

GUIDANCE

Cairngorms National Park Forest Strategy 2018





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CONTENTS

Foreword	2	4.2 Habitat enhancement	30
I. Introduction	4	a) Montane woodland	30
1.1 Strategy purpose	6	b) Riparian woodland	31
1.2 Policy context	6	c) Aspen	31
1.3 Current resource	9	d) Woodland remnants	32
1.4 Potential resource	11	e) Ancient and semi-natural woodlands	32
		f) Felling	33
2. Vision	12	4.3 Rural development	34
3. Strategic Objectives	16	a) Employment	34
		b) Productive woodland	35
4. Policy Guidance	20	c) Natural flood management	36
4.1 Woodland creation	22	d) Low carbon and carbon trading	36
a) Forest habitat networks	22	4.4 Forests and people	37
b) Integration with managed moorland	23	a) Community woodlands	37
c) Integration with agricultural land	24	b) Responsible access	38
d) Integration with peatlands	25	c) Health	39
e) Deer management	25		
f) Deer fencing	26	5. Targeting Woodland Creation	40
g) Landscape and wild land	27		
h) Designated sites	28		
i) Biosecurity, invasive species and wildfire	29		



Foreword

Welcome to the Cairngorms National Park Forest Strategy 2018 and to a new era of forest management in the Cairngorms.

The Forest Strategy provides future direction for the management of existing forests and importantly, guidance on creating new woodlands which enhance the Cairngorms National Park and support its four aims. We have ambitious woodland expansion targets in Scotland which will support Scotland's climate change ambition. This strategy will also help to deliver the National Park Partnership Plan's target of 5000ha of woodland expansion over the next five years.

The Cairngorms National Park already contains some of the finest, most extensive, best connected native woodlands in Scotland. It is home to the last remaining stronghold of the capercaillie and an incredible diversity of other flora and fauna. The forests contain the resources to support a strong forestry and tourism industry and provide much needed jobs for communities living in the National Park.

There is ample room in the Cairngorms National Park to create more forests and woodlands which will complement other land uses, enhance habitat networks and restore missing species. This will improve landscape and recreation opportunities, improve soil and water quality, help natural flood management, boost our natural capital and help strengthen the forestry industry in the National Park.

The long term vision for the next 100 years, as set out in this Strategy, is exciting and one that I hope everyone connected with forestry in the Cairngorms National Park will help deliver.

Mairi Gurgeon MSP
Minister for Rural Affairs and the Natural Environment

Ro-ràdh

Fàilte romhaibh gu Ro-innleachd Coille Pàirc Nàiseanta a' Mhonaigh Ruaidh 2018, agus gu toiseach linn ùr stiùiridh-choille anns a' Mhonaigh Ruaidh.

Bidh an Ro-innleachd Coille a' solarachadh comhair theachdail airson stiùireadh na coilltean gu bheil ann mar-thà agus, gu sònraichte, a' solarachadh iùil airson coilltean ùra a chruthachadh, coilltean gum biodh a' meudachadh Pàirc Nàiseanta a' Mhonaigh Ruaidh agus a' toirt taic dha na ceithir amasan aice. Tha tairgaidean mheudachaidh-choille adhartach againn ann an Alba gun chuidichidh miann-adhartais atharrachadh gnàth-shìde na h-Alba. Bidh an Ro-innleachd Coille a' toirt taic do thairgaid Phlana Cho-Bhonn Phàircean Nàiseanta, airson meudachadh 5000ha coille thairis air a' chòig bhliadhna seo tighinn cuideachd.

Tha cuid dhe na coilltean tùsanaich as mòtha, as àlainne, is air an ceangal as fhèarr ann an Alba anns a' Phàirc Nàiseanta a' Mhonaigh Ruaidh mar-thà. 'S ann an-seo a lorgar na capaill-choille a tha fhathast maireann, agus iomadachd iontach fhloara is fhauna eile. Tha comas aig na coilltean gnìomhachas -choilltearachd is gnìomhachas-thurasachd a leasachadh is obraichean ùra airson na coimhearsnachdan anns a' Phàirc Nàiseanta a sholarachadh.

Tha rùm gu leòr anns a' Phàirc Nàiseanta a' Mhonaigh Ruaidh airson barrachd coilltean a chruthachadh – agus bidh na coilltean ann an co-bhonn ri cleachdaidhean-fearainn eile, a' meudachadh ìonraidhean àrainne, agus àth-stèidheachadh seòrsachan a tha a dhìth. Leasaichidh seo an dreach-tìre agus cothroman chur-seachadan, cuiridh e maitheas na h-ùire is an uisge am feabhas, cuidichidh e ri stiùireadh thuiltean, leudachaidh e an calpa nàdarra againn agus neartaichidh e gnìomhachas-choilltearachd anns a' Phàirc Nàiseanta.

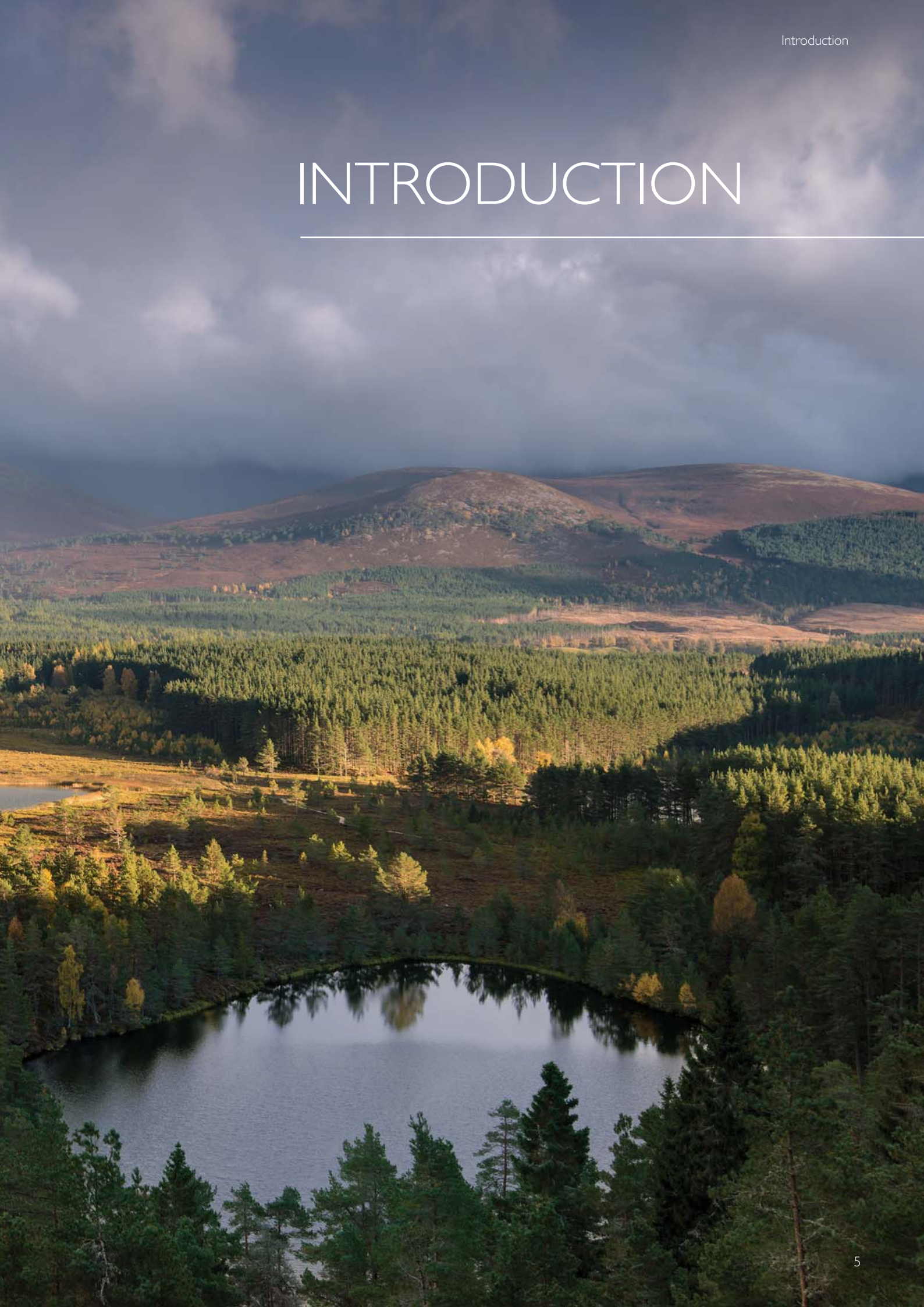
Tha am plana fhad-ùine airson an ceud bliadhna seo tighinn, mar a tha an Ro-innleachd a' dealbhachadh, brosnachail; agus tha mi an dòchas gun tig na h-uile co-cheangailte ri coilltearachd anns a' Phàirc Nàiseanta a' Mhonaigh Ruaidh gu chèile airson a libhrigeadh.

Mairi Gurgeon MSP
Ministear Chùisean Dùthchail agus na h-Àrainneachd Nàdarra





INTRODUCTION



I. Introduction

I.1 Strategy purpose

The Cairngorms National Park Forest Strategy 2018 is the key document providing strategic direction on future forest management and the restoration of woodlands in the Cairngorms National Park over the next two decades.

Specifically the Forest Strategy will:

- help to deliver the forest related elements of the Cairngorms National Park Partnership Plan 2018 - 2022;
- encourage new woodland creation that complements other land uses and the landscapes of the Cairngorms National Park;
- identify key issues and opportunities affecting forests, woodlands and trees in the Cairngorms National Park and provide policy guidance;
- assist in the appraisal of funding applications for woodland creation;
- promote awareness of the value of encouraging more woodland creation in the Cairngorms National Park and encourage greater collaboration between agencies, the forest industry, landowners, land managers and communities.

Forestry in the Cairngorms National Park is regulated by Forestry Commission Scotland (FCS) [Scottish Forestry from April 2019]. This Strategy provides guidance to assist FCS, the Cairngorms National Park Authority (CNPA), forest managers and others on the best approach to take before reaching agreement on woodland creations schemes, felling plans and long term forest plans.

This Strategy has been prepared by the CNPA and covers the whole Cairngorms National Park. It does not overlap, but is bordered by the Highland Forest and Woodland Strategy, Moray Woodland and Forest Strategy, Aberdeenshire Forestry and Woodland Strategy, Angus Woodland and Forestry Framework and the Perth and Kinross Forest and Woodland Strategy.

I.2 Policy context

The Cairngorms National Park Forest Strategy supports and builds upon a wide range of International and National Policies relating to the environment, forestry, climate change, economic development and community development.

In the Cairngorms National Park Partnership Plan 2018 - 2022, the aspiration to enhance habitats on a landscape scale is strengthened by:

- improving the condition of existing woodland and creating a more extensive, connected forest network, resilient to changing climate, pest and disease risks, including restoring the largely missing montane woodland habitat;
- enhancing the special landscape qualities of the National Park;
- delivering and recognising good practice in moorland management;
- managing grazing by deer and other herbivores to allow woodland regeneration.

Alongside the National Park Partnership Plan the Cairngorms National Park Forest Strategy is guided by other key policy documents, including the Cairngorms Nature Action Plan, Active Cairngorms, the Cairngorms Economic Strategy, Local Development Strategy and the Local Development Plan.

Of most relevance in a national context is the Scottish Forestry Strategy (currently under review) which addresses seven main themes:

- climate change
- timber
- access and health
- environmental quality
- business development
- community development
- biodiversity

The UK Forestry Standard (UKFS) is the reference standard for sustainable forest management in the UK. In the Cairngorms National Park there is a public expectation that forest management will be exemplary in adhering to these standards with a strong emphasis on environmental enhancement. This Strategy aims not to duplicate existing policies but to provide specific guidance appropriate for the National Park. The likely implications for the UK Forestry Sector resulting from Brexit are still unclear but it may provide the opportunity for a more integrated land use system.

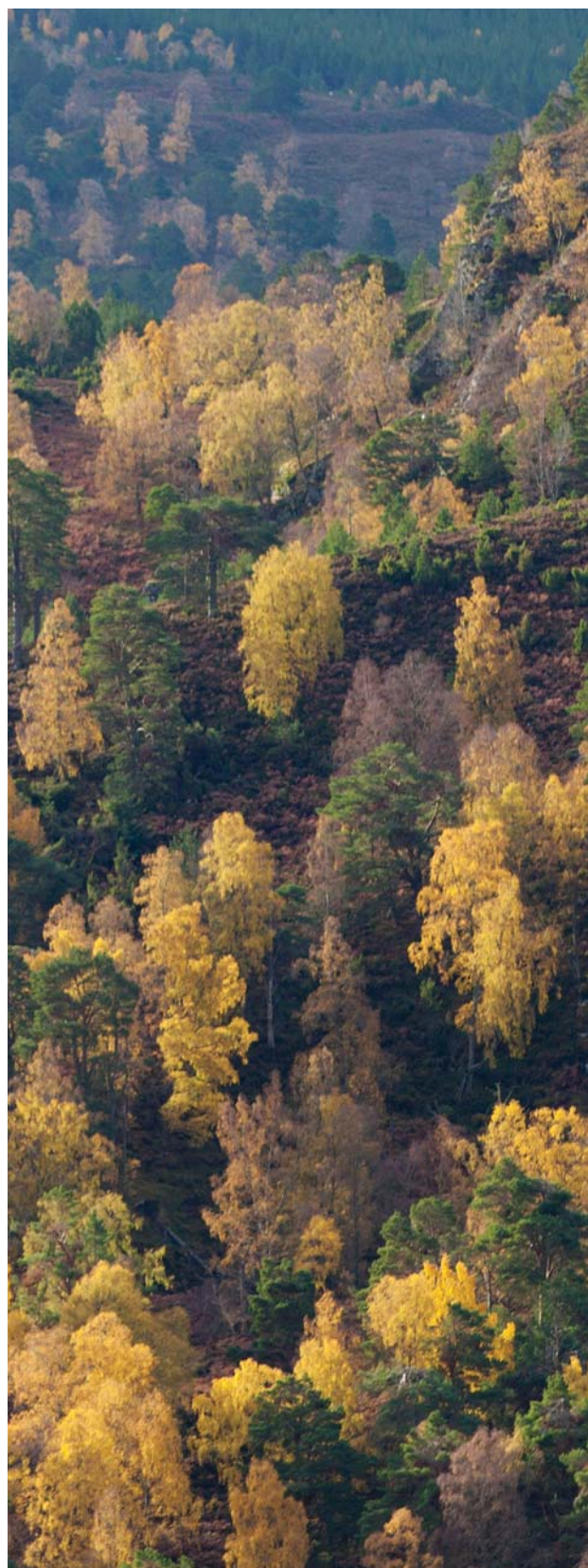


Table I Summary of International, National and National Park Policies the Cairngorms National Park Forest Strategy 2018 supports and helps to deliver

INTERNATIONAL United Nations Framework Convention on Climate Change European Landscapes Convention Habitats Directive Water Framework Directive		
NATIONAL SCOTTISH FORESTRY STRATEGY <i>The forest resource has become a central part of our culture, economy and environment</i>		
High quality, robust and adaptable environment	Improved health and wellbeing of people and their communities	Competitive and innovative business contributing to the growth of the Scottish economy
UK Forestry Standard UK Woodland Assurance Standard Forestry Commission Scotland Advice and Guidance Forestry EIA regulations 2017 Scottish Biodiversity Strategy Scottish Land Use Strategy Scotland's Code of Practice on Deer Management Scotland's Climate Change Plan (draft)		
CAIRNGORMS NATIONAL PARK NATIONAL PARK PARTNERSHIP PLAN <i>An outstanding National Park enjoyed and valued by everyone, where nature and people thrive together</i>		
CONSERVATION A special place for people and nature with natural and cultural heritage enhanced	VISITOR EXPERIENCE People enjoying the Park through outstanding visitor and learning experiences	RURAL DEVELOPMENT A sustainable economy supporting thriving businesses and communities
Active Cairngorms • Cairngorms Economic Strategy • Cairngorms Local Development Plan Cairngorms Nature Action Plan • Catchment Management Plans • Deer Management Plans		

1.3 Current resource

Table 2 provides a summary of forest cover by the main tree species in the Cairngorms National Park. 81% of the area of tree cover is coniferous with three quarters of that being native Scots

pine (60%). By far the most dominant broadleaf species is birch (16%) with other species, eg rowan and aspen making up only 3% of the tree cover.

Table 2 Provisional estimates of forest cover (area, volume and carbon storage) **in the Cairngorms National Park** (National Forest Inventory, 2015)

	Total area (ha)	Total area (%)	Total volume (K m3 obs)	Total carbon (K t)
Scots pine	36,900	60	7,204	2,577
Sitka spruce	5,600	9	1,843	549
Lodgepole pine	3,000	5	743	257
Larches	2,600	4	644	201
Other conifers	1,600	3	552	154
All conifers	49,800	81	11,040	3,758
Birch	10,200	16	858	454
Other broadleaves	1,900	3	220	104
All broadleaves	12,100	19	1,082	560
All species	62,300	100	12,126	4,318

The woodlands of the Cairngorms National Park are a distinctive feature of the landscape, ecology, economy and cultural heritage. Part of the reason for their importance and distinctiveness stems from the unusually high proportion of native tree species they contain (even commercial woodlands are predominantly Scots pine). The Native Woodland Survey of Scotland indicates that while the average proportion of native woodland across all Scottish local authority areas is 22.5%, the Cairngorms National Park boasts at least 69%, making it the only area in Scotland where native woodland forms the majority of the woodland resource.

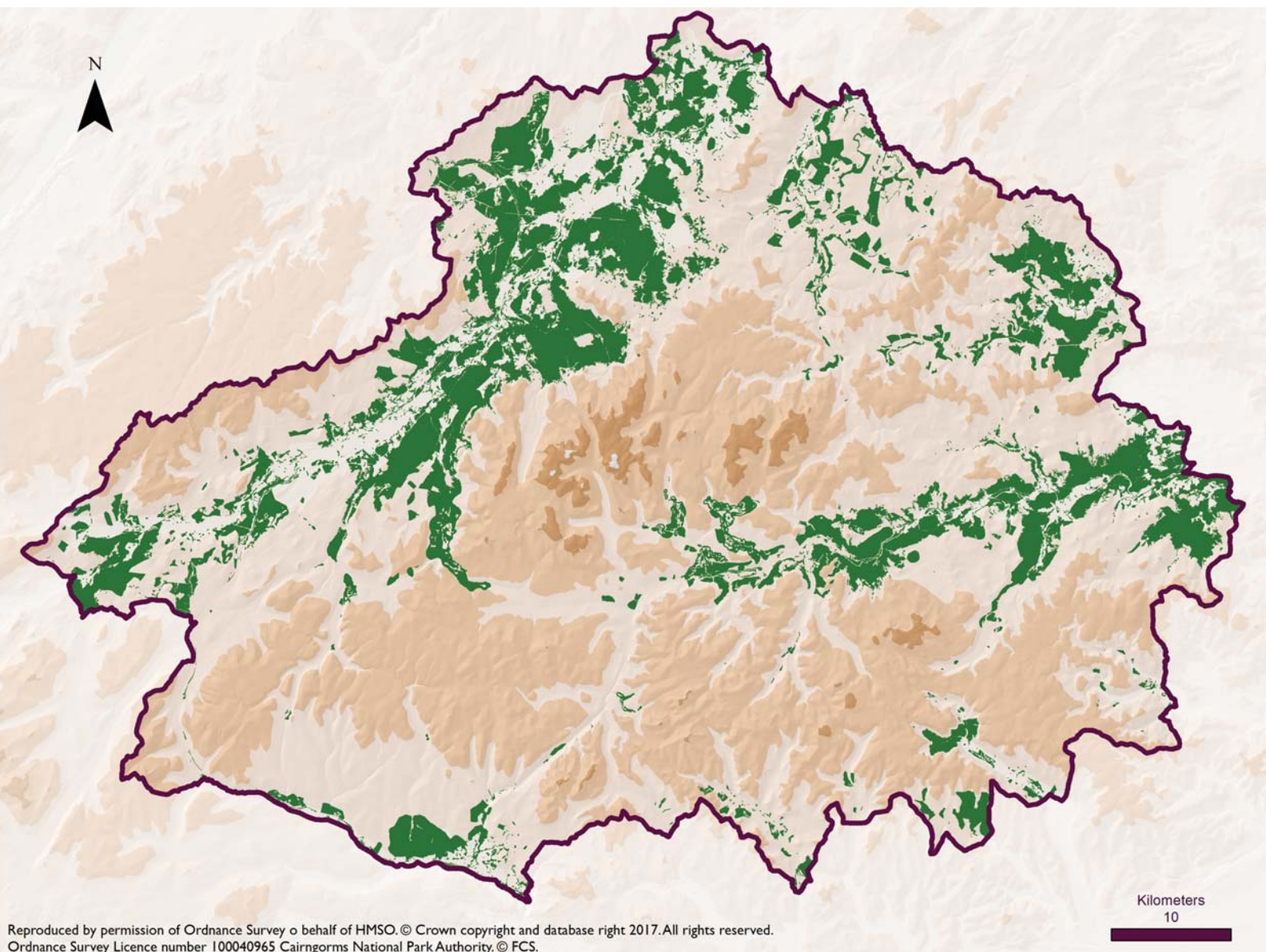
Of the native woodland resource, 67% consists of native pinewoods, which are a mixture of ancient forest and woods of plantation origin. 63% of native woodland is in good health for biodiversity, based on analysis of four key condition measures.

Almost all of the Caledonian forest resource of the National Park is internationally significant and protected through Special Areas of Conservation (SAC) designation. In the Cairngorms National Park, forest cover is just 16.4% (Map 1, see below), whilst in Scotland as a whole it is 18%. Nevertheless the Cairngorms forests are disproportionately significant for rare flora and fauna. There are 223 species known to be 'highly significant' in the National Park, ie between 75 – 100% of their UK population is within the National Park. Of these, 100 are dependent on woodland whilst, by comparison, wetland hosts 12, grassland eight and moorland only one.

A significant proportion of the National Park forests are managed for timber production, providing employment through all stages of forest management from forest planning to tree nurseries through to planting, felling and providing the raw materials for the sawmills. We are fortunate to have two major sawmills within and on the edge of the National Park and several small scale sawmills in and around the National Park.

This Strategy seeks to build upon this resource and infrastructure, creating a sense of optimism and growing forest culture in the National Park.

Map I: Current forest resource in the Cairngorms National Park
(produced using the National Forest Inventory, 2015)



1.4 Potential resource

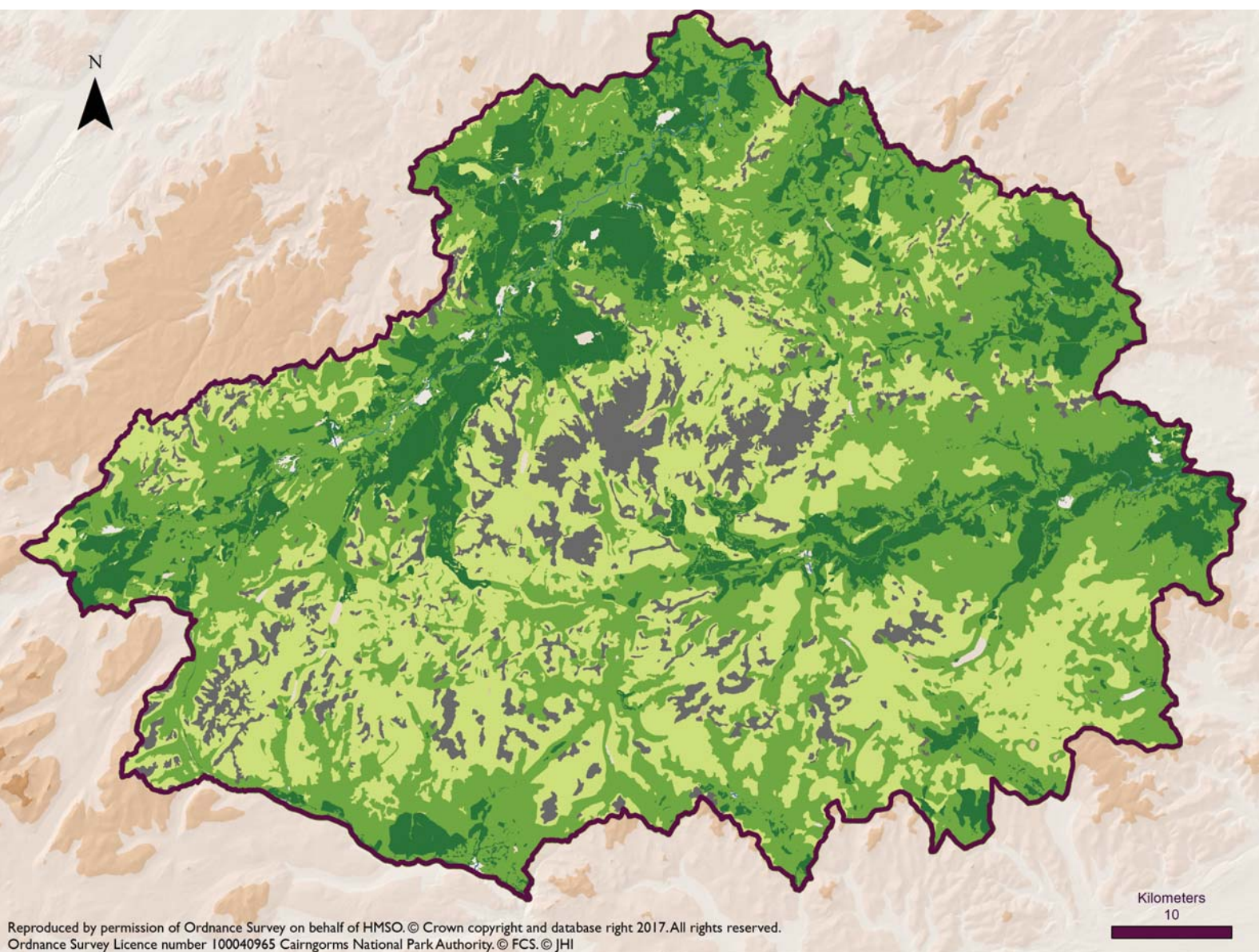
Map 2 (see below) indicates the ecological scope and vast potential for woodland expansion in the Cairngorms National Park. This Strategy aims to demonstrate where this can be realistically achieved to help deliver National Park Partnership Plan objectives and complement other land uses.

The National Park hosts a wide range of other open habitats important for the wildlife they support, the jobs they provide and the wider ecosystem services they deliver. These include farmland and moorlands providing habitat for wading birds; peatlands, essential for storing carbon; and species-rich grasslands all hosting a broad diversity of flora and fauna. If carried out sensitively,

new woodland creation and management will complement and not conflict with these other important land uses.

We wish to strengthen and further develop a forest habitat network across the Cairngorms, including between river catchments. This would allow a wide range of woodland species to disperse, recolonise and migrate more easily, while delivering a range of wider benefits such as locally sourced timber and other wood products, improved 'natural flood management', water quality improvements and carbon sequestration. We need to do this with care to minimise the potential risks of the spread of disease, invasive species and wildfire.

Map 2: Ecological potential for woodland and scrub in the Cairngorms National Park
(produced using the Native Woodland Model, 2004)



Map 2 Key:

 Existing forests	 Potential forest cover	 Potential scrub and scattered tree cover	 Minimal potential for tree or scrub growth
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VISION

Our vision is for the forests of the Cairngorms National Park to flourish and expand, providing us and future generations with healthier and better connected forest habitats, more diverse landscapes, greater capacity to store carbon, high quality timber, outstanding recreation experiences and greater opportunities for local business development.



THE CAIRNGORMS FORESTS IN 20 AND 100 YEARS' TIME?

2038

A forest culture has grown in the communities living in and around the Cairngorms National Park, with more people enjoying the forests, more people employed in forestry and more people actively involved in their management.

Habitat networks are strengthened by woodland creation and natural regeneration along forest edges, into gullies, along river edges and up to higher altitudes. Declines in forest species of critical conservation concern, like the capercaillie and the downy willow, have been reversed as they benefit from habitat enhancement and woodland expansion.

The crested tit has dispersed via newly created native pinewoods from its current Strathspey stronghold into Deeside.

Productive forests contain a higher proportion of native species and are more structurally diverse rendering them more resilient to risks from disease and invasive species.

Landscapes are more diverse, with more integrated land use and fewer hard forest edges.

Biosecurity and wildfire risk management is improved.

2118

Forests that were in decline have fully recovered, are more diverse and resilient to climate change.

The central montane core of the Cairngorms National Park is fringed by many forests reaching their natural tree line with a wide variety of rare montane willow species and their associated flora and fauna flourishing. Cattle, sheep and deer benefit from increased shelter and a broader diversity of species to forage. The Cairngorms National Park is home to strong, self-sustaining populations of capercaillie in pinewoods through the National Park. Insects are thriving, pine martens and red squirrel are common, deer at sustainable levels are healthy and robust. The multiple benefits

of woodland expansion are recognized with improvements in catchment water quality and reduced peaks in water flow.

Sawmills are meeting increased demand for a wide variety of local, sustainably sourced native timbers. Birch and other native species have become significant resource for timber and for bespoke woodland crafts. Diverse native woodlands are providing more opportunities for people to connect with nature. Tourism in the Cairngorms National Park is boosted by the dramatic forested landscapes that fit well alongside more open moorland and farmland. Communities benefit from increased employment and pride in the international acclaim that is given to the landscapes of the National Park.



STRATEGIC OBJECTIVES

- Promote the creation of new woodlands that compliment other land use
- Enhance the condition of existing forests
- Restore lost or vulnerable forest ecosystems
- Encourage natural regeneration of native forests
- Promote the creation and enhancement of productive forests
- Protect forests from disease and invasive species
- Increase employment in the forestry sector
- Encourage innovation in the use and marketing of native forest products
- Promote access and active enjoyment of forests
- Promote community involvement in forest management

STRATEGIC OBJECTIVES

These **10 strategic objectives** summarise how we aim to achieve our vision for a flourishing and expanding forest resource in the Cairngorms National Park.

3

Restore lost or vulnerable forest ecosystems

We aim to restore lost or vulnerable habitats such as montane willow scrub and ancient woodland **by** increasing understanding of its value and working with partners to find innovative ways to ensure its recovery.

4

Encourage natural regeneration of native forests

We aim to encourage significant areas of natural woodland regeneration by promoting and supporting collaboration in habitat monitoring, grazing management and muirburn control.

7

Increase employment in the forestry sector

We aim to increase employment in the forestry sector **by** capitalising on the growing momentum for woodland creation, sustainable forest management and associated business opportunities.

8

Encourage innovation in the use and marketing of native forest products

We aim to help forest related businesses grow **by** promoting the sustainable production and processing of a wide variety of native species.

1

Promote the creation of new woodlands that complement other land use

We aim to support and encourage woodland creation by highlighting the opportunities that brings, maximising the funding that is available and to demonstrate how new and inspiring woodlands if sited appropriately can complement agriculture, moorland management and peatland restoration.

2

Enhance the condition of existing forests

We aim for all woodland and forests to be of the highest quality for both wildlife and people **by** promoting the wider benefits of sensitive forest management.

5

Promote the creation and enhancement of productive forests

We aim to support the continuation of timber production and processing and to ensure all new and existing productive forests provide a wider range of benefits **by** ensuring they are structurally diverse and include a wide range of tree species.

6

Protect forests from disease and invasive species

We aim to increase awareness of the threats of disease and invasive species to forests and to reduce that threat **by** encouraging biosecurity measures and increase the diversity of forest structures and tree species.

9

Promote access and active enjoyment of forests

We aim to encourage more people to actively enjoy the many benefits forests provide **by** promoting their value and health benefits and informing responsible activity.

10

Promote community involvement in forest management

We aim to increase involvement and understanding of forest management **by** encouraging forest managers to develop their plans openly with local communities and to encourage communities to take an active interest.



POLICY GUIDANCE

The following guidance is not intended to replicate or replace National Policy or UK Forestry Standard but to emphasise and support the outcomes of the Cairngorms National Park Partnership Plan.

4.1 Woodland creation



a) Forest habitat networks

Woodland creation will be of most value for wildlife if it is designed to expand habitat networks by linking existing areas of forest via 'corridors' or 'stepping stones'. This is particularly important for species of conservation concern such as the capercaillie which require extensive areas of native pinewood.

Improved habitat linkages are undoubtedly beneficial for wildlife but forest design also needs to take account of the potential for increasing the risk of the spread of disease and invasive species.

- ▲ Woodland planting and regeneration that supports the enhancement of forest habitat networks is strongly encouraged, especially where this improves connections between river catchments.
- ▲ Enhancement of the native forest habitat networks through natural regeneration brought about by grazing and muirburn control is strongly favoured.



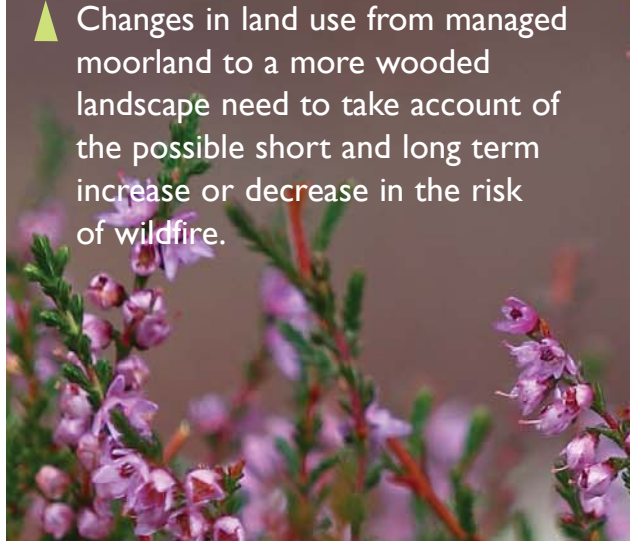
b) Integration with managed moorland

Moorland, managed for grouse shooting, covers approximately 40% of the Cairngorms National Park (c 200,000ha). It is a significant element of the National Park landscape that is managed through a combination of techniques, but most significantly by muirburn, cutting and grazing. Deer reductions, mountain hare control and stock fencing for livestock on grouse moors has resulted in some significant areas of natural regeneration, particularly along roadsides.

If sensitively designed and located, the aspiration to expand native woodland in the National Park is compatible with open managed moorland and grouse moor management. Increased broadleaved woodland and scrub on moorland edges would provide an increase in habitat diversity and woodland connectivity for a wide variety of species.



- ▲ Natural regeneration of low density native tree species should be encouraged on the forest-moorland margins to provide an increase in habitat diversity and woodland connectivity.
- ▲ Supplementing natural regeneration by planting a variety of native species is encouraged to increase species diversity where this is lacking.
- ▲ Low density native woodland creation should be targeted in gullies and alongside burns to improve water quality and to provide additional alternative foraging and shelter for gamebirds, livestock and other wildlife.
- ▲ Woodland fragments (often only a few senescent birch or Scots pine trees) indicating previously more extensive native woodland on moorland must be protected from further decay and encouraged to regenerate naturally.
- ▲ Changes in land use from managed moorland to a more wooded landscape need to take account of the possible short and long term increase or decrease in the risk of wildfire.





c) Integration with agricultural land

The association of farmland with forest and mountain is a key ingredient of the Cairngorms National Park landscapes, in some places the dominant ingredient. Change to these landscapes as a consequence of declining farm management could in some places have a significant effect on the special landscape qualities of the Park.

High-nature-value, low intensity agriculture including wood pasture and agro-forestry contribute significantly to landscape character of the National Park. The combination of wetlands, wet grasslands and low intensity mixed farming host one of the most important UK mainland sites for breeding wading birds. Combined with careful seasonal grazing rare habitats depend on farming and crofting, eg species-rich grasslands and aspen woodlands containing the dark bordered beauty moth (a key species in the Cairngorms Nature Action Plan).

Post Brexit, the future of agriculture is uncertain; we must ensure that the Cairngorms National Park Forest Strategy helps to reduce conflicting objectives of securing the future of farming in the National Park alongside new woodland creation. We must maintain the culture of crofting and farming in the National Park alongside retaining the potential to market local, fresh, healthy and environmentally sustainable farm produce.

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- ▲ Well-designed woodlands should be created on crofts and farms to enable new forms of agro-forestry, silvo-pasture, to complement livestock management, enhance habitat diversity and provide additional income sources.
 - ▲ New planting schemes on agricultural land should give full consideration to the quality of the land in a local context to ensure they do not adversely impact on local patterns of agriculture and landscape.
 - ▲ New woodland creation schemes should avoid impacting on priority sites for wading birds.
 - ▲ The wholesale conversion of enclosed, in-bye agricultural land to forestry is not supported.
- 

d) Integration with peatlands

Alongside ambitious national targets for woodland expansion, there are similar peatland restoration targets: currently 20,000ha per year across Scotland. The Cairngorms National Park Partnership Plan 2018 – 2022 target is to achieve 5,000ha of peatland restoration in five years. Conservation and enhancement of peatlands is covered by the UK Forestry Standard (UKFS). Tree planting on peat deeper than 0.5m or on sites that would compromise the hydrology of adjacent bog habitats or groundwater dependent terrestrial ecosystems (GWDTE) will not be approved under the Environmental Impact Assessment (EIA) regulations by Forestry Commission Scotland (FCS) for grant funding.

- ▲ New woodland creation schemes must be designed to avoid damaging the adjoining peatland.
- ▲ Encourage peatland restoration within woodlands and bog woodlands in appropriate locations.

e) Deer management

Deer management to ensure deer densities are compatible with the need to allow woodland regeneration is a conservation priority in the Cairngorms National Park Partnership Plan 2018 - 2022. Deer densities vary considerably across the National Park and in some areas remain too high to enable the recovery of fragile woodlands. There are large areas where red deer and roe deer numbers have been significantly reduced to enable natural regeneration of woodland without the need for fences, eg in Speyside and in Deeside where native pinewoods are now recovering after centuries of decline. In some areas where native woodlands have become re-established through deer management, the habitat can now support higher numbers of deer in a markedly improved habitat. This is an inspiring story and one we wish to see emulated more widely.

The management of deer is controlled by individual landowners who work collaboratively within Deer Management Groups (DMGs). National Park policy and coordination between DMGs should help to facilitate deer management to enable further woodland regeneration.

- ▲ Collaboration between neighbouring deer managers to achieve deer densities compatible with native woodland and shrub regeneration is strongly encouraged.

f) Deer fencing

In some areas where it is impractical to reduce grazing pressure to enable tree establishment or natural regeneration, deer fencing is required as a short term management tool (potentially running into decades in the uplands). In some locations, especially remote wild land areas, fencing can impact negatively on landscape and access. If grazing outside fences is not limited, fencing exclosures can exacerbate erosion and habitat damage; deer fencing should always be used in conjunction with grazing control, not as an alternative.

The use of fencing and tree planting up to the fence line creates hard edges that often do not sit well in the landscape and are of less value for wildlife.

- ▲ Fencing is an important tool for woodland creation, but can have negative impacts on landscape, wildness and historic assets; its use needs to be carefully considered and any impacts mitigated as part of the design process.
- ▲ If fencing is necessary, it is important to allow space for open ground and a softer woodland edge within the fence line.
- ▲ Any fencing in or near existing woodland known to contain capercaillie or black grouse must conform to guidance on avoiding bird strikes.
- ▲ Redundant fencing should be removed.



g) Landscape and wild land

There is much greater awareness today of the potential landscape benefits of well-designed woodland and potential impacts of poorly designed schemes on landscape and wild land. Well-designed woodland over the long term can enhance the landscape and increase a sense of naturalness and wildness. Even predominantly open landscapes can be enhanced by the increased diversity that sensitively planned woodland creation schemes provide. Careful planning to achieve a good fit with the surrounding topography and pre-existing land uses is important to maximise landscape benefits.

Landscape and wild land impacts need to be considered at all stages of new woodland creation. There are potentially negative visual impacts from woodland creation operations such as fencing, tubes and forest tracks. They can have short term, but significant, adverse effects in the most sensitive areas and should be kept to a minimum. The CNPA has developed a web-based landscape toolkit which provides further advice on the siting and design of woodland creation and deer fencing.

- ▲ Early and thorough consideration should be given to the positive and negative landscape impact of new woodland, especially in wild land, historic environments and other sensitive areas.
- ▲ New woodland should be designed to enhance perceptions of naturalness and wildness in the landscape in the long term and to keep short term negative visual impacts to a minimum.
- ▲ The sense of wildness felt in old Caledonian pinewoods and other semi-natural woodlands should be valued and enhanced by minimal intervention.




h) Designated sites

Extra caution is required when considering woodland creation in any designated site, including: Special Areas of Conservation (SAC); Special Protection Areas (SPA); Sites of Special Scientific Interest (SSSI); the Inventory of Gardens and Designed Landscapes and Inventory of Battlefields.

Designated sites play an important role in ensuring conservation is at the heart of land use decision making. However the wider benefits of woodland creation for biodiversity, encouraging natural processes and the enhancing habitat networks must be implemented wherever possible.

An assessment of the suitability for woodland creation on each Special Area of Conservation and Special Area of Protection in the National Park has been carried out by Scottish Natural Heritage (SNH). In all designated sites there is potential for sensitive native woodland creation and enhancement, but within some this may be largely limited to riparian woodlands, scattered low density native woodland or montane scrub. Alongside the SNH assessment (Annex 2), the Habitat Regulations Assessment (HRA) and the Strategic Environmental Assessment (SEA) for this Forest Strategy can be viewed on the CNPA website at www.cairngorms.co.uk

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- ▲ Proposed woodland creation within SSSIs, SACs or SPAs, or with the potential to affect them, will require consultation with Scottish Natural Heritage and may require a Habitats Regulations Appraisal.
 - ▲ Proposed woodland creation within Inventory Gardens and Designed Landscapes and on Inventory Battlefields will require consultation with Historic Environment Scotland.



i) Biosecurity, invasive species and wildfire

Improved habitat connectivity can potentially lead to an increased threat from disease, invasive species and the spread of wildfire. The benefits of improved forest connectivity for wildlife are highly significant and remain a priority, but it is important that these potential threats are also always taken into account.

The threat to our trees and forests from pests and diseases is growing. Climate change, global travel and imported plants and wood can increase the risk of the spread of pests and diseases which can spread rapidly, damaging different parts of the tree and affecting timber quality.

The management of non-native species such as grey squirrel and rhododendron is guided by the internationally recognised three stage hierarchical approach, the key principles of which are prevention, rapid response (eradication) and control and containment.



- ▲ Forest managers should keep up to date by monitoring and subscribing to the latest Scottish Government & Forestry Commission biosecurity guidance.
- ▲ Biosecurity procedures should be followed and the Keep it Clean biosecurity campaign promoted.
- ▲ Promote the removal of lodgepole pine stands from within Caledonian Scots pine woods to reduce the threat of dothistroma (red-band) needle blight.
- ▲ Follow Forestry Commission guidance on managing invasive and non native species.
- ▲ Follow Forestry Commission guidance on building wildfire resilience into forest management planning.
- ▲ Support wildfire groups across the Cairngorms National Park and communications to reduce risks of wildfire.
- ▲ Develop a more detailed understanding of the relative risks of wildfire associated with different land uses and woodland types.

4.2 Habitat enhancement



a) Montane woodland

In nature, the continuum of tree cover from valley floor to hill top gradually thins with altitude, exposure and as soil conditions change. There are some examples of re-emerging natural tree lines in the Cairngorms National Park resulting from a reduction in grazing pressure, but they are isolated and few and even these remain species poor.

Many bird species including black grouse, red grouse and ring ouzel benefit from the cover and foraging provided by a more natural tree line. In higher altitudes and on moorland edge it is particularly important that new woodland creation schemes include soft edges and a diverse array of native tree species.

Dwarf birch habitat is extremely sparse and, at the upper altitudinal limit, the very rare montane willow scrub is virtually non-existent in the UK as a result of past land use. Montane willows are limited to the most inaccessible of ledges and unless action is taken to halt decline it is on the brink of disappearing.

- ▲ The restoration of montane woodland, including re-establishing the missing 'birch zone', dwarf birch and montane willows, is a high priority.
- ▲ As new and restored montane woodlands are likely to be in highly sensitive, remote locations, great caution should be applied to design and methods of establishment to achieve the best possible ecological and landscape benefits.
- ▲ Building up a nursery stock of montane willow cuttings sourced in the Cairngorms National Park to protect the existing gene pool is a high priority.



b) Riparian woodland

The riparian zone is defined as any area adjoining the edge of a watercourse or waterbody.

The main benefits of riparian woodland are improvements to water quality, shading to reduce summer temperatures for salmon and freshwater pearl mussel, bank stabilisation and an increase in habitat diversity and connectivity.

Rivers and burns are natural corridors along which riparian woodland can create woodland habitat linkages within and between river catchments. Gullies formed by upland burns can be refuges for woodland remnants, also containing associated understory species.

There are currently Eurasian beaver established close to the National Park. It is possible that beaver may return to the National Park in the future. A significant increase in riparian woodland is needed to ensure sufficient habitat to minimise potential impacts of future beaver populations.

- ▲ Woodland expansion is targeted along gullies, burns and rivers to help connect habitats and restore dwindling woodland remnants.
- ▲ Planting of riparian woodlands on farmland is encouraged to create nutrient and sediment buffer zones, and to help ensure that watercourses on farms and crofts are in good ecological condition.
- ▲ UKFS guidelines on riparian buffer zones should be adhered to.

c) Aspen

The Cairngorms National Park contains some of the best examples of aspen woodlands in the country and consequently this species is a priority in the Cairngorms Nature Action Plan. Aspen is vital to the survival of a variety of nationally rare invertebrates, lichens and fungi that live in association with aspen and no other species of tree. Many aspen stands in the Park are over mature and have no young trees to replace them. Although widespread in the straths of the Park, large stands of pure aspen are relatively uncommon.

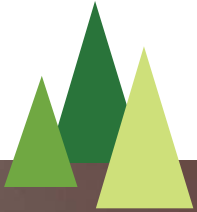

- ▲ The creation of new aspen stands and the protection of existing stands is a priority.
- ▲ Improve the connectivity condition of key aspen stands identified in the Aspen Strategy for Badenoch and Strathspey.



d) Woodland remnants

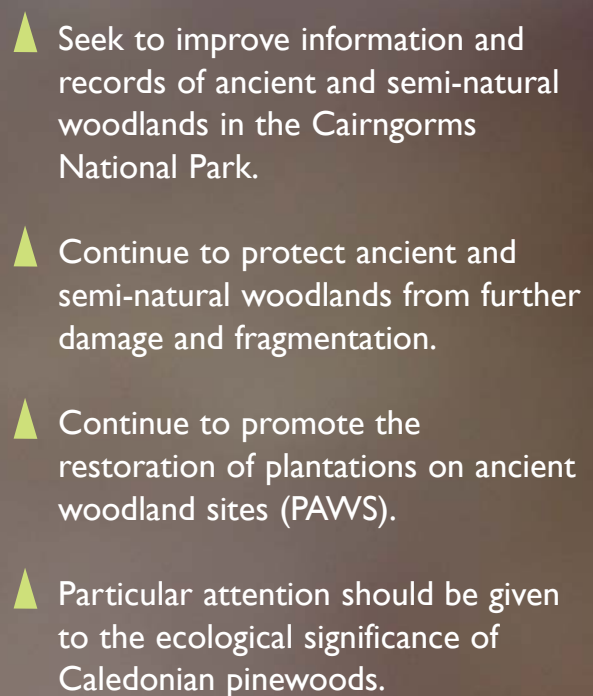
Scattered woodland remnants are sometimes indicative of a past greater expanse of woodland in the Cairngorms National Park, particularly if they contain veteran trees. They typically consist of birch or Scots pine, often in isolated locations with little or no evidence of young trees emerging to replace them.

In some locations isolated native trees have been deliberately and systematically removed to expand moorland habitat.

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- ▲ All existing native woodland remnants should be mapped and opportunities developed for their protection and enhancement.

e) Ancient and semi-natural woodlands

The provisional Ancient Woodland Inventories (AWI) indicate where there is evidence of a long history of woodland cover. These sites are important because they sometimes harbour a range of other native woodland species including invertebrates, bryophytes and fungi. The AWI is not 100% accurate and is known to have missed some important sites and included others that are less significant.

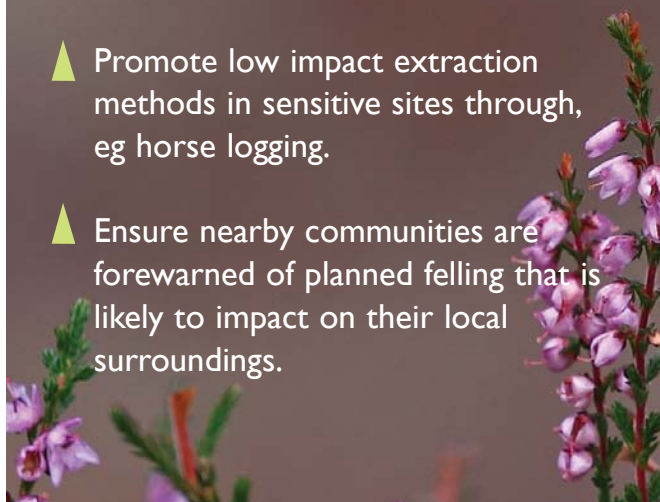
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- ▲ Seek to improve information and records of ancient and semi-natural woodlands in the Cairngorms National Park.
 - ▲ Continue to protect ancient and semi-natural woodlands from further damage and fragmentation.
 - ▲ Continue to promote the restoration of plantations on ancient woodland sites (PAWS).
 - ▲ Particular attention should be given to the ecological significance of Caledonian pinewoods.

f) Felling

Forestry is a long term business and timber production from thinning and felling is a crucial part of sustainable forest management. Such management can also bring significant biodiversity and recreational benefits. However harvesting needs to be carefully planned and managed to avoid or minimise conflicts and negative impacts. It is important that in planning harvesting, foresters are sensitive about access and recreation needs, species and habitat conservation. It is equally important for others not directly involved in forestry to gain a greater understanding of the need for management, including harvesting.



- ▲ Ensure long term forest plans, highlight biodiversity, recreational issues and the historic environment.
- ▲ Ensure harvesting is carefully planned to minimise impacts on biodiversity and access.
- ▲ Encourage the expansion of the forest area managed under Low Impact Silvicultural Systems (LISS).
- ▲ Clear-felling should be minimised, and seed bearing native trees retained where possible to ensure some continuous forest cover.
- ▲ The presumption against woodland removal as per national forestry guidance should be followed.
- ▲ Promote low impact extraction methods in sensitive sites through, eg horse logging.
- ▲ Ensure nearby communities are forewarned of planned felling that is likely to impact on their local surroundings.



4.3 Rural development



a) Employment

The internationally recognised National Park status of the Cairngorms brings significant additional opportunities for inspirational landscape scale woodland creation, business innovation, marketing of local forest products and employment.

The Cairngorms Economic Strategy strives for a 'more valuable and resilient forestry sector with increased profitability and local prosperity'. We want to build on the optimism presented by national targets for woodland creation and encourage more opportunities for people to become employed in the forestry sector.

This Strategy encourages employment in everything from site surveying and planning; from the tree nursery to ground preparation; planting, fencing, deer control, maintenance and monitoring; through to thinning, felling and milling. The sawmills in and around the National Park have invested millions of pounds in the local economy and depend upon further investment in our forestry sector.

- ▲ Training and skills development needs to be directed towards equipping young people for employment in the forestry and arboriculture sectors.
- ▲ Local community engagement in woodlands and community owned woods is encouraged to bring new opportunities for social enterprise.
- ▲ New tourism initiatives related to selling the health benefits of forest recreation and cultural/historic value of forest management should be developed.
- ▲ Small businesses using local native woods and employed in, eg woodfuel, furniture making and green woodworking should be supported to develop and grow.

b) Productive woodland

Driven by national targets we have the opportunity to create new woodlands, restore lost habitat, enhance landscape and provide a future timber resource in new and inspiring ways. In the 1970s-80s large areas of Scotland were planted up with single species conifer plantations in regular shaped blocks that completely changed the landscape. Today we have the opportunity to restructure existing species-poor forests and make them more diverse and attractive.

The dominant species in productive forests in the Cairngorms National Park is native Scots pine; bringing considerable scope to manage forests commercially and also for wildlife and recreation. There is huge potential in the National Park to invest in a new forest resource appropriate for a national park that will provide local employment and increase opportunities for future enterprise from marketing and refining timber and other local forest products.

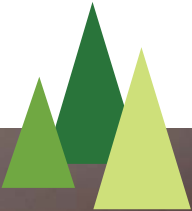


- ▲ Encourage high quality timber production, particularly through thinning that brings a wide range of biodiversity and landscape benefits.
- ▲ Support increased processing/value adding to timber in the Cairngorms National Park alongside campaigns such as 'Wood for Good' and 'Grown in Britain'.
- ▲ The inclusion of a variety of native species in productive forests for producing high quality timber and other bespoke forest products is strongly encouraged.
- ▲ In some situations modest proportions of non-native species may be planted to increase species and structural diversity and increase future economic options.
- ▲ Where non-native species are most appropriate for timber production, preference is given to European species which support a wider range of native flora and fauna.
- ▲ Management to convert existing productive forests containing large, even-aged non-native coniferous species should continue to increase species and structural diversity.
- ▲ The planting of forests designed with future timber extraction in mind is preferred in areas where good road access is readily achieved.
- ▲ The condition of Ancient Woodland Sites planted with non-native conifers should be improved.

c) Natural flood management


Land management has a significant impact on the rate at which water flows over the landscape. Heavily grazed and trampled ground sheds water faster than 'softer' ground with thick layers of vegetation. The benefit of woodland in river catchments is that it intercepts rainfall, increases water absorption into the soil and reduces surface flow rates, resulting in a slowing of movement of water into rivers.

Woodland creation is one of many techniques being used to assist natural flood management. It is likely to be most effective if targeted in locations where a range of natural flood management measures are being used in a large scale approach. This requires vision, ambition and drive. The Catchments Partnerships in the Cairngorms National Park are ideally placed to develop the landscape scale approach required for natural flood management through woodland creation.

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- ▲ Mapping techniques need to be developed to help target woodland creation in areas that will provide the greatest contribution to natural flood management.
 - ▲ Woodland creation to assist in natural flood management is widely encouraged.

d) Low carbon and carbon trading

Greater use of locally sourced wood in house building has the potential to significantly reduce our carbon footprint and lock up carbon for the long term within buildings. The low carbon agenda is also directing more use of woodfuel to heat homes. Developments in carbon trading have the potential to become increasingly important sources of income for woodland creation in the future. All of these factors present a real opportunity for forest business development provided the resources are sustainable and managed appropriately.

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- ▲ Creation of woodland that will help provide local sources of timber for building and future woodfuel supplies is encouraged.
 - ▲ New opportunities for carbon trading to fund woodland creation should be explored and promoted.

4.4 Forests and people

a) Community woodlands

Many communities in the Cairngorms National Park, already have a strong cultural identity with their surrounding forests and even with individual trees. A number of villages have emerged from forest activities with many communities still having a strong connection with their woodlands. Many people work within the forestry sector or related sectors of conservation, woodcraft, recreation and tourism.

Community ownership gives people an even greater opportunity to have a special connection with their local woodlands. Local people can play an active role in management decisions and ensure that the woods will meet a variety of needs from increased access, improved value for biodiversity to supporting social enterprises such as woodfuel, mountain bike trails, sustainable harvest of forest products and woodcraft.

Forest Plans which set out how woodlands will be managed, planted and felled in the future always have a period of public consultation, we'd like more people to want to engage in this process and be aware that they can.

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- ▲ Promote the heritage of woodlands and people.
 - ▲ Support community management and ownership of forests.
 - ▲ Increase awareness of the role and importance of individual trees in and around settlements.
 - ▲ Support the creation of woodland crafts.
 - ▲ Enhance forestry's engagement with communities, encouraging participation in Forest Plans.

b) Responsible access

Visitors contribute 43% towards the economy of the Cairngorms National Park and as such creating, improving and maintaining opportunities to enjoy the Park is vital to securing its economic future. Surveys have also shown that the most popular activities undertaken by visitors are sightseeing (56%) and low level walking (44%). The majority of low level paths promoted to visitors and residents by 17 communities in the Park are located in and around woodland and forest, as is much of the 666 miles of core paths. Woodland paths are also specifically promoted by many forest owners in the National Park.

A significant proportion of the established forest and woodland in the National Park is managed with access for the public as a prime function. For example, all nine of the National Nature Reserves in the Cairngorms encourage visitors to enjoy the outstanding forests contained within them. Whilst there are numerous other smaller, but none the less important, forests and woodlands where informal recreation takes place.

The right of responsible access to forests and woodlands is essential in maintaining existing levels of recreational visits.

- ▲ Encourage use of recreational access management plans to help inform forest management which balances the needs of timber producers, visitors, conservation, and sporting interests.
- ▲ Seek to deliver improvement in provision for recreation in forests and woodlands including development of the local and core path networks.
- ▲ Make access to woodlands easier for all sectors of society.
- ▲ Provide a greater range of ways for people to enjoy woodlands.




c) Health

Scotland has an outstanding natural environment, which benefits our society and the economy, but it is currently an under-used asset for improving public health. In particular, the woodlands and countryside close to where people live, work and go to school, can provide the setting and inspiration for people's 'daily dose' of physical activity, bringing physical, mental and social health benefits.

The positive links between the natural environment and human health are now well proven, supported by research from around the world and reflected in a range of Scottish policies.

The opportunities to improve public health through outdoor access and recreation are recognised in the Cairngorms National Park Partnership Plan 2018 – 2022 by 'encouraging residents and visitors to responsibly enjoy and use the National Park for physical activity as part of daily life'.

In order to help deliver the Active Cairngorms Strategy and contribute to delivery of the 'Our Natural Health Service' initiative led by Scottish National Heritage, we will seek opportunities to influence and shape forest and woodland management and development.

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- ▲ Encourage and promote the provision of welcoming woodlands and care for significant individual trees in and around communities.
 - ▲ Use woodland access to help improve physical and mental health.







TARGETING WOODLAND CREATION

5.Targeting Woodland Creation

This Strategy aims to strongly encourage landowners to consider more woodland creation and regeneration where it will enhance the landscape and wildland qualities and provide the most environmental, social and economic benefits. To achieve this we aim to encourage as much uptake of the Scottish Forestry Grant Scheme as we can and to direct the limited funds where they are needed most by mapping a 'target area'.

The target area is shown in Map 3 (p43) and categorised as follows:

- existing forests and woodlands
- preferred areas
- potential areas (with known sensitivities)
- potential montane woodlands
- non-target areas

Woodland creation within target areas currently receives a higher grant payment than outside a target area. We have opted to create a large target area for woodland creation in the National Park to encourage as many landowners as possible to benefit from the increased grant payments and seriously consider woodland creation.

The map was produced using a wide range of GIS (Geographical Information Systems) layers, none of which are 100% reliable. All of the mapped categories (even the preferred areas) may contain significant sensitivities to woodland creation that are currently difficult to map.

Sensitivities may include:

- designated land
- archaeology
- designed landscapes
- key landscape views
- peatlands/carbon storage
- in-bye agricultural land
- protected open moorland
- species-rich grasslands
- upland sites with thin soils and bare rock
- wading bird habitat

Table 3 (p44) provides an explanation of each the target categories and the GIS datasets used for their selection.

Important:

- The current five year target for woodland expansion in the National Park is 5,000ha. This is ambitious, but only a fraction of the total target area of over 200,000ha.

Map 3 Preferred and Potential areas for woodland creation in the Cairngorms National Park

The target areas are indicative and do not guarantee grant funding.

All of the mapped categories (even Preferred areas) may contain significant sensitivities to woodland creation (p42) that are currently difficult to map.

Suitability for planting always needs to be confirmed at a site level and may require surveys to identify potential negative impacts on, for example, designated sites, deep peat, upland waders, other land use, landscape and archaeology.

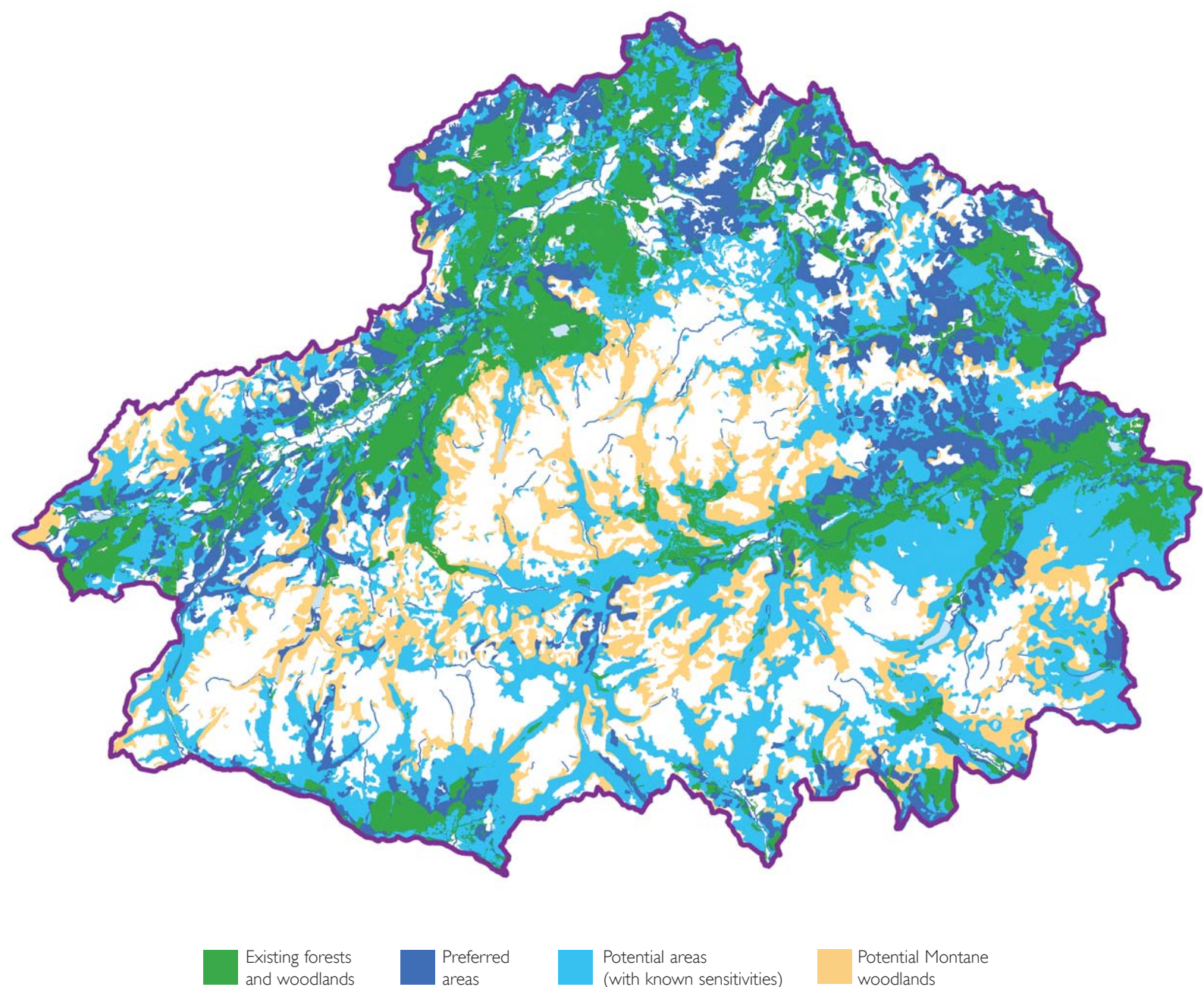


Table 3

Category	Description	GIS Information layer
Existing forests and woodlands	All existing woodlands and forests	National Forest Inventory Scotland (2015)
Preferred areas	<p>Areas within which woodland creation of a range of woodland types would achieve multiple benefits through restoration, enhancement and expansion of the existing woodland resources</p> <p>Suitability for planting always needs to be confirmed at a site level and may require surveys</p>	<p>Native Woodland Model: polygons with soil potential for the following native woodland types and outwith areas with known, mapable sensitivities on the Land Cover Scotland dataset:</p> <ul style="list-style-type: none"> • W6 (alder with stinging nettle) • W7 (alder–ash with yellow pimpernel) • W8 (lowland mixed broadleaf with dog's mercury) • W9 (upland mixed broadleaf with dog's mercury) • W10 (lowland mixed broadleaves with bluebell/wild hyacinth) • W11 (upland oak-birch with blue bell/wild hyacinth) • W17 (upland oak-birch with blaeberry) • W18 (Scots pine with heather) <p>In addition, areas within 50m buffer of main watercourses where it coincides with Native Woodland Model scrub woodland categories (Sc1 to Sc4 and Sc7 and Sc8) but outside Natura sites.</p>
Potential areas (with known sensitivities)	<p>Areas within which native woodland creation would achieve multiple benefits, but where there are known sensitivities eg Natura designation, peatland habitat, and arable and improved grassland</p> <p>Suitability for planting always needs to be confirmed at a site level and may require surveys</p>	<p>Native Woodland Model: polygons with soil potential for the following native woodland types and within: Natura sites, SSSIs and areas identified as 'Arable' or 'Improved Grassland' on the Land Cover Scotland dataset:</p> <ul style="list-style-type: none"> • W6 (alder with stinging nettle) • W7 (alder–ash with yellow pimpernel) • W8 (lowland mixed broadleaf with dog's mercury) • W9 (upland mixed broadleaf with dog's mercury) • W10 (lowland mixed broadleaves with blue bell/wild hyacinth) • W11 (upland oak-birch with bluebell/wild hyacinth) • W17 (upland oak-birch with blaeberry) • W18 (Scots pine with heather)

Category	Description	GIS Information layer
		<p>Native Woodland Model: polygons with soil potential for the following:</p> <ul style="list-style-type: none"> • W4 (birch with purple moor grass and open ground) • any of above woodland NVC types in mosaic with 'peatland with scattered trees/scrub' (Sc5) • any of above woodland NVC types in mosaic with 'basin bog woodland/scrub' (Sc6) <p>In addition, areas within 50m buffer of main watercourses where it coincides with Native Woodland Model scrub woodland categories (Sc1 to Sc4 and Sc7 and Sc8) inside Natura sites.</p>
Potential montane woodlands	<p>Areas where there is potential for higher altitude woodlands consisting largely of low density birch, dwarf birch, montane willows and juniper.</p> <p>Suitability for planting always needs to be confirmed at a site level and may require surveys</p>	<p>Native Woodland Model: Polygons with soil potential for the following native woodland types:</p> <ul style="list-style-type: none"> • montane scrub category Sc1 (juniper) • montane scrub category Sc3 (birch/willow) • montane scrub category Sc7 (mixed montane scrub)
Non-target areas	<p>Areas where woodland creation is of lower priority, highly sensitive or impractical. However even some small scale woodland/scrub planting may still be appropriate</p>	<p>Native Woodland Model: Polygons with soil potential for the following native woodland types:</p> <ul style="list-style-type: none"> • Sc2 (scattered juniper) • Sc4 (scattered birch/willow) • Sc5 (peatland with scattered trees/scrub) • Sc6 (basin bog woodland/scrub) • Sc8 (scattered mixed montane scrub) <p>Also including the following:</p> <ul style="list-style-type: none"> • priority wader sites (RSPB) • wetlands • golf courses • lochs • settlements • bare rock





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