



PLANNING

**Cairngorms National Park Local
Development Plan 2020**

**Strategic Environmental Assessment
Environmental Report December 2018**

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List of Abbreviations

2000 Act	National Parks (Scotland) Act 2000	MW	Megawatts
2005 Act	Environmental Assessment (Scotland) Act 2005	NH ₃	Ammonia
ABD	Aberdeenshire	NMVOC	Non-methane volatile organic compound
AQMA	Air Quality Management Area	NNR	National Nature Reserve
BARR	Buildings at Risk Register	NO ₂	Nitrogen dioxide
BGS	British Geological Society	NO _x	Nitrogen oxides
CA	Consultation Authority	NPF	National Planning Framework
CNAP	Cairngorms Nature Action Plan	NPPP	National Park Partnership Plan
CNP	Cairngorms National Park	NRS	National Records of Scotland
CNPA	Cairngorms National Park Authority	NSA	National Scenic Area
EC	European Commission	O ₃	Ground-level ozone
EEC	European Economic Community	ODPM	Office of the Deputy Prime Minister
EIA	Environmental Impact Assessment	PKC	Perth and Kinross Council
EU	European Union	PM _{2.5}	Particulate matter with particles with a diameter of 2.5 micrometres or less
FWPM	Freshwater Pearl Mussel	PM ₁₀	Particulate matter with particles with a diameter of 10 micrometres or less
GCR	Geological Conservation Review	PPS	Plans, Programmes and Strategies
GP	General Practitioner	pSPA	Potential Special Protection Area
Ha	Hectares	PVA	Potentially Vulnerable Area
HES	Historic Environment Scotland	RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland
JSA	Job Seekers Allowance		
LDP	Local Development Plan		

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
SM	Scheduled Monument
SNH	Scottish Natural Heritage
SO ₂	Sulphur dioxide
SPA	Special Protection Area
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest
SW	Scottish Water
SWWI	Strathspey Wetlands and Waders Initiative
TTWA	Travel To Work Area
WFD	Water Framework Directive
UK	United Kingdom
UKBAP	United Kingdom Biodiversity Action Plan
UK GAP	United Kingdom Geodiversity Action Plan
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Education

A glossary of terms may be found in **Appendix 8** (p. 340).

Non-Technical Summary

Introduction

Strategic Environmental Assessment (SEA) of the Cairngorms National Park Local Development Plan (LDP) 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.

This section presents a non-technical summary of the SEA Environmental Report of the Propose Plan. The Environmental Report contains the findings of the environmental assessment, which establishes the likely significant (positive and negative) environmental effects of implementing a plan.

Summary of the LDP Process

The LDP is the spatial planning document that will set out the National Park's policies and proposals for the use and development

of land across the Cairngorms National Park over the 5 to 10 years from its adoption. It will mainly be concerned with the use of land and will guide future development to the most appropriate locations.

The LDP will provide clear guidance on what development will or will not be allowed and where, and it will address a wide range of policy issues, including housing, shopping, business, industry, transport, recreation, and built and natural heritage.

Summary of the SEA Process

SEA aims to:

- integrate environmental factors into LDP preparation and decision making;
- improve LDP 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 LDP and its Environmental Report; and
- Stage E: Monitoring implementation of the LDP.

The Environmental Report sets out the findings of Stages C and D. To assist this process of the work has been categorised into 8 topic areas designed to provide a wide and detailed coverage of the environmental issues across National Park. These topics are:

- Topic 1: Climatic Factors
- Topic 2: Air
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Asset

- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape and Cultural Heritage
- Topic 8: Population and Human Health

Summary of SEA Objectives

Proposed SEA Objectives have been developed as a result of the review of PPS (**Policy Context**, p. 11) and baseline information (**Baseline**, p. 12). Identifying objectives is an important part of the SEA process as these will be used as the primary tool for testing the emerging LDP to ensure it will not result in any significant environmental effects. This process is referred to as the assessment stage (Stage B). At the Scoping Stage of the SEA, it is only necessary to publish 'proposed' SEA Objectives to allow the Consultation Authorities to offer feedback during the consultation of the Scoping Report.

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 Cairngorms National Park LDP are shown in **Table 4** (p. 21).

Summary of the Assessment

Generally, the Policies scored well in the assessment (**Table 6** and **Table 8**). Only one likely significant adverse effects was identified, which was a site based issue and appropriate mitigation identified.

Some minor adverse effects were predicted, these mostly being linked to the settlement strategy and economic growth, and the land-take associated with these. These effects have not resulted in the need to make significant changes to the Plan's proposals at this stage. Mitigation measures have been identified that address potential negative effects (**Table 11**).

Table I Summary of SEA's conclusions.

Long Term Significance	Count	%
++	51	7.7%
+	116	17.6%
□	427	64.8%
?	46	7.0%
-	18	2.7%
--	1	0.2%

Summary of Next Steps

The SEA Environmental Report will be consulted on for a period of 15 weeks between 17th November 2017 and 2nd March 2018. The development of the LDP's Proposed Plan and the environmental assessment will take place between March 2018 and November 2018. Following consultation on the Environmental Report, the CNPA will consider any comments received and will amend the SEA work where appropriate. This will take place in early 2018.

Future stages of the SEA process will take place alongside the development of the LDP. Details of the LDP process can be found in the Cairngorms National Park Local Plan - Development Plan Scheme, which is updated on an annual basis and is available on the CNPA's website:

www.cairngorms.co.uk

The SEA is an ongoing process and will need to be updated at regular intervals throughout the work. For further information contact:

Cairngorms National Park Authority
14 the Square
Grantown-on-Spey
PH25 3HG

Email: planning@cairngorms.co.uk

Tel: 01479 873535

Fax: 01479 873527

www.cairngorms.co.uk

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 Cairngorms Local Development Plan (LDP), the Cairngorms National Park Authority (CNPA) is required under the Environmental Assessment (Scotland) Act 2005 to carry

¹ A glossary of terms used in this report is provided in Appendix 8.

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:

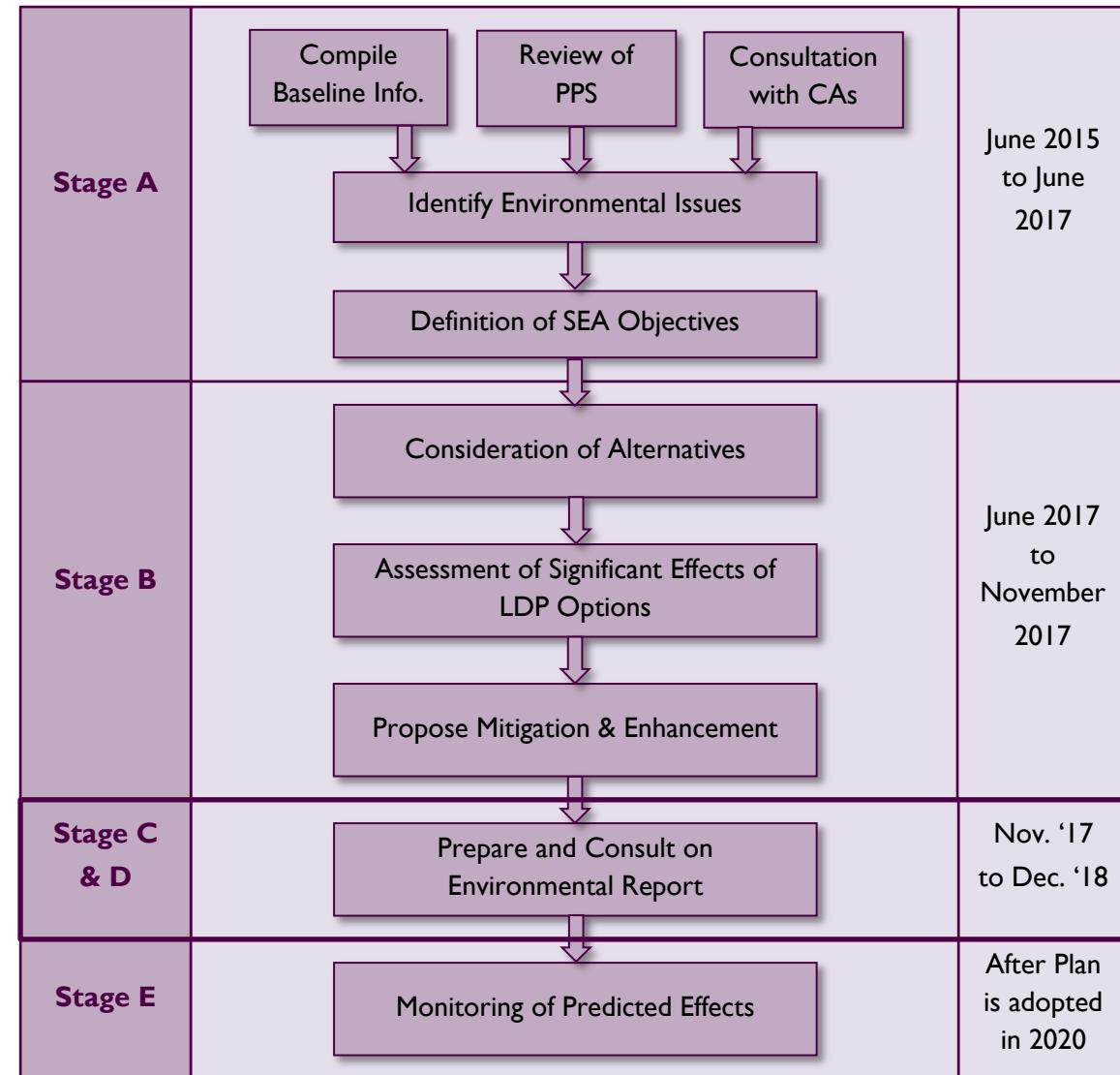
- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope;
- Stage B: Developing and refining alternatives and assessing effects;
- Stage C: Preparing the Environmental Report.
- Stage D: Consulting on the draft LDP and its Environmental Report; and

- Stage E: Monitoring implementation of the LDP.

Figure I provides details of the actions required during these stages as well as the indicative timetable for their completion alongside the production of the LDP.

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

Figure 1 Stages of the SEA of the Cairngorms National Park LDP and its indicative timetable; current stage is outlined in bold.



What is an Environmental Report?

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

SEA Guidance
(Scottish Government, 2013)

This is the ‘Environmental Report’ for the SEA of the Cairngorms National Park LDP. It represents **Stages C and D** of the SEA process (see **Figure 1**). The Environmental Report contains the findings of the environmental assessment, which establishes the likely significant (positive and negative) environmental effects of implementing a plan.

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 4,528km². 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.

Planning in the Cairngorms National Park

Planning in the Cairngorms National Park is unique. It involves the CNPA working alongside the five local authorities which operate in the Park – Aberdeenshire, Angus, Highland, Moray and Perth &

Kinross. The LDP together with any Supplementary Guidance sets the detailed policies and proposals for the whole of the National Park. It is the document against which all planning applications will be judged.

Planning applications are submitted to the relevant local authority in the normal manner. The local authority ensures all the necessary information is supplied and registers receipt of the application. The CNPA is informed by the local authority and then decides whether to call-in the application. Only applications which are of general significance to the aims of the Park are called in and determined by the CNPA. The local authority determines those applications not called-in. The Local Development Plan applies to all planning applications, regardless of whether they are called-in or not.

The Local Development Plan

The CNPA is required to prepare an LDP for the Cairngorms National Park under the Planning etc. (Scotland) Act 2006. This is the second LDP for the Cairngorms National Park, the first and current LDP having been adopted on 27th March 2015. The Act requires the LDP to set out where most new development will happen and include policies that will guide decision making on planning applications. It also requires that the LDP be updated every five years, therefore once adopted, this LDP will update and replace the current one.

The LDP falls under the scope of Section 5(3) of the Environmental Assessment (Scotland) Act 2005. It has potential to generate significant environmental effects and so a Strategic Environmental Assessment (SEA) is being undertaken.

The key facts relating to the proposed LDP are set out in **Table 2**.

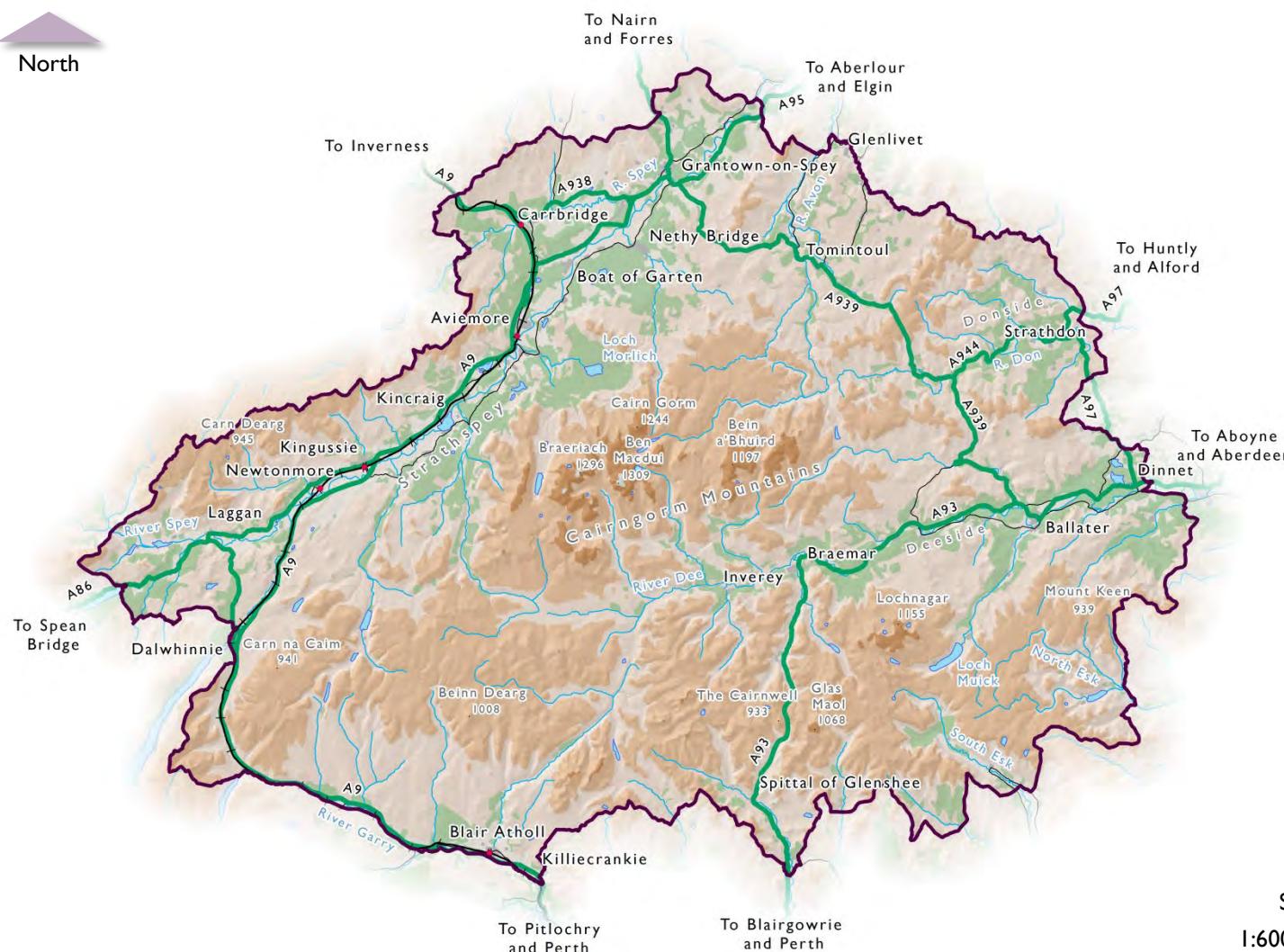
Table 2 Key Facts about the LDP.

Responsible Authority	Cairngorms National Park Authority
Title of PPS	Local Development Plan
Purpose of PPS	<p>The Local Development Plan (LDP) is a land use planning document that will set out the National Park's policies and proposals for the use and development of land across the Cairngorms National Park over at least the next 10 years. It will mainly be concerned with the use of land and will guide future development to the most appropriate locations.</p> <p>The LDP will provide clear guidance on what development will or will not be allowed and where, and it will address a wide range of policy issues, including housing, shopping, business, industry, transport, recreation, and built and natural heritage.</p>
What prompted the PPS?	<p>Planning Authorities are required to prepare a LDP under Section 2 of the Planning etc. (Scotland) Act 2006.</p> <p>Planning Authorities must from time to time review their NPPs and, if thought fit, prepare an amended Plan. The review, which must take place at least every 5 years, should focus on what has to change rather than invite the re-opening of settled issues.</p> <p>Therefore, a review of the current LDP 2015 must now take place if the reviewed LDP is to be adopted within the set timescale.</p>
Subject (e.g. Planning, transport etc)	<p>The LDP is concerned with spatial planning and due to its strategic nature will have influence over a wide range of subjects, including:</p> <ul style="list-style-type: none"> ➤ Housing development; ➤ Economic development; ➤ Infrastructure development; ➤ Natural Heritage; ➤ Historic and cultural heritage; ➤ Transport; ➤ Waste management;

	<ul style="list-style-type: none"> ➤ Energy; ➤ Resources; ➤ Leisure and recreation; ➤ Tourism.
Summary of the nature / content of PPS	<p>Taking its strategic direction from the National Park Partnership Plan 2017-2922, the LDP will set out the planning policies for the whole of the Cairngorms national Park.</p> <p>These policies will guide development by identifying sites for specific uses as well as setting out policies coverings such issues as affordable housing, economic development and nature conservation.</p>
Period Covered by PPS	2020-2029.
Frequency of Updates	Document reviewed every 5 years.
Area covered by PPS	4,528 km ²
Map included?	A map of the Cairngorms National Park is provided on page 10.
Are there any proposed PPS objectives	Full PPS objectives are not yet fully developed, however Main Issues have been identified and preferred and alternative options have been created.
Copy of attached objectives	None to attach.



North

**Legend**

- [Purple square] National Park Boundary
- [Brown square] Land greater than 1,000m
- [Orange square] 600 to 1,000m
- [Light orange square] 300 to 600m
- [White square] Land less than 300m
- [Blue wavy line] River
- [Light blue square] Loch
- [Green square] Woodland
- [Grey square] Built up area
- [Green line] Main Road
- [Black line] Minor Road
- [Black line with arrow] Railway
- [Red dot] Railway station

Figure 2 Area covered by the PPS.

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Scale:
1:600,000

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 LDP 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. 12).

Review Findings

A preliminary review of all the PPSs considered is presented in **Appendix I**. The PPSs are categorised according to their international, national and local scales and are accompanied by information on their purpose, relationship with the LDP and the SEA Issue they relate to.

The SEA Environmental Report will need to consider the PPSs that are active at the time of writing and therefore this aspect of the SEA process 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 LDP operates and the constraints and targets that this context imposes on the LDP.

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 Cairngorms National Park 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. 131);
- Topic 2: Air (p. 141);
- Topic 3: Water (p. 145);
- Topic 4: Soil (p. 162);
- Topic 5: Material Assets (p. 173);
- Topic 6: Biodiversity, Fauna and Flora (p. 192);

- Topic 7: Landscape and Cultural Heritage (p. 264); and
- Topic 8: Population and Human Health (p. 294).

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 3**.

Summary of the Environmental Baseline and Main Issues

Table 3 Summary of baseline information and main issues; see Appendix 2 for full details.

SEA Topic	Summary of environmental baseline
Climatic Factors Pages 99 - 107	<ul style="list-style-type: none"> ➤ 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: <ul style="list-style-type: none"> ➤ 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 CO₂ are estimated to have decreased from 10.3 tonnes in 2006 to 7.7 tonnes to 2014.
Air Pages 108 - 111	<ul style="list-style-type: none"> ➤ Air quality is relatively high within the National Park. ➤ No Air Quality Management Areas within National Park. ➤ Most air pollution associated with transport, with emissions of PM₁₀ and NO₂ highest along the National Park's main roads, with the A9 being the greatest contributor.
Water Pages 112 - 128	<ul style="list-style-type: none"> ➤ Water quality is relatively high within the National Park. ➤ In 2014 the overall status of waterbodies within and overlapping the Cairngorms National Park was: <ul style="list-style-type: none"> ➤ 7.8% High, ➤ 49.7% Good, ➤ 25.5% Moderate, ➤ 14.4% Poor, and

SEA Topic	Summary of environmental baseline
	<ul style="list-style-type: none"> ➤ 2.6% Bad. ➤ 2014 saw: <ul style="list-style-type: none"> ➤ 10.4% of waterbodies improve in overall status, ➤ 80.9% remain the same, and ➤ 8.7% degraded in overall status. ➤ Data from the Spey and Dee 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 National Park to meet the projected level of housing growth for the Plan period. ➤ Flood risk: there are nine Potentially Vulnerable Areas (PVAs) within the National Park. The estimated total average annual cost of damage in these areas is £1,071,000.
Soil Pages 129 - 239	<ul style="list-style-type: none"> ➤ The Cairngorms National Park does not contain any mapped areas of Prime Agricultural Land. ➤ Around 1,700km² 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 140 - 158	<ul style="list-style-type: none"> ➤ 39 GCR sites within or overlapping the National Park boundary. Combined they cover an area of around 592 km². ➤ CNPA has permitted around 4.2MW of renewable energy since 2010 although data gaps remain in the exact level of energy generated in the National Park. ➤ Household waste produced is reducing, while the recycling rate is increasing. ➤ In 2015, the Cairngorms National Park: <ul style="list-style-type: none"> ➤ Produced 10,080 tonnes of household waste, ➤ Recycled 4,608 tonnes of household waste (45.8%). ➤ Transport infrastructure, while good along the National Park's main corridors, is poor elsewhere in the National Park, resulting in long drive times and high levels of deprivation in SIMD domains relating to access. ➤ Rail use is on the increase, although the reliance on private transport remains high. ➤ The National Park's internet infrastructure is currently being upgraded, although plans are yet to be confirmed for a

SEA Topic	Summary of environmental baseline
	third of the exchanges servicing the area.
Biodiversity, Fauna and Flora Pages 159 - 230	<ul style="list-style-type: none"> ➤ 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. ➤ National Park contains 11 National Nature Reserves (NNRs), covering an area of around 513 km². ➤ National Park contains 59 Sites of Special Scientific Interest (SSSIs), covering an area of around 1,128 km². Of these: <ul style="list-style-type: none"> ➤ 40 are Biological SSSIs, covering around 449 km². ➤ 9 are Geological SSSIs, covering an area of around 9 km². ➤ 10 are Mixed SSSI's, covering an area of around 671 km². ➤ Of the 50 SSSIs with biological notifiable interests, 28 have at least one notifiable interest that is in unfavourable condition. ➤ 5 SSSIs, namely Aldclune and Invervack Meadows, Blair Atholl Meadow, Craigendarroch, Creag Dhubh and Garbh Choire, have no notifiable interests in favourable condition. ➤ National Park contains 39 sites within the Natura 2000 Network. Of these: <ul style="list-style-type: none"> ➤ 23 are Special Areas of Conservation (SACs), covering around 1,083 km². ➤ 16 are Special Protection Areas (SPAs), covering an area of around 2,536 km². ➤ 16 SACs have at least one qualifying feature that is in unfavourable condition. ➤ 4 SACs, namely Monadhliath, River South Esk, Kinveachy Forest and The Maim, have no qualifying features in favourable condition. ➤ 33 Annex I (Habitats Directive) habitats occur in the National Park. ➤ 10 Annex II (Habitats Directive) species are native to, and normally resident in, the National Park. ➤ 9 SPAs have at least one qualifying feature that is in unfavourable condition. ➤ 3 SPAs, namely Craigmore Wood, Creag Meagaiddh and Muir of Dinnet have no qualifying features in favourable condition. ➤ 35 Annex I (Birds Directive) species can be found within the Cairngorms National Park.

SEA Topic	Summary of environmental baseline
	<ul style="list-style-type: none"> ➤ National Park contains 3 Ramsar Sites, covering an area of around 15 km². ➤ National Park contains one Biogenetic Reserve at Muir of Dinnet. ➤ National Park contains 2 Royal Society for the Protection of Birds (RSPB) Reserves at Loch Garten and Insh Marshes. ➤ National Park contains the most extensive tracts of Caledonian forest in Britain. ➤ Native tree species comprise around 79% of the National Park's woodlands, representing a quarter of the entire Scottish native woodland resource. ➤ Aspen dominated woodland is unique to the Cairngorms National Park, the stands are small and total less than 350ha concentrated in Strathspey and Deeside. ➤ Around 340 km² of the National Park's woodlands are identified as being ancient according to SNH's Ancient Woodland Inventory. ➤ Around 160 km² of this has also been identified as being semi-natural. ➤ Some of the UK's best ancient floodplain woodlands are located in the Cairngorms National Park. ➤ Caledonian Pinewood is at threat from habitat loss lack of regeneration, limited deadwood and poor structural diversity. ➤ Approximately 1,120ha of new native woodland was created between 2013 and 2017. ➤ Conifer plantations make up 50% of the woodland resource and are of limited value for biodiversity. ➤ Lack of regeneration, poor structural diversity and grazing pressure has reduced the biodiversity value of upland oak. ➤ 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 National Park holds a significant proportion of the national Capercaillie population – at least 75% of the national number of lekking males, with the majority in Strathspey. ➤ The Strathspey capercaillie population is crucial to the long-term survival of the species in the UK. ➤ The National Park is one of the last strongholds for red squirrel and Scottish Wildcat in the UK. ➤ The National Park is one of the most important sites for breeding waders due to the combination of wetlands, wet grassland and low-intensity mixed farming.

SEA Topic	Summary of environmental baseline
	<ul style="list-style-type: none"> ➤ Wetlands have historically been drained for agriculture, suffered water shortages as a result of over abstraction and impoundment and been subject to pollution pressure from diffuse and point sources. The remaining wetlands are now often small and fragmented. ➤ Wet grasslands are under threat from over-grazing and poaching by livestock, cutting for hay at critical wader breeding times and drainage to create productive agricultural land. ➤ Rivers, lochs and the species they support have been affected by large scale impoundments which have a hydrological impact and also affect sediment dynamics, create barriers to fish passage, diffuse and point source pollution and invasive species ➤ The freshwater pearl mussel is declining dramatically throughout its range. 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. ➤ Small fragmented areas of lowland and upland hay meadows, which are locally important for biodiversity and include many species of orchid and waxcap fungi, still exist in places.
Landscape and Cultural Heritage Pages 231 - 259	<ul style="list-style-type: none"> ➤ At 4,528 square kilometres, and comprising 6% of Scotland's land area, the Cairngorms National Park is the UK's largest protected landscape. ➤ National Park contains 3 National Scenic Areas (NSA), with two, namely the Cairngorm Mountains NSA and Deeside and Lochnagar NSA, located entirely within the National Park's boundary. ➤ Combined, the two main NSAs cover an area of around 1,072 km², which equates to just under 25% of the National Park's land area. ➤ Around 2,100 km² (46%) of the Cairngorms National Park has been identified as Wild Land Areas.

SEA Topic	Summary of environmental baseline
	<ul style="list-style-type: none"> ➤ There are 106 Scheduled Monuments recorded within the National Park. ➤ 'The Inventory of Gardens and Designed Landscapes in Scotland' lists 10 gardens and designed landscapes within the National Park. ➤ There are 2 Inventory Battlefields within the National Park. ➤ There are 5 historic planned towns within the National Park. ➤ There are 6 Conservation Areas within the National Park. ➤ There are around 753 Listed buildings or structures within the National Park, with: <ul style="list-style-type: none"> ➤ 56 in Category A, ➤ 341 in Category B, and ➤ 356 in Category C. ➤ There are 17 buildings on the Buildings at Risk Register within the National Park. ➤ There are around 370 Gaelic and 5,400 Scots speakers living in the National Park.
Population and Human Health Pages 260 - 298	<ul style="list-style-type: none"> ➤ In 2014, the population of the population of the National Park was estimated to be 18,594, with 9,186 males and 9,408 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 approximately 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 1,009 people since 2001. ➤ Population projections for the National Park estimate that between 2014 and 2039, the population is projected to drop from 19010 to 18337 (an increase of around 4%). ➤ Over the projection period:

SEA Topic	Summary of environmental baseline
	<ul style="list-style-type: none"> ➤ Number of children aged under 16 are projected to decrease by 21% from 3,030 to 2,383. ➤ The working age population is projected to decrease by 10% from 11,250 to 10,178. ➤ People of pensionable age are projected to rise by 23% from 4,730 to 5,776. ➤ Household projections suggest that households are set to increase from 8,653 in 2012 to 9,195 in 2039, an increase of 6%. ➤ The average household size is projected to fall from 2.12 people in 2014 to 1.91 people in 2039. ➤ Around 76.8% of the 16+ Census population had NVQ1 level and above (Scotland 73.2%), and around 30.8% had NVQ4 and above (Scotland 26.1%). ➤ Around 95% of people classed as being economically active were in employment in 2011, which is slightly higher than the Scottish level of 91.9%. ➤ Of the economically inactive in 2011, who numbered 5,377 (around 33.9% of the 16+ population), 75.1% were inactive due to retirement. ➤ The level of full time (72.8%) and part time (27.2%) employee jobs (excludes self-employed, government, trainees and HM Forces) is generally consistent with Scotland as a whole. ➤ Unemployment levels are low, with only 225 people claiming Job Seekers Allowance in Q 4 of 2012. ➤ Gross median wage is relatively low in the National Park, but gross household income is above the Scottish median. ➤ Estimated life expectancy of the National Park is 79 for males and 82.3 for females. ➤ Low levels of people with long term health problems or disabilities and high levels of people with good health within the National Park. ➤ Low levels of overall deprivation within the National Park, with 3 data zones being in the 20% least deprived in Scotland. ➤ Extensive public footpath network, including 1,073km of Core Path.

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 Scoping Report sets out the CNPA's proposed approach to assessment of the LDP.

Proposed SEA Objectives have been developed as a result of the review of PPS (**Policy Context**, p. 11) and baseline information (**Baseline**, p. 12) as well as the responses to the consultation on the Scoping Report (**Appendix 4**, p.340). Identifying objectives is an important part of the SEA process as these will be used as the primary tool for testing the emerging LDP

to ensure it will not result in any significant environmental effects.

The proposed SEA Objectives are thematically based and are designed to cover the environmental assets that the Plan 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 proposed here therefore represent the scope of the assessment that will be undertaken to identify potential environmental effects of the Cairngorms National Park LDP.

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 not be relevant to every aspect of the Plan. 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 4**, 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. 28). The framework in which they will be utilised is set out on page 30.

Table 4 Proposed SEA Objectives.

SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
Climatic Factors	Ia	Reduce greenhouse gas emissions	<ul style="list-style-type: none"> ➤ Reduce the emissions of greenhouse gases with particular focus on emissions from buildings, transport, energy generation and industry (especially CO₂). ➤ 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. 	<ul style="list-style-type: none"> ➤ Air ➤ Water ➤ Soil ➤ Material Assets ➤ Population and Human health
	Ib	Increase resilience to the effects of climate change	<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ Reduce levels of the UK National Air Quality pollutants (e.g. NO₂, PM₁₀, SO₂). ➤ Reduce levels of ground-level ozone (O₃). ➤ 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. 	<ul style="list-style-type: none"> ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Population and Human health
Water	3a	Reduce flood risk	<ul style="list-style-type: none"> ➤ Safeguard the functional floodplain. ➤ Encourage the restoration of a natural flood regime. ➤ Promote land uses and habitat changes that will help to decrease run-off, stabilise slopes, and attenuate flows. ➤ 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. 	<ul style="list-style-type: none"> ➤ 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
			<ul style="list-style-type: none"> ➤ Increase provision to manage stormwater. 	
	3b	Maintain and improve the quality of water resources	<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> ➤ Climatic factors ➤ Soil ➤ Material Assets ➤ Biodiversity, Fauna and Flora ➤ Population and Human health

SEA Topic	No.	SEA Objective	SEA Sub-Objectives	Inter-relationships
Soil	4	Minimise contamination and safeguard and improve soil and peat quality.	<ul style="list-style-type: none"> ➤ 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 SO₂ and NO₂ 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, restore or improve the carbon storage capacity of peat and soils. ➤ Minimise carbon emissions from land use (e.g. muirburn). ➤ 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. 	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➢ 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. 	<ul style="list-style-type: none"> ➢ 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 native species and habitats	<ul style="list-style-type: none"> ➢ 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 qualifying 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. ➢ Avoid the introduction and spread of invasive non-native species and tree diseases. ➢ Conserve, enhance and create appropriate natural 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. 	<ul style="list-style-type: none"> ➢ 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
			<ul style="list-style-type: none"> ➤ Enable people to access and appreciate the Cairngorms National Park's natural heritage more. 	
Landscape and Cultural Heritage	6b	Maintain and improve the sustainable management of woodland for multiple benefits	<ul style="list-style-type: none"> ➤ Maintain or improve the capacity of woodland to sequester and store carbon. ➤ Enhance the ecological functioning of woodland at a landscape scale. ➤ Avoid the loss of ancient woodland and veteran trees. ➤ Protect and enhance the ecosystem services woodland provide (e.g. flood alleviation and pollution mitigation). ➤ Protect and promote the recreational, cultural, landscape and economic value of woodland. 	<ul style="list-style-type: none"> ➤ Climatic factors ➤ Air ➤ Water ➤ Soil ➤ Material Assets ➤ Landscape and Cultural Heritage ➤ Population and Human Health
	7	Protect and enhance the character, diversity and special qualities of the National Park's landscape and cultural heritage	<ul style="list-style-type: none"> ➤ Protect and enhance the National Park's special landscape qualities. ➤ Work towards creating landscapes that are ecologically functional. ➤ Minimise the loss of wild land. ➤ 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. 	<ul style="list-style-type: none"> ➤ 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.	<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> ➤ Landscape and Cultural Heritage ➤ Population and Human Health
	8b	Support vibrant, safe and healthy communities.	<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> ➤ Climatic factors ➤ Air ➤ Water ➤ Soil ➤ Material Assets ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage ➤ Population and Human Health

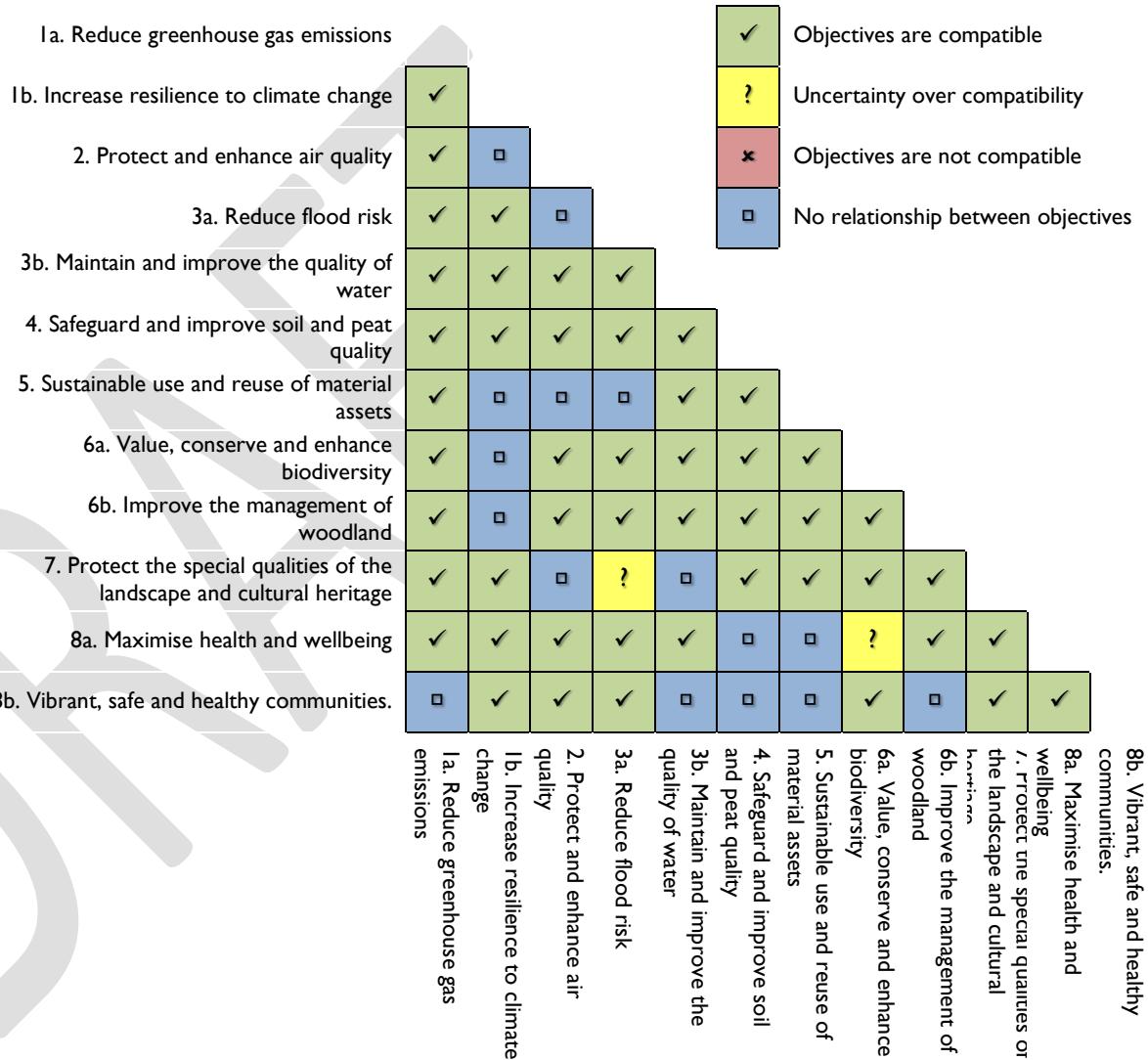
Compatibility of SEA Objectives

"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 4** 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 of 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, for example the objectives 3a and 7. This uncertainty will be considered in greater detail within the assessments.

Likely changes to the environment in the absence of a Plan

"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 LDP, the absence of a Plan is

taken to mean the continued implementation of the CNPA's overarching Plans such as the NPPP 2017 and current Local Development Plan (LDP) 2015 as well as the international and national PPS listed in **Appendix I** (p. 107).

The Environmental effects of this interpretation are forecast 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.

Table 5 Likely environmental changes in the absence of a Plan.

SEA Objective	Business as Usual Scenario
Ia Reduce greenhouse gas emissions	<p>In the absence of the Plan, statutory plans such as the National Park Plan (NPPP) 2017 will provide strategic context for decisions on development and help direct it to the most appropriate locations and promote sustainable development. The NPPP also provides the policy basis which all daughter PPS should follow, therefore its existence ensures that issues such as climate change are not missed at a lower level. However, the NPPP does not identify specific settlements and therefore the absence of an LDP could lead to an increase in speculative development resulting in greater levels of car use.</p> <p>National guidance such as Scottish Planning Policy (SPP), which as the aim of turning Scotland into “A low carbon place – reducing our carbon emissions and adapting to climate” will also be material. SPPP requires that decision makers support climate change mitigation and adaptation including taking account of flood risk. National Planning Framework (NPF) 3 would also play a role as it aims to facilitate the transition to a low carbon economy, particularly by supporting diversification of the energy sector.</p> <p>However, it is important to note that both SPPP and SPF require LDP's to deliver their objectives and therefore, in its absence, the ability of the CNPA to reduce climate change emissions is more limited.</p>
Ib Increase resilience to the effects of climate change	<p>The NPPP has a number of measures that help mitigate and adapt to the effects of climate change. These include targets to expand woodland and restore peatland.</p> <p>National guidance such as Scottish Planning Policy (SPP), which as the aim of turning Scotland into “A low carbon place – reducing our carbon emissions and adapting to climate” will also be material. SPPP requires that decision makers support climate change mitigation and adaptation including taking account of flood risk. National Planning Framework (NPF) 3 would also play a role as it aims to facilitate the transition to a low carbon economy, particularly by supporting diversification of the energy sector.</p> <p>However, it is important to note that both SPPP and SPF require LDP's to deliver their objectives and therefore, in its absence, the ability of the CNPA to encourage develop climate change adaptation is more limited.</p>
2a Protect and enhance air quality	With a growing population, increasing visitor numbers and high levels of private motor vehicle use, there is likely to be a minor negative impact on air quality over the Plan period. The NPPP provides strategic direction

SEA Objective	Business as Usual Scenario
	for the location of development and also aims is to integrate sustainable patterns of development and travel. However, it requires the LDP to provide the policy basis for decisions on development to be made and therefore in its absence it is likely that development would be harder to direct to locations that limit air pollution.
3a Reduce flood risk	<p>NPPP may act as a means of coordinating the delivery of natural flood management measures, particularly when they are implemented as part of broader landscape scale habitat management priorities, such woodland expansion or peatland restoration.</p> <p>National policy in the form of SPP and NPF would also play a role, with the NPF in particular supporting a catchment-scale approach to sustainable flood risk management. Furthermore, SPP states that the planning system should prevent development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere.</p> <p>Therefore, while it is likely that flood risk would still be a key consideration in the development process, it would be harder to deliver more strategic benefits, that coordinating actions between different land ownership interests. It is likely therefore, that in the absence of a LDP, that opportunities for reducing flood risk could be missed.</p>
3b Maintain and improve the quality of water resources	According to SPPP, where relevant policies in a development plan are out-of-date then the presumption in favour of development that contributes to sustainable development will be a significant material consideration. However, the LDP plays an important role on minimising the effect on water quality, particularly through the designation of sites that are likely to have the least impact. In its absence of a plan ad-hoc development could lead water resources may be damaged by inappropriate placement. To a certain extent, national policy will be able to limit some of the effects by restricting development on established floodplains
4 Minimise contamination and safeguard and improve soil and peat quality.	According to SPPP, where relevant policies in a development plan are out-of-date then the presumption in favour of development that contributes to sustainable development will be a significant material consideration. However, the absence of a settlement strategy the location of development is harder to manage and therefore greater adverse impact on soil could occur through an increase in development of greenfield sites. This could be particularly significant if large scale development were to be allowed on the best and most versatile

SEA Objective	Business as Usual Scenario
	agricultural land.
5 Encourage the sustainable use and reuse of material assets	<p>According to SPPP, where relevant policies in a development plan are out-of-date then the presumption in favour of development that contributes to sustainable development will be a significant material consideration. While decisions can be made it may reduce the ability for the CNPA to deliver desirable outcomes for specific types of applications e.g. mineral operations and hill tracks.</p>
6a Value, conserve and enhance biodiversity, distinctive wild species and habitats	<p>The National Park is protected by many tiers of protected site and even in the absence of the LDP, development and land management practices would still have to meet the requirements of Natura legislation. However, biodiversity is more than just protected sites and the National Park is home to many important yet undesignated habitats, many of which are important to the protected sites themselves.</p> <p>In the absence of an LDP national policy will continue to restrict development in the open countryside, and national and international legislation for conservation sites will continue to protect them from direct development. However, the overall biodiversity value of individual sites, and of the National Park as a whole could be damaged in the absence of policies concerning the selection of development sites and means of mitigating negative effects. Biodiversity is therefore likely to decline more than if an LDP was not in place. This is probable because the landscape and biodiversity policies of the plan provide additional policy guidance, which is amplified through the preparation of supplementary planning guidance.</p> <p>Furthermore, in this scenario it's likely that the CNPA would have difficulty meeting its aim “<i>to conserve and enhance the natural and cultural heritage of the area</i>”.</p>
6b Maintain and improve the sustainable management of woodland for multiple benefits	<p>The National Park contains the most extensive tract of Caledonian forest in Britain. It has around 340 km² of ancient woodland, of which around 160 km² is semi-natural. Woodland is therefore an important habitat and resource of interest to many of the National Park's partners. In the LDP's absence, national policy such as SPP would continue to protect Ancient and Semi-natural woodland, however it would become more difficult to protect undesignated, yet still important woodlands, from development.</p>
7 Protect and enhance the character, diversity and special qualities of the National Park's	<p>The Cairngorms National Park represents the UK's largest protected landscape and the NPPP offers the CNPA the ability to protect the special qualities of the National Park's landscape from development or land management practices that take place both within and outwith its boundary. However, the LDP and its</p>

SEA Objective	Business as Usual Scenario
landscape and cultural and historic heritage	Supplementary Guidance provide direction at a site level and help direct and formulate the implementation of landscaping schemes. Should this ability be lost then it may result in a loss of landscape quality at a local level, which in combination with other sites, could have a wider landscape impact.
8a Promote opportunities that maximise the health and wellbeing of local people, visitors and communities	One of the aims of the National Park is “ <i>to promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public</i> ”. The LDP is not the greatest contributor to meeting this objective. For example, it is the NPPP 2017 offers a framework for the coordinated delivery of services and facilities that support healthy living. However, the LDP’s remit over the location of development sites can play a role in creating environments in which opportunities for health and wellbeing can be maximised. In the absence of an LDP to coordinate development, such opportunities could be lost.
8b Support vibrant, safe and healthy communities	One of the aims of the National Park is “ <i>to promote sustainable economic and social development of the area’s communities</i> ”. Issues include a growing but aging population, relatively high house prices and relatively low median incomes. SPP states that here relevant policies in a development plan are out-of-date, then the presumption in favour of development that contributes to sustainable development will be a significant material consideration. Decisions may therefore be made on a development management basis, however it will reduce the ability to gain housing that meets specific affordable and other special needs, or at least the ability to shape development for specific needs.

Development of the Cairngorms LDP Proposed Plan

"[Reasonable alternatives] can be used to achieve environmental benefits and, where well executed, can be an opportunity for the SEA to add value to the planning process by encouraging lateral or creative thinking. Alternatives must be realistic and are likely to emerge from the plan-making process. However, the SEA can encourage further thinking around alternatives, and highlight where environmentally preferable options exist."

SEA Guidance
(Scottish Government, 2013)

Background and Strategic Context

All planning authorities in Scotland are required by law to publish a Local Development Plan (LDP) for their area. The LDP should set out policies and site allocations to guide the development and use of land within the plan area. Current legislation requires the LDP to be kept up-to-date and reviewed at least every five years. The existing LDP for the Cairngorms

National Park was adopted in March 2015 and a new LDP must therefore be adopted in 2020.

The process for producing an LDP is set out in planning legislation and includes a number of key stages:

- identifying and consulting on the key issues for the LDP through a Main Issues Report;
- producing a Proposed LDP to outline the planning authority's settled view on policies and proposals for the development and use of land; and
- subjecting the Proposed LDP to public scrutiny and then an independent examination by a Reporter appointed by Scottish Ministers.

A Main Issues Report (MIR) was published for consultation from 17 November 2017 to 2 March 2018. The MIR identified 10 key topics that were considered to be the most important issues that the LDP 2020 would need to address. It also identified issues and objectives, as well as potential development

options, for each of the main settlements in the National Park. The MIR sought views on the potential options for tackling the issues identified, including both the CNPA's preferred options and other reasonable alternatives. The MIR was subject to an environmental assessment which was published in an Environmental Report and consulted on at the same time as the MIR itself:

www.cairngorms.co.uk/authority/publications/435

A total of 329 formal responses were received to the MIR consultation. These came from a broad range of organisations and private individuals. A report summarising the consultation responses and seeking direction on how to take them into account in developing the Proposed LDP was considered by the Planning Committee in June 2018.

The MIR consultation responses included a number of new site proposals that were not included as options in the MIR. The

Planning Committee identified a small number of these proposals as being potentially appropriate for inclusion in the Proposed LDP. An additional focused consultation was carried out to seek wider public views on these new site proposals from 13 August to 21 September 2018. These sites were also subject to Environmental Assessment, which was presented as an addendum to the MIR's Environmental Report:

www.cairngorms.co.uk/consultation/post-mir

A total of 72 responses were received to the new sites consultation. A report summarising the responses and seeking direction on whether or not to include the new sites in the Proposed LDP in light of the consultation comments was considered by the Planning Committee in November 2018.

Proposed LDP

The Proposed Plan is the result of this process. Its content takes account of the consultation responses to the MIR and the

new sites consultation, as well as comments from Members during subsequent informal discussion sessions. In addition, it takes account of comments from other key stakeholders, including the Scottish Environment Protection Agency, Scottish Natural Heritage, Scottish Water, Transport Scotland and partner local authorities, who have also been informally consulted on its emerging content.

The Proposed LDP links closely with the National Park Partnership Plan 2017-2022 (NPPP), which provides a strategic context for the LDP. It also takes account of guidance in the National Planning Framework and Scottish Planning Policy.

The Proposed LDP includes 5 sections: Introduction; Vision; Spatial Strategy; Policies; and Community Information. The vision is based on the vision and long-term outcomes in the NPPP. The spatial strategy (the overall development strategy on which the Proposed LDP is based) is largely unaltered from the current LDP. Nevertheless, the Proposed LDP does

introduce a number of changes from the current LDP.

The Proposed LDP identifies eleven overarching policies, most of which also have sub-policies dealing with specific aspects of that policy area:

- Policy 1: New Housing Development;
- Policy 2: Supporting Economic Growth;
- Policy 3: Design and Placemaking;
- Policy 4: Natural Heritage;
- Policy 5: Landscape;
- Policy 6: The Siting and Design of Digital Communications Equipment;
- Policy 7: Renewable Energy;
- Policy 8: Open Space, Sport and Recreation;
- Policy 9: Cultural Heritage;
- Policy 10: Resources;
- Policy 11: Developer Obligations.

The Plan is based on an overall development strategy which focuses most development to the main settlements of the National Park – Aviemore, Ballater, Grantown-on Spey, Kingussie and

Newtonmore. These settlements are referred to as 'strategic settlements'.

In addition to the strategic settlements, the development strategy also identifies 'intermediate settlements' and 'rural settlements'. Intermediate settlements will accommodate development to meet wider needs, albeit at a more modest scale than within the strategic settlements, whilst development in rural settlements will primarily be aimed at meeting local need.

This Settlement hierarchy is set out as follows:

Strategic Settlements

- Aviemore
- Ballater
- Grantown-on-Spey
- Kingussie
- Newtonmore

Intermediate Settlements

- Blair Atholl
- Boat of Garten
- Braemar
- Carr-Bridge

- Cromdale
- Dulnain Bridge
- Kincraig
- Nethy Bridge
- Tomintoul

Rural Settlements

- Angus Glens
- Bruar and Pitagowan
- Calvine
- Dalwhinnie
- Dinnet
- Glenlivet
- Glenmore
- Glenshee
- Insh
- Inverdruie and Coyerbridge
- Killiecrankie
- Laggan
- Strathdon

policies and sites developed from these options.

The Environmental Assessment (Scotland) 2005 requires that reasonable alternatives to the Plan be considered as part of the SEA. These options were presented and assessed in the Environmental Report of the MIR. The content on this Report therefore only contains assessments of the

Assessing the effects of the Proposed LDP's Vision, Strategy and Policies

“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 vision, settlement strategy and policies of the LDP were assessed for their likely effects in relation to the SEA Objectives. That is to say, are the steps necessary to pursue the LDP 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 Main Issues options is shown in [Error! Reference source not found.](#). The full appraisal matrices are included in [Appendix 6](#).

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 5](#).

Radar graphs have been provided as a summary of the assessment for each outcome and option. [Figure 4](#) provides they key to these.

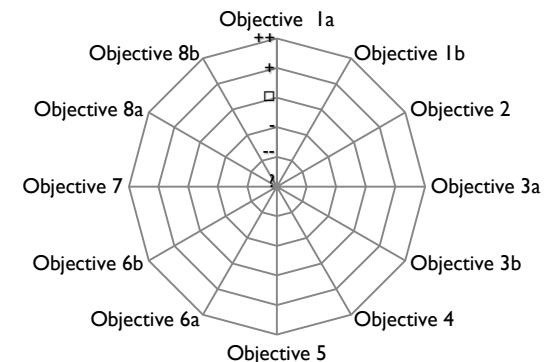


Figure 4 Key to radar graphs.

Table 6 Summary of SEA Assessment of the Proposed LDP's Vision, Settlement Strategy and Policies.

Plan Element	SEA Objectives														Assessment Summary
	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			
Vision															
Vision	+	+	+	+	+	+	+	++	++	++	++	++	++		
Spatial Strategy															
Spatial Strategy	+	+	+	□	-	-	□	?	□	+	+	++	++		
Policies															
Policy I: New Housing Development															

Plan Element	SEA Objectives												
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary
I.1 Housing delivery in settlements	-	+	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	?	?	?	+	++	
I.2 Housing development in existing rural groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	?	?	?	+	<input type="checkbox"/>	
I.3 Other housing in the countryside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	?	?	?	+	<input type="checkbox"/>	
I.4 Designing for affordability	+	+	<input type="checkbox"/>	<input type="checkbox"/>	+	+	+	+	<input type="checkbox"/>	<input type="checkbox"/>	++	++	

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
1.5 Affordable housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Affordable housing exception sites	?	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
1.7 Alterations to existing houses	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Conversions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Element	SEA Objectives													
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary	
I.9 Replacement houses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
I.10 Housing for gypsies and travellers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	
I.11 Long term designations	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Policy 2: Supporting Economic Growth														
2.1 Retail development and high footfall generating uses	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	

Plan Element	SEA Objectives												
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary
2.2 Tourist accommodation	?	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	?	<input type="checkbox"/>	+	
2.3 Other tourism and leisure developments	?	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	?	<input type="checkbox"/>	+	
2.4 Other economic development	?	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	<input type="checkbox"/>	?	<input type="checkbox"/>	+	
2.5 Protecting existing economic activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	?	?	<input type="checkbox"/>	<input type="checkbox"/>	+	
Policy 3: Design and Placemaking													

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
3.1 Placemaking	++	+	+	+	+	+	+	□	□	++	++	+
3.2 Major Developments	++	+	+	+	+	+	+	+	□	++	++	
3.3 Sustainable Design	++	+	+	+	+	+	+	□	□	++	++	+
3.4 Replacing existing building stock	□	□	□	□	□	□	□	□	□	□	□	

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
3.5 Converting existing building stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Alterations to existing building stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy 4: Natural Heritage												
4.1 International designations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 National designations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Element	SEA Objectives												
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary
4.3 Woodlands	+	+	+	+	+	+	+	++	++	+	+	+	
4.4 Protected species	□	+	□	□	□	□	□	□	+	□	□	□	
4.5 Other biodiversity	+	+	+	+	+	+	□	++	+	+	+	+	
4.6 All development	+	+	+	+	+	+	□	++	+	+	+	+	
Policy 5: Landscape													

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
5.1 Special Landscape Qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Private Roads and Ways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy 6: The Siting and Design of Digital Communications Equipment												
Policy 6: The Siting and Design of Digital Communications Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy 7: Renewable Energy												
7.1 All renewable energy developments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
7.2 Hydropower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Wind energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Biomass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Energy from waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Element	SEA Objectives												
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary
7.6 Heat networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Policy 8: Open Space, Sport and Recreation													
8.1 New development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.2 Re-development of outdoor sports facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.3 Re-development of other open space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Policy 9: Cultural Heritage													

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
9.1 Listed buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Cultural and historic designations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.3 Conservation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Other cultural heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy 10: Resources												

Plan Element	SEA Objectives											
	Ia. Reduce greenhouse gas emissions	Ib. 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.
10.1 Water resources	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Flooding	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	++	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 Connection to sewerage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.4 Waste management and minimisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	++	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Element	SEA Objectives														
	Ia. Reduce greenhouse gas emissions	Ib. 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.	Assessment Summary		
10.5 Landfill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10.6 Minerals	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	?	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10.7 Carbon sinks and stores	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+	++	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10.8 Contaminated land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	++	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Policy 11: Developer Obligations															
Policy 11: Developer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Plan Element	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
Obligations								

DRAFT

Assessment of Sites

As part of the Local Development Plan (LDP) preparation CNPA invited developers, landowners, public service providers, health providers and community councils to submit land that they would like to be considered for inclusion in the LDP for development. It should be noted that a request for such consideration did not automatically result in the land being included in the LDP. Whether or not sites get included in the LDP is the subject of a detailed SEA assessment.

The SEA formed part of the process for evaluating these sites and help identify preferred options. The sites were assessed for their likely effects in relation to the SEA Objectives. That is to say, would development of a site be likely to have an effect on the aims of the SEA Objective.

The outcome of this process, including assessments of both preferred and alternative options, was published in the Environmental Report for the the MIR and can be viewed here:

www.cairngorms.co.uk/wp-content/uploads/2017/11/171113LDPMIRSit-eAssessmentLocked.pdf

The next stage in the process is to assess the proposed allocations that evolved from these options and that assessment is presented in this report. A summary of the assessment of the sites is shown in **Table 7**. The full appraisal matrices, including details regarding the predicted effects of the sites, are included in **Appendix 7**.

Generally the effects that are predicted to result from implementation of the proposed allocatio are found to be compatible with the SEA Objectives. Some adverse effects have been predicted, these largely being linked to the effects on the environmental SEA Objectives. These also relate to pre-mitigation effects and as a result do not reflect the final outcome that is expected from the Plan. A conclusion of no site specific effects has also been the result of a large number of assessments. This is for a number of main reasons:

- The site can have no likely effect on the objective because of its scale, location or nature of the development; or
- while development might have an effect on the Objective, the choice of one site over another in any particular settlement, would not. For example developing new houses in a settlement may put pressure on existing infrastructure (e.g. waste water treatment), but the exact location of the houses has no effect on this issue.

Table 7 Summary of SEA Assessment of Proposed Sites

Site Ref.	Site Name	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.			
Strategic Centres																
Aviemore																
H1	Dalfaber 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H2	Dalfaber 2	-	□	-	□	-	□	□	-	□	□	-	-	-	-	
M1	Aviemore Highland Resort	+	-	+	-	-	-	-	-	-	-	+	+	+	+	
M2	Laurel Bank	+	-	+	-	-	+	+	-	□	□	-	-	+	+	
C1	Land on Dalfaber Drive	+	□	+	□	□	□	□	-	□	□	-	□	+	+	

Site Ref.	Site Name	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.
C2	Former School Playing Fields	+	-	+	-	-	+	+	-	-	-	+	+
C3	Land South of Dalfaber Drive	+	-	+	-	-	-	-	-	-	-	+	+
EDI	Dalfaber Industrial Estate	+	□	+	□	□	+	□	□	□	□	+	+
ED2	Myrtlefield Industrial Estate	+	□	+	□	□	+	+	□	□	□	+	+
ED3	Granish	-	-	-	-	-	+	+	-	-	-	-	-
ACM	An Camas Mòr	?	-	?	-	-	-	□	-	-	-	?	?

Site Ref.	Site Name	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.
LTH1	North Aviemore 1	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-	-
LTH2	North Aviemore 2	-	-	-	-	-	-	<input type="checkbox"/>	-	-	?	-	-
Ballater													
H1	Monaltrie Park	+	-	+	-	-	-	+	-	<input type="checkbox"/>	<input type="checkbox"/>	+	+
CI	Former School Site	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
ED1	Ballater Business Park	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+	<input type="checkbox"/>	<input type="checkbox"/>	+	+
TI	Ballater Caravan Park	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+	<input type="checkbox"/>	<input type="checkbox"/>	+	+

Site Ref.	Site Name	SEA Objectives													
		Ia. Reduce greenhouse gas emissions	Ib. 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.		
Grantown-on-Spey															
H1	Beachen Court	+	-	-	-	-	-	-	-	-	-	-	-	-	-
H2	Castle Road	+	-	+	-	-	-	-	-	-	-	-	-	-	-
C1	Mossie Road	+	□	+	□	□	□	□	+	□	□	+	-	-	-
C2	Strathspey Railway extension	-	-	-	-	□	□	□	+	□	□	-	-	-	-
EDI	Woodlands Industrial Estate	-	□	-	□	□	+	+	+	□	□	-	-	-	-
T1	Grantown Caravan Park	-	□	-	□	□	+	+	-	-	□	-	-	-	-

Site Ref.	Site Name	SEA Objectives											
		Ia. Reduce greenhouse gas emissions	Ib. 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.
Kingussie													
H1	Land between Ardboilach Road and Crag an Darach	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-
C1	Ardovnie Car Park	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
C2	Car Park	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C3	Am Fasgadh	+	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C4	Car Park	+	-	+	-	-	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ED1	Council Depot	+	-	+	-	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>

Site Ref.	Site Name	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.
ED2	McCormack's Garage	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TI	Kingussie Golf Club	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newtonmore													
H1	Land between Perth Road and Station Road	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ED1	Rear of Café	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ED2	Industrial Park	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TI	Highland Folk Museum	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Site Ref.	Site Name	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.	
Intermediate Settlements														
Blair Atholl														
H1	Land between Bridge of Tilt and Old Bridge of Tilt	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-	
H2	Land Opposite Tilt Hotel	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	+	+	
ED1	Blair Atholl Saw Mill Yard	+	-	+	-	<input type="checkbox"/>	+	+	+	<input type="checkbox"/>	-	+	+	
T1	Blair Castle Caravan Park	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	+	+	
T2	Blair Atholl Caravan Park	+	-	+	-	<input type="checkbox"/>	+	+	<input type="checkbox"/>	-	-	+	+	

Site Ref.	Site Name	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.
T3	Visitor Gateway	+	-	+	-	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
Boat of Garten													
EDI	The Steam Railway Station	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
TI	Boat of Garten Caravanning and Camping Park	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
Braemar													
H1	Chapel Brae I	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	+
H2	St Andrew's Terrace	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	+

Site Ref.	Site Name	SEA Objectives											
		Ia Reduce greenhouse gas emissions	Ib. 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.
H3	Kindrochit Court	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
H4	Chapel Brae 2	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
H5	North Braemar	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
ED1	Ambulance Station	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ED2	The Mews	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T1	Braemar Caravan Park	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
Carr-Bridge													

Site Ref.	Site Name	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.
H1	Carr Road	-	-	-	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-
H2	Crannich Park	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-
ED1	Land at Railway Station	-	-	-	-	-	+	+	-	-	-	-	-
ED2	Carr-Bridge Garage	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	+	<input type="checkbox"/>	<input type="checkbox"/>	+	+	+
ED3	Former Saw Mill	-	-	-	-	-	+	+	?	<input type="checkbox"/>	-	-	-
T1	Landmark Forest Adventure Park	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-	+	+
Cromdale													

Site Ref.	Site Name	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	
H1	Kirk Road	+	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
H2	Auchroisk Park	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
EDI	The Smoke House	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Dulnain Bridge													
H1	Land west of play area	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
H2	Land adjacent to A938	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
EDI	Dulnain Garage	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>

Site Ref.	Site Name	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.
Kincraig													
H1	Land Opposite School	+	-	+	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
ED1	Baldow Smiddy	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
ED2	Land north of B9152	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	+
Nethy Bridge													
H1	Land at Lynstock Crescent	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-
H2	Lettoch Road	-	-	-	-	-	-	<input type="checkbox"/>	-	-	-	-	-
Tomintoul													

Site Ref.	Site Name	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
H1	Conglass Lane	+	+									
H2	Lecht Drive	+										
ED1	Garage North East	+										
ED2	Land by A939	+										
T1	Land to the South West	+										
Rural Settlement												
Calvine												

Site Ref.	Site Name	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.
CI	Old School	+	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	+
Dalwhinnie													
HI	Land by garage	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-
EDI	Garage Site	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	+	<input type="checkbox"/>	-
Dinnet													
HI	Land to East	+	-	+	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	+
EDI	Former Steading	-	-	-	-	<input type="checkbox"/>	+	+	<input type="checkbox"/>	<input type="checkbox"/>	+	-	-
Glenmore													

Site Ref.	Site Name	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.
T1	Glenmore Camp Site	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
T2	Glenmore Lodge	-	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
Inverdruike and Coylumbridge													
T1	Camping Site	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-	<input type="checkbox"/>	-	-
Laggan													
H1	Land adjacent to Achduchil	-	-	-	-	-	<input type="checkbox"/>	-	-	-	-	-	-

Summary of Site Assessments

The following table provides a brief summary of the potential effects identified by the SEA assessment of the proposed allocated sites. The table shows that the majority of assessments were either positive or neutral around (around 66%) in their effects on the SEA Objectives.

Since the strategy and policies of the LDP direct the type of development appropriate for the sites and therefore contribute significantly to the mitigation identified during their assessment, a more comprehensive summary, which also discusses matters of cumulative, incombination and synergistic effects, can be found on the section on **Assessing Cumulative Effects** (page 81). Full details of suggested mitigation can be found alongside the assessments in **Appendix 7**.

Table 8 Summary of SA/SEA Assessment of Proposed Allocated Sites

Long Term Significance	Count	%
++	0	0.0%
+	287	29.3%
□	363	37.0%
?	6	0.6%
-	291	29.7%
--	34	3.5%

Changes Arising from the Assessment

During the assessment of the options of the LDP a number of opportunities for enhancing its performance were identified.

Table 9 Changes arising from the assessment.

Policy / Site	SEA Objective	Reasons for Change	Recommendation
Policies			
10.6 Minerals	SEA Objective 5: Sustainable use and reuse of material assets	While the policy performs positively against the SEA Objective, a possible enhancement has been identified. Though restrictive, as worded the policy only dealt with primary mineral resources, however it should be recognised that secondary aggregates and / or recycled materials can be a more sustainable source of mineral resources and should be encouraged. The result could mean that the need to exploit new mineral resources is lessened, thereby increasing the overall effectiveness of the policy.	Policy could be enhanced by encouraging the processing of secondary aggregate/recycled materials: <i>"Proposals will be supported that enable a higher proportion of secondary aggregate/recycled materials to substitute for the consumption of primary aggregates; including facilities for storing, processing and recycling construction, demolition and excavation materials on construction sites and within active mineral sites and former quarries."</i>
Sites			
H1 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 10% site is affected by the low probability river extent flood zone.	Include following requierments: <i>"Should the existing permission expire or be varied, a revised Flood Risk Assessment and hydromorphological study will be required to identify the functional floodplain and developable area."</i>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
			<p><i>"A revised Drainage Impact Assessment may be required."</i></p>
M1 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The site's north eastern boundary runs along a burn and consequently a small strip along this boundary is affected by the medium probability flood zone. Across the site there are patches of medium and high probability surface water flood risk, though combined this probably equates to less than 15%.	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should adress existing surface water flooding issues."</i></p>
M2	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 10% is affected by the medium probability river extent flood zone.	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should adress existing surface water flooding issues."</i></p>
C2 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The whole site is affected by the low probability river extent flood zone.	<p>Site specific mitigation</p> <p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should adress existing surface water flooding issues."</i></p>
C3 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce	Around 10% is affected by the medium probability surface water flood zone.	<p>See Mitigation for Site Aviemore H1.</p> <p>Site specific mitigation</p>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
	flood risk		<p>Include following requierments:</p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues."</i></p>
ED1 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Parts of the site are affected by the medium probability surface water flood zone. These areas are however already developed.	<p>Include following requierments:</p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues."</i></p>
ED3 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Patches of the site are affected by the medium probability surface water flood zone. Combined these equate to less than 10%.	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues."</i></p>
ACM	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Large areas of the site are affected by the medium and low probability river extent and surface water flood zones. These areas fall outside of the site's preferred area. However, a large proportion of the site is wooded, so development would result in a loss of trees, which have benefits in terms of managing the effects of climate change, especially those related to flooding.	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p>
LTH I Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce	Small areas of the site are affected by the medium probability surface water flood zone. These are however so	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will</i></p>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
	flood risk	minor that they are unlikely to have an effect.	<p><i>be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</i></p>
LTH2 Aviemore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Patches of the site are affected by the medium probability surface water flood zone. Combined these equate to less than 10%.	<p>Include following requirements:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</i></p>
HI Ballater	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 20% of the site is affected by the low probability river flooding zone. Aberdeenshire Council has commissioned a flood study for Ballater, which reviewed the hydrology of the area in light of Storm Frank. The draft Storm Frank extents have been used to inform the site assessment.	<p>Include following requirements:</p> <p><i>“Aberdeenshire Council has commissioned a flood study for Ballater. Any site layout will need to take account of the functional flood plain, as defined in the Ballater Flood Study, and will require safe access and egress.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</i></p>
ED1 Ballater	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The whole site is affected by the low and medium probability river extent flood zone. The site is however already developed.	<p>Include following requirements:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p>
TI Ballater	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The whole site is affected by the medium probability river extent flood zone. The site is however already developed.	<p>Include following requirements:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
H1 Grantown-on-Spey	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 10% of the site is affected by the low probability river extend flood zone.	<p>Include following requierments:</p> <p><i>“A revised Flood Risk Assessment will be required.”</i></p> <p><i>“A revised Drainage Impact Assessment will be required and any new development must take account of and ensure integration with the existing SuDS scheme.”</i></p>
H2 Grantown-on-Spey	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Patches of the site, which combined equate to around 15% of its area, are affected by the medium probability surface water flood zone. The most significant of these of these are outside of the site's preferred area.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment will be required.”</i></p> <p><i>“A Drainage Impact Assesment is required.”</i></p>
C2 Grantown-on-Spey	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 10% of the site is affected by the medium probability surface water flooding.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should adress existing surface water flooding issues</i></p>
ED1 Grantown-on-Spey	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The site is affected by small patches of the medium probability surface water flood zone. Most of the site is however already developed.	<p>Include following requierments:</p> <p><i>“A Drainage Impact Assessment is required and should adress existing surface water flooding issues.”</i></p>
C3 Kingussie	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 70% of the site is affected by the medium probability river extent flood zone. Most of the site is however already developed in some form.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should adress</i></p>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
ED1 Kingussie	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 50% of the site is affected by the low and medium probability river extent flood zones.	<p>existing surface water flooding issues.”</p> <p>Include following requierments:</p> <p>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</p> <p>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</p>
ED2 Kingussie	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	No site specific effects, although the medium and high probability flood zone surrounds the site.	<p>Include following requierments:</p> <p>“A Flood Risk Assessment or other supporting information will be required to accompany any further development proposals.”</p>
T1 Kingussie	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 15% of the site is affected by the medium probability river extent and surface water flood zones. These areas are however already developed or excluded from the developable area.	<p>Include following requierments:</p> <p>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</p> <p>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</p>
H1 Newtonmore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 20% of the site is affected by the medium probability river extend flood zone. This area is however confined to the south and is excluded from the site's developable area.	<p>Include following requierments:</p> <p>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</p> <p>“A Drainage Impact Assessment is required and should address existing surface water flooding issues.”</p>
ED1 Newtonmore	Ib Increase resilience to the effects of climate	No site specific effects, although the site is surrounded by the medium and	See Mitigation for Site Aviemore H1.

Policy / Site	SEA Objective	Reasons for Change	Recommendation
	change and 3a. Reduce flood risk	high probability flood zone.	<p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues"</i></p>
ED2 Newtonmore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Parts of the site are affected by the low medium and low probability river extent flood zone.	<p>See Mitigation for Site Aviemore H1.</p> <p>Site specific mitigation</p> <p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues"</i></p>
T1 Newtonmore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	A small area along the site's southern boundary is affected by the medium probability river extent flood zone. Owing to the nature of the site's use it is unlikely that this is going to be developed.	<p>See Mitigation for Site Aviemore H1.</p> <p>Site specific mitigation</p> <p>Include following requierments:</p> <p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues"</i></p>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
H2 Blair Atholl	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	A small part of the site is affected by the medium probability river flooding and surface water flood zones.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues”</i></p>
ED1 Blair Atholl	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The whole site is affected by the medium probability river extent and surface water flood zones. The site is however already developed.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues”</i></p>
T1 Blair Atholl	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Small areas of the site are affected by the medium probability surface water flood zone. These are however so minor that they are unlikely to have an effect.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues”</i></p>
T2 Blair Atholl	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 20% of the site is affected by the medium probability river flooding zone. The site is however already developed.	<p>Include following requierments:</p> <p><i>“A Flood Risk Assessment or other supporting information will be required to identify the developable area.”</i></p> <p><i>“A Drainage Impact Assessment is required and should address existing surface water flooding issues”</i></p>
T3 Blair Atholl	Ib Increase resilience to	Around 50% of the site is affected by	Include following requierments:

Policy / Site	SEA Objective	Reasons for Change	Recommendation
	the effects of climate change and 3a. Reduce flood risk	the medium probability river extent flood zone. The site is however already developed.	<p><i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i></p> <p><i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues"</i></p>
T1 Braemar	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 20% of the site is affected by the low probability river flooding zone. This part is not within the area preferred for the extension of the caravan park.	Include following requirements: <i>"A Flood Risk Assessment or other supporting information will be required to identify the developable area."</i>
H1 Carr-Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Small areas of the site are affected by the medium probability surface water flood zone. Around half the site is wooded, so development would result in a loss of trees, which have benefits in terms of managing the effects of climate change, especially those related to flooding. This wooded area falls outside of the site's preferred area.	Include following requirements: <i>"A Drainage Impact Assessment is required and should address existing surface water flooding issues"</i>
H2 Carr-Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 10% is affected by the medium probability surface water flood zone.	Include following requirements: <i>"A revised Flood Risk Assessment may be required."</i>
ED1 Carr-Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	The site is affected by small patches of the medium probability surface water flood zone. Most of the site is wooded, so development would result in a loss of trees, which have benefits in terms	Site specific mitigation Include following requirements: <i>"A revised Flood Risk Assessment may be required."</i>

Policy / Site	SEA Objective	Reasons for Change	Recommendation
		of managing the effects of climate change, especially those related to flooding.	
ED3 Carr-Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 50% is affected by the medium probability river extent and surface water flood zone.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.”
T1 Carr-Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Small areas of the site are affected by the medium probability surface water flood zone. These are however so minor that they are unlikely to have an effect.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.” “A Drainage Impact Assessment is required and should address existing surface water flooding issues”
H1 Kincraig	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 40% of the site is affected by the medium probability surface water flood zone and a watercourse runs along its western edge..	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.” “A Drainage Impact Assessment is required and should address existing surface water flooding issues”
H2 Nethy Bridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 40% is affected by the medium probability river extent flood zone. The preferred part of the site is not within this area.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.”
ED1 Dinnet	Ib Increase resilience to the effects of climate change and 3a. Reduce	A small area of the site, certainly less than 5%, is affected by the medium probability river extent flood zone.	Include following requierments: “A Flood Risk Assessment or other supporting information will

Policy / Site	SEA Objective	Reasons for Change	Recommendation
	flood risk		<i>be required to identify the developable area.”</i>
TI Glenmore	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 15% of the site is affected by the medium probability river extend flood zone, essentially following the path of a water course.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.”
TI Inverdruie and Coylumbridge	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 40% of the site is affected by the medium probability river extend flood zone, essentially following the path of a water course.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.”
HI Laggan	Ib Increase resilience to the effects of climate change and 3a. Reduce flood risk	Around 15% is affected by the medium probability river extent flood zone and surface water run-off zone.	Include following requierments: “A Flood Risk Assessment or other supporting information will be required to identify the developable area.”
HI Laggan	4 Minimise contamination and safeguard and improve soil and peat quality.	There is deep present along the site's north western boundary. While not likely that deep peat covers a significant proportion of the site, in order to ensure negative effects do not arise, it is recommended that a peat survey be one of the site's requierments.	Add following text to site requieremnts: “Deep peat in vicinity of site. A Peat survey will be requiered to ensure that development does not occur where deep peat is present.”

Assessing Cumulative Effects

"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) (**Figure 5, Figure 6,**

Figure 7 and). 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, only one significant adverse effects was identified by the assessment of the Plan's vision,

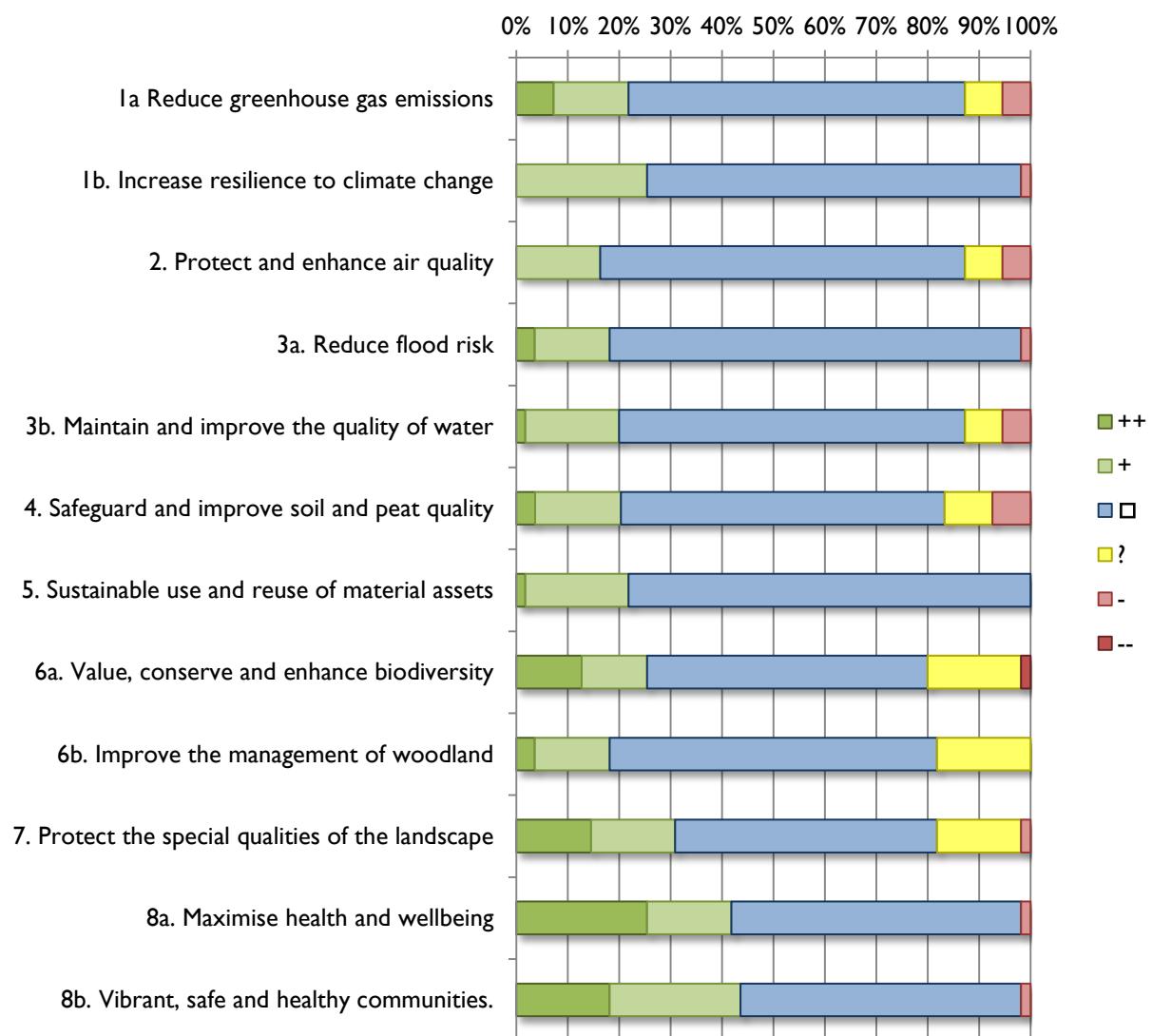


Figure 5 Summary of assessment by SEA Objective.

strategy and policies. However, this effect, was identified against Policy 1.11, the purpose of which is to set out the circumstances under which long-term allocated sites may be released during the plan period 2020-2029. The assessment is does not relate to the policy itself but to the sites that fall underneath its requirements, namely LTH 1 and LTH 2.

The assessment therefore reflects a site based issue and one that is limited in scale. The effects of sites LTH1 and LTH 2 are better considered under the section of the Environmental Report that considers the relative merits of sites. It is also important to note that the requirements of Policy 1.11 also mean that the sites are unlikely to be delivered during the Plan period and if they are, it is only because other sites are not, causing the land supply to fall below its 5-year threshold. Cumulative effects are therefore not likely to occur as the shortfall required for this to happen is significant.

Nevertheless, site based and plan base policy based mitigation measures have been identified , which means significant adverse

effects can be avoided. Therefore, the policy is not considered to have any bearing on the overall sustainability or environmental impact of the of the Plan.

Consideration also needs to be given as to whether or not significant in-combination or cumulative effects might arise from the 18 predicted minor adverse effects identified in the assessment.

The adverse effects cluster around certain options and certain SEA Objectives. SEA Objective 1a to Reduce GHG emissions, Objective 2 to protect and enhance air quality, Objective 3b to maintain and improve the quality of water and Objective 4 to Safeguard and improve soil and peat quality returned the greatest number of minor adverse effects, with 2, 2, 3 and 3 respectively. Most of these are associated with housing growth.

In terms of GHG emissions, it is not considered that the cumulative effects are likely to become significant. This largely because the National Park's population is a small one and is not projected to grow let

alone reach levels whereby considerable harm might be caused. Furthermore, improvements to the insulatory standards and energy efficiency of buildings means that the effects of any new development are likely to be limited.

Where the effects of SEA Objectives 1a and 2 meet is with the emissions caused by private motor vehicles. The SEA predicts that a growing population combined with growing visitor numbers is likely to result in a concurrent rise in the use of private motor vehicles.

These effects also need to be considered in combination with the dualling of the A9, which is set to take place over the Plan period, with work already underway within the National Park.

In terms of GHG emissions, it is not considered that the number of additional journeys created is likely to result in significant harm. Again, this is because the projections over the Plan period and beyond indicate a small reduction in the average household size and existing

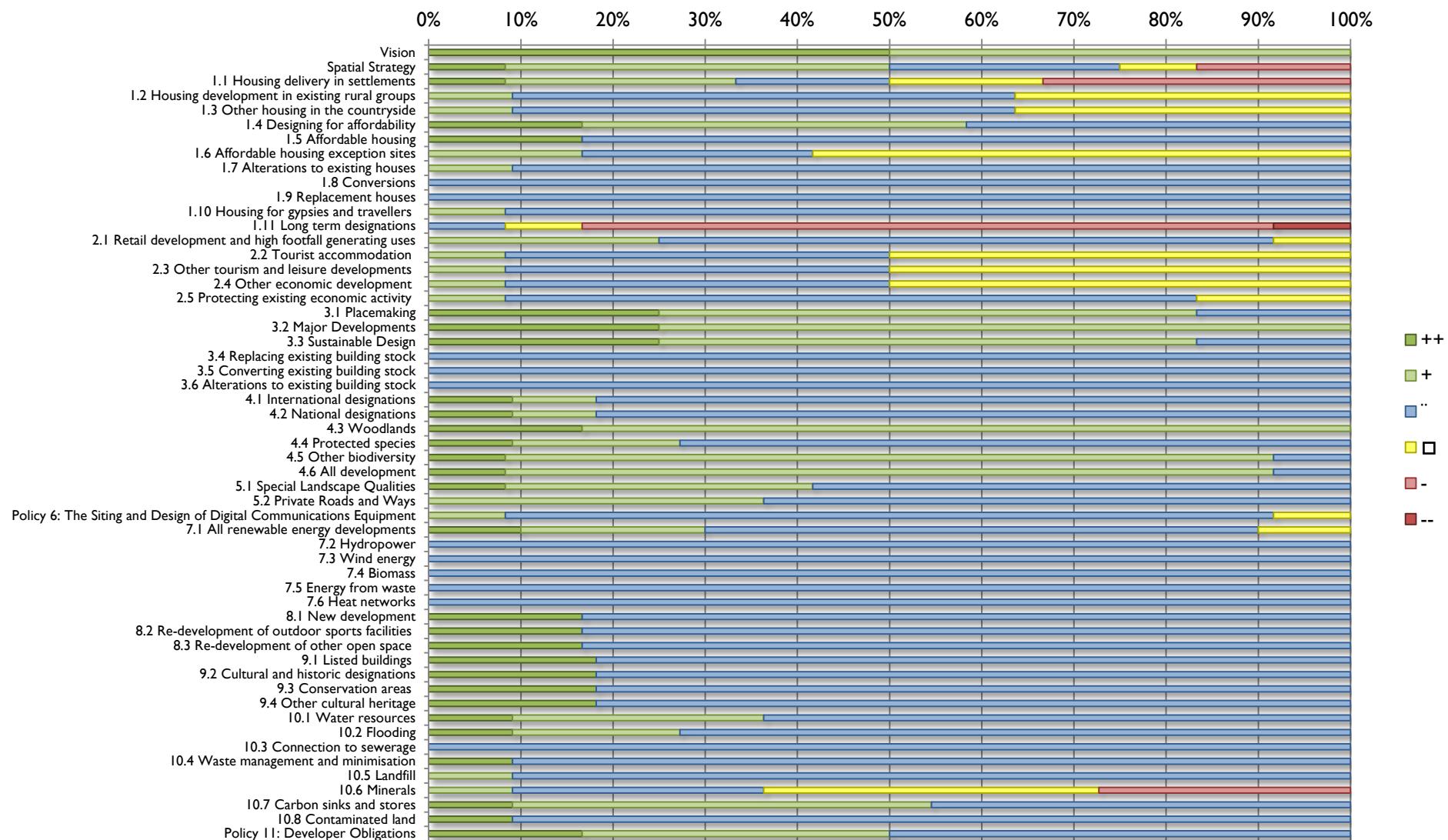


Figure 6 Summary of assessment by LDP's Vision, Strategy and Policies

population and therefore the growth in car journeys is unlikely to be high.

In terms of the effect on air quality, the fact that no air quality objectives are currently failing within the National Park and that the duelling of the A9 is likely to result in a reduction in ambient air pollution means that again, the effects are unlikely to become significant.

A number of minor negative effects have also been identified around SEA Objective 3b, which is concerned with water quality and quantity. These largely relate to potential effects from surface-water pollutants, particularly during the construction phase and the pressure developments might place on water and waste treatment infrastructure, which in some areas does not have enough capacity to meet projected growth. Since all of these effects essentially relate to the same cause, namely the development of housing, cumulative effects are not considered likely.

In fact, taken together with the work carried out by River Catchment Initiatives,

the overall effects of the Plan are likely to be positive.

In terms of soil and peat quality, minor effects relate to the fact that most development is likely to occur on greenfield sites. There is little that can be done about this, although particularly valuable and sensitive soils should be avoided. Again, owing to the limited scale at which development is likely to take place over the Plan period, this is not expected to become significant.

Overall, the Strategy's cumulative effects are likely to be positive in nature, with strong environmental priorities protecting and encouraging the conservation and enhancement of the National Park's important habitats and species and progressive economic and recreational outcomes generating positive effects on human health and wellbeing.

Evaluation of Uncertainties and Risks

Although some policies 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 but one of these potential adverse effects are only minor in nature.

A large number of uncertainties exist around the provision of tourist facilities and accommodation. This is largely because the scale and location of these can vary greatly and it is not possible to accurately predict what might come forward during the plan period. Risks are minimised by the fact the development plan contains policies that can be used to avoid any significant adverse effects.

For the same reason, uncertainties are identified around policies relating to economic development. While sites have been identified to accommodate some growth, businesses in the Cairngorms often fall within the small to medium enterprise category. Thus, need for development is often small in scale and in locations that are difficult to plan for in the long-term. Based on historical rates of development and the

nature and scale of projects, risks are considered to be low.

Uncertainty also exists around certain housing policies, in particular policies I.2, I.3 and I.6. These essentially deal with windfall development outwith settlements and therefore the location of proposals is unknown. Risks are however low, largely due to the limited scale of the development these policies enable.

It is important to note that as a precautionary measure mitigation measures have not only been identified in relation to predicted adverse effects, but also where uncertainties are recognised. These are described in **Table II**.

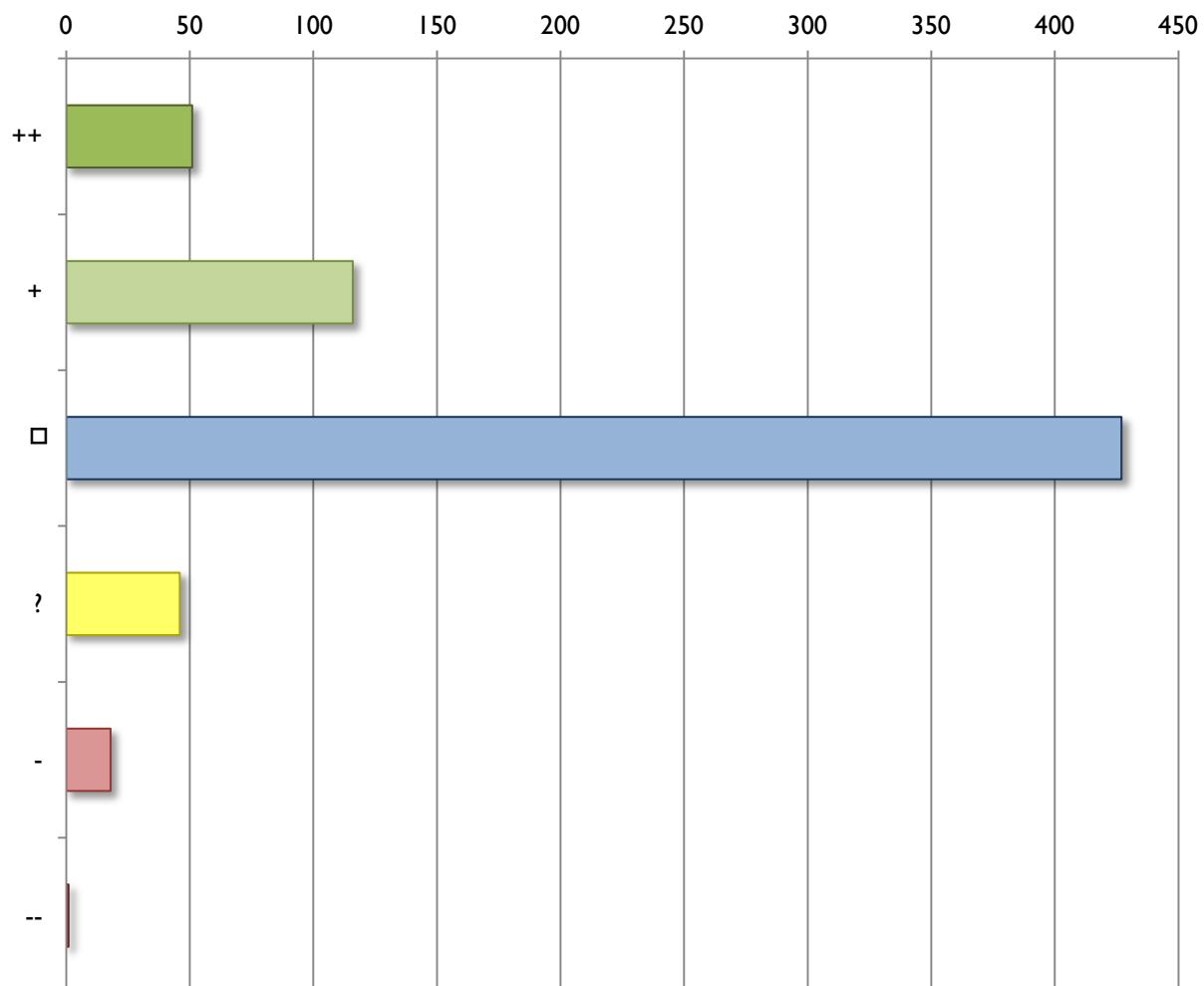


Figure 7 Overall summary of the LDP vision, strategy and policies predicted long term effects.

Key Messages from Assessment

Generally, the plan elements scored well in the assessment (**Figure 5, Figure 6, Figure 7 and Table 10**). No likely significant adverse effects were identified.

Some minor adverse effects were predicted, these mostly being linked to the settlement strategy and economic growth, and the land-take associated with these. These effects have not resulted in the need to make significant changes to the Plan's proposals at this stage. Mitigation measures have been identified that address potential negative effects (**Table 11**).

Table 10 Summary of SEA's conclusions on Vision, Strategy and Policies.

Long Term Significance	Count	%
++	51	7.7%
+	116	17.6%
□	427	64.8%
?	46	7.0%
-	18	2.7%
--	1	0.2%

Mitigation

Table 11 Summary of measures proposed to mitigate any negative effects arising from the implementation of the LDP. Site specific mitigation measures can be found in Appendix 7.

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
Ia Reduce greenhouse gas emissions	The Settlement Strategy and Policy I partially mitigates themselves by supporting the improvement of an integrated and sustainable walking and cycling network with better links to transport. Furthermore, Policies 3, 7 and 11 have a wide range of elements that will help mitigate the negative effects of this policy on the SEA Objective, including encouraging the incorporation of renewable energy technologies into development, requiring a high standard of design and the LPA to ask for developer obligations to deliver improvements to walking and cycling infrastructure and the public transport network. The overall policy approach is supported by the Cairngorms NPPP, particular Policy 3.2.	The effects of climate change have been a key consideration in the formation of the LDP's overall Settlement Strategy, with the focus of Strategic and Intermediate Settlement's designed to reduce the reliance on private motor vehicles. Policies I and 2 have been designed to direct development to these more sustainable locations Policies 3, and 7 also have elements that require the delivery of different types of mitigation that will limit the effects of the site on the climate, including building high quality and energy efficient buildings that incorporate renewable energy technologies. Through these policies, where appropriate development should include provision for improved pedestrian and public transport infrastructure. This may include the provision of pavements, public footpaths, cycle tracks and improved on-site access.	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
Ib Increase resilience to the effects of climate change	<p>Development, whether it be on allocated sites or windfall, will need to meet the requirements of Flood Risk Management (Scotland) Act 2009, National Planning Framework 3 and Scottish Planning Policy. Under the provisions of the 2009 Act, the CNPA has carried out a Strategic Flood Risk Assessment for all sites identified for allocation within the Proposed Plan and recommends methods of managing flood risk on sites that may be subject to some risk. Where necessary, these site specific recommendations have been incorporated into the Settlement Information section of the Proposed Plan and will therefore need to be met in order for planning permission to be gained. Further, more detailed Flood Risk Assessments will be required on sites where they have been deemed necessary. Policies 3 and 10 have a wide range of elements relating to design and SuDS, which are applicable to all developments that will help mitigate the negative effects of this policy on the SEA Objective. Other policies may also have indirect effects in mitigating any negative effects, for example, Policies 4 and 5. It is however important to note that the development of these sites is unlikely within</p>	<p>The Settlement Strategy has been designed to locate development in the most sustainable locations, a key part of which has been the desire to locate development in those areas least susceptible to the effects of climate change.</p> <p>With respect to flood risk, both present and future, development, whether it be on allocated sites or windfall, will need to meet the requirements of Flood Risk Management (Scotland) Act 2009, National Planning Framework 3 and Scottish Planning Policy. Under the provisions of the 2009 Act, the CNPA has carried out a Strategic Flood Risk Assessment for all sites identified for allocation within the Proposed Plan and recommends methods of managing flood risk on sites that may be subject to some risk. Where necessary, these site specific recommendations have been incorporated into the Settlement Information section of the Proposed Plan and will therefore need to be met in order for planning permission to be gained. Further, more detailed Flood Risk Assessments will be required on sites where they have been deemed necessary.</p>		

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
	the Plan period.	Policies 3 and 10 have a wide range of elements relating to design and SuDS, which are applicable to all developments that will help mitigate the negative effects of this policy on the SEA Objective. Both policies may also be used to ensure that flood resistant building measures are incorporated into developments. Other policies may also have indirect effects in mitigating any negative effects, for example, Policies 4 and 5.		
2 Protect and enhance air quality	The policy partially mitigates itself by supporting the improvement of an integrated and sustainable walking and cycling network with better links to transport. Furthermore, Policies 3, 7 and 11 have a wide range of elements that will help mitigate the negative effects of this policy on the SEA Objective, including encouraging the incorporation of renewable energy technologies into development, requiring a high standard of design and the LPA to ask for developer obligations to deliver improvements to walking and cycling infrastructure and the public transport network. The overall policy approach is supported by the Cairngorms NPPP, particular Policy 3.2.	The Settlement Strategy supports the improvement of an integrated and sustainable walking and cycling network with better links to transport. Policies 1 and 2 have been designed to direct development to more sustainable locations. Furthermore, Policies 3 and 11 have a wide range of elements that will help mitigate the negative effects of this policy on the SEA Objective, including encouraging the incorporation of renewable energy technologies into development, requiring a high standard of design and the LPA to ask for developer obligations to deliver improvements to walking and cycling infrastructure and the public transport network. The overall policy approach is supported by the Cairngorms NPPP,		

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
		particular Policy 3.2.		
3a Reduce flood risk	<p>Development, whether it be on allocated sites or windfall, will need to meet the requirements of Flood Risk Management (Scotland) Act 2009, National Planning Framework 3 and Scottish Planning Policy. Under the provisions of the 2009 Act, the CNPA has carried out a Strategic Flood Risk Assessment for all sites identified for allocation within the Proposed Plan and recommends methods of managing flood risk on sites that may be subject to some risk. These site specific recommendations have been incorporated into the Settlement Information section of the Proposed Plan and will therefore need to be met in order for planning permission to be gained. Further, more detailed Flood Risk Assessments will be required on sites where they have been deemed necessary. Policies 3 and 10 have a wide range of elements relating to design and SuDS, which are applicable to all developments that will help mitigate the negative effects of this policy on the SEA Objective. Other policies may also have indirect effects in mitigating any negative effects, for example, Policies 4 and 5. It is</p>	<p>Development, whether it be on allocated sites or windfall, will need to meet the requirements of Flood Risk Management (Scotland) Act 2009, National Planning Framework 3 and Scottish Planning Policy. Under the provisions of the 2009 Act, the CNPA has carried out a Strategic Flood Risk Assessment for all sites identified for allocation within the Proposed Plan and recommends methods of managing flood risk on sites that may be subject to some risk. These site specific recommendations have been incorporated into the Settlement Information section of the Proposed Plan and will therefore need to be met in order for planning permission to be gained. Further, more detailed Flood Risk Assessments will be required on sites where they have been deemed necessary. Policies 3 and 10 have a wide range of elements relating to design and SuDS, which are applicable to all developments that will help mitigate the negative effects of this policy on the SEA Objective. Other policies may also have indirect effects in mitigating any negative effects, for example, Policies 4 and 5. It is however important to note that the</p>	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
	however important to note that the development of these sites is unlikely within the Plan period.	development of these sites is unlikely within the Plan period.		
3b Maintain and improve the quality of water resources	Development, whether it be on allocated sites or windfall, will need to meet the requirements of Flood Risk Management (Scotland) Act 2009, National Planning Framework 3 and Scottish Planning Policy. Under the provisions of the 2009 Act, the CNPA has carried out a Strategic Flood Risk Assessment for all sites identified for allocation within the Proposed Plan and recommends methods of managing flood risk on sites that may be subject to some risk. These site specific recommendations have been incorporated into the Settlement Information section of the Proposed Plan and will therefore need to be met in order for planning permission to be gained. Further, more detailed Flood Risk Assessments will be required on sites where they have been deemed necessary. Policies 3 and 10 have a wide range of elements relating to design and SuDS, which are applicable to all developments that will help mitigate the negative effects of this policy on the SEA Objective. Other policies may also have	Policy 10 requires SuDS to be implemented as part of all developments in order to manage on-site run-off and reduce flood risk in adjacent areas. Management schemes can be put in place to ensure negative effects do not arise during construction.	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
	indirect effects in mitigating any negative effects, for example, Policies 4 and 5.			
4 Minimise contamination and safeguard and improve soil and peat quality.	While a minor negative effect has been identified, the strategy aims to minimise the loss of soil by directing development to the most sustainable locations and encouraging the coalescence of uses. Sites are also scaled so that their use is maximised through the requirement to deliver higher densities than has been the historic norm. Policies 3, 4 and 10 also have elements that will help mitigate the negative effects of this policy on the SEA Objective.	In order to maximise the use of land, thereby reducing the negative effects on soil, sites have been allocated to offer the highest density of development possible, without appearing out of place with their surroundings.	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
5 Encourage the sustainable use and reuse of material assets.	No mitigation required.	No mitigation required.	N/A	N/A

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SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
6a Value, conserve and enhance biodiversity, distinctive wild species and habitats	<p>Ecological appraisals have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on biodiversity. Where necessary, these have been included within the Settlement Information Section of the Proposed Plan and their requirements will need to be met to gain planning permission. Where necessary, the requirement for further surveys has been identified. Where no site specific requirements have been identified, requirements are set out by Policy 4, which seeks to reduce any negative effects on biodiversity, while Policies 5 and 11 also have some positive synergistic effects on the SEA Objective.</p> <p>With regard to Capercaillie, the CNPA is in the process of developing a Capercaillie Framework, which it is intended the LDP support, which will:</p> <ul style="list-style-type: none"> ➤ Bring together existing knowledge on the state of Capercaillie across the Cairngorms National Park, the combined knowledge of the pressures they face, particularly with regard to recreation and housing development; and the suite of management measures currently being deployed, using spatial mapped data where possible; ➤ inform future decisions about co-ordinated deployment of management 	<p>Ecological appraisals have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on biodiversity. Where necessary, these have been included within the Settlement Information Section of the Proposed Plan and their requirements will need to be met to gain planning permission. Where necessary, the requirement for further surveys has been identified. Where no site specific requirements have been identified, requirements are set out by Policy 4, which applies to all development, and seeks to reduce any negative effects on biodiversity.</p> <p>Mitigation is applied through Policy 4, with:</p> <ul style="list-style-type: none"> ➤ 4.1 dealing with the potential effects on International Designations, such as SACs, SPAs, SSSIs and Ramsar sites; ➤ 4.2 dealing with the potential effects on national designations such as SSSIs, NNRs and NSAs; ➤ 4.3 dealing with the potential effects on woodland habitats, including areas identified on the AWI; ➤ 4.4 dealing with the potential effects on protected species, including European Protected Species, species protected under Schedule 1, 1A, 1AI and 5 of the Wildlife and Countryside Act 1981 and badgers and their sets, as required but h the Protection of Badgers Act 1992 (as amended). 	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
6b Maintain and improve the sustainable management of woodland for multiple benefits	<p>Ecological appraisals, which included an assessment of the condition of woodlands and trees that may be affected by development, have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on biodiversity. These have been included within the Settlement Information Section of the Proposed Plan and their requirements will need to be met to gain planning permission. Where necessary, the requirement for further surveys has been identified. Policy 4 also seeks to reduce any negative effects on biodiversity, while Policy 5 also has some positive synergistic effects on the SEA Objective.</p>	<p>Ecological appraisals have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on woodlands. Policy 4, which applies to all development seeks to reduce any negative effects on biodiversity as a whole, with Policy 4.4 specifically seeking to avoid the loss of woodland habitats, including areas identified on the AWI.</p>	CNPA	2020-2025
7 Protect and enhance the character, diversity and special qualities of the National Park's landscape and cultural and historic heritage	<p>Landscape appraisals have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on the special qualities of the National Park. Although the effects of this policy are uncertain, Policies 4 and 5 will help mitigate against any of the possible negative effects facing the National Park's landscape</p>	<p>Landscape appraisals have been carried out and have been used to inform the choice of allocations and the mitigation that may be applied to limit any negative effects they may have on the special qualities of the National Park.</p> <p>As the overarching strategy for policy within the National Park the NPPP offers a means of mitigation that would need to be incorporated within the Proposed LDP. NPPP Policy 1.3 seeks to ensure that the</p>	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
		<p>management of the National Park results in the conservation and enhancement of the National Park's special qualities.</p> <p>Within the LDP itself, Policy 5 aims to ensure that the impact of development on landscape will be limited and where possible contribute to its enhancement. Additionally Policy 4 and Policy 8 offer synergistic effects as habitat mitigation and compensation and the protection and creation of open spaces can contribute positively to landscape quality. With respect to the historic environment, Policy 9 provides the primary means of avoiding negative effects, with:</p> <ul style="list-style-type: none"> ➤ 9.1 dealing with the potential effects on listed buildings; ➤ 9.2 dealing with the potential effects on cultural and historic designations such as scheduled monuments, inventory battlefield sites and designed gardens and landscapes ➤ 9.3 dealing with the potential effects on conservation areas; and ➤ 9.4 dealing with the potential effects on all other heritage assets, including 		

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
		<p>those identified on the Sites and Monuments and Records.</p> <p>Policy 3 also plays an important role in not only avoiding negative effects, but also delivering enhancements. Specifically:</p> <ul style="list-style-type: none"> ➤ 3.1 requires all developments to meet the six qualities of successful places; ➤ 3.2 requires all major developments to be subject to masterplans or development briefs, meaning that opportunities can be taken at a strategic level to manage the effects of development on landscape quality and heritage assets ➤ 3.3 requires development to meet a variety of tests, including that development be sympathetic to the traditional pattern and character of the surrounding area, use materials and landscaping that complement the setting of the development and improve or add to existing public and amenity open space. 		

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
		Where necessary, landscaping requirements have been highlighted in the Site information of the LDP.		

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SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
8a Promote opportunities that maximise the health and wellbeing of local people, visitors and communities.	<p>Policies 3, 7 and 11 have a wide range of elements that will help mitigate the negative effects of this policy on the SEA Objective, Policy 11 allows the LPA to ask for developer obligations to deliver improvements to walking and cycling infrastructure and the public transport network.</p>	<p>The desire to co-locate housing with other community facilities has been a key consideration in the formation of the LDP's overall Strategy as it promotes walking and cycling and provides easy access to health facilities. Policies 1 and 2 have been designed to locate development in the most sustainable locations, which limit the need to travel by elsewhere to get involved in community interactions.</p> <p>Healthy lifestyles are indirectly prompted through Policy 3, and in particular Policy 3.1, which requires all development to meet the six qualities of successful places, including the need to be safe and pleasant, welcoming and easy to move around and beyond.</p> <p>Policy 8 also promotes healthy lifestyles through encouraging the development and protection of recreational facilities and other open spaces, both formal and informal.</p> <p>Policies 4 and 5 both have elements that offer synergistic effects as good biodiversity mitigation and landscaping schemes can double up as recreational spaces and encourage people to engage in their</p>	CNPA	2020-2025

SEA Objective	Policy Measures	Site Measures	Lead Authority	Proposed Timescale
		surrounding environment. More practically, Policy 11 offers the means of delivering these.		
8b Support vibrant, safe and healthy communities.	Policies 3, 7 and 11 have a wide range of elements that will help mitigate the negative effects of this policy on the SEA Objective, Policy 11 allows the LPA to ask for developer obligations to deliver improvements to walking and cycling infrastructure and the public transport network.	The desire to co-locate housing with other community facilities has been a key consideration in the formation of the LDP's overall Strategy. Policies 1 and 2 have been designed to locate development in the most sustainable locations, which limit the need to travel by elsewhere to get involved in community interactions. Policies 3, 4, 5, 9 and 11 all have elements that will help mitigate many of the effects of the site on the SEA Objective. In Particular Policy 3.1 requires all development to meet the six qualities of successful places, which requires development to be safe and pleasant, welcoming and easy to move around and beyond, all of which can contribute positively towards enabling people, to engage with their environment and those they share it with. This is supported by Policy 3.3, which requires development to add to excising public and amenity space and maintain and maximise all opportunities for responsible outdoor access.	CNPA	2020-2025

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 LDP 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.

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. The potential significantly adverse effects has not been identified by the assessment and therefore there is not a duty under the act to establish a monitoring framework.

However, owing to the special nature of the National Park’s environment and the scope of the LDP to affect it, a proposed monitoring framework is being developed. The framework designed to monitor what are considered to be the key environmental impacts of the LDP (**Table 12**, p.102). Indicators have not been developed for all SEA objectives as the potential for effects has been determined to be negligible. The indicators will be monitored as part of the LDP implementation and sit alongside the monitoring regimes of other PPS active within the Cairngorms, for example the NPPP (2017) and its successors.

This Environmental Report is not the conclusion of the SEA process and the proposed monitoring framework will be

refined following its publication. A finalised set of indicators will be set out in the Post-adoption Statement, which will be published following the LDP's approval by the Scottish Government.

Table 12 Proposed SEA Monitoring Framework.

Indicator	Related Objectives	Rationale	Source	Frequency
Estimated per capita CO ₂ emissions (t) for the National Park	Ia Reduce greenhouse gas emissions	Carbon dioxide emissions account for around 82% of greenhouse gas emissions in the UK. As the population of the National Park grows it is important to ensure it does so sustainably and that per capita emissions continue to decline for significant adverse effects to be avoided.	Department of Energy and Climate Change	Annual
	Ib Increase resilience to the effects of climate change			
Area of land permitted on 1:200 floodplain	3a Reduce flood risk	The estimated total average annual cost of damage in Potentially Vulnerable Areas (PVAs) within and overlapping the National Park is £1,071,000. To avoid significant adverse effects it is important to ensure that floodplains remain functional and people and infrastructure are not placed at increased risk.	CNPA	Annual
Water quality classification of waterbodies within and overlapping the Cairngorms National Park	3b Maintain and improve the quality of water resources	Good water quality is essential for many of the National Park's important wetland habitats and species as well as for providing clean drinking water.	SEPA	Annual

Indicator	Related Objectives	Rationale	Source	Frequency
Area under peatland restoration	4 Minimise contamination and safeguard and improve soil and peat quality.	Peat and carbon rich soils offer a range of important ecosystem services as well as being important ecosystems in their own right.	CNPA	Annual
Area of peatland lost due to development				
Estimated household waste per person (kg per person) in National Park	5 Encourage the sustainable use and reuse of material assets	Reducing the amount of waste produced and increasing the percentage of this waste that is recycled is essential for the sustainable use and management of our material assets.	Scottish Government	Annual
Estimated recycling rate (%) in National Park				
Number capercaillie recorded during the annual lek count	6a Value, conserve and enhance biodiversity, distinctive native species and habitats	The LDP's spatial strategy focuses growth on the main settlements as identified in the current and future LDP. Many of these settlements are near to important habitats and protected sites, for example Glenmore and the River Spey near Aviemore.	CNPA	Annual
Number capercaillie recorded during the annual brood count			SNH RSPB FCS	Annual
Number of capercaillie recorded during the National Winter Survey			SNH RSPB	Every 6 years (Most recent count Winter 15/16)
The Ecological status of waterbodies within and overlapping the National Park			SEPA	Annual

Indicator	Related Objectives	Rationale	Source	Frequency
Number of new ponds created, including SuDS ponds.		Wetlands area CNAP priority habitat and development may result in its loss. Developemnt can however be the driving force behind creating new wetlands, in particular through the creation of SuDs schemes.	CNPA	Annual
Percentage of designated features in favourable condition		It is important that the application of the LDP avoids having adverse effects on designated sites. The LDP should have a positive effect. The indicator will provide information for a wide range of habitat types.	SNH	As and when sites are assessed.
Area of new native woodland created in the National Park	6b Maintain and improve the sustainable management of woodland for multiple benefits	Woodlands offer a range of important ecosystem services as well as being important ecosystems in their own right.	FCS	Annual
Change in the wildness of land within the National Park.	7 Protect and enhance the character, diversity and special qualities of the National Park's landscape and cultural heritage	Changes to land management practices and the development delivered through the LDP could have an effect of the special qualities of the landscape, with relative wildness being an important part.	CNPA SNH	Once at end of Plan period
Percentage of visitors using active travel during their stay	8a Promote opportunities that maximise the health and wellbeing of local people, visitors and	In 2015, 16% of visitors used active travel during their stay in the National Park. An increase in this level would contribute towards the National Park's	CNPA	2020

Indicator	Related Objectives	Rationale	Source	Frequency
	communities.	overall sustainability.		
Percentage of new dwellings with a selling price below the overall median house price of the National Park	8b Support vibrant, safe and healthy communities.	Access to suitable housing is essential for the health and wellbeing of communities. Houses sold at or above the median price are however out of the range of those with incomes around the median. Delivering 'affordable housing' is therefore essential to avoid significant adverse effects.	CNPA	Annual
Average distance of households from key community facilities (e.g. post office, petrol station, primary school, secondary school, GP).		Facilities such as post offices and primary schools are essential for the viability of communities while facilities such as GPs are important for supporting healthy lifestyles. The indicator can be compared against 2012 and 2016 baselines.	Scottish Index of Multiple Deprivation	2020

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 SEA Environmental Report will be submitted to the SEA Gateway and consulted on with the CAs for a period of xx weeks between xxth January 2019 and 2nd xx 2019. Following consultation on the Environmental Report, the CNPA will consider any comments received and will amend the SEA work where appropriate. This will take place in spring/summer 2019.

All documents will be available for inspection in the CNPA's main office in Grantown-on-Spey and on its website.

Once the LDP has been adopted an Adoption Statement will be published. The 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 LDP. It will also be stated within the Post-adoption Statement if any changes have been made to the LDP 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 LDP in accordance with the Scottish Government's SEA Guidance (2013).

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Appendices

Appendix I: Plans, Policies and Strategies

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
International Directives and Policies			
The Clean Air Policy Package (EC, 2013)	The package consists of a Clean Air Programme for Europe with air quality objectives for the period up to 2030, a revised National Emission Ceilings Directive (currently under review) with stricter national emission ceilings for the six main pollutants, and a proposal for a new Directive to reduce pollution from medium-sized combustion installations.	<ul style="list-style-type: none"> ➤ Air ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Population and Human Health 	The Proposals of the Plan should not adversely affect air quality.
Directive 91/676/EEC: Nitrates Directive	Requires member states to reduce water pollution caused or induced by nitrates from agricultural sources and to prevent further such pollution.	<ul style="list-style-type: none"> ➤ Water ➤ Biodiversity, Fauna and Flora 	Plan should not increase water pollution caused or induced by nitrates from agricultural sources.
Directive 92/42/EC: The Conservation of Natural Habitats of Wild Fauna and Flora	Requires member states to sustain populations of naturally occurring flora and fauna by sustaining areas of habitats to maintain ecologically and scientifically sound levels.	<ul style="list-style-type: none"> ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Fauna ➤ Landscape and Cultural Heritage 	Plan must ensure protection and enhancement of Natura Sites and protection of European Protected Species.
Directive 1999/31/EC: Landfill of waste Directive	The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment, in particular on surface water, groundwater, soil, air,	<ul style="list-style-type: none"> ➤ Air ➤ Water ➤ Soil 	Plan should promote the waste hierarchy and work towards

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
	and on human health from the landfilling of waste by introducing stringent technical requirements for waste and landfills.	<ul style="list-style-type: none"> ➤ Material Assets ➤ Population and Human Health 	reducing landfill waste.
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.	<ul style="list-style-type: none"> ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage 	Plan should support protection and enhancement of the water environment.
Directive 2001/42/EC: Strategic Environmental Assessment Directive	Requires Strategic Environmental Assessments to be undertaken for plans, programmes and strategies with significant environmental effects.	<ul style="list-style-type: none"> ➤ All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005 	Enables significant environmental effects of the Plan to be identified and addressed.
Directive 2001/81/EC (NECD): National Emissions Ceiling Directive	Sets ceilings for each member state for emissions of ammonia, oxides of nitrogen, sulphur dioxide and volatile organic compounds.	<ul style="list-style-type: none"> ➤ Air ➤ Population and Human health 	Plan should reflect the purpose of the Directive and should not adversely affect air quality.
Directive 2002/49/EC: Environmental Noise Directive	Aims to define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to the exposure to environmental noise	<ul style="list-style-type: none"> ➤ Population and Human health 	Plan should seek to ensure policies and developments do not result in negative health and wellbeing effects resulting from noise.
Directive 2006/7/EC: Bathing Water Directive	Aims to protect the public and the environment from faecal pollution at waters used for bathing by a large	<ul style="list-style-type: none"> ➤ Water ➤ Population and 	Plan should consider the contribution that actions could

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
	number of visitors.	Human health	make towards the attainment of bathing water quality standards.
Directive 2006/113/EC: The Shellfish Waters Directive	Aims to protect or improve shellfish waters in order to support shellfish life and growth. It is designed to protect the aquatic habitat of bivalve and gastropod molluscs, which include oysters, mussels, cockles, scallops and clams.	<ul style="list-style-type: none"> ➤ Water ➤ Biodiversity, Fauna and Flora 	Plan should seek to avoid negative effects on shellfish waters, which in the National Park context include Freshwater Pearl Mussel.
Directive 2006/118/EC: Groundwater Daughter Directive	Made under the Water Framework Directive, the Daughter Directive aims to prevent and limit inputs of pollutants to groundwater.	<ul style="list-style-type: none"> ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Population and Human health 	Plan should where possible contribute to the protection of groundwater resources.
Directive 2007/60/EC: Floods Directive	Requires member states to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk	<ul style="list-style-type: none"> ➤ Climatic Factors ➤ Water ➤ Population and Human health 	Plan should reduce and manage flood risk encouraging natural flood management approaches.
Directive 2008/50/EC: Ambient Air Quality and Cleaner Air for Europe	Establishes standards for air quality and sets limits for various pollutants.	<ul style="list-style-type: none"> ➤ Air ➤ Population and Human health 	Plan should support measures that would improve air quality.
Directive 2008/98/EC: Waste Framework	The revised EU Waste Framework Directive establishes the legislative framework for the handling	<ul style="list-style-type: none"> ➤ Material assets ➤ Population and Human health 	Plan should, if needed, provide a strategic context for waste management within the

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Directive of waste by member states.			National Park.
Directive 2009/28/EC: Promotion of the use of energy from renewable sources	Establishes a common framework for the production of energy from renewable sources and the promotion of its use.	➤ Climatic factors	Plan should seek to promote the development and use of appropriate renewable energy sources.
Directive 2009/147/EC on the Conservation of Wild Birds	Requires member states to sustain populations of naturally occurring wild birds by sustaining areas of habitats to maintain ecologically and scientifically sounds levels.	➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage	Plan should support protection and enhancement of bird habitat through policies and targets.
European Charter for Regional or Minority Languages (European Council, 1992)	European adopted under the auspices of the Council of Europe to protect and promote historical regional and minority languages in Europe. The charter identifies Gaelic as being an endangered language.	➤ Landscape and Cultural heritage ➤ Population and Human health	Plan can support the Gaelic language by encouraging good design and placemaking.
European Framework for Sustainable Development (2001)	Promotes quality of life, coherent and cost effective policy making, technological innovation, stronger involvement of civil society and business in policy formulation. Strategies for sustainable economic growth should support social progress and respect the local environment.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan should support social progress and respect the local environment.
European Landscape	Promotes the protection, management and planning of	➤ Biodiversity, Fauna	Plan should be a tool for the

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Convention (2000)	European landscapes and organises European co-operation on landscape issues	and Flora ➤ Landscape and Cultural heritage ➤ Population and Human health	maintenance and restoration of landscapes and their natural habitats.
European Union Biodiversity Strategy to 2020 (2011)	Strategy aims to halt the loss of biodiversity and ecosystem services in the EU by 2020.	➤ Soil ➤ Biodiversity, Fauna and Flora	Plan should support conservation and enhancement of biodiversity.
European Union Climate Change Agreement 2007	EU member states agreed to cut greenhouse gas emissions by 20 per cent by 2020.	➤ Climatic Factors	Plan should seek to promote the development and use of appropriate renewable energy sources and contribute to climate change mitigation.
European Union Common Agricultural Policy	Sets policy for agricultural support with increased emphasis on rural development support.	➤ Landscape and Cultural Heritage ➤ Population and Human Health	Plan should recognise and provide for rural diversification of economic activities.
European Union Policy Framework for Climate and Energy (2020 to 2030)	A framework for EU climate and energy policies in the period from 2020 to 2030. At the heart of the 2030 framework is a 40 % reduction in greenhouse gas emissions by 2030.	➤ Climatic Factors	Plan should seek to promote the development and use of appropriate renewable energy sources and contribute to climate change mitigation.
Kyoto Protocol (UNFCCC, 1997)	Protocol to the international Framework Convention on Climate Change Framework with the objective of	➤ Climatic factors	Plan should support measures that will reduce greenhouse gas

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
	reducing the Greenhouse gases that cause climate change.		emissions.
The Pan-European Biological and Landscape Diversity Strategy (Council of Europe, 1995)	The Strategy aims to reverse the decline of landscape and biological diversity, by promoting innovation and proactive policy making.	<ul style="list-style-type: none"> ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage ➤ Population and Human health 	Plan should support the Strategy by considering the contribution that actions could make to protecting biodiversity and landscapes.
Ramsar Convention on Wetlands of International Importance 1971	Requires conservation and wise use of wetlands.	<ul style="list-style-type: none"> ➤ Water ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage 	Plan should ensure the protection and enhancement of wetlands.
Sixth Environmental Action Programme of the European Community 1600/2002/EEC	Promotes Clean Air for Europe (CAFÉ), supports sustainable use of pesticides, conservation of the marine environment, soil protection, waste prevention and recycling as well as the sustainable use of natural resources.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan should promote all forms of sustainable development.
Taking Sustainable Use of Resources Forward: A thematic Strategy on the prevention and recycling of	A sector based strategy produced under the Environmental Action Programme.	<ul style="list-style-type: none"> ➤ Soil ➤ Climatic factors ➤ Air ➤ Material assets 	Plan should seek to minimise waste and promote recycling.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
waste (EU 2005)			
Thematic Strategy for Soil Protection (EU 2006)	The Soil Thematic Strategy is seeking to establish common principles for the protection and sustainable use of soils.	<ul style="list-style-type: none"> ➤ Soil ➤ Biodiversity, Fauna and Flora 	Plan should contribute towards the protection and improvement of soil.
UN Convention on Biological Diversity (1992)	Key objective of the Convention is to develop national strategies for the conservation and sustainable use of biological diversity, which should be integrated across other policy sectors.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora 	Plan should look for opportunities to conserve, and where possible restore, biodiversity.
UN Framework Convention on Climate Change (the Rio Earth Summit) 1992	Treaty aimed at reducing global emissions of greenhouse gases to combat global warming.	<ul style="list-style-type: none"> ➤ Climatic factors 	Plan should assist in the reduction of greenhouse gas emissions.
National Legislation (UK and Scotland)			
Air Quality (Scotland) Regulations 2000 and Amendment 2002	Establishes standards for air quality and sets limits for various pollutants in Scotland.	<ul style="list-style-type: none"> ➤ Air ➤ Population and Human health 	Plan should support measures that would improve air quality.
Ancient Monuments and Archaeological Areas Act 1979 (as amended by Historic Environment (Amendment) (Scotland) Act 2011)	Prescribes the approach to be taken to planning for scheduled ancient monuments and archaeological areas.	<ul style="list-style-type: none"> ➤ Landscape and Cultural heritage 	Plan should ensure that scheduled ancient monuments and archaeological areas are not adversely affected by new development.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Climate Change Act 2008	The Act sets a statutory target for the UK as a whole to reduce greenhouse gas emissions by at least 80 per cent by 2050 and provides a framework for shared action. In Scotland, its targets are subsumed by the Climate Change (Scotland) Act 2009	➤ Climatic factors	Plan should support and include climate change adaptation and mitigation measures.
Climate Change (Scotland) Act 2009	Outlines emission reduction targets, adaptation measures, and establishes duties on public bodies.	➤ Climatic factors	The Plan should support and include climate change adaptation and mitigation measures.
Conservation (Natural Habitats, &c) Regulations 1994 (as amended for Scotland)	These regulations relate to the designation of Natura sites, and provision of protection to various plant and animal species.	➤ Biodiversity, Fauna and ➤ Flora	Plan should ensure that Natura 2000 sites are protected from loss or damage.
Environment Act 1995	The Act sets new standards for environmental management by National Parks and other statutory bodies.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The CNPA must adhere to the standards set out in the Act.
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 the significant environmental effects of the Plan to be identified and addressed.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999	Requires environmental impact assessments for certain forestry projects.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan will be required to be compatible with Environmental Impact Assessments legislation.
Environmental Impact Assessment (Scotland) Regulations 2011	Requires environmental impact assessment of site specific projects and specifically requires consideration of Sensitive Areas including National Parks.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan will be required to be compatible with Environmental Impact Assessments legislation.
Equality Act 2010	The Equality Act 2010 legally protects people from discrimination in the workplace and in wider society.	➤ Population and Human health	The Plan should ensure that it does not result in individuals or groups with protected characteristics being discriminated against.
Flood Risk Management (Scotland) Act 2009	Establishes roles, responsibilities and requirements for sustainable flood management.	➤ Climatic Factors ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Population and Human health	Plan should support flood management, particularly natural flood management.
Gaelic Language (Scotland) Act 2005	The Act aims to secure Gaelic as an official language of Scotland, "commanding equal respect" with English	➤ Landscape and Cultural heritage	In its production the Plan should meet the requirements

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		➤ Population and Human health	of the Act and enable other partners, including those not covered by the Act, to do the same.
Historic Environment Scotland Act 2014	Has the general function of investigating, caring for and promoting Scotland's historic environment.	➤ Landscape and Cultural heritage	Plan should support the protection and preservation of the historic environment.
Housing (Scotland) Act 2014	Makes provision about housing, including provision about the abolition of the right to buy, social housing, the law affecting private housing, the regulation of letting agents and the licensing of sites for mobile homes.	➤ Population and Human health	Plan should support the provision of housing, particularly affordable housing.
Land Reform (Scotland) Act 2003	Establishes right of responsible access to land and water.	➤ Water ➤ Soil ➤ Landscape and Cultural Heritage ➤ Biodiversity, Fauna and Flora ➤ Population and Human health	Plan can provide for and support responsible access.
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)	Establishes the aims of National Parks. Provides direction on the functions and role of the National Park Authority.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		Act 2005	
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.	<ul style="list-style-type: none"> ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage 	Plan should support conservation and enhancement of biodiversity.
Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997	Prescribes the approach to be taken in planning for listed buildings, conservation areas and designed landscapes and gardens.	<ul style="list-style-type: none"> ➤ Material Assets ➤ Landscape and Cultural heritage 	Plan should ensure that listed buildings, conservation areas and designed landscapes and gardens are not adversely affected by new development.
Protection of Badgers Act 1992 (as amended)	Protects badgers	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora 	Plan should seek to protect badgers.
Sewage (Scotland) Act 1968	Along with the Water Industry (Scotland) Act 2002 this gives responsibilities to Scottish Water to manage the discharge of surface water that enters its drainage systems (by providing sewers and public Sustainable Urban Drainage Systems (SUDs)) and to maintain water supplies and drainage infrastructure.	<ul style="list-style-type: none"> ➤ Water ➤ Population and Human health 	Plan should have regard to Scottish Water's duties under this Act.
Water Environment and	Transposes the Water Framework Directive into	<ul style="list-style-type: none"> ➤ Water 	Plan should encourage

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Water Services (Scotland) Act 2003	Scots law.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage ➤ Population and Human health 	improvements to the water environment and support measures for more efficient use of water.
Water Industry (Scotland) Act 2002	Along with the Sewage (Scotland) Act 1968 this gives responsibilities to Scottish Water to manage the discharge of surface water that enters its drainage systems (by providing sewers and public Sustainable Urban Drainage Systems (SUDs)) and to maintain water supplies and drainage infrastructure.	<ul style="list-style-type: none"> ➤ Water ➤ Population and Human health 	Plan should have regard to Scottish Water's duties under this Act.
Wildlife and Countryside Act 1981	Requires certain species to be protected.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora 	Plan should support protected species.
Wildlife and Natural Environment (Scotland) Act 2011	Amends Wildlife and Countryside 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.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora 	Plan should support provisions of the Act.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
National Policy (UK and Scotland)			
Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)	Sets out objectives for eight air pollutants.	<ul style="list-style-type: none"> ➤ Air ➤ Population and Human health 	Plan should encourage reductions in emissions through a range of measures.
A Policy on Architecture for Scotland (2001 updated in 2006)	Scottish Government Guidance 2001.	<ul style="list-style-type: none"> ➤ Landscape and Cultural heritage ➤ Population and Human health 	Plan should support good design.
A Policy Statement for Scotland – Designing Places	Provides the policy context for important areas of planning policy and design guidance.	<ul style="list-style-type: none"> ➤ Landscape and Cultural heritage ➤ Population and Human health 	Plan should support good design.
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.	<ul style="list-style-type: none"> ➤ Climatic factors ➤ Population and Human health 	Plan should encourage reductions in emissions through a range of measures.
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	Plan should help deliver sustainable development.
Civil Contingencies Act 2004	Delivers a framework for civil protection in the UK and defines the responsibilities for responders to	<ul style="list-style-type: none"> ➤ Material Assets ➤ Population and 	Plan should support the requirements of responders to

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
	emergency which include (among others)	Human health	fulfil their statutory duties.
Cleaner Air for Scotland – The Road to a Healthier Future (2015)	The national cross-government strategy that sets out how the Scottish Government and its partner organisations propose to reduce air pollution further to protect human health and fulfil Scotland's legal responsibilities as soon as possible.	➤ Air ➤ Population and Human health	Strategy should encourage reductions in emissions through a range of measures.
Climate Change: The UK Programme	Goal to reduce carbon emissions in the UK by 60% by 2050.	➤ Climatic factors ➤ Air	Plan should encourage reductions in emissions through a range of measures.
Groundwater Protection Policy for Scotland (SEPA, 2009)	This policy aims to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater and providing a common SEPA framework.	➤ Water ➤ Soil	Plan should aim, where possible, to manage significant flood risk to groundwater from flooding related pollution.
Designations Three Year Plan 2016 - 2019	This document sets out the three year plan for Historic Environment Scotland's work on designations. Find the aims and priorities for the organisation until 2019	➤ Landscape and Cultural heritage	Plan should follow the guidance when considering designated sites and structures.
Historic Environment Circular 1	This circular covers the requirements of the secondary legislation ('the Regulations') relating to the Historic Environment Scotland Act 2014 ('the 2014 Act').	➤ Landscape and Cultural heritage	Plan should follow the guidance for policy development on the management of the historic environment.
Historic Environment Policy	Document to which planning authorities are directed in	➤ Landscape and	Plan should follow the guidance

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Statement (2016)	their consideration of applications for conservation area consent, listed building consent for buildings of all three categories and their consideration of planning applications affecting the historic environment and the setting of individual elements of the historic environment.	Cultural heritage	for policy development on the management of the historic environment.
Land Use Strategy for Scotland (2011)	Outlines strategy for achieving sustainable land use across Scotland and getting the best from the land of Scotland.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Plan can provide more specific direction on the National Land Use Strategy and can be implemented at a regional level.
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.	➤ Landscape and Cultural heritage	Guidance for policy development on the management of the historic environment.
National Planning Framework 3 (2014)	A long term strategy for Scotland that provides the spatial expression of the Government's Economic Strategy and plans for the development and investment in infrastructure.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Provides strategic context for future regional change around the Park.
Scotland Policy on Control of Woodland Removal	Sets out Scottish Ministers policy on woodland removal	➤ Climatic Factors ➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora	Plan should support the policy

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		➤ Landscape and Cultural Heritage	
The River Basin Management Plan for the Scotland River Basin District: 2015–2027	Fulfils a requirement under the EU Water Framework Directive.	➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora	Includes management objectives for water bodies in the National Park which the Plan should take account of.
Scotland Rural Development Programme	Sets goals for sustainable rural development and the types of support available.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Plan can provide more specific direction on how rural development and diversification should be supported in the Park.
Scotland's Climate Change Adaptation Framework (2009)	The framework plays a central role in building Scotland's resilience to the changing climate, by setting the strategic direction for Scottish Government actions and providing specific actions for different sectors	➤ Climatic factors ➤ Population and Human health	Plan should support and include climate change adaptation and mitigation measures.
Scotland's Economic Strategy	Reaffirms the Scottish Government's commitment to creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.	➤ Material assets ➤ Population and Human Health	Plan should encourage economic development that does not adversely affect the special qualities of the Park.
Scotland's National Transport Strategy (2006)	Scottish Government's National Strategy for reducing transport emissions by 80%.	➤ Climatic Factors ➤ Air ➤ Population and	Plan should support reductions in emissions from transport.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		Human health	
Scottish Biodiversity Strategy	<p>Comprises of two documents:</p> <ul style="list-style-type: none"> • Scotland's Biodiversity – It's in Your Hands. A strategy for the conservation and enhancement of biodiversity in Scotland (2004) • 2020 Challenge for Scotland's Biodiversity - A Strategy for the conservation and enhancement of biodiversity in Scotland (2013) <p>Identifies Scottish biodiversity priorities and lead partners for taking action.</p>	<ul style="list-style-type: none"> ➢ Water ➢ Soil ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage 	Plan should reflect the purpose of the Strategy through support for the Cairngorms Nature Action Plan 2013 - 2018.
Scottish Forestry Strategy (2006)	Outlines strategic priorities for forestry including management, planting and environmental stewardship.	<ul style="list-style-type: none"> ➢ Water ➢ Soils ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage 	Plan should provide a strategic direction for forestry policy within the National Park.
Scottish Geodiversity Charter 2012-2017	Charter sets out why geodiversity is important, and presents a vision that geodiversity is recognised as an integral and vital part of our environment, economy, heritage and future sustainability to be safeguarded for existing and future generations in Scotland.	<ul style="list-style-type: none"> ➢ Material Assets ➢ Biodiversity, Fauna and Flora ➢ Landscape and Cultural Heritage 	The CNPA is a signatory to the Charter and therefore the Plan should include actions to help meet its objectives.
Scottish Government's Infrastructure Investment Plan (2011)	Gives an overview of the Scottish Government's plans for infrastructure investment over the coming decades.	<ul style="list-style-type: none"> ➢ Material Assets ➢ Population and Human health 	Plan should take account of potential impacts (both positive and negative) of actions on

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
			existing and planned developments.
Scottish Government's National Outcomes	The Scottish Government has 15 National Outcomes that the public sector must collectively deliver.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan should identify and contribute to delivery of the outcomes that are most appropriate in the Park.
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.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan should support the delivery of sustainable economic growth in the context of the Park and its special qualities and management needs.
Scottish Planning Policy (2014)	National planning policy and guidance 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	In its spatial strategy and policies, the Plan will need to meet the requirements set out within Scottish Planning Policy.
Scottish Soil Framework 2009	Ministers policies and objectives for the conservation and use of soils.	<ul style="list-style-type: none"> ➤ Climatic Factors ➤ Water ➤ Soil ➤ Material Assets ➤ Biodiversity, Fauna and Flora ➤ Landscape and 	Plan should promote soil conservation.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		Cultural Heritage ➤ Population and Human health	
Scottish Water Business Plan 2015 - 2021	The business plan sets out how Scottish Water will deliver improvements to drinking water quality, the environment and customer service required by Scottish Ministers.	➤ Water ➤ Population and Human health	Plan should be developed with regard to the objectives and actions proposed in the Business Plan.
Scottish Zero Waste Plan (2010)	Provides context for waste planning in Scotland.	➤ Climatic Factors ➤ Soil ➤ Material assets ➤ Population and Human health	Directs the Plan to secure zero waste in new development through support for waste management and good design.
Tourism Scotland 2020 – A Strategy for Leadership and Growth	The strategy targets those markets that offer Scotland the greatest growth potential, provides collaboration within and across Scotland's tourism destinations and develops the authentic memorable experiences tourists seek.	➤ Landscape and Cultural Heritage ➤ Population and Human health	Plan should support development of sustainable tourism to contribute to national targets for tourism growth.
UK Geodiversity Action Plan	The Action Plan provides a framework in which actions for geodiversity can be captured in one place, allowing a range of organisations, groups and individuals to demonstrate their achievements in a UK-wide context	➤ Material Assets ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage	The CNPA is a signatory to the Scottish Geodiversity Charter and therefore the Plan should include actions to help promote and protect the National Park's geodiversity.
UK Post-2010 Biodiversity	The Framework sets out the common purpose and	➤ Water	Plan should reflect the purpose

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
Framework 2011 – 2020	shared priorities of the UK and Scotland for the management of the environment as a whole.	<ul style="list-style-type: none"> ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage 	of the Framework through support for the Cairngorms Nature Action Plan 2013 - 2018.
Local Plans and Strategies			
A9 Duelling Strategy	The project involves the upgrade of 80 miles of single carriageway along the A9 between Perth and Inverness by 2025.	All SEA Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The Plan will need to consider the effects of the duelling on the aims of the National Park and how this will influence the spatial priorities of the CNPA.
Cairngorms National Park Capercaillie Framework 2015	Provides a set of working data, analysis and recommendations that will inform implementation across a wide spectrum of work, from habitat and species management, to recreation management and development planning.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora 	Plan should support the aims of the Framework and ensure that Capercaillie and their habitat are not adversely affected by management and planning decisions.
Cairngorms National Park Core Paths Plan 2015	Identifies a network of core paths throughout the National Park.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora ➤ Population and Human health 	Plan should support the promotion and development of core paths.
Cairngorms National Park Economic Strategy 2015-	The purpose of the Strategy for the Cairngorms National Park is to identify the priorities that are specifically relevant to the area and to ensure that	<ul style="list-style-type: none"> ➤ Population and Human Health 	Plan should support the National Park's aim to promote sustainable economic and social

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
2018	partners are working together to address them.		development of the area's communities.
Cairngorms National Park Landscape Framework	A framework for managing landscape change in the Cairngorms to maintain and enhance the special landscape qualities and character.	➤ Landscape and Cultural heritage	Plan will use this to guide appropriate development to the right location.
Cairngorms National Park Gaelic Language Plan 2013	A plan that aims to enhance the Gaelic Language and culture within the National Park.	➤ Landscape and Cultural Heritage ➤ Population and Human health	Plan can support the Gaelic language through good design and placemaking.
Cairngorms National Park Local Development Plan 2015	Establishes development and settlement strategy for the Park, allocates 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	This is the current framework for development within the National Park. The Plan will need to take account of its contents.
Cairngorms Nature Action Plan 2013-2018	Priorities and actions for biodiversity in the National Park.	➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora	Plan should support the implementation and review of Cairngorms Action Plan
Active Cairngorms (2015)	Provides a framework for managing outdoor access in the Park.	➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage ➤ Population and	Plan can support and promote responsible outdoor access.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		Human health	
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	Plan can support parts of Community Plans.
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.	<ul style="list-style-type: none"> ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural heritage ➤ Population and Human health 	Plan can support communities in developing their own plans and capacity.
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.	<ul style="list-style-type: none"> ➤ Population and Human health 	HNDAs inform housing requirement for the National Park.
Economic Development Strategies	Priority areas for economic development.	<ul style="list-style-type: none"> ➤ Soil ➤ Material assets ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural heritage ➤ Population and human health 	Plan should encourage economic development that does not adversely affect the special qualities of the Park.

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
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 2005	Plan can help deliver community priorities.
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 and Human health	LHS can be used to provide evidence to support the approach taken to the delivery of housing within the National Park.
Regional and Local Transport Strategies	Set out how to maintain and improve infrastructure.	➤ Climatic Factors ➤ Air ➤ Population and Human health	Plan should support sustainable transport solutions and encourage lower carbon forms of transport.
River Dee Catchment Management Plan (2007)	Aims to promote sustainable use of natural resources, to improve water quality and biodiversity.	➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural heritage	Plan should support integrated catchment management as a way of improving water quality and the health of natural systems.
River Spey Catchment Management Plan (2003)	Aims to promote sustainable use of natural resources, to improve water quality and biodiversity.	➤ Water ➤ Soil ➤ Biodiversity, Fauna	Plan should support integrated catchment management as a way of improving water quality

Relevant PPS	Relevant Objectives/Purpose	SEA Issue / Topic	Relationship between the PPS and the LDP
		and Flora ➤ Landscape and Cultural Heritage	and the health of natural systems.
South Esk River Catchment Management Plan (2009)	Aims to promote sustainable use of natural resources, to improve water quality and biodiversity.	➤ Water ➤ Soil ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage	Plan should support integrated catchment management as a way of improving water quality and the health of natural systems.
Strategy and Action Plan for Sustainable Tourism in the Cairngorms 2011-2016	Identifies measures to support and develop sustainable management of tourism in the Park in line with the Europarc Federation of Protected Areas Charter.	➤ Air ➤ Water ➤ Material assets ➤ Biodiversity, Fauna and Flora ➤ Landscape and Cultural Heritage	Plan should support the implementation of the Sustainable Tourism Strategy.

Appendix 2: Environmental Baseline

Topic I: Climatic Factors

"In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans."

Intergovernmental Panel on Climate Change (2014).

Scotland has a temperate climate with cool summers and mild winters. As a whole it is influenced by predominantly westerly depressions alternating with less frequent settled periods. A range of factors, including topography, latitude and altitude, affect these weather systems at a more local level.

Rainfall is spread throughout the year but there are regional differences. For example, the easterly position of the Cairngorms massif results in a climate that is less oceanic, and therefore drier, than the west of Scotland. The mountains exert a noticeable rain shadow effect that reduced the amount of rainfall on the eastern side of the country.

Scotland is currently experiencing climate change, which owing to the global emission of greenhouse gasses, is likely to continue into the future. The effects of this are likely to include:

- hotter, drier summers;
- milder, wetter autumns and winters.
- increased frequency and intensity of extreme rainfall; and
- reduced snowfall.

Past Trends

The 20th and 21st centuries have already seen a rise in average maximum and minimum temperatures throughout Scotland. This trend is reflected in the Cairngorms National Park, as demonstrated by historical data provided by the Braemar weather station ([Figure 8](#)). Records from the weather station also indicate that the National Park is experiencing a decrease in the number of days of air frost and an increase in annual rainfall ([Figure 9](#) and

[Figure 10](#)). This is consistent with broader trends across Scotland.

Climate Projections

Climate Change projections are available from The UK Climate Projections (UKCP09) website, which is the leading source of climate information for the UK and its regions. Probabilistic projections are available for high, medium and low emission scenarios at resolutions as fine as 25km². It is possible therefore to analyse data for the area in which Braemar sits (Grid Box No. 612) (see [Figure 11](#) and [Figure 12](#)). It is recognised that this is a blunt proxy for the National Park as a whole, however it is useful in when taken together with the historic climate data taken from the Braemar Weather Station. How this change relates to the UK as a whole is presented in [Figure 13](#), [Figure 14](#) and [Figure 15](#).

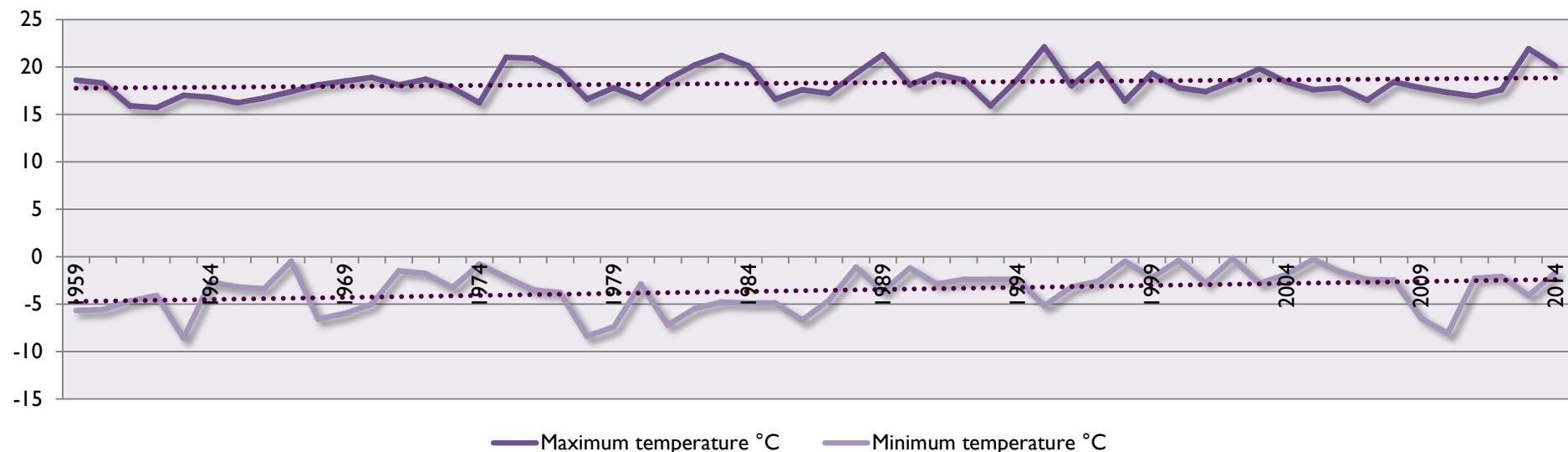


Figure 8 Maximum and minimum annual temperatures at Braemar Weather Station (Met Office, 2015).

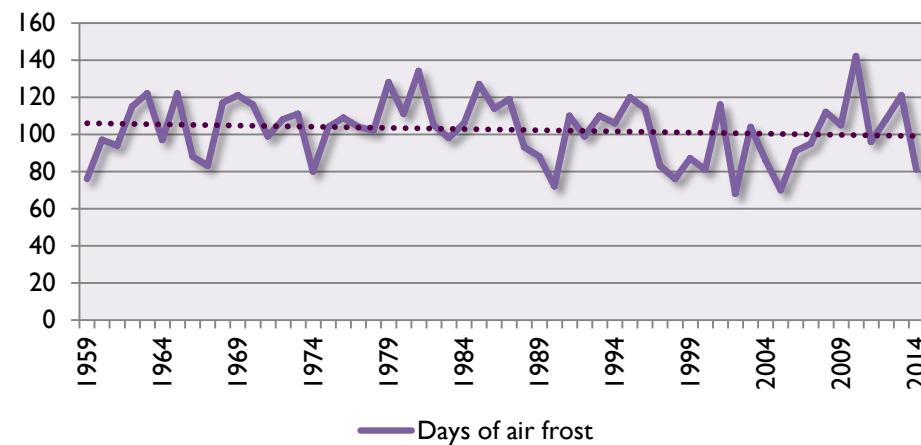


Figure 9 Days of frost at Braemar Weather Station (Met Office, 2015).

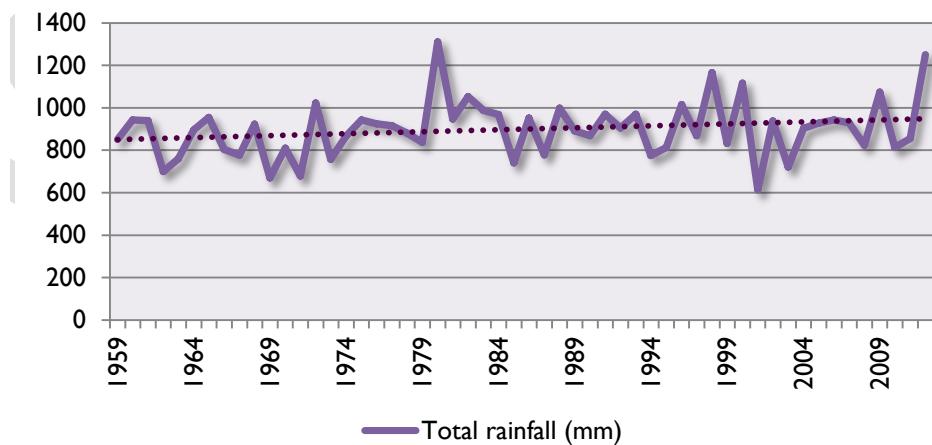


Figure 10 Total Rainfall at Braemar Weather Station (Met Office, 2015).

In summary from the benchmark of 2009, by 2050, under the medium emissions scenario, the central estimate (50% probability level) for Braemar is for 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.

Although precipitation rates only show a relatively small net annual increase, as well as summer and winter decreases by 2050, it should be noted that this is but a snapshot. Annual precipitation between 2030 and 2059 is projected to be higher, at around 0.3% greater than in 2009.

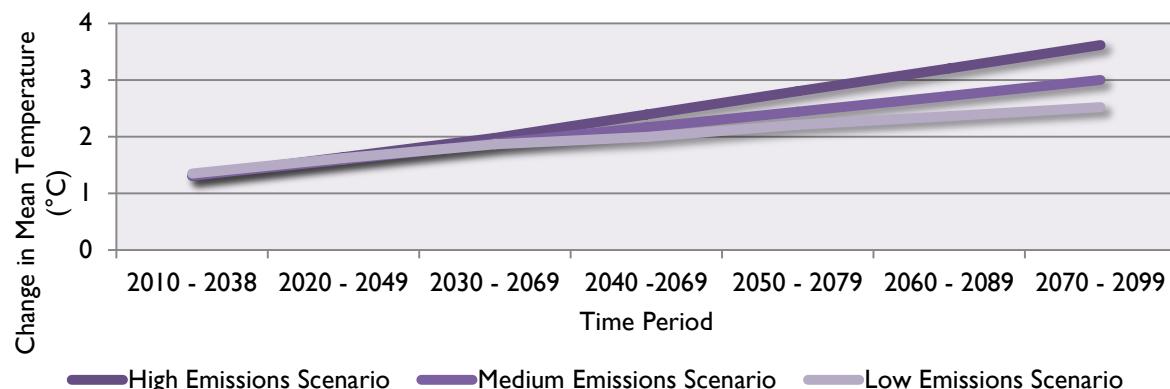


Figure 11 Central estimate for mean change in annual temperature for Grid Box No. 612 (Braemar area).

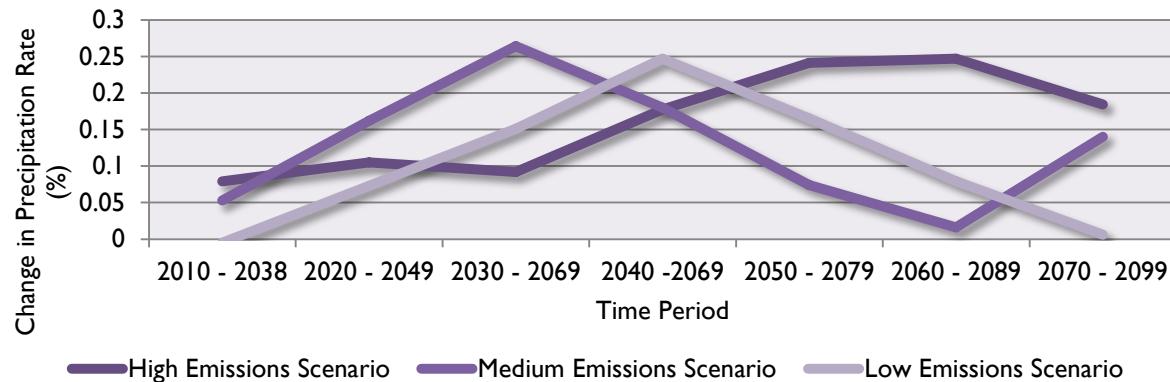


Figure 12 Central estimate for mean change in precipitation for Grid Box No. 612 (Braemar area).

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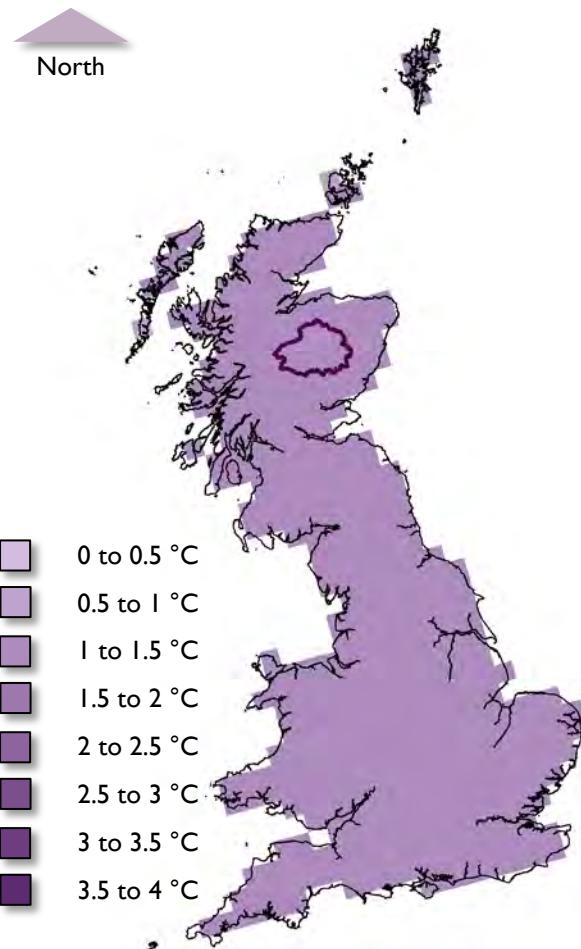


Figure 13 Mean annual temperature increase 2020s.
Medium emissions scenario, central estimate.

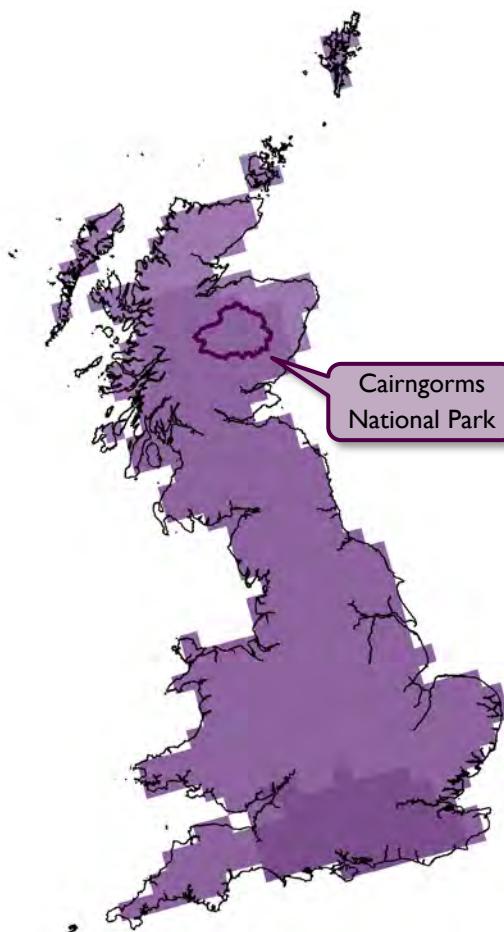


Figure 14 Mean annual temperature increase 2040s.
Medium emissions scenario, central estimate.



Figure 15 Mean annual temperature increase 2080s.
Medium emissions scenario, central estimate.

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It should also be noted that the use of the medium emissions scenario combined with the central probability projection represents a relatively conservative picture of the area's possible future climate. Adjusting these variables, particularly the emissions scenario, can lead to more serious projections, which at the time of writing cannot be discounted. Even with the conservative estimates provided in this summary an annual increase in mean temperature of 2.4°C would leave the National Park with some serious challenges to face.

Greenhouse Gas Emissions

The causes of climate change are clearly greater than local in scale and there is a strong global consensus that a reduction in greenhouse gas emissions is needed to avoid some significantly adverse effects. The Climate Change (Scotland) Act 2009 has introduced legislation to reduce Scotland's greenhouse gas emissions by at least 80% by 2050 against a 1990 baseline. In recent years, increasing emphasis has been placed

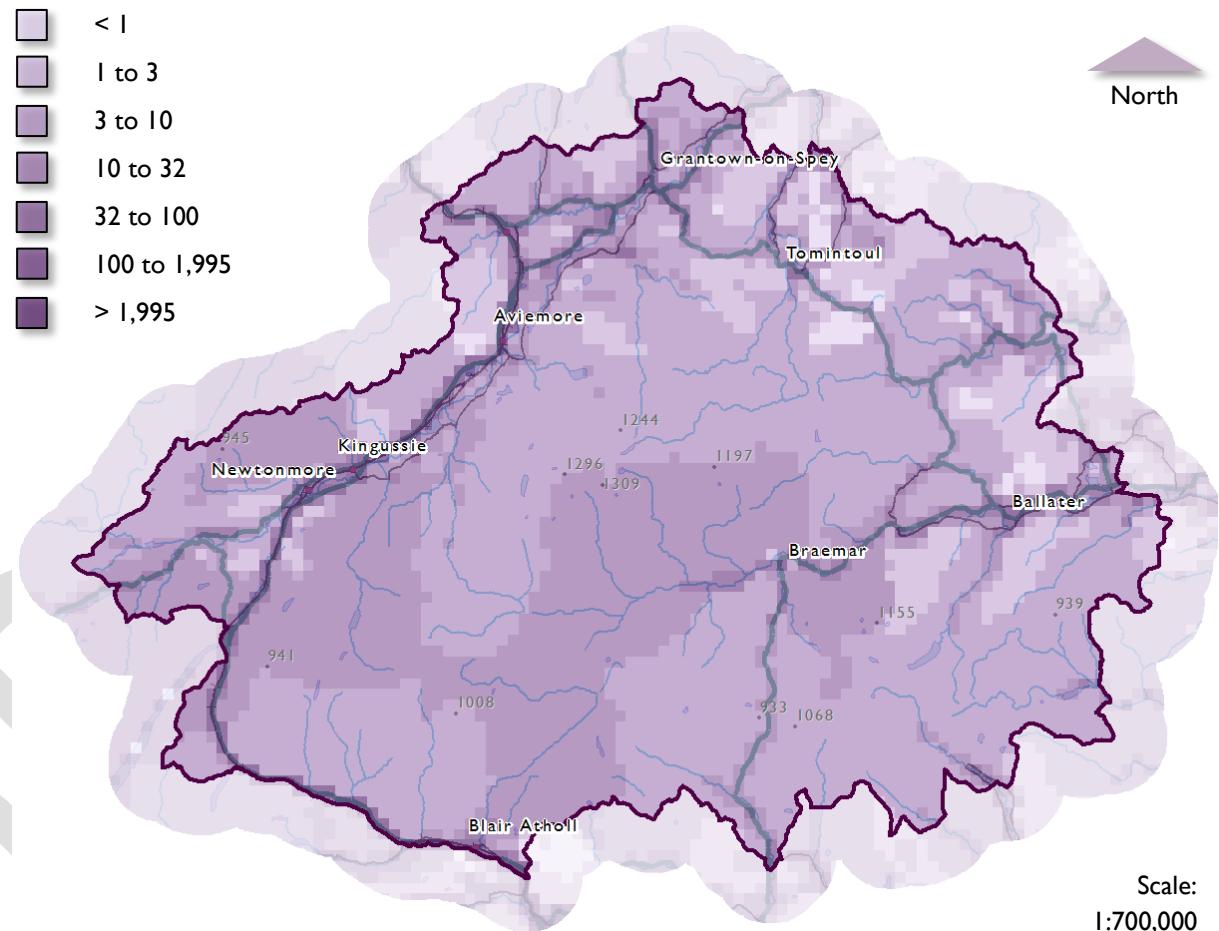


Figure 16 Carbon Dioxide (as Carbon) Emissions in tonnes for the Cairngorms National Park in 2012.

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on the role of regional bodies and local government in contributing to energy efficiency improvements, and hence reductions in carbon dioxide emissions. It is clear therefore that the NPPP has a role in meeting this target.

Estimates of carbon dioxide emissions for Local Authority (LA) areas for 2005-2014 are available from The Department for Energy and Climate Change (DECC). Carbon dioxide emissions contribute the

greatest proportion of total greenhouse gas emissions in the UK, accounting for around 82% in 2014 (Department of Energy and Climate Change, 2016). Annualised data for the UK's national parks is not available and therefore to get an approximation of the Cairngorms National Park's contribution (**Figure 16**) further assumptions need to be made.

Mid-year population estimates have been used as a proxy for proportionally

attributing the emissions of the LAs that cover the National Park's area to the National Park itself. It is recognised that this is a blunt means of estimation, particularly in terms of commercial and transport data; indeed estimates based on estimates should always be treated with caution. However, in the absence of a detailed carbon-audit, the figures presented in **Table 12**, **Figure 17** and **Figure 18** offers a 'best-guess' and a generalised baseline for measurement over the plan period.

Table 13 Estimated CO₂ Emissions for the Cairngorms National Park. Based on Department of Energy and Climate Change (2016).

Year	Industry and Commercial (kt CO ₂)	Domestic (kt CO ₂)	Road Transport (kt CO ₂)	Total (kt CO ₂) ²	Population (mid-year estimate)	Per Capita Emissions (t)
2005	68.6	60.9	47.7	177.3	17,264	10.3
2006	69.5	62.9	48.7	181.1	17,590	10.3
2007	68.8	61.4	49.3	179.5	17,835	10.1
2008	67.3	62.0	47.3	176.5	18,024	9.8
2009	59.1	57.2	46.6	162.8	18,061	9.0
2010	66.1	62.0	46.7	174.7	18,366	9.5
2011	60.6	53.3	45.8	159.8	18,461	8.7
2012	59.1	54.8	45.0	158.9	18,583	8.6
2013	59.0	52.0	45.3	156.3	18,420	8.5
2014	52.3	45.2	46.2	143.7	18,594	7.7

² Figures may not sum due to rounding.

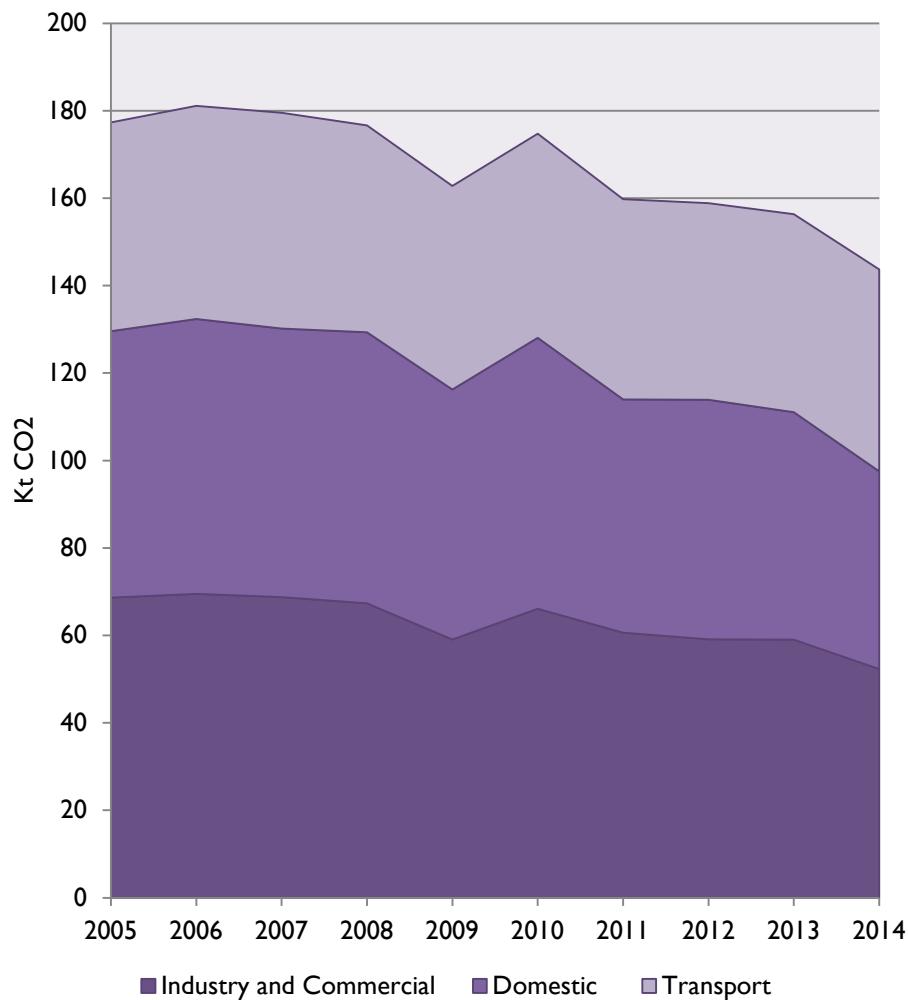


Figure 17 Estimated CO_2 Emissions for the Cairngorms National Park by sector.

Based on Department of Energy and Climate Change (2016).

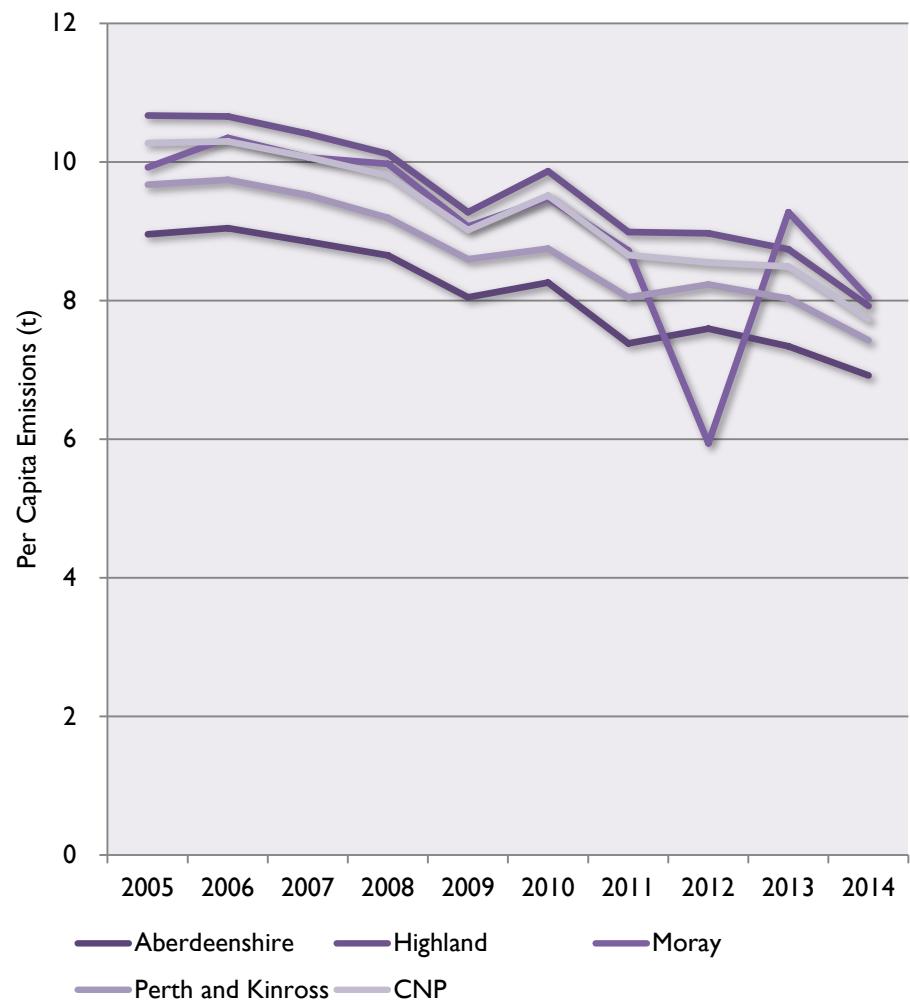


Figure 18 Estimated Per Capita CO_2 Emissions for the Cairngorms National Park by Local Authority.

Emissions from motorways, diesel railways, land use, land use change and forestry and EU ETS industrial installations are absent from the national dataset, while for the purpose of the estimates in this document, emissions for 'Large Industrial Installations' have been removed while emissions from gas, a fuel source that is only available via private supply within the National Park, have been subsumed as a generalised source of emissions into the overall 'Industry and Commercial' and 'Domestic' categories of the table. The energy consumed by the comparatively high number tourists and visitors to the National Park have not been adjusted for. It should also be noted that estimating the population of the National Park is not a simple task either as data-zone³ boundaries do not exactly match the National Park's boundary. Further information on the methodology used to identify boundaries and statistical areas used in the analysis of the Cairngorms National Park can be found in **Appendix 3**.

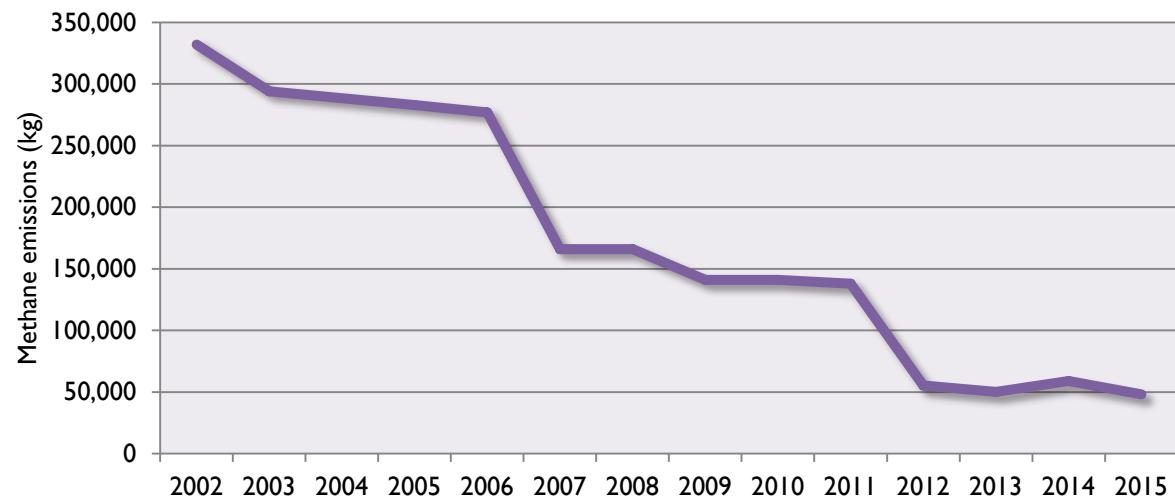


Figure 19 Estimated levels of methane released from Granish Landfill Site, Aviemore 2002-2015 (Source: <http://apps.sepa.org.uk/SPRIPA/Search/ViewReturn.aspx?returnId=30683>).

The most recently available data relates to 2014, and estimates that per capita emissions in the National Park are 7.7 tonnes of CO₂, which is above the Scottish average of 5.7 tonnes of CO₂ per capita. This may be attributed to the deeply rural nature of the National Park and the consequent reliance on private motor vehicles as a mode of transport (see **Figure 64** to **Figure 78** and **Figure 171** and **Figure 172**). Nevertheless, there is an indication that per capita emissions are on a

downward trend, which is consistent with the national situation.

This is supported by information from the only facility within the National Park that contributes towards the Scottish Pollutant Release Inventory (SPRI) - Granish Landfill site, which is operated by the Highland

³ The data zone is the key small-area statistical geography in Scotland.

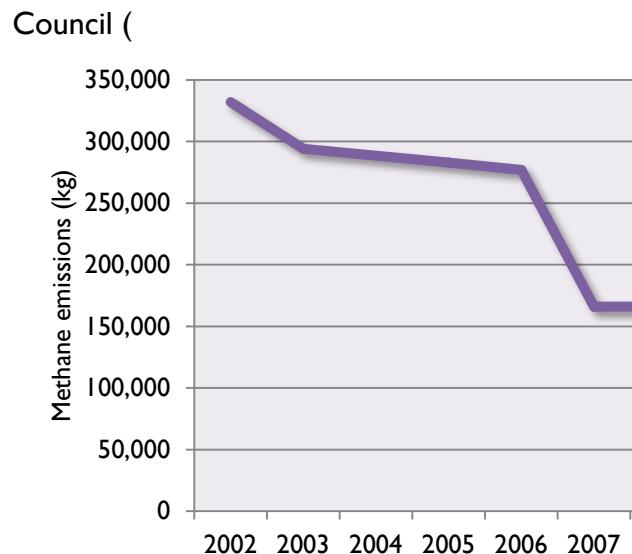


Figure 19). Estimates of the site's methane emissions are available as far back as 2002, with data suggesting a net decrease of 283,800 kg from that year.

Key Messages

Climate change is set to affect the Cairngorms National Park with the UK's climate projections offering a central estimate of a 2.4°C increase in mean annual temperature.

The drivers of climate change are greater than the National Park, however it is estimated that the Park is contributing towards a nationwide reduction in GHG emissions with per capita emissions falling to 8.9 tonnes in 2011.

The LDP may have an effect on GHG, particularly through its influence over the scale and location of development. Design policies may also play a role, as the implementation of food design should consider the energy efficiency of buildings as an integral factor.

Inter-relationships with other topics

- Topic 2: Air 141
- Topic 3: Water 145
- Topic 4: Soil 162
- Topic 5: Material Assets 173
- Topic 6: Biodiversity, Fauna and Flora 192
- Topic 7: Landscape and Cultural Heritage 264
- Topic 8: Population and Human Health 294

Topic 2: Air

"In order to protect human health and the environment as a whole, it is particularly important to combat emissions of pollutants at source..."

Ambient air quality and cleaner air for Europe Directive (2008/50/EC).

Air pollution results from the introduction of a range of substances into the atmosphere from a wide variety of sources, including industry, transport and power generation. Even domestic activities such as driving, heating and cooking contribute, as do natural sources like sea salt, wildfires, volcanic activity, soil erosion and farming (Scottish Government, 2015).

Poor air quality can have both short term and long term effects on health. In general, healthy people may not suffer from any serious ill effects; however people with pre-existing health conditions (e.g. heart disease, lung conditions and asthma) may be affected by day to day changes in air pollution levels. It is estimated that in 2010,

particulate matter in the air (PM_{10} and $PM_{2.5}$) could have caused the deaths of 2,094 people in Scotland.

Air pollution can also damage the wider environment, causing the acidification of soils and water, damaging plant and animal life in forests, lakes and rivers. It can also add nutrients to soil, which can affect biodiversity. Air pollution can also damage the fabric of buildings and historic monuments (Scottish Government, 2014).

The air quality objectives for Scotland are set out in the Air Quality (Scotland) Regulations 2000 and its 2002 Amendment. The main pollutants of concern are:

- Nitrogen oxides (NO_x);
- Particulate matter (PM_{10} and $PM_{2.5}$);
- Sulphur dioxide (SO_2);
- Non-methane volatile organic compounds (NMVOCs);
- Ground-level ozone (O_3) and
- Ammonia (NH_3)

Scotland's air quality is generally better now than it has been at any time since before

the Industrial Revolution, with increasingly strict controls over industrial emissions, tighter fuel and emission standards for road vehicles and the control of smoke from domestic premises yielding positive results. Between 1990 and 2012 significant reductions were seen in the emissions of particulates (-59%), nitrogen oxides (-65%) and sulphur dioxide (-79%) (Sailsbury et al. 2014).

Human exposure to air pollution is now largely associated with transport emissions. The effects of this pollution are not confined to Scotland's cities but occur in many of the country's built areas. Where air quality objectives are not being met, Local Authorities have a duty under section 83(10) of the Environment Act 1995 to designate Air Quality Management Areas (AQMAs), where plans must be implemented to improve air quality. All air quality objectives are currently being met within the Cairngorms National Park and therefore no AQMAs exist within its boundary (the

nearest AQMAs are located in Aberdeen and Inverness). It is therefore unlikely that the LDP will cause air quality objectives to be exceeded.

Nevertheless, the influence spatial planning has over traffic levels means that air quality could be a policy concern. In particular, the potential for increasing pollutants associated with traffic emissions such as PM₁₀ (**Figure 20**) and Nitrogen dioxide (NO₂) (**Figure 21**) needs to be given consideration. Spatial data on the emission of both is available from the UK National Atmospheric Emissions Inventory for 2012. As might be expected, the highest emissions for both are located along the A9 and within National Park's main settlements of Aviemore, Grantown-on-Spey and Ballater, where traffic volumes are greatest.

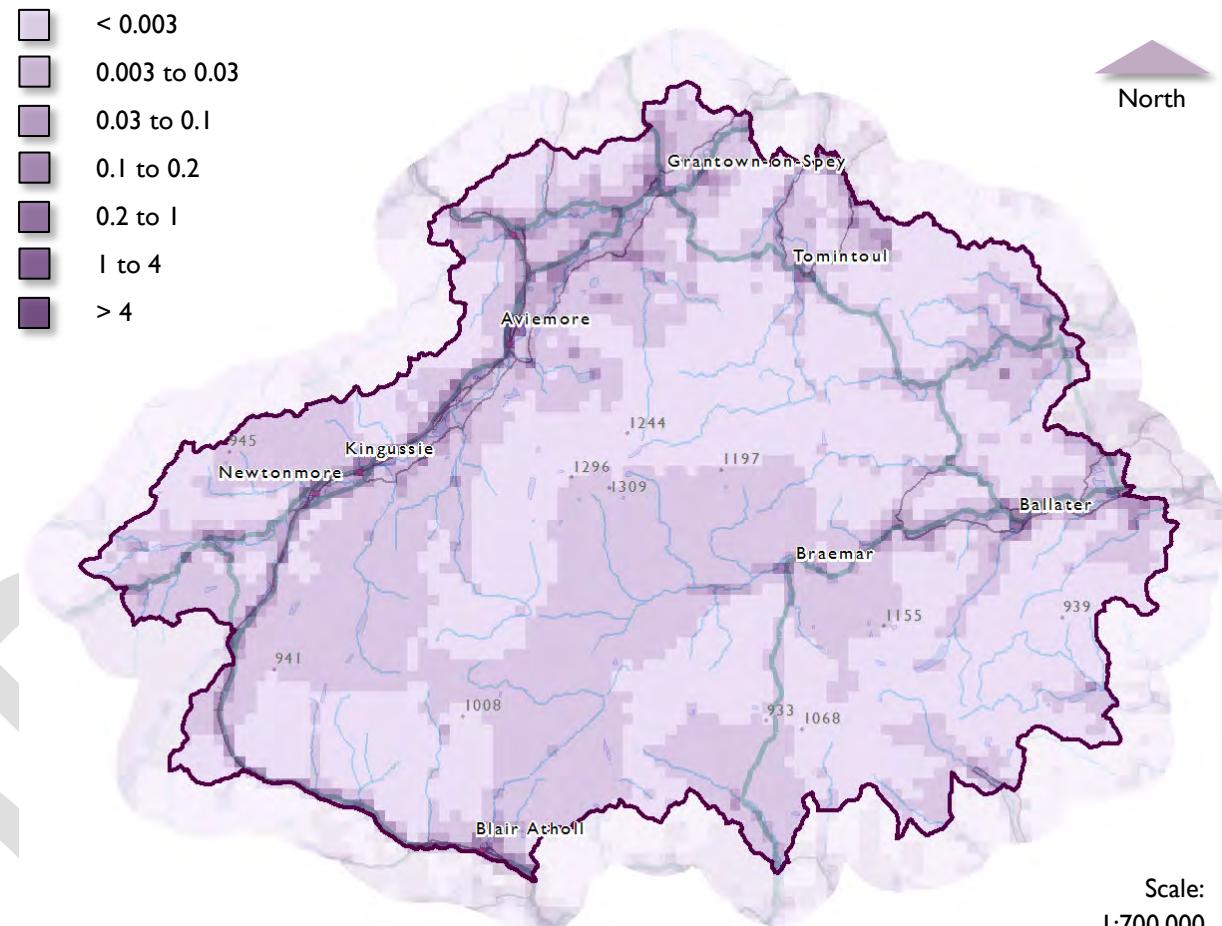


Figure 20 Emissions of PM₁₀ in tonnes in the Cairngorms National Park in 2012.

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Scottish Household Survey data for 2012 / 2013 (Scottish Government, 2014) indicates that private motorised vehicle use is the main mode of transport for the LAs that cover the National Park's area, ranging from around 77% in Aberdeenshire to around 65% in Highland. While specific data for the National Park is unavailable, it is assumed that due to the area's rurality, a similar level of use exists within its boundary. Indeed, Census information collected on household access to cars or vans supports this assumption (see **Topic 5: Material Asset**, p. 173). Road traffic is on the increase across Scotland (Transport Scotland, 2014) and owing to population growth and increasing visitor numbers, is also likely to rise within the National Park over the Plan period. It is estimated that the A9 alone will see a growth in traffic in the region of 10 to 15%, even without the effects of the planned duelling (Transport Scotland, 2013).

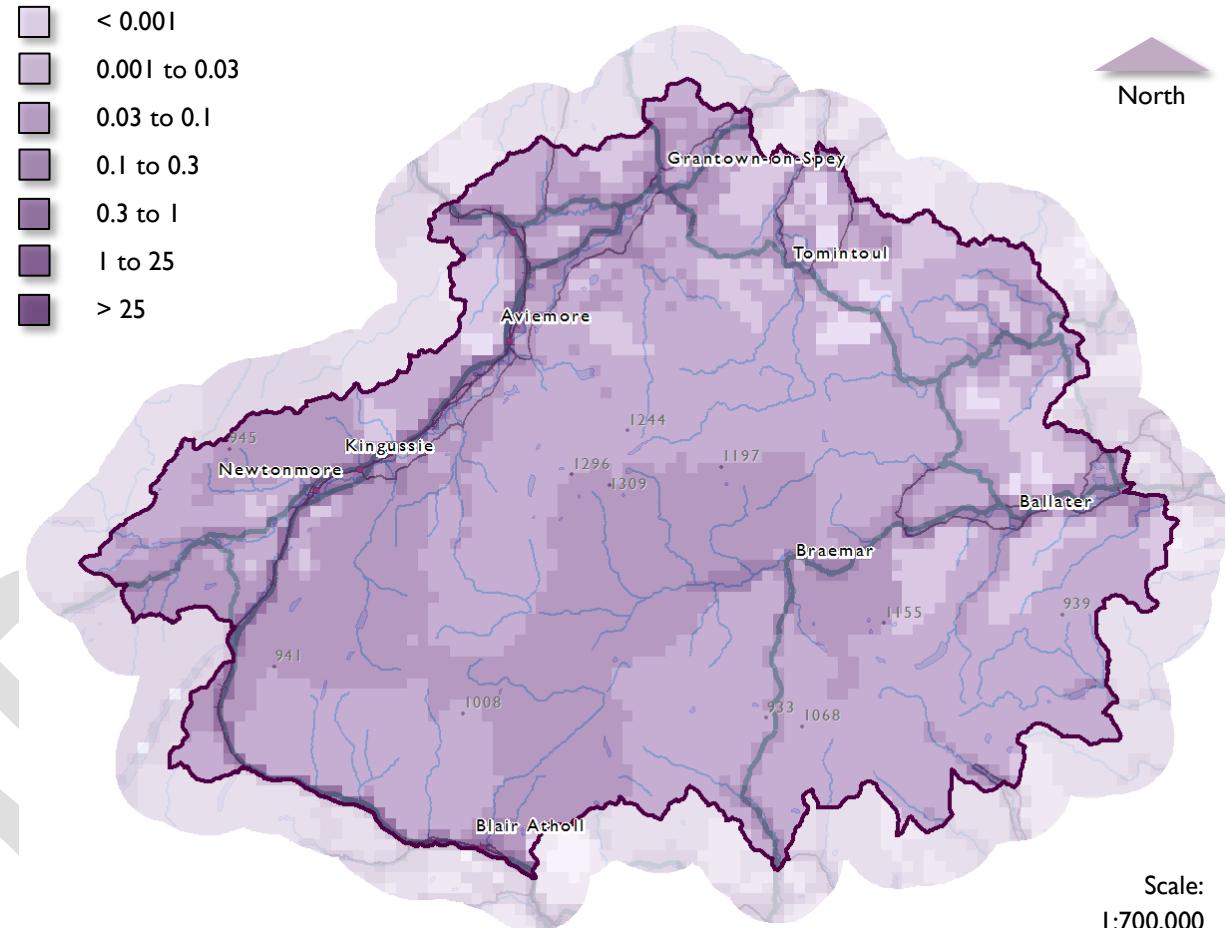


Figure 21 Emissions of Nitrogen Oxides (NO_x) as NO₂ in tonnes in the Cairngorms National Park in 2012.

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The Plan's spatial strategy will therefore need to carefully consider its impact on traffic levels and seek to avoid adverse effects on air quality. It will also need to consider its relationship with the A9 Dualling Strategy (Transport Scotland, 2015), which is predicted to result in a reduction in ambient roadside carbon, NO_x and particulate levels through resultant improved traffic flows (Transport Scotland, 2013).

Key Messages

Air pollution is relatively low within the Cairngorms National Park, with no AQMAs within its boundary. However, there are localised areas along the main transport corridors where pollutants related to vehicle use are high enough to generate concern should they not be managed appropriately.

The LDP may have an influence over air quality both on its own and in combination with other PPS such as the A9 Dualling Strategy. The Plan's influence over the level and distribution of development as well as its aim to facilitate a better visitor experience, means that spatial options should be carefully considered.

Inter-relationships with other topics

- | | |
|--|-----|
| ➤ Topic 3: Water | 145 |
| ➤ Topic 4: Soil | 162 |
| ➤ Topic 6: Biodiversity, Fauna and Flora | 192 |
| ➤ Topic 8: Population and Human Health | 294 |

Topic 3: Water

“Water is a heritage which must be protected and defended.”

The European Union Water Framework Directive (2000/60/EC).

The Cairngorms National Park encompasses the headwaters of three of Scotland's major rivers as well as many smaller ones (Figure 22). Many of the rivers and their tributaries as well as lochs and wetlands are designated as Natura sites and Sites of Special Scientific Interest (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.

Three of the National Park's rivers are subject to catchment management plans, the Dee, the Esk and the Spey. These plans aim to protect water quality, direct the use of the rivers as resources, protect against flooding, enhance biodiversity, and promote access and economic development.



Figure 22 River catchment areas within the Cairngorms National Park.

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Water Quality

Pollution leading to the deterioration of water quality can originate from one of two sources, point and diffuse.

Point source discharge means a release of effluent or other matter to the water environment or land, via a pipe or outlet. For example, this includes sewage and trade effluent; surface water discharges from urban areas; and abandoned mine discharges.

Diffuse pollution is the release of potential pollutants from a range of activities that, individually, may have no effect on the water environment, but, at the scale of a catchment, can have a significant effect. Activities associated with diffuse pollution are varied and include run-off from roads, houses, commercial areas, farmland, forestry activities and community and amenity green spaces; seepage into groundwater from developed landscapes of all kinds; and yard run-off from industrial activities.

Government regulation has been extremely successful in reducing instances of point source pollution and therefore diffuse pollution is now of greatest concern.

Diffuse sources of water pollution can have a significant effect of biodiversity and human health. The effects include:

- Groundwater and surface water contamination and the subsequent loss, or need for treatment of drinking water resources;
- Nutrient enrichment and eutrophication of water bodies;
- Oxygen depletion of water bodies;
- Toxicity to plant and animal life, including endocrine disruption in fish; and
- Smothering of freshwater pearl mussel beds and fish spawning gravels (Dee Catchment Partnership, 2007).

Of particular significance is the effect of water pollution on freshwater pearl mussel populations, as good water quality is essential for the completion of their life cycle (Young, 2005). Freshwater pearl mussel is one of the species on the Nature Action Plan List (Cairngorms National Park

Authority, 2013) and is one of the qualifying features for a number of the National Park's SACs, including the River Spey and River Dee SACs. Further information may be found under **Topic 6: Biodiversity, Fauna and Flora** (p. 192).

The European Union Water Framework Directive (2000/60/EC) (WFD), adopted in 2000, is the operational tool that sets out the objectives for water protection in Scotland. The WFD sets out a number of objectives in respect of which the quality of water is protected. The key ones at European level are:

- General protection of the aquatic ecology;
- Specific protection of unique and valuable habitats;
- Protection of drinking water resources; and
- Protection of bathing water.

All these objectives must be integrated for each river basin. It is clear that the last three - special habitats, drinking water areas and bathing water - apply only to specific bodies of water (those supporting special

wetlands; those identified for drinking water abstraction; those generally used as bathing areas). In contrast, ecological protection should apply to all waters: the central requirement of the WFD is that the environment be protected to a high level in its entirety (European Commission, 2014).

SEPA are the responsible authority for monitoring water quality in Scotland to the requirements set out by the WFD. The Directive requires all water features in a category (i.e. rivers, lochs, transitional waters, coastal waters and groundwater) above a certain size threshold to be defined as water bodies.

Surface water bodies are classified using a system of five quality classes – high, good, moderate, poor and bad, with groundwater classified as good or poor. In general, the classification of water bodies describes by how much their condition or status differs from near natural conditions. Water bodies in a near natural condition are at high status, while those whose quality has been severely damaged are at bad status

The ultimate overall aim of the WFD is therefore to ensure that these water bodies don't deteriorate in status and that all water bodies achieve at least 'good' status by 2015, unless it is demonstrated that less stringent objectives should apply (Scottish Environment Protection Agency, 2007).

The overall status and water quality classification of waterbodies within the Cairngorms National Park for years 2010-2014 is presented in **Figure 23**, **Figure 24**, **Figure 25** and **Figure 26**. The main reasons for waterbodies not achieving overall good status is the presence of a large number of barriers to fish and poor morphology (this covers catchment/landuse matters such inputs of fine sediments or impacts to hydrology and direct impacts such as through engineering or condition of riparian corridor).

The status of waterbodies for 2015 was not available at the time of writing. The definition of what constitutes a waterbody in the National Park is set out in **Appendix 3**.

As can be seen, the current situation is mixed, and only a minority of waterbodies are in bad or poor condition, there has been an increase in the number of waterbodies changing to a worse status or classification.

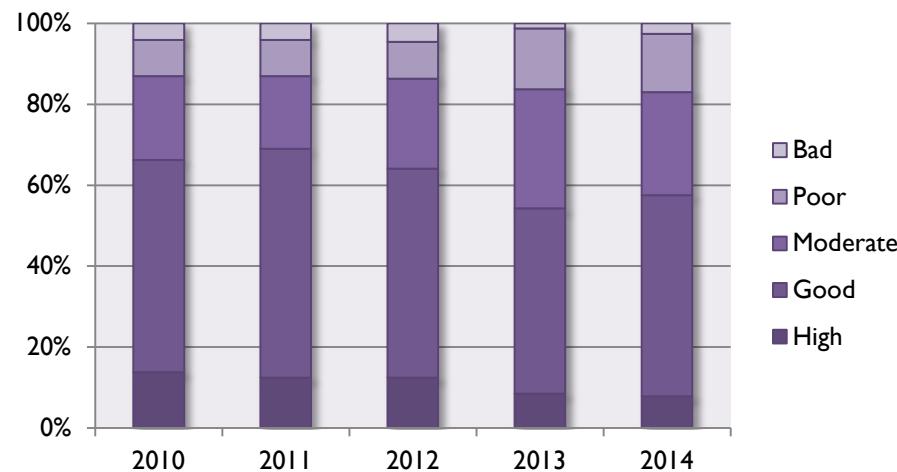


Figure 23 Overall status of waterbodies within and overlapping the Cairngorms National Park.

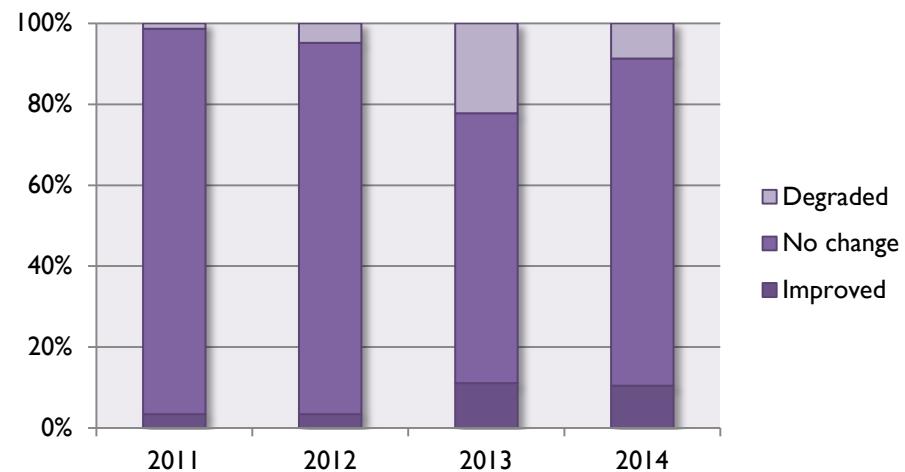


Figure 24 Change from previous year in the overall status of waterbodies within or overlapping the Cairngorms National Park

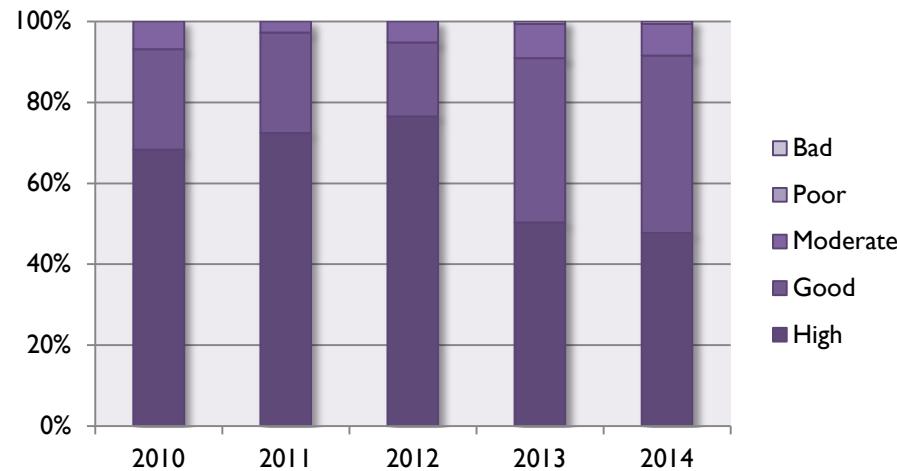


Figure 25 Water quality classification of waterbodies within and overlapping the Cairngorms National Park.

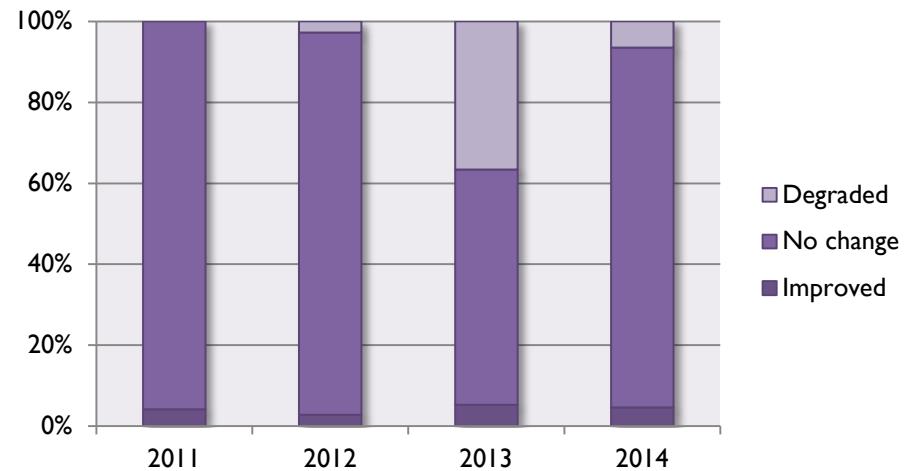


Figure 26 Change from previous year in the water quality of waterbodies within or overlapping the Cairngorms National Park

Source: www.environment.scotland.gov.uk/get-interactive/data/water-body-classification/

Water Quantity

In order to provide information for the management of water resources, SEPA monitor water levels at 20 sites within the Cairngorms National Park, as well as at a number of locations just outside the Park's boundary. Water levels are converted to flow at most river gauging stations. The information gathered may inform the SEA, since trends may be used as an indicator of climate change or as an identifier of potential risks, such as flooding.

Figure 27 and **Figure 28** represent the series of maximum instantaneous peak flows within a given water year (October to September) for monitoring stations on the River Spey and River Dee. The data from both stations shows a general trend for higher annual maximums over the time they were monitored. The causes of this are uncertain; however, it highlights the importance of taking into account the potential for an increase in the number and severity of flood events over the lifetime of the LDP and beyond.

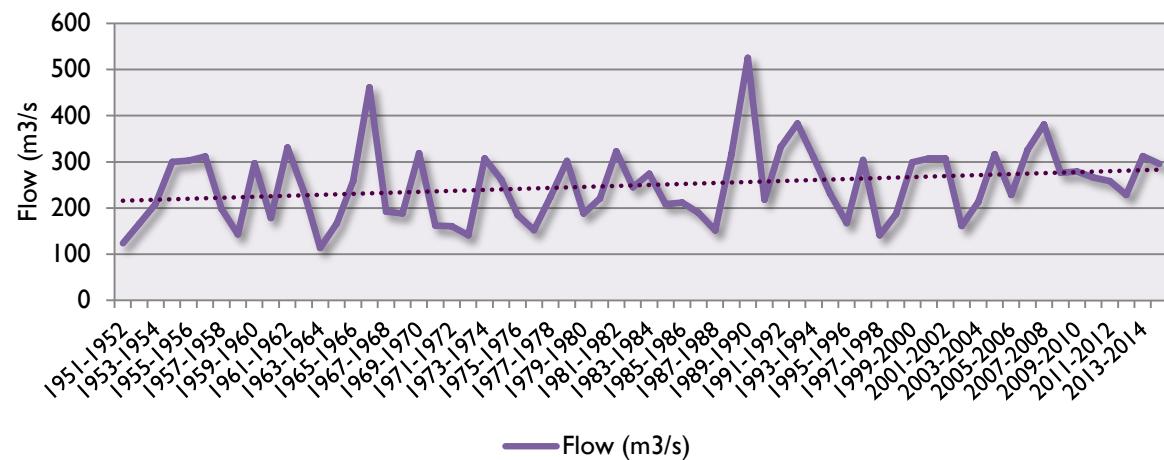


Figure 27 Annual maximum (AMAX) data for the River Spey at Grantown-on-Spey (Station 8010). Contains SEPA data © Scottish Environment Protection Agency and database right 2016. All rights reserved.

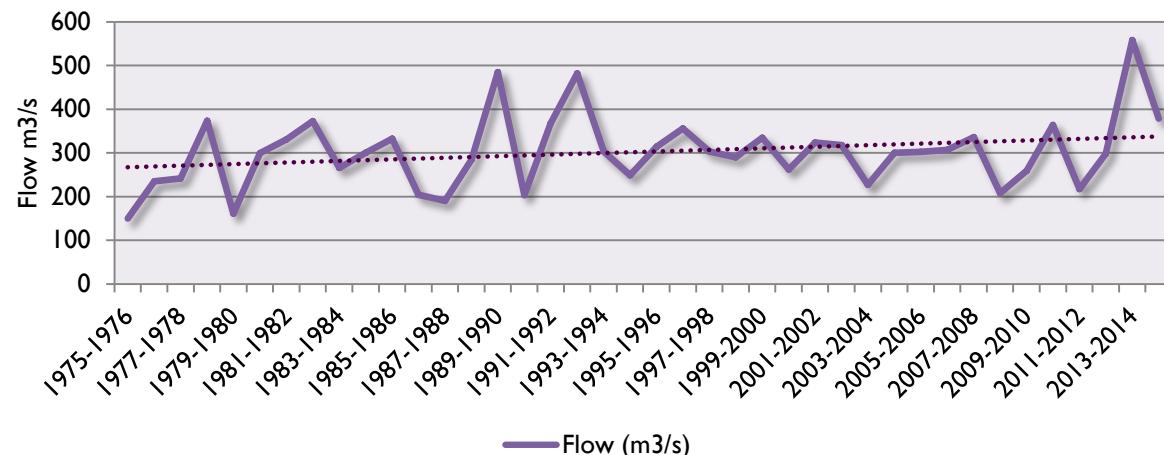


Figure 28 Annual maximum (AMAX) data for the River Dee at Polhollick, near Ballater (Station 12003). Contains SEPA data © Scottish Environment Protection Agency and database right 2016. All rights reserved.

Water Infrastructure

Whilst Scottish Water (SW) is funded to provide any strategic capacity that may be required for water supply / waste water treatment ('part 4' assets) to facilitate development, it is necessary to consider the timescale to deliver new strategic capacity to ensure that the provision of it is timed to enable development in the right place at the right time. The implications of this on any programme of development must therefore be considered. The current capacity status of the water and waste treatment works that serve the National Park's settlements is shown in **Table 12**.

Including all planned and committed development proposals, capacity exists at most of the SW water treatment works serving settlements in the National Park. There are however constraints in certain locations. For example, there is currently not enough capacity to supply the 1,500 units permitted at An Camas Mòr.

Table 14 Capacity of water and waste treatment works serving the Cairngorms National Park, July 2015 (Source: Scottish Water).

Local Authority	Settlement	Water Treatment Works	Capacity (housing units)	Waste treatment Works	Capacity (housing units)
Aberdeen-shire	Ballater	Ballater	93	Ballater	93
	Braemar	Braemar	315	Braemar	63
	Dinnet	Ballater	93	Dinnet	<10
	Strathdon	Lumsden	<10	Private	N/A
Angus	Angus Glens	Private	N/A	Private	N/A
Highland	An Camas Mòr	Aviemore	966	Aviemore	60
	Aviemore	Aviemore	966	Aviemore	60
	Boat of Garten	Aviemore	966	Boat of Garten	96
	Carr Bridge	Aviemore	966	Carr Bridge	87
	Cromdale & Advie	Aviemore	966	Cromdale	105
	Dalwhinnie	Dalwhinnie	20	Dalwhinnie	<10
	Dulnain Bridge	Aviemore	966	Dulnain Bridge	24
	Glenmore	Private	N/A	Glenmore	<10
	Grantown of Spey	Aviemore	966	Grantown	197
	Insh	Aviemore	966	Insh	<10
	Inverdruie & Coylum Bridge	Aviemore	966	Aviemore	60

More significantly, the current capacity of many waste treatment works serving the National Park is a constraint to development. For example, the Aviemore treatment works, which serves the eponymous town and much of the surrounding area, including An Camas Mòr, only has capacity for a further 60 units.

Therefore, investment in both water and waste treatment works will be necessary for the National Park's permitted and projected growth to be met sustainably.

Where there is no public water supply network within the vicinity there would be a need either for a private water treatment system or to lay a new water infrastructure to the existing public network, and early discussion with SW would be required.

Where there is no public sewer network a private wastewater treatment system may be required. Early engagement with SEPA to discuss the specific requirements and approval of any private systems is essential.

Local Authority	Settlement	Water Treatment Works	Capacity (housing units)	Waste treatment Works	Capacity (housing units)
Highland	Kincraig	Aviemore	966	Kincraig	52
	Kingussie	Aviemore	966	Kingussie	327
	Laggan	Laggan Bridge	<10	Laggan Bridge ST	<10
	Nethy Bridge	Aviemore	966	Nethy Bridge	70
	Newtonmore	Aviemore	966	Newtonmore	208
Moray	Glenlivet	Tomnavoulin	<10	Private	N/A
	Tomintoul	Blairnamarrow	65	Tomintoul	46
Perth & Kinross	Blair Atholl	Killiecrankie	2000+	Blair Atholl	16
	Bruar & Pittagowan	Killiecrankie	2000+	Private	N/A
	Calvine	Killiecrankie	2000+	Private	N/A
	Glenshee	Private	N/A	Private	N/A
	Killiecrankie	Killiecrankie	2000+	Killiecrankie	<10

Flooding

All of the National Park's rivers and watercourses have the potential to flood to some degree (**Figure 29**). Most concern is generated along the National Park's main straths and glens, as when the rivers and tributaries that flow along these, namely the Spey, Dee and Don, break their banks, they often result in economic, and occasionally human, cost. Small watercourses also represent a risk but are often poorly understood with respect to the severity of the flood hazard that can be generated on a catchment scale. Furthermore, in some areas surface water flooding, which can arise for a number of reasons, is a significant risk.

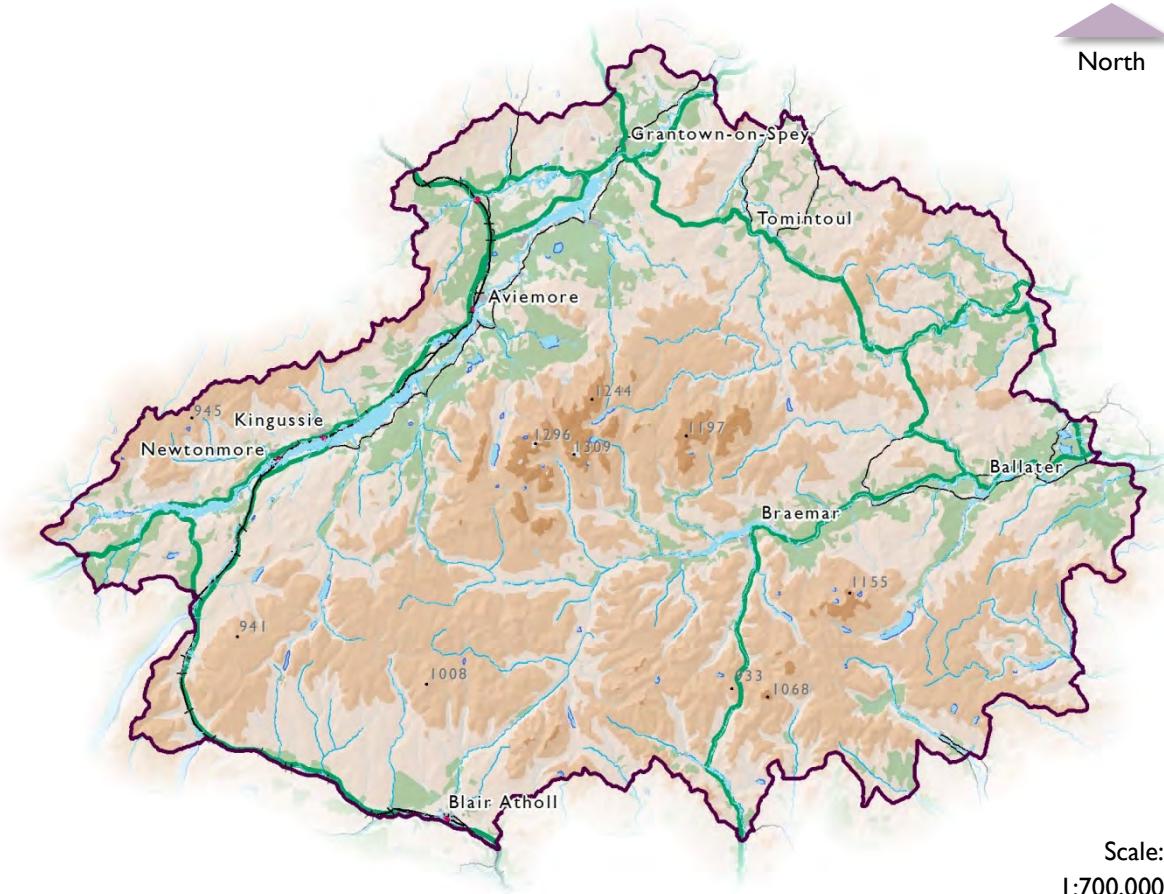


Figure 29 Indicative river flooding extent (medium probability 1 in 200 years) in Cairngorms National Park.

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River Spey

The River Spey (**Figure 30**) rises in the high ground of the Monadhliath and Cairngorm Mountain ranges and flows in a northeasterly direction through narrow straths and scenic river valleys before discharging into the Moray Firth beyond the fertile farmlands of Morayshire. The upper part of the catchment is characterised by its mountainous areas, the highest point being the summit of Ben Macdui at 1,309 metres above sea level.

The River Spey is the seventh largest river in Britain, with a catchment area of over 3,000 km², and a stream network length of about 36,500 km, of which the main river comprises 157 km (Spey Catchment Steering Group, 2003).

There is a long history of flooding within the Spey catchment area, with a notable event, known as the Great Muckle Spate, destroying several bridges in 1829. The River Spey and its tributaries continue to flood regularly, with heavy rains and melting snows increasing the volumes of water in

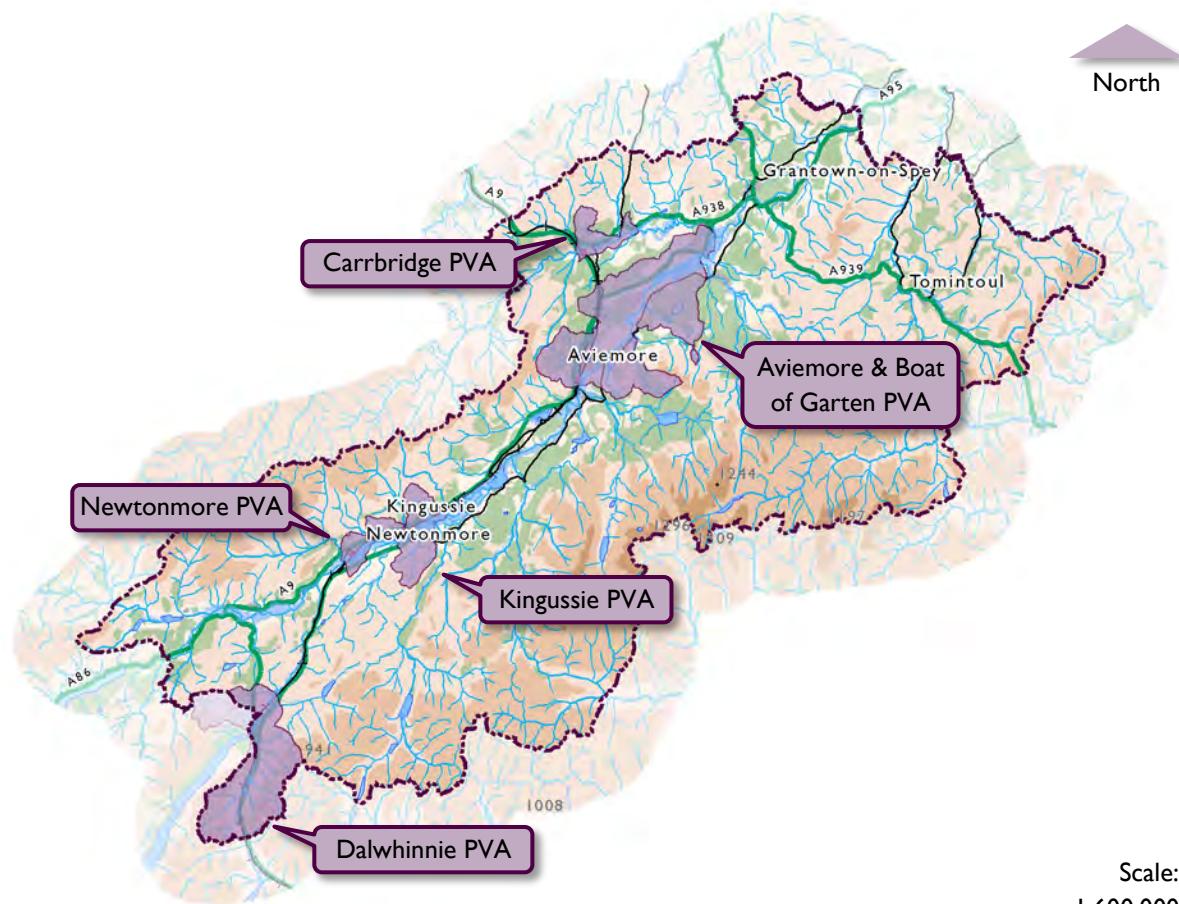


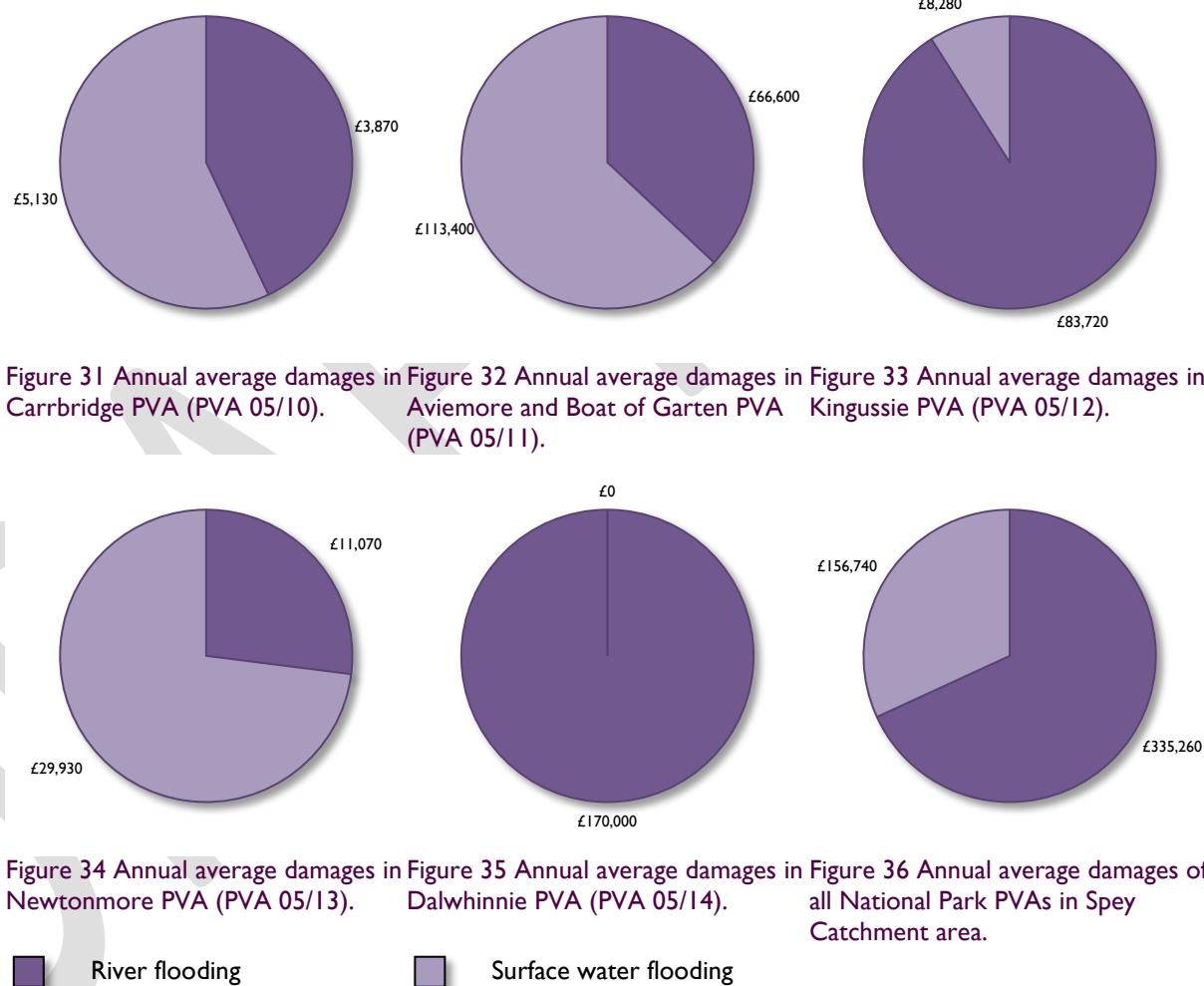
Figure 30 River Spey PVAs in the River Spey catchment area within the Cairngorms National Park and indicative river flooding extent (medium probability 1 in 200 years).

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the catchment. These floods have damaged properties in Newtonmore, Aviemore and Carrbridge on a number of occasions.

Most recently in 2014, Gynack Burn broke its banks in Kingussie, damaging local buildings and infrastructure (Scottish Environment Protection Agency, 2015).

Flood management practices are being undertaken at a number of locations. The Spey Catchment Initiative has carried out natural flood management / river restoration works on a tributary upstream of the River Dulnain (Spey Catchment Initiative, 2013). There are also agricultural embankments along the River Spey between Aviemore and Boat of Garten and further embankments at Dalwhinnie. The standard of protection (and condition) provided by these embankments is however unknown (Scottish Environment Protection Agency, 2015).



(Source: Scottish Environment Protection Agency, 2015).

Due to the potential risk caused by flooding within the catchment area, five Potentially Vulnerable Areas (PVAs) have been identified within the National Park (**Figure 30**), at:

- Carrbridge (PVA 05/10);
- Aviemore and Boat of Garten (PVA 05/11);
- Kingussie (PVA 05/12);
- Newtonmore (PVA 05/13); and
- Dalwhinnie (PVA 05/14).

The estimated total average annual cost of damage in these areas is £492,000 (**Figures 31 to 36**). Around £335,000 (68%) of this damage is caused by river flooding (Scottish Environment Protection Agency, 2015).

SEPA have identified a number of actions for managing flood risk in these areas, which were consulted on in 2015.

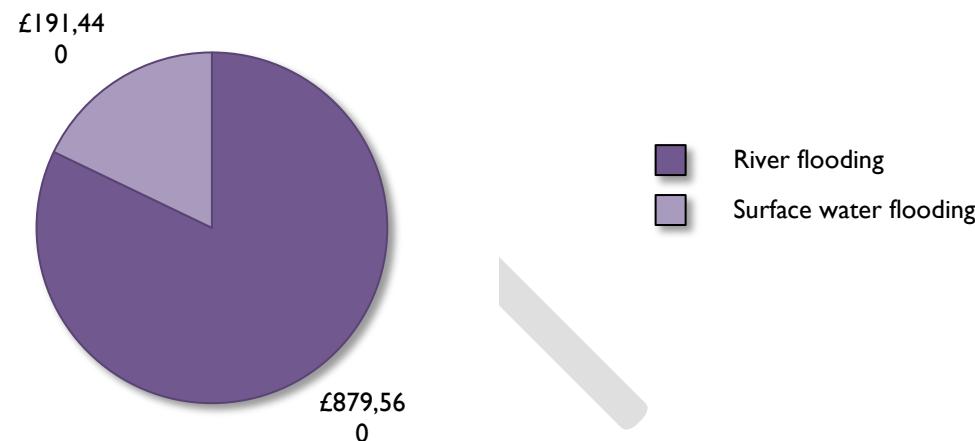


Figure 37 Annual average damages of all PVAs within or overlapping the Cairngorms National Park (Scottish Environment Protection Agency, 2015).

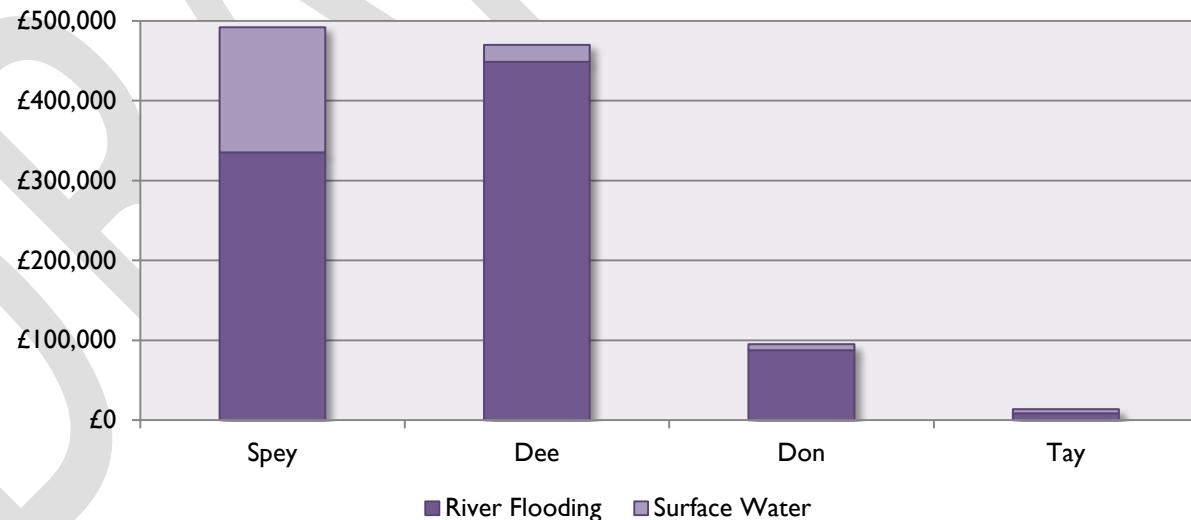


Figure 38 Annual average damages of all PVAs within or overlapping the Cairngorms National Park by catchment area (Scottish Environment Protection Agency, 2015).

River Dee

The River Dee (Figure 39) rises in the Cairngorm Mountains east of Braemar on the semi-arctic Braeriach-Cairn Toul plateau. For the majority of its course, the river flows eastwards through a broadening valley, which becomes much gentler in relief as it leaves the National Park. Within the National Park, the river is fed by a number of important tributaries, namely the Lui, Clunie, Gairn, Muick and Tanar, the latter's confluence located just outwith the National Park Boundary (Dee Catchment Partnership, 2007).

The river is considered to be the best example of a natural highland river in Scotland (Maitland, 1985). The notable characteristics of the river include its great altitudinal range, its unique succession of plant communities, and its steep profile compared to other large British rivers (Dee Catchment Partnership, 2007).

Like the Spey, the Dee suffers from flooding related to heavy rain and melting snows. Major floods have been recorded in 1769,

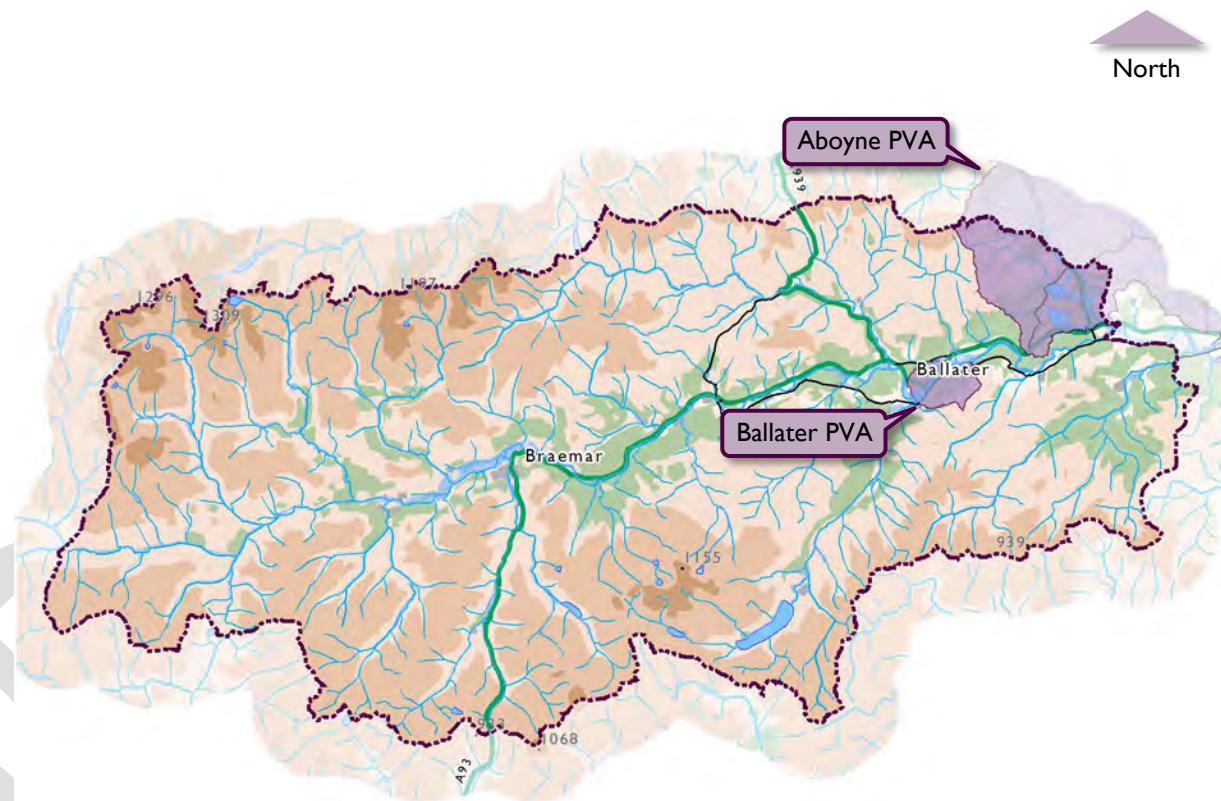


Figure 39 River Dee PVAs in the River Dee catchment area within the Cairngorms National Park and indicative river flooding extent (medium probability 1 in 200 years).

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1829 (the Great Muckle Spate), 1920 and 1956 (the Cairngorm Flood) (Dee Catchment Partnership, 2007). In 2008 surface run-off entered the Netherly Guesthouse in Ballater and in 2014 the town's caravan park and a number of roads were closed due to flooding (Scottish Environment Protection Agency, 2015). More recently, in December 2015 / January 2016, the Dee experienced widespread flooding, which caused significant damage to property and transport infrastructure.

The Dee catchment contains two PVAs that fall within or across the National Park boundary **Figures 40 to 42**, namely:

- Aboyne (PVA 06/20); and
- Ballater (PVA 06/22).

The former is only partly within the boundary, with the majority of the population and the associated risk located outwith. As one of the National Park's main settlements, the PVA around Ballater therefore offers most concern. The estimated average annual cost of damage here is £230,000, 99% of which is

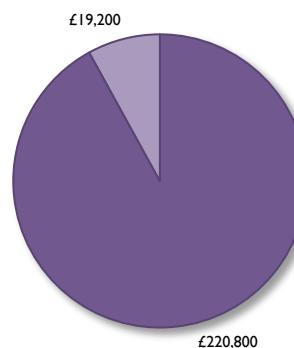


Figure 40 Annual average damages in Aboyne PVA (PVA 06/20).

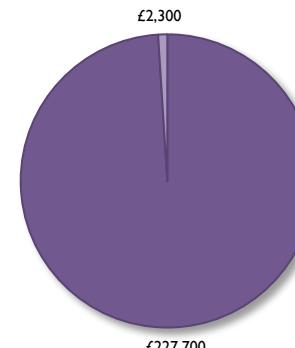


Figure 41 Annual average damages in Ballater PVA (PVA 06/22).

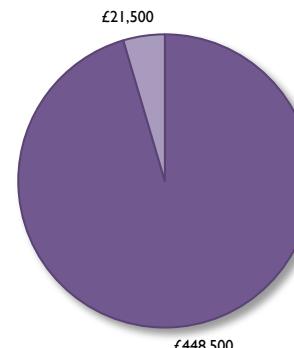


Figure 42 Annual average damages of all National Park PVAs in Dee Catchment area.

River flooding **Surface water flooding**
 (Source: Scottish Environment Protection Agency, 2015).

associated with river flooding. The majority of estimated damages are due to flooding to non-residential properties (80%), although more significantly, the fire station is located in an area which has a medium likelihood of flooding (Scottish Environment Protection Agency, 2015).

River Don

Rising in the peat flat beneath Druim na Feithe, and in the shadow of Glen Avon, the River Don flows 135km east to the sea in Aberdeen. It's Scotland's 6th largest river, draining a catchment of around 1,300km².

The Don catchment contains one PVA that falls across the National Park boundary, namely Heugh-Head (PVA 06/14) (**Figure 44**). There was a surface water flood in August 2006 affecting Strathdon, Waterside and Bellabeg when water ponded in low points of the road, with heavy rainfall and steep sloping fields to the south resulting in significant amounts of flood water. Most of the PVA's estimated annual average damages, which equate to £95,000, are associated with river flooding (92%) (**Figure 43**). These damages mostly affect residential properties (60%) (Scottish Environment Protection Agency, 2015).

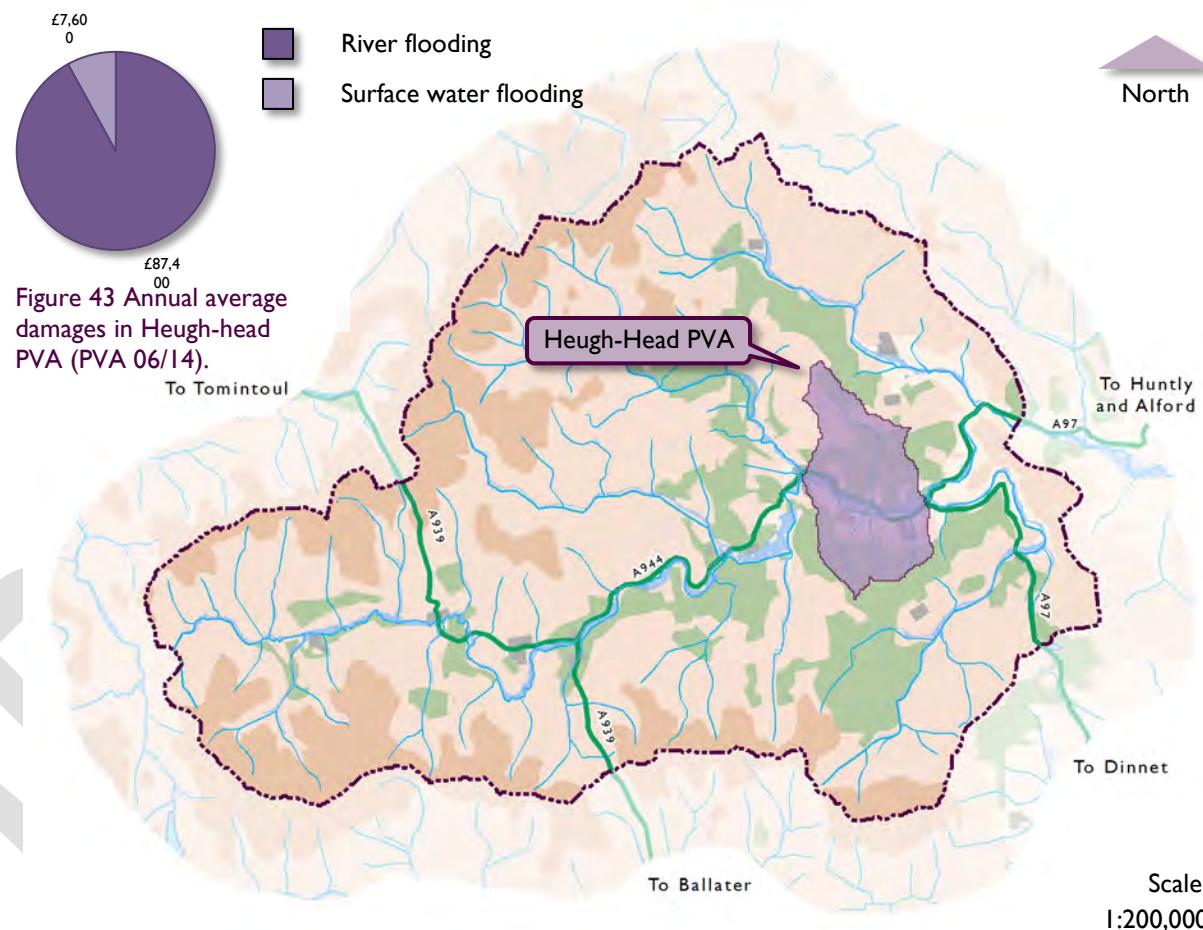


Figure 44 Heugh-Head PVA (PVA 06/14) and indicative river flooding extent (medium probability 1 in 200 years) in the River Don catchment area within the Cairngorms National Park.

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The River Tay has the largest catchment area and is the longest river in Scotland, with many of its headwaters lying within the Cairngorms National Park (**Figure 46**). It covers an area of 5,088km² and is around 190km in length. More water flows through the River Tay than any other river in the United Kingdom. The main tributaries include the River Garry, River Tummel, River Lyon, River Braan, River Isla and River Almond. The largest lochs in the River Tay catchment include Loch Ericht, Loch Rannoch and Loch Tay (Scottish Environmental Protection Agency, 2015).

The Tay catchment contains one PVA that falls across the National Park boundary, namely Blair Atholl (PVA 08/01). A number of river floods have been recorded in this area. These include:

- 13 June 1931: Evacuation was required as River Garry flooded near Blair Atholl, the railway was also affected.
- July 1916: Evacuation was required as River Garry flooded near Blair Atholl, the railway was also flooded.

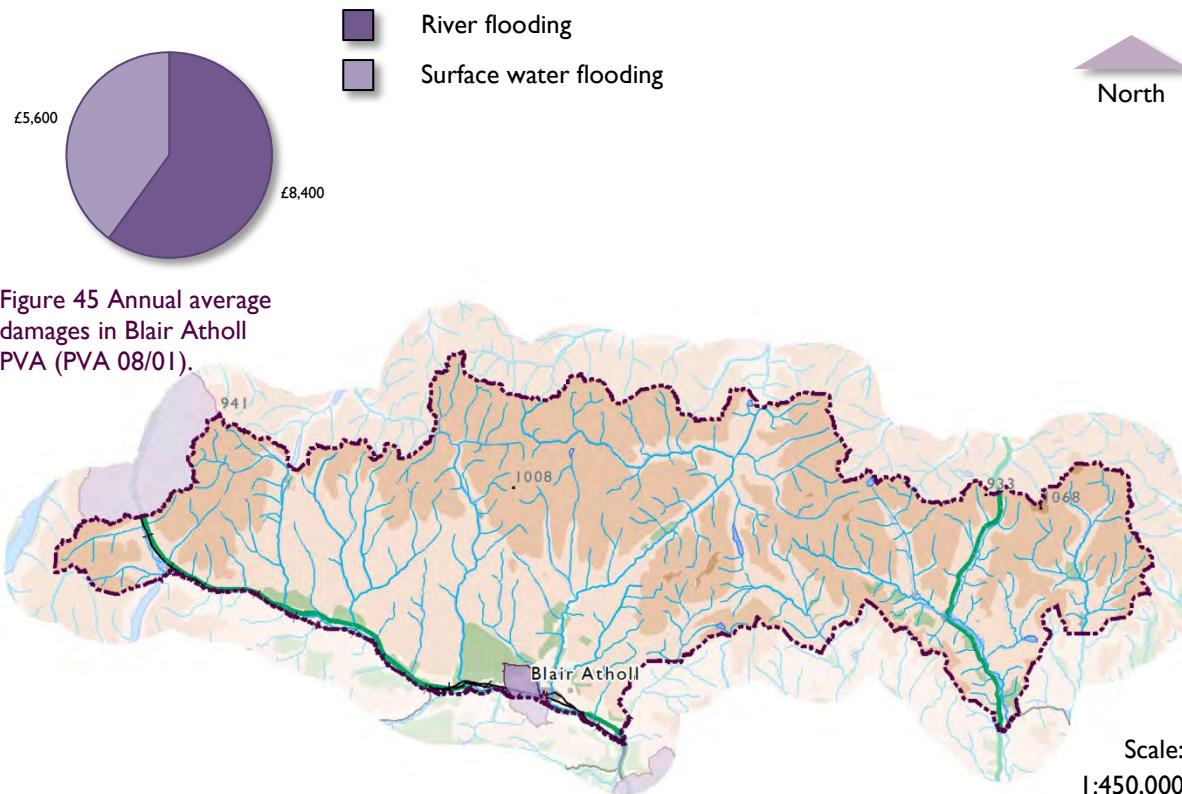


Figure 46 River Tay PVAs in the River Tay catchment area within the Cairngorms National Park and indicative river flooding extent (medium probability 1 in 200 years).

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Blair Atholl continues to be at risk of flooding from the Garry Burn and from surface water. The risk of flooding to people, property, as well as to community facilities, utilities, the transport network, designated sites and agricultural land is presented in **Figure 45**.

Currently there is relatively low confidence in SEPA's river flood hazard maps due to limitations arising from the data used and techniques applied in the national modelling. The number of properties at risk of flooding in the Blair Atholl area is likely to be underestimated (Scottish Environmental Protection Agency, 2015).

DRAFT

Key Messages

Water quality within the National Park is relatively high, however, monitoring indicates that recent years have seen an increase in the proportion of water bodies falling out of the high classification for overall status and water quality. The situation was particularly poor in 2013, which saw a large increase in the number of waterbodies falling into lower classifications.

AMAX data from the Spey and Dee indicates a general trend for higher annual maximum instantaneous peak flows over the time they were monitored, indicating an increase in floodrisk in these catchments.

There is not enough capacity in the water and sewage treatment works that serve the National Park to meet the projected level of housing growth for the Plan period.

There are nine Potentially Vulnerable Areas (PVAs) within the National Park. The estimated total average annual cost of damage in these areas is £1,071,000.

Inter-relationships with other topics

- Topic 1: Climatic Factors 131
- Topic 2: Air 141
- Topic 4: Soil 173
- Topic 6: Biodiversity, Fauna and Flora 192
- Topic 7: Landscape and Cultural Heritage 264
- Topic 8: Population and Human Health 294

Topic 4: Soil

"Soil is a resource of common interest... and failure to protect it will undermine sustainability and long term competitiveness in Europe."

Commission of the European Communities (2006).

Soils cover most of the natural world, forming the foundation of all terrestrial ecosystems and services. They support key processes in biomass production and mass exchange with atmospheric and hydrological systems. Nearly all of the food, fuel and fibres used by humans are produced in soil. Soil is also essential for water and ecosystem health. It is second only to the oceans as a carbon sink, with an important role in the potential slowing of carbon change. Soil functions depend on a multitude of soil organisms, which makes soil an important part of our biodiversity (Joint Research Centre, 2012).

Although soils are a continually evolving, living and dynamic medium responding to external pressures and management, some

activities such as development or pollution can mean their recovery or reformation cannot take place within human timescales. This means soils are a finite and essentially non-renewable resource (Scottish Government, 2009).

Land Capability for Agriculture

Although it is estimated that Agriculture contributed about £688 million to the Scottish economy in 2014 (Scottish Government, 2015), it is difficult to value the direct financial contribution that healthy soils make to our economy. But it is now widely acknowledged that the sustainable management of soils, and the protection of soils' ability to deliver a wide range of environmental and ecological services, is essential to achieving sustainable economic growth.

Land Capability Classification for Agriculture mapping provides detailed information on soil, climate and relief for those involved in the management of land use and resources. The classification ranks

land from 1 to 7 on the basis of its potential productivity and cropping flexibility determined by the extent to which its physical characteristics (soil, climate and relief) impose long term restrictions on its agricultural use. Land classified from 1 to 3.1 is considered to be prime agricultural land, while land classified as 3.2 to 7 is considered to be non-prime (Soil Survey of Scotland Staff, 1981).

There are no areas of prime agricultural land within the Cairngorms National Park, although there are areas of land in Strath Spey and Deeside within the 3.2 classification (around 1.2% of the National Park's total area), which denotes non-prime land that is limited by moderate climatic factors and may yield a moderate range of crops, with average production, but potentially high yields of barley, oats and grass. Most land within the National Park is classified as 6 or 7 (around 73%), which denote areas of 'rough grazing only' and 'very limited agricultural value' respectively.

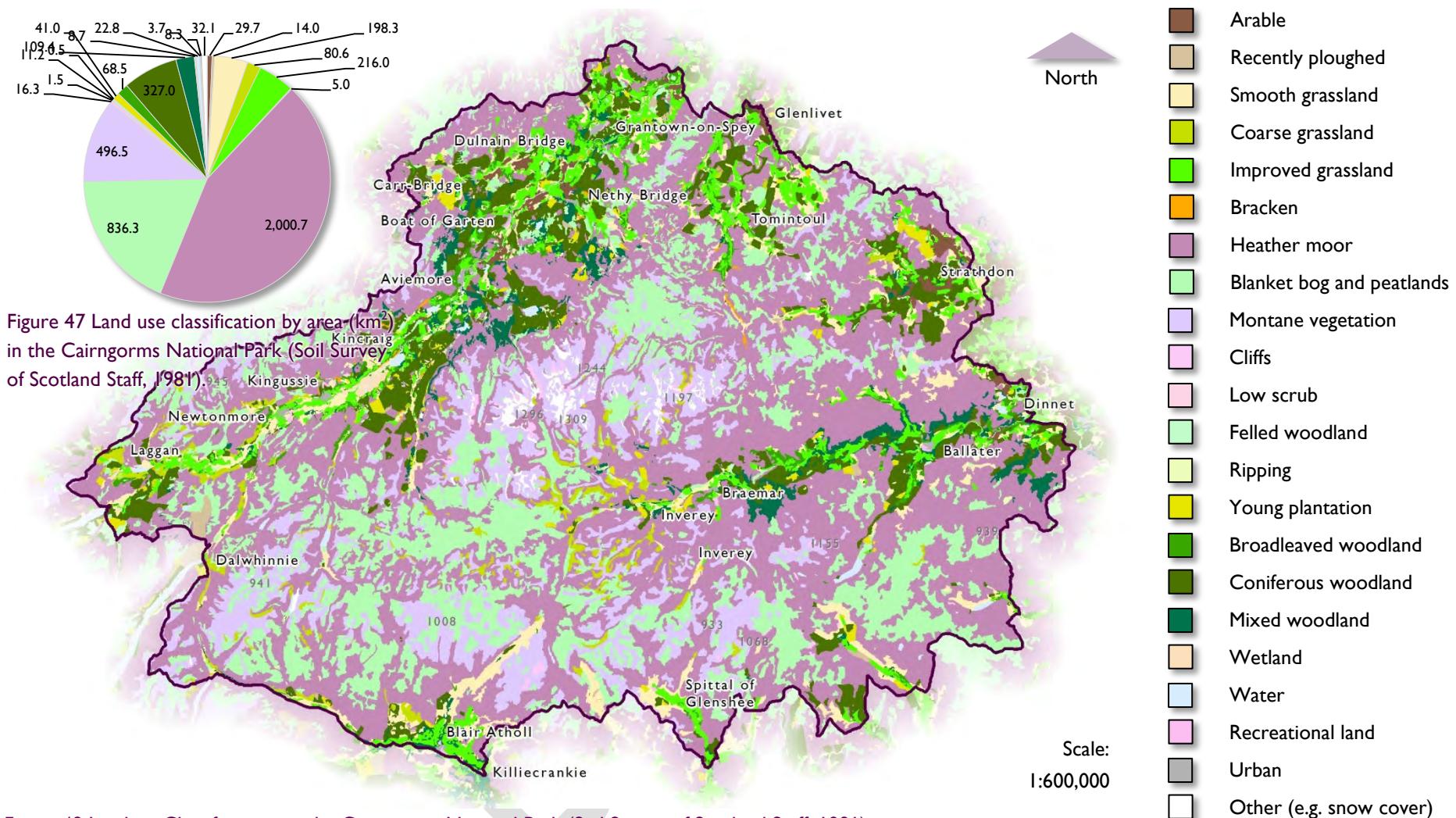


Figure 47 Land use classification by area (km²) in the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

Figure 48 Landuse Classifications in the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

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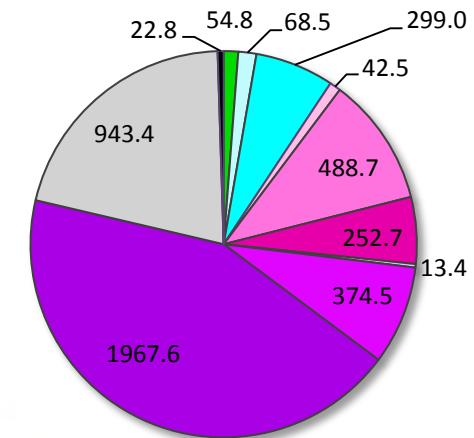
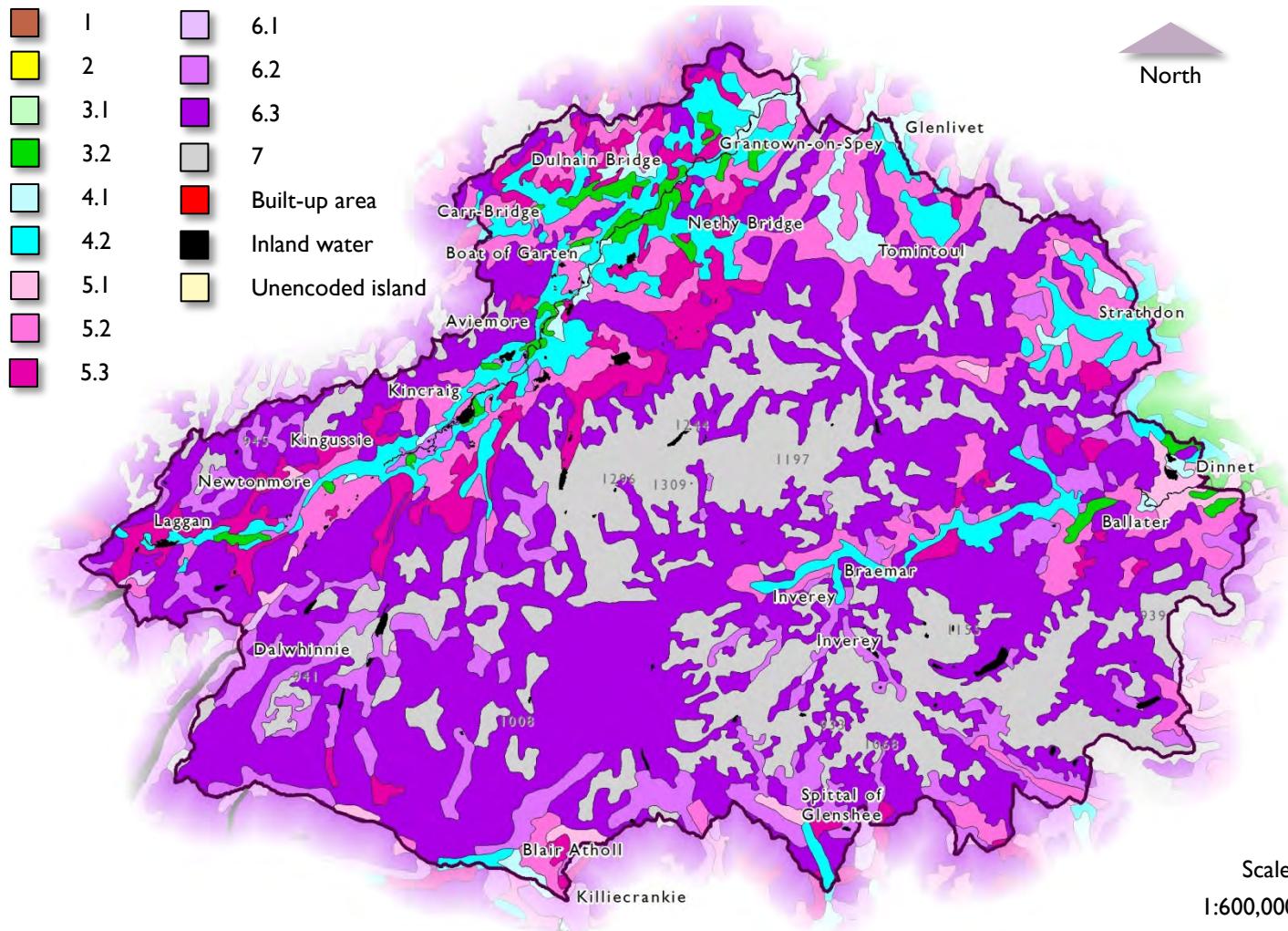


Figure 49 Agricultural land classification by area (km²) in the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

Figure 50 Agricultural land classification in the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

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Organic Matter

Soil organic matter is a universal constituent of soils and plays a vital role in contributing to a range of soil functions. Organic carbon is the dominant component of soil organic matter (around 50%), so management of soil has important wider consequences in the context of greenhouse gas emissions and climate change. Soil organic matter also contains a wide range of nutrients (e.g. nitrogen, phosphorus) and trace elements that are essential for plant growth and health. The presence of soil organic matter is a critical indicator of soil quality and is required to deliver many of the vital functions of soil including its ability to provide nutrients, ameliorate the inputs of wastes and pollutants, contribute to the formation of good physical conditions, improve water storage and provide a habitat for microbial populations (Rees *et al.* 2011).

The soils of the Cairngorms National Park are particularly rich in soil organic matter because the cool, moist climate encourages the retention of decomposed organic

materials, with peatlands containing the largest quantities of soil organic matter (**Figure 51**, **Figure 52** and **Figure 53**). These soils are important global reserves of soil carbon.

The organic matter content of soils is at risk from a range of pressures, with land use change and climate change being of particular importance. The pressures affect the incorporation, cycling and breakdown of organic matter in the soil through alteration of soil conditions populations (Rees *et al.* 2011). The major pathway of loss of organic matter from soils is by carbon dioxide (CO_2) emission to the atmosphere via soil respiration, but other greenhouse gases can also be emitted as a result of soil organic matter decomposition, for example methane (CH_4) and nitrous oxide (N_2O) (Scottish Executive, 2007). In addition, carbon compounds can be released from soil into water, for example dissolved organic carbon and particulate organic carbon (Buckingham *et al.* 2008; Dinsmore *et al.* 2010). Other processes can also influence the amount of organic matter

loss, such as soil erosion (Bilotta *et al.* 2007). Although most CO_2 is returned to soils as a consequence of the photosynthetic activity of plants, the net exchange (the difference between gains and losses) of carbon from land surfaces may still be large (Rees *et al.* 2011).

Climate is important in determining the equilibrium soil organic matter content. Temperature and rainfall influence both the input of organic matter via photosynthesis (e.g. litter and root inputs), and its subsequent decomposition through microbial activity, with resultant release of greenhouse gases and dissolved organic carbon, along with nutrients and trace elements. Thus any change in climate, for example increased rainfall and/ or increased temperature, is likely to change the rate at which organic matter is lost or accumulated in Scottish soils (Rees *et al.* 2011).

- Peat (richest)
- Organo-mineral with peat
- Organo-mineral with some peat
- Organo-mineral no peat
- Mineral with some peat
- Mineral (poorest)

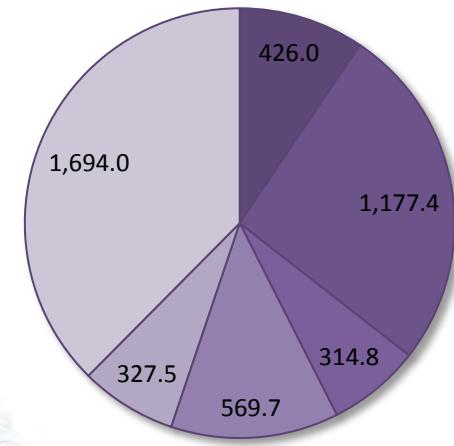
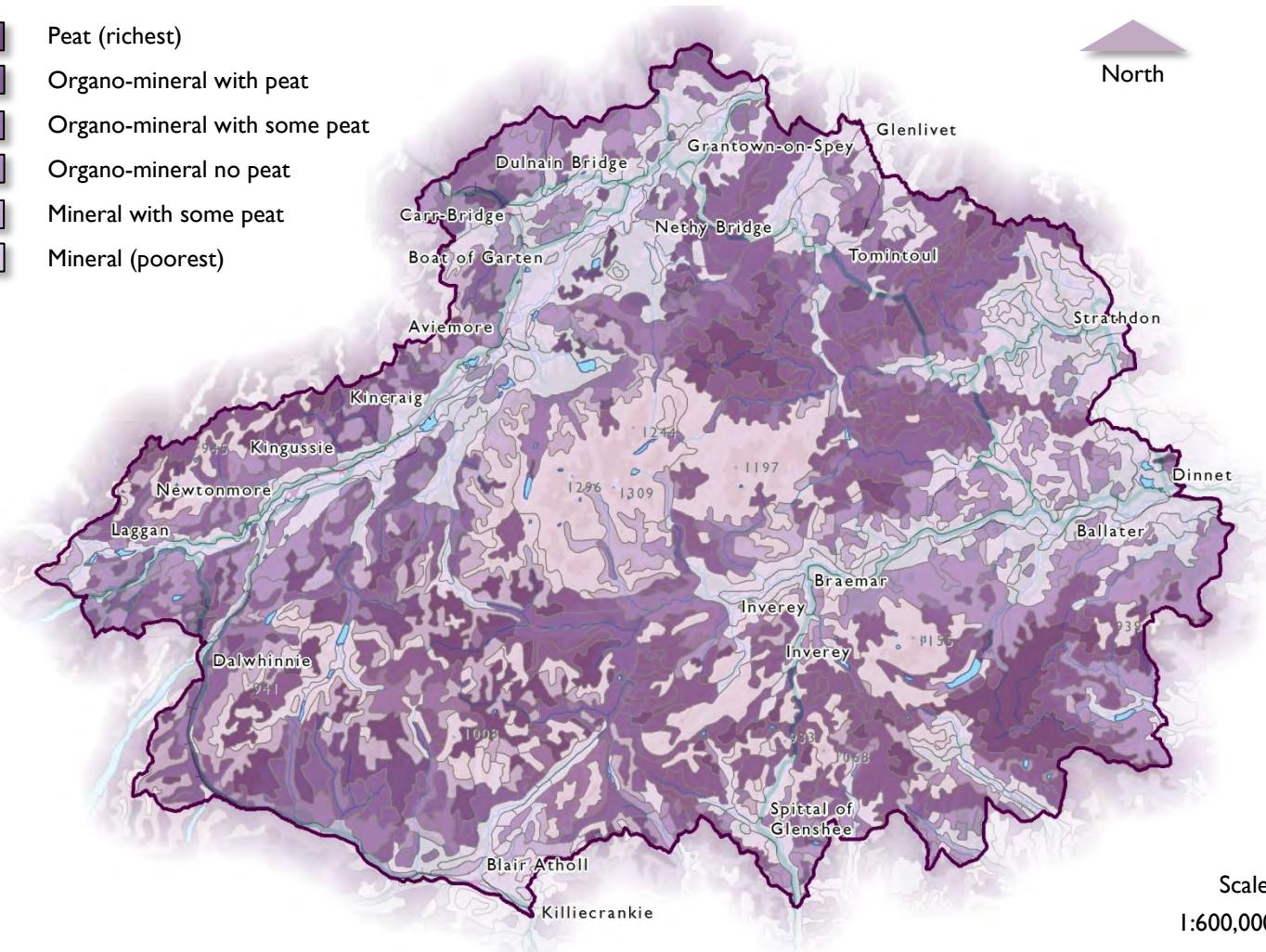


Figure 51 Carbon richness of soil by area (km^2) in the Cairngorms National Park (Scottish Natural Heritage, 2012).

Figure 52 Carbon Richness of Soil (Scottish Natural Heritage, 2012).

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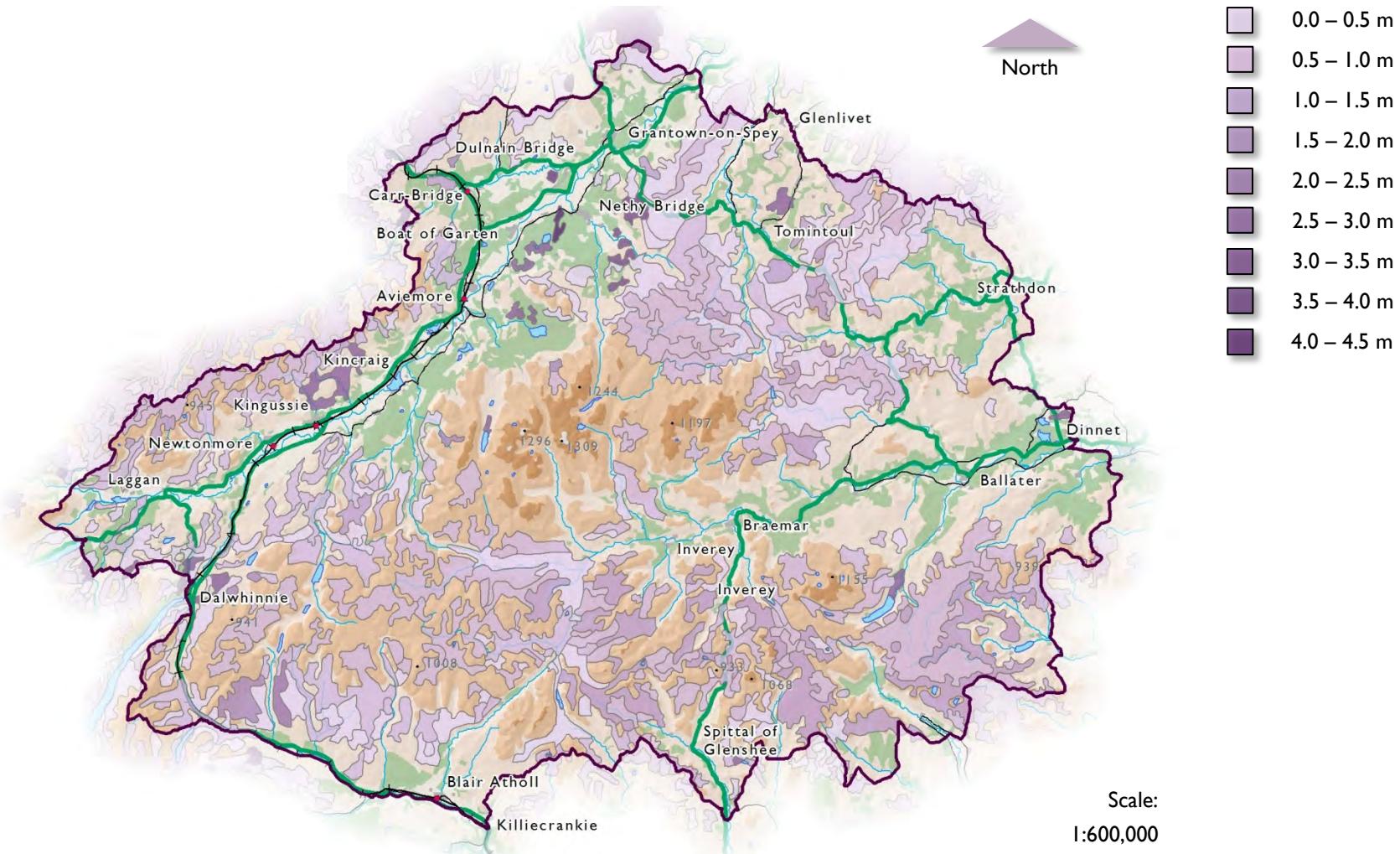


Figure 53 Depth of peat in the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

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There is a particular concern regarding the sensitivity of soil organic matter to changes in climate. Projected climate change in the Cairngorms National Park, with warmer and drier summers and wetter winters, threatens to increase losses of soil organic matter (see **Topic I: Climatic Factors**, p. 131). Another concern is that extreme weather events such as heavy rainfall could contribute to significant losses of organic matter through soil erosion (Rees *et al.* 2011).

Issues caused by climate change may be compounded by unsustainable land use activities such as those related to agriculture, forestry practices, recreation / game management, peat exploitation and development. Many of the Cairngorms National Park's most organic rich soils are located on its moorlands, large areas of which are managed for game. Deer can cause compaction and erosion and it is necessary to maintain the deer population at a sustainable level. Grouse shooting requires management of the moorland habitat such that a good balance of young

heather is available for forage. This is normally done by burning (muirburn), typically in patches which are burnt every 10–20 years. Carefully managed heather moorland should aim to retain soil organic matter and the soil carbon balance over time but poorly managed burning can result in losses. There is evidence of soil organic matter loss following burning though the evidence base is scant (Rees *et al.* 2011).

The consequences of organic soil loss are potentially serious since it provides a number of important ecosystem services, such as:

- Providing the basis for food and biomass production
- Controlling and regulating environmental interactions
- Storing carbon and maintaining the balance of gases in the air
- Providing valued habitats and sustaining biodiversity
- Preserving cultural and archaeological heritage; and
- Providing raw materials.

Contamination

Soil contamination can come in many forms and from many sources. However, not all are of concern within the Cairngorms National Park. While contamination from metals, organic chemicals, radioactive substances and pathogens may exist within National Park boundary, they are not of an order that is likely to cause significant harm to the environment and can therefore be scoped out of the assessment.

Because of its potential effects on habitat and biodiversity, soil acidification is however of significance to the National Park. Typically, this pollution originates from gaseous emissions of sulphur dioxide and oxides of nitrogen, which are dissolved in rainwater to form sulphuric and nitric acids which subsequently are deposited on soil, causing soil acidification. Excess nitrogen deposition can also lead to soil eutrophication.

Acidification and eutrophication impacts are often greatest in upland areas as a result of high rainfall and are exacerbated by

predominantly poorly-buffered and nutrient-poor soils and the greater sensitivity of locally adapted biodiversity to a change in soil conditions. However, lowland soils, especially those associated with ecosystems of high conservation value, may also be affected by acidification and eutrophication. In addition, fertiliser application in excess of crop nutrient requirements can result in acidification and eutrophication of agricultural and forestry soils (Cundill *et al.* 2011).

Acidification can impact on soil nutrient cycling, causing critical load exceedance and a reduction in the ability of soils to filter contaminants. Further nitrogen additions are also less readily retained in ecosystems where the critical load for nitrogen is exceeded, resulting in 'nitrogen' saturation' (Aber *et al.* 1989; Agren & Bosatta, 1988).

Contaminates may therefore more readily enter water bodies, the acidification of which has been linked with soil acidification in Scotland (Helliwell *et al.* 2001). The impacts of soil acidification on both the biological and chemical quality of water has

been observed in the Cairngorms (Soulsby *et al.* 1997). See **Topic 3: Water** (p. 145) for further details.

Soil Erosion

Soil erosion by water or wind is a natural process where soil particles become detached and are transported within the landscape. Features of soil erosion may be found throughout the Cairngorms National Park (**Figure 54**). For example, landslides and debris flows are a relatively common occurrence on many of the National Park's hill slopes, which have been over-steepened by glaciation (Ballantyne, 1986, 2004). The rate of soil loss via erosion and the incidence of landslides can be increased by removing the vegetation cover that protects the soil (e.g. ploughing to grow crops, deforestation) or by engineering works. Tillage erosion also leads to the redistribution of soil downslope (Lilly *et al.* 2011).

The erosion of upland organic (peat) soils is also prevalent in some parts of the National Park, and in particular the Monadhliath

Mountains, the southern part of which fall within its boundary. The mechanisms that lead to erosion in these soils are not fully understood although historic overgrazing by sheep and deer may be a contributory factor. There is also evidence that changes in climate over many years may be partly responsible for the development of gully systems in these areas (Lilly *et al.* 2009).

Landslides (in the form of debris flows) have occurred in clusters over the last 7,000 years which may be related to climatic factors such as the frequency of extreme rainfall events, for example, although deforestation is also likely to be an important factor. Debris flows in the Lairig Ghru appear to occur with a return period of around 20 years, with each episode of debris flow activity thought to be linked to intense rain storms (Baird & Lewis, 1957; Innes, 1982; Luckman, 1992). Landslide and debris flow activity is reported to have increased over the last 200–500 years (Innes, 1985; Ballantyne, 2004) and it is thought that localised extreme rainfall was the major contributing factor to the

Scottish landslides in 2004 (Winter et al. 2005). Triggering of peat slides is also commonly attributed to intense rainfall events (Dykes & Warburton, 2008).

Climate change (see **Topic I: Climatic Factors**, p. 131) is therefore likely to lead to an increase in the frequency of landslides and in the intensity of soil erosion (Ballantyne, 2004; Winter et al. 2005).

One of the most important factors in the protection of soils from erosion is vegetation cover, as roots bind soil particles together and plants protect soil from direct raindrop impact, as well as disrupting overland flow. Where vegetation cover is sparse, or soils are bare, the incidence of landslides and soil erosion (by wind and water) is greater.

- Unstable slopes
- High Risk
- Medium Risk
- Low Risk
- Rock and Scree
- Urban

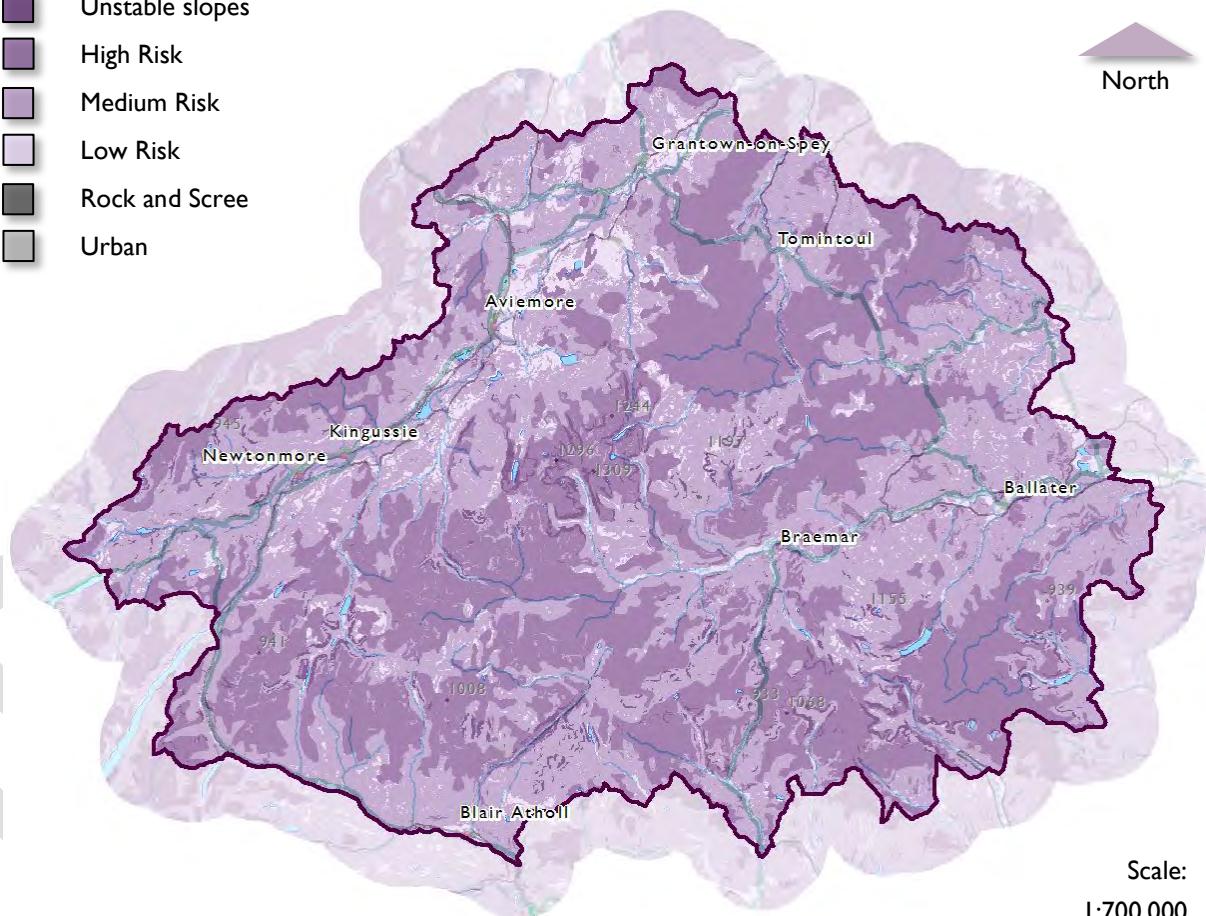


Figure 54 Soil erosion risk within Cairngorms National Park.

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In some upland areas of the Cairngorms National Park, heavy grazing by sheep and deer has caused a decline in heather cover which has then been replaced by tussock forming grasses with poorer soil binding abilities. However, one difficulty in establishing links between soil erosion (in particular, the erosion of peat) and grazing is that historic stocking densities, which are generally unknown, may have had more influence on the risk of erosion than current stocking densities. Also, both sheep and deer will preferentially graze specific areas, resulting in localised areas experiencing greater grazing pressures and an increased risk of erosion (Lilly *et al.* 2011).

In the Cairngorms National Park, estates and upland farms have commonly used burning as a means of controlling vegetation structure and improved heathland productivity. This can cause issues when too much vegetation is removed. Severe burning may even make the surface organic layer of the soil water retentive, resulting in greater run-off and greater potential for soil erosion and landslides (Lilly *et al.* 2011).

With an area around 600 km² of forest cover, soil erosion originating from forestry activities is also a consideration for the National Park. While in most instances, tree cover has a positive effect on soil erosion, providing vegetation cover and binding soils, certain activities may cause issues. For

example, the bed of new drainage ditches can be scoured and run-off during harvesting can remove the loosened soil (Lilly *et al.* 2011).

Due to the National Park's popularity as a visitor and tourist destination, the effects of recreation must also be given consideration. Hill walking and mountain biking on some hill and upland areas can cause erosion and lead to the extension of paths across sensitive environments where natural regeneration of the vegetation is slow. These areas then become vulnerable to continued erosion (Lilly *et al.* 2011).

Key Messages

The Cairngorms National Park does not contain any mapped areas of Prime Agricultural Land; it does however have large areas of Carbon Rich soils, which perform important ecosystem services, particularly as a carbon sink. Soil erosion, both natural and through inappropriate land management techniques place many of these soils at risk.

There is little evidence of soil contamination within the National Park, however inappropriate agricultural practices may lead to instances, which in turn may have a negative effect on water quality.

The LDP may have an effect on soil quality, particularly through its influence on the level and distribution of development within the National Park.

Inter-relationships with other topics

- Topic 1: Climatic Factors 131
- Topic 3: Water 145
- Topic 5: Material Assets 173
- Topic 6: Biodiversity, Fauna and Flora 192
- Topic 7: Landscape and Cultural Heritage 264
- Topic 8: Population and Human Health 294

Topic 5: Material Assets

In SEA terms Material Assets may cover a range of apparently disparate environmental concerns, including natural resources, geodiversity, waste, infrastructure and property. Many can be scoped out of the SEA for the National Park, while others may be dealt with under other topics. For example, soil and water are covered by their own topics. The issues covered within this section therefore, are:

- Geoconservation;
- Energy;
- Waste;
- Transport infrastructure; and
- Broadband infrastructure.

Geoconservation

“...geological heritage constitutes a natural heritage of scientific, cultural, aesthetic, landscape, economic and intrinsic values, which needs to be preserved and handed down to future generations.”

Council of Europe (2004).

Geoconservation involves recognising, protecting and managing sites and landscapes identified as important for their rocks, fossils, minerals, or other geological or geomorphological features of interest. Some of the concepts of geoconservation are still being developed; however, in some areas a good deal has been achieved, particularly in the creation of the UK Geodiversity Action Plan (UK GAP) and Scotland's Geodiversity Charter.

There are many definitions of 'geodiversity', but the majority are variations on similar wording (see Gray, 2008, 2013; Sharples, 1993). Broadly, it may be defined as:

“The variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them” (Bruneau et al. 2011, p. 3).

As well as being of scientific and cultural importance, geodiversity makes an immense contribution to Scotland's economy, as a source of energy and materials, and as a visitor attraction through its contribution

to our unique landscape. Crucially, geodiversity underpins biodiversity through providing mosaics of landforms, soils, water, nutrients and natural processes to support our nationally and internationally important habitats, species and ecosystems (Scottish Geodiversity Forum, 2013; Bruneau et al. 2011; Gordon et al. 1998, 2001; Haynes, et al. 1998; Jonasson et al. 2005).

Protecting Geodiversity

There are a range of designations that help to safeguard geodiversity within the Cairngorms National Park, including Sites of Special Scientific Interest (SSSI) and Geological Conservation Review (GCR) Sites. Indeed, geodiversity is part of the special qualities of the National Park.

The landscapes of the Cairngorms National Park have a remarkable history stretching back to some 700 million years. The processes that have led to these old landscapes can be traced today in the rocks, landforms and soils beneath our feet and in the shapes of the straths and mountains around us (Gordon *et al.* 2006; Thomas *et al.* 2004). These landscapes incorporate a wealth of information about past environmental change and in particular, the Cairngorm Mountains are considered to be one of the finest examples in the world of glaciated granite mountains, notable for their distinctive plateau surfaces, tors and glacially sculptured features. These mountains therefore represent a precious scientific, educational, environmental and Earth heritage asset (Kirkbride *et al.* 2010).

There are 16 Geological and Mixed SSSI within the National Park, covering an area of some 680 km² (around 15% of the Park's area) (see **Figure 84**, p. 215).

- Caledonian Igneous
- Dalradian
- Fluvial Geomorphology of Scotland
- Mass Movement
- Mineralogy of Scotland
- Quaternary of Scotland

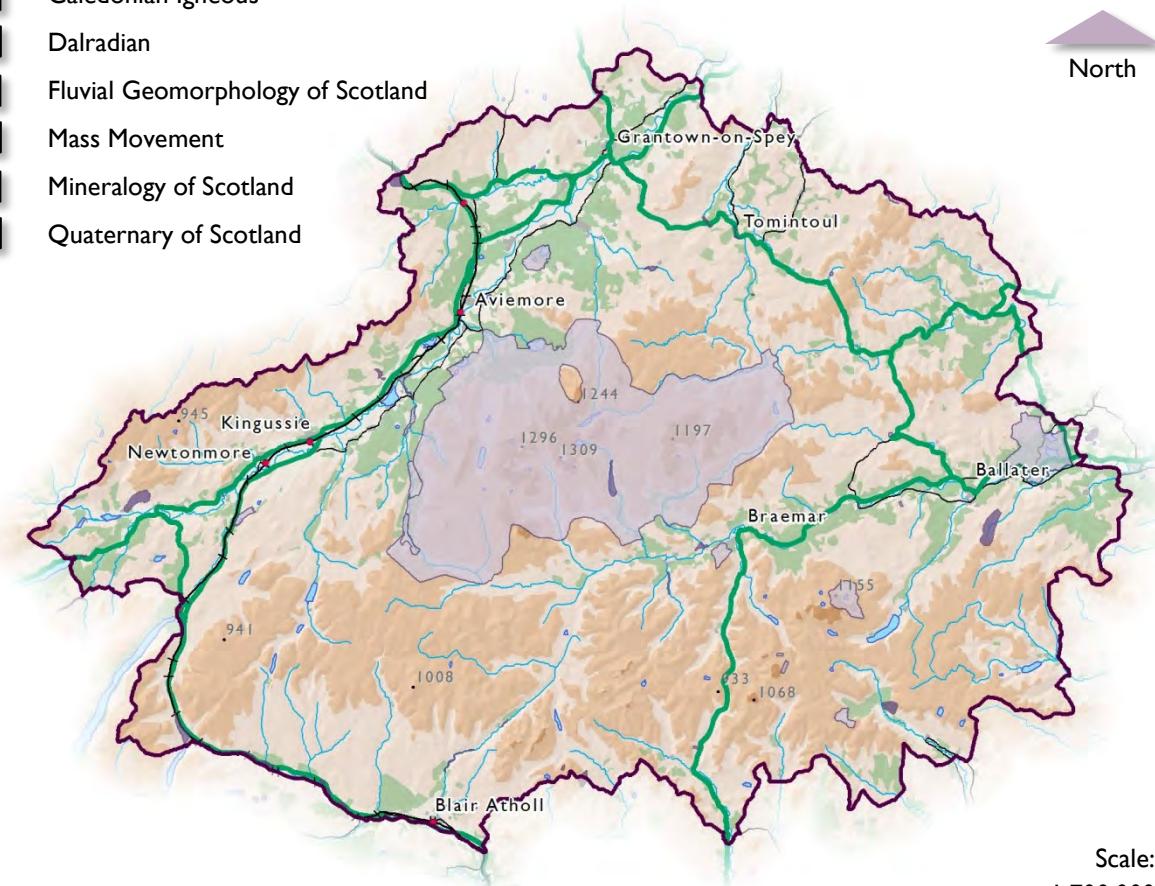


Figure 55 Geological Conservation Review Sites within the Cairngorms National Park by GCR Block Description.

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Further protection is given to certain areas, which includes areas both within and outwith SSSIs, by the 39 GCR sites within or overlapping the National Park boundary (**Figure 55** and **Figure 56**). Combined they cover an area of around 592 km², the vast majority of which lies wholly within the National Park itself. In fact, the vast majority of this area (around 526 km²) is attributed to a single GCR site, the Cairngorms Mountains (site 2284), which is listed for its exceptional assemblage of pre-glacial, glacial, glaciofluvial and periglacial features.

Although British Geological Society (BGS) mapping is available for the whole National Park, detailed geomorphological information is more limited. However, SNH along with the BGS have compiled a spatial inventory of the geomorphology of the Cairngorm Mountains core area (Kirkbride & Gordon, 2010) (**Figure 57**).

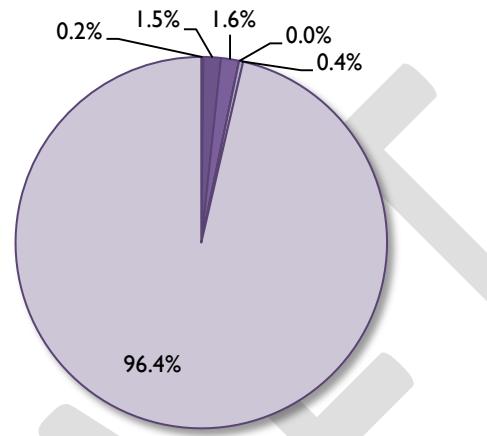


Figure 56 Area covered by GCR Site block description (legend on p. 1743).

The inventory identifies the location and extent of the main landform assemblages: landforms of glacial erosion; landforms of glacial and glaciofluvial deposition; relict periglacial landforms; and postglacial and contemporary landforms and processes. The spatial data is complemented by descriptions of the landforms and additional information on larger landscape features, the survival of relict non-glacial features and details of Lateglacial and Holocene palaeoenvironmental records. Together, they provide a basic source of information

for the development of conservation management and interpretation of the Cairngorm Mountains.

The inventory highlights that understanding the links between geodiversity and biodiversity is particularly crucial for conservation management in dynamic environments such as the Cairngorm Mountains, where natural processes (e.g. floods, sediment transport and flow regimes) maintain habitat diversity and ecological functions. It also highlights that consideration of geomorphological sensitivity is a vital part of working in sympathy with natural processes, in assessing natural hazards and implementing sustainable management of ecosystems, particularly under future climate change scenarios.

The inventory recommends that geomorphology is integrated in current monitoring programmes in the Cairngorm Mountains and that much more could be done to raise wider awareness of geodiversity interests within the overall framework for interpretation within the

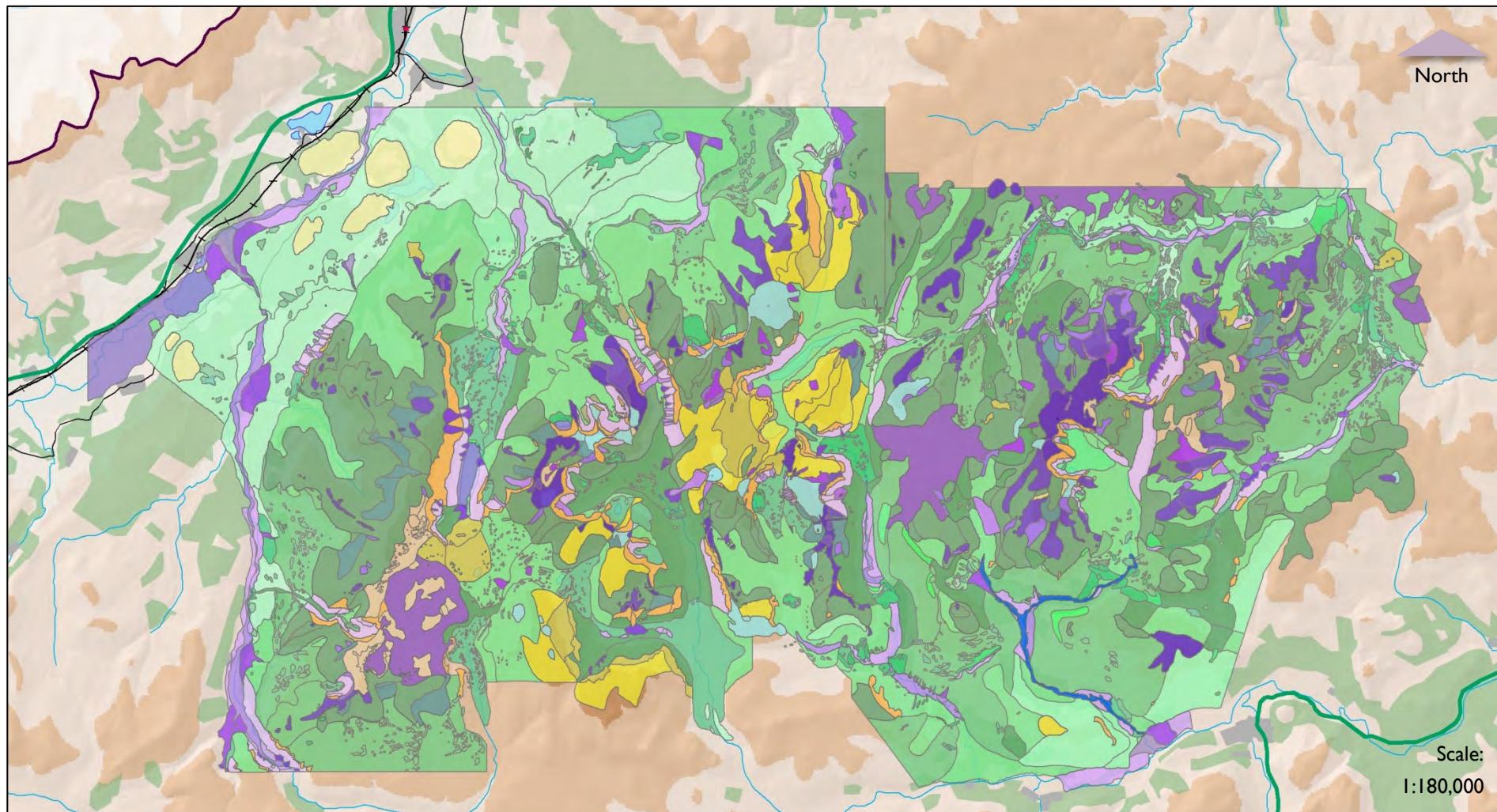


Figure 57 Geomorphological heritage of the Cairngorm Mountains (legend on p. 144).

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Postglacial and contemporary landforms and processes

- Active river corridor
 - Debris cone
 - Debris slope
 - Large scale rockfall deposits
 - Partially vegetated wind stressed surface
 - Peat
 - Postglacial active alluvial fan surface
 - Postglacial relict alluvial fan surface
 - Postglacial river terraces and alluvium
 - Semi-permanent snow patch and melt-out deposits
 - Snow avalanche modified debris slope
 - Sparse vegetation
 - Wet flushes and snowmelt drainage
 - Wetland

Relict periglacial landforms

 - Blockfield
 - Boulder lobes
 - Patterned ground
 - Rock glacier deposits
 - Solifluction sheets and lobes

Landforms of glacial erosion

- Corrie headwall
 - Ice-scoured bedrock
 - Roche moutonnée
 - Thin regolith covered rock

Landforms of glacial and glaciofluvial deposition

- Boulder and drift limit
 - Delta deposit
 - Dissected drift
 - Eskers
 - Former lake shoreline
 - Ice-contact slope
 - Ice-marginal kame
 - Kames and kettled kame
 - Kettle hole
 - Meltwater channel (bedrock)
 - Meltwater channel (drift)
 - Moraine
 - Moraine limit
 - Undifferentiated drift
 - Undifferentiated glaciofluvial deposit

Undifferentiated ice-marginal deposits

- Other landform types

Cairngorms National Park. Issues include raising awareness of geodiversity *per se*, as well as the links between geodiversity and other elements of the landscape and land use (Kirkbride & Gordon, 2010).

Within the context of the National Park, the diversity of Earth heritage interests also offers potential opportunities for local involvement in income-generating tourism.

Energy

Because the CNPA has historically implemented quite restrictive policies on energy, developments of energy generating infrastructure have been relatively minor. Since 2010 there have only been 24 planning applications approved by the CNPA, giving a total installed capacity of around 4.2 Megawatts (MW). Of these, 14 were for hydroelectric schemes, 5 were wind turbines, 3 were biomass boilers and 2 were solar panel arrays (**Figure 58**).

It should be noted that the CNPA is a 'call in' authority and therefore planning applications in the National Park are decided by either the relevant local

authority or by the CNPA. The CNPA only 'calls in' and determines the bigger and most sensitive applications, while the rest are determined by the relevant local authority.

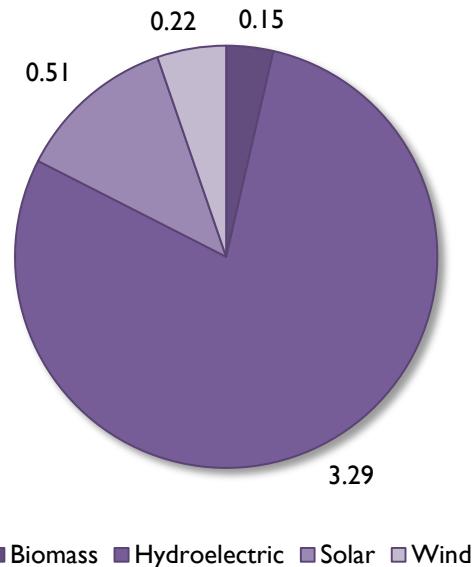


Figure 58 MW of installed renewable energy generation permitted by the CNPA since 2010.

Wind turbines, hydro schemes or large solar panel farms are likely to be 'called in', however smaller scale developments may not be. Furthermore, installing certain renewable energy technologies, such as

solar panels and biomass boilers is within the permitted development rights of householders and businesses provided certain conditions are met. Therefore, figures quoted within this section do not offer a comprehensive indication of the amount of energy generated within the National Park.

There is therefore currently a gap in the data available for renewable energy generation within the National Park that will need to be addressed for the SEA of the LDP.

Beauly-Denny Line

In 2010 Scottish Ministers granted consents to install a 400kV overhead electricity transmission line to replace an existing 132kV overhead transmission line between Beauly and Denny.

The proposed route for the replacement line will result in a reduction in the length of the transmission line and in the number of towers going through the Cairngorms National Park (**Figure 59**). The length of

the replacement line in the National Park will be 28 km, supported by 76 towers. It will replace the existing line, which is 36 km long and supported by 128 towers. The proposed route is on the boundary of the National Park and avoids settlements and popular tourist routes as far as possible.

Although the project is due to be completed in November 2015, a major operation will continue during 2015/16 to decommission and dismantle the original 132kV line and reinstate access tracks and ground disturbed by construction activity. Good progress was made during 2014 with the majority of the original 132kV towers being removed along the A9 between Dalwhinnie and Trinavon. Good progress has also been made to install replacement circuits between Etteridge and Boat of Garten, which will allow the removal of a further 40 km of existing overhead lines supported by steel towers. 53 km of 132kV overhead transmission line between Boat of Garten and Cairnmore has already been removed (Scottish and Southern Energy, 2015).

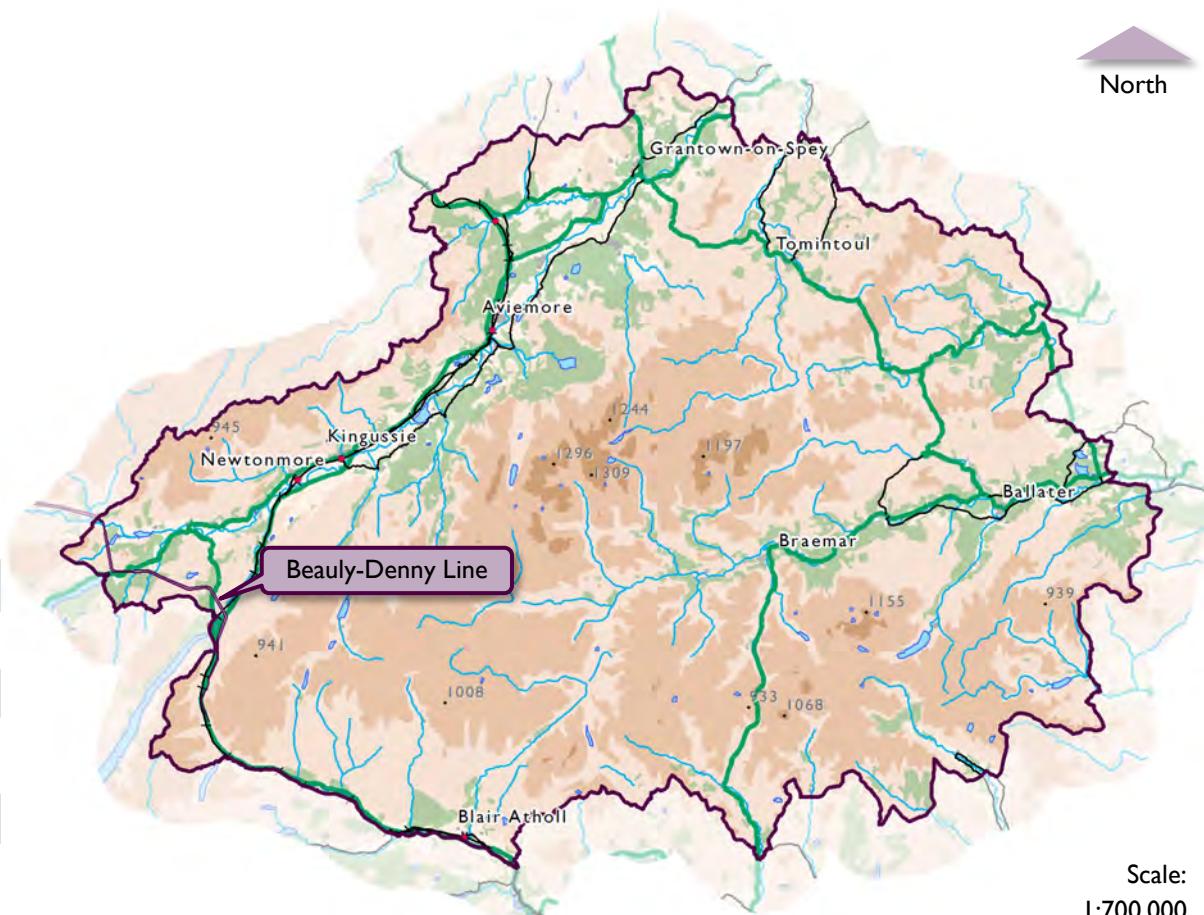


Figure 59 The Beuly-Denny Line.

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Waste

Estimates of household waste and recycling for Local Authority (LA) areas for 2011-2014 are recorded by SEPA. Specific data for Scotland's national parks is not available and therefore to get an approximation of the Cairngorms National Park's contribution further assumptions need to be made.

Mid-year population estimates have been used as a proxy for proportionally attributing the waste produced and recycled for the LAs that cover the National Park's area to the National Park itself (see **Appendix 3** for further details). It is recognised that this is a blunt means of estimation; indeed estimates based on estimates should always be treated with caution. However, in the absence of detailed National Park specific information, the information presented in **Figure 60**, **Figure 61** and **Table 14** offer a 'best-guess' and a generalised baseline for measurement over the plan period.

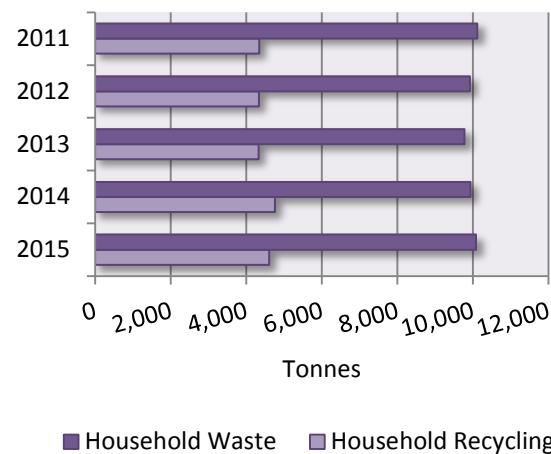


Figure 60 Estimated household waste produced in Cairngorms National Park.

(Source: www.environment.scotland.gov.uk/get-interactive/data/household-waste)

Table 15 Estimated household waste produced and recycled in the Cairngorms National Park.

(Source: www.environment.scotland.gov.uk/get-interactive/data/household-waste)

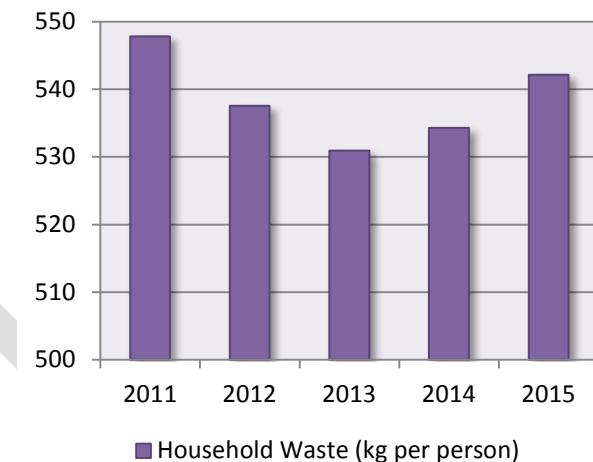


Figure 61 Estimated household waste per person in Cairngorms National Park.

	2011	2012	2013	2014	2015
Household Waste (tonnes)	10,113	9,923	9,779	9,935	10,080
Household Waste (kg per person)	548	538	531	534	542
Household Recycling (tonnes)	4,340	4,335	4,326	4,759	4,608
Recycling Rate	42.9%	43.7%	44.2%	46.6%	45.8%

According to this estimate the household waste per person is higher than the Scottish average, which for 2014 was 460 kg per person. However, it is estimated that the recycling rate is higher than the Scottish average, which in 2014 was 43.6%.

It should be recognised that the Cairngorms National Park is not responsible for waste management in the area, with this function falling to the Local Authorities that cover its area. The NPPP may however play a role in waste reduction, contributing the objectives of the Scottish Zero Waste Plan (Scottish Government, 2010), by promoting the waste hierarchy of reduce, reuse and recycle

Transport Infrastructure

Road

The National Park benefits from relatively good transport infrastructure and services compared to many other rural areas in Scotland (**Table 15**). Four A Class roads, namely the A9, A93, A95 and A86 connect the area with Inverness, Moray,

Aberdeenshire, Perth and Kinross and the West Coast.

The A9 (**Figure 62**) is currently the subject of the A9 Dualling Strategy, which aims to link up the road's existing sections of dual carriageway to create a continuous Category 7 All Purpose Dual Carriageway between Inverness and Perth. It's one of the biggest infrastructure projects in Scotland's history and will involve the:

- Full grade separation of junctions to remove at-grade junctions;
- Grade separated junctions to provide direct links, over and under, the A9 for non-motorised user crossing / access;
- No gaps in the central reserve, to prevent right-turns across carriageways;
- Hard shoulder strips at least 1m width;
- Route, signage and lighting design to minimise overall visual impact (Transport Scotland, 2013, p. 1).



Scale:
1:650,000

Figure 62 The A9 in the Cairngorms National Park.
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Once complete, the project is anticipated to provide the following benefits:

- Improved road safety and reduction in accident severity;
- Improved journey times and reliability;
- Safe crossing points to link non-motorised user routes and public transport facilities;
- Improved access to tourist and recreation sites;
- Improved trunk road transport infrastructure supporting sustainable economic growth, and resilience to climate change (Transport Scotland, 2013, pp. 1-2).

It is therefore anticipated that the programme will have significant implications for the LDP, which may result in cumulative or in-combination effects that demand consideration.

Networks of other A, B, C and unclassified roads provide access to other parts of the National Park. The area's geography means that links between certain parts of the National Park are relatively poor. A notable example is the route between Badenoch and Strathspey and Deeside, with the principle road, the A939 being susceptible to inclement weather.

The Scottish Index of Multiple Deprivation (SIMD) gives an indication some of the accessibility issues faced by certain parts of the park, with 11 of the 24 data zones used to define the National Park falling within the Index's most deprived 10% in terms of geographic access to services (see [Figure 63](#) to [Figure 76](#)). It should be noted that such a situation is not unexpected for such a rural area, and none of the National Park's data zones rank highly in terms of overall deprivation.

Table 16 Approximate road infrastructure (in km), and the Authority responsible for its maintenance, in the Cairngorms National Park (source: Local Authorities).

Local Authority	A Class (Trunk)	A Class	B Class	C Class	Unclassified	Total ⁴
Aberdeenshire						
Angus ⁵	0	0	65.363	49.499	5.979	120.841
Highland ⁶	128	40.7	106.7	69.9	169.9	515.2
Moray	0	18.1	24.4	10.6	24.6	77.7
Perth & Kinross	43.54 ⁷	16.6	15.16	0.34	23.0	124.3

⁴ Figures may not sum due to rounding.

⁵ Angus Council does not keep a record of road length within the National Park. Therefore the figure quoted are for public roads in Angus that cross into the National Park.

⁶ Figures refer to the Badenoch & Strathspey Area of Highland Council.

⁷ Trunk A Roads value managed by Perth & Kinross Council includes only one side of the dual carriageway along Glen Garry.

North

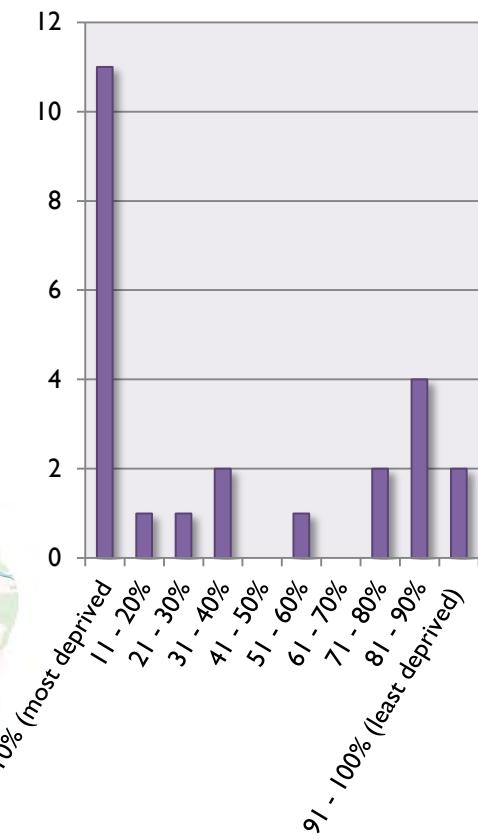


Figure 63 Data zone distribution by decile according to Geographic Access to Services Deprivation (SIMD, 2016)

Scale:
1:600,000

Figure 64 Data zones ranked within the 10% most deprived according to drive times (SIMD 2016).

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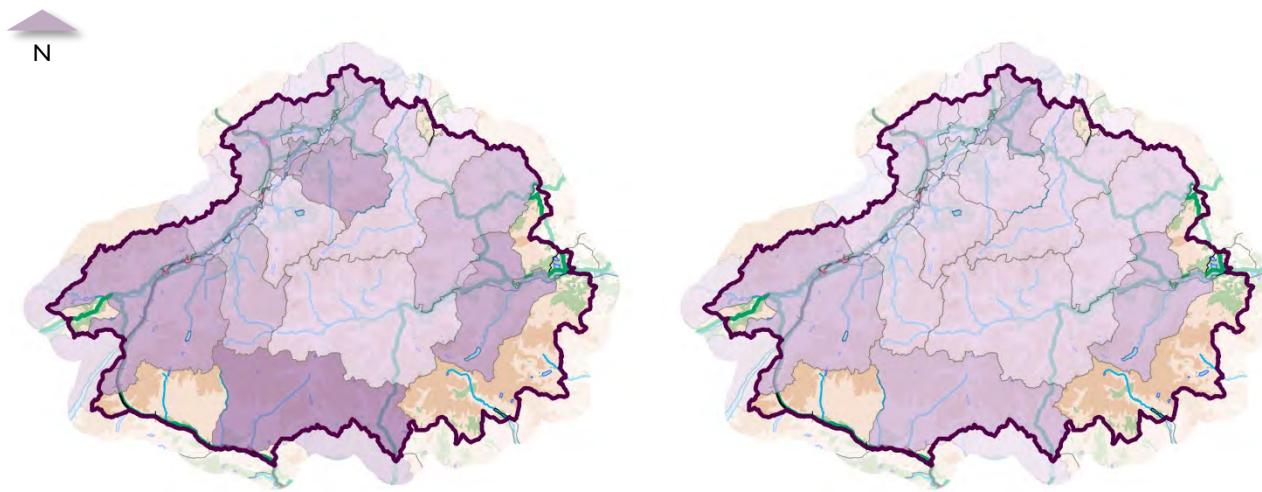


Figure 65 Average drive time to a GP surgery (SIMD, 2016). Figure 66 Average drive time to a Post Office (SIMD, 2016).

Drive Times

- 0 to 5 minutes
- 5 to 10 minutes
- 10 to 15 minutes
- 15 to 20 minutes
- 20 to 25 minutes
- 25 to 30 minutes
- 30 to 35 minutes
- 35 to 40 minutes

All drive time maps are produced at a scale of 1:1,400,000 when printed at A4.

To maintain consistency with SIMD data, population data is based on 2016 mid-year estimates.

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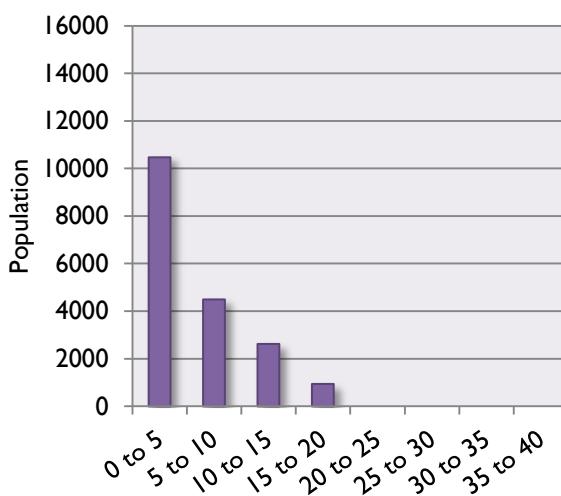


Figure 67 Population distribution by average drive time (minutes) to a GP surgery (SIMD, 2016).

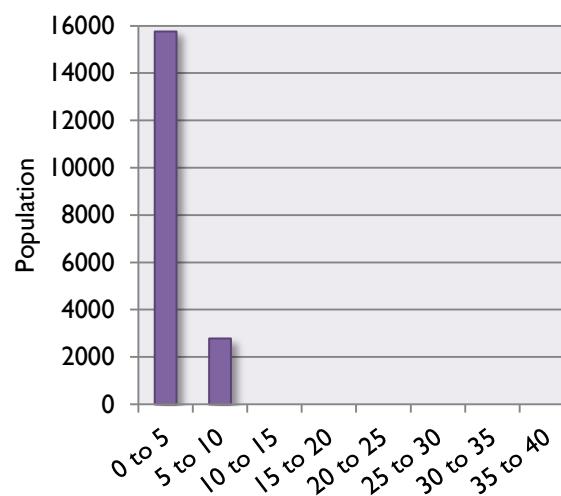


Figure 68 Population distribution by average drive time (minutes) to a Post Office (SIMD, 2016).

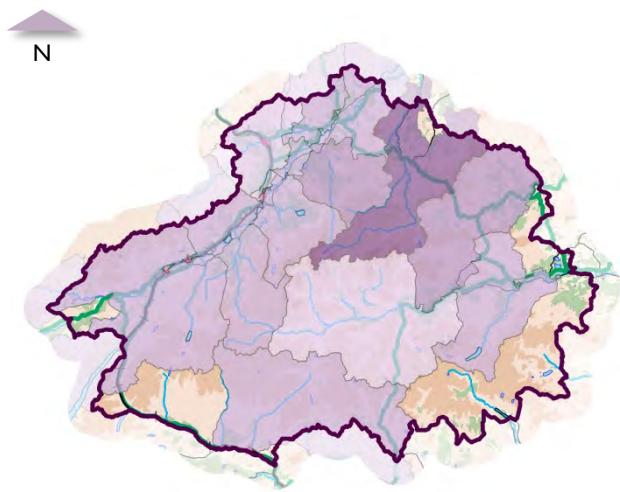


Figure 69 Average drive time to a petrol station (SIMD, 2016).

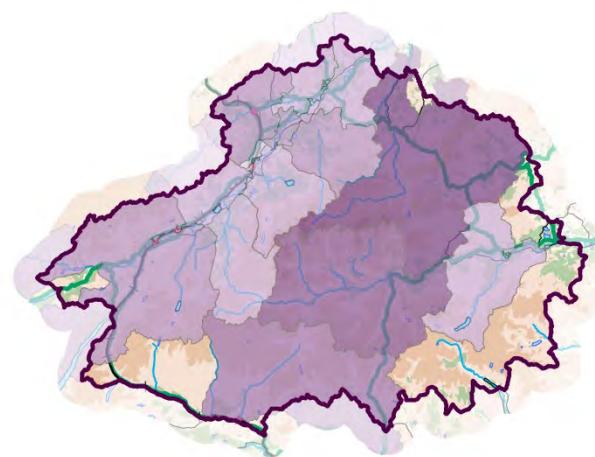


Figure 70 Average drive time to a retail centre (SIMD, 2016).

Drive Times

- 0 to 5 minutes
- 5 to 10 minutes
- 10 to 15 minutes
- 15 to 20 minutes
- 20 to 25 minutes
- 25 to 30 minutes
- 30 to 35 minutes
- 35 to 40 minutes

All drive time maps are produced at a scale of 1:1,400,000 when printed at A4.

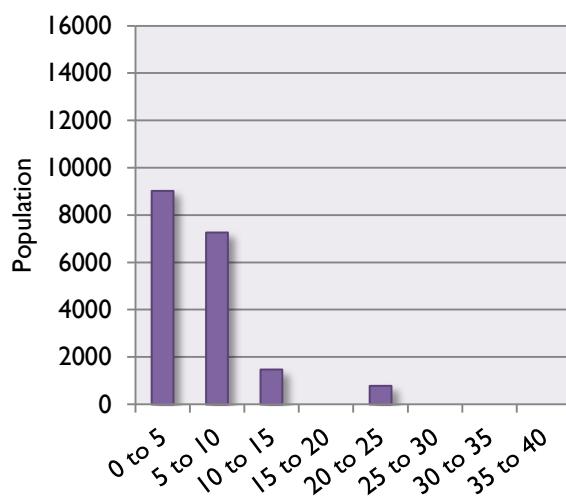


Figure 71 Population distribution by average drive time (minutes) to a petrol station (SIMD, 2016).

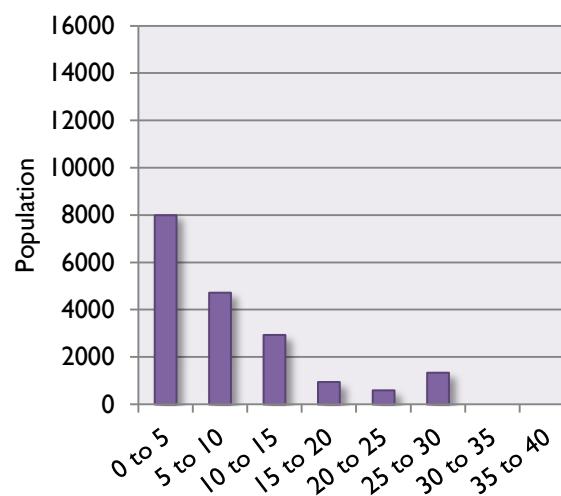


Figure 72 Population distribution by average drive time (minutes) to a retail centre (SIMD, 2016).

To maintain consistency with SIMD data, population data is based on 2016 mid-year estimates.

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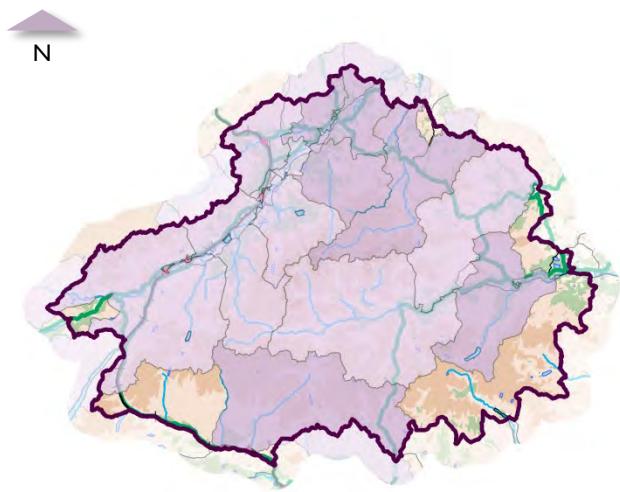


Figure 73 Average drive time to primary school (SIMD, 2016).

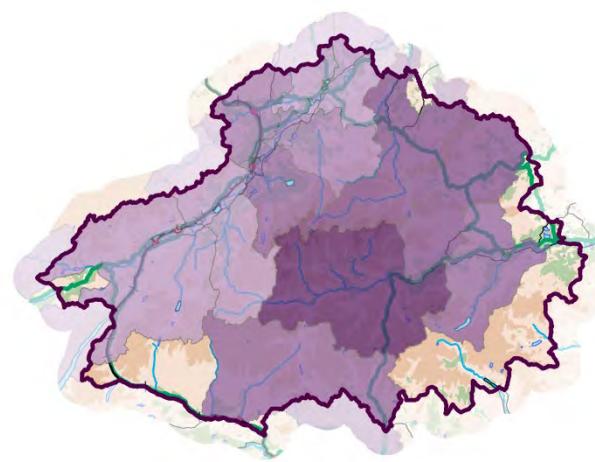


Figure 74 Average drive time to secondary school (SIMD, 2016).

Drive Times

- 0 to 5 minutes
- 5 to 10 minutes
- 10 to 15 minutes
- 15 to 20 minutes
- 20 to 25 minutes
- 25 to 30 minutes
- 30 to 35 minutes
- 35 to 40 minutes

All drive time maps are produced at a scale of 1:1,400,000 when printed at A4.

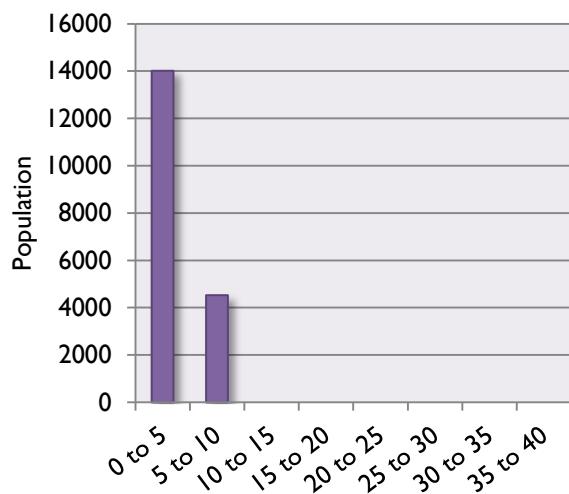


Figure 75 Population distribution by average drive time (minutes) to primary school (SIMD, 2016).

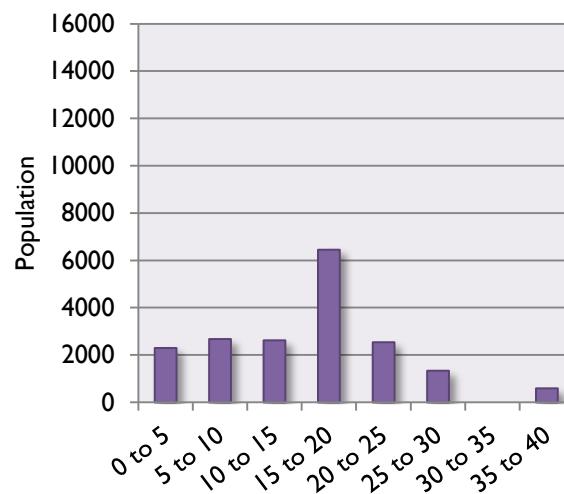


Figure 76 Population distribution by average drive time (minutes) to secondary school (SIMD, 2016).

To maintain consistency with SIMD data, population data is based on 2016 mid-year estimates.

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Drive time data provided in **Figure 65** to **Figure 76** also demonstrates the nature of the National Park's road infrastructure, with the population often having to travel for a long time to reach key services. Of particular significance are the times needed to travel from the Braemar area to reach the nearest secondary school or retail centre.

The rurality of the area is also demonstrated through the relatively high instances of car ownership within the National Park (**Figure 77** and **Figure 78**). According to the 2011 Census around 85% of households had access to a car or van, which is higher than the Scottish level of around 70%. As a result, a high proportion of the National Park's population have a reliance on the area's road infrastructure.

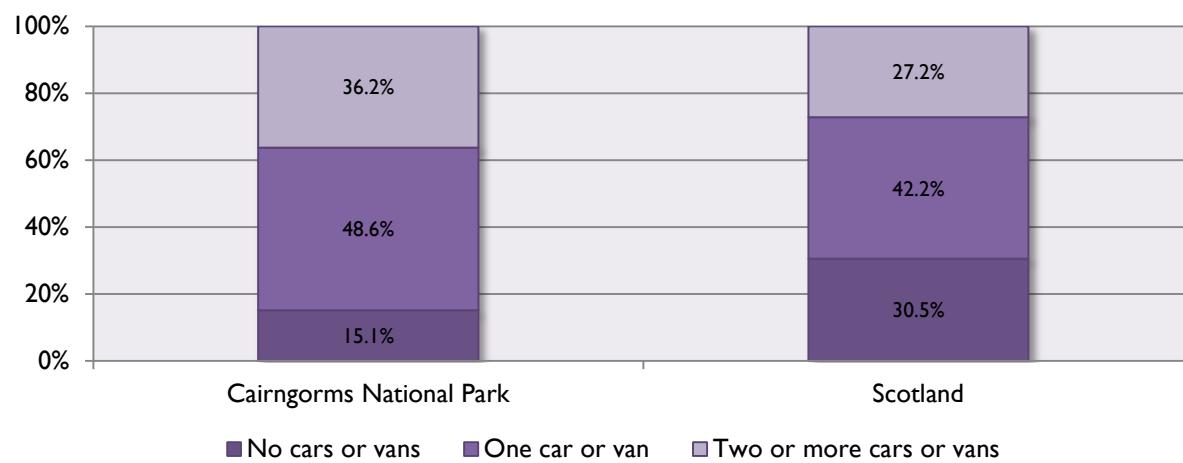


Figure 77 Proportion of households with access to a car or van (Census table LC1401SC).

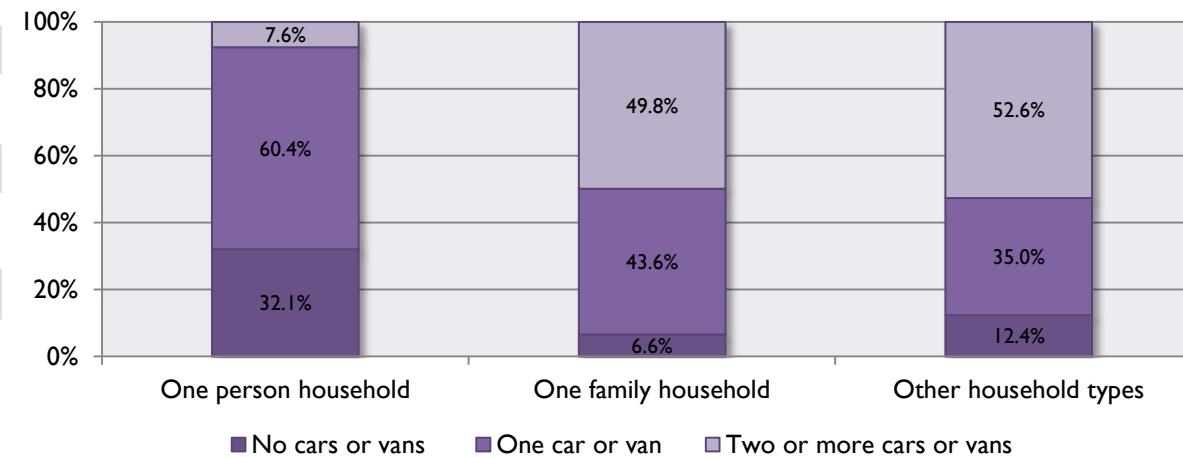


Figure 78 Household composition by car or van availability in the Cairngorms National Park (Census table LC1401SC).

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For further information on variables, see www.scotlandscensus.gov.uk/variables.

Rail

The Highland Main Railway Line which runs between Inverness and Perth runs through the National Park, with stations at Carrbridge, Aviemore, Kingussie, Newtonmore, Dalwhinnie and Blair Atholl. Much of the line is single track, and trains coming in opposite directions are often timed to arrive at stations at the same time, where crossing loops permit them to pass.

If the annual passenger usage at stations, which is based on sales of tickets, is taken as an indicator of the overall use of the line, then there is an indication that its popularity has increased significantly within the National Park over the last 17 years (**Figure 79** and **Table 15**).

The data on fare types also gives an indication of the types of journey being made. For example, while, season ticket use remains extremely low (around 4%) relative to Scotland (around 28%) and the UK as a whole (around 39%), their increase in their use between 1997 and 2016, particularly at Aviemore station, may offer an insight

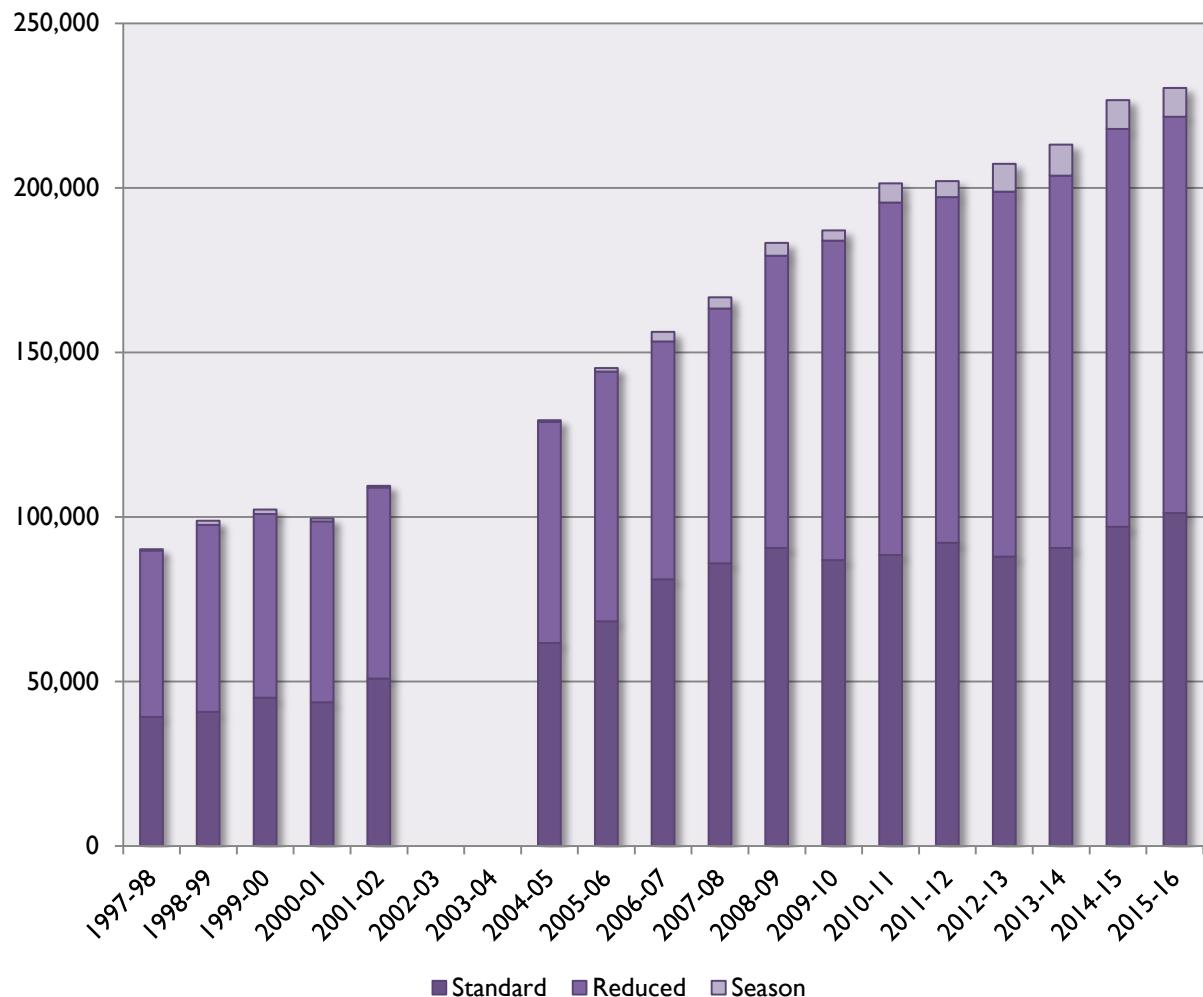


Figure 79 Total annual passenger usage (the sum of entrances and exits) by fare type at stations within the Cairngorms National Park (Source: www.orr.gov.uk/statistics/published-stats/station-usage-estimates)⁸.

⁸ No fare information is available for 2002-03, while no data at all is available for 2003-04.

into the impact of the town's significant population growth over the past 15 years has had (see **Topic 8: Population and Human Health** (p. 294) for further information).

Table 17 Annual passenger usage at stations (the sum of entrances and exits) within the Cairngorms National Park 1997 – 2016 (Source: www.orr.gov.uk/statistics/published-stats/station-usage-estimates).

Station Name	97-98	98-99	99-00	00-01	01-02	02-03	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Carrbridge	2,365	2,030	2,432	2,441	1,930	1,531	1,910	2,987	3,954	5,508	3,796	4,500	5,118	5,636	4,454	5,540	6,256	6,898
Aviemore	53,872	61,358	61,795	62,338	70,230	70,272	80,977	91,456	101,294	108,353	121,090	124,972	132,336	132,052	136,456	141,311	150,724	152,082
Kingussie	17,565	18,856	21,196	19,207	22,585	23,815	27,725	30,045	32,135	33,416	38,054	35,838	38,544	40,298	40,954	41,400	42,522	42,850
Newtonmore	3,528	3,868	4,013	4,146	4,062	4,184	5,396	6,815	6,585	7,060	7,446	7,972	9,484	9,406	8,958	8,326	8,636	9,432
Dalwhinnie	2,080	1,974	1,937	2,027	2,062	2,066	1,619	2,013	1,774	1,975	2,296	2,208	1,894	1,984	2,172	2,472	2,460	2,392
Blair Atholl	10,710	10,776	10,893	9,341	8,573	8,613	11,708	11,896	10,491	10,443	10,580	11,572	13,948	12,608	14,280	14,084	16,062	16,652
Total	90,120	98,862	102,266	99,500	109,442	110,481	129,335	145,212	156,233	166,755	183,262	187,062	201,324	201,984	207,274	213,133	226,660	230,306

Internet Infrastructure

Good digital connectivity is increasingly seen as a basic service that is required by residents, businesses, students, visitors and the public sector.

There are currently 28 telephone exchanges that cover the Cairngorms National Park, not all of which are located within its boundary. Combined they service around 15,065 telephone connections (not all within the National Park area) of which 13,682 are classed as residential and 1,176 as non-residential. All 28 exchanges are enabled to provide ADSL broadband, with all but two providing connection speeds up to 8 Mb/s. The two that are not equipped for these speeds are the Clova (ESCLO) and Advie (NSADV) Exchanges, which only provide speeds of up to 512 Kb/s (SamKnows, 2015). Average speeds across the National Park are however currently in the 5-6 M/bs range (Broadband Speedchecker, 2015).

A survey of 634 National Park households and businesses conducted in 2011/2012

found that 93.7% had access to broadband, with 1.7% claiming to use dial-up and 4.4% not to have any internet access at all. Speed was however found to be an issue for many, with 43.3% rating their connection as slow or very slow (Cairngorms National Park Authority, 2013).

Following the survey, a Digital Connectivity Audit was carried out by Broadband Strategies Limited (2012). The study concluded that the following targets should be set for all premises within the National Park:

- A minimum download speed of 2 Mbit/s and 350 Kbps upload with better than 150 ms latency and a contention ratio of 100:1 or better for residents and 50:1 or better for business by 2014.
- An average download speed of 10 Mbit/s down and 4 Mbit/s up, for all residents by 2015.
- Access to high speed broadband for all residents and businesses by 2020

Since then, high-speed fibre broadband networks have been programmed for expansion across most of the National

Park's area by the end of 2016 (**Figure 80**). Once complete, Tomintoul will become the highest village in Scotland to be connected to high-speed fibre broadband (Digital Scotland, 2015).

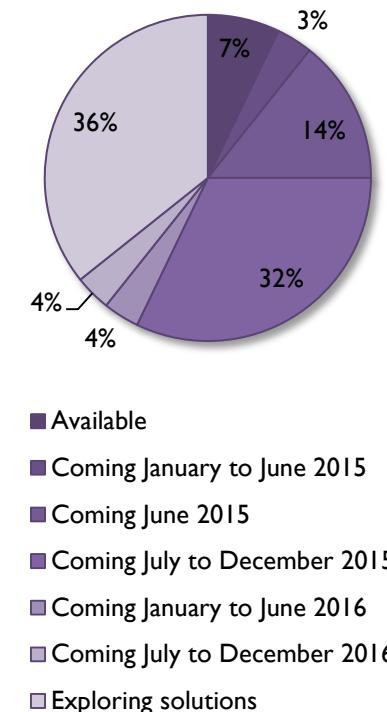


Figure 80 Timetable for rollout of high-speed fibre broadband networks for telephone exchanges servicing the Cairngorms National Park (Digital Scotland, 2015).

Key Messages

Material assets cover a wide range of environmental concerns.

39 GCR sites within or overlapping the National Park boundary; combined they cover an area of around 592 km².

The CNPA have permitted around 4.2 MW of renewable energy since 2010 although gaps remain in the data relating to total energy production. The upgrade of the Beuley-Denny line is nearing completion.

The level of household waste produced appears to be reducing while recycling rates appear to be increasing.

Transport infrastructure, while good along the National Park's main corridors, is poor elsewhere in the National Park, resulting in long drive times and high levels of deprivation in SIMD domains relating to access. The development of new infrastructure, in particular the dualling of the A9, may result in cumulative effects when implemented alongside the LDP.

Rail use is on the increase, although the reliance on private transport remains high.

The National Park's internet infrastructure is currently being upgraded, although plans are yet to be confirmed for a third of the exchanges servicing the area.

Inter-relationships with other topics

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