Cairngorms NATIONAL PARK
Pàirc Nàiseanta a' Mhonaidh Ruaidh

STRATEGY

Cairngorm and Glenmore

Strategy

Strategic Environmental Assessment
Environmental Report

December 2015

Cover Note

PART 1

To: SEA.gateway@scotland.gsi.gov.uk

or

SEA Gateway
2 H (South)
Victoria Quay
Edinburgh
EH6 6QQ

PART 2

An SEA Environmental Report is attached for the plan, programme or strategy (PPS) entitled:

Cairngorm and Glenmore Strategy

The Responsible Authority is:

The Cairngorms National Park Authority

PART 3

Please tick the appropriate box

☑ The PPS falls under the scope of Section 5(3) of the Act and requires an SEA under the Environmental Assessment (Scotland) Act 2005. ***or***

☐ The PPS falls under the scope of Section 5(4) of the Act and requires an SEA under the Environmental Assessment (Scotland) Act 2005. ***or***

☐ The PPS does not require an SEA under the Environmental Assessment (Scotland) Act 2005. However, we wish to carry out an SEA on a voluntary basis. We accept that, as this SEA is voluntary, the statutory 5 week timescale for views from the Consultation Authorities cannot be guaranteed.

PART 4

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PART 5

Signature (electronic signature is acceptable)

Date 01/12/2015

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List of Abbreviations

2005 Act	Environmental Assessment (Scotland) Act 2005
AQMA	Air Quality Management Area
BGS	British Geological Society
CA	Consultation Authority
CEMP	Cairngorm Estate Management Plan
CNAP	Cairngorms Nature Action Plan
CNP	Cairngorms National Park
CNPA	Cairngorms National Park Authority
EC	European Commission
EEC	European Economic Community
EIA	Environmental Impact Assessment
EU	European Union
GCR	Geological Conservation Review
FWPM	Freshwater Pearl Mussels
Ha	Hectares
HES	Historic Environment Scotland
JSA	Job Seekers Allowance
HIE	Highlands and Islands Enterprise
LCA	Landscape Character Area
LDP	Local Development Plan
NH_3	Ammonia
NMRS	National Monuments Record of Scotland
NMVOC	Non-methane volatile organic compound
NNR	National Nature Reserve
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
NPPP	National Park Partnership Plan
NRS	National Records of Scotland
NSA	National Scenic Area
O_3	Ground-level ozone
ODPM	Office of the Deputy Prime Minister
PIP	Pearls in Peril
$PM_{2.5}$	Particulate matter with particles with a diameter of 2.5 micrometres or less
PM_{10}	Particulate matter with particles with a diameter of 10 micrometres or less
PPS	Plans, Programmes and Strategies
PVA	Potentially Vulnerable Area
RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment

SEPA	Scottish Environment Protection Agency
SIMD	Scottish Index of Multiple Deprivations
SNH	Scottish Natural Heritage
SO_2	Sulphur dioxide
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SW	Scottish Water
SWWI	Strathspey Wetlands and Waders Initiative
WFD	Water Framework Directive
UK	United Kingdom
UK GAP	United Kingdom Geodiversity Action Plan
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Education

Non-Technical Summary

Introduction

Strategic Environmental Assessment (SEA) of the Cairngorm and Glenmore Strategy is a statutory requirement under the Environmental Assessment (Scotland) Act 2005. SEA is a systematic process developed to ensure that potential environmental impacts of Plans, Programmes and Strategies (PPS) (both positive and negative) are assessed and considered during the course of their preparation.

The Environmental Report presents the likely significant (positive and negative) environmental effects of implementing the Strategy. The Report outlines the effects of the Strategy and any potential reasonable alternatives that were considered, along with viable mitigation measures to avoid, reduce or offset adverse effects.

Summary of the Cairngorm and Glenmore Strategy

Cairngorm and Glenmore are together an iconic destination at the heart of the Cairngorms National Park. Together with neighbouring Rothiemurchus, this area attracts 40% of all visitors to the National Park.

This area is central to the identity of the Cairngorms as well as the local economy. There is a long history of debate and reports written about the area and distinct phases of development creating what we have today. It is a special place, but the results of some previous decisions made in the absence of an overall strategy over the decades are evident in the current visitor experience.

There is an obligation to ensure those with an interest in the area are not only conserving but actively enhancing the conservation value, with Cairngorm and Glenmore sitting at the heart of some of Scotland's most important nature conservation sites, an expanding forest network and the country's most extensive montane plateau, all in the context of a destination central to the local economy.

To make the most of this place for people and nature a long term strategy that guides future management is needed. It is not intended that the Strategy set out a blueprint but it can lay firm foundations that will help ensure the multiple organisations involved in managing this area co-ordinate plans, decisions and investment with a common sense of purpose and direction.

Below the Strategy sit three management plans:

- Glenmore Visitor Improvement Plan;
- Cairngorm Mountain Development Plan; and
- Cairngorm Estate Management Plan.

The aims, objectives and proposals of all are directed by the Cairngorm and Glenmore Strategy and all will be subject to this SEA process.

Summary of the SEA Process

SEA aims to:

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

The SEA process is divided into five main stages which are:

- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope;
- Stage B: Developing and refining alternatives and assessing effects;
- Stage C: Preparing the Environmental Report.
- Stage D: Consulting on the draft Strategy and its Environmental Report; and
- Stage E: Monitoring implementation of the Strategy.

This is the Environmental Report for the SEA of the Cairngorm and Glenmore Strategy. The Environmental Report (**Stage D**) outlines the findings from the environmental assessment of the Strategy (**Stage B**). The environmental assessment establishes the likely significant (positive and negative) environmental effects of implementing a Strategy. During this stage, the effects of the Strategy and any potential reasonable alternatives were considered, along with viable mitigation measures to avoid, reduce or offset adverse effects.

During **Stage D**, the CNPA must seek the views of the Consultation Authorities on any aspect of the environmental assessment and this report.

Summary of SEA Objectives

SEA Objectives have been developed as a result of the review of PPS (**Policy Context**, p. 8) and baseline information (**Baseline**, p. 11). Identifying objectives is an important part of the SEA process as these will be used as the primary tool for testing the emerging Cairngorm and Glenmore Strategy to ensure it will not result in any significant environmental effects.

The SEA Objectives have been separated into 'main' and 'sub' objectives. It is important that the assessment process is proportional, practical and manageable. Consequently, the assessment process will utilise the 'main' SEA Objectives, but take account of the SEA Sub-Objectives. This distinction is important to ensure the assessment work is practical and achievable. The proposed SEA Objectives for the SEA of the Strategy are shown in **Table 1** (p. 19).

Summary of the Assessment of Cairngorm and Glenmore Strategy

The Strategy's objectives and spatial options generally scored well in the assessment and none were deemed to have significantly adverse effects against the SEA Objectives.

However, around 16% of assessments concluded that the effects of an objective or option were uncertain. Many of these related to the potential effects of the Strategy on climatic factors and related to

the fact that effects could be both positive and negative depending on the balance of their implementation. Others related to the fact that much is as yet undecided, particularly in relation to the Cairngorm Mountain Masterplan's review of mountain-side activities.

The Strategy's cumulative effects are likely to be positive in nature, with the benefits of increased opportunities for recreation and positive social interaction likely to have significant positive effects on human health and wellbeing.

Overall, it is considered that the Cairngorm and Glenmore Strategy will result in significant positive effects and it was not considered necessary to change any aspect of the Strategy based on the assessment.

Summary of Next Steps

The SEA Environmental Report will be consulted on for a period of six weeks in December and January 2015.

Following the consultation the final Cairngorm and Glenmore Strategy will be produced, building on the feedback received during the consultation. This process will also be the subject of environmental assessment.

Once the Cairngorm and Glenmore Strategy has been approved by the National Park Board a Post-adoption Statement will be published. The Post-adoption Statement will summarise how the CNPA took the findings of the SEA process into account and how environmental considerations more generally have been integrated into the Cairngorm and Glenmore Strategy. It will also be stated within the Post-adoption Statement if any changes have been made to the Strategy as a result of the SEA process and following responses to consultation. If changes have been rejected this will also be explained.

It will also be necessary for the CNPA to monitor significant effects following the adoption of the Cairngorm and Glenmore Strategy in accordance with the Scottish Government's SEA Guidance (2013). The approach to this is set out in the section on **Monitoring** (p. 47)

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Introduction

> *"The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."*
>
> Directive 2001/42/EC

What is a Strategic Environmental Assessment?[1]

As part of the preparation of the Cairngorm and Glenmore Strategy, the Cairngorms National Park Authority (CNPA) is required under the Environmental Assessment (Scotland) Act 2005 to carry out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain Plans, Programmes or 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.

The SEA process is divided into five main stages which are:

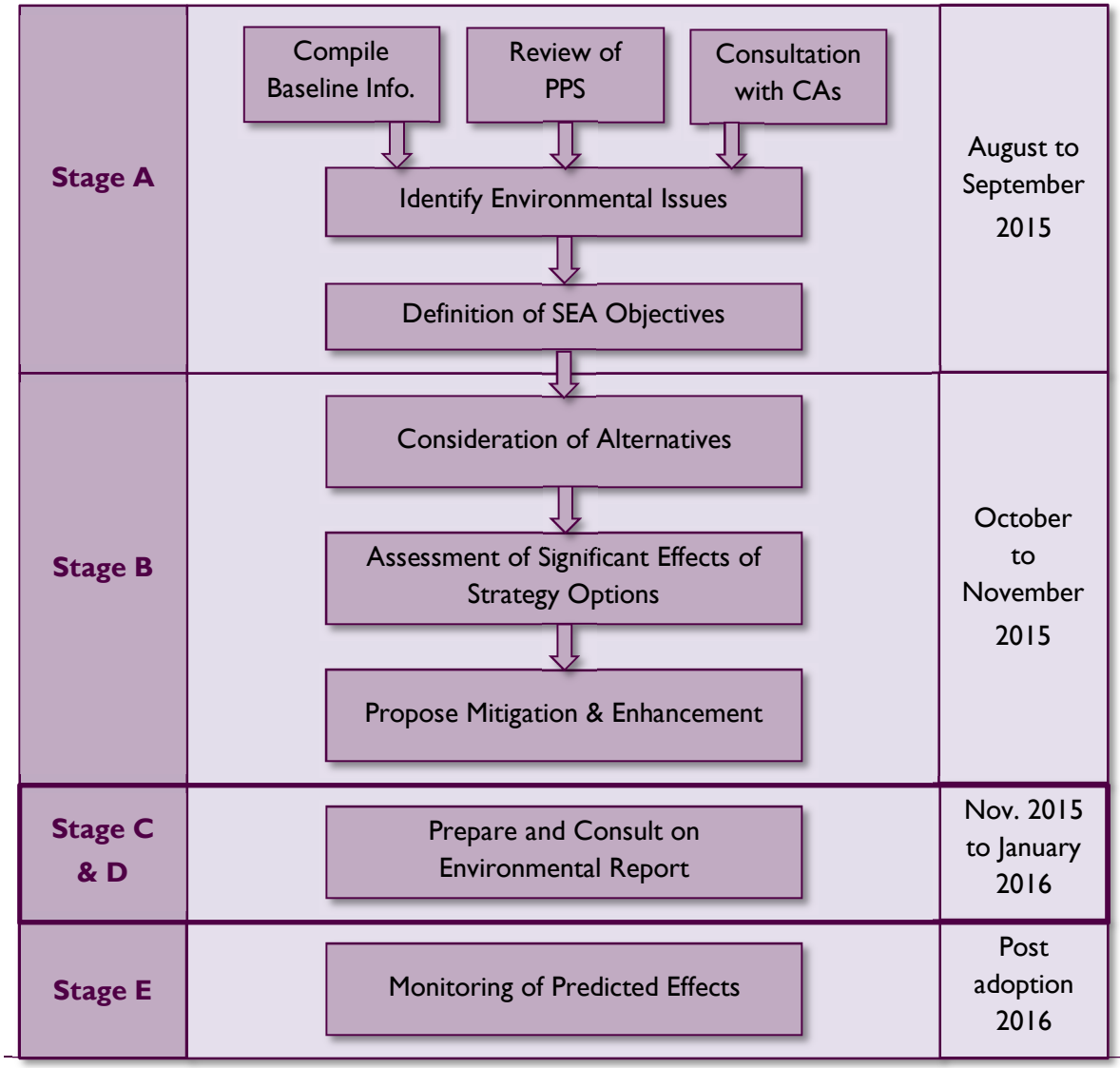
- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope;
- Stage B: Developing and refining alternatives and assessing effects;
- Stage C: Preparing the Environmental Report.
- Stage D: Consulting on the draft Strategy and its Environmental Report; and
- Stage E: Monitoring implementation of the Strategy.

Figure 1 provides details of the actions required during these stages as well as the indicative timetable for their completion alongside the production of the Cairngorm and Glenmores Strategy.

It is also necessary for the CNPA to undertake a Habitats Regulation Assessment (HRA) in accordance with The Conservation (Natural Habitats &c) Regulations 1994 (as amended). The HRA will be reported separately during the process.

[1] A glossary of terms used in this report is provided in **Appendix 5**.

Figure 1 Stages of the SEA of the Cairngorm and Glenmore Strategy and its indicative timetable; the current stage is outlined in bold.



What is an Environmental Report?

> "*The purpose of scoping is to define the level of detail to be covered in the assessment, and to reach agreement on the consultation timescales.*"
>
> SEA Guidance (Scottish Government, 2013)

This is the 'Environmental Report' for the SEA of the Cairngorm and Glenmore Strategy. It represents **Stage D** of the SEA process (see **Figure 1**) and outlines the findings from the environmental assessment of the Strategy (**Stage B**).

The environmental assessment establishes the likely significant (positive and negative) environmental effects of implementing a Strategy. During this stage, the effects of the Strategy and any potential reasonable alternatives were considered, along with viable mitigation measures to avoid, reduce or offset adverse effects.

During **Stage D**, the CNPA must seek the views of the Consultation Authorities on

any aspect of the environmental assessment and this report.

The Cairngorms National Park

The Cairngorms National Park was designated in 2003 by the Scottish Parliament because it satisfied the conditions for a National Park as set out in the National Parks (Scotland) Act 2000.

The National Park is the UK's largest, with a total land area of some 4,528km^2. Dominated by mountain plateau, it bastes extensive moorland, forest and straths and is home to around 25% of the UK's threatened bird, animal and plant species. Approximately 18,000 people live in the National Park and it welcomes around 1.4 million visitors each year.

The general purpose of the National Park Authority (NPA), as set out in the 2000 Act, is to ensure that the National Park aims are collectively achieved in a co-ordinated way. The CNPA is therefore an enabling organisation that must work with and through other bodies to bring added value to the management of the National Park, to achieve the four aims.

The aims of the National Park are:

- 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;
- to promote sustainable economic and social development of the area's communities.

If it appears to the authority that there is conflict between the first aim and the others, the first aim must be given greater weight.

Cairngorm and Glenmore Strategy

Cairngorm and Glenmore are together an iconic destination at the heart of the Cairngorms National Park. Together with neighbouring Rothiemurchus, this area attracts 40% of all visitors to the National Park. Owned on behalf of the people of Scotland, the Cairngorm Estate is managed by Highlands and Islands Enterprise and the National Forest Estate managed by Forest Enterprise Scotland, public bodies formed a partnership in 2014 to collaborate on the long-term management of this significant area of land.

The purpose of the Partnership is to collaborate in the strategic management of these land holdings in order to deliver:

- An exceptionally high quality natural environment;
- A world-class visitor experience;
- An economic asset contributing to the economy of the National Park and Scotland;
- Engaged business and community stakeholders;
- Efficient and effective public service delivery.

This area is central to the identity of the Cairngorms as well as the local economy.

There is a long history of debate and reports written about the area and distinct phases of development creating what we have today. It is a special place, but the results of some previous decisions made in the absence of an overall strategy over the decades are evident in the current visitor experience.

There is an obligation to ensure those with an interest in the area are not only conserving but actively enhancing the conservation value, with Cairngorm and Glenmore sitting at the heart of some of Scotland's most important nature conservation sites, an expanding forest network and the country's most extensive montane plateau, all in the context of a destination central to the local economy.

The public land holding has also changed since the Forestry Commission made its first acquisition in Strathspey when the Glenmore estate was purchased in 1923. The property was divided in the 1970s with a sale to the Highlands and Islands Development Board, now Highlands and Islands Enterprise, and subsequent transaction returning part to the Forestry Commission in the 1990s. More recently in 2014 Forestry Commission acquired the Upper Rothiemurchus pinewoods.

To make the most of this place for people and nature a long term strategy that guides future management is needed. It is not intended that the Strategy set out a blueprint but it can lay firm foundations that will help ensure the multiple organisations involved in managing this area co-ordinate plans, decisions and investment with a common sense of purpose and direction.

Below the Strategy sit three management plans:

- Glenmore Visitor Improvement Plan;
- Cairngorm Estate Management Plan; and
- Cairngorm Mountain Development Plan.

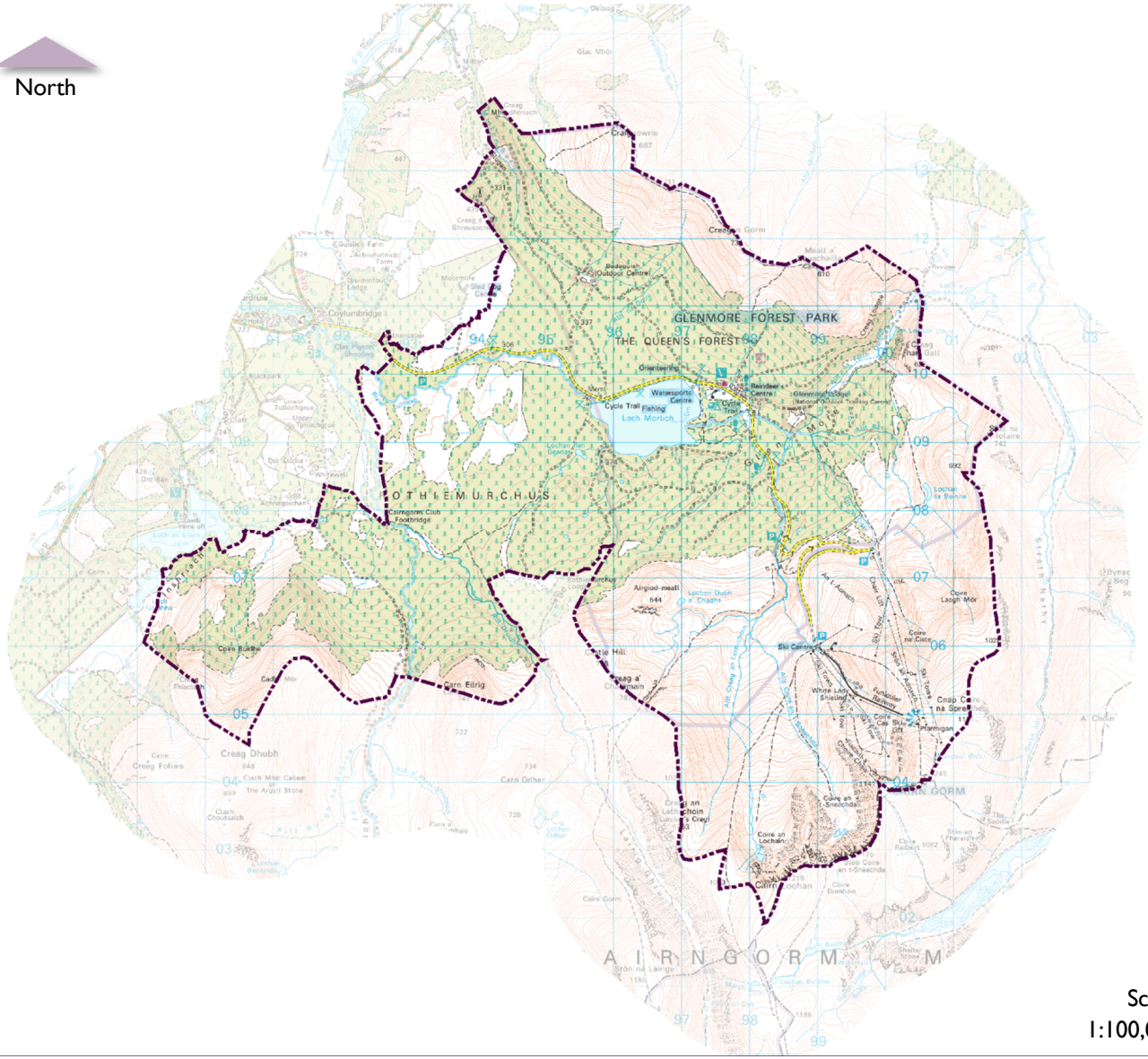
The aims, objectives and proposals of all are directed by the Cairngorm and Glenmore Strategy and all will be subject to this SEA process.

The key facts relating to the proposed Strategy are set out in **Table 1**.

Table 1 Key Facts about the Strategy.

Responsible Authority	Cairngorms National Park Authority (on behalf of Highlands and Islands Enterprise, Forestry Commission Scotland, Scottish Natural Heritage and the Highland Council).
Title of PPS	Cairngorm and Glenmore Strategy.
Purpose of PPS	To set out a long term strategy for the collaborative management of the publicly owned land at Cairngorm and Glenmore.
What prompted the PPS?	The establishment of the Cairngorm and Glenmore Partnership.
Subject (e.g. Planning, transport etc.)	Long term spatial and management planning to deliver conservation, visitor experience and rural development goals.
Summary of the nature / content of PPS	Overarching direction, aim, objectives and goals to guide management and future development of the land holdings including a high level spatial plan.
Period Covered by PPS	5 to 10 years.
Frequency of Updates	5 yearly.
Area covered by PPS	Approximately 74km^2
Map included?	A map of the area is provided on page 9.
Are there any proposed PPS objectives	The objectives and spatial options of the Cairngorm and Glenmore Strategy are provided in Appendix 4.

North



Map of PPS Area

Figure 2 Area covered by the PPS.

Scale:
1:100,000

Policy Context

> *"A plan or programme may be influenced in various ways by other plans or programmes, or by external environmental protection objectives such as those laid down in policies or legislation. These relationships enable the Responsible Authority to take advantage of potential synergies and to deal with any inconsistencies and constraints."*
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

The Cairngorm and Glenmore Strategy must have appropriate regard to a wide range of national and international laws, policy and strategy. A review of Plans, Programmes and Strategies (PPS) has therefore been conducted in accordance with the Scottish Government's SEA Guidance (2013) and the ODPM Guidance on SEA (2005). This is an important part of the SEA process as it ensures the work is consistent with up to date policy, is informed by robust information and also helps in the process of identifying environmental issues, which are discussed further under the **Baseline** section of this report (p. 11).

Review Findings

An updated review of all the PPSs considered is presented in **Appendix 1** of this report. The PPSs are categorised according to their international, national and local scales and are accompanied by information on their purpose, relationships with the Strategy and the SEA Issue they relate to.

The CNPA will need to consider the PPSs that are active at all stages of the SEA process and therefore they will be kept under continual review.

Baseline

> "*Baseline information provides the basis for predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

The Environmental Assessment (Scotland) Act 2005 requires that information should be provided on 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 Cairngorm and Glenmore Strategy operates and the constraints and targets that this context imposes on the Strategy.

Baseline information serves two purposes, it helps to identify the issues on which the SEA should focus, and provides a benchmark against which the performance of the Plan (and the accuracy of any predictions) can be assessed. As well as showing the current situation the baseline data shows where possible the situation in the past and projections for the future, in order to indicate trends. It is important to recognise that where information on trends is available, the extrapolation of trends into the future can change in response to changes in legislation or other interventions.

An environmental baseline for the area potentially affected by the Cairngorm and Glenmore Strategy is presented in **Appendix 2** of this report. The baseline is presented using a topic based approach, which reflects the Issues set out within Schedule 3 of the 2005 Act:

- Topic 1: Climatic Factors (p. 73);
- Topic 2: Air (p. 81);
- Topic 3: Water (p. 85);
- Topic 4: Soil (p. 94);
- Topic 5: Material Assets (p. 104);
- Topic 6: Biodiversity, Fauna and Flora (p. 113);
- Topic 7: Landscape and Cultural Heritage (p. 159); and
- Topic 8: Population and Human Health (p. 176).

While it is recognised that all topics will inter-relate to some degree, it is beyond the scope of this assessment to describe them all in full detail. However, the report does highlight important inter-relationship where they exist and describes their effects under the most relevant topic.

A summary of the baseline may be found in **Table 2**.

Summary of the Environmental Baseline and Main Issues

Table 2 Summary of baseline information and main issues; see Appendix 2 for full details.

SEA Topic	Summary of environmental baseline
Climatic Factors Pages 73 to 80	➢ Historic trends show an increase in minimum and maximum temperatures and rainfall and a reduction in the number of days of frost. ➢ Climate change projections offer a central estimate of a: ➢ 2.4°C increase in mean annual temperature, ➢ 2.7°C increase in mean summer temperature, ➢ 2.1°C increase in mean winter temperature, ➢ 0.07% increase in mean annual precipitation, but with a ➢ 13.5% decrease in mean summer precipitation, and a ➢ 2% decrease in mean winter precipitation. ➢ Per capita carbon emissions in the form of CO_2 are estimated to have decreased from 10.8 tonnes in 2006 to 8.9 tonnes to 2012.
Air Pages 81 to 84	➢ Air quality is relatively high within the Cairngorm and Glenmore area. ➢ No Air Quality Management Areas within the close proximity of the area. ➢ Most air pollution associated with transport, with emissions of PM_{10} and NO_2 highest along the National Park's main roads, with the A9 being the greatest contributor.
Water Pages 85 to 93	➢ The Cairngorm and Glenmore area falls within the River Spey Catchment Area. ➢ The River Spey's water quality is relatively high within National Park. ➢ In 2013 the overall status of the River Spey's waterbodies within and overlapping the Cairngorms National Park was: ➢ 6.7% High, ➢ 48% Good, ➢ 26.7% Moderate,

SEA Topic	Summary of environmental baseline
	➢ 17.3% Poor, and ➢ 1.3% Bad. ➢ 2013 saw: ➢ 10.7% of waterbodies improve in overall status, ➢ 65.3% remain the same, and ➢ 24% degraded in overall status. ➢ Data from the River Spey indicates a general trend for higher annual maximum instantaneous peak flows. ➢ There is insufficient capacity in the water and sewage treatment works that serve the Cairngorm and Glenmore Area to meet the projected level of housing growth over the next 25 years. ➢ Flood risk: there are six proposed Potentially Vulnerable Areas (PVAs) within the River Spey Catchment Area in the National Park. The estimated total average annual cost of damage in these areas is £490,000.
Soil Pages 94 to 103	➢ The Cairngorms National Park does not contain any mapped areas of Prime Agricultural Land. ➢ Around 1,700km^2 of peat soils within the National Park. ➢ Soil erosion represents a risk to soils with high organic content (such as peat) over large areas of the National Park.
Material Assets Pages 104 to 112	➢ The Strategy's area falls within the Cairngorms GCR site which is listed for its exceptional assemblage of pre-glacial, glacial, glaciofluvial and periglacial features. ➢ The Strategy's area's geomorphology is subject to detailed mapping. ➢ Transport infrastructure in the Cairngorm and Glenmore area is very good. ➢ Rail use is on the increase, although the reliance on private transport in the local area remains high.
Biodiversity, Fauna and Flora Pages 113 to 158	➢ Cairngorms National Park is home to 25% of the UK's rare animal, insect, lichen, fungi and insect species. ➢ There are around 1,200 species considered to be important for nature conservation within the National Park. ➢ There are 4 National Nature Reserves (NNRs) within close proximity of the Cairngorm and Glenmores area, covering an area of around 448 km^2.

SEA Topic	Summary of environmental baseline
	➢ There are 10 Sites of Special Scientific Interest (SSSIs) within close proximity of the Cairngorm and Glenmores area, covering an area of around 610 km^2. Of these: ➢ 4 are Biological SSSIs, covering around 57 km^2. ➢ 6 are Mixed SSSI's, covering an area of around 553 km^2. ➢ Of the 10 SSSIs, 6 have at least one notifiable feature that is in unfavourable condition. ➢ There are 9 sites within the Natura 2000 Network within close proximity to the Cairngorm and Glenmore area . Of these: ➢ 3 are Special Areas of Conservation (SACs), covering around 641 km^2. ➢ 6 are Special Protection Areas (SPAs), covering an area of around 1,917 km^2. ➢ 2 SACs have at least one notifiable feature that is in unfavourable condition. ➢ 1 SAC, namely Kinveachy Forest, has no features in favourable condition. ➢ 2 SPAs have at least one notifiable feature that is in unfavourable condition. ➢ 1 SPA, namely Craigmore Wood, has no features in favourable condition. ➢ The Loch Garten RSPB reserve is the only non-statutory designation in close proximity to Cairngorm and Glenmore. ➢ Cairngorms National Park contains the most extensive tracts of Caledonian forest in Britain, with Glenmore Forest being a key site. ➢ Around 32 km^2 of the Cairngorm and Glenmores area's woodlands are identified as being ancient according to SNH's Ancient Woodland Inventory. ➢ Around 12.5 km^2 of this has also been identified as being semi-natural. ➢ Caledonian Pinewood is at threat from habitat loss lack of regeneration, limited deadwood and poor structural diversity. ➢ Capercaillie populations in Scotland have declined significantly from an estimated 20,000 birds in 1970 to around 1,285 at the most recent national winter survey in 2009/10. ➢ The Cairngorms National Park's forests hold a significant proportion of the national Capercaillie population – at least 75% of the national number of lekking males, with the majority in Strathspey.

SEA Topic	Summary of environmental baseline
	➢ The Strathspey capercaillie population is crucial to the long-term survival of the species in the UK. ➢ The Cairngorms National Park's forests are one of the last strongholds for red squirrel and Scottish Wildcat in the UK. ➢ Rivers and lochs and the species they support have been affected by large scale impoundments which have a hydrological impact but also affect sediment dynamics, barriers to fish passage, diffuse and point source pollution and invasive species. ➢ The freshwater pearl mussel is declining dramatically throughout its range, including in the River Spey. Mussel populations have been affected by multiple issues, including wildlife crime, habitat degradation and declining water quality. ➢ The Cairngorms Mountains support a rich arctic montane flora. ➢ Montane and moorland habitat under threat from climate change, trampling, erosion and disturbance. ➢ Upland heathland under threat from drainage issues. ➢ Blanket bog under threat from erosion, which is likely to be a significant cause of carbon emissions. ➢ Montane scrub is under threat from overgrazing and burning.
Landscape and Cultural Heritage Pages 159 to 175	➢ At 4,528 square kilometres, and comprising 6% of Scotland's land area, the Cairngorms National Park is the UK's largest protected landscape. ➢ The Cairngorm and Glenmore area is located within the Cairngorm Mountain National Scenic Area (NSA). ➢ Cairngorm and Glenmore occupy one of the National Park's best known landscapes, being the gateway for many into the area's forests and mountains. ➢ The Strategy area contains the most iconic view in the National Park (the Northern Corries behind Loch Morlich). ➢ Around 21 km^2 of the Cairngorm and Glenmore area has been identified as 'wild land'. ➢ There are 54 National Monument Records within the Cairngorm and Glenmore area. ➢ There are around 370 Gaelic and 5,400 Scots speakers living in the National Park.
Population and	➢ In 2013, the population of the population of the National Park was estimated to be18,420, with 9,113 males and 9,307

SEA Topic	Summary of environmental baseline
Human Health Pages 176 to 195	females. ➢ The National Park has a relatively high proportion of people within the 10 to 29 and 55 to 74 age cohorts. ➢ National Park has a working age population of 10,909 people (51.9% of total population), with 5,666 males and 5,243 females. ➢ Those of pensionable age numbered 4,539 (24.6% of total population) with 1,911 males and 2,628 females. ➢ Since 2001, the National Park has experienced a significant net increase in its resident population, rising by approximately 2,087 persons (a growth of 12.8%). ➢ Greatest rate of population growth occurred in Aviemore, which increased by around 972 people since 2001. ➢ Population projections for the National Park estimate that between 2012 and 2037, the population is projected to rise from 17,540 to 17,660 (an increase of around 1%).[2] ➢ Over the projection period: ➢ Number of children aged under 16 are projected to decrease by 15% from 2012 to 2,460. ➢ The working age population is projected to decrease by 4% from 10,350 to 9,910. ➢ People of pensionable age are projected to rise by 23% from 4,300 to 5,290. ➢ Projections suggest that households are set to increase from 7,870 in 2012 to 8,780 in 2037, an increase of 12%. ➢ The average household size is projected to fall from 2.15 people in 2012 to 1.93 people in 2037. ➢ The Local Development Plan (LDP) identifies land for around 2,000 new dwellings to be delivered over the next 30 years within 10 km of the Cairngorm and Glenmore area. ➢ In 2013 the estimated population of Data Zone S01003751area was 1,089, with 575 males and 514 females. This population includes part of Aviemore, which is not covered by the Strategy. ➢ Based on average household size and the number of properties within the Cairngorm and Glenmore area itself, only around 26 of these are likely to live within the area actually covered by the Strategy. ➢ The area has a significantly higher proportion of people falling within the 20 to 34 age cohorts, notably among males ➢ Mid-Year estimates suggest that between 2001 and 2013, the area's population of saw a net grown of around 140

[2] See **Appendix 3** (p. 196) for an explanation of the difference between the estimated 2013 population and the estimated 2012 and projected 2037 populations.

SEA Topic	Summary of environmental baseline
	individuals (13%). ➢ Around 84.3 of the area's 16+ Census population had NVQ1 level and above (CNP 76.8%; Scotland 73.2%), and around 36.6% had NVQ4 and above (30.8%; Scotland 26.1%). ➢ Around 96% of people in the area classed as being economically active were in employment in 2011, which is slightly higher than the Scottish level of 91.9%. ➢ The level of full time (77.3%) and part time (22.7%) employee jobs in the area (excludes self-employed, government, trainees and HM Forces), which is a higher level of full time employment than across either the CNP or Scotland as a whole. ➢ Unemployment levels are low in the area and generally consistent with the situation across the National Park. ➢ Gross median wage is likely to be relatively low in the area, but gross household income is above the Scottish median. ➢ Estimated life expectancy of the area is 79.2 for males and 82.6 for females. ➢ Low levels of people with long term health problems or disabilities and high levels of people with good health within the area and National Park as a whole. ➢ Extensive public footpath network, including 1,073km of Core Path across the whole National Park. ➢ The Strategy area contains the largest and most popular bathing beach in the National Park. ➢ Cairngorm and Glenmore are popular tourist destinations and attract around 1,000,000 per year.

Environmental Assessment

SEA Objectives

> "*The review of relevant environmental objectives can be used to construct a framework of objectives against which a plan can be assessed. This can identify whether a plan supports wider environmental objectives or whether there are any environmental gaps.*"
>
> SEA Guidance
> (Scottish Government, 2013)

This section of the Environmental Report sets out the CNPA's approach to assessment of the Cairngorm and Glenmore Strategy.

SEA Objectives have been developed as a result of the review of PPS (**Policy Context**, p. 10) and baseline information (**Baseline**, p. 11) as well as the responses to the consultation on the Scoping Report (**Appendix 5**, p. 217). Identifying objectives is an important part of the SEA process as these will be used as the primary tool for testing the emerging Strategy to ensure it will not result in any significant environmental effects.

The SEA Objectives are thematically based and are designed to cover the environmental assets that the Strategy could potentially affect. It is important to recognise that environmental effects are rarely confined to a single issue, therefore it has been highlighted where significant inter-relationships occur. The SEA Objectives therefore represent the scope of the assessment that will be undertaken to identify potential environmental effects of the Strategy.

It is important that the assessment process is proportional, practical and manageable. Consequently, the assessment process will utilise the 'main' SEA Objectives, but take account of the SEA Sub-Objectives. This distinction is important to ensure the assessment work is practical and achievable. It should also be noted that not all SEA Sub-Objectives will be relevant to every aspect of the Strategy. Therefore, in the interest of proportionality, where they are not relevant, they will not be considered as part of the assessment process.

The Objectives and their relationship with the SEA Issues identified for the National Park are outlined in **Table 3**, along with any associated sub objectives. The main objectives have been tested for their compatibility with one another, the findings of which can be found in the section on the **Compatibility of Objectives** (p. 25). The framework in which they will be utilised is set out on page 27.

Table 1 SEA Objectives and Sub-objectives.

SEA Topic	No.	SEA Objective	SEA Sub-objectives	Inter-relationships
Climatic Factors	1a	Reduce greenhouse gas emissions	➢ Reduce the emissions of greenhouse gases with particular focus on emissions from buildings, transport, energy generation and industry (especially CO_2). ➢ Encourage energy conservation and higher energy efficiency. ➢ Encourage investment in cleaner technologies. ➢ Support investment in suitable renewable energy sources. ➢ Decouple increase in GDP and greenhouse gas emissions. ➢ Encourage the appropriate local sourcing of materials, resources and food produce.	➢ Air ➢ Water ➢ Soil ➢ Material Assets ➢ Population and Human health
	1b	Increase resilience to the effects of climate change	➢ Ensure that new development is appropriately located, having considered the potential effects of future climate conditions. ➢ Ensure infrastructure and buildings are designed to cope with future climate conditions. ➢ Encourage climate change adaptation through green infrastructure. ➢ Encourage existing infrastructure and buildings to adapt to cope with future climate conditions.	➢ Water ➢ Soil ➢ Landscape and Cultural Heritage ➢ Biodiversity, Fauna and Flora ➢ Population and Human health

SEA Topic	No.	SEA Objective	SEA Sub-objectives	Inter-relationships
Air	2	Protect and enhance air quality	➢ Reduce levels of the UK National Air Quality pollutants (e.g. NO_2, PM_{10}, SO_2). ➢ Reduce levels of ground-level ozone (O_3). ➢ Reduce the need for travel, through appropriate siting of new developments and provision of public infrastructure. ➢ Reduce negative effects of power generation, industry and transport on local air quality. ➢ Contribute towards reducing levels of stratospheric ozone depletions. ➢ Encourage appropriate cleaner technology for power generation, industry and transport. ➢ Reduce levels of acid deposition. ➢ Reduce levels of ammonia deposition.	➢ Water ➢ Soil ➢ Biodiversity, Fauna and Flora ➢ Population and Human health
Water	3a	Reduce flood risk	➢ Safeguard the functional floodplain. ➢ Encourage the restoration of a natural flood regime. ➢ Ensure new development is not located in areas of high or medium flood risk. ➢ Ensure new development does not increase flood risk on site or elsewhere. ➢ Increase the use of sustainable drainage systems (SuDS) in both new and refurbished developments. ➢ Avoid loss of soils to non-permeable surfaces. ➢ Reduce reliance on flood mitigation and hard engineered solutions. ➢ Increase provision to manage stormwater.	➢ Climatic factors ➢ Soil ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage ➢ Population and Human health

SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
	3b	Maintain and improve the quality of water resources	➢ Ensure the water quality of rivers, lochs and ground-water is maintained or improved. ➢ Maintain and improve the ability of river catchments to store water. ➢ Conserve public water supply. ➢ Reduce demand for water and minimise unnecessary water use. ➢ Reduce diffuse pollution from urban and rural areas. ➢ Limit land use related pollution (particularly nitrates) on water resources.	➢ Climatic factors ➢ Soil ➢ Material Assets ➢ Biodiversity, Fauna and Flora ➢ Population and Human health
Soil	4	Minimise contamination and safeguard and improve soil and peat quality.	➢ Maintain or improve the productive capacity of soils. ➢ Maintain or improve the ability of farmland in the Park to sustainably produce high quality local and seasonal food. ➢ Avoid increased diffuse pollution, particularly SO_2 and NO_2 emissions and nitrate pollution from agriculture and other economic activities. ➢ Protect and enhance soil quantity (including non-chemical soil functions and processes such as permeability) and quantity, especially of carbon rich soils. ➢ Maintain or improve the carbon storage capacity of peat and soils. ➢ Avoid and reduce contamination of soils. ➢ Promote the regeneration and redevelopment of brownfield and contaminated land. ➢ Take account of soil function. ➢ Minimise soil erosion. ➢ Minimise soil sealing. ➢ Minimise soil compaction.	➢ Climatic factors ➢ Water ➢ Material Assets ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage ➢ Population and Human health

SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
Material Assets	5	Encourage the sustainable use and reuse of material assets	➢ Promote decoupling of resource use from economic prosperity. ➢ Encourage sustainable use of natural resources e.g. water, timber, aggregates. ➢ Minimise the use of finite resources and promote higher resource efficiency and the use of secondary and recycled materials. ➢ Promote the waste hierarchy of reduce, reuse and recycle. ➢ Value, conserve and enhance geodiversity.	➢ Climatic factors ➢ Air ➢ Water ➢ Soil ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage ➢ Population and Human Health
Biodiversity, Fauna and Flora	6a	Value, conserve and enhance biodiversity, distinctive wild species and habitats	➢ Protect the integrity of European sites, proposed European sites and listed Ramsar sites, and to conserve or, where not at a favourable conservation status, enhance their interest features. ➢ Avoid damage or fragmentation of designated sites, habitats and protected species and encourage their enhancement and connection. ➢ Conserve and enhance the viability and diversity of distinctive species and habitats and their connectivity. ➢ Conserve, enhance and create appropriate wildlife habitats and wider biodiversity within and outwith settlements. ➢ Encourage innovative methods of producing biodiversity gain for both new and existing developments. ➢ Reduce the ecological footprint of the Cairngorms National Park. ➢ Enable people to access and appreciate the Cairngorms National Park's natural heritage.	➢ Climatic factors ➢ Air ➢ Water ➢ Soil ➢ Material Assets ➢ Landscape and Cultural Heritage ➢ Population and Human Health

SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
	6b	Maintain and improve the sustainable management of woodland for multiple benefits	➢ Maintain or improve the carbon storage capacity of woodland. ➢ Enhance the ecological functioning of woodland at a landscape scale. ➢ Avoid the loss of ancient woodland and veteran trees. ➢ Protect and enhance the environmental services woodland provide (e.g. flood alleviation and pollution mitigation). ➢ Protect and promote the recreational, cultural, landscape and economic value of woodland.	➢ Climatic factors ➢ Air ➢ Water ➢ Soil ➢ Material Assets ➢ Landscape and Cultural Heritage ➢ Population and Human Health
Landscape and Cultural Heritage	7	Protect and enhance the character, diversity and special qualities of the National Park's landscape and cultural and historic heritage	➢ Work towards creating landscapes that are ecologically functional. ➢ Minimise the loss of wildness. ➢ Reduce light pollution. ➢ Value, protect and enhance the historic and cultural environment and its assets. ➢ To promote high quality design based on a comprehensive understanding of landscape character and distinctiveness. ➢ Protect and enhance townscape and respect the existing pattern, form and setting of settlements.	➢ Climatic Factors ➢ Material Assets ➢ Biodiversity, Fauna and Flora ➢ Population and Human health

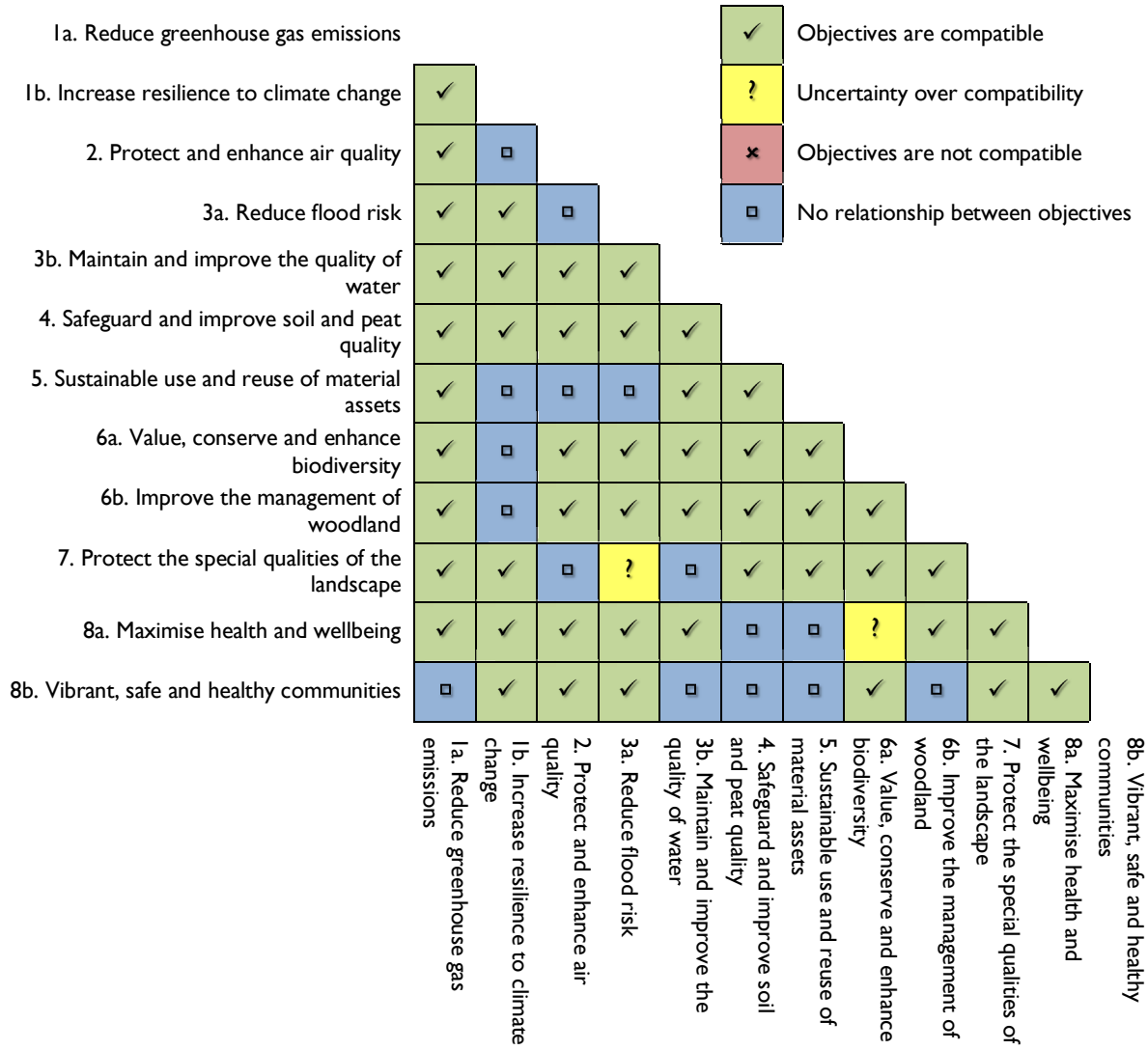
SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
Population and Human Health	8a	Promote opportunities that maximise the health and wellbeing of local people, visitors and communities	➢ Maintain the recreational value of the Cairngorms National Park. ➢ Promote and maintain opportunities for people to enjoy physical recreation and lead healthy lifestyles. ➢ Encourage walking or cycling as an alternative means of transportation. ➢ Empower people to experience, learn about and share the Cairngorms National Park's historic, cultural and natural heritage. ➢ Promote the improvement and maintenance of social and physical environments / facilities that provide opportunities to enhance health and wellbeing.	➢ Landscape and Cultural Heritage ➢ Population and Human Health
	8b	Support vibrant, safe and healthy communities	➢ Ensure the population and household growth is accommodated in appropriate locations. ➢ Ensure a suitable affordable housing stock is available to meet needs. ➢ Promote the design of settlements that improve social fabric by removing barriers and creating opportunities for positive interactions. ➢ Promote the inclusion of disadvantaged and minority groups. ➢ Redress imbalances of inequality, deprivation and exclusion. ➢ Provide easy access to high quality facilities and services. ➢ Ensure that adequate healthcare premises are provided throughout the National Park. ➢ Reduce burden of ill-health in the population. ➢ Reduce the causes of accidents. ➢ Ensure the quality of the built environment complements the high quality natural environment.	➢ Climatic factors ➢ Air ➢ Water ➢ Soil ➢ Material Assets ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage ➢ Population and Human Health

Compatibility of SEA Objectives

> "*It may be useful to test the internal compatibility of the SEA objectives... There may be tensions between objectives that cannot be resolved: the compatibility assessment will clarify these so that subsequent decisions are well based, and mitigation or alternatives can be considered.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

The SEA Objectives identified in **Table 3** have been tested for compatibility in accordance with the guidance as set out by the ODPM. A matrix approach has been used which is consistent with this guidance. The results of the compatibility assessment are summarised in **Figure 3**. Only the 'main' objectives have been considered as part of the compatibility test, since the sub-objectives effectively feed into these.

Figure 3 Compatibility assessment between SEA objectives (abridged).



As can be seen from **Figure 3**, a large number of the SEA objectives are either compatible with each other, or there is no relationship between them. Where there is no relationship between objectives this means they can be achieved simultaneously without conflict. However, there is uncertainty between the compatibility of some objectives, namely 3a and y and 6a an 8a. The potential for incompatibility has been considered and it is not considered to be likely or to result in any significant adverse effects.

Likely changes to the environment in the absence of a Strategy

> "*It is important to be aware that baselines will change over time under 'no plan or programme' and 'business as usual' alternatives, as well as under new plans or programmes.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

In forecasting the 'business as usual', or 'without the plan' scenario it is first necessary to determine what that means. In the case of the Cairngorm and Glenmore area, the absence of a Strategy is taken to mean the continued implementation of overarching Plans such as the National Park Partnership Plan (NPPP) 2012-2017 and Local Development Plan (LDP) 2015. While these Plans, along with the other PPS listed in **Appendix 1** (p. 50), provide an overall framework in which all decisions affecting the National Park should be made, they do not provide means of delivering co-ordinated local-level improvements to the Cairngorm and Glenmore area itself. Therefore, in a business as usual scenario, the aims and objectives of the landowners and businesses that operate in the area are more likely to be delivered in an ad-hoc manner that is more likely to result in conflicting interests being pursued without heed for one another.

The Environmental effects of this interpretation are forecast in in the context of the SEA Objectives (**Table 4**). The SEA Objectives have been chosen as a context for this exercise because:

- They provide the context against which the likely effects of the Plan have been assessed; and
- They provide the proposed framework for SEA monitoring.

Development of the Cairngorm and Glenmore Strategy Objectives and Options

In seeking to develop a coherent and effective strategy for Cairngorm and Glenmore, a range of objectives and options were considered for the improvement of the area's visitor experience.

The main issues to address included the improvement of visitor attractions and infrastructure at Glenmore and the regeneration of the facilities at Cairngorm Mountain.

The objectives and options have been developed in partnership with Highlands and Islands Enterprise, Forestry Commission Scotland, Scottish Natural Heritage, the Highland Council and Natural Retreats.

Table 4 Likely environmental changes in the absence of a Strategy.

SEA Objective	Business as Usual Scenario
1a Reduce greenhouse gas emissions	In the absence of the Strategy the NPPP and LDP will continue to direct development to the most appropriate locations and promote sustainable development. However, visitor numbers are likely to increase and thus there is likely to be the need to promote sustainable travel and ensure that on-site facilities are energy and resource efficient. The facilities of the area will still require upgrading and in the absence of a Strategy, it is likely that opportunities to share resources or develop community heat and renewable energy projects may be missed. It is likely therefore, that in the absence of a Strategy, a reduction in local greenhouse gas emissions will be harder to achieve.
1b Increase resilience to the effects of climate change	Policy 3 of the LDP (2015) would require any new development to sustainably designed and therefore resilient to the effects of a changing climate. However, in the absence of a Strategy, opportunities do develop comprehensive adaptation measures may be lost, particularly with regard to the development of infrastructure to manage growing visitor numbers.
2a Protect and enhance air quality	Even without the Strategy it is likely that Cairngorm and Glenmore will see an increase in visitor numbers and therefore there is likely to be an impact on air quality due to the majority of visitors to the area using private motor vehicles as a means of access. Since one of the Strategy's aims is to better integrate the Cairngorm and Glenmore area with the local and national cycle path network, its absence would lead to a reduction in the ability of partners to manage negative effects, as such projects cannot be delivered effectively when managed in an ad-hoc basis.
3a Reduce flood risk	It is unlikely that anywhere within the Cairngorm and Glenmore area will be at significant risk of flooding, however, land-use activity such as deforestation can have a significant impact on the water cycle leading to flooding elsewhere in the river catchment. The Strategy will more easily enable those with an interest in forestry to co-ordinate their activity, thus reducing the likelihood of negative effects.

SEA Objective	Business as Usual Scenario
3b Maintain and improve the quality of water resources	Water quality within the broader River Spey is generally good and the NPPP and LDP are designed to protect and where possible enhance it. Land management activities within the Cairngorm and Glenmore area, such as those related to forestry or moorland, can have a negative effect on water quality. The Strategy provides a framework for these uses to be carried out in a coordinated fashion. In its absence therefore, there is a greater likelihood of negative effects occurring.
4 Minimise contamination and safeguard and improve soil and peat quality.	The absence of a Strategy would mean that development in the Cairngorm and Glenmore are would be delivered in an uncoordinated way. There is therefore an increased chance that land will be used less efficiently, resulting in a greater level of soil sealing and a loss in permeability. Uncoordinated forestry and moorland management practices may also have negative effects, particularly with regard to soil erosion or the loss of carbon rich soils such as peat.
5 Encourage the sustainable use and reuse of material assets	The NPPP and LDP both encourage the sustainable use of resources; however in the absence of a coordinated approach to development, opportunities for the reduction, reuse or recycling of materials may be lost. Coordinated development may also offer opportunities to make more efficient use of natural resources, such as water, timber and aggregates, which may also be lost if a Strategy were no in place.
6a Value, conserve and enhance biodiversity, distinctive wild species and habitats	The area is protected by many tiers of protected site and even in the absence of a Strategy, development and land management practices would still have to meet the requirements of Natura legislation. However, where the Strategy may benefit is through the implementation of coordinated compensation, mitigation and enhancement measures associated with the development of the site. In its absence it is likely that the benefits of such measures would not be maximised resulting in an increased chance that their implementation would either duplicate efforts or leave gaps in coverage.
6b Maintain and improve the sustainable management of woodland for multiple benefits	With around 40% of the Cairngorm and Glenmore area covered by woodland, much of which is protected by some form of nature designation, it is vitally important that the development and management of the area takes its function and benefits into account. Since most of the woodland is in the ownership of Forestry

SEA Objective	Business as Usual Scenario
	Commission Scotland and managed for conservation purposes, it is likely that this would occur even in a no-plan scenario.
7 Protect and enhance the character, diversity and special qualities of the National Park's landscape and cultural and historic heritage	As one of the most important landscapes in the National Park and located within the Cairngorms National Scenic Area, the Cairngorm and Glenmore area is offered a high degree protection. The Strategy however, offers the means to coordinate development meaning that design and landscaping can be considered holistically. The absence of the strategy may therefore mean that this ability and the chance to maximise benefits is lost.
8a Promote opportunities that maximise the health and wellbeing of local people, visitors and communities	As one of the National Park's most visited destinations, which is well used by both local people and tourists, the development of the Cairngorm and Glenmore area has the potential for some significant social effects. In the absence of a Strategy, it will be unlikely that opportunities for benefits could be maximised, particularly in relation to the overall visitor experience of the area.
8b Support vibrant, safe and healthy communities	As one of the National Park's most visited destinations, the development of the Cairngorm and Glenmore area should promote safe and easy access to the environment. The facilities of the area should also promote accessibility and reflect the high quality of the natural environment. While the NPPP and LDP promote these things, the absence of a Strategy would mean that opportunities to properly integrate facilities and maximise benefits would be lost.

Compatibility of Strategy Objectives with SEA Objectives

> "*The objectives of the plan or programme will need to be tested against the SEA objectives to identify both potential synergies and inconsistencies. This information may help in developing alternatives during the development of the plan or programme, and may in some cases help to refine the objectives of the plan or programme itself. Where a plan or programme has several objectives it may also be helpful to test them against each other, as inconsistencies may give rise to adverse environmental effects.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

The Objectives for the Cairngorm and Glenmore Strategy were assessed for their compatibility with the SEA Objectives (**Table 5**). That is to say, are the steps necessary to pursue the Strategy's Objectives likely to be the same as those that would arrive at the SEA Objectives? Unlike the SEA, which assesses whether the Strategy's Objective will contribute (or not) to meeting the SEA's Objective, this assessment also allows the reverse consideration, i.e. will pursuing the SEA Objective help in pursuing the Strategy Objective.

The compatibility of the objectives was assessed using the following criteria:

✓	Objectives are compatible
?	Uncertainty over compatibility
×	Objectives are not compatible
□	No relationship between objectives

For the purposes of legibility, abridged versions of the objectives have been used in the assessment. Full versions of the SEA Objectives may be found in **Table 3** (p. 19). Full versions of the Strategy Objectives can be found in **Appendix 4**.

Generally the Strategy Objectives were found to be compatible with the SEA Objectives; the few exceptions usually reflect an uncertainty on how the objective might be expressed in particular circumstances. Some question marks as to the compatibility of objectives also arise from the fact that pursuing one Strategy or SEA Objective, without heed to the others could result in success in one to the detriment of another. For instance goals for enhancing the visitor experience may result in harm to landscape and biodiversity if development is allowed to become too great.

Key Messages from the Compatibility Appraisal

The Strategy's objectives generally scored well in the appraisal and although a number of uncertainties were identified, none of the objectives were found to be incompatible with the SEA Objectives.

Table 5 Compatibility assessment between SEA Objectives and Strategy Objectives (abridged).

Objectives		SEA Objectives											
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.
Strategy Objectives	Enhance habitats and species conservation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□
	Enhance the Visitor Experience	?	?	?	?	?	?	✓	?	✓	✓	✓	✓
	Support and enhance the regional economy	?	?	?	□	?	?	✓	?	?	?	✓	✓
	Create outdoor learning opportunities	□	□	□	□	□	✓	✓	✓	✓	✓	✓	✓

Objectives		SEA Objectives											
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.
Glenmore Visitor Improvement Plan Objectives	4.1 Enhance the sense of arrival	◻	✓	✓	◻	◻	◻	✓	✓	✓	✓	✓	✓
	4.2a Create a new or improved visitor hub	✓	✓	◻	✓	✓	?	✓	✓	✓	✓	✓	✓
	4.2b Implement new SYHA hostel	✓	✓	◻	◻	◻	◻	✓	✓	✓	✓	✓	✓
	43.a Improve access to the path network	◻	◻	✓	◻	◻	?	✓	✓	✓	✓	✓	✓
	4.3b Improve pedestrian access between facilities	◻	◻	✓	◻	◻	?	✓	✓	✓	✓	✓	✓
	4.3c Manage visitors & support capercaillie	✓	✓	✓	✓	✓	✓	◻	✓	✓	✓	✓	✓

Objectives	SEA Objectives											
	1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.
4.4a Make understanding parking simpler	?	?	?	◻	◻	?	✓	◻	◻	◻	✓	✓
4.4b Reduce roadside parking	?	?	✓	◻	✓	✓	✓	✓	✓	✓	✓	✓
4.5a Open up strategic views by targeted felling	?	?	◻	?	?	?	✓	✓	✓	✓	✓	✓
4.5b Improve design quality	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Objectives / Options		SEA Objectives											
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.
Cairngorm Mountain Dev. Plan Objectives	Improve visitor experience	◻	✓	✓	◻	◻	◻	✓	✓	◻	✓	✓	✓
	Improve non-winter offerings	◻	✓	✓	◻	◻	?	✓	✓	◻	✓	✓	✓
	Improve quality and diversity of offering	◻	◻	◻	◻	◻	?	◻	?	◻	✓	✓	✓
	Increase visitor numbers	?	?	?	◻	◻	?	◻	?	◻	?	✓	✓
	Create meeting, conference & event space	?	?	?	◻	◻	?	✓	◻	◻	◻	✓	✓

Evaluating the effects of the Objectives and Options

> "*Evaluation involves forming a judgement on whether or not a predicted effect will be environmentally significant.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

The objectives and options for the Cairngorm and Glenmore Strategy were assessed for their likely effects in relation to the SEA Objectives. That is to say, are the steps necessary to pursue the Strategy likely to have an effect on the aims of the SEA Objective?

This stage of the SEA involves:

- Predicting the effects of the plan or programme, including alternatives;
- Evaluating the effects of the draft plan or programme, including alternatives;
- Considering ways of mitigating adverse effects; and
- Proposing measures to monitor the environmental and sustainability effects of plan or programme implementation.

A summary of the assessment of the options and recommendations is shown in **Table 6**. The full appraisal matrices are included in **Appendix 7**.

The assessment was carried out using the following criteria:

++	Option would have a major positive effect.
+	Option would have a minor positive effect.
?	Effect of Option is uncertain.
□	Option would have no predicted effects or no site specific effects.
-	Option would have a minor adverse effect.
--	The Option would have a major adverse effect.

A full outline of the assessment criteria can be found in **Appendix 6**.

Radar graphs have been provided as a summary of the assessment for each objective and option. **Figure 4** provides they key to these.

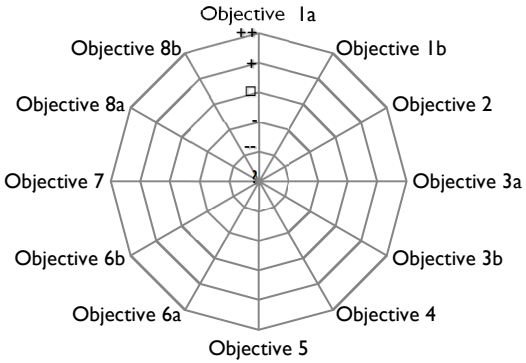
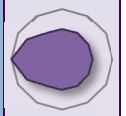


Figure 4 Key to radar graphs.

Table 6 Summary of Strategic Environmental Assessment. See Appendix 7 for full details.

Objective / Option		SEA Objectives												
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.	Summary of assessment
Cairngorm & Glenmore Strategy	Enhance habitats and species conservation	+	+	+	+	+	+	□	++	+	+	+	+	
	Enhance the Visitor Experience	?	+	?	?	□	□	?	+	+	+	++	+	
	Support and enhance the regional economy	-	?	-	?	?	?	?	-	?	?	+	++	
	Create outdoor learning opportunities	□	□	□	□	□	□	+	+	+	+	+	+	

Objective / Option		SEA Objectives												
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.	Summary of assessment
Glenmore Visitor Improvement Plan	4.1 Enhance the sense of arrival	+	□	+	□	□	□	□	+	+	+	+	++	
	4.2a Create a new or improved visitor hub	+	+	□	?	□	?	?	□	□	+	+	++	
	4.2b Implement new SYHA hostel	+	+	□	?	□	?	?	□	□	?	+	++	
	43.a Improve access to the path network	+	□	+	□	□	□	□	+	+	+	++	++	
	4.3b Improve pedestrian access between facilities	+	□	+	□	□	□	□	+	+	+	++	++	
	4.3c Manage visitors & support capercaillie	□	□	□	□	□	□	□	++	+	+	+	□	

Objective / Option		SEA Objectives												
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.	Summary of assessment
Glenmore Visitor Improvement Plan	4.1 Enhance the sense of arrival	+	□	+	□	□	□	□	□	□	+	+	+	
	4.4b Reduce roadside parking	+	□	+	□	□	□	□	+	+	+	+	+	
	4.5a Open up strategic views by targeted felling	□	□	□	□	□	□	□	□	+	++	+	□	
	4.5b Improve design quality	+	+	□	?	□	?	?	+	+	+	+	+	
	Spatial Option 1 : New Cairngorm Lodge	+	+	□	□	□	-	?	?	□	?	□	□	
	Spatial Option 2 : Old Logging Way (Eastern Access)	+	+	□	□	□	-	□	?	□	+	□	□	

Objective / Option	SEA Objectives												
	1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.	Summary of assessment
Spatial Option 3 : Central Place	+	+	□	□	□	-	□	?	□	-	□	□	
Option 4 : Central Hub	+	+	□	□	□	-	□	?	□	+	□	□	

Objectives / Options		SEA Objectives												
		1a Reduce greenhouse gas emissions	1b. Increase resilience to climate change	2. Protect and enhance air quality	3a. Reduce flood risk	3b. Maintain and improve the quality of water	4. Safeguard and improve soil and peat quality	5. Sustainable use and reuse of material assets	6a. Value, conserve and enhance biodiversity	6b. Improve the management of woodland	7. Protect the special qualities of the landscape	8a. Maximise health and wellbeing	8b. Vibrant, safe and healthy communities.	Summary of assessment
Cairngorm Mountain Dev. Plan Objectives	Improve visitor experience	?	+	-	□	□	□	□	?	□	+	++	+	
	Improve non-winter offerings	?	□	-	□	□	□	□	-	□	?	++	?	
	Improve quality and diversity of offering	?	□	-	□	□	□	□	?	□	?	++	+	
	Increase visitor numbers	?	□	-	□	□	□	□	-	□	?	++	+	
	Create meeting, conference & event space	?	+	?	□	□	□	□	□	□	+	□	+	
	Cairngorm Mountain Masterplan	?	+	-	?	?	?	?	?	?	?	++	+	

Evaluation of Glenmore Visitor Improvement Plan Spatial Options

The preferred spatial option for the Glenmore Visitor Improvement Plan has not been decided upon and is open to consultation. It is therefore worth considering the four options in isolation to the Cairngorm and Glenmore Strategy's other objectives.

The assessment demonstrates that in environmental terms there is in fact very little difference between the options under consideration (**Figure 5** to **Figure 8**). Indeed, in many instances it has not been possible to distinguish between them. For example, minor negative effects are predicted in relation to soil for each option, as all four will result in some level of soil sealing. The minor nature of the effects are not however do not cause particular concern.

For SEA Objectives 8a and 8b, no site specific effects were identified, as the effects do not relate to the configuration of the site, but the broader aims of the

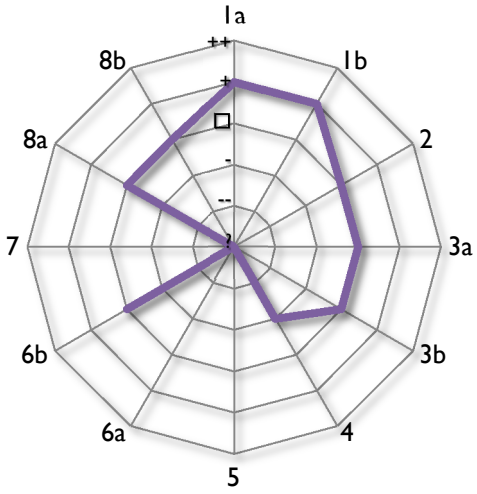


Figure 5 Performance of Spatial Option 1: New Cairngorm Lodge against SEA Objectives.

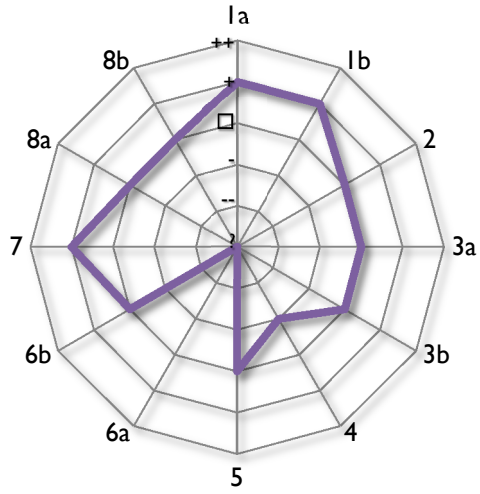


Figure 6 Performance of Spatial Option 2: Old Logging Way (Eastern Access) against SEA Objectives.

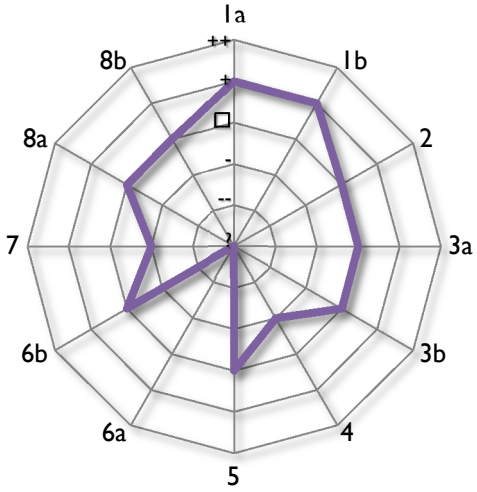


Figure 7 performance of Spatial Option 3: Central Place against SEA Objectives.

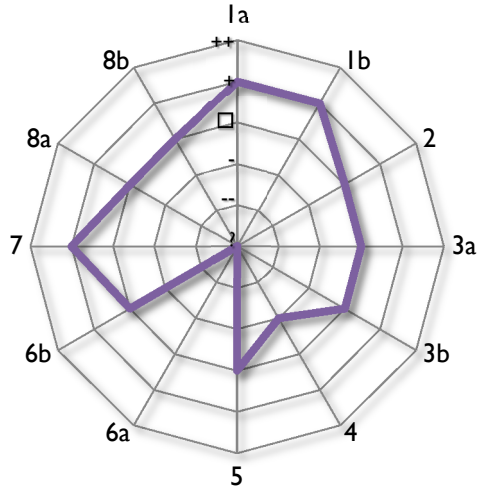


Figure 8 Performance of Spatial Option 4: Central Hub against SEA Objectives.

Cairngorm and Glenmore Strategy and Glenmore Visitor Improvement Plan.

Only SEA Objective 7, which deals with landscape and the cultural and historic environment, offers contrasting positive and negative effects, both of which are minor in nature. The negative effect predicted for Spatial Option 3 is also readily mitigatable and therefore it does not raise particular concern.

In conclusion, owing to the similarity of options under consideration, the SEA does not offer a means of selecting one above another. Neither however, does it suggest that any should be discounted and they are therefore reasonable proposals for the purpose of public consultation.

Assessing Cumulative Effects of the Cairngorm and Glenmore Strategy

> "*Many environmental problems result from the accumulation of multiple small and often indirect effects, rather than a few large and obvious ones.*"
>
> A Practical Guide to the SEA Directive (ODPM, 2005)

It is a requirement of the SEA Directive that the effects of Strategy's objectives and spatial options are assessed in combination with other Strategy elements (as opposed to in isolation) (**Table 7**, **Figure 9**, **Figure 10** and **Figure 11**). These combined effects are called cumulative effects; effects that arise due to the addition of the effects of a number of elements to produce a greater effect; and synergistic effects; those that arise from an interaction of the effects of objectives, and can be thought of as effects that are greater than the sum of the parts.

It is important to note that in isolation, no significant adverse effects were identified by the assessment. However, consideration needs to be given as to whether or not significant in cumulative effects might arise from the 15 predicted minor adverse effects identified in the assessment.

The adverse effects cluster around certain Strategy objectives / options and certain SEA Objectives. SEA Objective 2 to protect and enhance air quality returns the greatest number of minor adverse effects (six in total). Most of these are associated with the Cairngorm Mountain Development Plan and essentially arise from the same problem – the likely increase in particulate and nitrate emissions from an increase in car journeys. Since each assessment is effectively identifying the same effect, cumulative effects will not arise. It's also worth noting that all air quality objectives within the National Park are currently being met and therefore the effect on air quality is unlikely to become significant.

Three minor adverse effects are identified against SEA Objective 6a to value, conserve and enhance biodiversity.

These all relate to the expected increase in visitor numbers to Cairngorm and Glenmore, particularly in the summer months when species, such as ground nesting birds like capercaillie, are at their most sensitive. Again, because they all relate to the same overall issue, significant cumulative effects are unlikely to arise. Furthermore, the mitigation measures, such as the implementation of the Capercaillie Framework (2015) are already built into the Strategy.

As previously highlighted, several minor adverse effects are predicted in relation to SEA Objective 4 to safeguard and improve soil and peat quality. These are all associated with the spatial options for the Glenmore Visitor Improvement Plan and therefore only represent one effect, which will occur on implementation of one of the options. Cumulative effects will therefore not arise in relation to these.

Of all the Strategy's options and objective, the objective to support and enhance the regional economy gained the most adverse

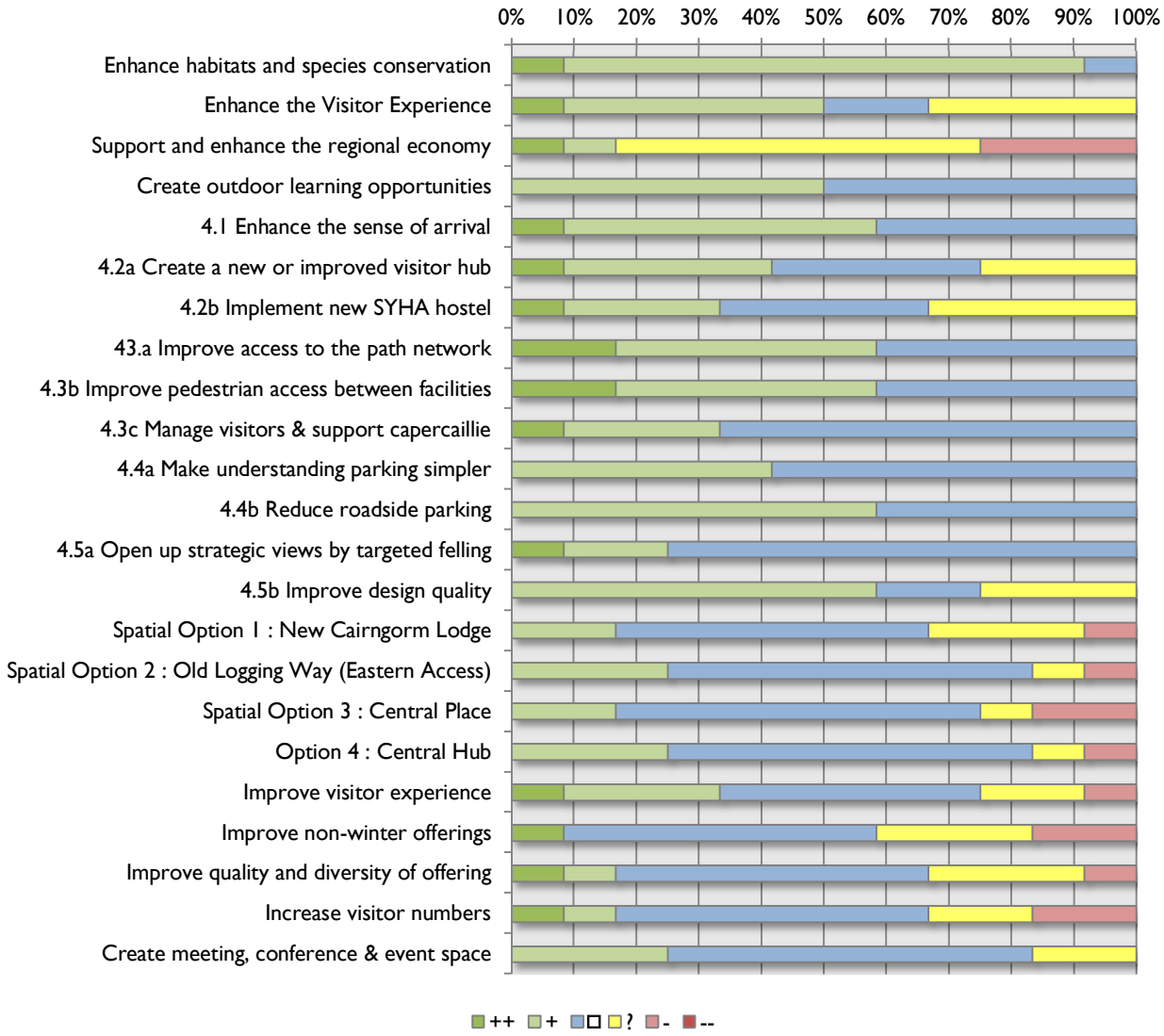


Figure 9 Summary of assessment by Strategy Objective and Option.

effects (three in total). These relate to increases in GHG emissions, adverse effects on air quality and adverse effects on biodiversity, fauna and flora. The former two issues arise from the same cause – the predicted increase in private motor vehicle journeys resulting from an increase in visitors. The latter issue relates to the effects of an increased number of visitors during the summer months and their impact on sensitive species; the rationale behind why this is unlikely to result in cumulative significant effects has already been laid out in this section. Cumulatively therefore, the Strategy's objective is not likely to cause significant adverse effects.

Indeed, the Strategy's cumulative effects are more likely to be positive in nature, with the benefits of increased opportunities for recreation and positive social interaction likely to have significant positive effects on human health and wellbeing.

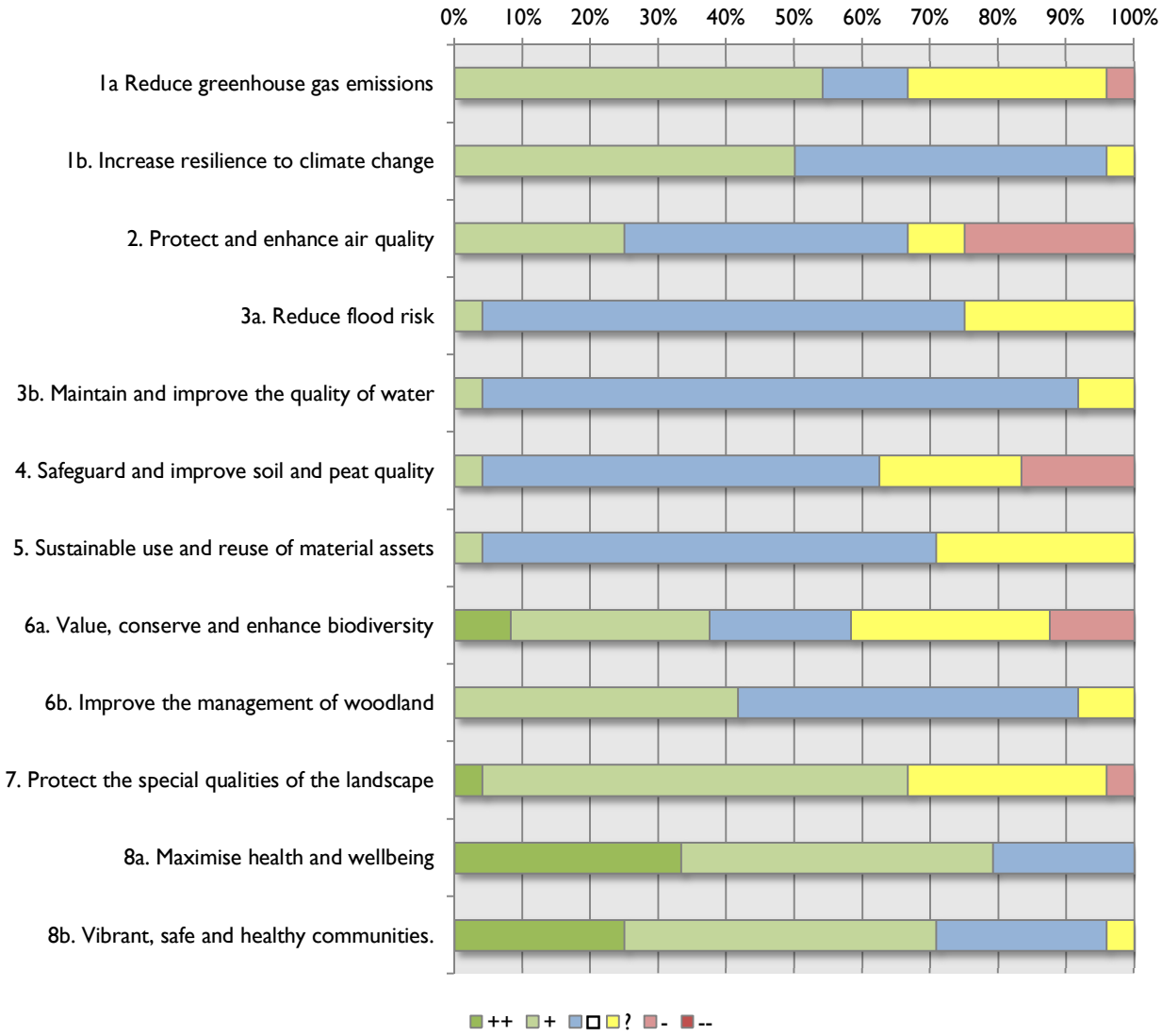


Figure 10 Summary of assessment by SEA Objective.

Evaluation of the Cairngorm and Glenmore Strategy's Uncertainties and Risks

Although some objectives and options score negatively against one or more SEA Objective, the implementation of mitigation measures can help alleviate, if not neutralise some of these effects. It is worth noting that all potential adverse effects are only minor in nature, with no significant adverse effects having been identified.

The Strategy's Objective to Support and enhance the regional economy had the highest number of predicted negative impacts. The basis for this is that economic growth is likely have some adverse environmental effects, as increases in footfall and energy demand lead to an increase in GHG emissions, possible decreases in air quality and additional pressures on biodiversity.

Despite these impacts, measures have been designed into the Strategy's objective with an aim of mitigating any adverse effects.

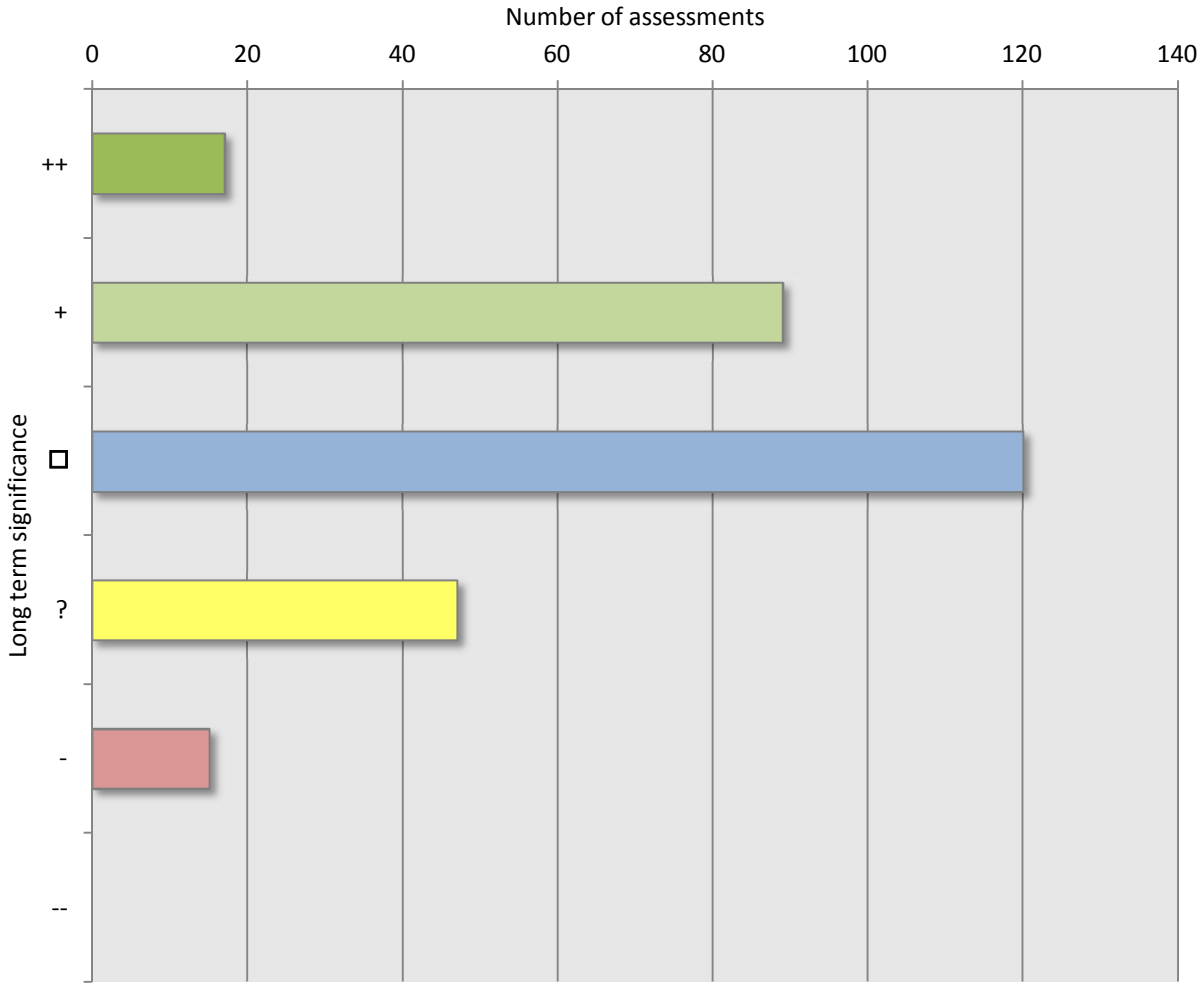


Figure 11 Overall summary of the SEA's conclusions.

Increases in greenhouse gases and decreasing air quality are mitigated by providing better opportunities for walking and cycling while issues relating to biodiversity can be mitigated with measures such as those proposed in the Capercaillie Framework (2015).

The Local Development Plan (2015) also has a role to play, with Policy 3 on sustainable design and Policy 4 on natural heritage both requiring development to take into account the environmental concerns raised in this report.

Around 16% of assessments concluded that the effects of an objective or option were uncertain. Many of these related to the potential effects of the Strategy on climatic factors and related to the fact that effects could be both positive and negative depending on the balance of their implementation.

A relatively high number of uncertain effects were also identified for the Cairngorm Mountain Masterplan. The causes of this uncertainty relate to the fact that much is as yet undecided, particularly in relation to the review of mountain-side activities. A 'review' in effect being a procedural matter rather than a spatial or management proposal in its own right is difficult to assess and therefore careful consideration of environmental matters will need to be carried out at the time of its implementation.

Key Messages from Assessment

Generally, the Strategy's objectives and spatial options generally scored well in the assessment and none were deemed to have significantly adverse effects against the SEA Objectives (**Figure 9**, **Figure 10 and Figure 11** and **Table 7**).

Some minor adverse effects have been predicted, these being linked to the increase in visitors and the land-take associated with the redevelopment of existing facilities. These effects have not resulted in the need to make changes to the Strategy's objectives or options and mitigation measures have been identified that address them.

Overall, it is considered that the Strategy will result in significant positive effects that might not be realised under an 'business as usual' or 'no plan' scenario.

Table 7 Summary of SEA's conclusions.

Long Term Significance	Count	%
++	17	5.9%
+	89	30.9%
□	120	41.7%
?	47	16.3%
-	15	5.2%
--	0	0.0%

Monitoring

> "…*focusing monitoring on the significant environmental effects identified in the assessment is likely to encourage the creation of new monitoring regimes. It is therefore practical to make a clear link between the significant effects predicted within an assessment and the indicators selected to monitor the likely environmental effects.*"
>
> SEA Guidance
> (Scottish Government, 2013)

It is a requirement of the Environmental Assessment (Scotland) Act 2005 that the significant environmental effects of implementing a plan or program are monitored. This environmental monitoring may in turn form part of the monitoring framework for the Strategy itself.

SEA monitoring should be undertaken for the following reasons:

- to identify whether the SEA's predictions of environmental effects were accurate;
- to identify unforeseen adverse effects and to enable appropriate remedial action to be taken;
- to identify whether the plan is contributing to the achievement of SEA Objectives;
- to identify whether mitigation measures are performing as well as expected;
- to identify whether any adverse effects are within acceptable limits or whether remedial action is required;
- to help compile a baseline for future plans and programmes; and
- to provide information for the EIAs of projects.

Ultimately, monitoring should lead to more informed decision-making.

The 2005 Act does not require bespoke monitoring arrangements or timelines to be set out for SEA. Furthermore SEA monitoring should be based around the significant environmental effects identified during the assessment, and since no significant adverse effects have been identified by this assessment, there is technically not a requirement to set out a monitoring framework.

However, a proposed set of indicators has been developed to monitor some of the key environmental impacts of the Cairngorm and Glenmore Strategy (**Table 8**). These will be monitored as part of the Strategy's implementation.

The Environmental Report is not the conclusion of the SEA process and it is likely that the proposed monitoring framework will be refined following its consultation. A finalised set of indicators will be set out in the Post-adoption Statement and will be incorporated into the Cairngorm and Glenmore Strategy's monitoring strategy.

Table 8 Proposed SEA Monitoring Framework.

Indicator	Related Objectives	Rationale	Source	Frequency
Number of vehicles at Inverdruie	1a Reduce greenhouse gas emissions 2 Protect and enhance air quality	The potential effects of the Strategy on climate change and air quality have been raised as a concern. These effects are largely due to the likelihood of an increased use of private motor vehicles. These indicators will provide an indication of the numbers visiting Cairngorm and Glenmore as well as the number of visits made by private motor vehicle.	➢ The Highland Council, ➢ Forestry Commission Scotland, ➢ Natural Retreats.	All indicators will be reported annually.
Number of vehicles at Cas Car Park				
Number of people at Glenmore Visitor Centre				
Ticket sales at Cairngorm Mountain				
Number of people using old logging way	6a Value, conserve and enhance biodiversity, distinctive wild species and habitats	The Strategy's potentially adverse effects on important species such as capercaillie have been raised as a concern. Measuring the use of the path network will give an indication of the number of people using areas that are sensitive to disturbance. The indicator will also provide information on whether or not the Strategy is successful in both encouraging physical activities such as walking and cycling while also encouraging most visitors to the remain in the core area.	➢ Cairngorms National Park Authority. ➢ Forestry Commission Scotland. ➢ Natural Retreats.	
Number of people using paths at Lochan na Freith				
Number of people at eight points on Cairngorm Estate				

Consultation / Next Steps

> *"Consultation with the Consultation Authorities at screening and scoping stages has a statutory duration period of 28 days and five weeks respectively."*
>
> SEA of Development Plans
> (Scottish Government, 2010)

The Strategy and its Environmental Report will be submitted to the SEA Gateway for consultation with the CAs between December and January 2015 for a period of 6 weeks.

While the consultation on the Environmental Report is not open to the general public, all documents will be available for inspection in the CNPA's main office in Grantown-on-Spey and on its website. Newspaper advertisements will be placed within Strathspey and Badenoch Herald to help raise awareness of the document's existence.

Following the consultation period, the final Cairngorm and Glenmore Strategy will be produced, building on the feedback from the previous consultation. This process will also be the subject of environmental assessment.

Once the Cairngorm and Glenmore Strategy has been approved by the National Park Board a Post-adoption Statement will be published. The Post-adoption Statement will summarise how the CNPA took the findings of the SEA process into account and how environmental considerations more generally have been integrated into the Cairngorm and Glenmore Strategy. It will also be stated within the Post-adoption Statement if any changes have been made to the Strategy as a result of the SEA process and following responses to consultation. If changes have been rejected this will also be explained.

It will also be necessary for the CNPA to monitor significant effects following the adoption of the Cairngorm and Glenmore Strategy in accordance with the Scottish Government's SEA Guidance (2013). The approach to this is set out in the section on **Monitoring** (p. 47)

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