Cairngorms National Park
Economic Development and Diversification Strategy 2014-2017

Strategic Environmental Assessment
Environmental Report

10 March 2014

Contents

Non-Technical Summary

This is a non-technical summary of the Environmental Report, part of a Strategic Environmental Assessment (SEA) of the Cairngorms Economic Development and Diversification Strategy 2014-2017 (CEDDS). It explains:

- What the SEA is
- How it has been carried out
- What effects the CEDDS is likely to have on the environment
- How the SEA has influenced the Strategy
- Next steps

What is the SEA?

SEA is a way of making sure that the environmental effects of a plan or strategy are thought about carefully as it is made. The point of doing it is make sure that the Strategy has as few bad effects on the environment as possible and has as many good effects as possible. It is also done to help the consultation on the Strategy by giving the public information about the effects it could have. It is a legal requirement for public sector bodies to do SEA on many plans and strategies they produce.

How has the SEA been carried out?

The Cairngorms Economic Development and Diversification Strategy (CEDDS) helps to deliver the four aims of the National Park:

- to conserve and enhance the natural and cultural heritage of the area;
- to promote sustainable use of the natural resources of the area;
- to promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and,
- to promote sustainable economic and social development of the area's communities.

It is a Strategy to promote the diversification and development of the economy of the National Park. The CEDDS may have both positive and negative impacts on the environment of the Park and the SEA helps to maximise the positive impacts and minimise or mitigate against the negative ones.

The SEA:

- summarises what state the environment is in just now; how it has changed, is expected to change; and the big issues facing it;
- looks at how the environment might change without the Strategy;
- picks out the things that are most important in the environment of the Park that are relevant to the Strategy and need to be thought about while it is prepared;
- tests the different parts of the Strategy against those points to predict what effects it might have on them;
- makes the Strategy change to avoid bad effects or to have better effects on the environment;
- records the results of this assessment; and,

- picks out what information needs to be used in future so that we can see what effects the Strategy has on the environment as it is delivered.

For this SEA, the Cairngorms National Park Authority used the idea of ecosystems to help choose what the assessment should test the plan against. The idea of ecosystems helps people to understand some of complicated links between different parts of the environment. Using it has helped us ask questions that are most relevant to the environmental issues in the Park.

What effect is the Cairngorms Economic Development and Diversification Strategy likely to have on the environment?

The assessment shows that the CEDDS should have a number of good effects on the environment and is unlikely to have bad effects. This is because the Strategy recognises the Natural Capital of the area as a key asset for all aspects of the economy and seeks not only to safeguard it, but to build on it and realise the market opportunities associated with it.

How has the SEA influenced the Strategy?

The assessment has helped to test how well the Strategy considers the environment as a whole and to improve the way that outcomes should be delivered.

What are the next steps?

The draft proposals for the Strategy are subject to consultation and will inform the Final Strategy. The CNPA will prepare a statement showing how the SEA process has informed the development of the CEDDS; how it will coordinate the delivery of the Strategy; and, monitor its delivery and its environmental effects.

1. Introduction

Purpose of this Environmental Report

1.1 As part of the preparation of the Cairngorms Economic Development and Diversification Strategy 2014-17, the Cairngorms National Park Authority is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain plans, policies and strategies (PPS). SEA aims to:

- integrate environmental factors into PPS preparation and decision-making;
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and,
- facilitate openness and transparency of decision-making.

1.2 SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

Screening	determining whether the PPS is likely to have significant environmental effects and whether an SEA is required
Scoping	deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report – this is done in consultation with Scottish Natural Heritage, The Scottish Ministers, Historic Scotland, and the Scottish Environment Protection Agency
Environmental Report	publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report
Adoption	providing information on: the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS
Monitoring	monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

1.3 Scoping for the draft CEDDS was undertaken in December 2013 and consulted upon between December 2013 and January 2014. Responses to this scoping will be incorporated into the final Strategy.

1.4 The purpose of this Environmental Report is to

- provide information on the CEDDS 2013-17; and,
- identify, describe and evaluate the likely significant effects of the PPS and its reasonable alternatives; in this case updating the Environmental Report of the SEA.

Key Facts about the Cairngorms Economic Development & Diversification Strategy 2014-17

1.5 The Cairngorms Economic Diversification and Development Strategy (CEDDS) is a key delivery programme within the Cairngorms National Park Partnership Plan (NPPP) 2012-2017. The National Park Authority is required to prepare the National Park Plan and to review it every five years by the National Parks (Scotland) Act 2000. The aim of the CEDDS is to deliver economic growth and diversification within the context of the aims of the National Park.

1.6 The CEDDS identifies Priority Themes, Outcomes and actions for delivery designed to deliver a sustainable economy supporting thriving businesses and communities. The Strategy is guided by the priority policies as laid out in the National Park Partnership Plan which aims to grow the economy of the Park by strengthening existing business sectors, supporting business start-ups and diversification, and increasing the number of workers employed in the Park.

1.7 The Strategy and its delivery are being lead by the private sector and overseen by the newly established private sector lead Cairngorms Economic Forum. The Cairngorms National Park Authority (CNPA) is undertaking the work to develop the Strategy on behalf of the Forum. The general purpose of the National Park Authority set out in the National Parks (Scotland) Act 2000 is to ensure that the National Park aims are collectively achieved in a co-ordinated way. The Park Authority is therefore an enabling organisation that must work with and through other bodies to bring added value to the management of the Park, to achieve the four aims.

1.8 The key facts relating to the CEDDS are set out in Table 1 below.

Table 1 - Key Facts about the Economic Diversification and Development Strategy 2014-2017

Responsible Authority	Cairngorms National Park Authority
Title of PPS	Cairngorms Economic Diversification & Development Strategy 2014-2017
Purpose of PPS	An Economic Diversification & Development Strategy to deliver economic growth and diversification within the context of the aims of the National Park
What prompted the PPS	The Economic Diversification & Development Strategy is a key delivery programme within the Cairngorms National Park Partnership Plan (NPPP) 2012-2017. The National Park Authority is required to prepare the National Park Plan and to review it every five years by the National Parks (Scotland) Act 2000.
Subject	Economic Development
Period covered by PPS	2014-2017
Frequency of updates	3 years

Area covered by PPS	The Cairngorms National Park
Summary of nature and content of PPS	An Economic Diversification & Development Strategy identifying Priority Themes, strategic and sector outcomes and specific actions designed to deliver a sustainable economy supporting thriving businesses and communities. The aims Strategy will be guided by the priority policies as laid out in the National Park Partnership Plan which aims to grow the economy of the Park by strengthening existing business sectors, supporting business start-ups and diversification, and increasing the number of workers employed in the Park through. These National Park Partnership Plan policy priorities will be used as the basis for developing the Economic Diversification Strategy.
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SEA Activities to Date

1.9 SEA has been undertaken at different stages and levels of detail throughout the development of the CEDDS. The Strategic and Sector Outcomes are intended to provide a framework for partners in delivering economic development activities in the National Park.

1.10 Table 2 summarises the SEA activities to date in relation to the CEDDS.

Table 2 - SEA activity to date

SEA Action/Activity	When carried out	Notes
Screening to determine whether the PPS is likely to have significant environmental effects	June-July 2013	
Scoping the consultation periods and the level of detail to be included in the Environmental Report	December 2013 – January 2014	
Outline and objectives of the PPS	December 2013-February 2014	
Relationship with other PPS and environmental objectives	January-February 2014	
Environmental baseline established	January-February 2014	
Environmental problems identified	January-February 2014	
Assessment of future of area without the PPS	January-February 2014	

Alternatives considered	January-February 2014	Alternatives and priorities within the CEDDS have been assessed throughout its development
Environmental assessment methods established	January-February 2014	
Selection of PPS alternatives to be included in the environmental assessment		No reasonable alternatives have been identified for assessment
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	January-February 2014	
Monitoring methods proposed	January-February 2014	
Consultation timescales Timescale for Consultation Authorities Timescale for public	March-April 2014	
Notification/publicity action	March 2014	

2. Context

2.1 The Draft CEDDS sets out six Priority Themes, associated Strategic and Sector Outcomes, and an Action Plan to support economic development and diversification in the Cairngorms National Park over the next three years.

Structure and content of the Draft CEDDS

Summary and Introduction

2.2 The Summary provides the context for the Strategy and the background to its development which has been lead by the Cairngorms Business Partnership and Cairngorms Economic Forum. The summary also provides an overview of the economic baseline for the Cairngorms National Park, including key economic statistics.

Growing our Economy and Protecting our Natural Assets

2.3 This section outlines the Policy context for the Strategy, the Strategy Aim and an overview of the Natural Capital of the Cairngorms and the Scottish Context. The Aim of the CEDDS is taken from Policy Priorities in the Cairngorms National Park Partnership Plan 2012-2017. The Aim is to: "Grow the economy of the Park by strengthening existing business sectors, supporting business start-ups and diversification, and increasing the number of workers employed in the Park." *(National Park Partnership Plan 2012-17, Policy Priority 1.1, p41)*. The National Park Partnership Plan was subject to SEA and as such the Aim is not re-assessed as part of the SEA process on the CEDDS.

Proposed Priority Themes, Outcomes, Opportunities & Actions

2.4 This section outlines the six Priority Themes for Economic Development and Diversification in the Cairngorms National Park and the associated Strategic Outcomes (what we want to achieve). This section outlines an Action Plan which identifies the key opportunities, proposed actions, and key delivery partners to deliver each of the Priority Themes and Strategic Outcomes. Priority Theme 1 'Building on the strengths of the Park' identifies four key industry sectors for growth, these are: Tourism; Forestry; Agriculture, Food and Drink; and, Energy Efficiency & Renewables. For each of these sectors a 'Sector Outcome' (what we want to achieve) has also been identified along with opportunities for each sector. The Priorities, Key Sectors, Sector Outcomes and associated Opportunities are shown in Table 3.

Table 3 - CEDDS Priority Themes, Strategic and Sector Outcomes and Opportunities

Priority Theme	Strategic/Sector Outcome	Opportunities
1. Building on the strengths of the Park	Key economic sectors are stronger *(Tourism, Forestry, Food & Drink, Renewables)*	*See below*

	- *Tourism Sector*: A more valuable and resilient tourism economy with increased profitability and local prosperity	- Improve range and quality of visitor accommodation - Grow local cycling market - Target key growth sectors (e.g. Wildlife Tourism) - Destination development including branding, visitor experience and marketing - Improve transport services - Improvements to the Glenmore area
	- *Forestry Sector*: A more valuable and resilient forestry sector with increased profitability and local prosperity	- Expansion of forest resource and diversification of woodland type
	- *Agriculture, Food & Drink Sector*: A growing food and drink sector locally and with new markets	- Collaboration between producers to improve product offering, supply - chains, marketing and availability - Facilities to encourage increased production of produce in the CNP - Training and skills development
	- *Energy Efficiency & Renewables Sector*: Businesses are using less energy, are reducing costs and generating income from renewable energy	- Increasing renewable energy generation through small scale - business and community renewable Projects - Decrease energy usage and emissions by businesses to secure cost savings
2. Supporting and attracting Businesses	The business sector has grown with increasing employment	- Business Support: creating a high quality comprehensive business support resource for businesses across the Park - Connecting employer needs and local skills: skills gaps and training identified and promoted ensuring progression from school to and through work
3. Strengthening education and training as an economic asset	More Further and Higher Education takes place in the National Park in support of key sectors	• Further and Higher Education facilities: strengthen presence in the education and research Sector • Strengthen hospitality and customer service training • Make it easier to enter the Land Management sector
4. Attracting Investment	More investment in business, infrastructure and the Natural Capital of the Park	• EU Funding • Encouraging Internationalisation • Capital Investment • Venture Capital for small businesses • Create a positive image of the Park as a place for thriving businesses • Development Planning to identify investment sites

5. Infrastructure *(accommodation, transport, connectivity)*	Improved infrastructure in the Park supports a growing economy	• Improve broadband & mobile connectivity • Improve transport and 'Active Travel' provision • Accommodation provision - housing that is affordable to local workers • Accommodation provision - flexible business • premises • Logistics improvements
6. Planning for the Future	Policies and Plans are based on a better understanding of current and future trends and changes	• Horizon Scanning: identification of current and potential future trends and potential impacts • Improved information about business success, failure, and needs to inform future policy and support

Changes to the Plan and the SEA as a result of consultation

2.5 Comments on the draft Strategy and the Environmental Report will help to refine and improve the Strategy. The changes will be recorded and a summary will be reported in the final statement.

Relationship with other Plans, Programmes and Strategies and Environmental Objectives

2.6 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the PPS relationships with other relevant PPS, and how environmental protection objectives have been taken into account in the PPS preparation. This section covers these issues and describes the policy context within which the PPS operates.

2.7 The CEDDS must have appropriate regard to a wide range of national and international laws, policy and strategy. For example, the National Park Partnership Plan, existing local and national Economic Plans and Strategies, Community Planning Partnership Single Outcome Agreements, Water Framework Directive, Scottish Climate Change Adaptation Strategy and National Planning Framework which all provide a context and direction for the CEDDS. Local Strategies and policies are also influential, including the Sustainable Tourism Strategy, Local Housing Strategies, Housing, local transport strategies, and catchment management plans for rivers Dee, South Esk and Spey all provide direction.

2.8 The CEDDS will inform the strategic context for economic issues within the next Local Development Plan and the National Park Partnership Plan. The full range of relevant environmental objectives is extensive. Appendix 1 to this Environmental report summarises the main PPS, environmental objectives, and relationships with the CEDDS in more detail. Table 4 below summarises the main points related to SEA issues. This is a relatively narrow list because of the specialised nature of the CEDDS.

Table 4 - The points for the CEDDS from other PPSs	
SEA Issues	**Main points for the CEDDS 2014-2017**
Biodiversity, flora, fauna	• Conserve nationally important habitat and species through wetland and woodland creation • Conserve and enhance biodiversity, particularly the nationally and internationally rare and threatened species and habitats • Help species and habitats adapt to the effects of climate change
Population & Human Health	• Maintain and improve health (particularly through outdoor • recreation and exercise) • Adapt to the effects of climate change and avoid hazards as a result of extreme weather events
Soil	• Maintain productive capacity of soils • Prevent erosion of soils • Maintain quality of natural soils and soil fauna • Maintain or improve carbon storage of soils and peat
Water	• Maintain and improve water quality • Encourage natural processes, particularly natural flood management and catchment processes • Conserve water
Air & Climatic Factors	• Increase sequestration of carbon • Reduce emissions of greenhouse gases • Adapt to the effects of climate change
Material Assets	• Maintain and increase the supply of timber an woodfuel for local use • Conserve landscapes of the Park (as one of the attractions for visitors) • Minimise energy use and encourage development of renewable energy • Minimise waste
Cultural Heritage	• Promote the understanding of relationship of natural and cultural heritage and through which promote the conservation of the latter
Landscape	• Conserve and enhance landscape character and special landscape qualities of the Park
Inter-relationships between issues	• Maintain and improve the health of ecosystems and natural systems (which cut across all issues)

Relevant Aspects of the Current State of the Environment

2.9 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of "the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme", and "the environmental characteristics of areas likely to be significantly affected". This section aims to describe the environmental context within which the PPS operates and the constraints and targets that this context imposes on the PPS.

2.10 The CNPA has adopted an ecosystems approach to the SEA of the CEDDS. The ecosystems approach provides a clear strategic context for the SEA by focusing on the

services that ecosystems provide, their importance to the health of the ecosystem (in the National Park and beyond), and the products or benefits that people get from them. The approach drew on the work of the National Ecosystems Assessment (NEA - http://uknea.unepwcmc.org/Home/tabid/38/Default.aspx).

2.11 The ecosystems approach is one that fits well with the CEDDS as a Strategy for delivering economic development in the Park which builds on our natural capital and realises the market opportunities associated with it. This approach was adopted for the Cairngorms National Partnership Plan 2012-2017 and the draft Local Development Plan 2013.

Building the Ecosystems Approach into SEA

2.12 Ecosystem services are one way of defining the things in the natural environment that benefit people. They range from things like the ways soils are formed, clean water to drink, air to breath, plants and animals we eat, to the pleasure we take from skiing on hills or looking at landscapes and wildlife. The Millennium Ecosystem Assessment (MA) identifies four broad categories of ecosystem services that were also used for the NEA and have become an accepted way of identifying and categorising them:

- **Provisioning Services** – the products we get from ecosystems such as food, fibre and water;
- **Regulating Services** – the benefits we get from the regulation of ecosystem process such as the regulation of pollination, the climate, noise and water;
- **Cultural Services** – the non-material benefits we get from ecosystems such as spiritual enrichment, inspiration for art, recreation, cultural heritage, tourism and simple aesthetic experience. The way that people value nature can also be a cultural service, for example, iconic or rare species may not be critical to an ecosystem, yet are protected because people would like them to be a self sustaining part of it; and,
- **Supporting Services** – functions of the ecosystem that are essential for the production of all other ecosystem services such as soil formation, the cycling of nutrients, water cycling, production of atmospheric oxygen and provision of habitat.

2.13 The ecosystem approach has been extended to place value on different ecosystems services and to estimate the economic value of different services to human society. The argument for placing economic value on ecosystems services is that it can help policy makers take account of the costs and benefits of policy options on the natural environment. Although placing economic value on ecosystems services from the Cairngorms National Park could be a useful extension of the concept, it will not be done for the SEA. Instead, a simpler categorisation of the importance of different ecosystem services using a high to low scale will be used to indicate relative value.

Environmental Baseline

2.14 The NEA identifies 8 broad habitats in the UK that can be associated with ecosystems:

- Enclosed Farmlands
- Woodlands
- Semi-natural Grasslands

- Open Waters (Rivers, lochs, wetlands and floodplains)
- Mountains Moor and Heathland
- Coastal margins
- Marine
- Urban

2.15 Five of those broad habitats are significant in the Cairngorms National Park:

- **Enclosed Farmlands** - mainly confined to the straths of the Park. Although very little of the farmland of the Park is classed as prime quality (the highest productive capacity), they are a local source of food for the population of the Park. The farmlands are close to many of the rivers and tributaries, and in some cases are part of the functional floodplains of the Park. They can affect the water quality and function of those water bodies, and are an important habitat for wading birds - both for breeding and feeding.
- **Woodlands** - the CNP has a wide variety of forests and woodland, including many rare or threatened woodland habitats and associated species. Many woodlands are designated for nature conservation. Many woodlands are important as a source of timber and woodfuel. Woodlands play an important role in the water cycling by slowing the discharge of water towards rivers, preventing erosion of soils and landslides. They are also important to local climates – riparian woodland can slow or prevent water temperature increases by shading, and woodland provides shelter from strong winds.
- **Open Waters (Rivers, lochs, wetlands and floodplains)** - the CNP has the headwaters of three of Scotland's major rivers as well as many smaller ones. Many are designated for nature conservation. It also has an intricate network of high level and lower level wetlands and open water bodies, including valley flood plains. As well as providing water for the habitats and people in the National Park, rivers from the Park provide water to other parts of Scotland.
- **Mountains, Moor and Heathland** - much of the CNP falls into this broad habitat, and large areas are designated for habitat or species conservation. The CNP is internationally famous and valued for these habitats, and it would be appropriate to make a distinction between mountains and moorland as major habitats in their own rights in the Park. Moorlands in the Cairngorms National Park are also associated with Moorlands tend to be managed for grouse shooting but overlap with areas of upland wetland and blanket bog. The peat deposits of moorlands are a significant store of carbon.
- **Semi-natural Grasslands**, mainly in the form of acid grassland are often associated with moorlands in the Park. Acid grasslands are not a dominant habitat in their own right in the Park and tend to occur where moorland is used for rough grazing by sheep or cattle, or are present where deer graze heavily. In some locations in the Park, both moorland and acid grassland habitats are used for grazing by sheep and cattle at the margins of farmland and as an integral part of upland farming – the semi natural grasslands form a transition between farmland in valleys and lower slopes to moorland on the upper slopes and hill tops.
- **Urban** - only a small part of the land area of the CNP is urban (around 13.5 square km or about a third of 1% of the total land area of the Park). However, it is in urban areas where most of the Park's 18,000 residents live, and in and between urban areas where most human activity takes place.

2.16 7 broad habitats can identified for the Cairngorms National Park:

- Enclosed Farmlands
- Woodlands
- Open Waters (Rivers, lochs, wetlands and floodplains)
- Mountains
- Moor
- Semi-natural grasslands
- Urban

2.17 Each of those habitats has a range of ecosystems services. Appendix 3 of the Environmental Report provides a more detailed description of the environmental baseline by habitat types and ecosystems services.

2.18 A more conventional summary of the environmental baseline is shown in Table 5.

Table 5 - Conventional Summary Description of Environmental Baseline

Biodiversity, flora, fauna	• 25% of UK's threatened species present and is the UK stronghold for many species • 51% of Park area designated for natural heritage conservation (48% of international importance and 26% of national importance). 74.5% of the designated features of these sites are in favourable condition (at December 2010).
Population & Human Health	• Population of c18,00 25.8% of population over 60 (higher than Scottish average) • Average health index in top 25% of Scotland (based on deprivation indices) • Extensive core paths network • 55 Munros including 5 summits over 4000 feet • 3 ski centres • National Cycle Network Route 7 • 1 Long Distance Route (Speyside Way)
Soil	• 8 SSSIs with soils of international importance • 12 SSSIs with soils of national importance • High proportion of undisturbed soils (only 2% cultivated) • Podzols form 50% of soil cover including internationally significant alpine podzols on the plateau • Peat forms 13% of soil cover • Significant Scottish carbon store in soils and peat.
Water	• 81% of streams classified as excellent (A1) or good (A2) (SEPA 2003) • 20 sq km standing waters • Catchments of 6 major rivers
Air & Climatic Factors	• Relatively low atmospheric pollution • Annual precipitation over 2250mm on summits and under 900mm in straths • Average annual snow cover 200 days on summits and 50 days on low-ground • Prevailing winds from south-west
Material Assets	• Outstanding geological heritage • High quality timber from productive native woodlands • Local woodfuel sources • Potential for small scale micro renewables

Cultural Heritage	• 11 designated Historic Gardens & Designed Landscapes • 110 Scheduled Ancient Monuments • 741 listed buildings • 3 Conservation Areas • 2 Inventory Battlefield sites (Killiecrankie & Cromdale) • numerous records in NMRS • large number of historic landscapes • Potential for survival of many unknown remains in upland areas • 3 Conservation Areas • Distinctive local vernacular architecture • Cultural landscapes and associations with landscapes and land uses
Landscape	• 30 GCR sites (of which some are part or all SSSI) • Granite massif and plateau • Internationally important landform record • Two National Scenic areas • Coherent identity of landscape across park from landform and landcover • Extensive areas where the special quality of wildness can be experienced. • Understanding and appreciation of the special landscape qualities of the Park

Environmental Problems

2.19 Schedule 3 paragraph 4 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or be affected by the CEDDS and whether it is likely to aggravate, reduce or otherwise affect existing environmental problems.

2.20 Table 6 below summarises the key trends and environmental issues associated with the broad habitats of the Park.

Likely Evolution of the Environment without the CEDDS

2.21 The CEDDS will not resolve any of the environmental problems in the Park in its own right. Its purpose is to identify key priorities for economic development and diversification in the Park, including the ambition to build on our natural capital and realise the market opportunities associated with it. The CEDDS is a partnership Strategy which aims to coordinate the economic development activities of the public and private sector in the Park. Without the CEDDS it is likely that future economic development and growth in the Park would be undertaken in an ad-hoc way which does not consider what development is most appropriate to the National Park and its natural assets in the longer term.

Table 6 - Summary of main Environmental Issues in the habitats of the Cairngorms National Park

Habitat	Ecosystems services or benefits that this habitat is most important for	Main Drivers of Change	Threats/Problems	Opportunities	Key Environmental Objectives for this Habitat in the CNP
Enclosed Farmlands	• Food • Soil quality • Storage of carbon in soils • Water quality • Pollination of crops • Landscape • Patterns of settlement • Sense of place, history and tradition • Living culture and identity	• Agricultural and environmental policy • Economic viability • Climate change effects • Planting of woodland to achieve SG targets	• loss of productive land to other uses • loss of edge habitats • loss of iconic wild bird species • effects of extreme weather events	• protecting productive land from other uses • potential diversification of produce in different climatic conditions • Enhancement of habitat networks • build resilience to extreme weather events • maximise carbon storage capacity	• to maintain or improve the productive capacity of farmland • to maintain or improve the carbon storage capacity • increase the resilience to climate change effects • conserve or enhance the value for distinctive wild species and habitats • maintain or enhance special landscape qualities • maintain capacity for learning and enjoyment of history and culture
Woodlands	• timber as a material and as fuel • rich and diverse habitats and species • stability of soils • storage of carbon • shelter • soil & water quality • pollination of woodland species • ecological knowledge • recreation • landscape • Patterns of settlement • sense of place, • tradition • living culture and identity	• Forestry and environmental policy including the national target for increasing Scotland's tree cover to 25% • Recreational uses • Economic viability • Climate change effects	• disease risks • loss to other land uses • fragmentation of native and ancient woodland sites • recreational disturbance to key iconic species • effects of extreme weather events and changes in climate • disturbance of archaeological remains in existing or new woodland	• Enhancement of woodland networks including montane and riparian woodland • increased use of locally grown timber for construction and fuel • woodland creation and management to build resilience to extreme weather events • increased recreational use of woodland • management of recreational use to avoid disturbance to key species • promoting responsible recreation and dog management	• maintain or increase timber and woodfuel production • conserve or enhance the value for distinctive wild species and habitats • to maintain or improve the carbon storage capacity • increase resilience to climate change effects • maintain recreational value • maintain or enhance special landscape qualities • maintain capacity for learning and enjoyment of history and culture

Table 6 - Summary of main Environmental Issues in the habitats of the Cairngorms National Park

Habitat	Ecosystems services or benefits that this habitat is most important for	Main Drivers of Change	Threats/Problems	Opportunities	Key Environmental Objectives for this Habitat in the CNP
Open Water	• fresh water • groundwater • important wild species and rich habitats • local climate regulation • regulation of flooding • water quality • ecological knowledge • recreation • landscape • Patterns of settlement • sense of place • tradition	• Environmental policy • Climate change effects • Hydro energy schemes • Invasive non-native species • River Basin Management Planning	• Point source and diffuse pollution • water abstraction • erosion and sediment • alterations to river beds and banks • effects of extreme weather events and changes in climate to the physical processes, chemistry and distinctive habitats/species of open water systems • invasive non-native species	• Enhancement of functioning wetlands and floodplains • adoption and extension of natural flood management techniques • reduction in pollution sources • minimisation unnecessary water abstraction – reducing water loss following abstraction, more efficient use of water • maintain and improve the ecological status of water bodies	• conserve or enhance the value for distinctive wild species and habitats • maintain or improve water quality • minimise unnecessary use of water • maintain or increase ability to store water • increase resilience to climate change effects • maintain recreational value • maintain or enhance special landscape qualities • maintain capacity for learning and enjoyment of history and culture
Mountains	• rare and fragile species and habitats • climate regulation • soil quality • water quality • seed dispersal and pollination of mountain plant species • ecological and geological knowledge • recreation • landscape • sense of place, history & tradition • living culture and identity	• nature conservation policy • climate change effects • grazing pressures and changes • disturbance to species and habitats from recreation • the setting of and views from mountains due to renewable energy or other large developments	• Climate change effects on marginal arctic-alpine habitats and species • inappropriate grazing by stock or wild mammals • erosion (natural process and human induced) and potential changes brought about by extreme weather events • reduced sense of wildness as a result of visual impact of development • recreational disturbance to sensitive birds	• Enhancing the sense of wildness • manage changes in habitats – e.g. towards montane scrub • maintain patchwork of grazing densities for habitat resilience • promoting responsible recreation and dog management	• conserve or enhance the value for distinctive wild species and habitats • increase resilience to climate change effects • maintain recreational value to maintain or improve the carbon storage capacity • maintain sense of wildness • maintain or enhance special landscape qualities • maintain capacity for learning and enjoyment of history and culture

Table 6 - Summary of main Environmental Issues in the habitats of the Cairngorms National Park

Habitat	Ecosystems services or benefits that this habitat is most important for	Main Drivers of Change	Threats/Problems	Opportunities	Key Environmental Objectives for this Habitat in the CNP
Moorland	• climate regulation as stores of carbon • soil quality • water quality • pollination of moorland plant species • ecological and geological knowledge • recreation • landscape • sense of place, tradition and history • living culture and identity	• nature conservation and environmental policy • land ownership and management objectives • climate change effects • planting of woodland to achieve SG target.	• Loss to other uses • inappropriate grazing by stock or wild mammals • disease and pest risks to iconic species (heather and grouse) • loss of stored carbon • illegal killing of protected species especially raptors	• Protecting and enhancing carbon storage capacity	• conserve or enhance the value for distinctive wild species and habitats • conserve or enhance the distinctive wild species and habitats • to maintain or improve the carbon storage capacity • increase resilience to climate change effects • maintain recreational value • maintain or enhance special landscape qualities • maintain sense of wildness • maintain capacity for learning and enjoyment of history and culture
Semi-natural grasslands	• provision of food where used for livestock grazing • some distinctive wild species and habitats • soil quality and storage of carbon • knowledge • recreation • landscape • sense of place, tradition history	• grazing regimes • succession to moorland, scrub, woodland, wetland • planting of woodland	• Loss to other uses • Changes in grazing	• Identify most diverse semi natural grasslands for management • Identify areas for suitable for woodland expansion • Use to promote cultural heritage of Park	• conserve or enhance the value for distinctive wild species and habitats • Maintain productive capacity of soils • to maintain or improve the carbon storage capacity • maintain or enhance landscape character • maintain capacity for learning and enjoyment of history and culture

Table 6 - Summary of main Environmental Issues in the habitats of the Cairngorms National Park

Habitat	Ecosystems services or benefits that this habitat is most important for	Main Drivers of Change	Threats/Problems	Opportunities	Key Environmental Objectives for this Habitat in the CNP
Urban	• contribution to climate change through release of carbon • sources of noise and air pollution • introduction of invasive species • recreation • patterns of settlement, urban forms and landscape • sense of place, tradition, history and identity	• economic changes • population changes • climate change – the effects of it and public policy to minimise carbon emissions • business waste restrictions (Waste (Scotland) Regulations 2012)	• Loss of urban green spaces • fragmentation of green networks within towns and villages • Changes in character and setting of towns and villages through new development. • dispersed rural settlements rely heavily on transport by private car • flooding due to extreme weather events	• consolidate and enhance character of settlements through design of new developments • improve the energy efficiency of existing and new buildings • conserve and enhance urban green spaces and networks, linking with wider habitat networks • use urban areas to increase local food production • support communities to develop more efficient rural transport links • improve communications and IT infrastructure to reduce need to travel to work locations	• conserve or enhance the value for distinctive wild species and habitats • maximise energy efficiency and minimise energy waste • maintain or enhance landscape character • maintain capacity for learning and enjoyment of history and culture

SEA Objectives

2.22 Table 7 sets out 9 objectives, phrased as questions that are a basis for the SEA. They build on the environmental objectives identified in Table 6. They therefore necessarily cover a wide range of potential issues across all the habitats of the National Park.

Table 7 - SEA Questions

SEA Question	Rationale for Question	Environmental Objective
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	Local food has potential to be of high quality and with a low carbon footprint from transport. The nutritional values of local fresh food are likely to be greater than from food stored and transported from far away. Management of farmland affects native species; the management of soils; release of greenhouse gases; the quality of the water environment; the material cultural heritage and non-material cultural heritage of tradition and history; the appearance of the landscape; as well as the material value of farmland as a natural resource.	**To maintain or improve the sustainable and productive capacity of farmland**
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	Timber from woodland is an important material for with many uses. Local wood as a source of fuel can be a low carbon alternative to fossil fuels. While many woodlands in the Park are managed for the conservation of distinctive species and habitats, many are also managed to provide economic benefits. Some woodland is managed for multiple benefits including woodfuel.	**To maintain or increase sustainable timber and woodfuel production**
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?	Water that falls in the Park makes its way through a range of habitats towards the streams and rivers that flow out of the Park. It is taken from ground water sources, rivers and lochs in the Park for use by the human population of the Park as well as providing an important habitat in its own right for a range of rare and distinctive species such as salmon, lamprey and fresh water pearl mussel. Waste water from humans is also returned to the main rivers of the Park, and other products such as fertilizers and pesticides, road salt and some industrial waste may enter water courses and affect water quality. The rivers that leave the Park provide water for other parts of Scotland and are a corridor for many species to use for travel. Rivers and wetlands store water, helping river catchments to cope with extreme weather events such as storms, sudden snow melt and drought. The ability of rivers to flood naturally along their length allows them to avoid sudden and unexpected flooding in other areas. It is likely that we will experience more frequent extreme weather events as our climate changes, so the ability of river systems and wetlands to behave naturally will affect how severely humans experience the events. The natural cycle of flooding also provides diverse habitats that support many important species. Other habitats (particularly woodland) in a river catchment also help to store water, slow its movement downstream, and help prevent erosion from water.	**To maintain or improve water quality** **To maintain or increase ability to store water** **To increase the resilience to climate change effects**

Table 7 - SEA Questions

SEA Question	Rationale for Question	Environmental Objective
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?	The Cairngorms National Park has 25% of the UK's rare and threatened species and large areas of habitat that is rare or infrequent. 51% of the Park is designated for nature conservation and 48% is designated as being of European importance for nature conservation. The distinctive species and habitats recognised in these designations, and others in the Cairngorms Nature Action Plan, rely on both the designated sites as well as a wider network of habitats across the Park. The viability of many species is linked to the appropriate management of habitats and connections between them irrespective of whether the land is designated for them. As well as providing a range of habitats that are important in their own right, the diversity and extent of these habitats helps species adapt to changes or other pressures such as changes in climate.	**To conserve and enhance the value for distinctive wild species and habitats** **To increase the resilience to climate change effects**
5. Will the Plan maintain or improve storage of greenhouse gases in peat, soils and woodland in the Park?	The National Park stores carbon in peat, in soils and in plants, particularly woodland. Disturbance of peatland and carbon-rich soils can release carbon to the atmosphere. Conservation of these area can secure can secure long term storage of carbon.	**To maintain or improve the carbon storage capacity**
6. Will the Plan increase energy efficiency and reduce energy waste?	Living in or visiting a relatively remote part of Scotland requires more energy for day to day life, business and travel. Reducing the need to travel by car, improving the energy efficiency of buildings and processes will reduce the need for energy and the need to use fossil fuels.	**To maximise energy efficiency and minimise energy waste** **To increase the resilience to climate change effects**
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	There are many factors that contribute to a healthy lifestyle. The National Park provides particular opportunities for physical recreation that can benefit physical and mental health. It also provides less tangible opportunities to enjoy and appreciate the nature and landscapes of the Park that can help to contribute to mental health and wellbeing.	**To maintain recreational value**
8. Will the Plan conserve and enhance the distinctive landscape character and experience of the Park?	The landscapes of the National Park are distinctive and are valued by the people who live in and visit the Park. This is partly reflected in the categorization of the Park as an IUCN Category V Protected Landscape. The landscapes of the Park will all change subtly over time, and can change suddenly in extreme events or with major changes in the use of land. Managing changes in the landscape to maintain and enhance the distinctive character and the ways that people experience it are important to the long term management of the Park.	**To maintain and enhance landscape character** **To maintain sense of wildness**

Table 7 - SEA Questions		
SEA Question	**Rationale for Question**	**Environmental Objective**
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park?	The material cultural heritage of the Park – the buildings, archaeological remains, and landscapes, together with the knowledge they provide, are enhanced and enriched by the stories, history, traditions, and communities of the Park. Wherever possible, the built heritage and archaeological remains are preserved or recorded. However, they become a living part of our cultural heritage when they are linked to the lives of people today through shared stories, history and tradition.	**To maintain capacity for learning and enjoyment of history and culture**

2.23 Table 8 shows how each SEA question is relevant to a number of the SEA topics.

Table 8 - SEA Questions and relevant SEA topics	Biodiversity, Flora and Fauna	Population and Human Health	Soil	Climatic Factors	Water	Air	Cultural heritage	Landscape	Material Assets
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	■	■	■	■	■		■	■	■
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	■		■	■	■		■	■	■
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?	■	■		■	■			■	■
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?	■		■	■	■	■	■	■	■
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park?	■		■	■		■		■	■
6. Will the Plan increase energy efficiency and reduce energy waste?		■		■					
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		■							■
8. Will the Plan conserve and enhance the distinctive landscape character and experience of the Park?							■	■	
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park?		■					■	■	

2.24 Table 9 shows the SEA questions with appropriate SEA assessment criteria and proposed indicators for each SEA question. The indicators are based on the availability of data, and are intended to be relatively easily understood by the public.

Table 9 - SEA Questions

SEA Question	Assessment Criteria	Potential Indicators
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	• What effect will the plan have on the productive capacity of agricultural land? • What other effects will the Plan have on food production? e.g. support for allotments and community growing spaces.	No loss of high quality productive land lost to either woodland or wetland creation
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	• What effect will the plan have on the production of commercial timber? • What effect will the plan have on the supply of wood for woodfuel? • Will the Plan affect the supply of any other timber or woodfuel products?	The area of woodland in the National Park has increased
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?	• What effect will the plan have on abstraction of water? • What effect will the plan have on the ecological status of water bodies as a result of waste waters and agricultural run-off? • What effect will the plan have on local water bodies and flood risk?	The ecological status of water bodies in the Park
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?	• What effect will the Plan have on the features of designated sites? • What effect will the Plan have on protected species? • What effect will the Plan have on habitats and species in the Cairngorms LBAP? • What effect will the Plan have on the resilience of habitats and species to climate change, including connectivity of habitats? • What effect will the plan have on bio-security?	The condition of the features of designated sites The ecological status of water bodies in the Park
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park?	• What effect will the plan have on the ability of woodland to store carbon? • What effect will the Plan have on the ability of peatland to store carbon? • What effect will the Plan have on carbon rich soils? • What effect will the Plan have on the total carbon stored in the land and vegetation?	The area of woodland in the National Park has increased
6. Will the Plan increase energy efficiency and reduce energy waste?	• What effect will the Plan have on the need for oil-based energy? • What effect will the Plan have on the energy efficiency of new development and existing development? • What effect will the Plan have on use of renewable energy sources? • What effect will the Plan have on patterns of travel? • What effect will the Plan have on opportunities to travel by a variety of modes of transport? • What effect will the Plan have on the generation and management of waste?	Renewable Energy production in the National Park has increased

Table 9 - SEA Questions

SEA Question	Assessment Criteria	Potential Indicators
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	• What effect will the plan have on the availability of high quality local food? • What effect will the Plan have on opportunities for physical exercise? • What effect will the Plan have on provision of open space and green networks in and close to settlements? • What effect will the Plan have on the availability of accommodation that meets their needs? • What effect will the Plan have on people's understanding and interest in maintaining healthy lifestyles?	The number of people participating in 'health walks' programmes
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?	• What effect will the plan have on changes in landscape character and the special landscape qualities of the Park? • What effect will the plan have on the qualities of wildness that people experience in the Park? • What effect will the plan have on the character and setting of towns and villages in the Park? • What effect will the Plan have on people's understanding of the historical and current processes and management of the Park that give it its distinctive character?	Area of land with multiple wildness qualities
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park?	• What effect will the plan have on communities' and visitor's knowledge and appreciation of archaeological remains and built heritage?	The number of LEADER projects which celebrate the cultural heritage of the Park

Consideration of Reasonable Alternatives

2.25 The Environmental Assessment (Scotland) Act 2005 requires that reasonable alternatives to the Plan are considered as part of the SEA. The requirement for a CEDDS and the Aim of the CEDDS itself is taken from the National Park Partnership Plan 2012-2017 which was subject to wide consultation and SEA. The Priority Themes within the Strategy have been identified through a review of existing Plans and Strategies for the area, review of the economic baseline information, and discussion and consultation with a variety of public and private sector partners. The development process has been one of considering alternatives and setting out preferred options. This has been integral to the development of the Strategy.

2.26 The Priority areas within the Strategy are ones that have been identified as both feasible for growth as well as desirable to enable the local economy to remain viable and competitive in the future. A key Priority in the Strategy is to build on the Strengths of the Park rather than to introduce new and potentially inappropriate industries which are not in keeping with the area and its natural assets. The Strategy recognises that a key characteristic of the area is the high proportion of small businesses and the need to support and attract these rather than focussing on large scale industry which may be more appropriate to a more urban environment. The Strategy also identifies as a Priority the need to improve the infrastructure in the Park to enable existing businesses to remain viable and grow.

3. Assessment of Environmental Effects and Measures envisaged for prevention, reduction and offsetting any significant adverse effects

Assessment Methods

3.1 The assessment of the CEDDS has been done by answering the 9 questions identified in Tables 6-9 for each of the 6 Priority Themes and Outcomes in the Strategy. In addition, 4 Sector Outcomes were indentified within Priority Theme 1 and these have also been assessed against the 9 SEA questions. The assessment criteria shown in Table 9 were used as prompts in the assessment. The assessment methods, SEA objectives, questions and criteria were modified and simplified following the response of consultation authorities on the SEA scoping report.

3.2 The assessment was recorded in a similar form to the example shown in Table 10, using a simple visual 5-colour scale of effects will be used to provide a summary of effects. Where effects were predicted, the nature of those effects was explained in more detail and any mitigation measures required to avoid, reduce, or offset them were also recorded. Potential cumulative and/or synergistic effects were assessed simply with the help of a summary matrix of individual assessments.

Table 10 - Example of assessment recording form

Summary of effect at scale of:	Park	Commentary on assessment
SEA Question1		
SEA Question2		
SEA Question3		
SEA Question4		
SEA Question5		
SEA Question6		
SEA Question7		
SEA Question8		
SEA Question9		
Mitigation measures:		
KEY		
Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Summary of effects of the Cairngorms Economic Development & Diversification Strategy 2014-17

3.3 The Plan was assessed using the framework described earlier. A summary of the assessment findings is shown in Table 11 and the full findings are shown in Appendix 2.

Table 11 Summary matrix of potential effects

SEA Objectives:	1	2	3	4	5	6	7	8	9
Cumulative/Synergistic Effects	ML	ML	L	L	ML	ML	ML	L	
Priority Theme 1 & Outcome	ML	ML				M	M		
- Tourism Sector Outcome						M	M		
- Forestry Sector Outcome		M			ML				
- Agri., Food & Drink Sector Outcome	ML								
- Energy Eff. & Renewables Sector		ML				ML			
Priority Theme 2 & Outcome									
Priority Theme 3 & Outcome									
Priority Theme 4 & Outcome	ML	ML	L	L	L	L	ML	L	
Priority Theme 5 & Outcome							ML		
Priority Theme 6 & Outcome									

Duration of effects: L=long term, M=medium term, S=short term

Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***

Uncertain effect / effect cannot be predicted / or both positive and negative effects

Summary of effects:

3.4 Overall there are no negative impacts from any sections of the CEDDS and they are at 'worse' neutral. However, they are frequently positive and these are summarised below. It is apparent that objective 9 is not positively benefitted by effects of the CEDDS.

Priority Theme 1& Outcome - Building on the Strengths of the Park: A positive effect is likely on SEA objectives 1, 2, 6 and 7 because key sectors for growth include agriculture, forestry, energy efficiency and Renewables, and tourism (including recreation).
Priority Theme 1- Tourism Sector Outcome: A positive effect is likely on SEA objectives 6 and 7 because a key action for this sector is to increase the number of visitors using public transport and active travel.
Priority Theme 1 - Forestry Sector Outcome: A positive effect is likely on SEA objectives 2 and 5 because a key action for this sector is to increase woodland cover in the National Park.
Priority Theme 1 - Agriculture, Food & Drink Sector Outcome: A positive effect is likely on SEA objective 1 as a key action is to encourage increased production of local food.
Priority Theme 1 - Energy Efficiency and Renewables Sector Outcome: A positive effect is likely on SEA objectives 2 and 6 as this priority has the explicit aim of increasing renewable energy production and increasing energy efficiency.

Priority Theme 2 & Outcome - Supporting and attracting Businesses: It is unlikely that there will be any significant effect on the SEA objectives.
Priority Theme 3 & Outcome - Strengthening education and training as an economic asset: It is unlikely that there will be any significant effect on the SEA objectives.
Priority Theme 4 & Outcome - Attracting Investment: A positive effect is likely on SEA objectives 1 to 8 because it this outcome may lead to an increased investment in the Natural Capital of the area and other key objectives.
Priority Theme 5 & Outcome - Infrastructure: A positive effect is likely on SEA objective 7 as a key action is to improve infrastructure, including path networks and accommodation that is affordable to local workers.
Priority Theme 6 & Outcome - Planning for the Future: It is unlikely that there will be any significant effect on the SEA objectives.

Cumulative and/or Synergistic Effects of the Plan

3.5 The cumulative effects across the SEA objectives are found to be positive, due to the mitigation already built into the plan. The outcomes are intended to be delivered in a co-ordinated way with key partners identified within the Strategy. The assessment has not identified any significant synergistic effects beyond the individual assessment effects and cumulative effects because Priority Themes and Outcomes provide very general rather than site specific direction.

Mitigation

3.6 Mitigation has been built into the development of the Strategy, given the need to integrate the four aims and comply with section 9(6) of the National Parks (Scotland) Act. In this way a number of potentially negative effects are avoided through parameters set on how outcomes should be delivered.

3.7 Specific mitigation measures that were identified during the assessment of the Strategy have been incorporated during the development of the CEDDDS on an iterative basis. For example to ensure that renewable energy generation is appropriate and small scale to ensure it does not have negative effects on the Park. This is also in line with other Plans and Policies for the National Park. No additional mitigation measures are considered necessary or have been identified within the SEA

Monitoring

3.8 Monitoring of the environmental effects of the CEDDS is an integral part of the overall monitoring of the Strategy. Indicators for the Strategy will be developed based on each of the Priority Themes and Outcomes. The indicators for the SEA objectives will be incorporated into the wider monitoring indicators for the Strategy and linked where possible the National Park Partnership Plan indicators which sets the context for this Strategy.

3.9 Wherever possible monitoring data will be updated annually and published on the CNPA website.

Table 12 - SEA monitoring indicators	
SEA Question	**Proposed Indicators**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	• No loss of high quality productive land lost to either woodland or wetland creation
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	• The area of woodland in the National Park has increased
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?	• The ecological status of water bodies in the Park
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?	• The condition of the features of designated sites • The ecological status of water bodies in the Park
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.	• The area of woodland in the National Park has increased
6. Will the Plan increase energy efficiency and reduce energy waste?	• Renewable Energy production in the National Park has increased
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	• The number of people participating in 'health walks' programmes
8. Will the Plan conserve and enhance the distinctive landscape character and experience of the Park?	• Area of land with multiple wildness qualities
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park?	• The number of LEADER projects which celebrate the cultural heritage of the Park

Next Steps

3.10 Once the consultation on the Draft Strategy and Environmental Report is complete the feedback will be compiled and analysed and presented in a consultation report. This report will form the basis of a discussion with the Cairngorms Economic Forum and the Strategy will be re-drafted accordingly. Thereafter the Cairngorms Economic Forum and partners, including the Boards of the Cairngorms Business Partnership and Cairngorms National Park Authority, will be asked to endorse the Strategy and a framework for delivery. Following endorsement and adoption the CNPA and partners will:

- prepare a post-adoption SEA statement showing how the SEA process has informed the completed Plan; and,
- coordinate delivery of the Plan; monitor its delivery and its environmental effects.

APPENDIX 1 - Other PPSs and Environmental Objectives

Table 13 - Other PPSs and Environmental Objectives

Relevant PPS	Relevant Objectives/Purpose	SEA Issue	Relationship between the policy and CEDDS
International Directives			
SEA Directive 2001/42/EC (European Union, 2001)	Requires Strategic Environmental Assessments to be undertaken for plans, programmes and strategies with significant environmental effects.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Enables significant environmental effects of the Strategy to be identified and addressed.
Ramsar Convention on Wetlands of International Importance 1971	Requires conservation and wise use of wetlands.	Biodiversity Water Landscape	Strategy will support protection and enhancement of wetlands through actions.
Directive 2009/147/EC: the Conservation of Wild Birds 1979	Requires member states to sustain populations of naturally occurring wild birds by sustaining areas of habitats to maintain ecologically and scientifically sounds levels.	Biodiversity Water Landscape Woodlands and Forests	Strategy should support protection and enhancement of bird habitat through policies and targets.
Directive 92/42EEC: The Conservation of Natural Habitats of Wild Fauna and Flora 1992	Requires member states to sustain populations of naturally occurring flora and fauna by sustaining areas of habitats to maintain ecologically and scientifically sound levels.	Biodiversity Water Landscape Woodlands and Forests	Strategy must ensure protection and enhancement of Natura Sites.
EU Flood Risk Directive 2007/60/EC	Aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity.	Water Climatic factors	Strategy should support natural flood management approaches to reduce and manage flood risk.
Directive 2000/60 EC: The Water Framework Directive	Requires member states to achieve good ecological status of inland water bodies, and develop integrated catchment management and river basin management plans.	Water Biodiversity Landscape	Strategy should support protection and enhancement of the water environment.
Directive 2008/50/EC: Ambient Air Quality and Cleaner Air for Europe (CAFE Directive)	Establishes standards for air quality and sets limits for various pollutants.	Air Human Health	Strategy should support measures that would improve air quality.
EU Common Agricultural Policy	Sets policy for agricultural support with increased emphasis on rural development support.	Land Landscape Population	Strategy will support rural diversification of economic activities.
UN Framework Convention on Climate Change (the Rio Earth Summit) 1992	Treaty aimed at reducing global emissions of greenhouse gases to combat global warming.	Climatic factors Air	Strategy should aim to reduce greenhouse gas emissions.

Table 13 - Other PPSs and Environmental Objectives			
Relevant PPS	**Relevant Objectives/Purpose**	**SEA Issue**	**Relationship between the policy and CEDDS**
Kyoto Protocol (UNFCCC, 1997)	Protocol to the international Framework Convention on Climate Change Framework with the objective of reducing Greenhouse gases which cause climate change.	Climatic factors Air	Strategy should aim to reduce greenhouse gas emissions.
Taking Sustainable Use of Resources Forward: A thematic Strategy on the prevention and recycling of waste (EU, 2005)	A sector based strategy produced under the Environmental Action Programme	Climatic factors Air	Strategy should minimise waste.
National Legislation			
Environmental Assessment (Scotland) Act 2005	Requires Strategic Environmental Assessments to be completed for plans, programmes and strategies likely to have significant environmental effects.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Enables significant environmental effects of the Strategy to be identified and addressed.
Water Environment and Water Services (Scotland) Act 2003	Transposes the Water Framework Directive into Scots law.	Water Biodiversity Landscape	Strategy should encourage improvements to the water environment.
Environmental Impact Assessment (Scotland) Regulations 2011	Requires environmental impact assessment of site specific projects and specifically requires consideration of Sensitive Areas including National Parks.	Climatic factors Soils Air Biodiversity Water Landscape Human Health Cultural heritage	Strategy should have no adverse effect upon targets
Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999	Requires environmental impact assessments for certain forestry projects.	Climatic factors Soils Air Biodiversity Water Landscape Human Health Cultural heritage	Strategy should have no adverse effect upon targets
Land Reform (Scotland) Act 2003	Establishes right of responsible access to land and water.	Biodiversity Water Land Human Health	Strategy can support responsible access.
Wildlife and Countryside Act 1981	Requires certain species to be protected.	Biodiversity	Strategy should support protected species.

Table 13 - Other PPSs and Environmental Objectives			
Relevant PPS	**Relevant Objectives/Purpose**	**SEA Issue**	**Relationship between the policy and CEDDS**
Nature Conservation Act (Scotland) 2004	Act places duties on public bodies for conserving biodiversity, increases protection for Sites of Special Scientific Interest (SSSI), amends legislation on Nature Conservation Orders, provides for Land Management Orders for SSSIs and associated land, strengthens wildlife enforcement legislation, and requires the preparation of a Scottish Fossil Code.	Biodiversity Land Water	Strategy should support conservation and enhancement of biodiversity.
National Parks (Scotland) Act 2000	Specifies what a Park Authority can do and how it should be run, including a requirement to produce a National Park Plan.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Establishes the Aims of National Parks. Provides direction on the functions and role of the National Park Authority.
Flood Risk Management Act (Scotland) Act 2009	Establishes roles, responsibilities and requirements for sustainable flood management.	Water Climatic factors	Strategy should have no adverse effect upon targets
Climate Change (Scotland) Act 2009	Outlines emission reduction targets, adaptation measures, and establishes duties on public bodies.	Climatic factors Soil Water Biodiversity Human Health Population	Strategy should support climate change adaptation and mitigation measures.
Wildlife and Natural Environment (Scotland) Act 2011	Amends Wildlife Consultation Act 1981, and seeks to modernise game law; abolish the designation 'areas of special protection'; improve snaring practice; regulate invasive non-native species; change the licensing system for protected species; amend current arrangements for deer management and deer stalking; strengthen protection of badgers; change how muirburn can be practised; and make operational changes to the management of Sites of Scientific Interest; game law, use of shores, and invasive species legislation.	Climatic factors Soil Water Biodiversity	Strategy should have no adverse effect upon targets
National Policy			

Table 13 - Other PPSs and Environmental Objectives

Relevant PPS	Relevant Objectives/Purpose	SEA Issue	Relationship between the policy and CEDDS
Scottish Government Purpose	The Scottish Government's purpose is to secure sustainable economic growth for Scotland. All the public sector should be working to the purpose.	Air Soil Water Population Human Health Biodiversity Climatic factors Material Assets Cultural Heritage Landscape	The Strategy should support the delivery of sustainable economic growth in the context of the Park and its special qualities and management needs.
Scottish Government National Outcomes	The Scottish Government has 16 National Outcomes that the public sector must collectively deliver.	Air Soil Water Population Human Health Biodiversity Climatic factors Material Assets Cultural Heritage Landscape	The Strategy should identify and contribute to delivery of the outcomes that are most appropriate in the Park.
National Planning Framework for Scotland 2 (2009)	National framework to guide spatial development.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy should have no adverse effect upon targets
Scottish Planning Policy Guidance	SPP covering a range of topics relevant to the Local Development Plan.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy should have no adverse effect upon targets
Planning Advice Notes (including PAN 42)	Scottish Executive good practice advice.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy should have no adverse effect upon targets
Scotland River Basin Management Plan	Fulfils a requirement under the EU Water Framework Directive.	Water Biodiversity Soil	Strategy should have no adverse effect upon targets
Land Use Strategy for Scotland	Outlines strategy for achieving sustainable land use across Scotland and getting the best from the land of Scotland.	Soil Water Biodiversity Landscape Population	Strategy should have no adverse effect upon targets
Scottish Forestry Strategy	Outlines strategic priorities for forestry including management, planting and environmental stewardship.	Water Soils Biodiversity Landscape	Strategy will help to deliver SFS targets
Scotland Rural Development Programme	Sets goals for sustainable rural development and the types of support available.	Water Biodiversity Landscape Soil	Strategy can provide more specific direction on how rural development and diversification should be supported in the Park.

Table 13 - Other PPSs and Environmental Objectives

Relevant PPS	Relevant Objectives/Purpose	SEA Issue	Relationship between the policy and CEDDS
Climate Change: The UK Programme	Goal to reduce carbon emissions in the UK by 60% by 2050.	Climatic factors Air Soil	Strategy should encourage reductions in emissions through a range of measures.
Changing Our Ways: Scotland's Climate Change Programme	Demonstrates how Scotland will deliver carbon savings from devolved policy measures and reduce its vulnerability to the changing climate.	Climatic factors Air Soil	Strategy should encourage reductions in emissions through a range of measures.
Climate Change Adaptation Framework (2009)	Establishes a framework buy which Scotland will adapt to Climate Change	Climatic factors Soil Air Water Human Health	Strategy should include measures that help the Park adapt to climate change.
Air Quality Strategy for England, Scotland, Wales and Northern Ireland	Sets out objectives for eight air pollutants.	Air Soil Climatic factors	Strategy should encourage reductions in emissions through a range of measures.
UK Biodiversity Action Plan	Identifies UK priority species and habitats where action to conserve is required.	Biodiversity Water Soil	Strategy should have no adverse effect upon targets
Scottish Biodiversity Strategy	Identifies Scottish biodiversity priorities and lead partners for taking action.	Biodiversity Water Soil	Strategy should have no adverse effect upon targets
Choosing our future: Scotland's Sustainable Development Strategy	Outlines a strategic framework for the Scottish Government's strategies on climate change, transport, renewable energy, energy efficiency, green jobs and biodiversity.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy should help deliver sustainable development.
Scotland's Zero Waste Plan (2010)	Sets out the Scottish Government's vision for a zero waste society in Scotland	Material Assets Soil Water Air Climatic factors Population	Strategy should support minimising of waste.
A Policy Statement for Scotland – Designing Places	Provides the policy context for important areas of planning policy and design guidance.	Landscape Cultural Heritage Population Human Health	Strategy should have no adverse effect upon targets
Scotland's National Transport Strategy 2006	Scottish Government - National Strategy for reducing transport emissions by 80%.	Population Human Health Air Climatic factors	Strategy should support reductions in emissions from transport.
Scottish Tourism: The Next Decade – a Tourism Framework for Change (2006)	Scottish Government's ambitions for growth in tourism revenues by 50% by 2015.	Population Land Human Health	Strategy should support development of sustainable tourism to contribute to national targets for tourism growth.

Table 13 - Other PPSs and Environmental Objectives			
Relevant PPS	**Relevant Objectives/Purpose**	**SEA Issue**	**Relationship between the policy and CEDDS**
Tourism Scotland 2020: National Tourism Strategy	An Industry Strategy for Leadership and Growth in the Tourism Sector	Population Land Human Health	Strategy should support development of sustainable tourism to contribute to national targets for tourism growth.
Scottish Historic Environment (SHEP) December 2011	Outlines Scottish Ministers' policies on the historic environment, and supersedes the policy elements in Passed to the Future.	Cultural Heritage Landscape	Strategy should have no adverse effect upon targets
Managing Change in the Historic Environment Guidance Notes	Series of guidance notes which are designed to support the Scottish Historic Environment Policy (SHEP) and Scottish Planning Policy.	Cultural Heritage Landscape	Strategy should have no adverse effect upon targets
The Special Qualities of Scotland`s National Scenic Areas 2010 report No 374	Scottish Natural Heritage Guidance for identification	Cultural Heritage Land form & Land use Authenticity and Integrity Visual experience Wildlife	Strategy should have no adverse effect upon targets
Scotland's physical activity strategy 'Let's make Scotland more active' (2003)	Sets out how the Scottish Government aims to increase and maintain the proportion of physically active people in Scotland.	Population Human Health	Strategy should support physical activity
Local Plans and Strategies			
Cairngorms National Park Plan 2007-2012	The first National Park Plan for the Cairngorms National Park	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy will support delivery through providing strategic direction and action for economic growth aspirations in NPPP.
Mid-term Review of the Cairngorms National Park Plan 2009	Mid-point review of five year Plan to assess achievements to date and to assess actions to achieve vision for 2030.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Strategy should support targets.
Cairngorms National Park Local Plan 2010	Establishes development and settlement strategy for the Park, allocations specific development sites, and provides policies for managing development in the Park.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Strategy will support delivery through providing the background for economic development policies and guidance.
Local Authority Single Outcome Agreements	Strategic documents outlining priorities across communities in the National Park.	All SEA issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2006	The Strategy will support delivery.
Community Plans	Plans set out how public services will be planned and delivered, through consultation and co-operation.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Strategy will support delivery.

Table 13 - Other PPSs and Environmental Objectives			
Relevant PPS	**Relevant Objectives/Purpose**	**SEA Issue**	**Relationship between the policy and CEDDS**
Community Visions and Local Community Action or development Plans	Statements from communities in the Park about how they would like to change or develop in future, sometimes with plans on how to get there.	Population Human Health Biodiversity Cultural heritage	The Strategy will support delivery.
Local Housing Strategies (prepared by local authorities as housing authorities for each council area)	Required by the Housing (Scotland) Act 2001. Sets out how housing authorities will provide for housing needs and demands in their area.	Population Human Health	The Strategy will support and inform future delivery.
Housing Need and Demand Assessments (prepared by local authorities as housing authorities for each council area)	Assess housing need and demand in each local authority area, and identify likely future need and demand to inform housing strategies and development plans	Population Human Health	The Strategy will support and inform future delivery.
Regional and Local Transport Strategies	Set out how to maintain and improve infrastructure.	Air Climatic factors Human Health Population	The Strategy will support and inform future delivery.
Area Waste Plans	Strategies for waste management, minimisation and recycling for each local authority area.	Soil Water Air Material assets Population	Strategy should have no adverse effect upon targets
Area Strategic Flood Risk Assessments	Strategic Flood Risk Assessment (SFRA) is designed for the purposes of informing the development planning process, primarily, to avoid increasing overall flood risk by avoiding areas of flood hazard.	Water Climatic factors	Strategy should have no adverse effect upon targets
Economic Development Strategies	Priority areas for economic development.	Soil Material Assets Population	The Strategy will support and inform targeted delivery within the National Park.
Strategy and Action Plan for Sustainable Tourism in the Cairngorms	Identifies measures to support and develop sustainable management of tourism in the Park in line with the Europarc Federation of Protected Areas Charter	Population Biodiversity Landscape Water Air Material Assets	The CEDDS will provide a key delivery plan for Objective 1 in this Strategy to provide for growth of the tourism sector.
Cairngorms Local Biodiversity Action Plan	Priorities and actions for biodiversity in the National Park	Biodiversity Soil Water Material Assets	Strategy should have no adverse effect upon targets

Table 13 - Other PPSs and Environmental Objectives			
Relevant PPS	**Relevant Objectives/Purpose**	**SEA Issue**	**Relationship between the policy and CEDDS**
Cairngorms Outdoor Access Strategy	Provides a framework for managing outdoor access in the Park	Human Health Biodiversity Landscape Air Climatic factors	Strategy should support improved infrastructure and promotion of outdoor access.
Cairngorms National Park Core Paths Plan	Identifies a network of core paths throughout the Park.	Human Health Biodiversity	Strategy should support improved infrastructure including core paths.
Cairngorms Landscape Framework	A framework for managing landscape change in the Cairngorms to maintain and enhance the special landscape qualities and character.	Landscape	Strategy should have no adverse effect upon targets
Catchment Management Plans for rivers Dee, South Esk and Spey	Catchment Management Plans bring together all the people and organisations who affect or are affected by the river catchment to manage in ways that maintain and improves the quality of water and overall health of the catchment.	Water Air Soils Biodiversity Climatic Factors Human Health Material Assets	Strategy should have no adverse effect upon targets
Draft Area River Basin Management Plans	North East Scotland, North Highland, and Tay Area Management Plans describe environmental objectives for each water body to protect and improve the water environment and a Programme of Measures to progress towards achieving these environmental objectives	Water Biodiversity Soil	Strategy should have no adverse effect upon targets.
Cairngorms Nature Action Plan 2013-18	Identifies Cairngorms priority species and habitats where action to conserve is required.	Biodiversity Water Soil	Strategy should have no adverse effect upon targets.
DRAFT Cairngorms Local Development Strategy (LEADER)	Development Strategy identifiying investment themes for funding	Human Health Biodiversity Landscape Air Climatic factors Population	The LDS will support delivery of the CEDDS.

APPENDIX 2 - Assessment Tables

Assessment Table: Priority Theme 1 - Building on the strengths of the Park Theme Outcome: Key economic sectors are stronger (*Tourism, Forestry, Food & Drink, Energy Efficiency & Renewables)*		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	**ML**	Agriculture, Food and Drink are a key sector of the economy in the Park and this priority aims to build on this. Growing and strengthening this sector may have a positive impact on productive capacity of agricultural land and may encourage an increase in small scale producers.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	**ML**	Forestry is a key sector of the economy in the Park and this priority aims to build on this. Growing and strengthening this sector may have a positive impact through increased production of commercial timber and increased supply of timber products including woodfuel.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This Plan outcome could have negative effects on this environmental objective by increasing demand for water use, abstraction and water waste. There are safeguards in place through the planning system and water regulation systems, and other policies which also safeguard river catchments.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		Forestry is a key sector of the economy in the Park and this priority aims to build on this through enabling forestry expansion and diversification which may have a minor positive impact on the availability and resilience of the forest habitat.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park?		Forestry is a key sector of the economy in the Park and this priority aims to build on this through enabling forestry expansion which may have a positive impact on ability of woodland to store Carbon. A key strength of the National Park is its Natural Capital and this Priority Theme and Outcome will work to realise the market opportunities associated with this which may have a positive impact on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?	**M**	Energy Efficiency and Renewables have been identified as a key sector for growth and as such this Priority and outcome should have a positive impact on improving energy efficiency, reducing waste and increasing appropriate renewable energy production by business.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	**M**	Food and Drink is a key sector of the economy in the Park and this priority aims to build on this through increasing the amount of food produced and consumed locally. Growth in the tourism sector will also encourage improved opportunities for active travel.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		Forestry is a key sector of the economy in the Park and this priority aims to build on this through enabling forestry expansion which may have a positive impact on landscape character.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park?		Tourism is a key sector of the economy in the Park and this priority aims to build on this which may have a positive impact on this objective.
Mitigation measures: Ensure economic development does not have negative effects on water supply and ecological status		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		
Assessment Table: Priority Theme 1 - Building on the strengths of the Park		

Tourism Sector Outcome: A more valuable and resilient tourism economy with increased profitability and local prosperity		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This outcome includes growth of Food & Drink Tourism, encouraging visitors and residents to eat and buy more local produce. In generating increased demand for local produce this may have a minor positive impact on productive capacity of agricultural land and may encourage an increase in small scale producers.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This outcome is unlikely to have any effect on this objective.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This outcome may increase visitor numbers in the Park and as such could have negative effects on this environmental objective by increasing demand for water use, abstraction and water waste. There are safeguards in place through the planning system and water regulation systems, and other policies which also safeguard river catchments.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		The habitats and species of the Cairngorms are a key part of the visitor offering. This Priority and outcome aims to grow key visitor sectors in relation to adventure and wildlife tourism whilst safeguarding these assets. In addition, this outcome includes a programme to encourage business and visitor engagement in improved customer service, product awareness and in protecting the natural assets. This has the potential to have both a positive and negative impact on this objective. The Cairngorms Nature Action Plan and Sustainable Tourism Strategy are the main mechanisms for managing improvements in relation to this objective and have informed development of this Strategy.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This outcome is unlikely to have any effect on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?	**M**	This outcome is intended to have a positive impact on the number of visitors using public transport or active travel modes.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	**M**	Growth in the tourism sector will encourage improved opportunities for active travel and more people involved in adventure tourism activities.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		Growth in the cultural tourism sector and the development of customer experience programmes may have a positive impact on this objective.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		Tourism is a key sector of the economy in the Park and this priority aims to build on this which may have a positive impact on this objective.
Mitigation measures: Ensure tourism growth does not have negative effects on water supply and ecological status or species and habitat through initiatives to influence behaviour and encourage visitors and businesses to conserve and enhance the special qualities of the area		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 1 - Building on the strengths of the Park Forestry Sector Outcome: A more valuable and resilient forestry sector with increased profitability and local prosperity		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This outcome should have no significant impact on this objective. The Cairngorms Nature Action Plan provides the context for multi-purpose forest expansion and does not target productive agricultural land for this purpose.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	**M**	This outcome may have a positive impact through increased production of commercial timber and increased supply of timber products including woodfuel.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		Increased expansion of forestry in appropriate areas may have a minor positive impact on reducing flood risk.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This outcome aims enable forestry expansion and diversification which may have a positive impact on the availability and resilience of the forest habitat.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.	**ML**	This outcome aims enable forestry expansion which may have a positive impact on ability of woodland to store Carbon. A key strength of the National Park is its Natural Capital and this Priority Theme and Outcome will work to realise the market opportunities associated with this which may have a positive impact on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?		This outcome may have a positive impact on expansion of woodfuel supply and associated markets and as such may have a positive impact on this objective.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		Expansion of woodlands may have a minor positive impact on this objective by increasing forestry as a recreational resource.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		Forestry is a key sector of the economy in the Park and this priority aims to build on this through enabling forestry expansion which may have a positive impact on landscape character.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		There is potential for negative impacts on archaeological sites through woodland expansion. Best practice on woodland planting and the historic environment would be applied.
Mitigation measures: Best practice on woodland planting and the historic environment would be applied		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 1 - Building on the strengths of the Park Agriculture, Food & Drink Sector Outcome: A growing food and drink sector locally and with new markets		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	**ML**	Growing and strengthening this sector should have a positive impact on productive capacity of agricultural land and encourage an increase in small scale producers.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This outcome is unlikely to have any effect on this objective.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This outcome is unlikely to have any effect on this objective.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This outcome is unlikely to have any effect on this objective.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This outcome is unlikely to have any effect on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?		This outcome is unlikely to have any effect on this objective.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		Growing and strengthening this sector may have a minor positive impact on this objective through increasing the amount of food produced and consumed locally.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This outcome is unlikely to have any effect on this objective.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This outcome is unlikely to have any effect on this objective.
Mitigation measures:		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect*** / ***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 1 - Building on the strengths of the Park Energy Efficiency and Renewables Sector Outcome: Businesses are using less energy, are reducing costs and generating income from renewable energy		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This outcome is unlikely to have any effect on this objective.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	**ML**	This outcome should have a positive impact by increasing sustainable production of timber and woodfuel.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This outcome is unlikely to have any effect on this objective.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This outcome is unlikely to have any effect on this objective.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This outcome is unlikely to have any effect on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?	**ML**	This Plan outcome should increase energy efficiency and reduce energy waste.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		This outcome is unlikely to have any effect on this objective.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This outcome is unlikely to have any effect on this objective.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This outcome is unlikely to have any effect on this objective.
Mitigation measures: Ensure renewable energy generation is appropriate and small scale to ensure it does not have negative effects the Special Qualities of the Park		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect*** / ***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 2 - Supporting and attracting Businesses Theme Outcome: The business sector has grown with increasing employment		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
6. Will the Plan increase energy efficiency and reduce energy waste?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This priority and outcome aims to provide general support to the business sector to enable business growth and increasing employment. Due to its general nature it is not possible to assess the impact on this objective with any certainty.
Mitigation measures:		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 3 - Strengthening education and training as an economic asset Theme Outcome: More Further and Higher Education takes place in the National Park in support of key sectors		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This outcome may lead to an increase in the numbers of people training in and entering this sector and therefore may have a minor positive impact on this objective.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This outcome may lead to an increase in the numbers of people training in and entering this sector and therefore may have a minor positive impact on this objective.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This outcome is unlikely to have any effect on this objective.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This outcome is unlikely to have any effect on this objective.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This outcome is unlikely to have any effect on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?		This outcome will encourage distance learning which may have a minor positive impact on travel patterns.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		This outcome is unlikely to have any effect on this objective.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This outcome will encourage education and learning which focuses on distinctive local assets, as such it may have a minor positive impact on this objective.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This outcome will encourage education and learning which focuses on distinctive local assets, as such it may have a minor positive impact on this objective.
Mitigation measures:		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 4 - Attracting Investment Theme Outcome: More investment in business, infrastructure and the Natural Capital of the Park		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?	**ML**	This outcome should lead to an increased investment in this sector and therefore should have a positive impact on this objective.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?	**ML**	This outcome should lead to an increased investment in this sector and therefore should have a positive impact on this objective.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?	**L**	This outcome aims to increase investment in the Park and as such could have positive effects on this environmental objective by increasing investment in the Natural Capital of the Park.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?	**L**	This outcome aims to increase investment in the Park and as such could have positive effects on this environmental objective by increasing investment in the Natural Capital of the Park.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.	**L**	This outcome may lead to an increased investment in the Natural Capital of the area and therefore may have a minor positive impact on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?	**L**	This outcome may lead to an increased investment in renewable energy generation and associated business which could lead to a minor positive impact on this objective.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	**ML**	This outcome may lead to an increased investment in the infrastructure of the Park, including path networks, which could lead to a minor positive impact on this objective.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?	**L**	This outcome may lead to an increased investment in the Natural Capital of the area and therefore may have a minor positive impact on this objective.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This outcome is unlikely to have any effect on this objective.
Mitigation measures: Ensure economic development does not have negative effects on water supply and ecological status and habitats		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 5 - Infrastructure *(accommodation, transport, connectivity)*		
Theme Outcome: Improved infrastructure in the Park supports a growing economy		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This outcome is unlikely to have any effect on this objective.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This outcome may have a positive impact on timber production through increased demand for timber for construction purposes.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This outcome may increase visitor numbers in the Park and as such could have negative effects on this environmental objective by increasing demand for water use, abstraction and water waste. There are safeguards in place through the planning system and water regulation systems, and other policies which also safeguard river catchments.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This outcome is unlikely to have any effect on this objective.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This outcome is unlikely to have any effect on this objective.
6. Will the Plan increase energy efficiency and reduce energy waste?		This outcome may have a positive impact on the number of visitors and residents using public transport or active travel modes. This outcome may also enable more home-working and education through improved technologies. This has the potential to have a positive impact on this objective.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?	**ML**	This outcome should lead to an increased investment in the infrastructure of the Park, including path networks and accommodation that is affordable to local workers, which should lead to a positive impact on this objective.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This outcome aims to increase investment in the infrastructure of the Park and as such could have negative effects on this environmental objective. There are safeguards in place through the planning system and other policies.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This outcome may lead to an increased investment in the infrastructure of the Park, including visitor experience, which could lead to a minor positive impact on this objective.
Mitigation measures: Ensure infrastructure development does not have negative effects on the Special Qualities of the Park		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect***	***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

Assessment Table: Priority Theme 6 - Planning for the Future Theme Outcome: Policies and Plans are based on a better understanding of current and future trends and changes		
Summary of effect at scale of:	**Park**	**Commentary on assessment**
1. Will the Plan maintain or improve the ability of farmland in the Park to produce high quality local and seasonal food sustainably?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
2. Will the Plan maintain or increase the sustainable production of timber and woodfuel in the Park?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
3. Will the Plan maintain or improve the Park's ability to provide a high quality supply of fresh water in and from the Park, including the ability of river catchments to store water?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
4. Will the Plan conserve and enhance the viability and diversity of distinctive species and habitats in the Park?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
5. Will the Plan maintain or improve the storage of greenhouse gases in peat, soils and woodland in the Park.		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
6. Will the Plan increase energy efficiency and reduce energy waste?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
7. Will the Plan maintain the opportunities for people to enjoy physical recreation and healthy lifestyles?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
8. Will the Plan conserve and enhance the distinctive character and experience of the Park?		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
9. Will the Plan maintain or improve opportunities to experience, learn about and share the cultural heritage of the Park.		This Priority and Outcome will improve our knowledge and understanding of key issues in the Cairngorms National Park and should improve management in the future.
Mitigation measures:		
KEY: Duration of effects: L=long term, M=medium term, S=short term		
Positive effect	***No effect of negligible effect***	***Negative effect*** / ***Not applicable***
Uncertain effect / effect cannot be predicted / or both positive and negative effects		

APPENDIX 3 - The Environmental Baseline

This section sets out the current state of the environment in the Cairngorms National Park. In using an ecosystems approach to inform the assessment, the information is presented by the seven broad habitats of the Park. The information supplements information in the State of the Park Report of 2006, and other publications of the CNPA. The table below summarises the ecosystems services that different habitats provide. We have made an assumption that with the exception of urban habitats, all the habitat types are important in their own right for providing supporting ecosystem services.

The importance of ecosystems services in broad habitats of the Park

Importance of the Ecosystems Service		High / Medium- High / Medium-Low / Low	Enclosed Farmland	Woodland	Open Waters	Moorland	Semi-natural	Mountains	Urban
Provisioning Ecosystems Services	food								
	fibre								
	fuel								
	fresh water								
	Distinctive wild species								
Regulating Ecosystems Services	climate regulation (local temperature regulation, emission and storage of greenhouse gases)								
	hazard regulation (e.g. flooding, landslides, wildfire)								
	disease and pest regulation								
	soil quality								
	water quality								
	seed dispersal								
	air quality and noise								
	pollination								
Cultural Ecosystems Services	knowledge - ecological and geological								
	recreation - enjoyment, physical and mental health								
	patterns and forms of settlement								
	aesthetic experience of landscape								
	sense of place								
	tradition								
	awareness and appreciation of the historic environment								
	spiritual and personal association or connection with place, history and tradition								
	spiritual and personal association or connection with nature								
	societal identity and pride								
Supporting Ecosystems Services	Biodiversity								
	biomass production								
	atmospheric oxygen production,								
	natural weathering processes								
	erosion								
	soil formation and retention								
	nutrient cycling								
	water cycling								
	river processes								
	provisioning of habitat								
	provision of rock/minerals								
	provision of landform								
	photosynthesis								
	evolutionary processes								

Enclosed Farmlands

It is estimated that around 7% of the area of the Park is enclosed farmland, confined to the straths of the Park. Most of that is enclosed pasture, with less than 1% of the area of the Park used for crops. The Park has seen a steady reduction in the area of enclosed farmlands, partly because of the history of small scale and marginal upland farming that has been becoming steadily less economical. There has been a trend towards loss of the enclosed pasture to more marginal rough grazing as well as a growth in farm woodlands[1]. The majority of agricultural production in the Park is linked to beef and lamb. The long term trend in these sectors has been one of declining numbers of stock, again linked to the marginal economics of farming of farming in much of the Park.

Historically, the farmlands of the straths of the Park have provided important habitat for wading birds. They continue to be important (the Strathspey area is one of Scotland's most significant areas for breeding waders) though populations have been in decline. The relationship of farmlands in the Park with water and wetlands is significant, partly because much farmland is within the functional or constrained floodplains of the main rivers. In some places the farmland has been drained and protected from flooding, but many areas continue to flood.

Farmland provides an important link to our cultural heritage, with historical remains and landscapes, active tradition and stories of the past. It is an integral part of the landscape in the valleys and straths of the Park. Particular features include historic settlements and route way pattern, abandoned settlements and Pictish artefacts. The Historic Land use Assessment (HLA) identifies relic landscape remnants. There are two registered battlefield sites (Cromdale and Killiecrankie) and several others are known. A number of designed landscapes are associated with lodges and these tend to be on strath floors and lower slopes.

Drivers of Change

Changes in farmland management have been for economic and policy reasons. The marginal nature of much farming in the Park means that some farm units are not viable businesses. It also means that most farming is reliant on subsidy in order to be economically viable, and the policy objectives of the subsidies drive farming practice.

Much agricultural land is managed for a range of public benefits including biodiversity, public access, and flood management as well as food. Climate change may increase the potential productivity of some farmland in the Park in the future. However, the need to reduce greenhouse gas emissions as well as adapt to potential extreme weather events are becoming stronger drivers of public policy. It is likely that more management will be based on the management of carbon- rich soils and the improved function of floodplains in the future. The national target for increasing Scotland's trees cover to 25% may result in woodland replacing some areas of farmland.

Woodlands

Woodlands are the Park's richest and most diverse habitats. Woodland covers about 20% of the Park area, with around half being semi-natural woodland and half planted woodland[2]. The semi

[1] The Economic and Social Health of the Cairngorms National Park Report, 2010.
http://www.cairngorms.co.uk/parkauthority/publications/
[2] Cairngorms National Park Forest and Woodland Framework, 2008.
http://www.cairngorms.co.uk/parkauthority/publications/

natural woodlands in particular are important with ancient pine woods, important areas of birch woodland, aspen and oak. Woodland supports some of the Cairngorms most iconic and distinctive species such as capercaillie, pine marten, crossbill, crested tit and red squirrel. They are also important for a wide range of plant, fungi and lichen species that only survive in particular woodland habitats. Many areas of woodland are protected by Natura designations and SSSI designations, and there are a number of woodland National Nature reserves in the Park.

The connectivity of the woodland within the national park is a key feature. Many of the woodlands support key species and the connectedness supports their meta-populations across wide areas. Capercaillie is a most notable example of this. Different species have different capacity for move between woodland areas. Some plant species take hundreds of years, some invertebrates can only more across narrow strips of open space while larger more mobile animals may move many kilometres. The degree of effective connectivity will therefore change across species. The connectivity support migration of species between woodland area and this enables robust populations through genetic diversity. It also facilitates population migration caused by climate change and allows species to adapt by moving either northwards or upwards.

Woodland plays an important local role in the regulation of climate in the Park by providing shelter from wind and from sunlight. Woodland on floodplains and throughout catchments can improve their ability to store and slow the release of water, protect against erosion of slopes and the release of sediment into water courses. Woodland can also have the capacity to store atmospheric carbon. Woodlands in the Park are an important recreation resource providing many marked routes for people to follow and potential to absorb many people without obvious impact. Nevertheless some woodland habitats and some species are sensitive to disturbance by people and by dogs.

Woodlands are an intrinsic part of the landscape of the Park, and provide strong links with historic environment and cultural heritage of the Park. There are a number of historic 'newfie' sites dating from both world wars including accommodation areas, workshops areas and transportation lines. Many river courses and lochs were modified to provide high water volume for floating timber downstream. Remnants of these activities still survive across the park. Historic map analysis shows a pattern felling and reforestation across most woodland areas dating back to ancient times.

Woodland cover in the Park has been increasing for the past 50 years or so, initially through planting for commercial timber and latterly through planting and natural regeneration of native species. The Park has a significant industry based around the management of woodland for timber and timber products, for recreation, for biodiversity, and for woodfuel.

Semi natural and native woodland is expanding in the Park, but there has been loss of some area of ancient semi natural woodland to growth of settlements in Badenoch and Strathspey. Almost all settlement in Badenoch and Strathspey have at some point during the past 20 years expanded over areas of ancient semi natural woodland. Although there remain contentious sites for housing development within the planning system (either as planning applications or sites zoned for potential future development), no significant new areas of ancient semi-natural woodland have been identified for development in development plans since the National Park was established.

Drivers of Change

Most woodland management is influenced by public policy through designation and through financial support. A continued emphasis on management for biodiversity and for recreation as well as timber and woodfuel production and management of carbon is likely to remain. The effects of

climate change on the species that inhabit woodland is not fully understood. The national target for increasing Scotland's trees cover to 25% may result in more woodland replacing other habitats.

Open Waters

The Cairngorms National Park has the headwaters of three of Scotland's major rivers as well as many smaller ones. Many of the rivers and their tributaries as well as lochs and wetlands are designated as Natura sites and SSSIs. The rivers in particular provide water for society in the National Park, and for people outside the Park as they flow downstream towards the sea.

The open waters cut across many of the habitats of the Park and receive water from them. Each habitat plays a role in the quality of the water, sometimes removing chemicals or materials and sometimes adding them to the water system. The open waters themselves provide further changes to the qualities of the water. As well as providing fresh drinking water, the rivers are used to remove waste. Treated sewage normally flows back to the river system, and waste from farmland and industries such as whisky distilling often re-enters the rivers. River processes of erosion and deposition, turbulence, flooding all contribute to the water quality and the function of the river systems. Changes in a river or water systems can affect it downstream and upstream.

Open waters play an important role in recreation for water sports and for angling and are an integral part of the landscape of the Park. Because of their importance to human society, they have long historical connections of use and change, providing an important link with the Park's cultural heritage.

Drivers of Change
Open waters are subject to a regulatory system to ensure their continued high quality, and this manages many human activities that could effect open waters. However, because of the connections with so many other habitats, open waters can be sensitive to a number of pressures. Climate change has already increased the temperature of many water bodies, so much so that some species such as Salmon, that rely on a specific temperature range to spawn successfully may be effected by small increases in future. The temperature of water also effects the chemical composition and the ways that nutrients and chemical are processed. The pollutants that fall with rain can also change with changes in climate.

Extreme weather events such as rainstorms and sudden snow melt increase the runoff from other habitats to open waters. The runoff can contain large volumes of chemicals and materials that the open waters are not used to, and the extra volume of water is either stored through flooding or runs downstream faster, increasing the likelihood of destructive erosion and flooding downstream. Invasive non-native species of plant and animal can have a destructive effect on wetland habitats.

The development of small-scale hydro energy schemes has potential to change water courses. Water is abstracted, used and returned as waste water by humans for land management and business activities as well as domestic uses. With projected increases in households and new developments of housing, this has potential to change the demand for water and discharge of waste water.

Mountains

Mountains form a large and iconic part of the Cairngorms National Park. They are a backdrop to most views of the National Park; are a distinguishing part of the landscape character of the Park; have a range of iconic species, habitats and geological and geomorphological features; and significant resource for recreation. The height and mass of the Cairngorms themselves provide a range of habitats and associated species that are rare or unique in the British Isles. Large areas of the mountains of the Park are designated as Natura sites, SSSIs, and NNRs for their species, habitats and geological importance. The mountains provide a focus for precipitation and an important starting point for the buffering of pollutants in precipitation as they more towards open waters.

Mountains are amongst the least intensively managed parts of the Park, with deer stalking and management for a few other game species as well as recreation management and management for biodiversity being the main objectives. The habitats of the mountains can be very sensitive to the level of grazing by herbivore such as deer, sheep and hare. The mountains are particularly important as a recreation resource for hillwalking, rock climbing in summer and winter climbing as well as skiing.

The mountains have a long cultural history of use and exploration that is well documented and shared. They contain material evidence of past ways of life that is well preserved, and have numerous associations with stories, songs and art. Though archaeological records are rare in the highest lands there are few examples of Neolithic tools. Rote ways are historic and formed major access ways for trade, armies and cattle droving. Some are still in use today. There is a good physical record of recreation in particular mountain bothies.

Drivers of Change

Because so many species and habitats of the mountain occupy a particular niche of temperature range and precipitation that is not present elsewhere in the UK, they are particularly sensitive to changes in climate. Increases in temperature and changes in snowfall or the length of time snow remains have already changed the nature of habitats and the composition of species, and will continue to do so in future. The deposition of chemicals on the mountains is also slowly changing the chemical composition of soils, making them more fertile in some cases, but also allowing different plant species to grow in place of others. Soils and surfaces on mountains are often less stable than in other habitats and can be more likely to slip and slide during and after heavy rainfall or snow melt. Predicted climate change would exacerbate this effect.

Different parts of the mountains are important for different habitats. Some species and habitats can cope with grazing by deer and sheep while others die back. Managing the numbers of deer and sheep and their grazing pressure to support a range of species and habitats is a driver of public policy on designated areas.

People enjoying the mountain for recreation can also effect the habitats and species. Human feet can cause erosion of vegetation and soils; people can disturb birds animals, and dogs can disturb and kill birds and animals even when people do not. However, work to maintain paths and reinstate damaged ground has proved effective in the past and is likely to be effective in the future. Few people who recreate in the mountains do so with the intention of disturbing wildlife, so improving peoples understanding of the sensitive species and habitats is likely to reduce disturbance.

Moorland

Moorland habitats in the Cairngorms run between the mountains and woodland and farmland. The moorlands of the Park are a distinctive and iconic habitat and landscape that is internationally famous. Moorlands tend to be managed for red grouse shooting but are also important for black grouse near woodland margins.

Moorland frequently overlaps areas of upland wetland and blanket bog and is also associated with a mosaic semi-natural acid grassland on drier ground, by water courses and where heavily grazed by sheep cattle or deer. The use of moorland for rough grazing by sheep and cattle is an integral part of upland farming. The peat deposits of moorlands are a significant store of carbon. They also play an important role in maintaining water quality by buffering some pollutants.

Moorland's role in recreation is significant, partly because the network of tracks and paths that provides easy access, and partly because most mountain habitats are accessed via moorland habitats. Moorland often preserves archaeological remains and evidence of past environments that tells us about historical life and culture of human society as well as what the land was like before humans managed it. In common with many other habitats of the Cairngorms, there is a recorded history, stories and tradition linked to moorland that enriches our cultural heritage. Particular features include shielings, townships and other pre clearance remains. These tend to be better represented in these areas because of the low intensity land management has retained them more often than in lower more managed areas. Older, Pictish, features remain and for the same reason, these include hill forts. Some remnants of early 20th century hydro schemes have been retained and some of these are being considered for reuse.

Drivers of Change

Moorland management relies on muirburn or cutting to promote new heather growth and maintain a habitat that supports as many red grouse as possible. Without this active management, moorland would change as heather grows rank and scrub or woodland may succeed it. Similarly, the level of grazing by sheep, cattle and deer effects the habitat. The habitat is more sensitive to extreme events than some others. For example, periods of very low humidity and low temperature can kill heather, and infestations of the Heather Beetle will similarly effect the growth of heather.

Intensive management for grouse can reduce or remove populations of other species such as deer and mountain hare, and illegal persecution of raptors is often associated with moorland management.

The conditions for the formation of peat require a particular temperature and precipitation range that may be influenced by climate change. As an important store of carbon, it is likely that future public support for the management of moorland will seek to secure the long term storage and management of the carbon in peat and soils. Changes in climate can lead to erosion of peat from sudden weather events and may also play a role in the success of species such as ticks and the diseases they can carry.

Incentives for renewable energy production may lead to an increase in proposals for small scale wind generation and hydroelectricity. The national target for increasing Scotland's trees cover to 25% may result in woodland replacing some areas of moorland.

Semi-natural Grasslands

Semi-natural grassland habitats are mostly associated with the margins between farmland and moorland and an area of rough grazing, or in a mosaic of semi-natural acid grassland and moorland on drier ground, by water courses and where heavily grazed by sheep cattle or deer. They are frequently on areas of ground that were previously farmed and have since been abandoned. This means they often provide clear physical remains of past uses, ways of life and communities. Abandoned steading and townships are common in these areas particularly along glen floors. Field boundaries are common around the marking historic in-bye areas with headwalls. Abandoned sheep pens are also a common feature among the townships.

Drivers of Change
Most grasslands are maintained by grazing. Changes to semi natural grasslands are therefore mostly associated with changes in the grazing regime. This may occur through changes in management of livestock or deer by fencing or removal. Woodland planting will change a grassland over time and will also normally be accompanied by a reduction in grazing. Where semi natural grasslands occur on abandoned farmland, heather moorland, scrub woodland and wetland areas may also develop. The national target for increasing Scotland's trees cover to 25% may result in woodland replacing some areas of semi-natural grassland.

Urban

About a third of 1% of the Cairngorms National Park's area is within a settlement boundary in the Cairngorms National Park Local Plan. Perhaps as much land is covered by other buildings, roads and human development. These areas are important because it is in them that most human activity takes place. Urban habitats are diverse, with a range of buildings, garden and open spaces and unique micro climates. They require energy to function, create waste energy, pollution to the air, water and soil, noise and light.

The urban areas of the Park are the established way of living for most of its human population. The quality of accommodation, services and resources available in urban areas play a vital role in the health and wellbeing of the population. They also have a long cultural history, with a distinctive built heritage and are a focus for cultural celebrations and tourist attractions. Planned towns are a particular feature of the national park with four of the seven major settlements having an 18th century planned town centre. A few building date from this time but the majority of town centres are largely 19th century. The streetscapes and views with urban areas are a distinctive part of their character, and views of the straths and valleys of the Park are linked by the settlements and their connecting routes.

All urban areas within the Park provide some opportunities for recreation within them, or are connected to a network of paths and tracks and open areas around them and linking to other habitats of the Park. They are a significant place for visitors to the Park, both as a place of shelter, food and drink, but also as a place to get information about opportunities to experience, enjoy and learn about the Park.

The design of our urban areas has changed over time. New developments should now incorporate sustainable urban drainage systems (SUDS) and other measures to minimise their impacts on natural systems.

Drivers of Change

Urban areas in the Park are linked to people's ability to live there and for most people therefore linked to economic opportunity or availability of money. Changes in the wider Scottish economy may affect the ability of people to live in the Park.

Migration to the Park has been slightly higher than migration from the Park since 2003, and this has led to a slow increase in the population. Allied to the increasing population, changes in the composition of households (a trend towards a greater number of smaller households) mean a requirement for more house units to hold the same population. Current allocations of land for future housing development are expected to provide 20-25 years of housing land supply if the population continues to increase at its recent rates. However, constraints to the supply of new housing, such as the slow-down in bank lending to house builders of the past 2 years will also slow or stop increases in population. Nevertheless, new development can change the character and appearance of existing settlements and other areas.

Life in the National Park is currently heavily reliant on oil for energy. Much of the built fabric of the Park is old and requires a lot of energy to heat. The remote location of the Park increases transport costs. Without action to improve the energy efficiency of buildings and ways of life, reduce energy consumption, and use lower carbon energy sources, life in the Park could become economically unviable for many of the working population.