations; ecological and socio-economic impacts of nature tourism
 - $\circ~$ effects of reindeer grazing, fishing, and hunting
- evaluations of the sustainability of use and of management effectiveness

9.2.2 Other research and monitoring in protected areas

Parks & Wildlife Finland also offers protected areas for such research use that will not actually benefit management, but that also does not cause any harm to the natural or cultural values or educational and recreational use of the area.

Protected areas are well suited to monitoring of the overall changes in the status of nature and the environment, and for comparison (e.g. monitoring of the condition of forests, integrated monitoring of the state of the environment, natural water type reference areas), when this does not incur damage to the conservation values. P&WF assists with such long-term studies and monitoring activities, as far as possible, agreeing on arrangements case by case.

Research activities (including taking geological samples, see Chapter 11.3) in nature reserves require a written research authorisation. Permits shall be granted when the research does not harm the species, habitats, or management of the conservation area, or affect other use of the area. Any methodological research and experiments that may cause undesirable or unforeseen changes in nature must be done outside the protected areas. A research permit is applied for from the P&WF regional unit that manages the area in question. A research plan must be annexed to the application, if a larger project is intended. To collect protected species in nature reserves, a permit is also needed from the ELY Centre. Research permits oblige the recipients to report the study results to Metsähallitus.

Bird ringing is often – but not always – connected to a research project. Because bird ringing can be seen to serve scientific purposes, it is generally acceptable in protected areas. In nature reserves, for example, authorisations can be granted for the ringing of nest birds even when it is not part of any defined research project. However, as a general rule, permits are not granted for general ringing, and using nets on islands, for example.



Checking a beetle trap in the Salamajärvi National Park. Insect surveys are part of routine impact monitoring of ecological restoration. Photo: Markus Sirkka.

10 Fishing, Hunting, and Subsistence Livelihoods

10.1 Fishing and hunting

Fishing and hunting remain widely practiced by all social groups in Finland. They are generally regarded as a permanent and straightforward part of the Finnish lifestyle. In Northern Finland the fish and game catch have economic significance for the local population and even form subsistence livelihoods for some groups in Lapland.

Finland provides countless opportunities for fishing varying environments. Each year, some 1.5 million people fish in Finnish waters. Recreational fishing is one of the most important nature activities for Finns. The catch of recreational fishing accounts for about a third of the total fish catch in Finland. In inland waters its share is almost 90%. Under the common fishing right angling, jigging and ice fishing is allowed without a fishing permit, even in most protected areas. The use of simple hook and line is still the most common type of fishing gear. Three quarters of the catches in recreational fishing end up for human consumption.

Over 300,000 Finns are registered hunters. Most hunters operate on private lands, but many are dependent on opportunities offered by state-owned land and water areas. Hunting is one of the recreational services that Metsähallitus provides in state-owned areas, including some protected areas. Hunting areas are generally located in sparsely populated districts and their special natural values, such as their wilderness-like appearance, are an important attractive factor.

Everyone who goes fishing or hunting in Finland pays the state annual tax in the form of fishing and hunting licence fees, the proceeds of which are used to fund related management activities.

Under the Fishing Act (379/2015), fishermen aged 18 to 64 years engaged in fishing, other than angling, jigging or ice fishing must pay a fisheries management fee. With the fee, one has the right to engage in lure fishing with one rod and lure in the whole country, except in rapids and currents in waters containing migratory fish or waters where fishing is prohibited under another provision. All fishermen using traps and those catching crayfish must always have a permit granted by the fishing right holder. On state-owned lands, permits for specific fishing areas are granted by Metsähallitus.

Under the Hunting Act (615/1993), all those who practice hunting must have a hunting card. The card can be acquired by paying a game management fee to the State. To be allowed to acquire a hunting card, all hunters must complete a hunting examination. The purpose of the examination is to ensure that hunters are familiar with the principles of hunting and game management and hunting provisions. Hunting licences and permits for specified game species, hunting times and hunting areas on state-owned grounds are sold by Metsähallitus. Licence fees are confirmed by the Ministry of Agriculture and Forestry.

10.1.1 General principles in protected areas

The primary objective in the management of nature reserves is to secure biological diversity and the favourable conservation status of habitats and native species. This is the common goal of both nature conservation and of hunting and fishing that are based on the sustainable use of the natural production of fish and game populations. Another important objective of the protected area network is to preserve, as far as possible, the natural state of the areas. In such natural areas, human

effects on nature should be minimal, allowing the relationships between species and the abundance of species populations to be primarily regulated by natural processes.

Hunting and fishing are forms of natural resource use, which, when well planned and implemented, are not necessarily inconsistent with the conservation objectives of protected areas. In assessing the effects of hunting and fishing in protected areas, the particular site-specific conservation goals are to be considered. In some cases, hunting can be used in order to achieve the objectives of nature conservation (see Chapter 6.3.5).

When the conservation objective of a nature reserve is the preservation of the entire biological community and its naturalness – as is the case in strict nature reserves and national parks – the general policy of the Nature Conservation Act and the site-specific enactments is to ban the catching, killing, and harassment of vertebrate animals. However, angling with hook and line, and ice fishing (jigging), are generally allowed even in these reserves. With the permission of the management authority of the area, the number of non-native species may be reduced, when necessary, and also the numbers of individuals from species populations that have become unnaturally abundant or otherwise harmful. With a proper permit, it is often also possible to fish using methods other than angling with hook and line or jigging.

If hunting and fishing are permitted in protected areas, they can be regulated as appropriate, either spatially, over time, or by species. Protected areas, or parts thereof, can act as sanctuaries for game animals, often as part of a broader regional entity. When planning restrictions on hunting, the conservation objectives and regulation of game animal populations have to be taken into account, as well as the possible disturbance caused by hunting to nature or the recreational use of the area. Hunting and fishing, and the need for any site-specific regulation of them, are considered in the context of management planning and site regulations. Hunting and fishing are planned using the Game and Fisheries Planning and Monitoring Systems (RSSJ and KSSJ), which in turn utilise the Metsähallitus GIS databases and collected game bag and fish catch statistics.

The goal of Metsähallitus is to have knowledge of the numbers of persons hunting and fishing in the protected areas (with the exception of hook and line anglers, ice fishers, and those fishing on the basis of the national fisheries management fee). The aim is to develop monitoring of the bag/catch obtained from protected areas by using the national bag/catch statistics system in such a way that the supervision of activities and the monitoring of effects on nature are possible. This objective also applies to the area in Northern Finland, which is specified in the Hunting Act (see Chapter 10.1.4), and to those nature reserves of the coastal archipelago area, where hunting is allowed for the local inhabitants. The objective of developing the catch statistics is that, in the future, the harvesting efficiency and its relationship to capacity can be assessed by site.

10.1.2 Fishing

Provisions and regulations on fishing vary in nature reserves that were established under the previous Nature Conservation Act (71/1923). Under the current Nature Conservation Act (1096/1996), angling with hook and line and jigging are allowed in nature reserves, and with the permission of Metsähallitus as the governing body, other kinds of fishing may also be practised. Fishing, however, is not possible in strict nature reserves or other areas where access is prohibited. In protected areas, fishing cannot be allowed to endanger, directly or indirectly, the existence or the future of any species – with the exception of non-native fish species.

The conservation objectives of the nature reserves, and the resolutions made in their management plans, are to be taken into account when defining water areas for recreational fishing and planning the management of fishing waters. The spatial, temporal, or species-specific restrictions that are

necessary for sustainable fishing and the management of fishing waters are recorded in the permit conditions or lease agreements. The fact that general fishing rights (such as angling with hook and line and jigging) also apply to the leased fishing areas is mentioned in the lease agreements.

In established protected areas, any fish stocking that may impair the natural state of the area is generally prohibited. The status of fish stocks is primarily secured by fishing arrangements and restrictions. Fish stock management by planting, however, can be used in the following cases:

- Fish stocking is specifically mentioned and allowed in the statute establishing the protected area (for example, certain lakes are specified in the enactments for the Salamajärvi and Pallas–Yllästunturi National Parks).
- Stocking is done to conserve and maintain threatened fish species or crayfish stocks.
- Stocking may be allowed to continue with domestic fish or crayfish species and strains in waters that were already actively managed by planting in the past, and where these plantations have produced locally valuable stocks. This stocking can continue, especially if the protected area is part of a larger integrated water system, or if the stocking activity is significant for local professional fishing.

Only those fish or crayfish stocks that are original and approved by the fisheries authorities are used in stocking, and non-native species may not be planted in protected areas (e.g. signal cray-fish). Restocking is not to be used in pristine waters, unless the conservation of a specific fish or crayfish population requires it. For this reason, lease agreements for fishing rights can only be issued for waters previously leased and managed by stocking, and not for totally new, still natural sites. The aim is to discontinue any stocking and tenancy agreements that are against these principles, within a reasonable transition period. The above principles also apply to sites not yet established as statutory nature reserves.

10.1.3 Regulation of hunting based on the Nature Conservation Act

Provisions and regulations on hunting in established nature reserves vary markedly. Hunting is prohibited in strict nature reserves. Hunting is also generally prohibited in national parks, although there are many exceptions:

- In national parks in Northern Finland and in a few national parks in Southern Finland (the Eastern Gulf of Finland, the Ekenäs Archipelago, and the Archipelago National Parks), hunting is, as a general rule, allowed for the local inhabitants.
- In the Bothnian Sea National Park, hunting of the grey seal is allowed, and in part of the Park, with the permission of Metsähallitus, so is the autumn hunting of waterfowl. In addition, in order to secure professional fishing capacity in the National Park, action can be taken with the permission of Metsähallitus to regulate populations of the cormorant (*Phalacrocorax carbo*).
- In a large part of the Kolovesi National Park, moose (i.e. elk, *Alces alces*) hunting is possible for local inhabitants with the permission of Metsähallitus.
- In most national parks, it is possible to drive moose, and to use a dog to flush it out.

In other types of nature reserves, the permissibility of hunting has been resolved in the enactments establishing the sites on a case-by-case basis. In the more remote nature reserves of Northern Finland, establishing provisions are quite liberal in respect to hunting regulations, as opposed to the corresponding areas of Southern Finland. For example, in the old-growth and herb-rich forest

reserves of Southern Finland, hunting is prohibited. In southern mire reserves, hunting is allowed, if it is so defined in the site-specific enactments.

The amendment of the Nature Conservation Act, which entered into force in 2011 (58/2011), resulted in changes in respect to provisions on hunting. After the amendment, hunting in "other nature reserves" (meaning other than strict nature reserves and national parks) within the area of Northern Finland specified by the Hunting Act (Section 8) is permissible, and prohibited in nature reserves southwards from this. However, exceptions to this general rule can be made in establishing statutes issued by the Government. In other words, provisions on hunting will be decided in each site-specific decree, taking into account everyman's rights, as well as the recreational and natural values of the area. This option does not apply to the enactments issued by the Ministry of the Environment (for nature reserves of less than 100 hectares). It should also be noted that these principles do not apply to provisions of establishing statutes that were issued for nature reserves before the new Nature Conservation Act entered into force in 1997, and this particular amendment in 2011.

Section 15 of the Nature Conservation Act defines the permit-based exemptions to the provisions concerning nature reserves. These are measures that may be authorised by the governing body of the area, provided that the measures do not undermine the nature conservation objectives that were the basis for establishing the nature reserve. In the amendment to the Nature Conservation Act in 2011, this section was also modified. Possible derogations to the general provisions now include the following:

- 2) to reduce alien invasive species and, where a species has become too abundant or otherwise harmful, also the number of individuals of other plant and animal species;
- 3) to remove individuals of such game species that are subject to hunting licence/permit, and that outside of protected areas pose an apparent threat to human security or cause substantial economic damage to property.

As a result of the change in Section 15, the driving of moose (including using a dog) became possible.

Paragraph 3) is intended to apply mainly to mitigating the damage caused by the moose and species of deer in road traffic, to preventing the damage caused by grey seals to the commercial fishing industry, and to eliminating the possible danger caused by wolf and brown bear individuals.

The animal species referred to in paragraph 3), as well as some of those in paragraph 2), are game species. The hunting of such species in a nature reserve requires both the Section 15 exemption (a refutable authority-issued derogation permit) and hunting permission issued by the holder of the hunting right (the permission may be granted by hunting permit or lease contract). The above also applies to the driving of moose. It is intended that in national parks and other protected areas, for which a management plan is drawn, the need for and extent of driving moose is assessed in the process.

In particular, the reduction of non-native species and the driving of moose are likely to be considered appropriate in many newly established nature reserves. When the need to grant exemptions for these activities is going to be quite common, it is appropriate that the decisions on these Section 15 exemptions are made for the long term and cover multiple areas at a time. After the decisions required by Section 15, the Game and Fisheries Unit of P&WF prepares the necessary hunting lease agreements for the nature reserves concerned. The administrative procedures involved in implementing the broad and long-term decisions referred to here, shall be created when the first new nature reserves are statutorily established according to the amended legislation. On the basis of Section 15 of the Nature Conservation Act, an exemption may also be authorised for the take-over of game fallen in a nature reserve. Parks & Wildlife Finland has prepared a code of conduct for this situation, and in addition, for fetching a wounded animal from a protected area where access and/or hunting is prohibited.

The ongoing legislative preparatory work is organised in "projects", for which the resulting Government decree usually contains several dozen established areas. This allows, for instance, for the possible needs for hunting derogations to be looked at in a wider geographical context. On the basis of the first new enactments, it can be estimated that in Southern Finland, where the general rule is the hunting ban, the Government decrees will include some "customised" hunting resolutions, meaning carefully considered exceptions that allow the hunting of certain species or species groups in designated sub-areas.

The recent amendment to the Nature Conservation Act allows the annexation of a state-owned parcel to an existing nature reserve "technically" in connection with a real-estate procedure. This may not, however, fundamentally change the hunting practices of the site being annexed. This means that in Southern Finland, where hunting is restricted, this procedure will not often be applied.



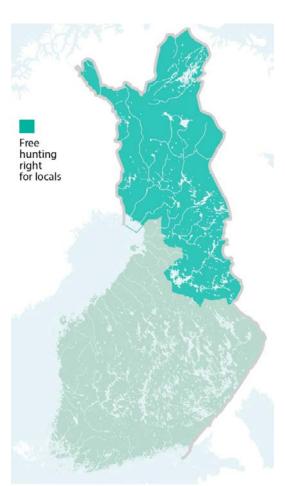
The Moose (*Alces alces*) is economically the most important game species. Mostly hunting permits are issued for commercial forests. In protected areas, hunting is restricted through establishing statutes, especially in national parks of Southern Finland. In the sparsely populated North, hunting is permitted for the local inhabitants, including most protected areas. Photo: Martti Rikkonen.

10.1.4 Regulation of hunting based on the Hunting Act

When hunting is allowed in a nature reserve by the establishing enactments, the regulation of hunting is based on the Hunting Act. For example, on the basis of the Act, hunting can be restricted in a given area by a Regional State Administrative Agency's decision. If a game population is compromised, the Ministry of Agriculture and Forestry may restrict the hunting of the population for up to three years in the area where the species is found. Before issuing the decree, the Ministry must consult the Finnish Wildlife Agency, as well as the regional Game Management Association to whose region the ban applies. This decree shall apply, as appropriate, to the annual regulation of hunting grouse species.

In state-owned protected areas where hunting is allowed, Metsähallitus has the right to make decisions on hunting matters, with certain exceptions, such as hunting in public water areas and in areas where local residents' free hunting right is in accordance with Section 8 of the Hunting Act (see Figure 10). These decisions are made by the authorities empowered by the Game and Fisheries Manager.

Metsähallitus regulates hunting within state-owned territories with quota decisions, which ensures the ecological and social sustainability of hunting, and also safeguards the rights of local residents. If there is not enough hunting permits available for all, priority must be given primarily to citizens who do not otherwise have reasonable opportunities for hunting. These opportunities, however, are to be granted so that the hunting rights to which the local residents are entitled (in accordance with the Hunting Act, Section 8) are taken into account.



On state-owned lands, hunting areas can be formed in which Metsähallitus governs the hunting rights and regulates hunting by granting permits and defining their conditions. Hunting rights may also be granted as a hunting area lease. In this case, either the hunting rights can be transferred without restriction, or Metsähallitus, as the landowner, can set temporal, territorial, or species-specific restrictions for the contract (e.g. for locally declined or rare species). The terms of the negotiated agreements and permits are agreed within the P&WF operational processes.

Hunting leases seek to harmonise hunting arrangements within similar types of protected areas. In existing nature reserves and in sites reserved to be established as such, hunting lease agreements will not allow game management measures (e.g. wildlife feeding) in the area. In established nature reserves, rights to build hunting-related structures will not be granted, but in pending nature conservation programme sites, such a right may be granted for temporary structures that do not require a building permit (i.e. authorisation required by the building legislation).

Figure 10. The area of hunting rights for locals specified in the Hunting Act (Section 8). Residents of the municipalities of Northern Finland have the right to hunt game in their home municipality without a specific hunting permit. Some 50,000 citizens have this right.

The hunting that is made possible by the establishing enactment of a nature reserve (or the lack of it) sometimes needs to be banned or restricted, for example, in the small nature reserves of Southern Finland, where there is vibrant recreational use or valuable bird life. In this case, the prohibitions and restrictions shall be settled on a case-by-case basis. In bird protection areas, ad-equate solutions may be temporal or regional waterfowl hunting restrictions, but the hunting of deer and small game can be allowed. In bird protection sites, hunting small game and red fox can be of great significance, in which case it is usually allowed for local hunting clubs, or clubs may even be obligated to carry this out in return for hunting rights. If such hunting/trapping does not entail costs for the state and helps to revive the waterfowl of the area, an agreement can be made with hunting parties that are involved in catching small predators, to allow the hunting of deer, willow grouse, and/or hares. Such hunting arrangements are considered case by case within the framework of the site regulations.

In the future, when planning hunting arrangements, as in protected area management planning in general, wider land-use areas are increasingly examined instead of individual protected areas. Often there is an advantage in choosing planning entities targeting several protected areas at a time. The aim in planning is to search for mutually acceptable solutions to hunting issues in both established and pending protected areas, in cooperation with the local population and with key stakeholders.

According to the policy of the Ministry of the Environment, it is possible in Southern Finland (southward of the area defined in Section 8 of the Hunting Act, where hunting is generally prohibited in nature reserves) to continue customary local lease agreements on hunting areas within state-owned sites that have been acquired for nature conservation purposes, while the enactment process for the establishment of a proper nature reserve is ongoing. As a general rule, the leasing complies with the following principles:

The necessary changes to the existing agreements made by Metsähallitus will be made only after the entry into force of the statutes and within the framework of the transitional periods laid down.

Previous hunting leases are terminated in writing by the ELY Centre immediately after the acquisition of new areas, or at the latest, when the area is transferred to the governance of Metsähallitus.

- Metsähallitus makes any new hunting lease agreements with reference to the establishment of the nature reserve and the associated need to amend or terminate the contract. The termination is carried out as required by the enactment, pursuant to Section 13 of the Hunting Act.
- On new property acquired to be annexed to conservation area complexes already acquired in the past, the previous rental policy on the complex is followed. If hunting has been allowed in the new area, it can be added to the previous lease agreement of the complex. Property or area complexes where hunting has not been possible previously, will not be leased for hunting.
- A completely new self-contained area can be leased to a local hunting club for the driving of moose and hunting non-native species (including white-tailed deer, *Odocoileus virginianus*), if hunting in the area has been previously allowed.

The cooperation agreement between Metsähallitus and the Reindeer Herders' Association, signed in 2013, deals with, among other things, the organisation of hunting. Within the Reindeer Husbandry Area, the needs of reindeer husbandry must be taken into account in hunting operations, and damage to reindeer herding must be prevented in advance. When planning permit-based hunting, Metsähallitus and the Reindeer Herding Districts negotiate restrictions on the use of dogs in herding areas, for example. Agreed restrictions are recorded on permit maps. Organisers of field trials for dogs are obliged by the permit and contract conditions to check ongoing reindeerherding operations in the area concerned.

The reindeer round-up sites that are in use, and known to Metsähallitus, will be recorded on the hunting permit maps. The Reindeer Herding Districts will post notifications about separation periods on the forest roads near round-up fences, or in any other agreed manner. During the winter season, permits may be given to keep small carcasses for hunting/trapping of the red fox (*Vulpes vulpes*).

10.1.5 Large carnivores

Large carnivores are defined as game species in Finland, and thus their hunting is controlled by the hunting legislation. The four species – brown bear (*Ursus arctos*), lynx (*Lynx lynx*), wolf (*Canis lupus*), and wolverine (*Gulo gulo*) - are protected. They are red-listed and are also listed in Annex IV of the Habitats Directive (within the Reindeer Husbandry Area, Finland has an exception: the wolf is listed in Annex V and the wolverine in Annex II).

However, in the last few years, the populations of the large carnivores have become strengthened. Under the auspices of the Ministry of Agriculture and Forestry, the Management Plan for the Wolf Population was completed in 2005 (and updated in 2015), and the Management Plans for the Lynx and the Brown Bear Population in 2006. The Management Plan for the Wolverine Population was approved in 2014.

The presence of large carnivores is especially favoured in protected areas, where the aim is to preserve the natural biological communities. In Finland, large carnivores do not depend solely on the living environments provided by the protected areas. However, the wilderness areas and vast nature reserves in Lapland are important for the wolverine, in particular.

In established nature reserves, the statutes define the possibilities of hunting large predators. Based on the recent amendment to the Nature Conservation Act (in 2011), a conservation authority may grant, under Section 15 of the Act, an exemption order (derogation to provisions), for example, in a pending conservation site in order to eliminate wolf or brown bear individuals that "outside of protected areas cause an apparent threat to human safety or significant economic damage to property."

If the hunting of large carnivores in a nature reserve is possible, the arrangements are usually carried out with permits or contracts granted by Metsähallitus. In the protected areas of regions located south of the Reindeer Husbandry Area, the large carnivores are favoured when no threat is caused to human security or property outside of the area. In particular, the wolf and the lynx effectively regulate populations of small game and moose, and their presence thus also indirectly affects biodiversity favourably.

The hunting of wolves, brown bears, and lynx, based on a derogation granted for certain individuals or specific places, has become a form of population management of these species. Grounds for this type of hunting may be damage prevention, public security, or, in areas of frequent occurrence, regulation of the population (see Sections 41 and 41a of the Hunting Act). The Ministry of Agriculture and Forestry is responsible for fixing the related quotas, but the Finnish Wildlife Agency grants the derogation licences on both state and privately owned lands.

If hunting is banned in the protected area statute, the derogation granted by the Wildlife Agency may not apply in such an area, unless a permit is expressly authorised by Metsähallitus in accordance with Section 15 (3) of the Nature Conservation Act. The Finnish Wildlife Agency may grant the holder of such a permit, based on a separate application, the right to use hunting methods prohibited by hunting law – for example, the use of a snowmobile in hunting. This possibility has

been applied, in particular, in the Reindeer Husbandry Area, where the effective and rapid removal of individual carnivores may be necessary to prevent extensive reindeer damage. However, the use of a snowmobile on state-owned lands also requires a permit for off-road traffic from Metsähallitus.

On state-owned lands governed by Metsähallitus, the hunting of large carnivores also requires its authorisation, in addition to the derogation licence issued by the Wildlife Agency. However, in the area specified by Section 8 of the Hunting Act, the local residents do not need a Metsähallitus permit when hunting in their home municipality. If the derogation area covers several municipalities, a separate Metsähallitus permit is required when participating in the hunting of large carnivores (mainly the lynx and the wolf) in neighbouring municipalities. For example, Reindeer Herding Districts do not follow the municipality boundaries, so when involved in large carnivore hunting and authorised for such an area, the participants need a Metsähallitus permit. In addition to the permit authorisation procedure, Metsähallitus may grant the right to hunt in the necessary area for an agreed period by means of a lease agreement.

The use of derogations granted under the Nature Conservation Act, Section 15(3), is applicable only to situations that do not require quick decisions. In some situations, such as in the case of an individual large carnivore wounded in a car crash or while hunting, the predator may be removed by the police authority from a nature reserve, regardless of the closure rules. According to the Police Act (872/2011), "A policeman has the right to catch and as a last resort to put away an animal that poses a risk to human life or health or substantial damage to property or seriously jeopardises traffic. The animal may also be put away, if keeping it alive would be obvious cruelty to it." If necessary, the police may authorise a helping party, hunters for example, to perform such a task. In such circumstances, the Metsähallitus staff should, as far as possible, assist the police, or those authorised by them, in the practical arrangements.



Brown bear (*Ursus arctos*) in the Vätsäri Wilderness Reserve. There is an estimated 1500 bears in Finland, mostly occurring in eastern and northern Finland. Photo: Martti Rikkonen.

10.2 Reindeer husbandry

Reindeer herding and grazing is allowed in wilderness reserves and nature reserves in Northern Finland, excluding the Malla Strict Nature Reserve. Wilderness and nature reserves are often very important reindeer pasture and calving areas. Structures and buildings that are needed for reindeer husbandry – such as reindeer fencing and herding huts – can be built in wilderness and nature reserves, with the permission granted by Metsähallitus. When granting authorisations, the planned structures must be placed so that harmful effects on nature are minimised. Agreements on new reindeer fences should include agreed terms relating to building principles and other special conditions. Permits will not be issued for sites where threatened plant or animal species occur.

Off-road vehicles may be used in reindeer herding. When there is no snow cover, written proof of the necessity of off-road traffic in reindeer herding work is required from the herder (Off-road Traffic Decree 10/1996, Sections 4 and 13). Reindeer herders have the right to take wood for traditional huts ("kota") and to make a fire using ground wood (the Reindeer Husbandry Act 848/1990, Section 40).

Reindeer have many kinds of effects on nature and the biological communities of the protected areas. Grazing prevents regeneration of the foliage and changes the composition of the vegetation structure and species, and thus affects the structure and functioning of the entire ecosystem. In the international management evaluations of Finland's protected areas in 1994 and 2004, the scale of reindeer grazing was evaluated as a serious impact factor and a future threat to protected areas.

There is no provision on feeding reindeer in the reindeer husbandry legislation, so the provisions on nature conservation and waste management are to be adhered to. Alien species in feed must not spread to nature and no extra feed must be left on the ground or in water, nor excrement left at feeding places to litter or eutrophicate the environment. It is not allowed to feed the reindeer on ice-covered waters. Exceptional cases will be agreed separately between Metsähallitus and the Reindeer Herding Districts. The parties will agree on sites in protected areas where reindeer are not to be fed. Feeding places are to be cleaned up and waste taken away from the terrain annually.

Nature tourism and other recreational use of protected areas can disturb the grazing, herding, or calving of reindeer. Because of this, the most important areas for reindeer husbandry are ascertained, in order to steer these activities in such a way that peace for the reindeer is safeguarded, particularly during the calving season. Within the Special Reindeer Husbandry Area (see Chapter 7.5, Figure 9), when P&WF is considering the conditions for implementing projects, drawing up contracts, or authorising permits, the local Reindeer Herding District is consulted, in order to take into account the preconditions for reindeer husbandry.

Within the Reindeer Husbandry Area, permits will not be granted to new locations for keeping carcasses for nature photography purposes. For purposes of ecological study, research, or protection of predators, permits may be granted for a limited duration (up to three years). Prior to the authorisations, Metsähallitus negotiates with local reindeer herders.

10.3 The rights of local residents and subsistence livelihoods

The rights of the local inhabitants have been incorporated into a number of legislative acts – the Hunting Act and the Fisheries Act, among others, but also into many of the acts establishing the nature reserves. The aim is to safeguard the local population's traditional use of the protected areas. Especially in Lapland and in the southwestern archipelago, the local populations have maintained specific rights for fishing, hunting, terrain traffic, and collecting wood (e.g. the Skolt Sámi Act and Reindeer Husbandry Act). Protected areas and their living conditions are all different, so the privileges enjoyed by local residents and their rights to use natural resources are generally defined in the establishing statutes of each area separately, and the formulation of these rights may be refined in management plans.

Although, in many of the acts establishing the protected areas, there are provisions on the rights of the local inhabitants, the acts have not taken a position on how the "local population" should be defined. In this case, the definition remains at the discretion of P&WF or another governing authority. In Northern Finland, the definition primarily used is in accordance with the definition in Section 8 of the Hunting Act (a citizen in their home municipality on state-owned land), but in the South, the definition of the local inhabitants is often made at both municipal and village level. In addition, in certain national parks, there may be a similar practice to that in the Lemmenjoki National Park, where villages adjacent to the National Park enjoy special privileges that are included in the park provisions and regulations, and do not apply to all the inhabitants of the large municipality.

Subsistence livelihoods refer to the reindeer herding, fishing, hunting, and picking of berries and fungi that are practised as a means of earning a living. The pursuit of nature-based occupations may also include other small-scale exploitation of natural resources and their further processing, as well as small-scale tourism and farming. In Lapland and in the archipelago, the local populations maintain many rights to pursue traditional nature-based occupations, including in protected areas. The rights to use natural resources are wider the closer one is to the protected area, and the more important the area is for one's livelihood. One of the objectives of establishing wilderness reserves, as stated in the Wilderness Act, is to safeguard nature-based occupations.

Safeguarding of the preconditions for maintaining the Sámi and the archipelago cultural heritage is explained in detail in Chapters 7.4 and 7.5 above.

11 Other Use of Protected Areas

Because of the adverse effects potentially caused to the conservation values, the environment or other use of protected areas, many activities require regulation and consequently specific authorisation that is based on relevant legislation. Besides certain kinds of recreational use of protected areas and nature-based fishing, hunting and other livelihoods described in the previous chapters, such activities include off-road traffic, mineral prospecting and exploration, or scattering the ashes of the deceased. As the governing body on state-owned protected areas, Parks and Wildlife Finland gives consent, issues licences, grants permits and makes land use agreements and other contracts, as necessary, to authorise different kinds of activities and the use of premises and facilities. In doing so, P&WF follows well-established principles and best practise to ensure preservation of protected area values and to minimise environmental damage, and also risks to and conflicts between users.

11.1 Off-road traffic

Off-road traffic refers to cross-country traffic using a motorised vehicle. This means terrain where there are no roads meant for motor vehicles or official routes for snowmobiles. Off-road traffic always requires the permission of the landowner. On state-owned lands, this authorisation is granted by Metsähallitus.

11.1.1 Regulating off-road traffic in protected areas

The Nature Conservation Act, the Wilderness Act, and the acts establishing individual protected areas do not specifically refer to terrain traffic, so on nature and wilderness reserves its regulation is also based primarily on the Off-road Traffic Act (1710/1995). According to the Act, off-road traffic, as a general rule, requires permission from the landowner (on snowmobile routes and on ice-covered water areas, permission is not required). The Act aims, among other things, to minimise the adverse effects of terrain traffic on nature and the environment, on subsistence livelihoods, and on recreation in general. The importance of these objectives is emphasised in nature and wilderness reserves.

In management plans of wilderness reserves and nature reserves, and also in site regulation orders of national parks and other nature reserves, off-road traffic can be restricted or forbidden completely only on land areas; on ice-covered waters, restriction is only possible by a decision of the ELY Centre. In nature reserves, off-road or any other traffic, however, can be limited by site regulations, based on the Nature Conservation Act (Section 18), if the preservation of the fauna or flora of the area so requires.

Restrictions on terrain traffic in management plans and site regulation orders should be used with due consideration, because this kind of regulation is "stiff" and can cause problems if the conditions and transportation needs are rapidly changing. Often it is sufficient to state in the management plan that regulation of off-road traffic is done in compliance with the Principles of Off-road Traffic, approved by the director of P&WF. At a general level, the volume of off-road traffic on state-owned lands governed by Metsähallitus is determined by the decisions on regional licence quotas, which are made periodically (the present decision is issued for the period 2014–2016).

11.1.2 Snowmobile routes and tracks

In Finland, snowmobiles may generally be used on public snowmobile routes or tracks that are maintained by Metsähallitus or municipalities. Altogether, there are some 20,000 km of snowmobile routes. Official routes are statutorily considered public roads and can be used free of charge. Metsähallitus maintains about 5,000 km of snowmobile tracks, which often have resting places and other services along them. These are subject to a licence and a fee is charged.

Because of the potential effects on the ground, off-road traffic in areas governed and managed by Metsähallitus is directed to the snowmobile routes and tracks specifically marked for the purpose. When granting licences and permits, consideration should always be given to these alternatives.

As a general rule, recreational snowmobiling is not directed to nature reserves and nature conservation programme sites, nor are snowmobile routes and tracks built within them. Certain extensive nature and wilderness reserves in Northern Finland have made an exception, because due to the long winter, it has been necessary to build some snowmobile routes and tracks in these vast areas. New routes or tracks are no longer being set up in these protected areas. However, if it becomes necessary, existing well-established unofficial tracks, cleared power lines, and suitable open landscape should be used, to the extent possible, to set up routes or tracks. The construction of new routes and changes of tracks to routes in nature and wilderness reserves should be based on the site-specific management plans.

11.1.3 Off-road traffic outside of snowmobile routes and tracks

Metsähallitus grants off-road traffic permits for terrain beyond snowmobile routes and tracks only for a justified reason. The effects of summer time off-road traffic are often long-lasting, so licences or permits are granted only for a specific cogent reason for activities complying with the principles of sustainable use of the area. The authorisation is considered in compliance with the approved Principles of Off-road Traffic, the existing Metsähallitus principles, and guidelines for the granting of authorisations, as well as the possible off-road traffic restrictions laid down in the site management plans and regulation orders.

In nature reserves, as a general rule, no licences or permits are granted for off-road traffic beyond the routes and tracks, and this principle also applies to nature conservation programme sites. A licence is not needed for the operations of the authorities – such as maintenance of protected areas, game and fisheries surveillance, police and border-control capacities, and reindeer herding-related tasks. Local off-road vehicle traffic related to fishing and berry-picking in the summer time will be directed to specific tracks. Permits for maintenance operations related to tourism business and professional nature photography may be granted discretionally.

A severely disabled person and their escort do not need an off-road traffic licence according to the law, so they can move on rough terrain using a motorised vehicle in all areas where movement on foot is allowed (this right does not, therefore, apply to strict nature reserves or other areas where access is restricted). In addition, the ELY Centre may grant, to a person whose mobility is limited, on application, a permit to derogate from the prohibition or restriction provided for in the Act on Off-road Traffic.

In wilderness reserves, off-road traffic licences or permits are granted according to principles corresponding to any state-owned areas of the same region. Unlike in the rest of the country, the municipal residents of the far-northern Utsjoki, Enontekiö, and Inari are granted off-road traffic licences for state lands in their home municipality during the snow-covered season for several years at a time. These do not, however, apply to the national parks and strict nature reserves. The residents of these communities are also granted limited authorisation to use certain off-road tracks in summer time, in accordance with the relevant authorisation guidelines.

Parks & Wildlife Finland staff also need to use off-road vehicles in maintenance and construction tasks in protected areas. To avoid damage to the ground, management-related traffic should be concentrated, during the winter months, on so-called maintenance tracks, and should be avoided during the summer.

11.2 Roads, waterborne traffic, and aviation

Public and private roads, as well as shipping lanes and other waterways, may be situated within protected areas. Potential effects on conservation, landscapes, or other assets caused by the use of these traffic and navigation routes is mitigated by working together with the authorities, agencies, and road maintenance associations.

According to the Nature Conservation Act (1096/1996), road construction is generally prohibited in nature reserves, with the exception of the roads that are necessary for guidance in the area. In addition, the provisions allow for the use and maintenance of existing roads, the renovation of maritime aids to navigation, and the maintenance of watercourses, as well as the performance of minor clearing for navigation aid structures. In many of the nature reserves, established pursuant to the old Nature Conservation Act (after 1923 and before 1997), the provisions relating to construction may differ from the foregoing. The maintenance of roads and crossings, as well as the construction and maintenance of maritime security equipment, is subject to authorisation. In wilderness reserves, it is not allowed to build permanent roads, but the Government may authorise the construction of a permanent road that is in the public interest or that is of considerable importance for nature-based occupations.

Any roads managed by Parks & Wildlife Finland that serve as busy public ways, should be converted to public highways and transferred to the Finnish Transport Agency. ELY Centres are responsible, under the direction of the Transport Agency, for the maintenance and security of these roads.

P&WF is a member of more than one thousand private road maintenance cooperatives. When the unit charges for road management are determined for P&WF, they should be based on actual (specific) protected area use and not calculated according to the surface area, as is done for forestry use (a detailed description is found in the Manual of private road management partition, NLS Publication no 92, 2007). This principle applies not only to established nature reserves, but also to sites that will be established as such, and those acquired for nature conservation purposes.

P&WF is in charge of defined tasks, agreed with the Ministry of the Environment, also in private nature reserves. The private landowner is primarily responsible for any local road management charges. However, in certain situations, Metsähallitus will pay a separate usage fee to the road management cooperative. The payment is a compensation for use and maintenance of the road necessary to access the site. Any damage caused to the road resulting from management operations has to be compensated by repairing the road.

The road manager (or party responsible for the management) may remove dangerous trees that have fallen on a road within a protected area. In addition, where appropriate, P&WF will authorise the felling of trees beyond the road, if they are a hazard to traffic safety. The road manager may also oblige Metsähallitus to remove, at its own expense, any trees that are growing beyond roads and that pose a threat to traffic.

Roads that are unnecessary for the management of protected areas may be closed and, where appropriate, restored to a more natural state.

The owners of the properties neighbouring protected areas may have the right of passage through the protected area. Such rights should be assessed and, to the extent possible, removed when forming a nature reserve property.

Motor boating and other motorised waterborne traffic can cause noise or other disturbance in protected areas. In waters belonging to established nature reserves (waters have not always been included in the designated protected area), access or movement can be limited by site regulations, if there are clear conservation criteria to do so (Nature Conservation Act, Section 18). Such restrictions may also be issued during the winter, when waters are ice-covered. On pending nature conservation programme sites, Parks & Wildlife can make a proposal to the ELY Centre (or with regard to public waterways, to the Finnish Transport Agency) for a ban on a certain water area or vessel type. The ELY Centre can, for example, place specific prohibitions and restrictions for the benefit of the environment, public recreation, or another public interest (see Water Transport Act 463/1996 and its amendment 1294/2009).

In the Water Act (587/2011), watercourses are divided into public fairways and waterways, and private water channels. Public water channels are set up by a decision of the Regional State Administrative Agencies, and they are marked on the terrain and marine/inland water charts. The general maintenance of the fairway is usually the responsibility of the applicant (e.g. the Transport Agency or municipality). Any objects that drift onto the public waterway or drop or fall into it (e.g. tree trunks), and may possibly cause damage, are the responsibility of their owner, along with the costs for their removal.

Legislation does not oblige any party to maintain private water channels or ways. Drifting or obstructing objects should also be removed from these waterways, if they can cause foreseeable damage. If such objects do cause damage, their owner may be responsible for costs on the basis of general principles of liability for damage.

There are a lot of private waterways in areas governed by Parks & Wildlife Finland, including those that may occasionally contain fallen or drifting trees. It is not in any way possible to address this kind of situation in a comprehensive manner. Measures should, however, be taken if anyone is specifically in contact with P&WF concerning such a situation, or in the case of a particularly busy waterway, where the possibility that damage will occur is apparent. In the case of a tree fallen in a private water channel and still attached to the ground, P&WF can also – at its discretion – grant an oral authorisation to fell the tree and remove it from the waterway.

In accordance with the provisions issued by the Civil Aviation Administration (now part of the Finnish Transport Safety Agency), aircraft take-off and landing may temporarily use an open water area without the consent of the owner or tenant. According to the Nature Conservation Act, landing on nature reserves, however, always requires permission from the authority responsible for the governance of the area. On the basis of the definition of an "aircraft" in the Aviation Act (1194/2009), an unmanned aircraft (as is becoming more and more common) also requires authorisation for landing from the governing body of the nature reserve. In protected areas established under the old Nature Conservation Act, the provisions relating to the landing of aircraft may deviate from the Act of 1996.

11.3 Mineral prospecting and mining

In the Mining Act (621/2011), mineral prospecting and exploration refers to the locating and studying of mining mineral occurrences using geological, geophysical, and geochemical methods, and the taking of samples to determine the size and quality of the occurrence. Prospecting in nature reserves must comply with the specific provisions of the Nature Conservation Act, in addition to the Mining Act, which serves as general legislation.

Mineral prospecting requires an exploration permit granted by the mining authority, unless the prospecting can be carried out in accordance with Section 7 of the Mining Act, or the property owner has not given consent (Section 9 of the Act). If the ore prospecting may result in deterioration of the landscape or nature conservation values, it always requires an exploration permit issued by the mining authority. Prospecting may also be possible under a claim right based on the old Mining Act (503/1965).

On established nature reserves, mineral prospecting requires, in addition to the exploration authorisation specified under the Mining Act, a permit specified under the Nature Conservation Act, for "geological survey or prospecting". For some of the older nature reserves, such an authorisation was issued by the Ministry of the Environment, instead of Metsähallitus. These authorisations may include the right to use a cross-country vehicle. These are authorisations that are subject to appeal.

When it comes to nature reserves, the operator has to first apply to Metsähallitus for a permit that is specified in the Ministry of the Environment Decree (1326/2013), and after this, to the mining authority for the exploration permit specified in the Mining Act. Metsähallitus does not grant landowner consent, as referred to in the mining legislation, for sites of the national nature conservation programmes that are not yet statutorily established, for Natura 2000 areas, for wilderness reserves, nor for any other sites situated within the Sámi Homeland area. In such areas, mining exploration requires a proper exploration permit or claim right. In accordance with the new mining legislation, the exploration permit may include the right to off-road traffic. Under the old mining law, prospecting under a claim right also requires an off-road traffic permit granted by Metsähallitus.

Mineral prospecting and geological research requires permission/consent only when it involves breaking the soil or rock formations. For example, geophysical measurements, which do not involve such activity, can be performed as an everyman's right. If such measurements, however, require off-road traffic (by snowmobile or other motorised vehicle), the prospector must apply for a permit.

A geological survey does not require any permit issued in accordance with the Mining Act. On established nature reserves, such research requires the same kind of authorisation, specified by provisions of the Nature Conservation Act, that is needed for prospecting (see above). When considering whether to permit geological research, Metsähallitus takes into account the duration and scope of the research activities, as well as the nature conservation values and the characteristics of the area and the relevant site provisions and regulations. In the case of free authorisation for basic geological research, the right to use an off-road vehicle will be granted, where necessary, as a separate permit for off-road traffic.

Outside the nature reserves, authorisations for geological surveys are so-called landowner permits. On these areas, the off-road traffic needed for the geological research always requires a separate permit.

The permission for the off-road traffic required for geological research and prospecting can usually be granted, if traffic is concentrated during the snow-covered period and vehicle routes do not require the felling of trees. Sometimes, it is necessary to make changes to planned routing, because of vulnerable vegetation or species needing special protection (e.g., nests of large birds of prey).

An application for the authorisation of a geological survey or prospecting shall include the applicant's contact details, research area (map of boundaries and locations of measurements), time and type of fieldwork (geophysical measurements, drilling etc.), the equipment used (for measuring, sampling, etc.), an estimate of the impact on the territory (kinds of traces remaining in the ground and possible effects on the conservation values for which the site has been included in the Natura 2000 network), and a description of the movement in the area (vehicles and routes). The application must be accompanied by a statement from the ELY Centre on whether execution of the work requires a Natura site assessment, in accordance with Section 65 of the Nature Conservation Act, or whether the authorisation may be granted without it (see also the publication "Exploration in protected areas, the Sámi Homeland and the Reindeer Husbandry Area", published in 2014/2015 by the Ministry of Employment and the Economy).

Mining and land extraction are not suitable in nature reserves, which is why these and other similar activities are prohibited by the provisions of the Nature Conservation Act and the statutes establishing individual nature reserves. Trial excavations, roads, and other measures that significantly affect nature would also require a modification of the enactments. Mining permits may not be granted for the wilderness reserves, unless the Government has given its consent.

However, in the statutes establishing certain nature reserves, there are some exceptions to the foregoing. In connection with the establishment of the Torronsuo National Park, a possibility was reserved for the exploitation of a small existing mineral occurrence. In Lemmenjoki National Park, gold panning is permitted; and in Urho Kekkonen National Park, gold prospecting is allowed using traditional methods. In Syöte National Park, it is possible in a subarea of the Park to collect a small amount of precious stones, and with the permission of Metsähallitus, to collect and transport precious stones throughout the park area for the manufacture of jewellery. In the Pyhä–Luosto National Park, amethyst and the other precious stones may be exploited economically outside the Luosto Natura 2000 site.

Gold panning on state-owned land requires a permit granted by the mining authority (Section 22 of the new Mining Act) or an old mining claim or reservation (old Mining Act). On some of the old claims and reservations in the Lemmenjoki National Park, mechanised gold mining is still permitted. After the new Mining Act came into force in 2011, there is a nine-year transition period before the mining rights, under which the gold panning is continued, finally lapses. After this, mechanised gold mining on Lemmenjoki River is prohibited.

In gold prospecting areas, off-road maintenance transport will be done primarily during the winter by snowmobile.

11.4 Leasing and granting rights of use

When granting rights of use for an extended time (over one year), repeatedly or regularly, a lease or right-of-use agreement is used. Otherwise, the rights are granted primarily by means of a permit.

A lease agreement gives the tenant an exclusive right to use the rented area. When granting permission to use a more restricted area, a right-of-use agreement is drawn up. Land lease and rightof-use agreements are drawn up and maintained in the VuokraGis system. When leasing areas already used by the Defence Forces or the Finnish Border Guard, they are first consulted (see the appropriate framework agreements: Defence Command 2777/620/2006 and Border Guard MH 5252/2013).

The following is a list of the main legal acts and norms that govern leasing:

- Tenancy Act (258/1966)
- Act on the Right to Transfer State Real Estate Assets (973/2002, "Conveyance Act")
- Government Decree on the Acquisition, Possession and Management of State Real Estate Assets (1070/2002, "Conveyance Decree")
- State Enterprise Act (1185/2002)
- Act on Metsähallitus (1380/2004)
- Ministry of the Environment Decree on Fees of Certain Metsähallitus Public Administration Duties (1326/2013),
- Ministry of Agriculture and Forestry Decree on Fees of Certain Metsähallitus Public Administration Duties (835/2013)
- Decision of the Metsähallitus Board 25.1.2011 (4024/08/2008): "Authority to decide on acquisition and transfer of real estate assets and on renting property and granting special rights"

Lease agreements are made in compliance with the principle of market rent, and other principles presented in the Metsähallitus guidelines for land leasing. The market rent obligation originates from the "Conveyance Act", according to which the transfer of state property assets is done by charging market prices. Exceptions to this are made only for a particularly compelling reason.

In wilderness reserves, it is prohibited to lease or grant the right to use land without the consent of the Council of State (Ministry of the Environment). Granting of land use rights, in accordance with the site management plan, for the use of recreational or other facilities, or for activities of the Defence Force or Border Guard, however, does not require such permission.

11.4.1 Plots rented for leisure construction

With respect to the leasing of land and buildings, the principles and guidelines are stated in the provisions of the Nature Conservation Act. According to the Act, the construction of buildings and structures in nature reserves is prohibited. Consequently, the basic assumption in the nature conservation legislation is that it is not possible to retain rented plots and their associated tenant-owned buildings in statutory nature reserves.

Under certain conditions, the necessary buildings and structures can be built in nature reserves for management, monitoring, research, and public recreational and educational use. With the per-

mission of the authority responsible for the management of the area, it is also possible "to restore and renovate buildings and structures other than those listed above". This is taken to mean, for example, the lighthouses and professional fishing bases in certain coastal national parks (Government Bill Memorandum for the Amendment of the Nature Conservation Act 58/2011).

Renting these kinds of plots and buildings may also be possible, if the buildings are considered necessary in the sense listed above, as referred to in the Nature Conservation Act (Section 14). Examples include some scout camps and ornithological stations.

In areas designated to be established as nature reserves, in particular sites included in the Shoreline Conservation Programme, there are often rented plots with a building (sometimes several) owned by the tenant, and often also other structures. Such situations are rather common on the sea coast, and the buildings there often have a long history. Some of the old buildings on protected sites have been without proper contracts. For the last few years, the aim has been to draw lease agreements for all such sites.

The majority of rental sites are now used as private summer resorts. Some sites are leased to various communities (associations, clubs, etc.). To some extent, the sites and constructions are still used for fishing, and some even for professional fishing (in the latter case, the lease agreement is made for a fishing base).

The final decisions on rented plots and their buildings are made in the context of preparing sitespecific statutes for pending nature reserves. If the lease is terminated before the appropriate enactment, the contract may be renewed for a limited period (five years) and will clearly state that the future will be resolved during the enactment process. In these agreements, additional rights for tenants will not be granted, compared to the past. Agreements will comply with the following:

- Leasing may not cause effects that extend from the lease area; so, for example, the construction of roads and electricity lines in the area is not allowed.
- No opportunity is given for further construction, the expansion of buildings, hauling water pipelines, electrifying, dredging, and so on.
- No disturbance may be caused to protected habitats or species by use of the plot.
- Terms will include relevant environmental issues, such as organisation of waste management.
- Lease terms can be used to restrict or prevent the transfer of the lease and leasing to a subtenant.

The possible continuation of a lease agreement in the area being established as a nature reserve will usually be based on its "establishing purpose". If the buildings on the rental plots have culturalhistorical value, or significance for professional fisheries, this should be posted in the site statute, which will allow continuation of the leases. If the preconditions for permanent leasing of plots are not justifiable, in some cases it is possible to offer a final, longer fixed-term lease contract (before the establishment of the nature reserve), after which the agreement will no longer be extended. In coastal areas, consideration may be given to leaving significant building heritage outside nature reserve boundaries in the enactment process.

In already established nature reserves, lease plots and tenant-owned buildings are retained only exceptionally, and in this case, they are usually based on the establishing statutes and their explanatory statements, which include the reasoning for continuing rental.

New areas of land will not be rented from established or pending nature reserves for the construction of holiday homes or other purposes (e.g., wind turbines).

11.4.2 Leasing of buildings and land

Parks & Wildlife Finland owns a number of buildings that have come with protected area land acquisitions, including summer cottages, fishing bases, former farm buildings, and forestry huts. If such buildings are not of value for protected area management and use, lease agreements will not be renewed. Agreements shall be terminated within a reasonable transition period, and the buildings shall then be demolished or sold. Before the buildings are demolished, care is taken to ensure that no protected bats are dwelling in them.

Protected areas may contain power lines or telephone cables and water pipes, which can be maintained, the site-specific provisions notwithstanding. The area required for these is leased with long-term contracts. With active cooperation, operators can help to reduce adverse effects on the landscape by favouring underground or underwater cabling, for example. New cable or pipe lines will not be installed in established or pending nature reserves.

Tourism and business-related lease agreements are described in Chapter 8.6, and leasing of hunting and fishing areas in Chapter 10.1.4.

11.4.3 Pasture lease contracts

In protected areas, there are many areas that can be managed by grazing, and grazing helps to preserve the natural habitat types and species therein. Grazing is especially suitable for many traditional rural biotopes – such as different kinds of meadows and pastures. Some of the largest areas managed by grazing are seaside meadows. Habitat management in cooperation with outside parties is encouraged, and pasture lease agreements play a very important role in conservation of the biodiversity and landscape values in the protected areas.

A land use right agreement shall normally be drawn up for an area managed by grazing. Where appropriate, the grazing areas can also be used based on a land lease agreement that gives the tenant the full rights of the lessee. Most often, the land use agreement party is a farmer eligible for subsidies in the agri-environmental aid scheme, and is able to apply for special subsidies ear-marked for managing traditional rural biotopes or enhancing natural or landscape diversity. In this case, the land use contract is granted for five years, and it must be valid for the entire period of the applied subsidy.

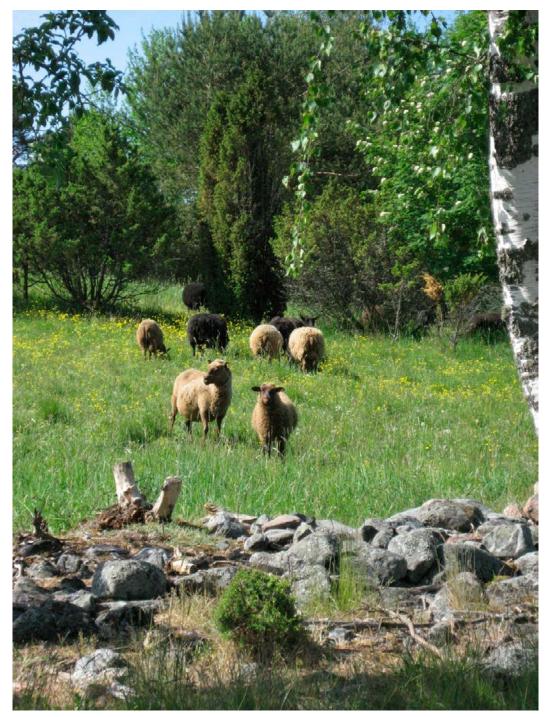
A land use contract may also be made for a longer period. The party qualifying for the subsidies can also be a registered association. Agreements can be made with parties outside the aid schemes, and the contract time can vary. Moreover, a similar contract can also be drawn up for clearing the area, or for using other traditional forms of habitat management.

Before the actual subsidised grazing period, the farmer or the registered association is eligible for a subsidy for non-productive investments for initial clearance and fencing in the traditional rural biotope site, through the agri-environmental scheme. Tenants should be encouraged to apply for this kind of support. The application requires a valid land use agreement. The agreement will include an indication of how to deal with, for example, fences constructed by the tenant at termination of the agreement.

There is no compensation for a site managed as a traditional rural biotope, but only a one-time contract fee. The justification for this is that the agreement is intended to secure the biodiversity of the area, in accordance with the management plan drawn up for it. The management objective is to maintain or improve the nature conservation values in the area. Fodder value of these pastures is usually low and the management costs tend to be high. In the case of a normally pro-

ductive field pasture or other area not managed as a traditional rural biotope or natural habitat site, the compensation is based on surface area.

Grazing without compensation means management in accordance with the terms set for traditional rural biotopes. Areas may not be modified and fertilized, and cattle may not be fed extra fodder. Grazing pressure has to be sufficient, and if it is not, it must be supplemented by clearing or mowing, so that management objectives can be attained.



Sheep grazing on the nutrient-rich coastal meadow of Tegelbruksbacken–Norrfjärden Natura 2000 site on the western coast. Pasture lease agreements help to maintain biodiversity and landscape values in the protected areas. Photo: Lena Wargén / Metsähallitus.

The pasture lease contract specifies clearly the agreement area and the associated structures, the responsibilities of each contracting party, and the management measures to be taken in the area. This is also important in view of a possible subsidy application. The responsibility for animal health and for arranging their supervision is always the tenant's, and this should be clearly mentioned in the agreement. Usually the tenant is also responsible for the maintenance of fences during the contract. Liabilities related to a possible electrical interface and procedures at termination of the contract are also mentioned. Copies of any subsidy applications and related decisions shall be submitted to Metsähallitus.

Suitable management sites in protected areas can be offered directly to livestock owners, for example in local papers and through web services. Often farmers are in contact themselves and ask for potential pastures. Contracts can be renewed if site management has been in line with the objectives as defined in the agreement.

In areas with grazing contracts, overlapping hunting agreements should be avoided. However, if the agreements overlap, it must be ensured that both of the parties are aware of the scope of the agreements and related activities, and that potential risk situations are prevented by moving animals away from grazing areas at the start of the hunting season, or by other means agreed with the tenant.

11.5 Scattering the ashes of the deceased

The Cemeteries Act (457/2003) provides for the processing of the ashes of the deceased. The placement of ashes outside of the cemetery requires consent from the landowner or governing body. Metsähallitus gives consent to the scattering of ashes on state-owned land and water areas. Water areas are preferred locations. Consent may also be given for nature and wilderness reserves, with the exception of strict nature reserves. No consent will be given in areas protected by land use plans or in the vicinity of visitor facilities. As a general rule, consent is given only for scattering ashes, but not for burial. The placement of the ashes outside the cemetery is the responsibility of the person in charge of the funeral arrangements.

Before handing over the ashes, the crematorium administrator requires written information about where, in one specific place, the ashes of the deceased will be permanently placed. The placement of the ashes does not affect the rights of the owner or holder of the land use rights to decide on the future use of the site. Consent does not entitle anyone to erect monuments or other structures, nor to modify the ground on the site where the ashes are placed. Sprinkling of the ashes on the ground must be done in such a way that the site cannot retrospectively be externally detected as a grave.

12 Other Activities Related to Protected Area Management

12.1 Establishing protected areas

Establishment of protected areas includes preparing and issuing protected area site enactments, the formation of real-estate units, and the marking of boundaries. These activities, which are important for the proper management of protected areas, are still largely incomplete.

12.1.1 Preparing protected area site enactments

At the end of 2014, Parks & Wildlife Finland had, under its management, a total of more than 700 statutory state-owned nature reserves, covering an area of 1,747,000 ha. In addition to this, at that time there were almost 2,200 sites under P&WF management yet to be established as statutory nature reserves, covering an area of almost 740,000 ha. These not yet enacted sites include those in National Conservation Programmes and those in the Natura 2000 network (the largest group), sites in the METSO programme (many in number, but small in size), and sites reserved in regional or other land use plans. All of these sites have been gazetted by earlier decisions as nature conservation areas to be established as statutory nature reserves. The enactment process to draw site-specific provisions is the final implementation of these decisions.

A large number of the sites not yet statutorily established as nature reserves have been awaiting enactment for a long time. Enactment has been delayed for several reasons, including the incompleteness of the land acquisition process. The provisions contained in the establishing enactments form the essential basis for the management of the protected areas (see Chapter 4.3). It is thus of paramount importance for the planning of conservation measures and for steering the use of the areas that the legislation is completed.

National parks and strict nature reserves of at least 1,000 hectares are established by law. Strict nature reserves of less than 1,000 hectares, as well as other nature reserves of over 100 hectares, are established by Government decree. Nature reserves of up to 100 hectares are established by decrees issued by the Ministry of the Environment.

Most pending sites are established as "other nature reserves". An estimated 1,600 new nature reserves still remain to be created in the enactment process in the coming five years. Some of the pending sites will be incorporated into currently established nature reserves by statutes, or technically by merging real-estate parcels. Because of the constraints involved in the latter procedure, this is usually exploited in Northern Finland, where hunting is allowed, according to Section 8 of the Hunting Act.

In order to advance the preparation of enactments, the Ministry of the Environment appointed a working group in 2007. In 2009, the group completed the Work Programme for the Establishment of Nature Reserves, in which different options and workloads for the establishment procedures are widely considered.

As proposed in the Work Programme, the enactment work is carried out by regional projects. A single project can involve the establishment of some ten to one hundred nature reserves, enacted by a single decree issued by the Government (for areas over 100 ha), and by another one issued by the Ministry of the Environment (for areas less than 100 ha). In the preparation process, Metsähallitus collects the basic information about the sites, draws up maps, and is responsible for

the participatory involvement of local stakeholders. The Ministry is responsible for drafting the enactment texts and collecting consultation statements. The Protected Area Information System is used as a work tool in the preparation of the protected area enactments.

The preparatory enactment work is done in cooperation with the relevant local stakeholders. In this context, there are discussions with regional authorities, municipalities, and hunting and nature conservation organisations.

In order to complete the preparation of the necessary legislation, it was estimated in 2009 that some 20 to 30 projects in all are needed. The first three projects, one in Southwestern Finland (consisting of 91 established nature reserves) and two in Eastern Finland (34 and 9 nature reserves), were completed by the end of 2014. Seven projects are presently (in 2015) ongoing. The goal is to get the necessary new nature reserves established by 2020.

For the next few years, the focus will be on the preparation of enactments for pending sites. However, at some later point, the objective is to renew the statutes and regulations of existing nature conservation areas, which in many respects are outdated (the oldest enactments are from the 1920s and 30s). The long-term goal is to have provisions as uniform and up-to-date as possible.

12.1.2 Forming real-estate units and marking boundaries

According to Section 21 of the Nature Conservation Act, real-estate units shall be formed of each nature reserve, and its boundaries must be marked prominently on the terrain. The Nature Conservation Act does not contain detailed provisions on the formation of the real estate, but only refers to the Real Estate Formation Act. In practice, the formation of conservation real-estate units is largely driven by guidelines issued by the National Land Survey (NLS) in 2010, in which criteria for completed real estate are defined, and details of the necessary procedures described.

Even before the statutory establishment of a nature reserve, a preliminary conservation real-estate unit may be formed. The formation of the final conservation real estate will take place only after the statutory establishment of the nature reserve. If a preliminary real-estate unit has previously been formed, the formation of a conservation real-estate unit is implemented by a "change in quality", which is a simple registration procedure. In other situations, the protected area property is established in connection with cadastral procedures, most commonly in land consolidation projects involving different types of measures.

In the Work Programme for the Establishment of Nature Reserves report, published in 2009, an estimate is given that the formation of 1,300 new conservation real-estate units is required. In addition, it is estimated that of some 400 conservation real-estate units that have already been formed, about half would require further complementary measures.

The costs of protected area real-estate formation are considerable. Single site costs may be several tens of thousands or even more than 100 thousand euros, depending on the size of the site and the complexity of the operations involved. The more boundary lines there are with state-owned land, the higher the costs tend to be.

Due to the amount of work and the high costs, the appropriateness of conservation real-estate formation has sometimes been questioned. From the point of view of the management of protected areas, conservation property formation is necessary and justified for a variety of reasons. As a result of incompleteness of conservation real-estate formation, there are a large number of distinct real-estate units (in large protected areas, tens of them initially), which makes management

difficult. Parks & Wildlife Finland is currently administering approximately 7,500 separate realestate units, and it is clear that when properties are so fragmented, this undermines productivity.

Often, protected areas are burdened with use right agreements (e.g., right of way permissions or easements) that may be problematic and hinder management of the sites. These need to be examined and removed in connection with integrated real-estate formation. The simplest way to identify and handle such rights may be through regional private road survey procedures. The goal of Metsähallitus is that, in the future, the NLS could sort out and settle such rights in protected sites before formation of the final conservation real estate.

During the last ten years, real-estate formation projects have been targeting ten to twenty small or minor protected sites annually. Just in the last few years, a few large national parks have been the target. The Parks & Wildlife Action Plan includes a goal to complete the most urgent property formation procedures in national parks by the end of 2015. A lot of work still remains to be done in the coming years. The new Government Programme (2016-2018) includes an earmarked budget allowance to promote this important task.

The Ministry of the Environment has issued a Decree on Marking Boundaries of Nature Reserves (53/2008), according to which the boundary lines are to be indicated by name-plates or painted signs. In practice, the appropriate demarcation is often done in connection with real-estate formation, in which the boundaries are measured and posted. Boundaries of nature reserves are marked, in accordance with the statutory provisions, by P&WF (the measurement of the boundaries and the posting is the responsibility of the NLS). Visible demarcation of boundaries is necessary, in particular, in view of area surveillance, because without any boundary markings on the ground, it is difficult or impossible to intervene in possible misconduct in protected areas.

In the context of productivity development, the possible reduction of effort in real-estate formation and boundary demarcation of private nature reserves has been under discussion, headed by the Ministry of the Environment. ELY Centres have responsibility for marking the boundaries of private nature reserves, but from time to time, there has been debate as to whether it would be possible to transfer this task to Metsähallitus. In practice, the transfer of the task would apply only to updating the markers of previously marked (and measured) boundaries of private sites, because the task of boundary demarcation is closely tied to the private nature reserve establishment resolutions, which is a public authority duty of the ELY Centres.

12.2 Undertaking new sites and built property

12.2.1 Taking possession of transferred sites

A significant number of new land and water areas, as well as some constructed property, have been and will continue to be transferred into the possession of Parks & Wildlife Finland. Such transfer of property is involved in the following processes (see Figure 11):

- Transfer of lands acquired by the state for nature conservation by the Ministry of the Environment
- Transfer of land possession and administration from other state authorities or institutions
- Transfer of lands and waters governed by the Metsähallitus Forestry Unit

Such "new sites" involve potential environmental and other risks, which need to be minimised as far as possible. For the management of such risks, P&WF drafted guidelines in 2010, and they have recently been updated. It is essential to have influence on possible risk issues in connection

with these area possession transfers, even before the transfer decisions are finalised. Clear policies and operational instructions are defined for undertaking possession and governance of new sites.

When the possession of areas acquired for nature conservation is transferred from the Ministry of the Environment:

• Parks & Wildlife Finland scans the site transfer documents for whether they have documentation on potential environmental risks. If the risks are mentioned, appropriate on-ground surveys will be executed, in which the risks are identified.

When possession of areas is transferred from other state authorities and institutions:

- Already in the preparatory phase, an on-ground inspection is performed, checking possible environmental risks and assessing whether the site is suitable for P&WF use. The inspection survey is documented in a memo.
- While drafting agreements for transfer of the sites, observed environmental risks and responsibilities for them are registered.
- If appropriate, such environmental risks are accounted for in the possession inspection directly after transfer, which is also documented in a memo.

When areas are transferred from the Forestry Unit to Parks & Wildlife Finland (i.e. within Metsähallitus):

• As transfer proposals are prepared, if appropriate, an on-ground inspection is performed, checking possible environmental risks and assessing whether the site is suitable for P&WF use. The inspection survey is documented in a memo.

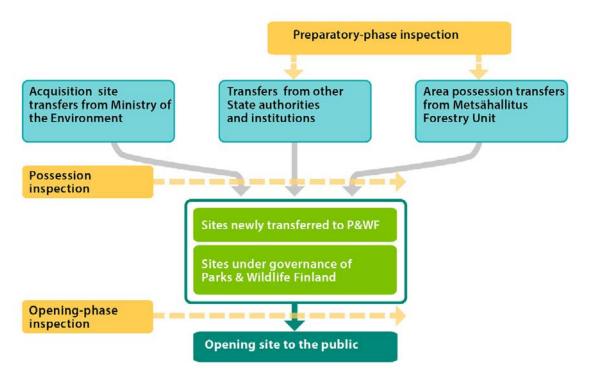


Figure 11. Process of transferring possession of protected areas and opening sites to the public.

12.2.2 Opening new sites to the public

Many of the protected areas under P&WF management are popular visiting sites. Every now and then, new sites will also be opened to the public and developed as visitor destinations (see Figure 7). In such situations, it is important to identify in advance all possible risks concerning visitor security, the environment, and other issues. Such risks may appear especially when sites have recently been transferred to P&WF, and are thus not so well known yet.

The guidelines mentioned in the previous chapter also contain the following instructions regarding the opening of new sites to the public:

- When opening a new site to the general public, it must always be ensured that no environmental or visitor security-related risks are associated with the site. If necessary, an onground inspection is held, where risks are identified and measures are determined to eliminate risks before the opening. On sites for which a management or operational plan shall be drawn up, evaluation of potential risks and the necessary actions should preferably be taken before the planning process, but at latest during it. The P&WF Recreation and Nature Tourism Process has responsibility for the risk assessments and on-ground inspections.
- If the site that is to be opened to the public has previously been in the possession of P&WF, and no such possession transfer inspection as described above has been performed, the site inspection should also involve other types of potential risks (environmental, etc.).

12.2.3 Taking built property in hand

Buildings situated in protected areas under Parks & Wildlife Finland management number in thousands, and constructions of different types in tens of thousands. This built property is partly not very well known. Although most buildings are used by P&WF for administration, maintenance, and supervision, and as visitor facilities and such, some buildings and structures are not in active use. This is mostly because this property has come with protected area possession transfers from other state organisations in the past 15 years.

In the past few years, several assessments have been made in order to take the inadequately known built assets "under control". The P&WF Steering Group has approved the following objectives for the coming years:

- At least minimum data on all built assets is registered in the GIS database.
- The status and purpose of use for all buildings is clear.
- The maintenance of all buildings used for P&WF's own purposes is organised.
- A significant number of the buildings not used are sold or taken down.
- Real-estate taxation is checked.
- Lease and right of use contracts are updated.
- The cultural historical and other values of buildings in protected areas are assessed.
- Maintenance of valuable built heritage owned by P&WF is secured.

A project was carried out in 2014 to compile all aspects of the management of buildings into a handbook. This includes everything from taking possession, to maintaining, using, renting, and selling buildings, as well as administrating the built assets (information management, budget and taxes, etc.).

12.3 Supervising and enforcing the law

Metsähallitus has eleven full-time police-trained game and fisheries wardens, who are responsible for law enforcement and supervision, in cooperation with the police and with the Border Guard. The duties and powers of the wardens are defined in the Act on Surveillance of Hunting and Fishing (1157/2005). Their main task is the prevention of illegal and unlawful activity on state-owned lands and waters, as well as the coordination and training of volunteer supervisors.

Regular collaboration with the police and the Border Guard is essential in law enforcement and supervision. This means, for example, planning supervisory work together, and arranging common patrols or exchanging information. Other Metsähallitus staff, as well as game management associations and fisheries inspectors, are also involved in supervision tasks. Policemen, border guards, and customs or Metsähallitus staff may also work as volunteer guards in their spare time.

The activities subject to surveillance are hunting, fishing, nature conservation, off-road terrain and water traffic, forestry, waste management, and compliance with land use and public access rights on state lands. Game and fisheries wardens check that the relevant licences and permits are in order. Law enforcement focuses on making sure that visitors comply with statutory provisions concerning the use of natural areas and resources. In protected areas, particular supervision is carried out to ensure compliance with the access restrictions that have been prescribed to protect species. The restrictions apply, for example, to movement at nesting time. The wardens are also involved in nature protection measures in Northern and Eastern Finland, by monitoring birds of prey and large carnivores, for example.

The personnel of P&WF Park Districts takes part in guarding nature within their district and, when needed, also in surveillance activities under the guidance of the game and fisheries wardens. If there is illegal activity in the area, the wardens or the police will always be contacted.

One of the most important game and fisheries surveillance tasks of the last few years has been to supervise the fishing restrictions on the water areas and types of fishing gear issued to protect the critically endangered Saimaa ringed seal. Supervision is also directed at marine and coastal areas, where it is focused on the seal reserves, as well as boating, waterfowl hunting, and keeping dogs on a leash.

The game and fisheries wardens also make an active contribution towards prevention of violations by visiting schools and associations, and talking about good fishing and hunting practice.

12.4 Land use issues outside protected areas

Land use and changes in land use outside protected areas affect conditions inside them. Such effects can be caused by activities such as mire draining, peat extraction, and mining (water impact), or wind-power plants (bird and landscape impact).

The provisions of the regulations on nature reserves are valid only within those protected areas, and they have no impact on measures beyond the boundaries of the area. For Natura 2000 areas (most of the established and pending national nature reserves are also designated Natura sites), the situation is different, because the prohibition on deteriorating conservation values of Natura 2000 areas also extends to measures and projects executed outside the sites.

Effective lobbying (for example, using consultation statements) is an important means to intervene in projects that may adversely affect the protected areas. Advocacy aims to influence projects in the vicinity of protected areas, so as to minimise the adverse effects on the areas as far as possible.

Protected areas are delimited by areas largely either owned by private landowners or governed by business units of Metsähallitus. In Northern Lapland, protected areas are also bordered by P&WF governed subsistence economy areas, which cover a total of more than 360,000 ha in the municipalities of Inari, Utsjoki, and Enontekiö. Subsistence economy areas are located within the Sámi Homeland and the Special Reindeer Husbandry Area, and their use value for recreation and nature-based occupations is significant. Subsistence economy areas are primarily located adjacent to wilderness reserves, and the relevant land use decisions have to be taken with regard to the objectives stated in the Wilderness Act.

In the context of the large-scale natural resource planning of Metsähallitus, land use practices can be influenced outside protected areas in commercial forestry areas and subsistence economy areas. Natural resource planning aims to support the conservation, management, and use of protected areas, and to enhance their interconnectivity, as well as to mitigate the effects of climate change. Potential adverse effects of Metsähallitus business activities on protected areas can be reduced by consultation and good communication between the Metsähallitus operational units. The Metsähallitus Forestry Environmental Guidelines provide instructions on taking note of the conservation values of the adjacent protected areas in the context of logging or ditching.

The main features of land use in the vicinity of the protected areas are outlined in the regional land use plans and local master plans. Metsähallitus has an obligation, as an authority defined by the Land Use and Building Act, to contribute towards the implementation of a regional land use plan. Participation in the planning processes and the plans themselves are fundamental tools in influencing land use in the vicinity and outside the protected areas. Advocacy is best as early as possible in the drafting phase of the plans, because making changes to the plans in the proposal stage is often more difficult.

The aim is also to integrate into the land use plans the Metsähallitus goals and policies that may relate to, for example, tourism enterprise development in the protected areas. While assessing the drafts of the plans, the appropriateness of provisions for nature conservation areas should be checked. Similarly, it is reasonable to check the boundaries of areas reserved for protection, and to send data (in digital form) for revision, if necessary. In particular, data on protected forests is often needed, since it is not included in the national spatial data sets hosted by SYKE – these sites are administered by Metsähallitus and the Finnish Forest Centre.

Projects that result in significant adverse environmental effects require an environmental impact assessment procedure (EIA, Act on Environmental Impact Assessment Procedure, 468/1994). For example, wind-power projects require an environmental impact assessment procedure each time, if the wind farm consists of at least ten wind turbines, or the total output of the turbines is at least 30 megawatts. Even smaller projects may require an environmental impact assessment procedure, if the impact is expected to be significant. This is considered by the ELY Centres. The procedure of the EIA processes, like the land use planning procedures, requires consultation with stakeholders in the impact area of the project. The interests of protected areas are advocated, where appropriate, by making statements on the assessments.

Metsähallitus Laatumaa (the real-estate business unit) develops wind-power projects in the stateowned areas governed by the business operations, and decisions about placing them are made in cooperation with other Metsähallitus units. Wind-power construction is not possible in statutory nature reserves or sites reserved to be established as such (Nature Conservation Programmes and Natura 2000), and in practice, not in wilderness reserves. Areas governed by Parks & Wildlife Finland, where the prevailing statutes do not prevent the construction of wind power, include public water areas, other parts of the coast and the archipelago, and some inland areas.

Metsähallitus welcomes wind power, and is working to promote its growth, as long as the wind turbines can be located so that they do not cause significant harm to nature and landscape values. In advocating for protected area interests, special attention will be paid to wind-power projects that are located in close proximity to valuable bird areas (e.g. Natura 2000 Special Protection Areas that are established in accordance with the Birds Directive, territory sites of threatened birds of prey) or key areas from the point of view of tourism and recreation (e.g., national parks, nature tourism priority areas).

The placement of industrial-scale wind-power parks is directed by regional land use plans. On the basis of the Land Use and Building Act, a master plan can also be drawn up, to direct the construction of the wind power directly. Otherwise, detailed planning is incorporated into local plans. The implementation of a wind-power project requires a building permit, which is granted based on the plan directing local construction. In exceptional cases, mainly involving individual plants, the authorisation may be granted on the basis of a derogation resolution. As a general rule, P&WF is critical to the construction of small turbine units, and the implementation of such projects should be based on proper planning and impact assessment.



Wind power plants on Hailuoto Island in the Bothnian Bay. Additional wind power units are planned around the area. Active participation in the planning process aims to mitigate potential adverse effects on the natural and cultural values of the Natura 2000 sites on the island. Photo: Metsähallitus.

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Description of Certain Area Types

National hiking areas

Seven national hiking areas have been established under Finland's Outdoor Recreation Act for hiking and outdoor recreation. They have marked nature, hiking and skiing trails, cabins and camping sites, and it is usually possible to go fishing or hunting in these areas. All the national hiking areas are managed by Metsähallitus, and are included in the Natura 2000 network. One of the hiking areas has been integrated into the Teijo National Park that was established in 2015. Two sites (Inari Hiking Area and Arctic Circle Hiking Area) have been proposed as national hiking areas.

Landscape conservation areas

Landscape conservation areas are established under the Nature Conservation Act to maintain and manage natural or cultural landscapes, their beauty, historical characteristics, or other special scenic values. The related Government Resolution of 1995 lists 156 naturally valuable landscape areas in Finland, with a total area of 730,000 ha. Most of these landscape areas are located in the agricultural districts of Southern and Western Finland. Presently, only a few actual landscape conservation areas have been established. One of them is partly managed by Metsähallitus.

Baltic Sea Marine Protected Areas (HELCOM MPA)

To implement objectives of the Convention on the Protection of the Marine Environment of the Baltic Sea, the Helsinki Commission (HELCOM) proposed 62 coastal sites for inclusion in the network of Baltic Sea Marine Protected Areas in 1994. Most of these sites were already nationally protected. In 1998, 23 marine protected areas from Finland were included in the network and in 2012, five more sites. The network includes all of Finland's marine national parks. These sites are also designated in the Natura 2000 network and are mostly managed by Metsähallitus.

Ramsar sites

The Ramsar Convention (1975) obliges the 169 signatory states to promote conservation of internationally important wetlands and water birds by establishing protected areas in these habitats. Finland has 49 of these sites, with a total area of 785,780 ha, and 21 of them are entirely or partly managed by Metsähallitus. Sites are chosen so that they represent, as well as possible, different mires, lakes, marine bays and archipelagos which are important to water birds in Finland. All of Finland's Ramsar sites are also designated in the Natura 2000 network, and the conservation goals of the Ramsar Convention are put into practice through Natura conservation measures. Ramsar sites also belong to national conservation programmes, such as the Mire Conservation Programme, the Bird Wetlands Conservation Programme and the Shore Conservation Programme. Eleven protected areas have been proposed for designation to the Ramsar network.

Biosphere reserves

There are two Biosphere reserves in Finland: the North Karelian Biosphere Reserve (established in 1992) and the Archipelago Biosphere Reserve (established in 1994). These areas both form part of the Man and the Biosphere (MAB) Programme of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). They are intended to be model areas of sustainable development, where the goal is to integrate the conservation of habitat diversity with the sustainable use of natural resources. The core of both of the Biosphere areas is a national park that is managed by Metsähallitus.

Natural and cultural sites on the UNESCO World Heritage List

UNESCO approved the World Heritage Convention in 1971. By 2015, there were over 800 cultural heritage sites, 190 natural heritage sites and 30 mixed sites on the World Heritage List. Six of the designated cultural heritage sites and one natural heritage site (the Kvarken Archipelago) are located in Finland. This natural heritage site and parts of one cultural site (two survey points within the Struve Geodetic Arc) are managed by Metsähallitus.

IUCN Protected Area Management Categories: Definitions

Source: Guidelines for Applying IUCN Protected Area Categories (2008)

Protected area

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Protected area management categories

Category Ia: Strict nature reserve

Category Ia sites are strictly protected areas set aside to protect biodiversity and also possibly geological/ geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

Category Ib: Wilderness area

Category Ib 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.

Category II: National park

Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.

Category III: Natural monument or feature

Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

Category IV: Habitat/species management area

Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

Category V: Protected landscape/seascape

Category V sites are protected areas where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value, and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

Category VI: Protected area with sustainable use of natural resources

Category VI protected areas conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

IUCN Protected Area Categories: Objectives of Management and Use

Source: Principles of Protected Area Management and Use. Metsähallitus Natural Heritage Services (presently Parks & Wildlife Finland).

1 = primary objective, 2 = secondary objective, 3 = possible objective, - = not applicable

	Protected area management category						
	la	lb	II		IV	V	VI*
Management and use objective	Strictly protected area*	Wilderness area*	National park*	Natural monument	Habitat /species protection and management area	Protected landscape	Natural resource management and protection area
Scientific research	(1)	3	2	3	2	3	3 (2)
Wilderness protection	2	1	2	-	-	_	2 (1)
Preservation of habitats, species and genetic diversity	1	2 (1)	1	2(1)	1	2	2 (1)
Maintenance of ecosys- tems and their services	2 (1)	1	1	-	2 (1)	2	1
Protection of specific natural/cultural features	(2)	(-)	2	1	2 (3)	1	1
Recreation and tourism	_	3	1 (2)	2 (1)	3	1	3 (2)
Education	_	_	2	2	3	3	3
Sustainable (traditional) use of natural resources	-	3(2)	3	-	(2)	2	1
Maintenance of cultural /traditional landscape features	_	(2)	(2)	(2)	(2)	1	2

*) Previously, before (re)assignment of categories in 2014 according to revised IUCN guidelines (2008) and national principles (2013), wilderness reserves and certain other large protected areas in Northern Finland were assigned to category VI, because of statutory hunting rights and reindeer herding. Presently, there are no protected areas assigned to this category.

Indicative IUCN Management Categories for State-owned Protected Area Types

Source: Metsähallitus (MH) 2013.

Sites reserved for conservation (land use code 211) assigned category in process of site enactment.

Areas reserved for recreational purposes (301, 312 and 313) are not assigned IUCN categories, although many are designated in the Natura 2000 network .

LAND USE TYPE CODE	PROTECTED AREA TYPE	PROTECTED AREA CATE- GORY size usually > 1000 ha	PROTECTED AREA CATE- GORY size usually < 1000 ha	COMMENT
201	Strict Nature Reserves	la	IV Karkali	If access is allowed, only in a small area and on marked trails
202	National Parks	II (Lemmenjoki Ib)		Lemmenjoki NP is a very large in area and wilderness-like, recreational zone is only ca. 5%
203*	Other Nature Reserves	lb (certain sites la)	IV (certain sites III)	Category III sites are established for a natural or nature-based cultural feature
204	Old-growth Forest Reserves	lb	IV	
205	Mire Conservation Reserves	lb	IV	
206	Herb-rich Forest Reserves		IV (certain sites la)	Sites with extensive access restrictions, possibly la
207	Nature Reserves (Metsähallitus decision)		IV	After 2005, Metsähallitus no longer has the right to designate statutory nature reserves
211	Nature Conservation Programme sites (Council of State decision)	lb (certain sites la)	IV	Established as Nature Reserves, management category approved with statute/ regulation. Sites with extensive access restrictions, possibly la
221	Protected Areas designated in land use plans (Regional Council decision)		IV	Established as Nature Reserves, category approved with statute / regulation (mire, shore, island sites)
231*	Other protected areas on State lands		IV	METSO or other habitat/ species protection sites, Natura 2000 sites with no other national designation
232	Protected Forests (MH)	lb	IV	Considered PAs when managed by P&WF
301	Recreational sites (MH)		IV	Protected area, if in the Natura 2000 Site Network (mainly shore sites)
302	Wilderness Reserves	lb		Protected area, also in the Natura 2000 Site Network
312	National Hiking Areas	II tai V		Protected area, because in Natura 2000 Site Network
313	Recreational forests (MH)	V (Inari Hiking Area)	IV	Protected area, if in the Natura 2000 Site Network (Inari Hiking Area covers 89 % of total area in class)

* After 1.7.2013, private nature reserves acquired for the state are coded with land use type 208 and areas acquired within the METSO Forest Biodiversity Programme with type 212.

Legislation Pertaining to Governance, Management and Use of Protected Areas

LAIN TAI ASETUKSEN NIMI	NAME OF STATUTE	NO/NR
Metsähallitus	Metsähallitus	
Laki Metsähallituksesta	Act on Metsähallitus	1378/2004
Valtioneuvoston asetus Metsähallituksesta	Decree on Metsähallitus	1380/2004
Laki valtion liikelaitoksista	State Enterprise Act	1185/2002
Hallinto	Administration	
Hallintolaki	Administrative Procedure Act	434/2003
Laki viranomaisten toiminnan julkisuudesta	Act on Openness of Government Activities	621/1999
Asetus viranomaisten toiminnan julkisuudesta ja hyvästä tiedonhallintatavasta	Decree on the Openness of Government Activities and on Good Practice in Information Management	1030/1999
Laki sähköisestä asioinnista hallinnossa	Act on Electronic Service in the Administration	1318/1999
Laki sähköisestä asioinnista viranomaistoiminnassa	Act on Electronic Services and Communication in the Public Sector	13/2003
Arkistolaki	Archives Act	831/1994
Laki julkisista hankinnoista	Public Procurement Act	1505/1992
Valtion maksuperustelaki	Lag om grunderna för avgifter till staten	150/1992
Ympäristöministeriön asetus Metsähallituksen eräiden julkisten hallintotehtävien suoritteiden maksuista	Ministry of the Environment Decree on Fees of Certain Metsähallitus Public Administration Duties	1571/2015
Maa- ja metsätalousministeriön asetus Metsähallituk- sen eräiden julkisten hallintotehtävien suoritteiden maksuista	Ministry of Forestry and Agriculture Decree on Fees of Certain Metsähallitus Public Administration Duties	1592/2015
Luonnonsuojelu ja alueet	Nature Conservation and Areas	
Luonnonsuojelulaki	Nature Conservation Act	1096/1996
Luonnonsuojeluasetus	Nature Conservation Decree	160/1997
Erämaalaki	Wilderness Act	62/1991
Ulkoilulaki	Outdoor Recreation Act	606/1973
Laki oikeudesta yleisiin vesialueisiin	Public Water Rights Act	204/1966
Euroopan unionin luontodirektiivi	EU Habitats Directive	92/43/EEC
Euroopan unionin lintudirektiivi	EU Birds Directive	2009/147/E C
Ympäristöministeriön asetus Natura 2000 -verkostoon kuuluvien alueiden luettelosta	Ministry of the Environment Decree on Areas Designated in the Natura 2000 Network	354/2015
Euroopan unionin vesipuitedirektiivi	EU Water Framework Directive	2000/60/EC
Euroopan unionin meristrategia-puitedirektiivi	EU Marine Strategy Framework Directive	2008/56/EC
Euroopan unionin direktiivi merten aluesuunnittelun puitteista	EU Directive for Marine Spatial Planning	2014/89/EU
Saamelais- ja saaristoalueet	Sami and Archipelago Areas	
Laki saamelaiskäräjistä	Act on the Sami Parliament	974/1995
Asetus saamelaiskäräjistä	Decree on the Sami Parliament	1727/1995
Kielilaki	Language Act	148/1922
Saamen kielilaki	Sami Language Act	1086/2003
Laki saamen kielen käyttämisestä viranomaisissa	Act on the use of the Sami language before the authorities	516/1991
Euroopan ihmisoikeussopimus	Human Rights Agreement	63/1999
Sopimus liittymisestä Euroopan unioniin (alkuperäinen nimi pitempi)	Agreement on Joining the EU	103/1994
Kolttalaki	Koltta Sami Act	253/1995
Poronhoitolaki	Reindeer Husbandry Act	848/1990
Porotalouden ja luontaiselinkeinojen rahoituslaki	Act on Financing of Indigenous Livelihoods	45/2000
Laki saariston kehityksen edistämisestä	Archipelago Act	494/1981

LAIN TAI ASETUKSEN NIMI	NAME OF STATUTE	NO/NR
Kulttuuriarvot	Cultural Values	
Muinaismuistolaki	Antiquities Act	295/1963
Laki rakennusperinnön suojelemisesta	Act on the Protection of Built Heritage	498/2010
Asetus valtion omistamien rakennusten suojelusta	Decree on the Protection of State-owned Buildings	480/1985
Maankäyttö ja suunnittelu	Land Use and Planning	
Maankäyttö- ja rakennuslaki	Land Use and Building Act	132/1999
Maankäyttö- ja rakennusasetus	Land Use and Building Decree	895/1999
Laki ympäristövaikutusten arviointimenettelystä	Act on Environmental Impact Assessment Procedure	468/1994
Kiinteistönmuodostamislaki	Real Estate Formation Act	554/1995
Ympäristöministeriön asetus luonnonsuojelualueen rajojen merkitsemisestä	Ministry of the Environment Decree on Marking Nature Reserve Boundaries	53/ 2008
Yhteisaluelaki	Act on Joint Property	758/1989
Valtioneuvoston asetus valtion kiinteistövarallisuuden	Government Decree on the Acquisition, Possession	
hankinnasta, hallinnasta ja hoitamisesta	and Management of State Real Estate Assets	1070/2002
Laki oikeudesta luovuttaa valtion kiinteistövarallisuutta	Act on the Right to Transfer State Real Estate Assets	973/2002
Laki eräistä naapuruussuhteista	Act on Neighbour Relations	26/1920
Maa-aineslaki	Land Extraction Act	555/1981
Maa-ainesasetus	Land Extraction Decree	91/1982
Kaivoslaki	Mining Act	621/2011
Vesilaki	Water Act	587/2011
Kalastuslaki	Fishing Act	379/2015
Kalastusasetus	Fishing Decree	1360/2015
Metsästyslaki	Hunting Act	615/1993
Metsästysasetus	Hunting Decree	666/1993
Valtioneuvoston asetus metsästyslaissa säädetyistä poikkeusluvista	Government Decree on Derogations Laid down in the Hunting Act	452/2013
Maastoliikennelaki	Off-road Traffic Act	1710/1995
Maastoliikenneasetus	Off-road Traffic Decree	10/1996
Vesiliikennelaki	Water Traffic Act	463/1996
Vesiliikenneasetus	Water Traffic Decree	124/1997
Maantielaki	Public Roads Act	503/2005
Laki yksityisistä teistä	Private Roads Act	358/1962
Ilmailulaki	Aviation Act	1242/2005
Hautaustoimilaki	Cemetery Act	457/2003
Maanvuokralaki	Tenancy Act	258/1966
Kuluttajaturvallisuuslaki	Consumer Security Act	920/2011
Kokoontumislaki	Assembly Act	530/1999
Huolto ja valvonta	Maintenance and Surveillance	
Laki Metsähallituksen erävalvonnasta	Act on Surveillance of Hunting and Fishing	1157/2005
Valtioneuvoston asetus Metsähallituksen	Government Decree on Surveillance of Hunting and	1273/2005
erävalvonnasta	Fishing Environmental Protection Act	E07/0014
Ympäristönsuojelulaki		527/2014
Ympäristönsuojeluasetus	Environmental Protection Decree	1713/2014
Jätelaki	Waste Act	1072/1993
Jäteasetus Motoäsesetus	Waste Decree	1390/1993
Metsäasetus	Forest Decree	1200/1996
Laki metsän hyönteis- ja sienituhojen torjunnasta Aluevalvontalaki	Act on Prevention of Forest Fungi and Insect Damage Territorial Surveillance Act	263/1991
		755/2000
Valtioneuvoston asetus aluevalvonnasta	Territorial Surveillance Decree	971/2000
Rajavartiolaki	Border Guard Act	578/2005
Pelastuslaki	Rescue Act	468/2003
Rikoslaki	Finnish Penal Code	39/1889
Poliisilaki	Police Act	872/2011

Principles and Guidelines Directing Management of Protected Areas

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Nature recreation and education

Isokääntä, O. (ed.) 1997: Luonto-oppaan opas. 2. rev. ed. – Metsähallituksen luonnonsuojelujulkaisuja. Sarja B 35. 96 p. [Guidelines for nature guides] – In Finnish. Nykänen, R. 1996: Oppimaan luonnonsuojelualueille. – Metsähallituksen luonnonsuojelujulkaisuja. Sarja B 30. 76 p. [Out to learn in protected areas] – In Finnish.

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Parks & Wildlife Finland Action Plan 2012–2020 (2012)

Protected area management planning

Guidelines for Natura 2000 site condition assessment 2011 (updated 2015)

Guidelines for protected area management planning 2009 (updated 2015)

Conservation and management of habitats and species

Principles (2002) and guidelines for habitat survey (2010)

Guidelines for survey of Natura 2000 habitats (updated 2015)

Guidelines for planning restoration measures (2014)

Guidelines for planning habitat management (2014)

Conservation and management of cultural heritage

Strategy for cultural heritage 2007–2015 (2006)

Guidelines for surveying cultural heritage in protected areas (2008)

APPENDIX 6.3(3)

Nature recreation and tourism

Principles of sustainable nature tourism 2004 (updated 2015)
Guidelines for cooperation with tourism business (2013)
Guidelines of sustainable tourism on protected areas for entrepreneurs (2013)
Guidelines for nature tourism planning (2007)
Principles for interpretational communication (2006)
Principles for using logos of national parks and hiking areas (2008)
Guidelines for planning of guidance material (2008)
Principles (2006) and guidelines for building (2006)
Handbook on management of buildings (2014)
Guidelines for planning the building of visitor facilities (2006)
Collection of technical drawings of recreational facilities (2015, updated frequently)
Guidelines for good sign posting (2013)
[Guidelines for] Safety of Parks & Wildlife customers (2013)

Research and monitoring

Strategy for nature conservation research (2003)

Guidelines for visitor monitoring (2013)

Guidelines for environmental impact assessment of nature tourism (2005)

Hunting and fishing

Principles for management of game and fisheries tasks (2005)

Guidelines for granting free-of-charge licences for hunting and fishing (2005)

Guidelines for granting permits needed for hunting of large carnivores in the free hunting area (in accordance with Section 8 of the Hunting Act) (2007)

Other use of protected areas

Principles of off-road traffic 2007 (updated 2014)

Guidelines for granting certain land use permits and determining associated fees (2007)

Guidelines for administrative transfer and opening of sites to the public (2010, updated 2015)

Menu of Protected Area Values

PA = Protected area in the national network,	NA = Natura 2000 site.
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Value class	Value type	Criteria and indicators		
Natural values:				
	Habitats and species listed by Habitats Directive	 distribution and representativeness in area and conservation status within PA/ NA networks population within area and conservation status within PA/ NA networks 		
	Species listed by Birds Directive	 population within area and conservation status within PA/ NA networks 		
	Red-listed habitat types	 distribution and representativeness in area and conservation status within PA/ NA networks 		
	Red-listed species	population within area and conservation status within PA/ NA networks		
	Other protected species	population and conservation status		
	Biotope community/ species assemblage	 status of indicator habitat, amount and management situation within area and PA/ NA-networks status of indicator species (birds, butterflies, fish, othe key species, e.g. marine blue mussel) 		
	Ecosystem (structure, function)	 structure of forest (dead wood, tree species and age distribution) hydrological state of peatland ecological state of surface / groundwater 		
	Geological feature	value class of feature extent within area and conservation status within PA/ NA-networks		
	Wilderness-quality (remoteness)	proportion of remote zone		
Cultural values:				
	Natural or cultural landscape	proportion/ extent of nationally valuable landscape		
	Built cultural environment	number/ extent of nationally valuable cultural env.		
	Valuable buildings	number/ condition of protected or valuable buildings		
	Archaelogical sites	number/ condition of ancient remains		
	Local cultural features	 Sámi Homeland / archipelago area; significance of area for local cultural heritage 		
Appreciation and	awareness:			
	Nature interpretation	• customer service points, number of visits • number of people in guided groups		
Environmental education		 nature trails (km) proportion of students in guided groups 		
Research and mo				
	Significance for research	number of research projects/sites		
	Significance for monitoring	number of monitoring sites		
Recreation and live	velihoods:			
	Recreation in natural/ cultural sites	 PA type, amount and condition of infrastructure number and type of visits, satisfaction, benefit value 		
	Nature tourism entrepeneurship	number of entrepeneur agreements satisfaction (cooperation)		
	Hunting and fishing	proportion and significance of area for use		
	Reindeer herding and subsistence economy	proportion and significance of area for use		
	Other use (e.g. wood, water, berries/fungi)	 proportion and significance of area for use 		

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