Cairngorms National Park Local Development Plan 3 Strategic Environmental Assessment Scoping Report

August 2025

Cover Note

PART 1

To: SEA_Gateway@gov.scot
SEA Gateway
2 H (South)
Victoria Quay
Edinburgh
EH6 6QQ

PART 2

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

Cairngorms National Park Local Development Plan 2027

The Responsible Authority is:

Cairngorms National Park Authority

PART 3

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

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

☐ The PPS does not require an SEA under the Environmental Assessment (Scotland) Act 2005. However, we wish to carry out an SEA on a voluntary basis. We accept that, as this SEA is voluntary, the statutory 6-week timescale for views from the Consultation Authorities cannot be guaranteed.

PART 4

Contact name

Nasim Mehrabi

Job Title

Planning Officer

Contact address

Cairngorms National Park Authority
14 The Square
Grantown-on-Spey
PH26 3HG

Contact telephone number:
01479 780 411

Contact email
nasimmehrabi@cairngorms.co.uk

PART 5

Signature (electronic signature is acceptable)	Nasim Mehrabi
Date	18 August 2025

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List of Abbreviations

2000 Act	National Parks (Scotland) Act 2000
2005 Act	Environmental Assessment (Scotland) Act 2005
ABD	Aberdeenshire
AQMA	Air Quality Management Area
BARR	Buildings at Risk Register
BGS	British Geological Society
CA	Consultation Authority
CNAP	Cairngorms Nature Action Plan
CNP	Cairngorms National Park
CNPA	Cairngorms National Park Authority
EC	European Commission
EEC	European Economic Community
EIA	Environmental Impact Assessment
EU	European Union
FWPM	Freshwater Pearl Mussel
GCR	Geological Conservation Review
GP	General Practitioner
Ha	Hectares
HES	Historic Environment Scotland
JSA	Job Seekers Allowance
LOCAL DEVELOPMENT PLAN	Local Development Plan
MW	Megawatts
NH3	Ammonia
NMVOC	Non-methane volatile organic compound
NNR	National Nature Reserve
NO2	Nitrogen dioxide
NOx	Nitrogen oxides
NPF4	National Planning Framework 4
NPPP	National Park Partnership Plan
NRS	National Records of Scotland
NSA	National Scenic Area
O3	Ground-level ozone
PKC	Perth and Kinross Council
PM2.5	Particulate matter with particles with a diameter of 2.5 micrometres or less
PM10	Particulate matter with particles with a diameter of 10 micrometres or less
PPS	Plans, Programmes and Strategies

pSPA	Potential Special Protection Area
PVA	Potentially Vulnerable Area
RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SIMD	Scottish Index of Multiple Deprivations
SM	Scheduled Monument
SO2	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
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 4**.

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Non-technical summary

Introduction

Strategic Environmental Assessment (SEA) of the Cairngorms National Park Local Development Plan (LDP) is a statutory requirement under the. Strategic Environmental Assessment 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 Strategic Environmental Assessment Scoping Report. The Scoping Report seeks to identify the environmental issues that need to be taken into consideration during the development of the Plan and seeks the views of the Consultation Authorities on the scope of information to be included within the environmental assessment.

Summary of the Local Development Plan process

The Local Development Plan is the spatial planning document that will set out the Cairngorms National Park's policies and proposals for the use and development of land across the Cairngorms National Park over the ten years from its adoption. It will mainly be concerned with the use of land and will guide future development to the most appropriate locations.

As part of the development plan system, the Local Development Plan 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 strategic environment assessment process

Strategic Environment Assessment aims to:

- Integrate environmental factors into Local Development Plan preparation and decision making.

- Improve Local Development Plan and enhance environmental protection.
- Increase public participation in decision making.
- Facilitate openness and transparency of decision making.

The Strategic Environment Assessment 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 Environmental Report.
- Stage E: Monitoring implementation of the Local Development Plan.

The Scoping Report sets out the findings of Stage A. To assist this process of the work has been categorised into nine 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
- Topic 8: Cultural Heritage
- Topic 9: Population and Human Health

Summary of Strategic Environment Assessment objectives

Proposed Strategic Environment Assessment Objectives have been developed as a result of the review of Plans, Policies and Strategies and baseline information. Identifying objectives is an important part of the Strategic Environment Assessment process as these will be used as the primary tool for testing the emerging Local Development Plan 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 Strategic Environment Assessment, it is only necessary to publish 'proposed' Strategic Environment Assessment Objectives to allow the Consultation Authorities to offer feedback during the consultation of the Scoping Report.

The Strategic Environment Assessment 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' Strategic Environment Assessment Objectives but also take account of the Strategic Environment Assessment Sub-Objectives. This distinction is important to ensure the assessment work is practical and achievable. The proposed Strategic Environment Assessment Objectives for the Strategic Environment Assessment of the Cairngorms National Park Local Development Plan are shown in Table 1.

Summary of next steps

The Strategic Environment Assessment Scoping Report will be consulted on for a period of six weeks between 18 August 2025 and 26 September 20025. The development of the Local Development Plan's Proposed Plan and the Environmental Assessment will take place between Quarter 3 2025 / 2026 and Quarter 3 2027 / 2028.

Following consultation on the Scoping Report, the Park Authority will consider any comments received and will amend the Strategic Environment Assessment where appropriate. This will take place as part of the process of preparing the Environmental Report.

Details of the Local Development process can be found in the Cairngorms National Park Local Development Plan - Development Plan Scheme, which is updated on an annual basis and is available on the Park Authority's website:

- www.cairngorms.co.uk

The Strategic Environment Assessment 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?

As part of the preparation of the Cairngorms Local Development Plan, the Cairngorms National Park Authority is required under the Environmental Assessment (Scotland) Act 2005 to carry out a Strategic Environmental Assessment (SEA) is a systematic method for considering the likely environmental effects of certain Plans, Programmes or Strategies (PPS). Strategic Environment Assessment aims to:

- Integrate environmental factors into plans, programmes and strategies preparation and decision making.
- Improve plans, programmes and strategies and enhance environmental protection.
- Increase public participation in decision making.
- Facilitate openness and transparency of decision making.

The Strategic Environmental Assessment 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 Environmental Report.
- Stage E: Monitoring implementation of the Local Development Plan.

Figure 1 provides details of the actions required during these stages as well as the indicative timetable for their completion alongside the production of the Local Development Plan.

It is also necessary for the Park Authority to undertake a Habitats Regulation Appraisal (HRA) in accordance with The Conservation (Natural Habitats &c) Regulations 1994 (as amended). The Habitats Regulation Appraisal will be reported separately during the preparation of the Proposed Plan.

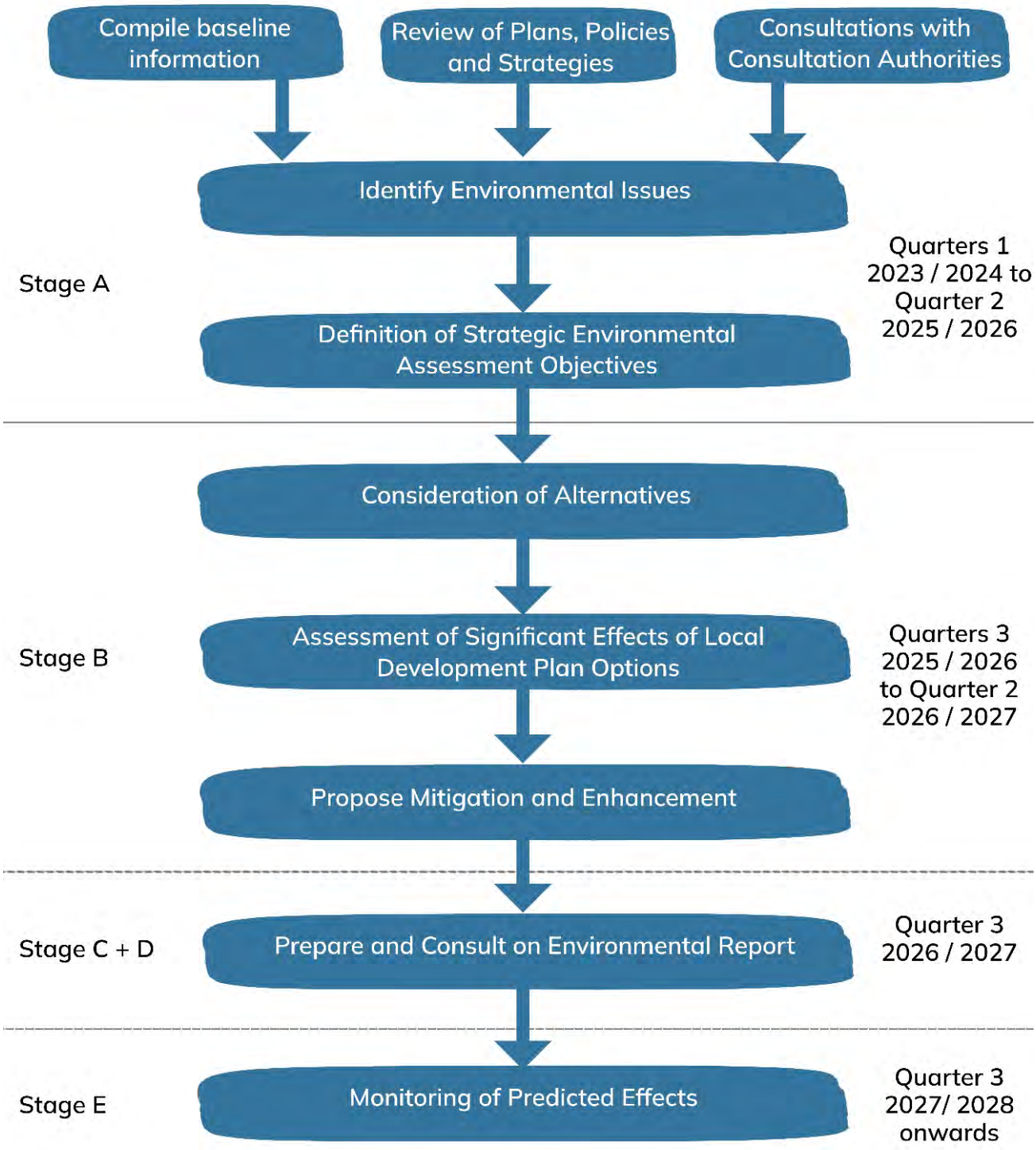


Figure 1 Stages of the Strategic Environmental Assessment of the Cairngorms National Park Local Development Plan and its indicative timetable: Strategic Environmental Assessment process stages are outlined in bold.

What is a scoping report?

"The purpose of scoping is to define the level of detail to be covered in the assessment, and to reach agreement on the consultation timescales."

(Strategic Environmental Assessment Guidance: Scottish Government, 2013)

This is the 'Scoping Report' for the Strategic Environmental Assessment of the Cairngorms National Park Local Development Plan. It represents Stage A of the Strategic Environment Assessment process (Figure 1) during this stage, the Park Authority must seek to identify the environmental issues that need to be taken into consideration during the development of the Local Development Plan and seek the views of the Consultation Authorities on the scope of information to be included within the Environmental Assessment. This Report is the result of this process.

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 Cairngorms 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 17,500 people live in the Cairngorms National Park (Census 2022), and it receives around 2.15 million visitors each year (2023).

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

The four 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 Park Authority working alongside the five local authorities which operate in the National Park – Aberdeenshire, Angus, Highland, Moray and Perth and Kinross. The Local Development sets the local policies and proposals for the whole of the National Park. Alongside National Planning Framework 4, 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 Park Authority 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 National Park are called in and determined by the Park Authority. 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 planning system in Scotland is 'plan led' and the statutory Development Plan for any place in Scotland consists of National Planning Framework 4, which covers all of the country, and the Local Development Plan for the planning authority area where the place is. This means the Cairngorms National Park Authority must prepare a Local Development Plan setting out a strategy for future development Local Development Plan the National Park. The Local Development Plan will be the main document which will influence future built development in the National Park and must include sites and proposals for development as well as the policies that are used to make decisions on applications for planning permission. It will address a wide range of policy issues, including housing, retail, economic development, transport, recreation, and built and natural heritage. The Local Development Plan will cover a 10-year period from around 2027 to 2037, as well as provide a general indication of the likely scale and location of development as far as 20 years beyond that.

The Local Development Plan 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 is being undertaken.

Key facts about the Local Development Plan

The responsible authority for the Local Development Plan is the Cairngorms National Park Authority. The title of the 'Plan, Programme and Strategy' document is the Local Development Plan. The purpose of the Local Development Plan is as follows:

- The Local Development Plan 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 a period of 10 years. As part of the development plan system, it will be concerned with the use of land and will guide future development to the most appropriate locations.

- Alongside National Planning Framework 4, the Local Development Plan 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.

The Local Development Plan is prompted by the fact that the planning system in Scotland is 'plan led' and the statutory Development Plan for any place in Scotland consists of National Planning Framework 4, which was adopted in February 2023 and covers the whole country, and the Local Development Plan for the planning authority area where the place is. This means the Cairngorms National Park Authority must prepare a new Local Development Plan setting out a strategy for future development within the National Park.

The Local Development Plan is concerned with spatial planning and due to its strategic nature will have influence over a wide range of subjects, including:

- Housing development
- Economic development
- Infrastructure development
- Natural Heritage

- Historic and cultural heritage
- Transport
- Waste management
- Energy
- Resources
- Leisure and recreation
- Tourism

Taking its strategic direction from National Planning Framework 4 and the National Park Partnership Plan 2022 the Local Development will guide development within the National Park by identifying sites for specific uses as well as setting out locally specific policies where need is identified.

The period covered by the Local Development Plan is: 2027 – 2037. It will be reviewed every 5 – 10 years.

The area covered by the Local Development Plan is 4,528 km2. A map of the Cairngorms National Park is provided (Figure 2).

Specific Local Development objectives are not yet developed; however, the Local Development will help pursue the National Park's four distinct aims as set out by Parliament:

- 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.

It also shares the long-term vision for the Cairngorms National Park as set out in the National Park Partnership Plan:

"An outstanding National Park, enjoyed and valued by everyone, where nature and people thrive together."

There are no attached objectives however, the National Park Partnership Plan 2022 provides the strategic context. It Is available here:

- https://partnershipplan.cairngorms.co.uk/

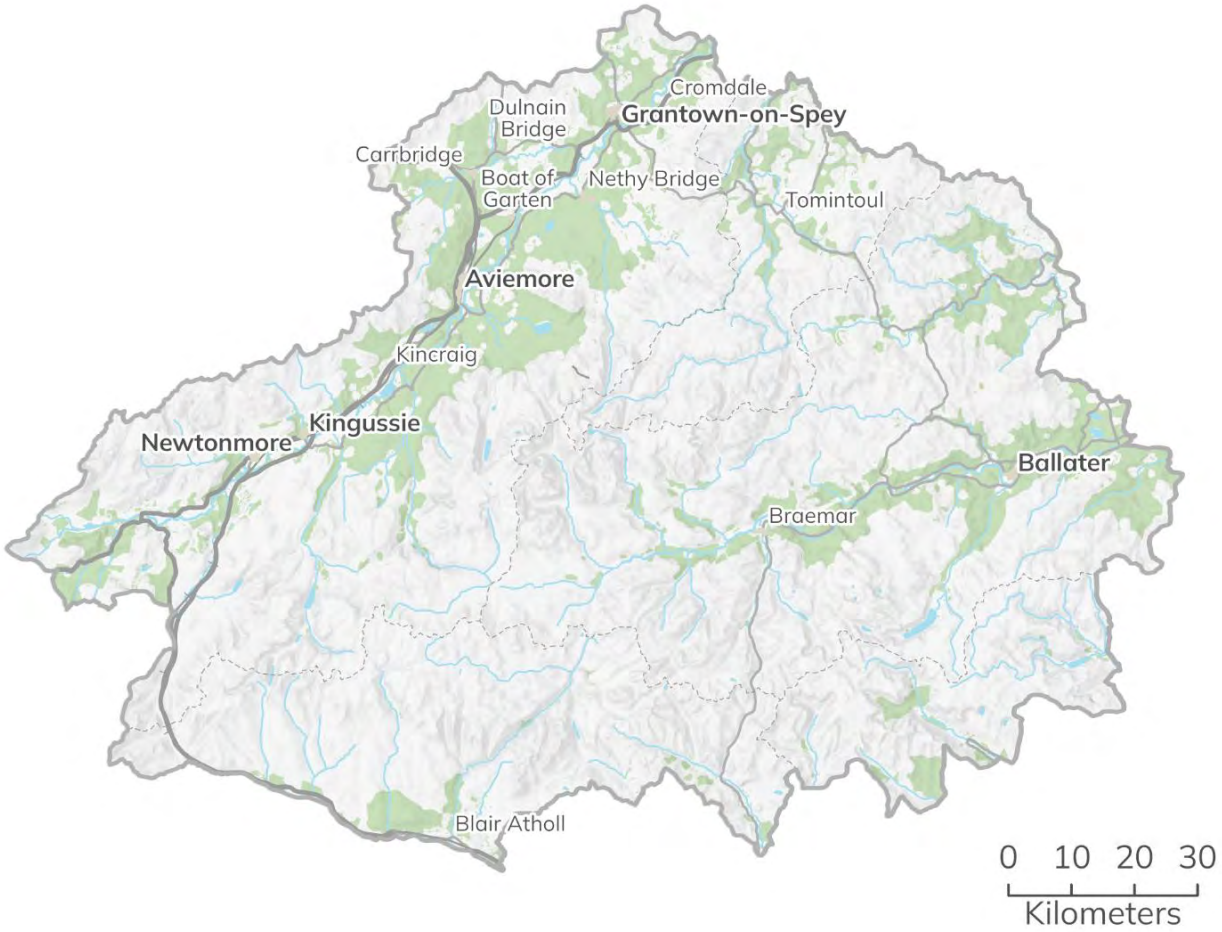


Figure 2 Area covered by the Local Development Plan. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

Policy context

The Local Development must have appropriate regard to a wide range of national and international laws, policy and strategy. A review of Plans, Programmes and Strategies has therefore been conducted in accordance with the Scottish Government's Strategic Environmental Assessment Guidance (2013) and the Office of the Deputy Prime Minister (ODPM) Guidance on Strategic Environment Assessment (2005). This is an important part of the Strategic Environmental Assessment Guidance 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.

Review findings

A preliminary review of all the Plans, Programmes and Strategies considered is presented in Appendix 1. The Plans, Programmes and Strategies are categorised according to their international, national and local scales and are accompanied by information on their purpose, relationship with the Local Development Plan and the Strategic Environmental Assessment issue they relate to.

The Strategic Environmental Assessment Environmental Report will need to consider the Plans, Programmes and Strategies that are active at the time of writing and therefore this aspect of the Strategic Environmental Assessment process will be kept under continual review.

Baseline

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 Local Development Plan operates and the constraints and targets that this context imposes on the Local Development Plan.

Baseline information serves two purposes; it helps to identify the issues on which the Strategic Environmental Assessment should focus and provides a benchmark against which the performance of the Local Development 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, 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
- Topic 2: Air
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

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-relationships where they exist and describe their effects under the most relevant topic.

Summary of the environmental baseline

(See Appendix 2 for full details)

Climatic factors

Climate Observations and Trends

Temperature and Frost:

- Average temperatures in the Cairngorms National Park are rising on average between 1 to 1.5°C from the 1960-1989 baseline. February has experienced the largest increases, by more than 2°C in the eastern part of the National Park followed by March.
- Days with air frost have decreased.

Precipitation Patterns:

- Annual precipitation is increasing overall.
- Marked increases in February, June, October, and November.
- September has seen decreases; other months vary, with eastern areas generally drier.

Evapotranspiration Shifts:

- Increased during spring (March - May).
- Decreased during summer at lower elevations but increased at higher altitudes.
- Little variation from October to February.

Climatic Water Balance Trends:

- Increases in February, June, July, October, and November.
- Deficits more common in May - July.
- General water surplus from September to March.
- Transitional months show the most variability.

Snow Decline:

- Since the 1980s, snow depths have declined (–10 cm max, –3 cm average).
- Up to 10 fewer snow cover days in some depth ranges.
- Snowmelt is accelerating due to rising temperatures and increased solar radiation.
- Declines concentrated in January and February.

Extreme Climatic Indicators (1960 – 2019)

- Consecutive Dry Days: Decreased in several months, but slight increases in March and September.

- Dry Days: February declined most; increases in spring, summer, and autumn months.
- Heavy Precipitation Days: Increased in winter and spring, decreased slightly in late summer.

Future Climate Projections (2020 – 2079)

Precipitation:

- Winter precipitation could increase 200 – 300% (especially February).
- Summer precipitation (August – September) projected to drop by up to 100%.
- Spring months show mixed trends.

Temperature:

- All projections show rising temperatures (min and max).
- Braemar (example): By 2050, median +1.2 °C (range –0.2 °C to +2.7 °C).
- Warming expected to accelerate after 2050.

Evapotranspiration & Water Balance:

- Spring increases, especially in high elevations.
- Summer patterns vary.
- From April – September, much of the National Park may shift to water deficit.

Snow Cover:

- Decline in snow cover days expected from the 2030s onward.
- Fewer snowy years; snow events increasingly short-lived.
- Projections uncertain due to complex weather influences.

Water Scarcity and Drought:

- More frequent droughts and water supply variability.
- Rising demand could conflict with falling availability.
- Agricultural areas and woodland are most vulnerable.

Heating and Cooling Needs:

- Milder winters mean reduced heating demand.
- Hotter summers will raise cooling needs.

High Winds:

- Increased risk of windthrow (especially in conifers with 8.7% at risk).
- More frequent winter storms and heavier rainfall may destabilize soils.
- Extreme wind events may occur twice as often.

Greenhouse Gas Emissions Profile

Breakdown by Source (2021):

- Residents: 0.277 million tCO_2e (42% of total).
- Visitors: 0.322 million tCO_2e (13% in-park activities, 35% from travel).
- Industry: 10% of total emissions.
- Cairngorms residents emit 16.8% more than the UK average.

Key Emissions Contributors:

- Food and drink: 25% of residents' emissions, 42% of visitors'.
- Travel: Main driver of visitor emissions (78% of their footprint).
- Car travel alone: 38% of the combined visitor / resident footprint.

Industry Emissions:

- Agriculture, forestry, and fishing: 30%.
- Accommodation and food services: 16%.
- Construction: 11%.
- Energy consumption (electricity and fuel): 48% of total industry emissions.

UK Government data

- Shows that total greenhouse gas emissions have fallen from 186.7 kt CO2e in 2005 to -17.1 kt CO2e in 2022.
- Despite this significant reduction in overall emissions, between 2005 and 2022 there has been an increase of 14.8% in transport related emissions in the Cairngorms National Park.

Carbon projections (James Hutton Institute)

- Estimated annual reduction of 1.49 million tCO_2e by 2050 with implementation of strategic targets.
- Net-zero potentially achievable by 2026 with land use adjustments.
- However, current progress may delay net zero without accelerated action

Air

- Air quality is relatively high within the National Park.
- No Air Quality Management Areas within the National Park.
- Most air pollution associated with transport, with emissions of PM_{10} and NO_2 highest along the Cairngorms National Park's main roads, with the A9 being the greatest contributor.

- The Local Development Plan may have an influence over air quality both on its own and in combination with other plans, policies and strategies such as the A9 Dualling Strategy.

Water

Surface water quality

- In 2023 98% of surface waterbodies were of high or good status.
- Only one waterbody (River Muick – Allt an Dubh Loch) rated as poor; none rated bad.
- Long-term trend shows improvement from 54% in 2013 to 73% in 2023.
- Main pressures: barriers to fish migration and reduced water flow due to hydroelectricity generation.

Groundwater

- 24 groundwater bodies in or overlapping the Park.
- Only one (Aberlour) failed to achieve good status in 2023 due to saltwater interaction.
- All others classified as good.

Protected sites

- 52% of the Cairngorms National Park is designated for environmental protection. This includes Sites of Special Scientific Interest, Special Areas of Conservation, Ramsar Sites.
- Ramsar sites specifically focus on wetland conservation.

Bathing water

- Only one inland designated bathing water: Loch Morlich - rated 'excellent' every year from 2017 to 2024.

Waterbody forecasts (to 2027 and beyond)

- Surface waters classified as poor or moderate expected to reduce to zero post-2027.
- Predicted increase in good status sites (from 54.8% in 2020 to 68.8% beyond 2027).
- Number of high rated sites remains stable at 20.
- Groundwater quality expected to remain unchanged with majority rated good.

Protected rivers forecast

- 30 protected sites monitored, including three rivers: Spey, Dee, South Esk.
- Three are currently unfavourable (2022) but expected to improve to favourable by 2027.

Pollution control

- Three industrial sites in the Cairngorms National Park report to the Scottish Pollutant Release Inventory. No reported water releases from these sites between 2007–2023.

Climate change and water stress

- Climate change is driving greater variability in Scotland's natural water supply.
- Meteorological and hydrological droughts are becoming more frequent.
- Water demand is expected to rise at times and locations where supply may decrease.
- Human responses to climate-driven events could worsen scarcity if unmanaged.

Projections by Scottish Water (Moderate Climate Scenario)

- By 2050, a combined daily deficit of 240 Megalitres is projected across 189 water zones. Assumes a rare drought (1 in 150 years), increased population (5.6 million), no consumption or leakage reductions.

Agriculture and distilleries at risk

- Much of the National Park's land is agricultural, with several distilleries in River Spey catchment.
- Late summer and early autumn water deficits heighten climatic stress - arable and improved grasslands most exposed.
- Agricultural abstractions more frequently fall in future deficit zones, especially in April and September.

Distilleries and cooling water demand

- From 1990 - 2019: 20% of distillery abstractions were in deficit in March. 88% in deficit in August. Almost all were stressed April to July.
- Future (2020 - 2049) projections vary by climate model: from little change to near 95% deficit in August. March may shift to surplus, depending on model.

Flow monitoring and climate indicators

- Scottish Environment Protection Agency monitors 20 water level sites inside the National Park, plus others nearby.
- Water levels are converted to flow metrics and trends used to detect climate change impacts, flood and scarcity risks.

General flood risk

- All rivers and watercourses in the Cairngorms National Park have some potential to flood.

- Flooding concerns are concentrated in main straths and glens (e.g., Spey, Dee, Don, Tay).
- Small watercourses and surface water flooding also pose risks, often poorly understood.

Flood Zone Extents

River flooding (0.5% AEP):

- Covers 176 km² (3.9% of park area).
- Approximately 565 properties affected (4.9% of total).

River flooding and climate change:

- Rises to 184 km² (4.1% of park area).
- Approximately 991 properties affected (8.5% of total).

Surface and small watercourse flooding (0.5% AEP):

- Covers 187 km² (4.1% of park area).
- Approximately 59 properties affected (0.5% of total).

Surface flooding and climate change:

- Rises to 275 km² (6.1% of park area).
- Approximately 156 properties affected (1.3% of total).

Reservoir inundation risk

- 13 reservoirs identified as having inundation potential in the National Park.

Beaver translocation and impact

- Beavers now a priority species under the Cairngorms Nature Action Plan. Up to 50 Eurasian beavers to be translocated to the Upper Spey area by 2028.
- Potential benefits - Beaver dams slow water flow, boost storage, lower flood peaks.
- Potential risks - Bank erosion, undermining trees or infrastructure. Also dam-related water level rises damaging buildings or transport.

Flood defences

- No formal flood defence structures in the National Park, although informal defences exist in some locations, referenced in local studies.

Surface water management

- No current surface water management plans for the National Park.

Natural flood management

- Involves working with natural processes for example habitat restoration.
- Scottish Environment Protection Agency data highlights areas where land use changes can help reduce flood risk.

- Blue and green infrastructure connectivity is recognised as important.

Soil

Overview

- Soils are foundational to terrestrial ecosystems and crucial for biomass, food, water, and climate regulation.
- Second only to oceans as carbon sinks, they can play a major role in mitigating climate change.
- Soil biodiversity supports vital functions and ecosystem health.

Carbon-Rich Soils in Cairngorms National Park

- Cool, moist climate promotes accumulation of organic material, especially in peatlands.
- Peatlands hold significant soil carbon and sustain key habitats and species.
- Blanket bog is widespread but vulnerable to erosion from grazing and human activity.
- Approximately 90,000 hectares of impacted peatland, with 57,000 hectares showing erosion.

Land Capability for Agriculture

- No prime agricultural land in the National Park.
- Only 1.2% of land rated as 3.2 (non-prime but moderately productive).
- Most land (73%) classified as 6 or 7, suitable only for rough grazing or of minimal agricultural value.

Land Capability for Forestry

- Forestry can offer environmental benefits such as carbon sequestration.

Soil Erosion and Landslides

- Erosion and landslides occur naturally but are exacerbated by human activity and vegetation removal.
- Upland organic soils, especially in Monadhliath Mountains, show erosion linked to overgrazing and climate change.

Transport Infrastructure Risks

- Transport Scotland identifies debris flow hazard sites along A9 and A86. These risks unlikely to affect local development planning directly.

Climate Change Impacts

- Increased frequency and severity of landslides and soil erosion expected due to changing climate.
- Intense rainfall events are a primary trigger for peat slides and soil instability.

Cultural and Locally Important Soils

- These soils may be of lower quality but are important for primary uses: food production, flood management, water catchment management, and carbon storage.
- Cultural soil importance is not clearly defined but may include crofting field patterns or soils modified by historic practices.

Land Used for Agriculture

- Exact agricultural land area is hard to measure due to census boundaries not aligning with the National Park boundary.
- In 2023, approximately 570 agricultural holdings are estimated within or mostly within the Cairngorms National Park.
- Total agricultural land (excluding common grazing) was around 381,455 hectares in 2023, down from 423,500 hectares in 2003.
- The decline is mostly in rough grazing land; other agricultural uses have slightly increased.

Crofting

- Crofts are small land holdings (average 5 hectares) specific to Highlands and Islands and some designated parts of Scotland.
- 92 croft holdings exist within the National Park, all in The Highland Council area.
- Crofting's small-scale and diverse nature supports environmental benefits such as soil health, carbon sequestration, biodiversity, and landscape quality.

Material assets

Transport Infrastructure Overview

- The Cairngorms National Park has relatively strong transport links compared to other rural areas in Scotland.
- Major connections include a mainline railway between Perth and Inverness and three trunk roads: A9, A95, and A86. Additional A-class roads connect the park to surrounding regions.
- Numerous opportunities exist for walking and cycling within the National Park.

A9 Dualling Project

- Significant road upgrades are underway with the A9 Dualling Project to improve infrastructure across the National Park.
- Completed sections include Kincraig to Dalraddy (opened in 2017).
- 50% dual carriageway completion by end of 2030.
- 85% by end of 2033 with full 100% completion by 2035.

Local Road Network Challenges

- Secondary roads (A, B, C and unclassified) offer limited access.
- Topography and weather affect road links, especially on routes like the A939.
- Narrow, winding roads increase journey times and limit access to services.

Accessibility and Deprivation

- According to the Scottish Index of Multiple Deprivation (SIMD), 11 of 24 data zones in the park are among Scotland's most deprived in terms of access to services.
- This is typical for rural areas, though none rank highly for overall deprivation.

Car Ownership and Transport Reliance

- 2011 Census: 85% of households had access to a car or van (Scotland average: 70%).
- 2022 Census: figure rose to 87% (Scotland average: 74%).
- High car ownership reflects reliance on personal transport for work and accessing services.

Key Trends Across the Cairngorms National Park

- Traffic flows increased near larger settlements (especially Aviemore).
- Light Goods Vehicles (LGVs) show consistent growth across all major roads.
- Buses, coaches, and two-wheeled vehicles generally declined post-pandemic.
- Heavy Goods Vehicles (HGVs) increased near busy zones but varied elsewhere.
- Overall traffic in 2023 remains below pre-COVID levels for most transport modes.
- Public transport modes continue to decline.
- Traffic patterns suggest reliance on personal vehicles along key routes.

Rail: Highland Main Line

- Route runs from Inverness to Perth via the Cairngorms National Park.
- The line is non-electrified and mostly single-track, which leads to delays if trains miss scheduled crossing points.

Service and Usage

- Approximately 13 daily train services connect to Glasgow, Edinburgh, and London.

- Passenger numbers have increased over 17 years but remain below pre-COVID levels, partly due to hybrid working.
- Season ticket purchases have declined, while other ticket types are recovering.

Station Facilities and Accessibility

- All stations offer cycle parking but most lack public transport connections.
- Carrbridge, Kingussie, and Dalwhinnie have limited platform accessibility.
- No EV charging available.
- No planned upgrades for accessibility under the Department for Transport's Access for All programme.

Strathspey Heritage Railway

- Expansion to Grantown-on-Spey is proposed but depends on funding and legal approvals.

Bus Services in the Cairngorms National Park

- School transport is well provided for.
- Rural coverage remains patchy, with private vehicles still essential in many areas

Highland Routes:

- Focused on local towns and school travel with a limited weekend service.
- Aviemore is a central hub with several connections.
- Remote areas like Dalwhinnie and Laggan have minimal service.
- Commuter and regional links to Inverness via routes M39, M91, M10, and M90.

Perth and Kinross:

- Blair Atholl, Calvine, and House of Bruar served by limited service and unsuitable all employment schedules.

Moray:

- Tomintoul has very restricted service.

Aberdeenshire:

- Ballater and Braemar have regular weekday service with reduced weekend frequency.

Cycling and Walking in the Cairngorms National Park

- The National Cycling Network (NCN) supports walking, cycling, and wheeling across the UK, including two designated routes within the Cairngorms National Park.
- Many National Park settlements are connected primarily by trunk roads.
- Due to limited dedicated cycling infrastructure, most journeys must occur on or alongside busy roads.

- This lack of segregation makes cycling feel unsafe for regular travel, even when distances are manageable.

Digital Connectivity in the Cairngorms National Park

- Reliable digital access is now considered a fundamental service for daily life.
- It supports business growth, social connection, and access to remote services like healthcare and education.
- Despite its importance, digital infrastructure across the Cairngorms National Park continues to face significant challenges.
- Due to the National Park's topography, large interior areas remain without 4G mobile coverage from any provider. EE currently provides the best 4G coverage in the National Park (2024).

Biodiversity, fauna and flora

Special Areas of Conservation (SAC)

- There are 23 Special Areas of Conservation covering approximately 1,600 km²
- Improvement in conditions: favourable features increased from 71 (2010) to 99 (2024) and unfavourable features decreased to 26 in 2024
- Monadhliath Special Areas of Conservation has no favourable features (blanket bog assessed in 2020).

Special Protection Areas (SPA)

- There are 15 Special Protection Areas covering around 1,730 km²
- As of 2024, 20 features favourable and 18 features unfavourable (increase from 2010). Species in decline include dotterel.
- Eight Special Protection Areas have no favourable features (e.g. Anagach Woods, Forest of Clunie, Lochnagar, etc.)

Ramsar Wetlands

- Three Ramsar sites conserving important wetland habitats
- Muir of Dinnet has no favourable features while the River Spey – Insh Marshes has mixed conditions; otter is favourable but declining.

In terms of National Designations:

Sites of Special Scientific Interest (SSSI)

- There are 59 Sites of Special Scientific Interest covering about 1,120 km²
- Favourable features increased from 147 (2010) to 202 (2024)

- Slight rise in unfavourable features (34 in 2024)
- Three sites have no favourable features (Aldclune and Invervack Meadows, Blair Atholl Meadow and Creag Dhubh)

National Nature Reserves (NNRs)

- There are 12 National Nature Reserves in the National Park.
- All managed by either NatureScot, RSPB, Forest and Land Scotland, or National Trust for Scotland except Cairngorms National Nature Reserve, which is unmanaged.

In terms of Local and Non-Statutory Designations:

Biogenetic Reserves

- Two in Scotland, including Muir of Dinnet within the Cairngorms National Park which serves as a representative sample of one of Europe's natural habitats.

Royal Society for the Protection of Birds (RSPB) Reserves

- Four reserves covering about 516 km² with most overlapping with designated protected areas

Forest Parks

- Glenmore Forest Park has multiple designations

Woodland Trust Scotland

- Glencharnoch Wood (14.7 ha) near Carrbridge is an important habitat mosaic with rare species and recreational trails but not covered by international or national designations

Overview of Priority Habitats

- Cairngorms National Park contains some of the UK's best natural and semi-natural habitats which include a quarter of Scotland's native woodlands, arctic-like plateaux, headwaters of four major rivers, functioning floodplains and rare mountain woodlands

In terms of priority species:

Scottish Wildcat

- Critically endangered species; fewer than 315 individuals in Scotland.
- 19 captive-bred wildcats released in 2023 as part of UK's first wildcat translocation effort.

Beaver

- Eurasian beavers reintroduced to River Spey catchment with up to 50 planned releases over five years.
- Six sites used by early 2025; habitat carefully mapped to avoid negative impacts.

Capercaillie

- Scottish population down to approximately 532, with 85% in the Cairngorms National Park.
- Emergency Plan launched in 2024 focusing on habitat management, predator control, and public engagement

Curlew

- Priority species showing positive recovery progress in the National Park; surveys and mapping have improved habitat management.
- The east of the National Park is identified as a curlew stronghold, including areas beyond protected sites.

Raptors (Golden Eagle, Hen Harrier, Merlin, Peregrine Falcon)

- Continued focus on monitoring, reducing persecution, and improving breeding success through collaborative efforts.
- Golden eagles have a stable population (39 pairs), while hen harrier and merlin face threats including illegal killing and habitat loss; peregrine falcons remain vulnerable but are more stable.

Northern February Red Stonefly

- Freshwater species reliant on clean, oxygen-rich upland streams; threatened by poor water quality.
- Park-wide survey completed; awareness efforts raised its recovery curve from D2 to D3.

Northern Damselfly

- Rare, endangered species facing habitat fragmentation.
- Surveys and habitat work pushed it from D2 to T3 on the recovery curve.

Wood Ants (Scottish, Hairy, Narrow-headed)

- Priority species facing threats from habitat disturbance and development.
- Data collection and feasibility studies advanced recovery curve from T1 to T3.

Aspen Hoverfly

- One of Britain's rarest insects, found only in Highland aspen woodlands.

- Survey and integration with woodland / beaver projects improved recovery status from T2 to R1.

Twinflower

- Found in ancient Caledonian forests; threatened by habitat loss and fragmentation.
- Translocation and monitoring efforts have successfully boosted recovery across the Cairngorms National Park.

Waxcaps

- Rare fungi found in species-rich, low-nutrient grasslands, at risk from changes in land use and grazing practices.
- Data collection and mapping have improved species understanding; recovery curve progressed with work continuing.

In terms of biosecurity:

Invasive Non-native Species

- Several non-native plants, mammals, and fish species threaten biodiversity and native species in the Cairngorms National Park
- The Park Authority supports initiatives to remove mink and prevent non-native fish introductions in sensitive catchments.

Pathogens and Disease

- Fungal diseases like ash dieback, red band needle blight, and *Phytophthora* species are harming trees such as pine, ash, larch, and juniper.
- Data enables targeted local responses, but large-scale surveys are lacking; prevention remains crucial due to the high cost of long-term control.

Landscape

- At 4,528 square kilometres, and comprising 6% of Scotland's land area, the Cairngorms National Park is the UK's largest protected landscape.
- Special Landscape Qualities define the Cairngorms National Park identity through its visual distinctiveness and the way people experience it.
- Dark skies and wildness contribute meaningfully to the landscape's character.
- National Park contains three National Scenic Areas, with two, namely the Cairngorm Mountains National Scenic Area and Deeside and Lochnagar National Scenic Area, located entirely within the National Park's boundary.

- Combined, the two main National Scenic Areas cover an area of around 1,072 km^2, which equates to just under 25% of the Cairngorms National Park's land area.
- The landscape character of the National Park is split between uplands (vast and consistent) and glens / straths (diverse and compact).
- Wildness is measured by natural land cover, ruggedness, remoteness, and lack of visible human infrastructure.
- This wildness experience extends beyond officially designated wild areas, enriching the Cairngorms National Park's special character. Nearly half (46%) of the Cairngorms National Park's land area is classified as being 'wild land'.
- Tomintoul and Glenlivet Dark Sky Park promotes low light pollution; the wider National Park also benefits from minimal artificial lighting, enhancing well-being, wildlife, and tourism.
- Upland tracks have increased significantly since 2003, with both constructed and informal routes impacting the landscape and requiring continued policy attention.
- National policy supports renewable development, but commercial wind energy is restricted within National Parks; pressure from nearby developments may affect the Cairngorms National Park's character.
- Masts proposed in remote areas risk visual impacts on the Cairngorms National Park's special qualities; digital connectivity is needed but must be balanced with landscape protection.

Historic and cultural heritage

- There are 106 Scheduled Monuments recorded within the Cairngorms National Park.
- 'The Inventory of Gardens and Designed Landscapes in Scotland' lists 10 gardens and designed landscapes within the Cairngorms National Park.
- There are two Inventory Battlefields within the Cairngorms National Park.
- There are five historic planned towns within the Cairngorms National Park.
- There are five Conservation Areas within the Cairngorms National Park.
- The Cairngorms National Park contains 595 buildings or structures of special historic or architectural interest, which are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; 40 of these are within Category A, 258 in Category B and 297 in Category C.
- There are 27 buildings on the Buildings at Risk Register within the Cairngorms National Park.

- There are around 394 Gaelic and 4,148 Scots speakers living in the Cairngorms National Park.

Population and human health

- In 2022, the population of the Cairngorms National Park was 17,531 people, with 8,623 males and 8,908 females (Census table UV102b).
- The Cairngorms National Park, in 2022, had a working age population of 10,256 people (59% of total population), with 5,087 males and 5,173 females.
- Those of pensionable age numbered 4,827 (28% of total population).
- The life expectancy, in the Cairngorms National Park, is 79.4 years for males and 82.7 years for females.
- During the 21st century[1] (2001-2022), the National Park has experienced a significant net increase in its resident population growing by 5.27% (based on the National Records Scotland mid-year estimates).
- This population change has not been even across all local authority areas within the National Park. The Aberdeenshire, Angus, Moray and Perth and Kinross parts of the National Park have reduced slightly (by -4.05%, -2.84% and -5.59% respectively), while the Highland area has seen an estimated increase of 9.06% (1,057 people) between 2001 and 2022.
- According to the principal migration scenario by National Records Scotland, the number of children aged under 16 years is projected to decrease by 19.7% over the projection period from 2,828 in 2018 to 2,272 in 2043. The number of people of working age is projected to decrease from 11,588 in 2018 to 10,916 in 2043, representing a 5.8% reduction.
- The population of pensionable age is projected to rise by 46.3% from 4,629 in 2018 to 6,773 in 2043. However, the number of people aged 80 and over is projected to from 1,074 in 2028 to 2,393 in 2043, an increase of 122.8%. By 2043 the population is projected to be more heavily distributed at older ages.
- In 2022, according to the Census, of the 17,531 people recorded as living in the Cairngorms National Park 17,208 people (98.2%) identified as white.

[1] Figures between 2001 and 2009 include people living in the area of Perth and Kinross which did not become part of the Cairngorms National Park until 2010.

- In 2022, in the Cairngorms National Park English was the main language spoken by 96.9% of the population over the age of three years (Table 59). 482 people reported using a language other than Scots, Gaelic or sign language as their main language.
- In 2022, 9,542 people (54.4%) reported they had no religion and 1,209 people (6.9%) were recorded as no religion stated.

Crime

- The crime rate is also considerably below the Scottish average in the Cairngorms National Park and currently declining at a rate comparable to National figures. The only data zone above the Scottish Average crime rates (in both 2016 and 2020) was the data zone including Aviemore town centre – This is an area that also suffers from income and educational deprivation and is the lowest scoring overall data zone for the Cairngorms National Park on the SIMD scale.

Economy

- The Cairngorms National Park's population has a higher proportion of working age residents with educational attainment at degree level or above when compared to the five adjoining local authorities and national figures
- The proportion of economically active employed people in the National Park has slightly increased from 75.4% in 2011 to 76.3% in 2022.
- In 2022, 38.4% of the population of the Cairngorms National Park over the age of 16 years were estimated to be economically inactive (Census table UV601).
- Of those economically inactive people, 76.3% were recorded as being retired, which is significantly above the national average figure of 59.6% (Census table UV601).
- Of the economically active population aged 16 years and over in 2022, in the National Park; 54.2% were full-time employees, lower than the national average of 59.9%. The proportion of the economically active population who are part-time employees, is roughly equal in the National Park (22.1%) and Scotland (22.2%).
- In the Cairngorms National Park, there is a higher proportion of economically active people in self-employed positions (with or without employees) in the National Park (21.6%) compared to national average figures (12.5%).
- Over 1,200 people within the Cairngorms National Park receive income related benefits.
- Levels of child poverty are lower in the Cairngorms National Park, compared to Scottish national average figures. As the National Park has a relatively low

unemployment rate, it appears likely that a substantial amount of the poverty indicated is likely to be in families with at least one adult in employment.

Health

- In 2022, the Census reported table UV302) that 82.4% of the Cairngorms National Parks population (14,452 people) were in good or very good health which is above the national average of 78.8%.
- In the Cairngorms National Park there is a lower incidence of residents (7.9% of the population) health problems or disability having a very limiting effect on their day-to-day activities, than nationally (10.7% of the population).
- The proportion of the population of the Cairngorms National Park not limited by health problems or disability in their day-to-day activities fell in 2022 to 78.4% from 83.0% in 2011.

Housing

- Household projections suggest that households are set to increase from 8,682 in 2018 to 9,963 in 2043, an increase of 14.8%.
- The average household size is projected to drop from 2.12 people in 2018 to 1.93 people in 2043 representing a decline of 9.0%.
- The lower quartile house price in the Cairngorms National Park has increased by around 360% from £41,000 in 1993 to £190,000 in 2023.
- Higher house prices are significantly impacting on affordability in the Cairngorms National Park. The 2021 median house price to median gross income ratio is nearly six times in the National Park compared to the Scottish equivalent ratio of 4.2.
- The number of dwellings in the Cairngorms National Park is estimated to have grown from 9,722 to 10,542 between 2008 and 2023 (an increase of around 10.5%).
- There is a very high proportion of second homes (10.5% of all dwellings) in the Cairngorms National Park. Together with the fact that 6% of homes are vacant, over 16% of all housing stock in the National Park is ineffective (based on 2023 data).
- Annual housing completions in the Cairngorms National Park were negatively affected by the 2007 – 2008 financial crisis, and more recently the COVID-19 Pandemic. However, in 2022 131 completions were recorded, and 130 in 2023 representing levels seen before the financial crisis (between 2000 and 2008 130 completions per year on average were recorded).

Tourism

- In 2023, the Cairngorms National Park received approximately 2.1m visitors, representing a 24.2% increase from 2022.

- In 2023 the economic impact of tourism in the Cairngorms National Park was reported at £419.33m (Figure 404) representing an increase of 18.7% from 2022 (£353.38m) and 35.9% higher than the pre-pandemic figures for 2019 (£308.54m).
- The Cairngorms National Park experiences seasonal variations in visitor numbers affecting the monthly number of people employed in this sector throughout the year.
- In 2023 the overall number of people employed in the tourism sector were reported at 5,454 people (full time equivalents) are still 488 people less than the figures seen in 2019 (5,942 people).

Scoping of Strategic Environmental Assessment topics

Based on an understanding of the purpose of the Local Development and an appraisal of the policy context and baseline information the following Strategic Environmental Assessment topics have been scoped in with the rational for decisions given.

Climatic factors

The Local Development could have a negative effect on the topic if policy decisions result in an unsustainable level and distribution of development or in allowing inappropriate land management practices to continue or increase. However, it also has the potential to make a contribution to climate change mitigation targets, as well as providing a platform for the implementation of long-term adaptation measures.

Air

The emission of particulates and other air pollutants from road transport has the potential to have negative effects; similarly, there is also the potential to reduce emissions through reducing both the need to travel and the distances needed to be travelled to reach essential services.

Water

The Local Development Plan's has the potential to effect water quality and quantity, drainage, flooding, and morphology. Opportunity exists to enhance water quality through spatial planning, infrastructure investment and land management.

Soil

Possible effects dependent on the Local Development Plan's spatial strategy and land allocations, such as the loss of agricultural land, sealing as a result and of construction, and loss of biodiversity.

Material assets

The National Park Authority's aim 'to promote sustainable use of the natural resources of the area' means that the Local Development Plan should attempt to result in positive effects on this topic. Indeed, the Local Development Plan may have an influence on issues surrounding geodiversity, waste management and infrastructure provision, and

as such the Strategic Environmental Assessment has a role to play in maximising positive effects.

Biodiversity, fauna and flora

The National Park Authority's aim 'to conserve and enhance the natural and cultural heritage of the area,' means that the Local Development Plan Plan should attempt to result in positive effects on this topic. However, due to its concern with spatial planning, the Local Development Plan has the potential to cause significant negative effects.

Landscape

The National Park Authority's aim 'to conserve and enhance the natural and cultural heritage of the area,' means that the Local Development Plan should attempt to result in positive effects on this topic. However, the Local Development Plan's concern over the scale and distribution of development means that there is potential for significant changes to the landscape to occur.

Historic and cultural heritage

The National Park Authority's aim 'to conserve and enhance the natural and cultural heritage of the area,' means that the Local Development Plan should attempt to result in positive effects on this topic. The Local Development Plan has the potential to generate both negative and positive effects on cultural heritage, depending on several factors.

Population and human health

The National Park Authority's aims to 'promote sustainable economic and social development of the area's communities' and 'promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public' means that the Local Development Plan should attempt to result in positive effects on this topic. By its nature, the Local Development Plan has the potential to generate both positive and negative effects on people and their health. Human health has several strong inter-relationships with other topics, not least due to the long-term effects of climate change. Shorter term issues may include pollution from road traffic and deprivation due to distances from services.

Methodology

"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."

(Strategic Environment Assessment Guidance: Scottish Government, 2013)

Proposed Strategic Environmental Assessment objectives

This section of the Scoping Report sets out the Park Authority's proposed approach to assessment of the Local Development Plan. Proposed Strategic Environmental Assessment Objectives have been developed alongside a comprehensive the review of Plans, Programmes and Strategies (Policy Context, page 104) and baseline information (Baseline, page 157). Identifying objectives is an important part of the Strategic Environmental Assessment process as these will be used as the primary tool for testing the emerging Local Development Plan to ensure it will not result in any significant environmental effects.

The proposed Strategic Environmental Assessment 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 a single issue, therefore it has been highlighted where significant inter-relationships occur. The Strategic Environmental Assessment objectives proposed here therefore represent the scope of the assessment that will be undertaken to identify potential environmental effects of the Cairngorms National Park Local Development Plan.

It is important that the assessment process is proportional, practical and manageable. Consequently, the assessment process will utilise the 'main' Strategic Environmental Assessment objectives taking account of the Strategic Environmental Assessment sub-objectives. This distinction is important to ensure the assessment work is practical and achievable. It should also be noted that not all Strategic Environmental Assessment

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 Strategic Environmental Assessment issues identified for the National Park are outlined in Table 1 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. The framework in which they will be utilised is set out on page 94.

Table 1 Proposed Strategic Environment Assessment objectives.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
Climatic Factors	1a	Reduce Greenhouse Gases.	• Reduce the emissions of greenhouse gases with particular focus on emissions from buildings, transport, energy generation and industry (especially CO_2). • Encourage energy conservation and higher energy efficiency. • Encourage investment in cleaner technologies. • Support investment in suitable renewable energy sources. • Decouple increase in GDP and greenhouse gas emissions. • Encourage the appropriate local sourcing of materials,	• Air. • Water. • Soil. • Material assets. • Population and human health

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			resources and food produce.	
	1b	Increase resilience to the effects of climate change.	• Ensure that new development is appropriately located, having considered the potential effects of future climate conditions. • Ensure infrastructure and buildings are designed to cope with future climate conditions. • Encourage climate change adaptation through green infrastructure. • Encourage existing infrastructure and buildings to adapt to cope with future climate conditions.	• Water. • Soil. • Landscape. • Cultural heritage. • Biodiversity, fauna and flora. • Population and human health.
Air	2	Protect and enhance air quality.	• Reduce levels of the UK National Air Quality pollutants (e.g., NO_2, PM_{10}, SO_2). • Reduce levels of ground-level ozone (O_3). • Reduce the need for travel, through appropriate siting of new developments and	• Water. • Soil. • Biodiversity, fauna and flora. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			provision of public infrastructure. • Reduce negative effects of power generation, industry and transport on local air quality. • Contribute towards reducing levels of stratospheric ozone depletions. • Encourage appropriate cleaner technology for power generation, industry and transport. • Reduce levels of acid deposition. • Reduce levels of ammonia deposition.	
Water	3a	Reduce flood risk.	• 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.	• Climatic factors. • Soil. • Biodiversity, fauna and flora. • Landscape. • Cultural heritage. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• Ensure new development does not increase flood risk on site or elsewhere. • Increase the use of sustainable drainage systems (SuDS) in both new and refurbished developments. • Avoid loss of soils to non-permeable surfaces. • Reduce reliance on flood mitigation and hard engineered solutions. • Increase provision to manage stormwater.	
	3b	Maintain and improve the quality of water resources.	• Ensure the water quality of rivers, lochs and groundwater 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.	• Climatic factors. • Soil. • Material assets. • Biodiversity, fauna and flora. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• Limit land use related pollution (particularly nitrates) on water resources.	
Soil	4	Minimise contamination and safeguard and improve soil and peat quality.	• Maintain or improve the productive capacity of soils. • Maintain or improve the ability of farmland in the Cairngorms National 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.	• Climatic factors. • Water. • Material assets. • Biodiversity, fauna and flora. • Landscape. • Cultural heritage. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• 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.	
Material assets	5	Encourage the sustainable use and reuse of material assets.	• Promote decoupling of resource use from economic prosperity. • Encourage sustainable use of natural resources e.g., water, timber, aggregates. • Minimise the use of finite resources and promote higher resource efficiency and the use of secondary and recycled materials. • Promote the waste hierarchy of reduce, reuse, and recycle.	• Climatic factors. • Air. • Water. • Soil. • Biodiversity, fauna and flora. • Landscape. • Cultural heritage. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• Value, conserve and enhance geodiversity.	
Biodiversity, fauna and flora.	6a	Value, conserve and enhance biodiversity, distinctive native species and habitats.	• Protect the integrity of European sites, proposed European sites and listed Ramsar sites, and to conserve or, where not at a favourable conservation status, enhance their 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.	• Climatic factors. • Air. • Water. • Soil. • Material assets. • Landscape. • Cultural heritage. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• Encourage innovative methods of producing biodiversity gain for both new and existing developments. • Reduce the ecological footprint of the Cairngorms National Park. • Enable people to access and appreciate the Cairngorms National Park's natural heritage more.	
	6b	Maintain and improve the sustainable management of woodland for multiple benefits.	• 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	• Climatic factors. • Air. • Water. • Soil. • Material assets. • Landscape. • Cultural heritage. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			economic value of woodland.	
Landscape	7	Protect and enhance the character, diversity and special qualities of the Cairngorms National Park's landscape.	• Protect and enhance the Cairngorms National Park's special landscape qualities. • Work towards creating landscapes that are ecologically functional. • Minimise the loss of wildness. • Reduce light pollution. • To promote high quality design based on a comprehensive understanding of landscape character and distinctiveness. • Protect and enhance townscape and respect the existing pattern, form and setting of settlements.	• Climatic factors • Material assets • Biodiversity, fauna and flora • Cultural heritage. • Population and human health.
Historic and cultural heritage.	8	Protect and enhance the character, diversity and special qualities of the Cairngorms National Park's historic	• Value, protect and enhance the historic and cultural environment and its assets. • Protect and enhance townscape and respect the existing pattern, form and setting of settlements.	• Climatic factors • Material assets • Biodiversity, fauna and flora • Landscape. • Population and human health.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
		and cultural heritage.		
Population and human health.	9a	Promote opportunities that maximise the health and wellbeing of local people, visitors and communities.	• Maintain the recreational value of the Cairngorms National Park. • Promote and maintain opportunities for people to enjoy physical recreation and lead healthy lifestyles. • Encourage walking or cycling as an alternative means of transportation. • Empower people to experience, learn about and share the Cairngorms National Park's historic, cultural and natural heritage. • Promote the improvement and maintenance of social and physical environments / facilities that provide opportunities to enhance health and wellbeing.	• Landscape. • Cultural heritage. • Population and human health.
	9b	Support vibrant, safe and healthy communities.	• Ensure the population and household growth is accommodated in appropriate locations.	• Climatic factors. • Air. • Water. • Soil. • Material assets.

SEA topic	No.	SEA objective	SEA sub-objectives	Inter-relationships
			• 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 Cairngorms 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.	• Biodiversity, fauna and flora. • Landscape. • Cultural heritage. • Population and human health.

Compatibility of Strategic Environmental objectives

The Strategic Environmental Assessment Objectives have been tested for compatibility. 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.

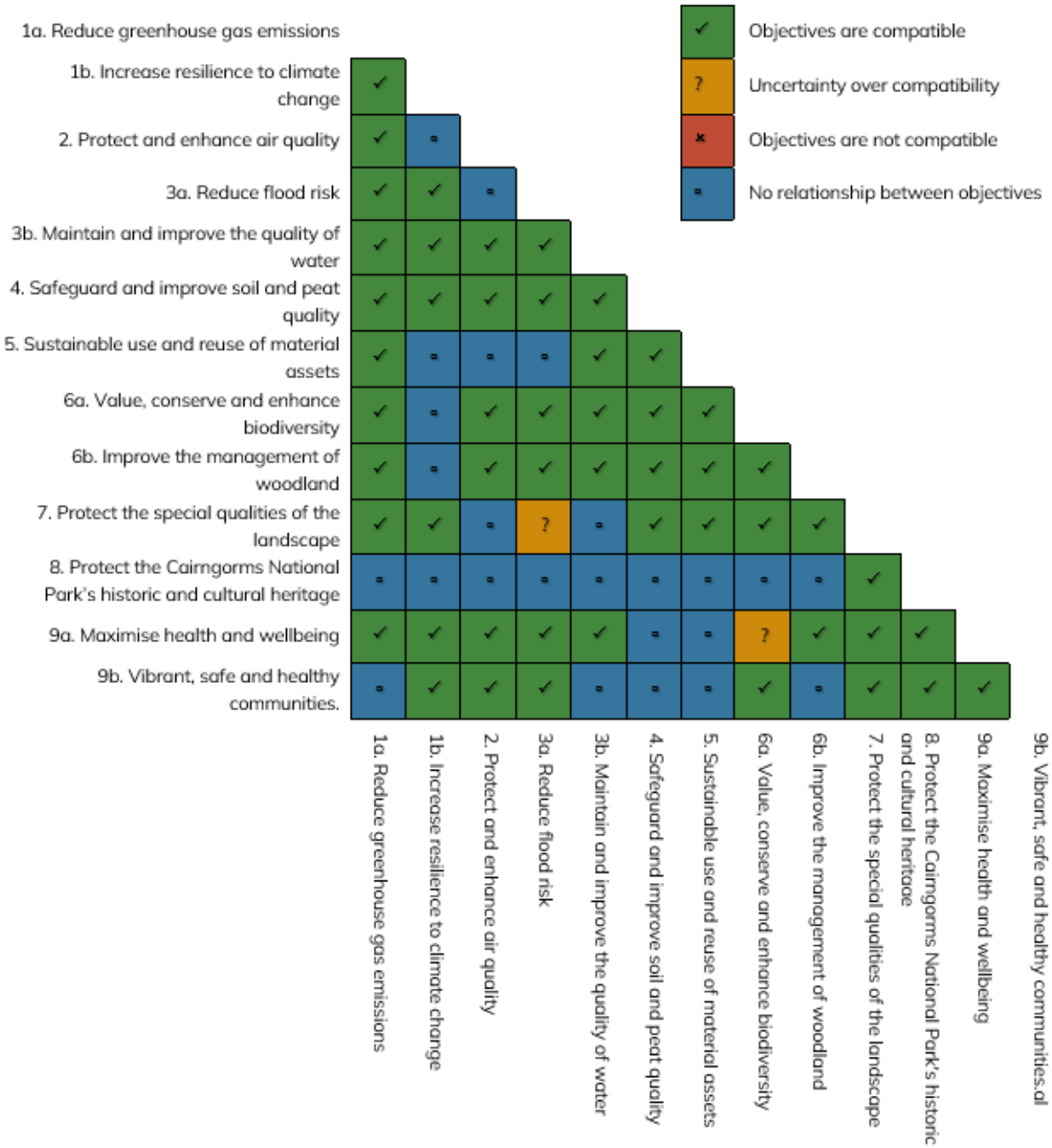


Figure 3 Compatibility assessment of Strategic Environmental Assessment objectives (abridged)

As can be seen from **Error! Reference source not found.**, many the Strategic Environmental Assessment 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 in the Environmental Report. Some refining of objectives may be required in the future, for example changes may be required to reflect the views of the Consultation Authorities.

Proposed assessment framework

The proposed assessment framework will test the environmental effects of the Local Development Plan in relation to options and alternatives. This stage of the Strategic Environmental Assessment will involve:

- 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.
- Proposing measures to monitor the environmental and sustainability effects of plan or programme implementation.

Some of the main components of this stage will utilise a judgement system which is both transparent and auditable. This also provides a more scientific approach to the Strategic Environment Assessment methodology and helps improve objectivity. An assessment matrix has been designed which utilises the following significance criteria in terms of potential effects:

- Temporal scale of effects (short term, medium term or long term).
- Permanence (permanent or temporary).
- Spatial scale (local, regional, national or international).

An assessment matrix will be generated from the proposed Strategic Environmental Assessment objectives and used to identify and assess the effects of the Local Development Plan and alternative options. An example assessment matrix is shown by Table 2.

The assessment of each element of the Local Development Plan will be reported using symbols denoting positive, neutral, uncertain or negative effects, supported by evidence

and justification on the nature of the effect (Table 3). Any uncertainties or assumptions made as part of this process should also be highlighted, along with the need for monitoring, mitigation and enhancement. Summary tables will also be used to present the overall assessment of the plan, to allow the Park Authority, Consultation Authorities and other interested parties to understand the effects of proposed measures against all of the Strategic Environmental Assessment objectives.

It should be stressed that assessment is an iterative and ongoing process. As future stages of the Local Development Plan are developed beyond its Evidence Report, so the Strategic Environmental Assessment should be updated and continued to be used to inform the process.

Table 2 The proposed assessment matrix for use in the Strategic Environmental Assessment of the Cairngorms National Park Local Development Plan.

Strategic Environmental Assessment issue / topic
Insert issue / topic title here:
Strategic Environmental Assessment objective(s):
Insert Strategic Environmental Assessment objective(s) here:
Significant interrelationships
Insert significant relationships with other Strategic Environmental Assessment issues / topic here.

Option	Nature of effect	Scale	Permanence	Significance			Mitigation and enhancement
				Short term	Medium Term	Long term	
Insert option title here	*Insert a description of the nature of the potential effect the option will have on the issue against the criteria set out by the Strategic Environmental Assessment objective, link to baseline*						*Insert information on how any potential negative effects will be mitigated or how enhancements will be used to create positive effects.*

	information as necessary.						
Conclusions:							
Insert a summary of the assessment's findings.							

Table 3 Strategic Environment Assessment - assessment key

Significance of effect		Scale and permanence of effect	
Option would have a **major positive** effect in its current form as it would resolve an existing issue or maximise opportunities. **SIGNIFICANT**.	++	Local (e.g. settlement or community council level)	**L**
Option would have a **minor positive** effect.	+	Regional (e.g. National Park or neighbouring Local Authority level)	**R**
Effect of option is **uncertain**.	?	National (i.e. Scotland)	**N**
Option would have **no predicted** effects or **no site-specific** effects.	□	International (i.e. trans-national boundary effects)	**I**
Option would have a **minor adverse** effect.	-	Permanent	**P**
The Option would have a **major adverse** effect as it would create significant new problems or substantially exacerbate existing problems. Consider exclusion of option. **SIGNIFICANT**.	--	Temporary	**T**

Alternative plan scenarios

Part 2 Section 14(2)(b) of the Environmental Assessment (Scotland) Act 2005 requires the Environmental Report to identify, describe and evaluate the likely significant effects on the environment of implementing the plan and reasonable alternatives to the plan, considering its objectives and geographical scope. Alternatives considered must be realistic and capable of being implemented. During the development of the Evidence Report, alternative options will be considered; however, at this stage in the process the Local Development Plan's spatial strategy, policies and proposals, as well as any possible alternatives have not yet been fully identified, but once options and alternatives start to come forward, they will be assessed against the Strategic Environmental Assessment objectives using the methodology outlined in this report.

Selecting the preferred alternative

It is most likely that the preferred alternative to come out of the environmental assessment will be the one that has the potential to achieve the best balance between environmental, social and economic considerations. This option will then undergo a more detailed assessment and evaluation in the Environmental Report.

Proposed scope and level of detail

The Strategic Environmental Assessment will take a proportional approach to assessing the Local Development Plan and will aim to provide the right level of relevant environmental information at the right time. The 'spatial scope' for the Strategic Environmental Assessment is defined as all of the land within the Cairngorms National Park area, and neighbouring areas that share the same landscape character and/or same habitat type. Therefore, cognisance will be paid to the strategies, landscape character and habitats of the local authority areas that neighbour the Cairngorms National Park. Some effects may be of national or international significance, and this will be highlighted where it is the case. The assessment will also consider the temporal nature of an effect, as distinguishing between permanent and temporary effects is a useful when considering the overall impact of a scenario.

The timeframe for this Strategic Environmental Assessment is approximately 20 years, in line with the scope of the Local Development Plan. However, there will be a focus on the 10 years immediately following the adoption of the Plan (estimated as 2027 – 2037). The legislation requires that Local Development Plans are prepared at intervals of no more than 10 years or when required by the Scottish Ministers.

Predicting the effects of implementation

Stage B (Figure 1) of the Strategic Environmental Assessment process requires the prediction of the future effects of implementing the Local Development Plan. The purpose of carrying out Strategic Environmental Assessment is to allow the decision maker to make 'good decisions' based on effective predictions, and predicting environmental conditions is a good method of testing our assumptions and guiding decisions. However, predicting future events and environmental conditions will always be difficult and faced with a range of uncertainties, such as those in relation to the delivery and effectiveness of the proposed mitigation and enhancement measures, or in the accuracy of the environmental baseline. For this reason, decision makers require information that is sufficiently accurate to allow them to assess the preferred course of action.

To avoid or reduce error, it is proposed to follow a range of techniques including:

- Early engagement of key stakeholders and interested parties to help ensure that the right baseline data is collected, and to inform what alternatives and mitigation and enhancement measures are considered.
- Interdisciplinary working to help challenge assumptions and suggest possible solutions.
- Ensure the consideration of all significant impacts.
- Ensure the assessment is carried out by people who have knowledge of the area, the plan, and sustainability issues.
- Apply the precautionary principle i.e. assume that adverse effects will happen and put in place mitigation and enhancement measures to prevent, reduce or offset those potential impacts.
- Consider cumulative, indirect and long-term impacts and carry out a regular review of the data necessary to help identify these impacts.

Cumulative effects

The assessment of cumulative effects is an important part of the Strategic Environmental Assessment process, as the combined impact of various plans and policies can have significant environmental effects. Due to the geographical scales at which cumulative effects can occur it is considered most appropriate to assess them at the strategic level; however, it should be noted that even at the strategic level it is not always possible to fully measure such effects due to the interdependent and cross boundary nature of some of the impacts.

It is considered that the most appropriate way of testing and assessing the cumulative effects of the Local Development Plan is by using the impacts that are arising from the emerging Local Development Plan, along with the impacts identified in the Environmental Reports of those Plans, Programmes and Strategies which are applicable to the Cairngorms National Park area and those of neighbouring local authority areas. This approach will assess whether any potential negative environmental effects of the Local Development Plan will be offset by improvements in other areas, and also whether opportunities exist to enhance positive environmental effects through similar actions in other areas.

Mitigation and enhancement

The Environmental Report will propose recommendations for mitigation and enhancement measures to prevent, reduce or offset adverse impacts, and to enhance positive effects that are predicted to arise from the implementation of the Local Development Plan.

Monitoring

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 Local Development Plan itself.

Strategic Environmental Assessment monitoring should be undertaken for the following reasons:

- To identify whether the Strategic Environmental Assessment' 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 Strategic Environmental Assessment's 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 compile a baseline for future plans and programmes.
- To provide information for the Environmental Impact Assessment of projects.

Ultimately, monitoring should lead to more informed decision-making. Since Strategic Environmental Assessment monitoring should be based around the significant environmental effects identified during the assessment, it is not possible to produce a monitoring framework at the Scoping stage. Therefore, proposals for monitoring indicators will be developed iteratively during the assessment of the Evidence Report and Proposed Plan and confirmed in the final Environmental Report.

Consultation / next steps

The Strategic Environmental Assessment Scoping Report will be submitted to the Strategic Environmental Assessment Gateway and consulted on with the Competent Authorities for a period of 6 weeks between 18 August 2025 and 26 September 2025. Following consultation on the Scoping Report, the Park Authority will consider any comments received and will amend the Strategic Environmental Assessment work where appropriate. This will take place in as part of the preparation of the Environmental Report. The development of the Proposed Plan and its Environmental

Report will take place between Quarter 3 2025 / 2026 and Quarter 3 2027 / 2028. All documents will be available for inspection in the Park Authority's main office in Grantown-on-Spey and in on its website.

The Environmental Report will be submitted to the Strategic Environmental Assessment Gateway for consultation with the Consultation Authorities between for a period of six weeks

Once the Local Development Plan has been adopted an Adoption Statement will be published. The Adoption Statement will summarise how the Park Authority took the findings of the Strategic Environmental Assessment process into account and how environmental considerations more generally have been integrated into the Local Development Plan. It will also be stated within the Post-adoption Statement if any changes have been made to the Local Development Plan as a result of the Strategic Environmental Assessment process and following responses to consultation. If changes have been rejected this will also be explained.

It will also be necessary for the Park Authority to monitor significant effects following the adoption of the Local Development Plan in accordance with the Scottish Government's Strategic Environmental Assessment Guidance (2013).

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

Appendices

Appendix 1: Plans, Policies and Strategies

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
International directives and policies			
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.	• Water. • Biodiversity, fauna and flora.	The Local Development 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.	• Water • Biodiversity, fauna and fauna • Landscape. • Historic and cultural heritage.	The Local Development 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,	• Air. • Water. • Soil. • Material assets.	The Local Development Plan should promote the waste hierarchy and work towards reducing landfill waste.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	soil, air, and on human health from the landfilling of waste by introducing stringent technical requirements for waste and landfills.	• Population and human health.	
Directive 2000/60/EC: The Water Framework Directive	Requires member states to achieve good ecological status of inland water bodies and develop integrated catchment management and river basin management plans.	• Water. • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	The Local Development 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.	All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Enables significant environmental effects of the Local Development Plan to be identified and addressed.
Directive 2001/81/EC (NECD): National	Sets ceilings for each member state	• Air.	The Local Development Plan

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Emissions Ceiling Directive	for emissions of ammonia, oxides of nitrogen, sulphur dioxide and volatile organic compounds.	• Population and human health.	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	• Population and human health.	The Local Development 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 number of visitors.	• Water. • Population and human health.	The Local Development Plan should consider the contribution that actions could 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	• Water. • Biodiversity, fauna and flora.	The Local Development Plan should seek to avoid negative effects on shellfish

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	designed to protect the aquatic habitat of bivalve and gastropod molluscs, which include oysters, mussels, cockles, scallops and clams.		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.	• Water. • Soil. • Population and human health.	The Local Development 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 coastlines 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	• Climatic factors. • Water. • Population and human health.	The Local Development Plan should reduce and manage flood risk encouraging natural flood management approaches.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Directive 2008/50/EC: Ambient Air Quality and Cleaner Air for Europe	Establishes standards for air quality and sets limits for various pollutants.	• Air. • Population and human health.	The LOCAL DEVELOPMENT PLAN should support measures that would improve air quality.
Directive 2008/98/EC: Waste Framework Directive	The revised European Union Waste Framework Directive establishes the legislative framework for the handling of waste by member states.	• Material assets. • Population and human health.	The Local Development Plan Local Development Plan should, if needed, provide a strategic context for waste management within the Cairngorms 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.	The Local Development 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	• Water. • Biodiversity, fauna and flora.	The Local Development Plan should support protection and

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	wild birds by sustaining areas of habitats to maintain ecologically and scientifically sounds levels.	• Landscape • Historic and cultural heritage.	enhancement of bird habitat through policies and targets.
Kyoto Protocol (UNFCCC, 1997)	Protocol to the international Framework Convention on Climate Change Framework with the objective of reducing the Greenhouse gases that cause climate change.	• Climatic factors.	The Local Development Plan should support measures that will reduce greenhouse gas emissions.
Ramsar Convention on Wetlands of International Importance 1971	Requires conservation and wise use of wetlands.	• Water • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	The Local Development Plan should ensure the protection and enhancement of wetlands.
UN Convention on Biological Diversity (1992)	Key objective of the Convention is to develop national strategies for the conservation and sustainable use of	• Biodiversity, fauna and flora.	The Local Development Plan should look for opportunities to conserve, and where possible

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	biological diversity, which should be integrated across other policy sectors.		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.	• Climatic factors.	The Local Development Plan should assist in the reduction of greenhouse gas emissions.
The Paris Agreement	The Agreement's goal is to keep the rise in the global average temperature to well below 2°C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5°C.	• Climatic factors	The Local Development Plan should assist in the reduction of global warming, through reduction of greenhouse gas emissions.
Kunming-Montreal Global Biodiversity Framework	The Framework aims to catalyse, enable and galvanize urgent and transformative action by Governments, and subnational and local authorities, with the	• Biodiversity, fauna and flora	The Local Development Plan should adhere to the commitment of the United Kingdom as a signatory of the Framework.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	involvement of all of society, to halt and reverse biodiversity loss.		
National legislation (UK and Scotland)			
Air Quality (Scotland) Regulations 2000 (as amended in Scotland).	Establishes standards for air quality and sets limits for various pollutants in Scotland.	• Air • Population and human health.	The Local Development 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.	• Landscape. • Historic and cultural heritage.	The Local Development Plan should ensure that scheduled ancient monuments and archaeological areas are not adversely affected by new development.
Climate Change (Scotland) 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	• Climatic factors.	The Local Development Plan should support and include climate change adaptation and mitigation measures.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	Scotland, its targets are subsumed by the Climate Change (Scotland) Act 2009		
Climate Change (Scotland) Act 2009	Legislation to set a target for the year 2050, including an interim target for the year 2020, and to provide for annual targets, for the reduction of greenhouse gas emissions; to provide about the giving of advice to the Scottish Ministers relating to climate change; to confer power on Ministers to impose climate change duties on public bodies; to make further provision about mitigation of and adaptation to climate change; to make provision about energy efficiency, including	• Climatic factors.	The Local Development Plan should support and include climate change adaptation and mitigation measures.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	provision enabling council tax discounts; to make provision about the reduction and recycling of waste; and for connected purposes.		
Climate Change (Emissions Reduction Targets) (Scotland) Act 2019	The Climate Change Act aims to ensure that that Scotland's contribution to climate change will end within a generation, being fully net-zero by 2045 with emissions reducing by 75% by 2030 (compared to a 1990 baseline). An update to the Scottish Government Climate Change Plan 2018-2032 followed on from this, which sets the pathway for the targets set within the Climate Change Act.	• Climatic factors	The Local Development Plan should support reductions in greenhouse gas emissions.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Conservation (Natural Habitats, &c) Regulations 1994 (as amended for Scotland)	These regulations relate to the designation of European sites, and provision of protection to various plant and animal species.	• Biodiversity, fauna and flora.	The Local Development Plan should ensure that European 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 Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The National Park Authority 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 Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	Enables the significant environmental effects of the Local Development Plan to be identified and addressed.
Environmental Impact Assessment (Forestry)	Requires environmental	All Strategic Environmental	The Local Development Plan

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
(Scotland) Regulations 1999	impact assessments for certain forestry projects.	Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	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 Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	The L Local Development Plan DP 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 Local Development Plan should ensure that it does not result in individuals or groups with protected characteristics being discriminated against.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Flood Risk Management (Scotland) Act 2009	Establishes roles, responsibilities and requirements for sustainable flood management.	• Climatic factors. • Water. • Population and human health.	The Local Development 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	• Historic and cultural heritage. • Population and human health.	In its production the Local Development Plan should meet the requirements of the Act and enable and 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. • Historic and Cultural Heritage.	The Local Development Plan should support the protection and preservation of the historic environment.
Housing (Scotland) Act 2014	Makes provision about housing, including provision about the abolition	• Population and human health.	The Local Development Plan should support the provision of

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	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.		housing, particularly affordable housing.
Land Reform (Scotland) Act 2003	Establishes right of responsible access to land and water.	• Water. • Landscape • Historic and cultural heritage. • Biodiversity, fauna and flora. • Population and human health.	The Local Development Plan can provide for and support responsible access.
Forestry and Land Management (Scotland) Act 2018	Sets the requirements for the Forest Strategy (2019 – 2029)	• Biodiversity fauna and flora • Landscape	The Local Development Plan should have regard for and support the Forest Strategy.
National Parks (Scotland) Act 2000	Specifies what a Park Authority can do and how it should be run,	All Strategic Environmental Assessment Issues listed in	Establishes the aims of National Parks. Provides direction on the

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	including a requirement to produce a National Park Partnership Plan.	Schedule 2 of the Environmental Assessment (Scotland) Act 2005	functions and role of the National Park Authority.
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 Sites of Special Scientific Interest (SSSIs) and associated land, strengthens wildlife enforcement legislation, and requires the preparation of a Scottish Fossil Code.	• Water. • Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should support conservation and enhancement of biodiversity.
Planning (Listed Buildings and	Prescribes the approach to be taken in planning for	• Material assets	The Local Development Plan should ensure that

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Conservation Areas) (Scotland) Act 1997	listed buildings, conservation areas and designed landscapes and gardens.	• Landscape. • Historic and cultural. heritage.	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	• Biodiversity, fauna and flora.	The Local Development 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	• Water. • Population and human health.	The Local Development Plan should have regard to Scottish Water's duties under this Act.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	drainage infrastructure.		
Water Environment and Water Services (Scotland) Act 2003	Transposes the Water Framework Directive into Scots law.	• Water. • Biodiversity, fauna and flora. • Landscape. • Population and human health.	The Local Development Plan should encourage 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.	• Water. • Population and human health.	The Local Development Plan should have regard to Scottish Water's duties under this Act.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Wildlife and Countryside Act 1981	Requires certain species to be protected.	• Biodiversity, fauna and flora.	The Local Development 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	• Biodiversity, fauna and flora.	The Local Development Plan should support provisions of the Act.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	Interest; game law, use of shores, and invasive species legislation.		
Nature Conservation (Scotland) Act 2004	To make provision in relation to the conservation of biodiversity; to make further provision in relation to the conservation and enhancement of Scotland's natural features; to amend the law relating to the protection of certain birds, animals and plants; and for connected purposes.	• Biodiversity, flora and fauna.	The Local Development Plan should support the provision of the Act.
Civil Contingencies Act 2004	Delivers a framework for civil protection in the UK and defines the responsibilities for responders to emergency which include (among others).	• Material assets • Population and human health	The Local Development Plan should support the requirements of responders to fulfil their statutory duties.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
The Heat Networks (Scotland) Act 2021	The Act introduced powers to regulate the heat networks market in Scotland for the first time. The Act sets targets for the amount of heat to be supplied by heat networks, requiring this reaches 2.6 Terawatt hours (TWh) (3% of current heat demand) by 2027, and 6 TWh (8% of current heat demand) by 2030.	• Climatic factors • Population and human health	The Local Development Plan should support the development of heat networks in the National Park (this includes supporting the Heat in Networks Delivery Plan 2022).
Crofters (Scotland) Act 1993	The Act sets out the definition for crofts and crofters and sets out duties crofters must meet to occupy croft land, including duties relating to residency, maintenance, cultivation and use.	• Landscape • Population and human health	The Local Development Plan should support provision for tailored approaches to rural housing, including provision for small-scale housing such as crofts or woodland crofts.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Waste (Scotland) Regulations 2012	The legislation introduced changes to how materials are managed by the industry and businesses.	• Material assets	The Local Development Plan should support the actions set out in the legislation.
National policy (United Kingdom and Scotland)			
Air Quality Strategy for England, Scotland, Wales and Northern Ireland (UK Government, 2007)	Sets out objectives for eight air pollutants.	• Air. • Population and human health.	The Local Development Plan should encourage reductions in emissions through a range of measures.
Creating Places - A policy statement on architecture and place for Scotland (Scottish Government, 2013)	A policy statement on architecture and place setting out the comprehensive value good design can deliver. The document contains an action plan that sets out the work that will be taken forward to achieve positive change.	• Landscape. • Historic and cultural heritage. • Population and human health.	The Local Development Plan should support good design.
Cleaner Air for Scotland 2 – Toward a Better Place for Everyone.	Cleaner Air for Scotland 2 - Towards a Better Place for Everyone is	• Air.	The Local Development Plan should encourage reductions in

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
(Scottish Government, 2021)	Scotland's second air quality strategy, setting out how the Scottish Government and its partner organisations propose to further reduce air pollution to protect human health and fulfil Scotland's legal responsibilities over the period 2021-2026.	• Population and human health.	emissions through a range of measures.
Securing a green recovery on a path to net zero: climate change plan 2018 – 2032 – update (Scottish Government, 2020)	The document provides an update to the 2018 Climate Change Plan. Since that Plan Scottish Government have set new ambitious targets to end its contribution to climate change by 2045. Scottish Government have committed to reduce emissions by 75% by 2030 (compared	• Climatic factors. • Air. • Water. • Material assets. • Biodiversity, fauna and flora. • Landscape. • Population and human health.	The Local Development Plan should support Scottish Governments approach to delivering a green recovery and pathway to deliver its climate change targets set out in the update.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	with 1990) and to net zero by 2045		
Water-Resilient Places: A Policy Framework for Surface Water Management and Blue – Green Infrastructure (Scottish Government, 2021).	Water Resilient Places focuses on addressing challenges presented by the current climate emergency, namely tackling surface water flooding. The framework focuses on actions to deliver surface water management and flood resilience in Scotland	• Climatic factors. • Water. • Biodiversity, fauna and flora.	The Local Development Plan should support the delivery of the policy framework.
Scottish Water Climate Change Adaptation Plan 2024.	The Plan outlines the efforts Scottish Water will take to make services and infrastructure more resilient to extreme weather.	• Climatic factors. • Water • Material assets.	The Local Development Plan should support the actions set out in the Plan.
Scotland's National Water Scarcity Plan 2020 (Scottish Environment Protection Agency).	Scotland's National Water Scarcity Plan sets out how water resources will be managed prior to and during periods	• Climatic factors. • Water.	The Local Development Plan needs to consider the risk of water scarcity in the

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	of prolonged dry weather.		development of its spatial strategy.
Scottish Water Strategic Plan – a sustainable future together (Scottish Water, 2025).	The Strategic Plan focuses on how Scottish Water will meet their customers' current and future expectations. It contains areas that Scottish Water have identified as being in need of transformation as well as those they aim to continually improve.	• Water. • Material assets.	The Local Development Plan should the Plan in delivering the transformation of the organisations systems and approaches.
Our Sustainable Future Together: Long-term strategy (Scottish Water, 2025).	This is Scottish Water's long-term strategy, which is designed to ensure that Scotland's water and waste water services remain sustainable, resilient, and affordable for generations to come. The Strategy contains three long term outcomes,	• Climatic factors. • Water. • Material assets.	The Local Development Plan shout support the delivery of the strategy's outcomes.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	designed to respond to the challenges of the climate crisis, population change and ageing assets. Each of these long-term outcomes is supported by a number of areas of focus		
Groundwater Protection Policy for Scotland (Scottish Environment Protection Agency, 2009)	This policy aims to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater and providing a common Scottish Environment Protection Agency (SEPA) framework.	• Water. • Soil.	The Local Development Plan should aim, where possible, to manage significant flood risk to groundwater from flooding related pollution.
Historic Environment Circular 1 (Historic Environment Scotland, 2019).	This circular covers the requirements of the secondary legislation ('the Regulations') relating to the Historic Environment	• Landscape. • Historic and cultural heritage.	The Local Development Plan should follow the guidance for policy development on the management of the historic environment.

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	Scotland Act 2014 ('the 2014 Act').		
Historic Environment Policy Statement (Historic Environment Scotland, 2016)	Document to which planning authorities are directed in 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.	• Landscape. • Historic and cultural heritage.	The Local Development Plan should follow the guidance for policy development on the management of the historic environment.
Historic Environment Scotland Climate Action Plan 2020 – 2025	The Action Plan contains a number of actions specific to energy and carbon management, which encompasses matters relating to heating and cooling.	• Climatic factors. • Material assets. • Historic and cultural heritage.	The Local Development Plan should support energy efficiency retrofit programmes and energy improvements at Historic sites in the National Park.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Scotland's Third Land Use Strategy 2021 – 2026 (Scottish Government).	Outlines Scotland's third Land Use Strategy for achieving sustainable land use across Scotland and getting the best from the land of Scotland. All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	• Climatic factors. • Soil. • Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should 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 (Historic Environment Scotland).	Series of guidance notes which are designed to support the Scottish Historic Environment Policy (SHEP).	• Landscape. • Historic and cultural heritage.	Guidance for policy development on the management of the historic environment.
Our Past Our Future (Historic Environment Scotland, 2023)	Scotland's National Strategy for the Historic Environment for the 5-year period 2023 – 2028.	• Climatic factors. • Material assets. • Historic and cultural heritage.	The Local Development Plan should support the outcomes in the Strategy to support net zero, resilient communities and places and

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
		• Population and human health.	building a well-being economy.
National Planning Framework 4 (2023)	National Planning Framework 4 (NPF4) is Scotland's spatial strategy. It sets out the spatial principles, regional priorities, national developments and national planning policy. It replaces National Planning Framework 3 and Scottish Planning Policy	All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005.	Provides strategic context for future regional change around the Cairngorms National Park.
Scotland Policy on Control of Woodland Removal (Scottish Government, 2009)	Sets out Scottish Ministers policy on woodland removal	• Climatic factors. • Water. • Soil. • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	The Local Development Plan should support the policy.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
National Flood Resilience Strategy (Scottish Government, 2024)	This Strategy is part of The Scottish National Adaptation Plan 2024 - 2029. The Strategy supports a flood resilient places approach, with a focus on building community flood resilience and resilient placemaking.	• Climatic factors. • Water. • Biodiversity, fauna and flora.	The Local Development Plan should seek to support the 'avoid' component of flood resilience and minimise exposure in areas that flood.
The River Basin Management Plan for the Scotland River Basin District: 2015 – 2027 (Scottish Environment Protection Agency).	Fulfils a requirement under the European Union Water Framework Directive.	• Water. • Soil. • Biodiversity, fauna and flora.	Includes management objectives for water bodies in the Cairngorms National Park which the Local Development Plan should take account of.
Scotland Rural Development Programme – domestic programme 2021 (Scottish Government)	The powers of the Agriculture (Retained EU Law and Data) (Scotland) Act 2020 have been used "to enable the continued operation of current Common	All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment	The Local Development Plan can provide more specific direction on how rural development and diversification should be

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	Agricultural Policy (CAP) schemes and policies" from 1 January 2021.	(Scotland) Act 2005.	supported in the Cairngorms National Park.
Climate Change: Scottish National Adaptation Plan 2024 – 2029 (Scottish Government)	The Scottish National Adaptation Plan sets out actions to build Scotland's resilience to climate change. The Adaptation Plan sets out a long-term vision and defines Scotland's priorities for action over the years 2024 – 2029.	• Climatic factors. • Air. • Soil. • Material assets. • Biodiversity, fauna and flora. • Landscape. • Population and human health.	The Local Development Plan should support the delivery of the outcomes of the Adaptation Plan.
Scotland's National Strategy for Economic Transformation: Delivering Economic Prosperity (Scottish Government, 2022).	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.	The Local Development Plan should encourage economic development that does not adversely affect the special qualities of the Cairngorms National Park.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Scotland's National Transport Strategy 2 (Transport Scotland, 2020)	The National Transport Strategy sets out the vision for Scotland's transport system for the next 20 years.	• Climatic factors. • Air • Population and human health.	The Local Development Plan should support reductions in emissions from transport.
Achieving Car Use Reduction in Scotland: A Renewed Policy Statement (Transport Scotland 2025)	The Scottish Government previously set a target to reduce car kilometres travelled in Scotland by 20% by 2030, however this is set to be revised to align with a 6% car use reduction by 2035.	• Climatic factors. • Air. • Material assets.	The Local Development Plan should support a reduction in car use, through the provision of active travel infrastructure, local living and reducing the need to travel.
Let's get Scotland Walking – The National Walking Strategy (Scottish Government, 2014)	The Strategy puts forward the vision of a place where everyone benefits from walking as part of their everyday journeys, enjoys walking in the outdoors and where places are well designed to encourage walking.	• Material assets. • Population and human health.	The Local Development Plan should support the strategic aims set out in the Lets Get Scotland Walking: The National Walking Strategy Action Plan 2016 – 2026 (revised in 2019).

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A Network Fit for the Future: Vision for Scotland's Public Electric Vehicle Charging Network (Transport Scotland, 2023)	The Vision is focused on the charging needs of cars and vans, and is intended to help guide the development of Scotland's network over the coming years	• Material assets. • Population and human health.	The Local Development Plan should aim to support the vision of delivering improvements to the electric car charging network.
A long-term vision for active travel in Scotland 2030 (Transport Scotland, 2014)	The vision aims to encourage walking and cycling for everyday short journeys. It is intended to help people make healthier living choices to deliver happier, more inclusive, equal and more prosperous places. It acknowledges and promotes the need for local active transport networks that are safe and of high quality to improve confidence in their use	• Climatic factors. • Air. • Material assets. • Population and human health.	The Local Development Plan should support the objectives set out in the vision, that include the provision of active travel infrastructure and cutting carbon emissions and other pollution.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 (Scottish Government).	Policy aimed at achieving net zero emissions by 2045.	• Climatic factors. • Air. • Population and human health.	The Local Development Plan should support net zero emissions by 2045.
The Environment Strategy for Scotland: Vision and outcomes (Scottish Government, 2020).	The Environment Strategy creates an overarching framework for Scotland's existing environmental strategies and plans, including the Climate Change Plan.	• Climatic factors. • Air. • Water. • Biodiversity, fauna and flora.	The Local Development Plan should support the outcomes in the Strategy.
Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland (Scottish Government, 2024).	The Strategy sets out a nature positive vision for Scotland – one where biodiversity is regenerating and underpinning a healthy and thriving economy and society and playing a key role in addressing climate change. It sets out a clear ambition: for	• Climatic factors. • Air. • Water. • Biodiversity, fauna and flora.	The Local Development Plan should support the delivery of the Strategy.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	Scotland to be Nature Positive by 2030, and to have restored and regenerated biodiversity across the country by 2045.		
Scottish Biodiversity Delivery Plan 2024 – 2030 (Scottish Government).	Five-year Delivery Plans will set out in detail the actions needed to deliver the 2045 term vision, and its outcomes set out in the Biodiversity Strategy.	• Biodiversity, fauna and flora.	The Local Development Plan should aim to support the actions set out in the delivery plan relevant to the National Park geography.
Scottish Forestry Strategy (Scottish Government, 2019).	Outlines strategic priorities for forestry including management, planting and environmental stewardship.	• Water. • Soils. • Biodiversity, fauna and flora. • Landscape • Historic and cultural heritage.	The Local Development Plan should provide a strategic direction for forestry policy within the National Park.
Scottish Geodiversity Charter 2018-2023 (Scottish Geodiversity Forum, 2018).	Charter sets out why geodiversity is important, and presents a vision that geodiversity is	• Material assets.	The National Park Authority is a signatory to the Charter and therefore the Plan

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	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.	• Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	should include actions to help meet its objectives.
Scottish Government's Infrastructure Investment Plan 2021-22 to 2025-26 (Scottish Government, 2021).	Gives an overview of the Scottish Government's plans for infrastructure investment over the coming decades.	• Material assets. • Population and human health.	The Local Development Plan should take account of potential impacts (both positive and negative) of actions on existing and planned developments.
Scottish Government's National Performance Framework- National Outcomes (Scottish Government, undated 2018).	The Scottish Government has 15 National Outcomes that the public sector must collectively deliver.	All Strategic Environmental Assessment issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005.	The Local Development Plan should identify and contribute to delivery of the outcomes that are most appropriate in the Cairngorms National Park.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Scottish Soil Framework 2009 (Scottish Government).	Ministers' policies and objectives for the conservation and use of soils.	• Climatic factors. • Water. • Soil. • Material assets. • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage. • Population and human health.	The Local Development Plan should promote soil conservation.
Scotland's Zero Waste Plan (Scottish Government, 2010).	Provides context for waste planning in Scotland.	• Climatic factors. • Soil. • Material assets. • Population and human health.	Directs the Local Development Plan to secure zero waste in new development through support for waste management and good design.
Net Zero Scotland Scotland's Plan (Scottish Government).	The Scottish Government has set out short, medium and long-term goals	• Climatic factors. • Material assets.	The Local Development Plan should support the goals set out in

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	and when they are to be achieved by in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. Scotland has set an ambitious target to become 'Net Zero' by 2045, five years ahead of the rest of the UK.		the Plan to deliver net zero in Scotland in 2024.
Tourism Scotland 2020 – A Strategy for Leadership and Growth (Highlands and Islands Enterprise, 2012).	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. • Historic and cultural heritage. • Population and human health.	The Local Development Plan should support development of sustainable tourism to contribute to national targets for tourism growth.
Scotland's Geodiversity Charter 2018 - 2023 (Scottish geodiversity forum,	The Charter encourages the promotion and management of Scotland's	• Climatic factors. • Soil.	As the Cairngorms National Park Authority is signatory of Scotland's

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
British Geological Survey, NatureScot)	geodiversity and better integration of geodiversity into policy and guidance, consistent with the economic, social, cultural and environmental needs of Scotland.	• Biodiversity, fauna and flora. • Landscape. • Population and human health.	Geodiversity Charter, the Local Development Plan should align with its commitments.
UK Geodiversity Action Plan (Natural England, 2011).	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 • Historic and cultural heritage.	The National Park Authority is a signatory to the Scottish Geodiversity Charter and therefore the Local Development Plan should include actions to help promote and protect the Cairngorms National Park's geodiversity.
A changing nation: how will Scotland thrive in a digital world (Scottish Government, 2021).	The strategy sets out Scotland's approach to ensuring services are designed and delivered to meet the needs of the	• Climatic factors. • Material assets.	The Local Development Plan should support the strategy's aim to ensure that every part of Scotland and every

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	user. Also to deliver and aid economic recovery, to meet climate change targets and to ensure that people in Scotland have the skills, connectivity and devices required in today's digital climate.		community within it can have access to good quality connectivity now and in the future.
Scotland's Learning Estate Strategy (Scottish Government, 2019).	The national strategy recognises the importance of the learning estate in supporting outcomes that are necessary for a more successful Scotland.	• Population and human health.	The Local Development Plan should support the guiding principles of the Strategy and support the Learning Estates investment programme.
Scotland's Public Health Priorities (Scottish Government, 2018).	These are intended to support all national and local partners across Scotland, not just public health professionals, to work together to improve healthy life expectancy and reduce health	• Population and human health.	The Local Development Plan should support the delivery of the six priorities set out in the document.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	inequalities in Scotland's communities.		
A healthier future: Scotland's diet and healthy weight delivery plan (Scottish Government, 2018).	The Plan sets out the vision 'to create a Scotland where everyone eats well, and we all have a healthy weight.'	• Population and human health.	The Local Development Plan should support the delivery development that promotes healthy eating and healthier choices.
National Good Food Nation Plan (Scottish Government, 2024).	The Good Food Nation Plan represents how the Scottish Government intends to work collectively§ together with the supply chain and with all parts of society in meeting its Good Food Nation ambitions.	• Material assets. • Population and human health.	The Local Development Plan should support sustainable food production.
Energy Efficient Scotland (Scottish Government, 2018).	The programme aims to set out a route map for improving the energy efficiency of Scotland's buildings to reduce energy	• Climatic factors. • Material assets. • Population and human health.	The Local Development Plan should support Scottish Governments route map set out in the programme.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	consumption leading to reduced greenhouse gas emissions.		
Bioenergy Update (Scottish Government, 2021).	The Update sets out the current role of bioenergy and how that may change as Scotland moves towards a net zero future.	• Climatic factors.	The Local Development Plan should where possible, support bioenergy development in the National Park
Housing to 2040 (Scottish Government, 2021).	Scotland's long-term national housing strategy. The overarching aim is that 'by 2040, everyone will have a safe, high-quality home that is affordable and meets their needs in the place they want to be' (p15)	• Population and human health.	The Local Development Plan should support the delivery of the Strategy, and the actions set out in the route map.
Rural and Islands Housing: Action Plan (Scottish Government, 2023).	The Plan sets out a range of actions to support Housing to 2040 and meet the priority to provide affordable housing	• Population and human health.	The plan highlights the role of local development plans in the delivery of high-quality affordable

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	for rural and island communities.		homes, including that they must contain a spatial strategy that makes provision for housing in rural areas. It advises that the resource implications of the proposed pattern of development should be understood, including access to local community services and support for sustainable transport, to inform a rural approach to the concept of local living.
National Development Plan for Crofting (Scottish Government, 2021).	The Plan highlights the core elements necessary to ensure that crofting remains at the heart of our rural and remote rural communities, as well	• Climatic factors. • Soil. • Biodiversity, fauna and flora.	The Local Development Plan should support the actions set out in the Plan in relation to land-use and soil.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	as delivering policy priorities for climate change mitigation and biodiversity.	• Population and human health.	
Scotland's Landscape Charter (Scotland's Landscape Alliance, updated 2025).	Scotland's Landscape Charter aims to promote the sustainable management of Scotland's landscapes.	• Climatic factors. • Water. • Soil. • Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should support the aims of the Charter in promoting the sustainable management of the landscapes in the National Park.
Play Strategy for Scotland (2013) and Progress Review 2020 (Scottish Government).	This document seeks to improve the play experiences of all children and young people, including those with disabilities or from disadvantages backgrounds. It aims to ensure all children and young people can access play opportunities in a range of settings which offer variety, adventure and challenge	• Population and human health.	The Local Development Plan should support opportunities for play in communities.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
A More Active Scotland: Scotland's Physical Activity Delivery Plan (Scottish Government, 2018).	The Strategy sets out the importance of physical activity and sport; how active people in Scotland are; and aims and objectives to ensure more people are active, more often.	• Population and human health.	The Local Development Plan should support opportunities for physical activity in new developments in line with the Physical Activity for Health: Scotland's National Framework.
Scotland Outlook 2030: Responsible Tourism for a Sustainable Future (Scottish Tourism Alliance, 2020).	Recognising the importance of the tourism sector to Scotland's economic strategy, it supports the vision of Scotland becoming a 21st century tourism world leader. The Strategy further highlights the need for net-zero within the tourism sector to contribute to the national ambition of a net-zero Scotland by 2045	• Climatic factors. • Material assets. • Population and human health.	The Local development Plan should support the main priorities set out in the Strategy and support its net-zero aims for the tourism sector.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Visit Scotland Visitor Management Plan (Visit Scotland, 2024)	The Plan offers a vision of how the visitor experience in Scotland will develop over a 10-year period which include investment in the current and future visitor management infrastructure.	• Population and human health.	The Local Development Plan should support growth in the tourism sector in the National Park.
A Culture Strategy for Scotland (Scottish Government, 2022).	The Culture Strategy for Scotland is an overarching strategy and sits in synergy with existing strategies for Scotland's historic environment, museums and galleries and libraries.	• Historic and cultural heritage. • Population and human health.	The Local Development Plan should support the vision and principles set out in the Strategy in particular the place principle that states that community, landscape, language and geography – is important and reflects the creativity of the past and provides inspiration for cultural expression today. The Local

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
			Development Plan should also support the actions set out in the A Culture for Scotland: Action Plan.
Making Things Last: A Circular Economy Strategy for Scotland (Scottish Government, 2016).	The Strategy sets out Scottish Government's priorities for moving towards a more circular economy - where products and materials are kept in high value use for as long as possible. It builds on Scotland's progress in the zero waste and resource efficiency agendas.	• Material assets.	The Local Development should aim to support the key aims set out in the document to reduce waste, improve resilience and ensure more lower cost options to access the goods we need with opportunities for social enterprise.
Local plans and strategies			
A9 Dualling Strategy (Transport Scotland)	The Strategy sets out the programme for the dualling of the A9 from Perth to Inverness. The updated timeline includes the aim to	All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental	The Local Development Plan will need to consider the effects of the duelling on the aims of the

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	have 50% of the dual carriageway completed by the end of 2030, 85% completed by the end of 2033 with full completion by 20335.	Assessment (Scotland) Act 2005.	National Park and how this will influence the spatial priorities of the Park Authority.
Cairngorms National Park Capercaillie Framework (Cairngorms National Park Authority, 2015) (and subsequent Cairngorms Capercaillie Project).	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.	• Biodiversity, fauna and flora.	The Local Development 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 (Cairngorms National Park Authority, 2015)	Identifies a network of core paths throughout the Cairngorms National Park.	• Biodiversity, fauna and flora. • Population and human health.	The Local Development Plan should support the promotion and development of core paths.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Cairngorms National Park Gaelic Language Plan (Cairngorms National Park Authority, 2018)	A plan that aims to enhance the Gaelic Language and culture within the Cairngorms National Park.	• Historic and cultural heritage. • Population and human health.	The Local Development Plan should support the Gaelic language through good design and placemaking.
Cairngorms National Park Local Development Plan 2021	Establishes development and settlement strategy for the Cairngorms National Park, allocates specific development sites, and provides policies for managing development in the Cairngorms National Park.	All Strategic Environmental Assessment Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005.	This is the current framework for development within the Cairngorms National Park. The Local Development Plan will need to take account of its contents.
Cairngorms Nature Action Plan 2019-2024 (Cairngorms National Park Authority, 2019)	Priorities and actions for biodiversity in the Cairngorms National Park.	• Water. • Biodiversity, fauna and flora.	The Local Development Plan should support the implementation and review of Cairngorms Action Plan.
Community Action Plans (including Local Place Plans).	Plans set out how public services will be planned and	All Strategic Environmental Assessment	The Local Development Plan can support parts

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	delivered, through consultation and co-operation.	Issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005	of Community Plans.
Community Visions and Local Community Action or development Plans (including Local Place Plans).	Statements from communities in the Cairngorms National Park about how they would like to change or develop in future, sometimes with plans on how to get there.	• Biodiversity, fauna and flora. • Landscape • Historic and cultural heritage. • Population and human health.	The Local Development Plan can support communities in developing their own plans and capacity.
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.	Housing Need and Demand Assessments inform housing requirement for the Cairngorms National Park.
Regional and Local Transport Strategies (prepared by Local Authorities).	Set out how to maintain and improve infrastructure.	• Climatic factors. • Air.	The Local Development Plan should support sustainable transport solutions

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
		• Population and human health.	and encourage lower carbon forms of transport.
Local Authority Single Outcome Agreements	Strategic documents outlining priorities across communities in the Cairngorms National Park.	All Strategic Environmental Assessment issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005.	The Local Development Plan can help deliver community priorities.
River Dee Catchment Management Plan (Dee Catchment Partnership, 2007)	Aims to promote sustainable use of natural resources, to improve water quality and biodiversity.	• Water. • Soil. • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	The Local Development Plan should support integrated catchment management as a way of improving water quality and the health of natural systems.
River Dee Catchment Partnership Delivery Plan 2022 – 2027 (Dee Catchment Partnership, 2022).	The Plan sets out the blueprint for achieving restoration in the river Dee catchment over the 5 years of the plan. It sets a	• Water. • Soil. • Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should support integrated catchment partnership delivery plan as a

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
	framework for Partnership projects that focus on benefits for climate, nature and people. The purpose of the Delivery Plan to restore naturally functioning river ecosystems in the Dee catchment	• Historic and cultural heritage.	way of improving water quality and the health of natural systems.
Spey Catchment Management Plan 2023 - 2030 (Dee Catchment Initiative, 2023).	This revised Catchment Management Plan brings together the activities of partner organisations and sets out priorities for 2023 to 2030, building on previous successes and incorporating lessons learnt.	Water. • Soil. • Biodiversity, fauna and flora. • Landscape. • Historic and Cultural Heritage.	The Local Development Plan should aim to support the priorities set out in the Management Plan.
South Esk River Catchment Management Plan (River South Esk Catchment Partnership, 2009)	Aims to promote sustainable use of natural resources, to improve water quality and biodiversity.	• Water. • Soil. • Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should support integrated catchment management as a way of improving water quality and

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
		• Historic and Cultural Heritage.	the health of natural systems.
Sustainable Tourism Action Plan 2023-2028 (Cairngorms National Park Authority, 2023).	Identifies measures to support and develop sustainable management of tourism in the Cairngorms National Park in line with the Europarc Federation of Protected Areas Charter.	• Air. • Water. • Material assets. • Biodiversity, fauna and flora. • Landscape. • Historic and cultural heritage.	The Local Development Plan should support the implementation of the Sustainable Tourism Strategy.
Sustainable Tourism Infrastructure Development Plan 2023 – 2028 (Cairngorms National Park Authority).	The Sustainable Tourism Infrastructure Development Plan is the Action Plan for 2023 – 2028, and it sits within the wider context of the National Park Partnership Plan 2022 – 2027 which acts as the overarching Sustainable Tourism Strategy.	• Population and human health.	The Local Development Plan should support the actions set out in the Plan.

Relevant Plans, Programs and Strategies	Relevant objectives / purpose	Strategic Environmental Assessment issue / topic	Relationship between the Plans, Programs and Strategies and the Local Development Plan
Cairngorms National Park Partnership Plan 2022 - 2027.	The Cairngorms National Park Partnership Plan is the Management Plan for the Cairngorms National Park; it has been approved by Scottish Ministers and Includes the Economic and Tourism strategies for the Cairngorms National Park.	All Strategic Environmental Assessment issues listed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005.	The Local Development Plan should support the National Park Partnerships Plan's outcomes and objectives.
Cairngorms National Park Forest Strategy 2018 (Cairngorms National Park Authority).	It provides strategic direction on future forest management and the restoration of woodlands in the Cairngorms National Park over the next two decades.	• Biodiversity, fauna and flora. • Landscape.	The Local Development Plan should have regard for the Strategy, supporting the aims and objectives contained therein.

Appendix 2: Environmental baseline

Topic 1: Climatic factors

Context

Scotland has a temperate climate with cool summers and mild winters. 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. The predicted effects of climate change, currently supported by observed data, include hotter, drier summers; milder winters; increased frequency and intensity of extreme rainfall; reduced snowfall. The area within the Cairngorms National Park boundary will be affected by climate change.

Climate of the Cairngorms National Park

Historical climate data is provided by the Braemar weather station. It is recognised that using Braemar is a blunt proxy for the Cairngorms National Park as a whole, however it is the only consistent local data source available. In addition, it is some distance from large scale urbanisation so is likely to reflect the nature of the climate within the National Park.

Records from the weather station indicate that the Cairngorms National Park is experiencing an increase in both the average annual maximum and minimum temperatures (Figure 4). The weather data also shows a decreasing in the number of days of air frost and an increase in annual rainfall (Figure 5 and Figure 6).

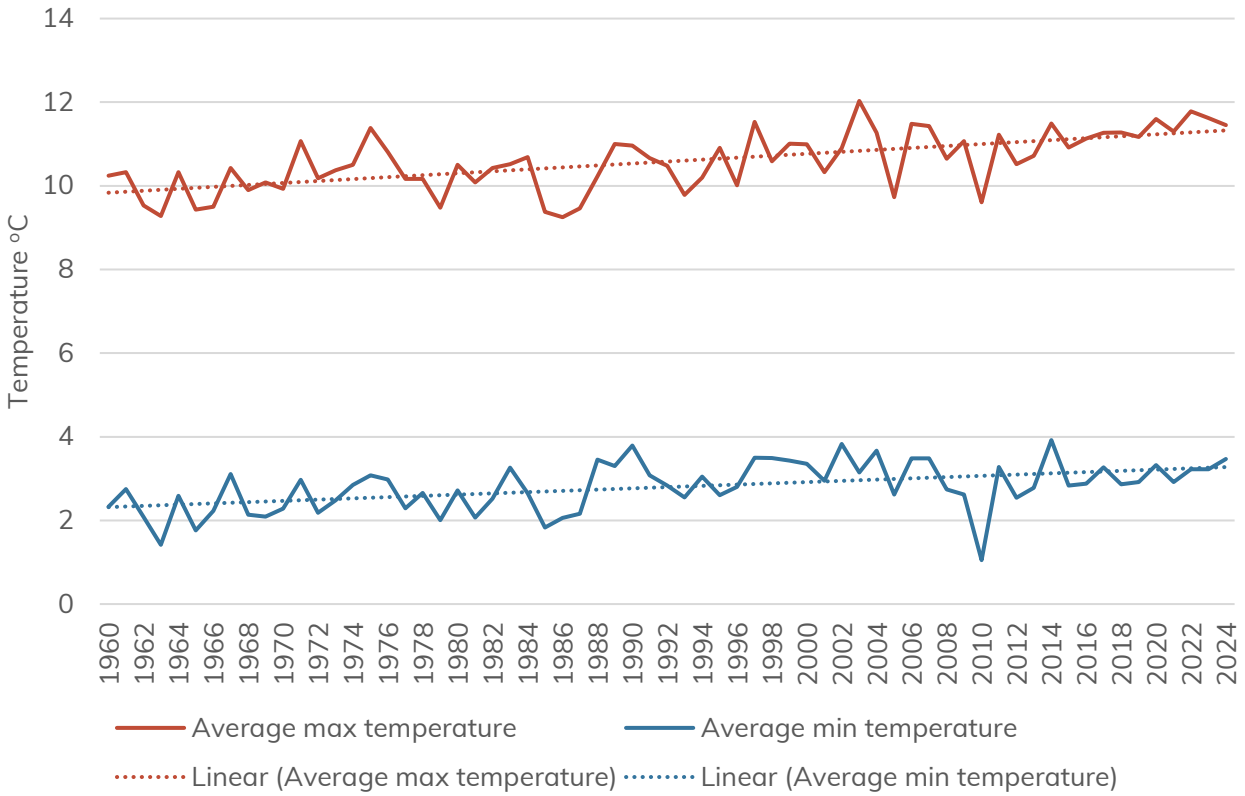


Figure 4 Maximum and minimum average yearly temperatures recorded at Braemar weather station from 1960 to 2024. Met Office data, 2025.

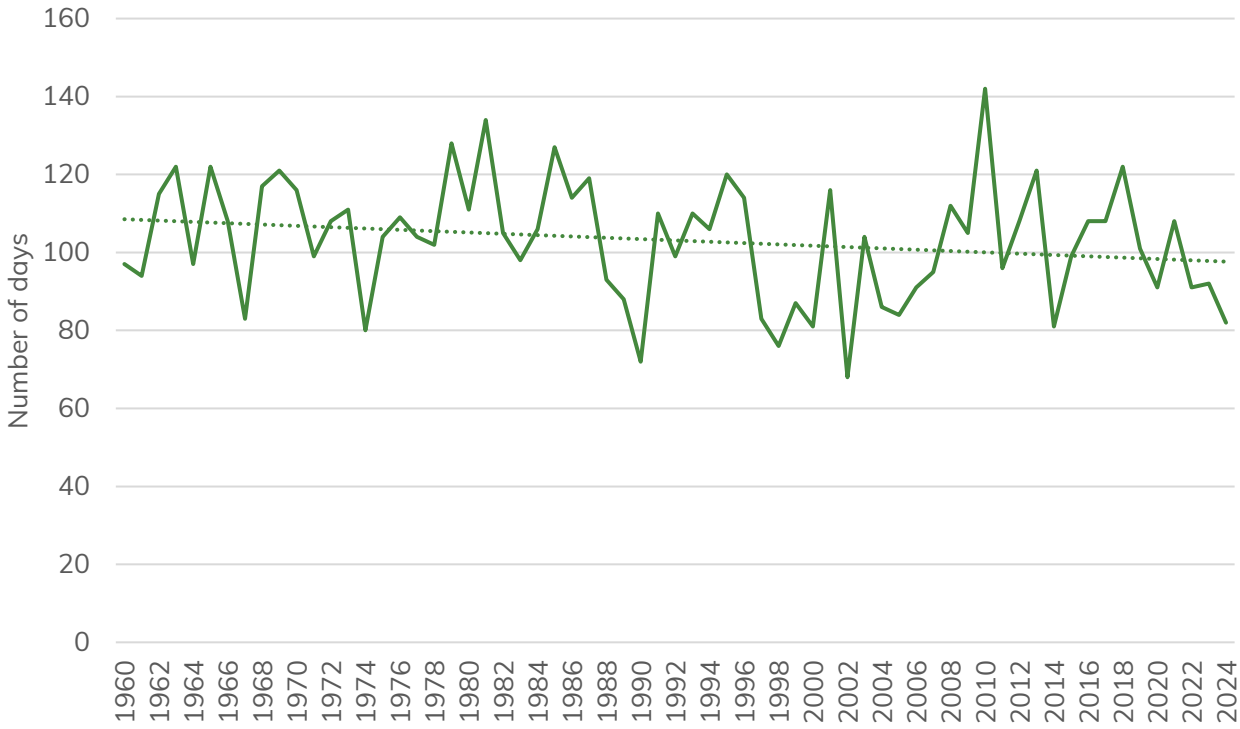


Figure 5 Number of days recorded with frost annually at Braemar weather station from 1960 to 2024. Met Office data, 2025.

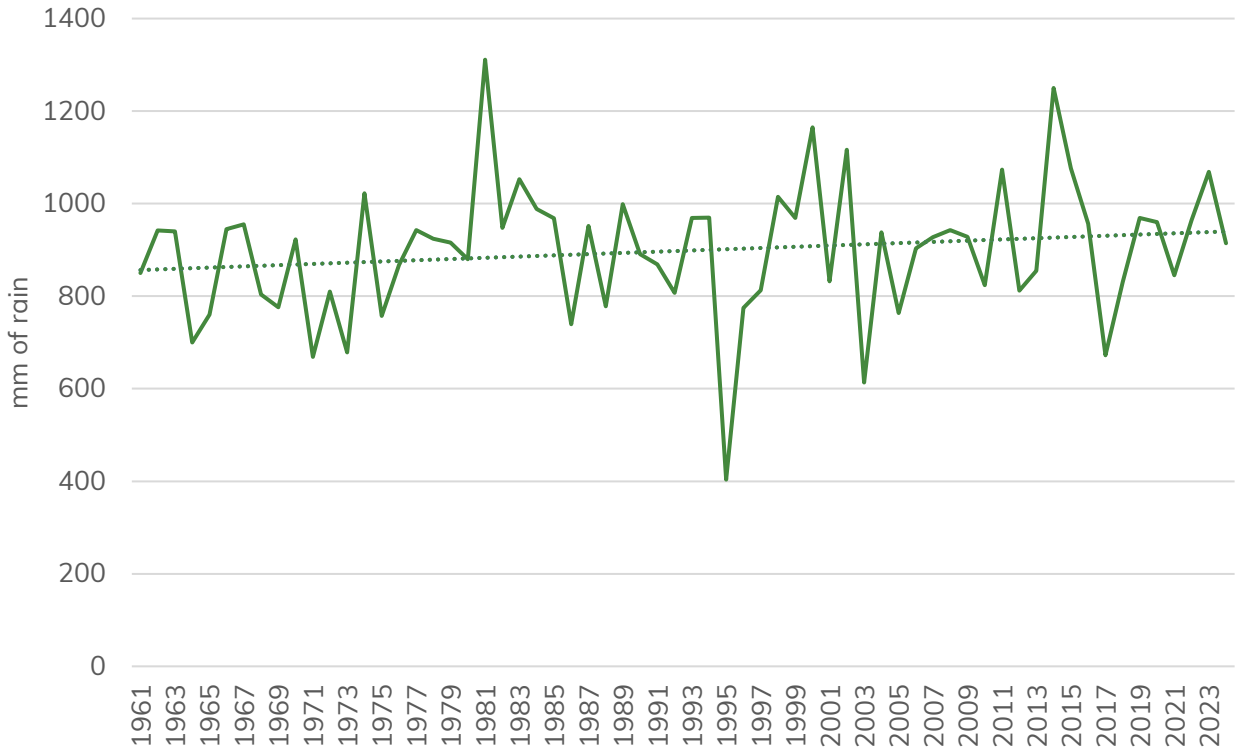


Figure 6 Annual rainfall recorded at Braemar weather station from 1691 to 2024. Met Office data, 2025.

In 2024, the James Hutton Institute produced a report[2] for the Cairngorms National Park Authority providing climate projections for the National Park. The report presents more detailed observed changes in the climate in the Cairngorms National Park and what four future climate change projections look like. The aim of the report was to provide information about how the climate has already changed in the National Park and is likely to change further in the future, to aid planning for resilience building and adaptation. The following summary of key findings is supported by the data collated in the report which is available here:

- https://cairngorms.co.uk/wp-content/uploads/2024/02/Climate-projections-for-the-Cairngorms-James-Hutton-Institute-31-Jan-2024.pdf

The key findings in terms of observed changes reported in the report are as follows:

Precipitation

There has been an observed change in the mean monthly precipitation amount from

[2] The full report is available here: https://cairngorms.co.uk/wp-content/uploads/2024/02/Climate-projections-for-the-Cairngorms-James-Hutton-Institute-31-Jan-2024.pdf

the 1960 to 1989 baseline period. This change has been variable spatially and per month. The months of February, June, October and November have experienced an overall increase in precipitation. However, September has experienced a decrease in precipitation. The months of January, March, May, July, August and December have all experienced a mixed spatial pattern of both increases and decreases in precipitation. Decreases have mainly been in the east of the National Park.

Temperature

There has been an increase in mean monthly maximum temperature in all months except June, and to a lesser spatial extent in October for the baseline 1960 - 1989. February has experienced the largest increases, by more than 2°C in the eastern part of the National Park followed by March. Increases have been mostly in the range of 1 to 1.5°C. Analysis by the James Hutton Institute indicates an overall uniform increase across the National Park, but with some topographical variations in some months, with less or no increases at higher elevations.

In terms of minimum recorded temperatures there has been an increase in mean monthly minimum temperature in all months except October and December – but these months have also experienced an increase in some areas of the National Park. February has experienced the largest increase, by more than 1.5°C. Increases have been less than those for maximum temperature, being mostly 0.5 to 1.0°C. Increases show some topographical variation, with lower increases at higher elevation.

Evapotranspiration

Land evapotranspiration is a vital component of the global water and energy cycles it returns land precipitation to the atmosphere and removes surface water from the land by latent heat transfer (Lui et al, 2021[3]). The James Hutton Institute report[4] that in the Cairngorms National Park there has been a noticeable increase in evapotranspiration in March, April and May, but decreased in June, July, August and September in lower elevation areas but increased in high elevation locations. There have been only slight changes (increases and decreases) between October and February.

[3] Liu et al (2021) Response of global land evapotranspiration to climate change, elevated CO2, and land use change, Agricultural and Forest Meteorology, Volume 311, Available online at: https://www.sciencedirect.com/science/article/abs/pii/S016819232100349X
[4] Climate Change Projections for the Cairngorms, James Hutton Institute. 2024

'Future changes in rainfall and evapotranspiration could lead to changed flow regimes and impacts on water quality, aquatic ecosystems and water availability.' (Watts et al, 2015[5])

Climatic water balance

'Water resource management has an obvious impact on a wide range of policy sectors, including energy, health, food security, and environment. As a result, practitioners need to design appropriate adaptation and mitigation strategies across diverse water-dependent sectors' (Sakanya, S and Joseph, S, 2023[6])

In terms of climatic water balance, they report that the Climatic Water Balance indicates that there have been spatial and temporal shifts in the balance between precipitation input of water and evapotranspiration return to the atmosphere.

There has been an increase in Climatic Water Balance (more water input) for the majority of the National Park in February, June, July, October and November. In December, January and April the National Park has experienced an increase in all areas except the eastern parts of the National Park. March has experienced both a decrease (less water input) in the eastern half of the National Park, and a slight increase in the west. August shows a mixed response with some negative decreases in higher elevated areas. May and September have experienced an overall decrease in water input, particularly in higher elevated areas. The National Park has remained in meteorological water surplus from September through to March.

Seasonally, spring and summer months show a spatially varied response in terms of meteorological water surplus or deficit: for May, June and July most of the National Park is in deficit, but with indications of some locations shifting from surplus to deficit, most noticeably in May, whilst other locations have shifted from deficit to surplus.

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[5] Watts, G., Battarbee, R. W., Bloomfield, J. P., Crossman, J., Daccache, A., Durance, I., Elliott, J. A., Garner, G., Hannaford, J., Hannah, D. M., Hess, T., Jackson, C. R., Kay, A. L., Kernan, M., Knox, J., Mackay, J., Monteith, D. T., Ormerod, S. J., Rance, J., ... Wilby, R. L. (2015). Climate change and water in the UK – past changes and future prospects. Progress in Physical Geography, 39(1), 6-28. Available at: https://doi.org/10.1177/0309133314542957

[6] Sukanya S, Sabu Joseph, (2023) Chapter 4 - Climate change impacts on water resources: An overview, Editor(s): Arun Srivastav, Ashutosh Dubey, Abhishek Kumar, Sushil Kumar Narang, Moonis Ali Khan, Visualization Techniques for Climate Change with Machine Learning and Artificial Intelligence, Elsevier, Pages 55-76, Available online at: https://www.sciencedirect.com/science/article/pii/B978032399714000008X

Snow cover

Snow cover is a key aspect of what defines the character of the Cairngorms National Park. Snow cover in the National Park has two primary functions. It supports the winter sports industry and has important implications for nature.

In terms of implications for nature, snow cover serves as an armour and insulator: it can protect exposed peat from heavy winter rainfall (kinetic energy) and effects of frost heave, helping to prevent erosion and further degradation. As climate change is likely to reduce snow cover it can increase the risks of erosion and changes to surface thermodynamics (black-body albedo effect). Vegetation cover also serve to protect peat.

In 2020, the James Hutton Institute also produced a report on snow cover and climate change on Cairngorm Mountain. This report details research findings on the historical changes in snow depth and number of days of snow on Cairngorm Mountain and how snow may respond under climate change. It is an extension to the report 'Snow Cover and Climate Change in the Cairngorms National Park: Summary Assessment' produced by Climate X Change in 2019. The Climate X Change report notes that the initial results show a reduction in snow cover as the observed warming trend continues and accelerates. Successful global efforts to reduce emissions may moderate this impact, whilst even higher emissions rates (e.g. due to ecosystem carbon releases) may further increase impacts

Key findings from the James Hutton Institute Report on the observed changes in snowfall include:

- There has been a decrease in the observed maximum and average snow depth since the beginning of records (1983 – 1984 winter). Maximum snow depth has declined by approximately 10cm and the average by around 3cm.
- There has been an observed decrease in the number of days when snow depth exceeds specific amounts. The largest decreases have occurred for shallower depths (greater than 2cm but less than 5cm, greater than 5cm and less than 10cm cm) of around 10 days since 1983.
- The mean snow depth per month has decreased in January and February since 1983. Depth per month has been highly variable but the observed trend has been downwards. Other months have different trends: March has had a slight decrease whilst November has been consistent and December a slight increase.
- For all months there is a clear increasing warming trend in observed maximum and minimum temperature between 1960 and 2019. The largest increases have occurred

in April. The main snowfall months of January and February have had a relatively small increase in temperature.

- There has been an increasing trend of mean monthly precipitation amount for November, December and January since 1960, whilst March's amount has decreased.
- There has been an increase in mean monthly solar radiation (MJ per m^2 per day) in February, March and April since 1994, implying greater heat energy input at the ground surface.

Extreme climatic indicators in the Cairngorms National Park

This section summarises the results of the mapping of trends in the historical periods (1960 – 1989 to 1990 – 2019) and two future periods (2020 to 2049, 2050 to 2079) for the four climate projection changes from the 1960 to 1989 baseline produced by the James Hutton Institute. Further detail and datasets are contained in the full report.

Number of consecutive dry days[7]

The James Hutton Institute reported that February April, June, August and November have experienced an overall decrease in the number of consecutive dry days in the National Park. February has decreased by three days, whilst in March and September it has increased by two days. The future four projections set out by the Institute for the period from 2020 to 2049 shows similar spatial and temporal patterns, with February estimated to see further decreases in the number of consecutive dry days, whilst May through to October have increases.

The James Hutton Institute further report there is agreement across the four projections that September is estimated to have a substantial increase in the number of consecutive dry days, by up to 10 days, increasing to 15 in the period from 2050 to 2079 period. For the period from 2050 to 2079, it is projected that the change of direction in is towards increases between May and October but decreases between December and February.

Number of dry days[8]

In terms of the number of dry days the mean monthly amount has increased in some months and decreased in others from the period from 1960 to 1989. It was reported that February has experienced the largest decrease, by an average of four days, mostly in

[7] The maximum length of a dry spell in any one month when precipitation is less than 1mm per day.
[8] Defined as days when total precipitation is less than 1mm per day.

the western half of the National Park. There has been an increase in April (for the western half of the National Park), June, July, October and November (but with some areas also seeing a decrease). March has experienced an increase, of two days, across the whole National Park. September has experienced the largest increase, covering the whole National Park area, of up to two more mean monthly number of dry days. The future four projections, by the James Hutton Institute, for the period from 2020 to 2049 show similar spatial and temporal patterns, continuing into the period from 2050 to 2079, with winter months seeing a decrease in the mean number of dry days.

Heavy precipitation days[9]
The James Hutton Institute report that the mean number of has increased in January and February by up to three days, and April, June and October in most of the National Park area, but there has also been both increases and decreases in March, May, July, November and December.

The report goes on to state that in August, September and the eastern half of the National Park in May have experienced a slight decrease, by one day. For the future climate, there is a mixed response between the four projections by the Institute. February is projected to see an increase, whereas August will see a decrease. This pattern is further continued into the period from 2050 to 2079. Change direction maps illustrate the extent to which the changes in heavy precipitation days are highly spatially and temporally variable, and this continues into the period from 2050 to 2079. There is poor agreement between the four projections on the amount of land area experiencing increases, decreases or no change in the mean number of heavy precipitation days.

James Hutton Institute Report conclusions for the Cairngorms National Park
The report by the James Hutton Institute confirms that the Climate in the Cairngorms National Park has already changed since during the period from 1960 to 1989.

These changes are spatially and temporally variable, with the winter months becoming both wetter and warmer, whilst summer months have become warmer and but with variable consequences on the amount of water available to enter into soils and aquatic systems. Evapotranspiration has had a variable response, potentially driven by cloud cover impacting the amount of solar radiation reaching ground surfaces.

[9] Defined when precipitation is equal to or more than 10mm per day.

Future projections by the James Hutton Institute indicate that the National Park will experience further warming over the coming decades, as well as seasonal and spatial shifts in precipitation distribution.

A key finding from their report is that large sections of the National Park are likely to experience spring and summer seasons when there is a potential decrease in meteorological water (evapotranspiration greater than precipitation), meaning that areas that have previously had a meteorological water surplus could experience a deficit in the future. This will increase the risk of drier soils and vegetation, with consequences on ecological functions and fire danger.

Wildfires

There has been an increase in the frequency of wildfires in the Cairngorms National Park (Figure 9). Wildfires are commonly classified as semi-natural hazards and, in the Scotland, they are defined as 'any uncontrolled vegetation fire which requires a decision, or action, regarding suppression' (Scottish Government, 2013).

Their occurrence is likely to be determined by a combination of environmental and climatic influences i.e., temperature and amount of rainfall, but are most often caused by deliberate or accidental human influences (Arnell et al, 2021a[10]). Longer dry periods increase the risk of peatland, woodland and other habitats wildfires in Scotland. Coupled with an increase in mean summer temperatures the risk of wildfires increases.

Wildfires can also cause peatland degradation, a reduction in carbon storage and release of toxic metals into the atmosphere (Scottish Government, 2022[11]). It is expected that increasing incidences of wildfires, especially on remote upland area and peatlands, will be costly to fight, also cause damage to freshwater catchments and other ecosystem services and may require costly restoration (Scottish Government, 2022).

The project by Scottish Government entitled "Provision of Analyses of Scottish Fire and Rescue Service (SFRS) Incident Reporting System (IRS) Data in Relation to Wildfire Incidents" aims to:

- Improve the understanding of how upland wildfires start.

[10] Arnell, N.W., Freeman, A., Gazzard, R., 2021a. The effect of climate change on indicators of fire danger in the UK. Environ. Res. Lett. Available online at: https://doi.org/10.1088/1748-9326/abd9f2
[11] Provision of Analyses of Scottish Fire and Rescue Service (SFRS) Incident Reporting System (IRS) Data in Relation to Wildfire Incidents. Scottish Government. 2022

- Investigate if wildfire occurrence differs between geographical areas.
- Describe how wildfires exhibit seasonal and temporal trends.

The Incident Reporting System (IRS) is a very well-structured dataset and a valuable resource for keeping records of the characteristics of different types of fires occurring in Scotland.

Scottish Government's extensive investigation of patterns of wildfire occurrence identified three main types of wildfires occurring in Scotland:

- Wildfires caused in very remote and remote rural areas affecting mainly heathlands / shrublands and bogs and peatlands that seem to be caused mainly by accidental ignitions.
- Wildfires in accessible rural areas and smaller urban centres that affected grasslands and woodlands.
- Small fires close to settlements and urban centres affecting mainly grasslands that seemed to be caused by deliberate ignitions.

Scottish Government concluded that wildfires in remote areas tended to be bigger and were mainly caused by bonfires or other intentional burns that got out of control, which might be associated with traditional land management practises or tourism / recreational activities. Small deliberate fires in or close to urban centres seemed to be driven mainly by anti-social behaviour or relatively trivial cases of negligence with fire, while the causes of fires in the more accessible rural areas could be a mixture of burns getting out of control or careless handling of equipment or other heat sources along with ignitions from anti-social behaviour.

European Forest Fire Information System

The European Forest Fire Information System supports the services in charge of the protection of forests against fires in the European Union and neighbouring countries. It also provides the European Commission services and the European Parliament with updated and reliable information on wildfires in Europe[12].

Since 1998, European Forest Fire Information System has been supported by a network of experts from the countries in what is called the Expert Group on Forest Fires, which is

[12] The fires mapped in The European Forest Fire Information System may include fires set intentionally for the purpose of vegetation management.

registered under the Secretariat General of the European Commission. Currently, this group consists of experts from 43 countries in European, Middle East and North African countries. In 2015, European Forest Fire Information System became one of the components of the Emergency Management Services in the European Union's Copernicus program.

Figure 7 and Figure 8 are extracts from the European Forest Fire Information System (EFFIS) WildFire Risk Viewer13. The pan-European Wildfire Risk Assessment (WRA) approach follows from a series of European Union regulations that require the European Commission to have a wide overview of the wildfire risk in the European region, to support the actions of its Member States and to ensure compliance in the implementation of European Union regulations related to wildfires. Two main groups of components are defined by considering the fire danger (or hazard) and the vulnerability on three categories: people, ecological, and economic values exposed in vulnerable areas.

Figure 7 shows the wildfire danger (or hazard) in the National Park. The areas where the risk is highest is in and around the key settlements of Aviemore and Grantown-on-Spey. The areas with the lowest risk are mainly located in the upland and mountainous areas of the National Park.

Figure 8 shows the vulnerability to wildfire risks on three categories: people, ecological, and economic values exposed in vulnerable areas. Given the abundance of natural capital in the National Park, in term of ecological vulnerability this is high across the whole area. In terms of population and economic vulnerability, this is highest in and around the key settlements in the National Park (Ballater, Kingussie, Aviemore, Grantown-on-Spey and Newtonmore).

[13] Which is available to view here: https://forest-fire.emergency.copernicus.eu/apps/fire.risk.viewer/

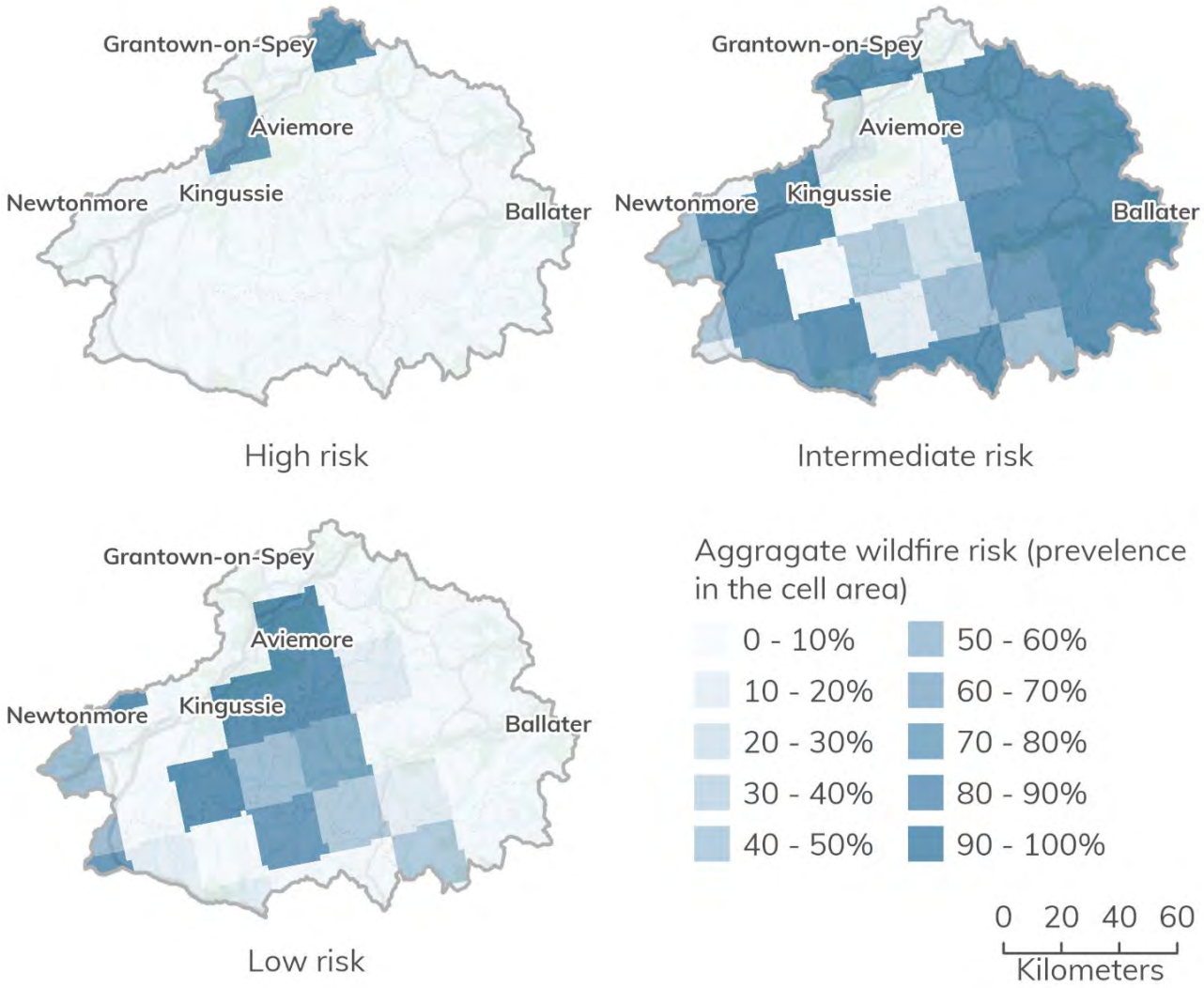


Figure 7 Wildfire risk in terms of danger or hazard scored as high risk, medium risk and low risk in the Cairngorms National Park . Data from European Forest Fire Information System (EFFIS) WildFire Risk, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

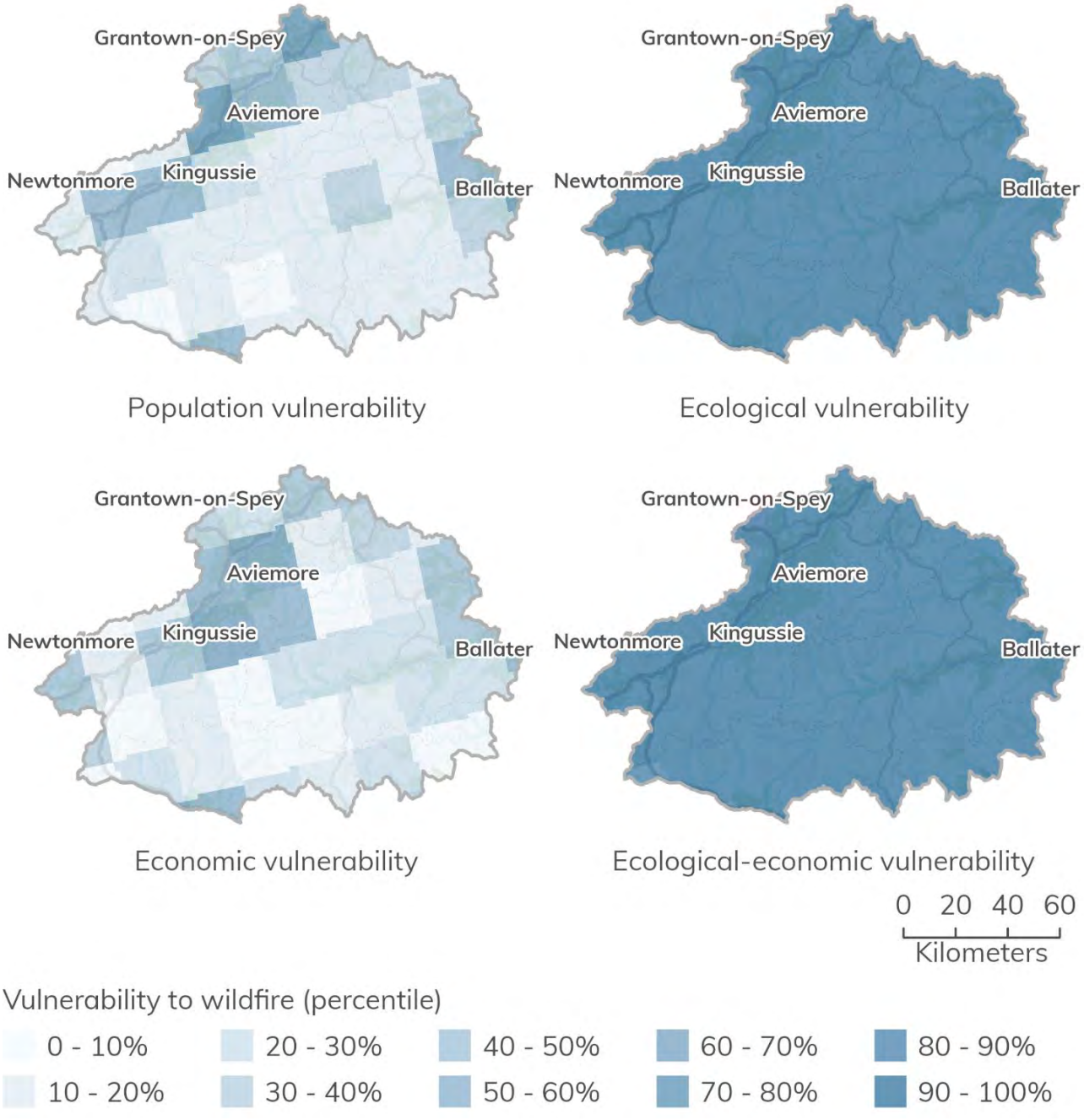


Figure 8 Aggregated index of wildfire risk in terms of population, ecological, economic and ecological-economic vulnerability. Data from European Forest Fire Information System (EFFIS) WildFire Risk, 2025. CNPA © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The Scottish Fire and Rescue Service have provided details of recorded outdoor incidents within the Cairngorms National Park for the period from 2010 until late 2023 (Figure 9). The Scottish Fire and Rescue Service class a wildfire as one resulting in over 1,000 sqm of burned area. For this purpose, outdoor incidents have been those recorded

using the Scottish Fire and Rescue Service categories of 'grassland, woodland and crops', 'other outdoors (including land)' and 'refuse fires'. Figure 9 shows that although there have been fluctuations in the number of wildfires reported each year in the National Park the overall trend is of an increasing number between 2010 to 2023.

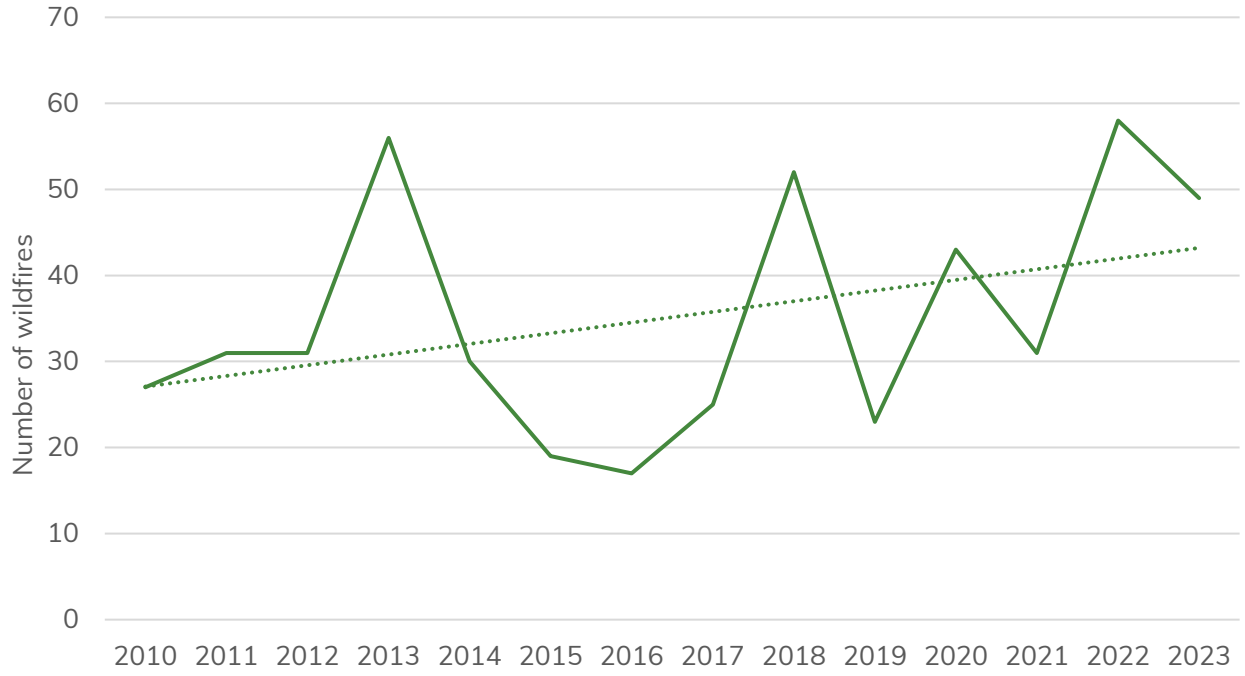


Figure 9 Annual distribution of fires in the Cairngorms National Park from 2010 to 2023. Scottish Fire and Rescue Service, 2025.

The total number of wildfires recorded in the National Park from 2010 to 2023 was 492. The majority of the wildfires in the National Park occur in the summer season (from June to August) accounting for 42% (208) of all fires from 2010 to 2023 (Figure 10). Spring saw the second largest number of recorded fires at 38% (186) from 2010 to 2023. For the period (2010 to 2023) there were also 66 (13%) fire in the autumn (September to November) and 32 (7%) recorded in winter (December to February). Looking at the monthly distributions for wildfires in the National Park (Figure 11), 92 fires were recorded in July and 89 in April from 2010 to 2023.

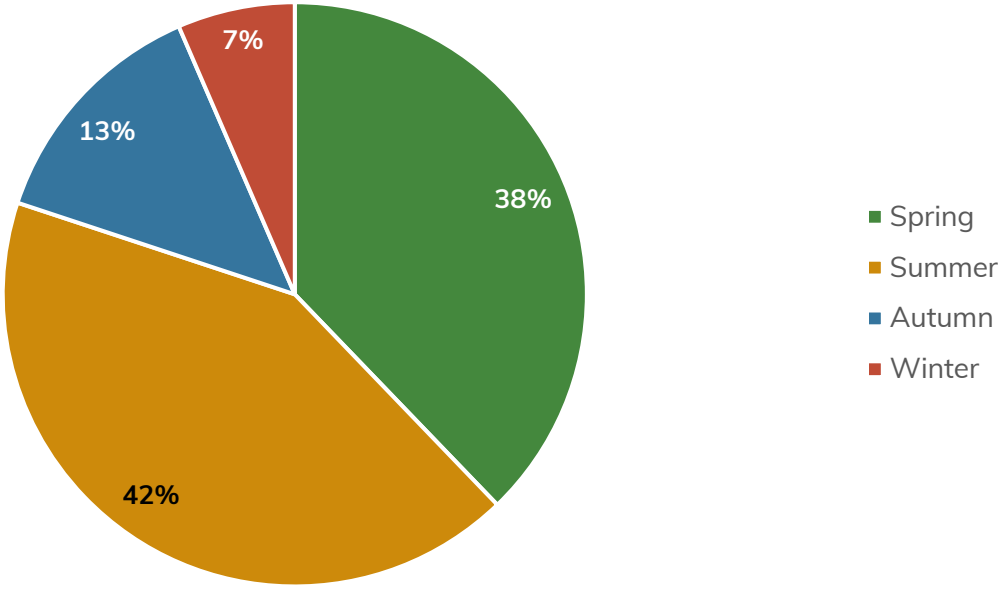


Figure 10 Seasonal distribution of fires in the Cairngorms National Park, from 2010 to 2023. Scottish Fire and Rescue Service, 2025.

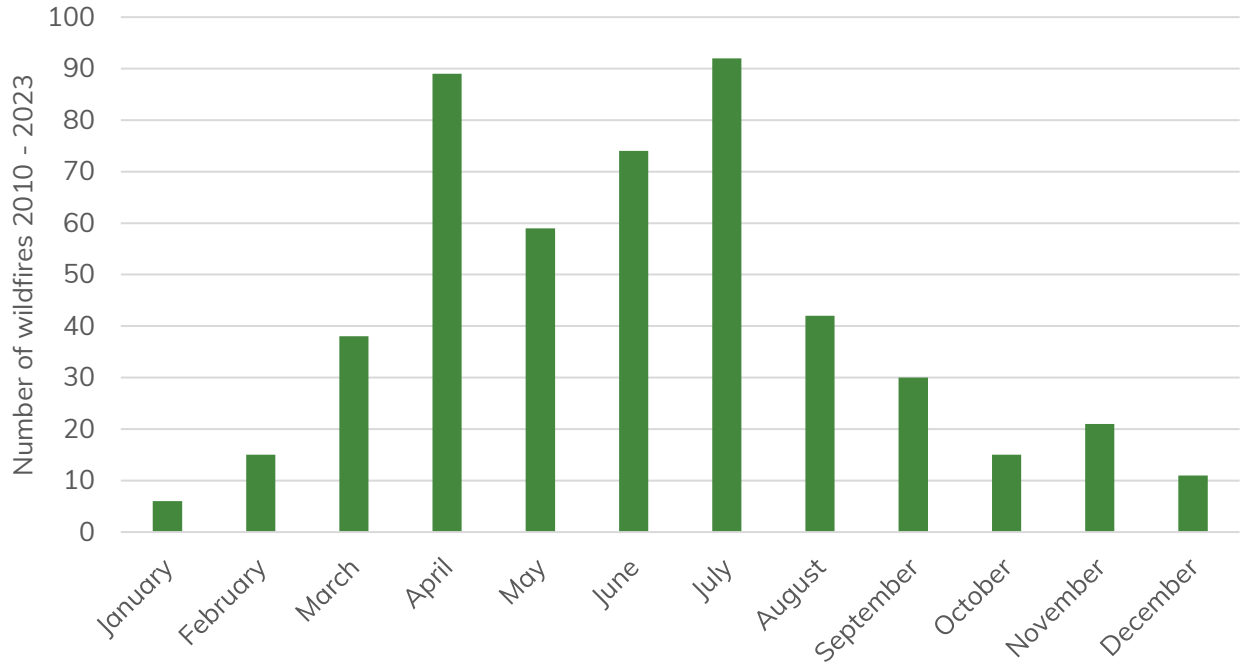


Figure 11 Monthly distribution of fires in the Cairngorms National Park from 2010 to 2023. Scottish Fire and Rescue Service, 2025.

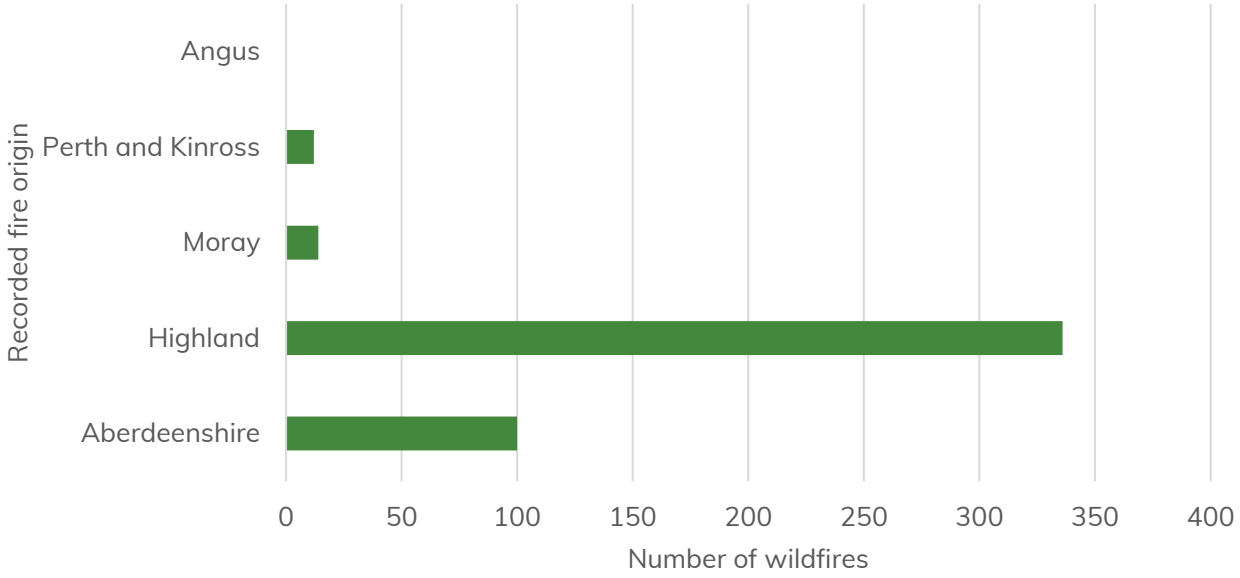


Figure 12 Geographical distribution of wildfires by local authority area from 2010 to 2023. Scottish Fire and Rescue Service, 2025.

74% of the recorded wildfires in the National Park from 2010 to 2023 occurred in the Highland Council area in the National Park (Figure 12) accounting for 366 fires. 20% (100) were in the Aberdeenshire Council area, 3% (14) in the Moray Council area, 2% (12) in the Perth and Kinross Council area and no fires were recorded in the Angus Council area within the National Park.

Data on wildfires in the Cairngorms National Park is also collected by the National Park Authority Ranger Service (Figure 13, Figure 14 and Figure 15). They collect patrol data on wildfires, both active fires and fire remains.

The peak months for active and recorded fire remains (June. July and August) coincide with the warmest months and the busiest visitor months (Figure 13). In terms of recorded active fires and fire remains , the highest incidences are recorded near Aviemore, in the Glenmore area, which is a visitor hotspot (Figure 14 and Figure 15).

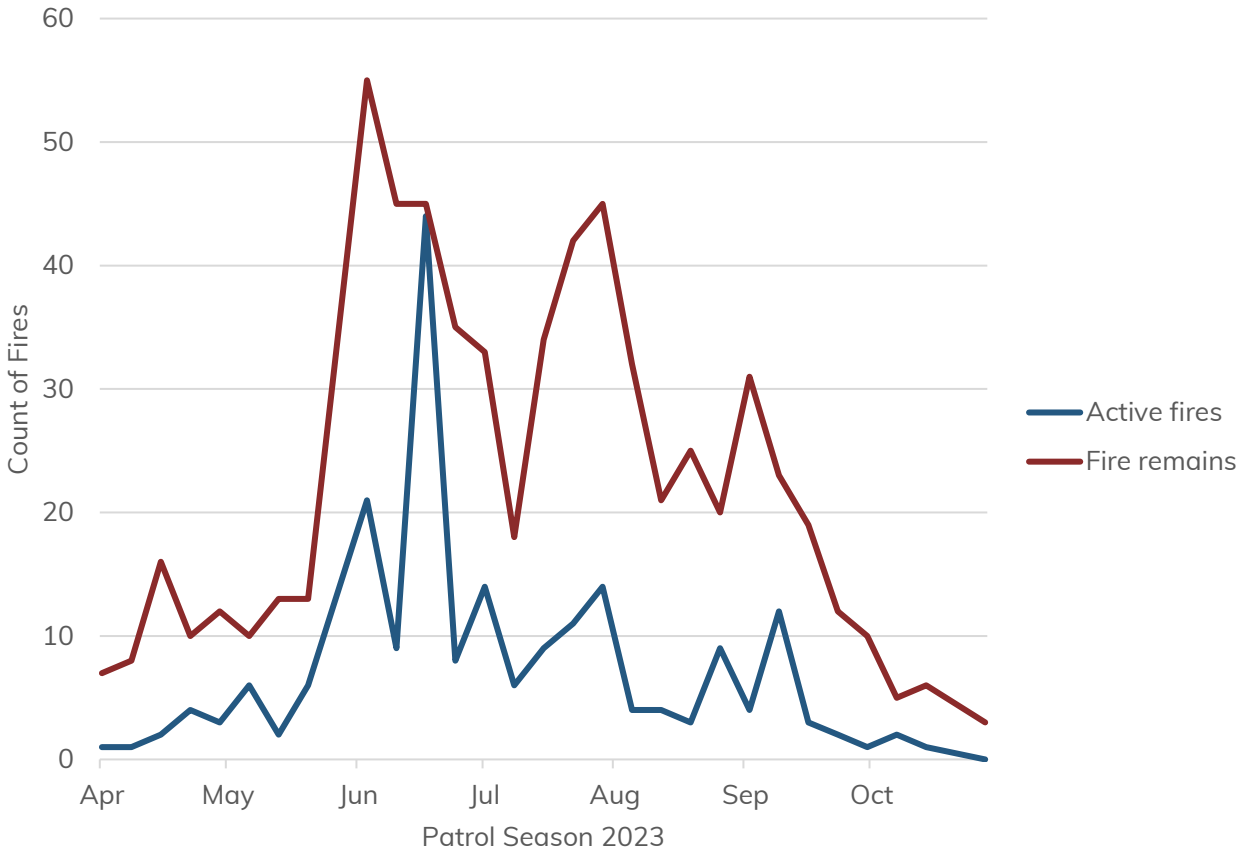


Figure 13 Number of active fires / fires remains recorded by month in the Cairngorms National Park in 2023 by the National Park Authority Ranger Service.

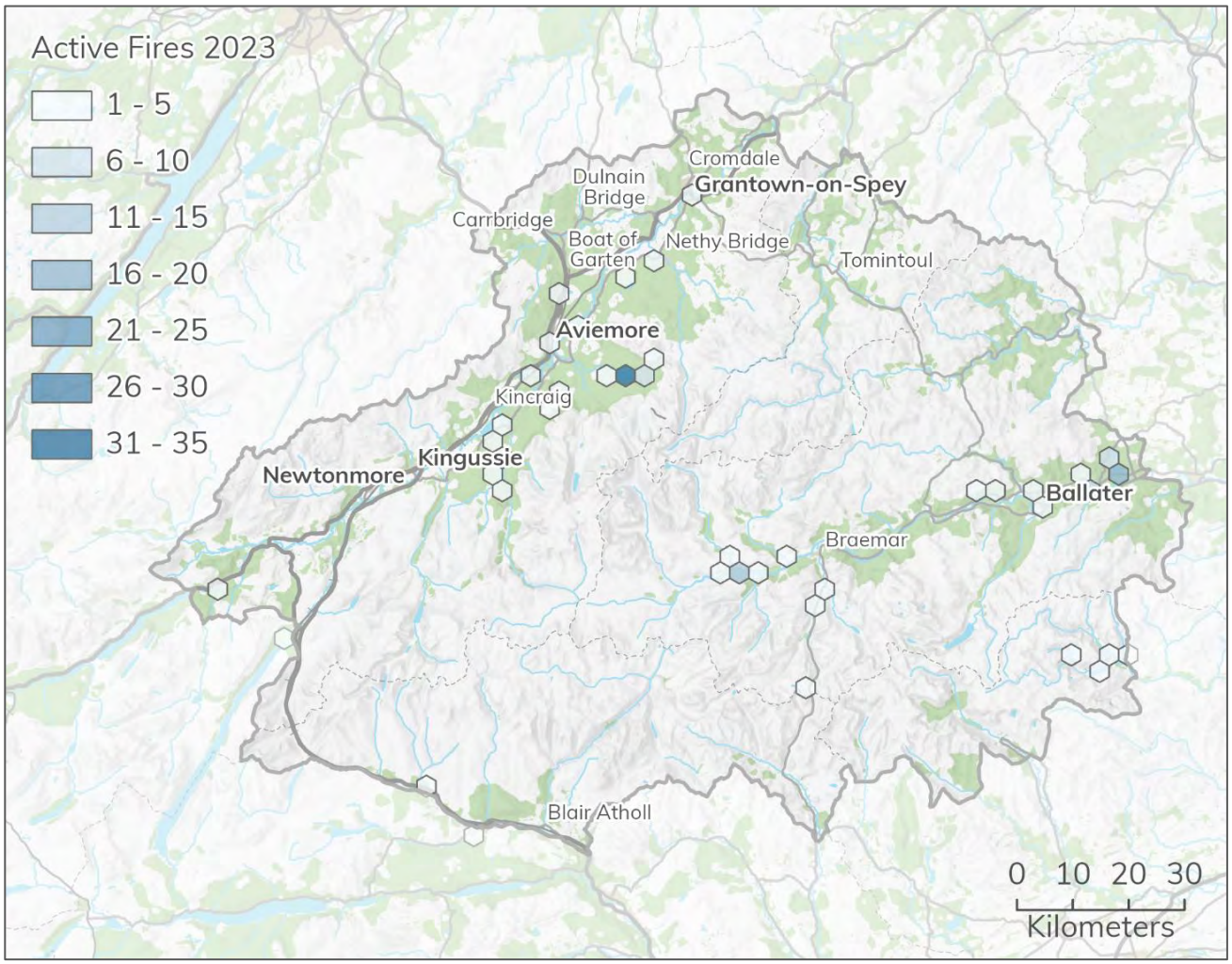


Figure 14 Map showing a count of active fires recorded in 2023 in the Cairngorms National. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

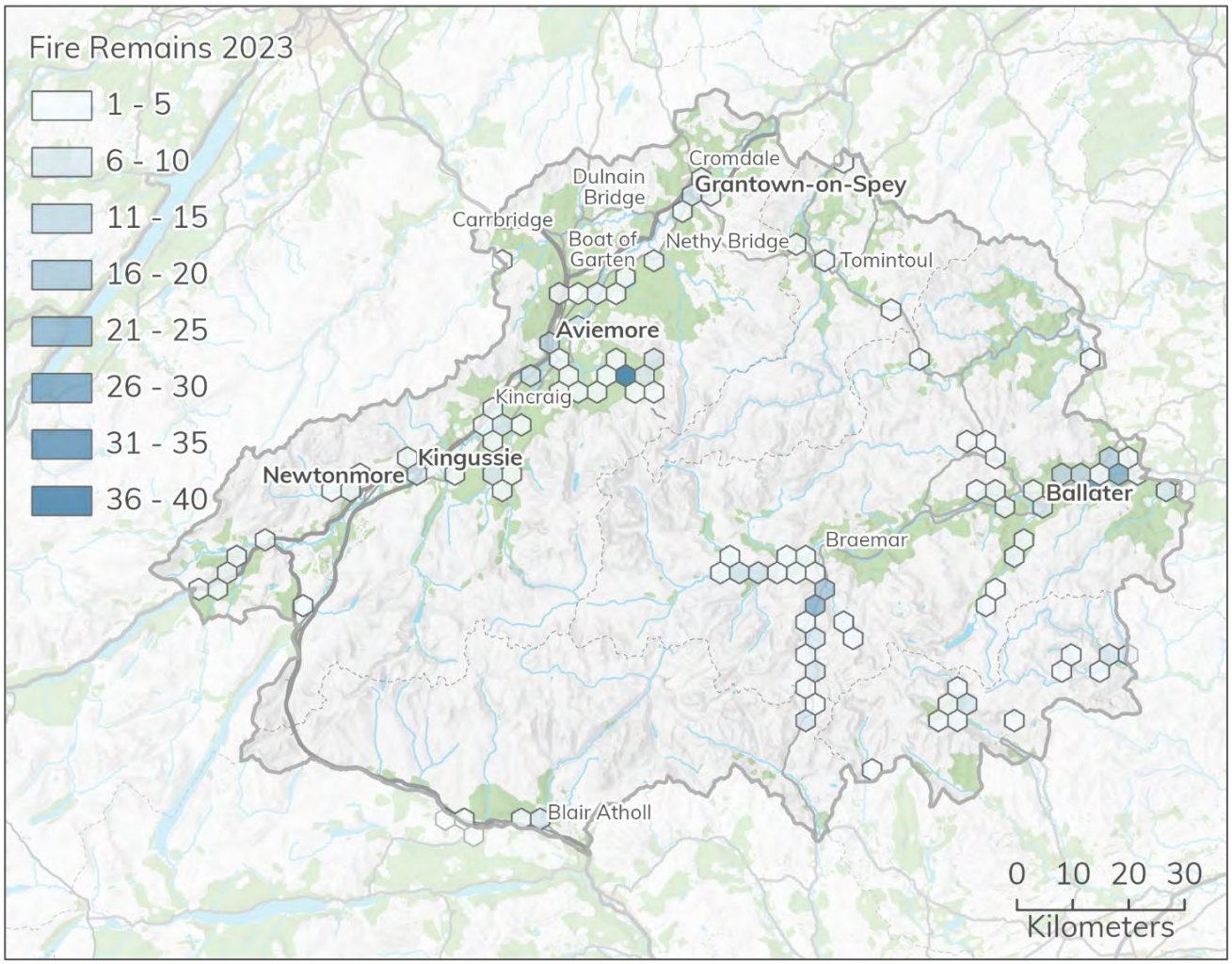


Figure 15 Map showing a count of fire remains recorded in 2023 in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

Other impacts of wildfires

There also economic costs to the increasing prevalence of wildfires. A report by Paul Watkiss Associates for Highland Adapts[14] states that the current costs of wildfires in Highland are estimated at £0.3 billion / year, driven by the high price of carbon emissions from forest and peatland wildfires. It goes on to note that the costs could potentially increase fourfold by the mid-century due to the combination of increased risk from climate change and higher carbon costs.

[14] Highland Climate Risk & Opportunity Assessment Economic Analysis – Summary Regional Report , which is available here: https://highlandadapts.scot/wp-content/uploads/2022/02/Summary-Regional-Report-HCROA.pdf

Wildfires also increase the release of Carbon dioxide equivalent (CO_2e) emissions and PM 2.5 air pollution.

The risk of wildfires is expected to increase due to climate change. While future modelling highlights the highest risk in southern and eastern England, the most significant shifts may occur in northern and western UK regions, where the current threat is lower. Although overall wildfire incidence has shown a slight upward trend, this is less apparent for larger fires. However, projections for hotter and drier conditions indicate a potential rise in both wildfire frequency and severity.

Climate projections for Cairngorms National Park

The report by the James Hutton Institute goes on to set out the key findings in respect of future projections. The report sets out four climate projection scenarios.

Precipitation

All of the four climate projections show similar spatial and temporal patterns of changes in mean monthly precipitation, but with differences in the amounts of changes.

- For the period from 2020 to 2049 the winter months are likely to see large increases (200 – 300%) in mean monthly precipitation, particularly February, but a decrease in August and September (c. 50 – 100%).
- For the period from 2050 to 2079: The pattern of wetter winters and drier summers continues.
- There is projected to be large variation in precipitation responses in spring months, with some areas of the National Park potentially seeing decreases in precipitation whilst other areas may experience increases.

It should be noted that there considered to be substantial uncertainty regarding average precipitation projections, with UKCP18 considering that precipitation is less correlated to emission levels than temperature.

Temperature

With respect to the maximum and minimum temperatures, the James Hutton Institute predict that all areas of the National Park are projected to experience increases in mean monthly maximum and minimum temperature. This is, however, variable between the four climate projections in terms of the amount of temperature increase and when in the year these occur.

In terms of annual mean increases in temperature the UK Climate Projections (UKCP18) provide data for the Braemar area in the Cairngorms National Park. Probable projections available from the UK Climate Projections (UKCP18) website (https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index) are available for high, medium, and low emission scenarios, with the latest projections down to a local resolution of 2.2 km^2. However, the degree of uncertainty changes with the scale of resolution, so the data used for the scoping baseline is for the 25km^2 area including Braemar.

This is helpful as it increases the reliability of the projections and includes the Braemar weather station used to record the actual climatic changes shown since the 1960s, allowing comparisons to be made. The lack of clarity around the impact of feedback loops (such as the albedo effect due to a reduction in surface sea ice or methane release from thawing arctic tundra) also increases uncertainty.

From the baseline of 1981-2000, by 2050 under the medium emissions scenario the central estimate for Braemar is for a 1.2°C increase in mean annual temperature (Figure 16). However, the 5th percentile estimate is for a minor decrease of -0.2°C & the 95th percentile estimates is for an increase of 2.7°C (Figure 17), suggesting significant uncertainty. The medium emissions scenario also predicts an accelerated temperature increase after 2050.

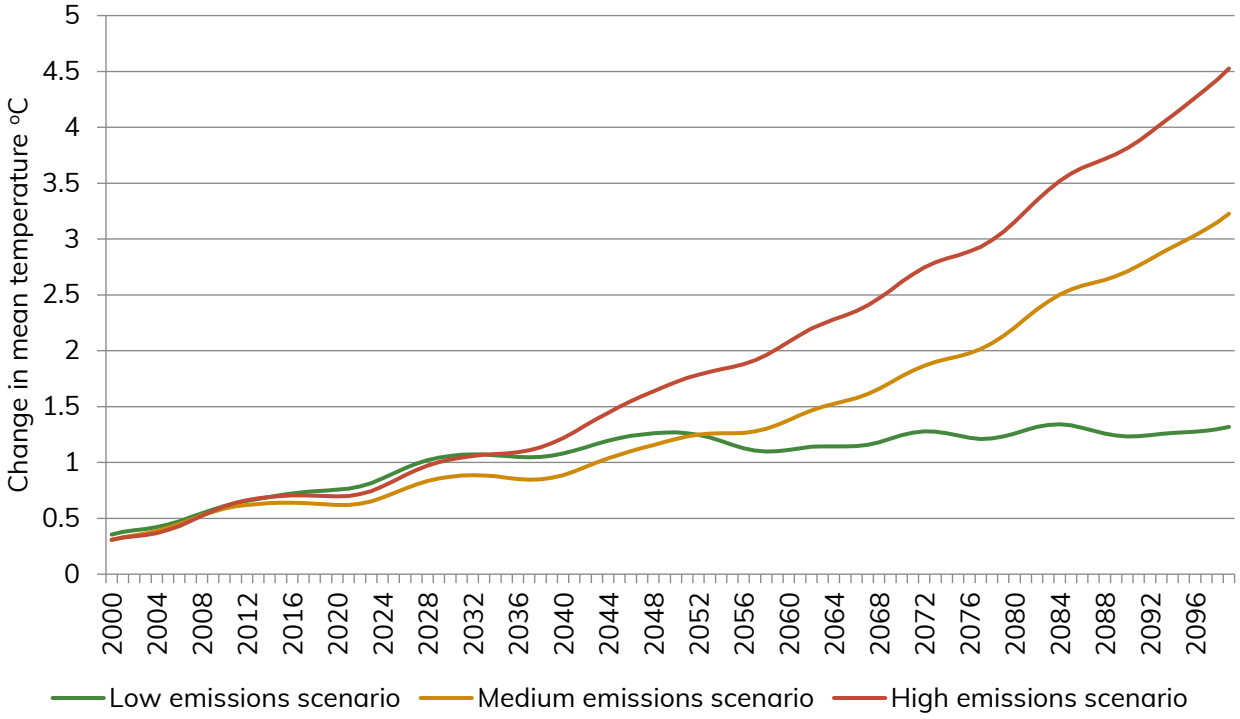


Figure 16 UKCP18 central estimates for mean change in annual temperature for grid box number 612, Braemar area. Met Office 2022.

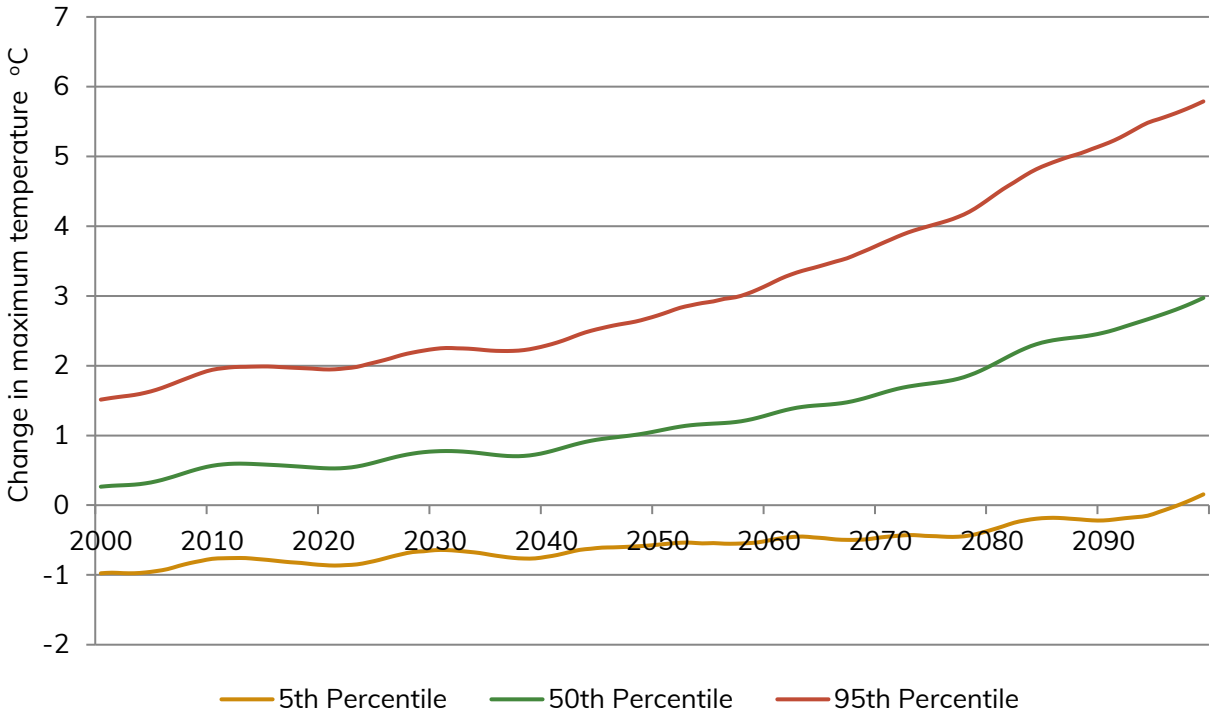


Figure 17 UKCP18 central, 5th and 95th percentile estimates for mean change in annual temperature for a medium emissions scenario (baseline 1981-2000, RCP 6.0) for area 612, Braemar. Met Office 2022

Evapotranspiration

All four of the climate projections by the James Hutton Institute indicate an increase in evapotranspiration for March, April and May. Higher elevation areas may experience the most change from the 1960 to 1989 baseline period. There is a spatially varied response for the summer months, with higher elevation areas potentially experiencing increases in evapotranspiration.

Climatic water balance

All four projections by the James Hutton Institute indicate an increase in meteorological water input (positive Climatic Water Balance) for March to May, but varied responses in the summer months and little change for October to January. From October to March, it is projected that the National Park will remain in meteorological water surplus state. All four projections indicate risks of large sections of the National Park shifting from meteorological water surplus to a deficit between April (large spatial variation) through to September.

Snow cover

The Report by the James Hutton Institute puts forward the following predictions regarding snow cover and snowfall:

- Likely to be a decline in snow cover days per year from the 2030s for Aviemore, the Cairngorm Chairlift meteorological station and Ptarmigan Restaurant on Cairngorm Mountain. This trend will continue through to the 2080s:
- There will be large variation between years and there are likely to still be some years comparable with past amounts of snow cover, but these will be less frequent.
- These findings are in line with results from the UK Meteorological Office and Inter-governmental Panel on Climate Change.
- Temperatures are projected to continue increasing, with a higher probability of having more days when the temperature is above a threshold of 2°C for snow formation.
- There is an increasing probability of more heat energy input on ground surfaces with an increasing snow melting affect.
- Snow is complex to model and project in the future, especially in temperate regions like Scotland with its strong maritime (Atlantic Ocean) climatic influence. Changes in

seasonal variability will depend on how air flow over the UK (for example location of the jet stream) is affected by global scale ocean-atmosphere circulation processes. The findings are a good indicator of future trends, but there remain substantial uncertainties at Cairngorm Mountain that need to be considered in making this a more detailed assessment of future snow cover.

Water scarcity and drought

Meteorological drought is defined on the basis of the degree of dryness (in comparison to a baseline period) and the duration of the dry period and is considered to be region specific since the atmospheric conditions that result in deficiencies of precipitation can be highly variable. Hence, Climatic Water Balance provides a measure of meteorological drought that is relevant to climatic conditions in Scotland.

According to a study by the Centre of Expertise for Waters[15], Scotland's supply of natural water resource is becoming increasingly variable and there is evidence that meteorological and hydrological droughts have become more frequent. There is evidence that water demand in the future may increase in areas, and at times of the year, where supply is projected to decrease. Behavioural responses to the extreme events associated with the climate crisis may serve to exacerbate this if not managed. Further research by the Centre of Expertise for Waters highlights the potential impact of water scarcity on distilleries and agricultural abstractors[16].

The James Hutton Institute produced a report to assess exposure levels of Scotland's natural capital assets, to the threat of meteorological drought expressed by the climatic water balance (difference between precipitation and reference evapotranspiration). The aim of the report is to provide assessments of the exposure of natural capital assets, expressed as mapped habitat types, to meteorological drought for observed (1990 to 2019) and future projected (2020 to 2049 and 2050 to 2079) climatic water balance.

The key messages published in the report include:

[15] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2022_07%20Main%20report%20and%20appendices_2024_04_15_V3_FINAL.pdf

[16] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2023_05_Main_report_and_appendices_FINAL_V2.pdf

- Arable land and to a lesser extent improved grasslands and broadleaf woodlands are the most exposed habitat types to climatic water stress.
- Monthly climatic water balance[17] is overall wetter for seminatural grasslands, heather moorlands, and peatlands, and to a lesser extent conifers.

Climatic heating and cooling

UKCP18 indicates a general pattern of milder, wetter winters and hotter, drier summers, with more pronounced extremes. Energy consumption for buildings is commonly assessed using Heating Degree Days (HDD) and Cooling Degree Days (CDD). Heating degree days measure the duration and degree to which the outdoor temperature falls below a set threshold, typically 15.5°C. In the UK, projected climatic shifts in winter and summer are expected to reduce heating degree days while increasing the number of cooling degree days due to rising summer temperatures and more frequent, intense heatwaves.

High winds

High winds pose a growing threat to Scottish woodlands, with 8.7% of planted coniferous trees at medium to high risk of windthrow, varying between 4% and 10% in the Highlands (ClimateXChange, 2016). UKCP18 projections suggest a modest rise in average windspeed and more frequent winter storms. There is some analysis that the return period for defined extreme events (relative to today) could potentially shorten by 30% to 50% - making what was a 1 in 20-year event more likely to occur every 10 years. Increased rainfall further weakens tree anchorage, heightening risks of windthrow, landslips, and windsnap.

Greenhouse gas emissions

The Cairngorms National Park aims to have net-zero emissions of all greenhouse gases by 2045 or sooner in line with the targets set out in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

Figure 18 shows the total carbon dioxide (CO_2) emissions as carbon in the Cairngorms National Park in 2021. The data from the National Atmospheric Emissions Inventory, shows us that the areas with the highest CO_2 emissions are along the main road transport networks and concentrated around the settlements in the National Park.

[17] Which should be noted does exhibit large seasonal and spatial variation.

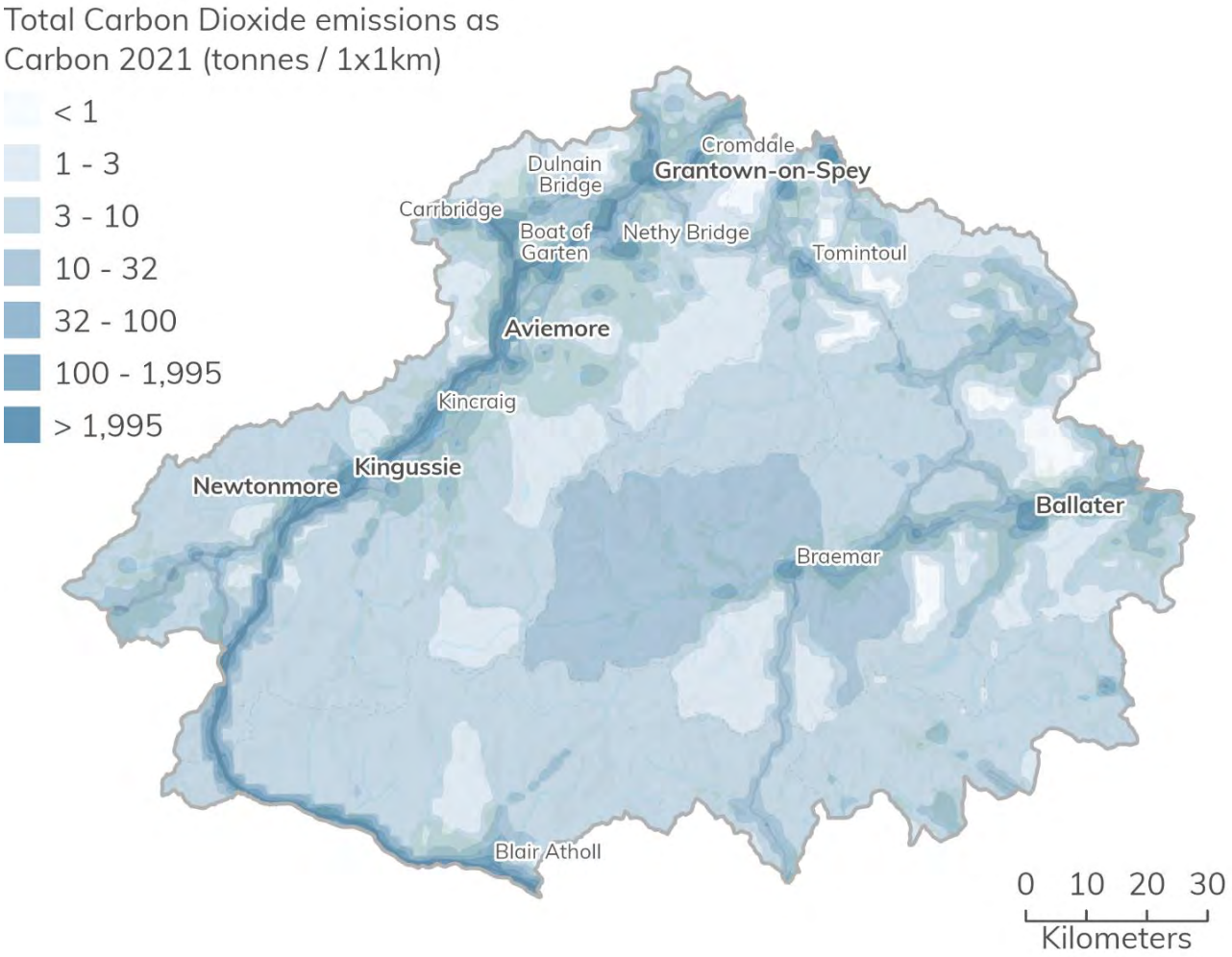


Figure 18 The total carbon dioxide (CO_2) emissions as carbon in the Cairngorms National Park in 2021. Contains data © National Atmospheric Emissions Inventor, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

In 2021, the Cairngorms National Park Authority commissioned Small World Consulting to undertake a greenhouse gas (GHG) emissions and target scenario for the Cairngorms National Park. Most greenhouse gas emissions reporting is undertaken using a production-based methodology that takes account of all emissions that are directly produced within a geographic area. The Small World Consulting methodology is based on a consumption-based emissions model to include as complete a picture as possible of the climate impact of people's lifestyles. This means that the indirect emissions that are embodied in goods and services consumed by resident and visitors within the Cairngorms National Park are also considered. The estimates of industry-related emissions are relatively crude at this point time because of the way that sectors are reported in business data and the geography of business addresses. However, the data

is sufficiently robust for comparison with other areas. Inevitably, there is some overlap in categories of emissions between different sectors, most obviously between land-based businesses and land itself. As carbon monitoring and accounting systems become more accurate and consistent in future, models and assessments will become more precise.

The Small World Consulting Report provides a detailed assessment of greenhouse gas emissions and a potential pathway to net zero. Information on the methodology, data available and limitations of the data is contained within the report which is available here:

- https://cairngorms.co.uk/resource/docs/boardpapers/25112022/221125CNPABdPaper5AA_Annex1_CNPGHGAssessmentReport..pdf

The overall emissions footprint is explained in detail in chapter 5 of the Small World Consulting Report while Figure 19 provides a simple summary. The emissions are reported as the equivalent tonnes of carbon dioxide (tCO_2e). Of the total emissions, 10% have been attributed to Industry, 13% from visitors inside the National Park, 35% from visitors to or from the Cairngorms National Park and 42% from existing residents. Residents' emissions were estimated at 0.277 million tCO_2e (Figure 19), and visitors' emissions – from time spent in the National Park and during travel to and from – were estimated at 0.322 million tCO_2e. At the time of the report, the resident population was estimated to be at 19,211, compared to around 2.1 million visitors per year (both single-day and overnight). A full breakdown of these figures is provided Appendices 10.5 and 10.6 of the Small World Consulting Report. The data shows that the typical footprint resident of the National Park resident is 16.8% higher than that of the average UK resident.

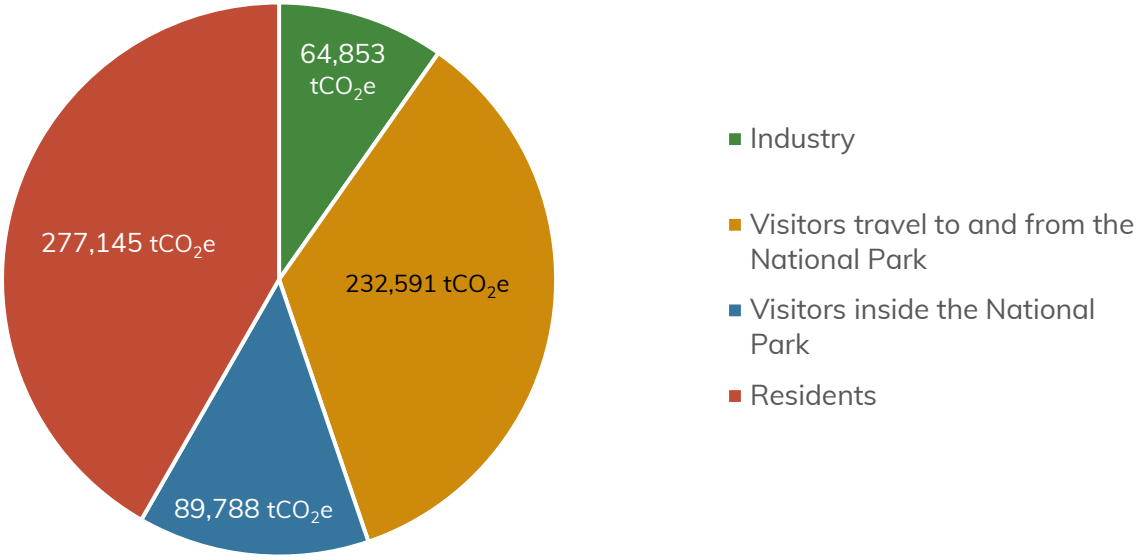


Figure 19 Estimated greenhouse gas emissions for the Cairngorms National Park (tCO_2e). Small World Consulting, 2022.

National Park residents' emissions totalled 0.277 million tCO_2e in 2019 (Figure 20), with the highest emissions arising from the Food and Drink (25%), Vehicle Fuel (15%) and Household Fuel (9%) categories (followed closely by Health, Education, Other Public Services and Administration). Greenhouse emissions produced by visitors to the Cairngorms totalled 0.322 million tCO_2e in 2019, comprised of 232,591 tCO_2e linked to travel to and from the National Park, and 89,788 tCO_2e produced while in the National Park. The data presented in the Report on visitor travel to and from the National Park indicates that Greenhouse gas emissions are dominated by Vehicle Fuel (55%) and Personal Flights (26%), with only 5% arising from the remainder of public transport. Of the footprint of visitors while in the National Park, 42% is linked to Food and Drink, while Accommodation (Non-Home) – excluding Food – accounts for 21%.

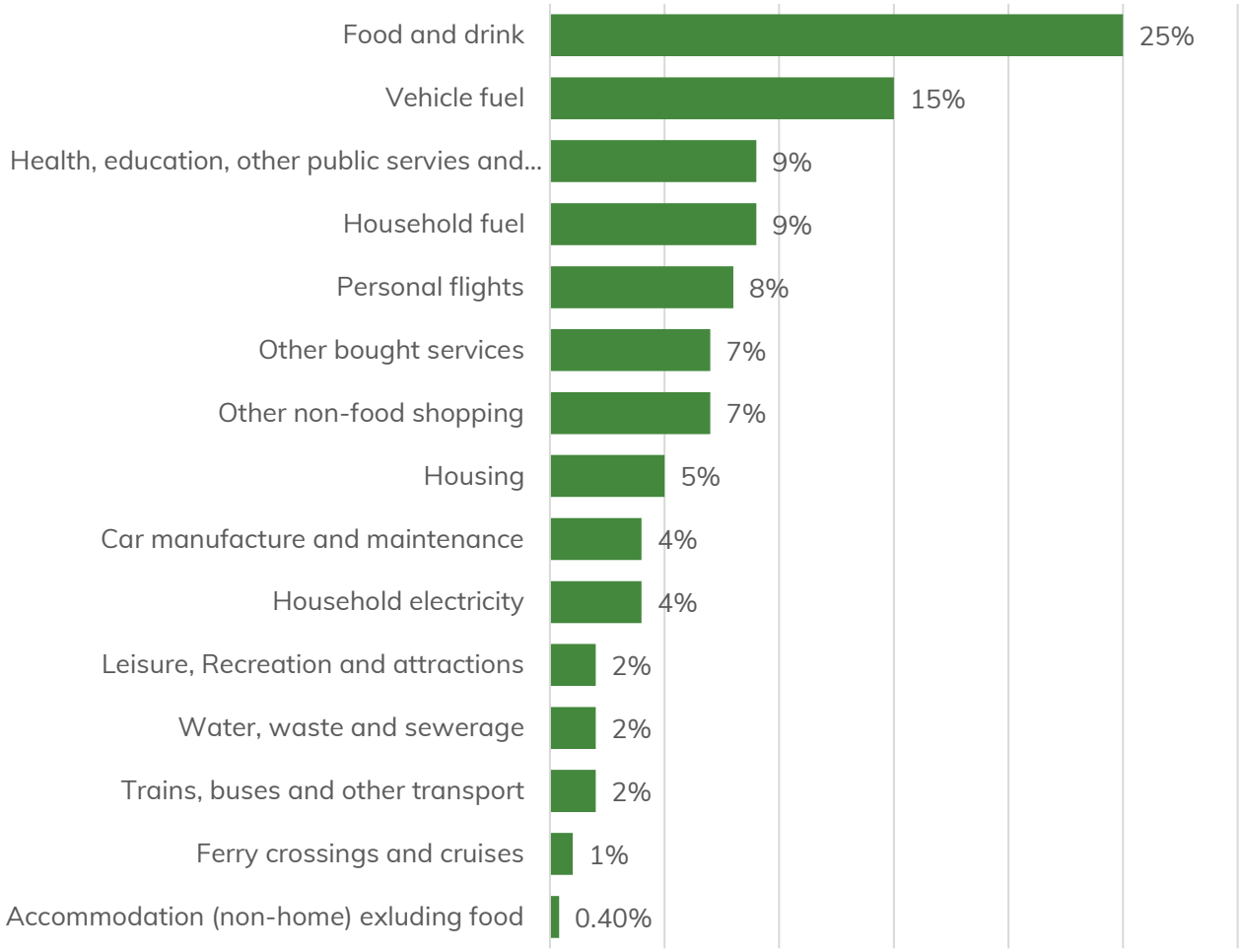


Figure 20 Proportional contribution of greenhouse gas emissions from residents in the Cairngorms National Park in 2019. Small World Consulting Report, 2022

Reporting shows carbon footprint from food and drink in the Cairngorms is considerable: for residents it is 68,360 tCO_2e (25% of residents' total), and for visitors it is 37,920 tCO_2e representing 42% of visitors' footprint[18] (Figure 21). "Buy local, eat local" has become a common aspiration among the more environmentally aware, along with eating seasonal fruit and vegetables.

[18] Please refer to Appendices 10.5 and 10.6 of the Small World Consulting Report for further details.

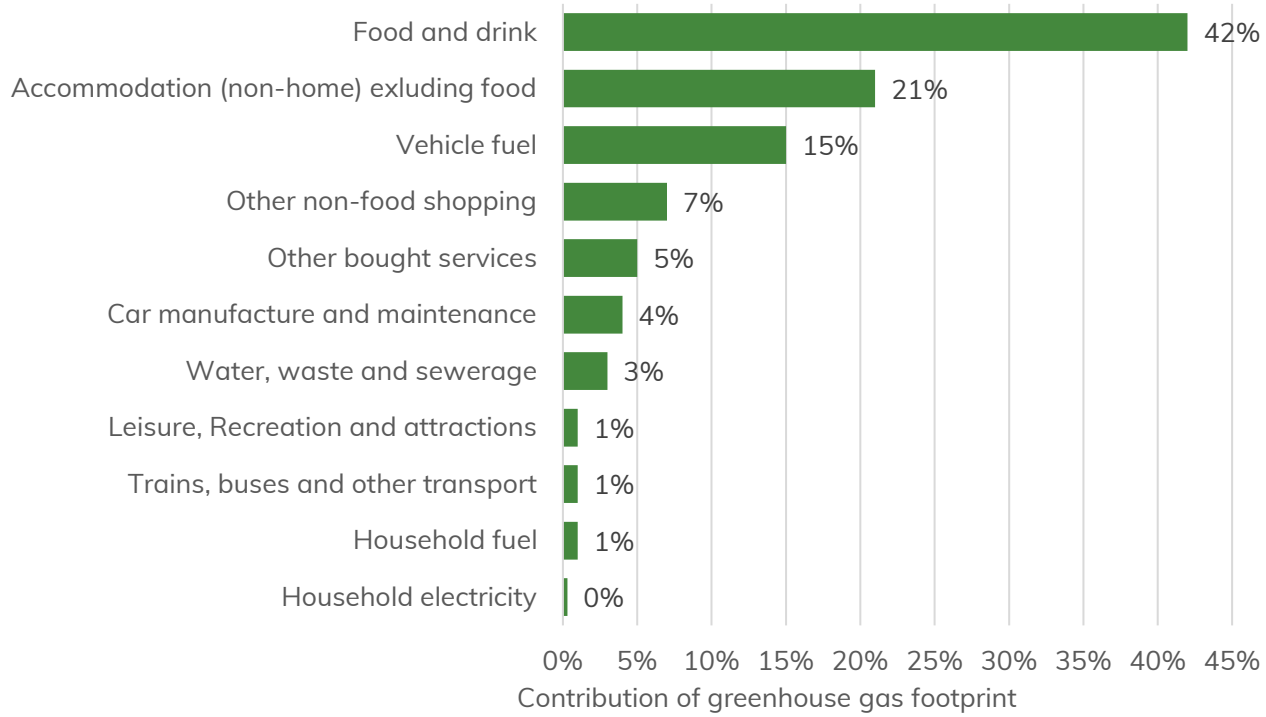


Figure 21 Proportional contribution of greenhouse gas footprint from visitors while in the Cairngorms National Park in 2019. Small World Consulting Report, 2022.

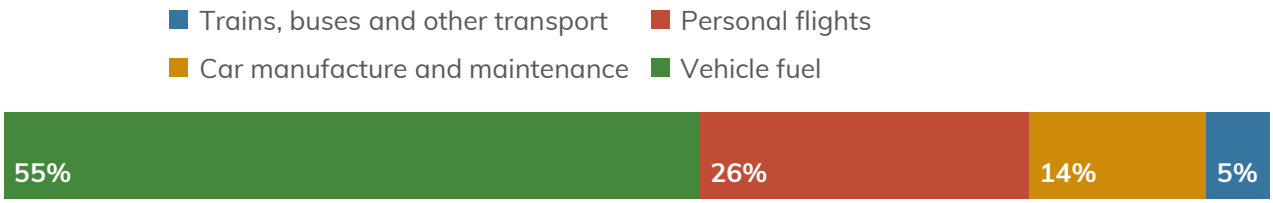


Figure 22 Proportional contribution of greenhouse gas footprint from visitors while travelling to and from the area in the Cairngorms National Park in 2019. Small World Consulting Report, 2022.Travel-related emissions

The Small World Consulting Report showed that travel produces the majority of the greenhouse gas footprint of Cairngorms visitors: 250,192 tCO_2e, including all emissions from travel to and from the National Park, and 20% of emissions while in the National Park (78% of the total footprint of the visitors). The majority of this travel footprint comes from fuel burned in private vehicles (140,480 tCO_2e; 44% of visitors' total); personal flights (61,732 tCO_2e; 19%); vehicle manufacture and maintenance, (11%); and a small amount from trains, buses and other transport (4%). Travel accounts for 30% of the residents' greenhouse gas footprint (Figure 20). In considering residents' travel the

Report looked at vehicle fuel (40,769 tCO_2e; 15% of residents' footprint); personal flights (23,171 tCO_2e; 8%); vehicle manufacture and maintenance (9,974 tCO_2e; 4%); trains, buses and other transport (6,333 tCO_2e; 2%); and ferry crossings and cruises (3,438 tCO_2e; 1%)[19]. Car travel is the single largest contributor to the overall footprint of the Cairngorms National Park (38% of the combined footprint of the residents and visitors).

The remainder of the residents' footprint reported by Small World Consulting consisted of:

- Public services including health and education (25,679 tCO_2e; 9% of residents' footprint).
- Other bought services (18,286 tCO_2e; 7%).
- Other non-food shopping (18,317 tCO_2e; 7%).
- Leisure, recreation and attractions (4,763 tCO_2e; 2%).
- Waste, water and sewerage (4,173 tCO_2e; 2%).

The remainder of the visitors' emissions arose from:

- Water, waste and sewerage (2,847 tCO_2e; 3% of the in-Park footprint).
- Other non-food shopping (5,749 tCO_2e; 6%).
- Other bought services (4,471 tCO_2e; 5%).
- Leisure, recreation and attractions (1,184 tCO_2e; 1%).

[19] Please refer to Appendices 10.5 of the Small World Consulting Report for further details

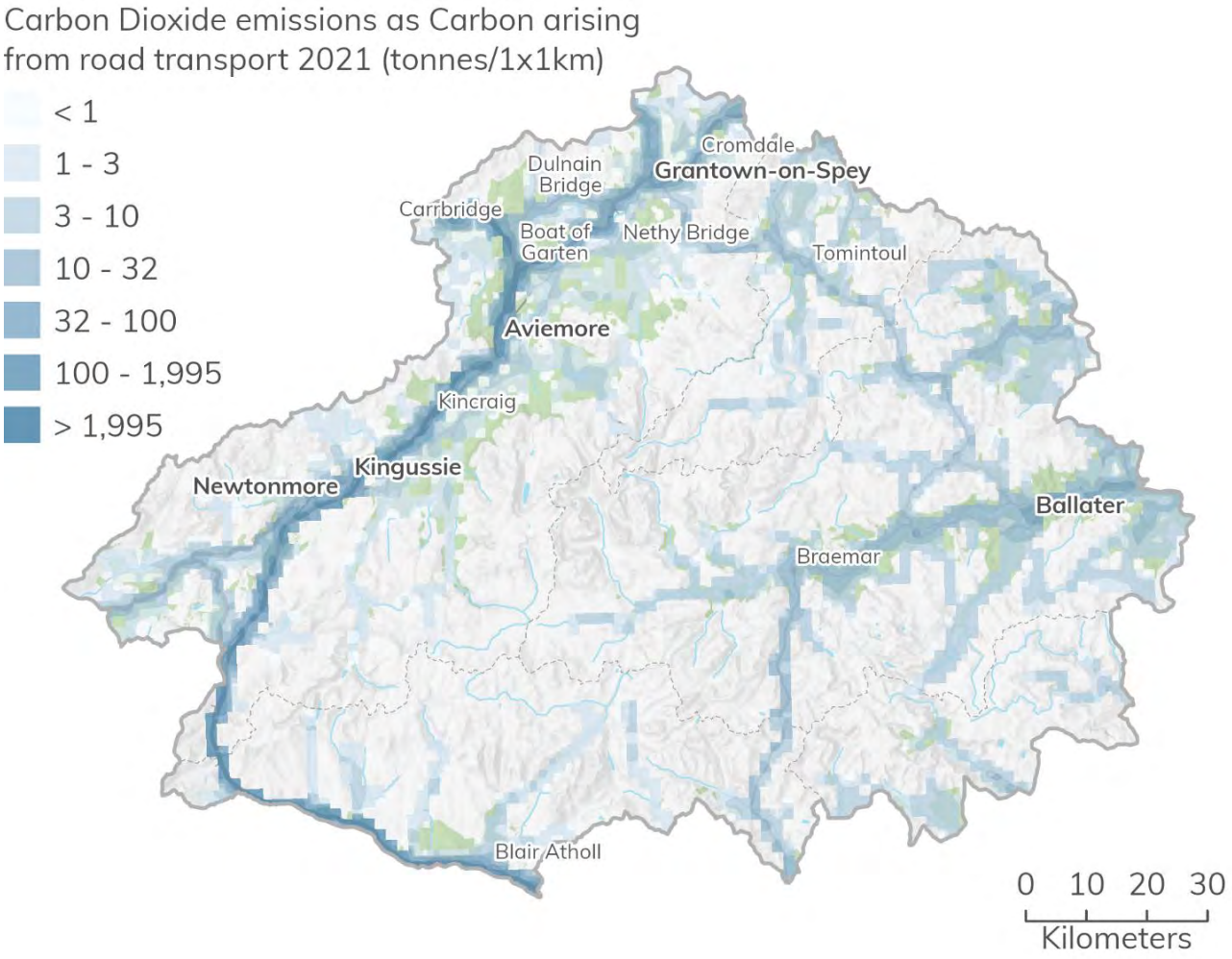


Figure 23 The total CO_2 emissions as carbon arising from transport in the Cairngorms National Park in 2021 . Contains data © National Atmospheric Emissions Inventory, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Figure 23 shows the total CO_2 emissions as carbon arising from transport in the Cairngorms National Park in 2021. The data from the National Atmospheric Emissions Inventory, shows us that the areas with the highest CO_2 emissions are along the main road transport route of the A9 that enters the National Park from the south near Blair Atholl and exists north of Carrbridge. The A9 is a major trunk route in the Highlands, connecting Perth with Inverness, and although a proportion of the use will be local and visitor use - a significant proportion will be vehicles passing through the National Park. The A95 from Aviemore to Cromdale that's goes on to Keith is also particularly bad in terms of total CO_2 emissions as carbon arising from transport. The A95 is a key route used by locals year-round connecting many of the settlements in the Northeast of the Highland area (the most populous area) of the National Park. Additionally, the Ballater

Road that connects Ballater to Dinnet also has higher emissions. This is used by locals year-round, but visitor use also make a significant contribution, given Ballater's significance in terms of tourism.

In terms of residents per capita greenhouse gas emissions, reported by Small World Consulting (Figure 24), for transport related categories the residents in the National Park have higher per capita greenhouse gas emissions than the UK average. The most significant difference in the transport categories is within the transport fuel emissions which are 0.54 tCO_2e higher on average for residents in the National Park (Figure 24).

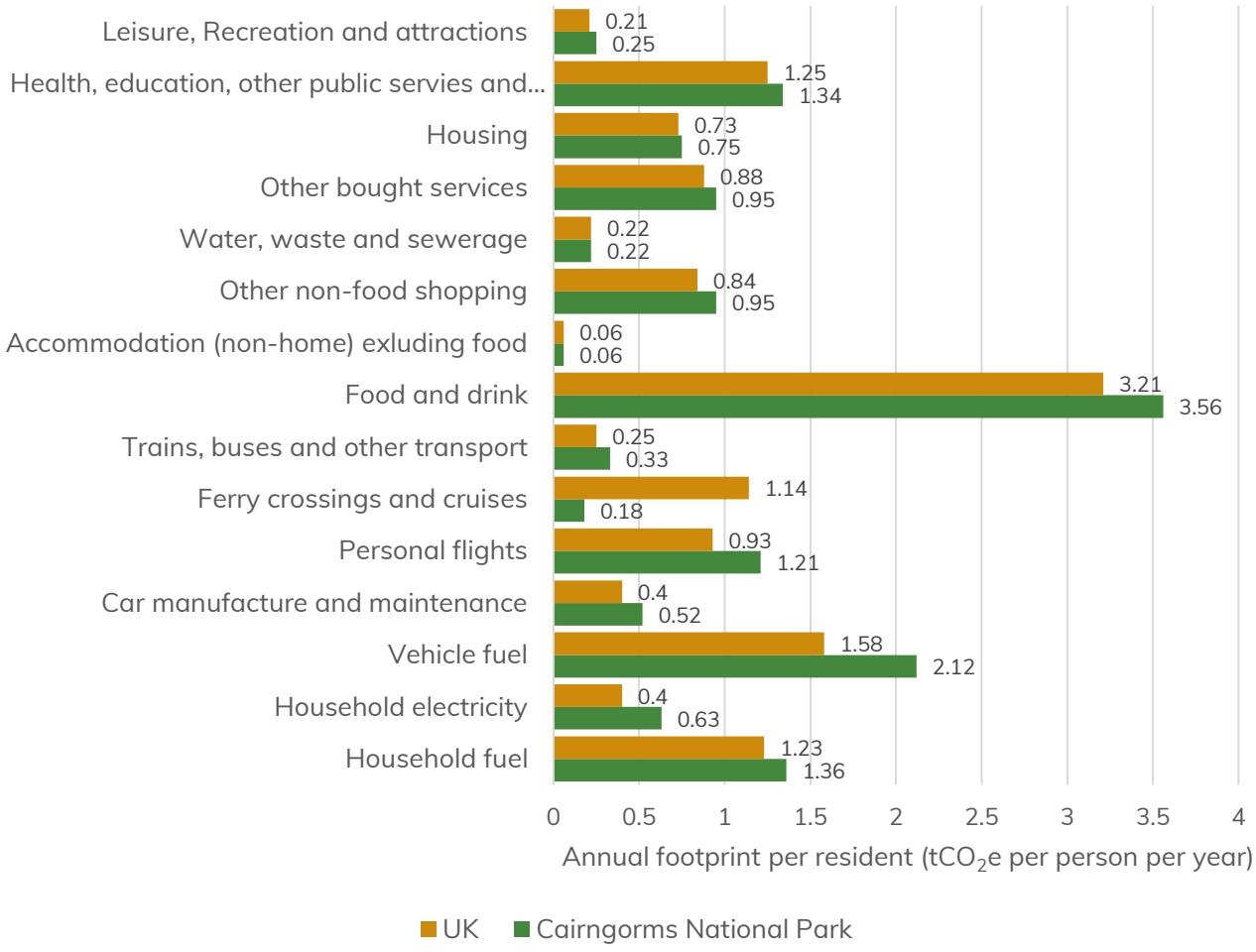


Figure 24 Per resident per capita greenhouse gas footprints in the Cairngorms National Park compared to the UK average. Small World Consulting, 2022.

In the Cairngorms National Park, estimated total through-traffic emissions from cars, buses, motorbikes, vans and lorries was reported as 161,209 tCO_2e (this data is not included in the residents', visitors' or industry footprints). Through-traffic refers to

vehicles passing through the National Park without visiting, regardless of their origin and destination.

Emissions from industry

The Report from Small World Consulting calculated the total industry-related greenhouse gas emissions in the National Park to be 64,853 tCO_2e. Figure 25 highlights agriculture, forestry and fishing as the largest source of GHG emissions (19,356 tCO_2e; 30%), followed by accommodation and food services (10,305 tCO_2e; 16%) and construction (7,224 tCO_2e; 11%)[20]. Industry-related flights are estimated to account for 9,754 tCO_2e of the total footprint but are not separately categorised.

[20] Please refer to Appendices 10.7.2 of the Small World Consulting Report for further details.

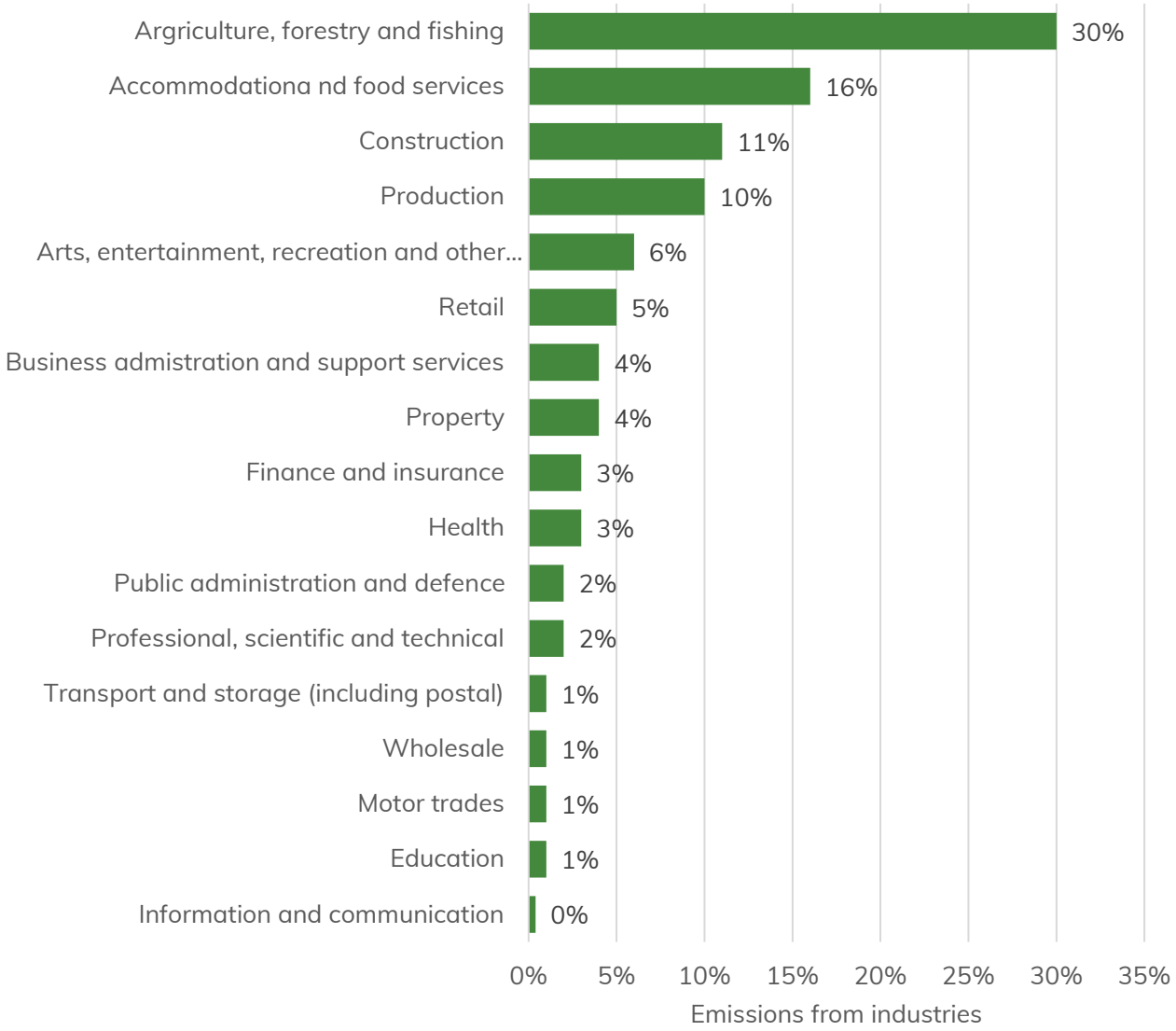


Figure 25 A proportional estimate of emissions from industries within the Cairngorms National Park and their supply chains (scopes 1, 2 and upstream scope 3), provided by Small World Consulting, 2022.

Agriculture

The largest industry for greenhouse gas emissions noted in the Small World Consulting Report is Agriculture accounting for 30% (19,356 tCO_2e) of all industry related emissions in the National Park. The Report makes a number of recommendations reflecting the Sixth Carbon Budget (2020) which include transitioning to low-carbon farming practices, and soil improvement strategies, changes to agriculture waste and manure management.

Other recommendations in the Report include moving some production to greenhouses and vertical urban farms, collectively referred to as indoor horticulture, which the Report states is likely going to be required to make the UK self-sufficient in terms of food while enabling large-scale nature recovery programmes.

Accommodation and food services

The second-largest industry for greenhouse gas emissions was reported as being accommodation and food services accounting for 16% of all industry related emissions (10,304 tCO_2e), so there is a considerable opportunity for this sector to reduce its emissions. The largest opportunity for this sector to reduce its carbon footprint would be a reduction in energy use.

Construction

The Report by Small World Consulting estimates that construction is the third-largest greenhouse gas-emitting industry in the Cairngorms National Park with 11% (7,224 tCO_2e) of total industry emission. This aligns roughly with the UK as a whole, which in 2020 was reported at 12% of UK industry emissions.

Energy only industry analysis

This section looks at a subset of the industry carbon footprint estimate provided by Small World Consulting. Energy is estimated to make up 48% of emissions from industry (31,334 tCO_2e). Figure 26 shows the breakdown of industry emissions from electricity and fuels for the Cairngorms.

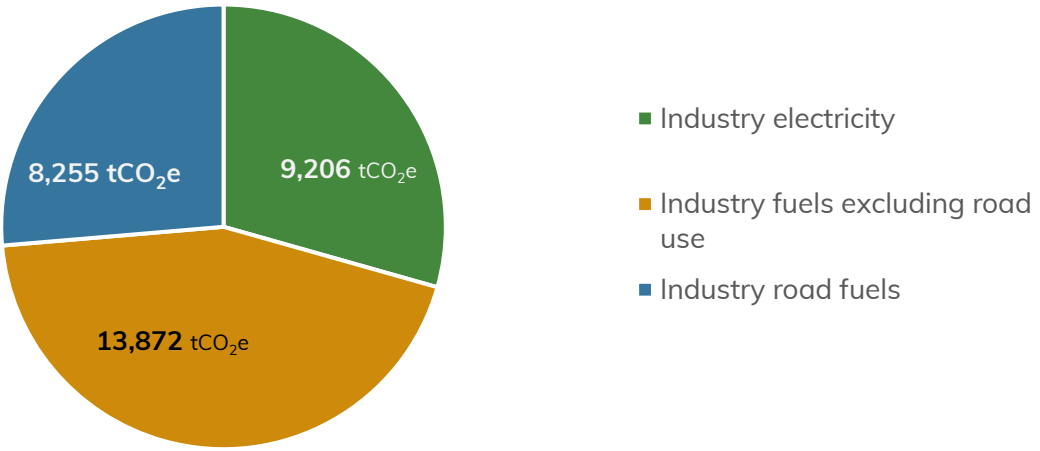


Figure 26 Breakdown of estimated industry emissions from electricity and fuels for the Cairngorms National Park. Small World Consulting, 2022.

Benchmarking annual industry footprint in the National Park with UK averages

The Report offers a comparison of the carbon footprint in the Cairngorms National Park and the UK as a whole. The results (Figure 27) show higher-than-national average figures for: agriculture, forestry and fishing, accommodation and food services, and arts, entertainment, recreation, and other services.

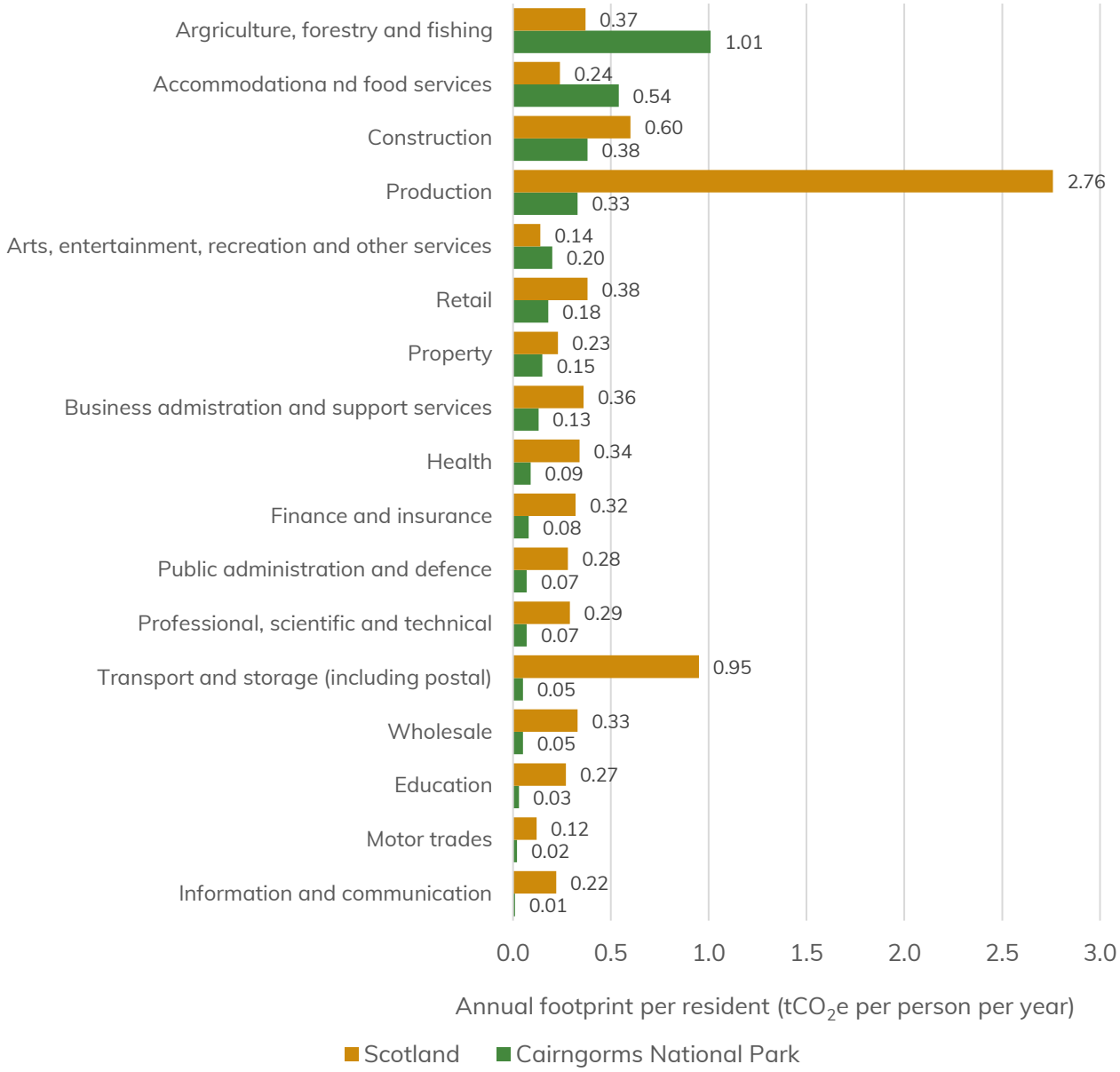


Figure 27 Estimated greenhouse gas emissions from industry in the Cairngorms National Park and in the UK, by sector. Small World Consulting, 2022.

Combined emissions from commercial, institutional, residential and agriculture

Figure 28 shows the combined CO_2 emissions as carbon arising from commercial, institutional, residential and agriculture in the Cairngorms National Park. The data is from National Atmospheric Emissions Inventory. The majority of the recorded emissions are located in and around settlements accounting for the residential and commercial contribution. There is little agriculture in the National Park, with farming mainly confined to lowland valleys and straths, as seen by the areas of elevated emissions out with settlements.

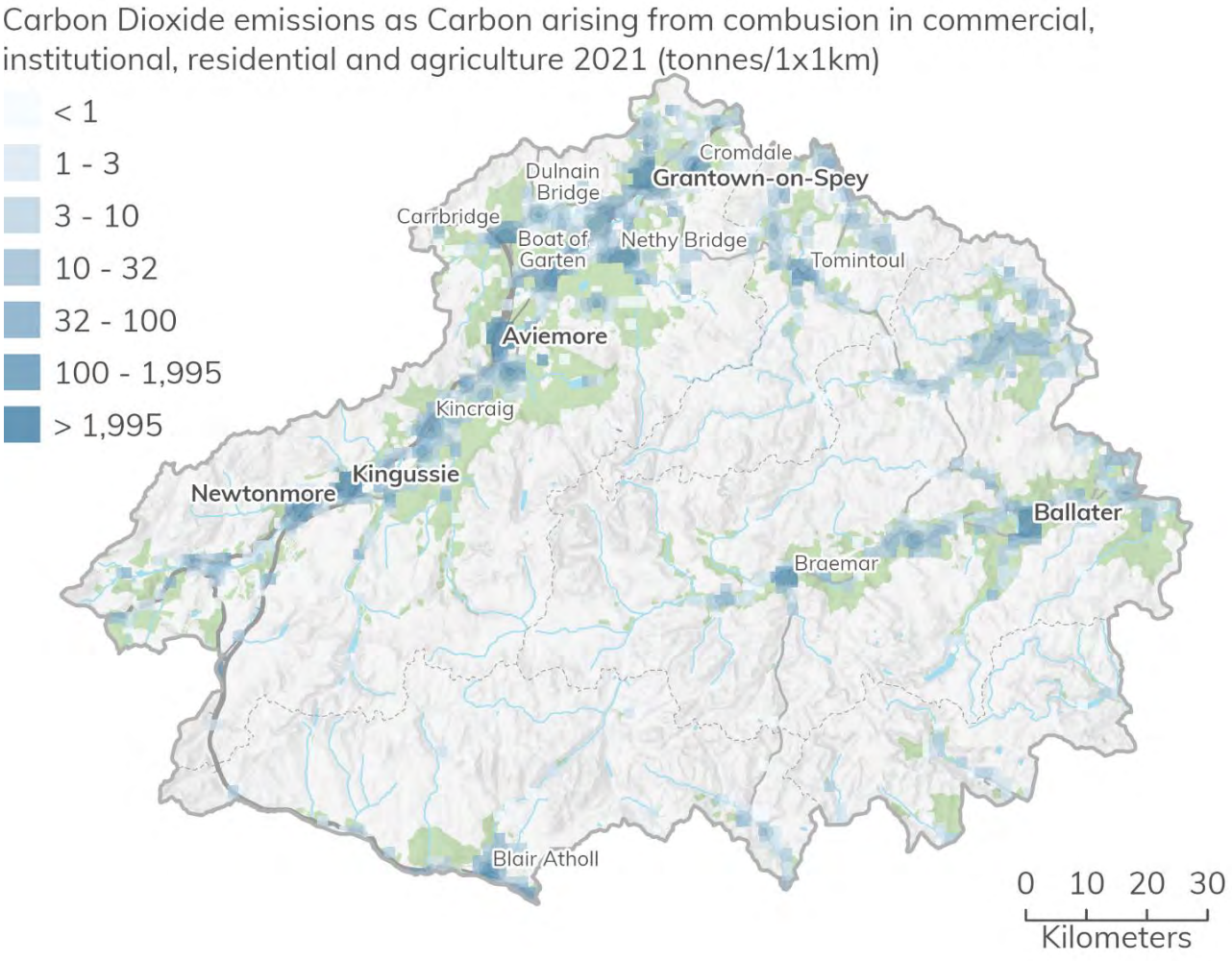


Figure 28 The total CO_2 emissions as carbon arising from commercial, institutional, residential and agriculture in the Cairngorms National Park in 2021. Contains data © National Atmospheric Emissions Inventory, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

UK Government – local authority and regional greenhouse gas emissions statistics

The report from Small World Consulting is useful in terms of setting the baseline for projections and detailing the emission sectors composition. Its data provides a detailed and comprehensive summary of the greenhouse gas emissions in the National Park, which are benchmarked against the UK. It is also useful to draw comparisons between the National Park and Scotland as a whole.

Another dataset that looks at greenhouse emissions in the National Park is the UK local authority and regional greenhouse gas emissions statistics (2005 – 2022). While the Report from Small World Consulting is valuable in provided the detailed analysis and forecast emissions to net-zero, the data from UK Government provides trends in key areas of emissions for UK protected landscapes which can be benchmarked against Scottish averages. It should however be noted that the figures discussed in the previous section rom Small World Consulting provide a more comprehensive and detailed calculation of the greenhouse gas emissions in the National Park.

UK Government provide data on the total (Figure 29) greenhouse gas emissions estimates for the period 2005 to 2022 (kt CO_2e) for the Cairngorms National Park. Data from the UK government on regional greenhouse gas emissions shows that total greenhouse gas emissions have fallen from 186.7 kt CO_2e in 2005 to -17.1 kt CO_2e in 2022. This total is the sum of emissions from industry, commercial, public sector, domestic, transport, agriculture and land use, land use change and forestry net emissions. According to this data the National Park achieved net-zero in 2019. The lower value for 2020 takes into account reduced transport related emissions experienced during the COVID-19 Pandemic, when travel was restricted (Figure 30).

Transport related emissions reduced significantly from 156.7 kt CO_2e in 2019 to 124.9 kt CO_2e in 2020. Although there the data suggests that transport emissions could have been reducing (as the fell from a peak of 160.4 kt CO_2e in 2017 to 156.7 kt CO_2e in 2019), it is uncertain how much further the transport sector emissions will increase post Covid. Overall, between 2005 and 2022 there has been an increase of 14.8% in transport related emissions in the National Park (Table 4).

As previously mentioned in the report by Small World Consulting the National Park's ongoing focus and commitment to woodland creation (both commercial and native) and peatland restoration should reduce land use, land use change and forestry net

emissions further. This may offset any further rises in transport related emissions during the current Partnership Plan's long-term timescale (up to 2045).

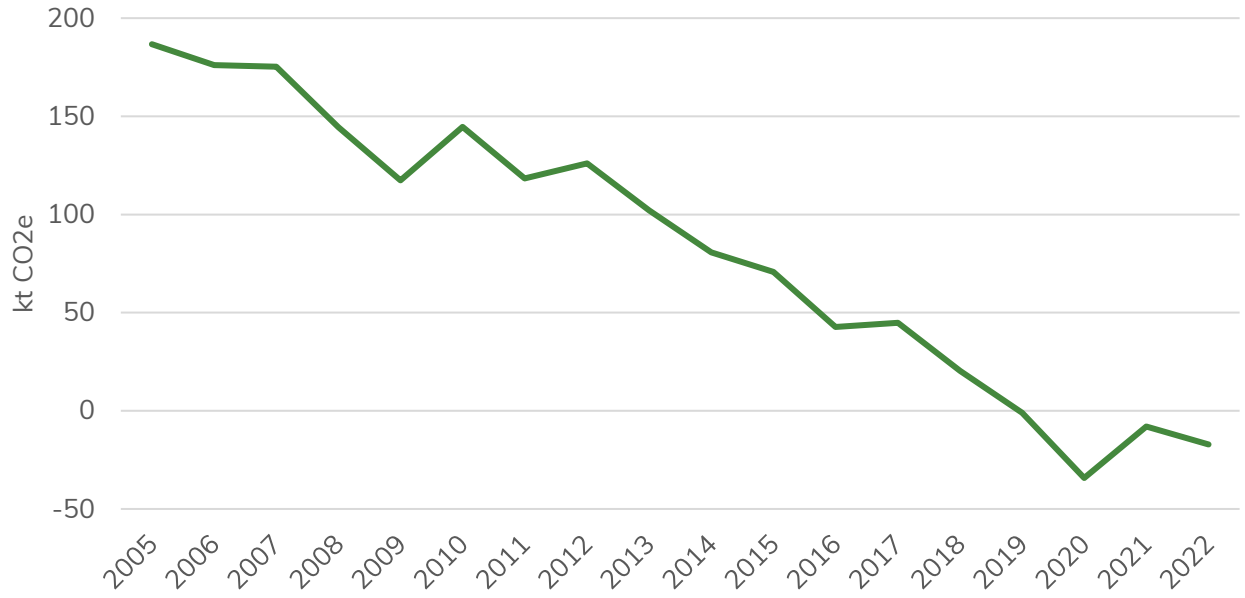


Figure 29 Total greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park (UK Government, 2025).

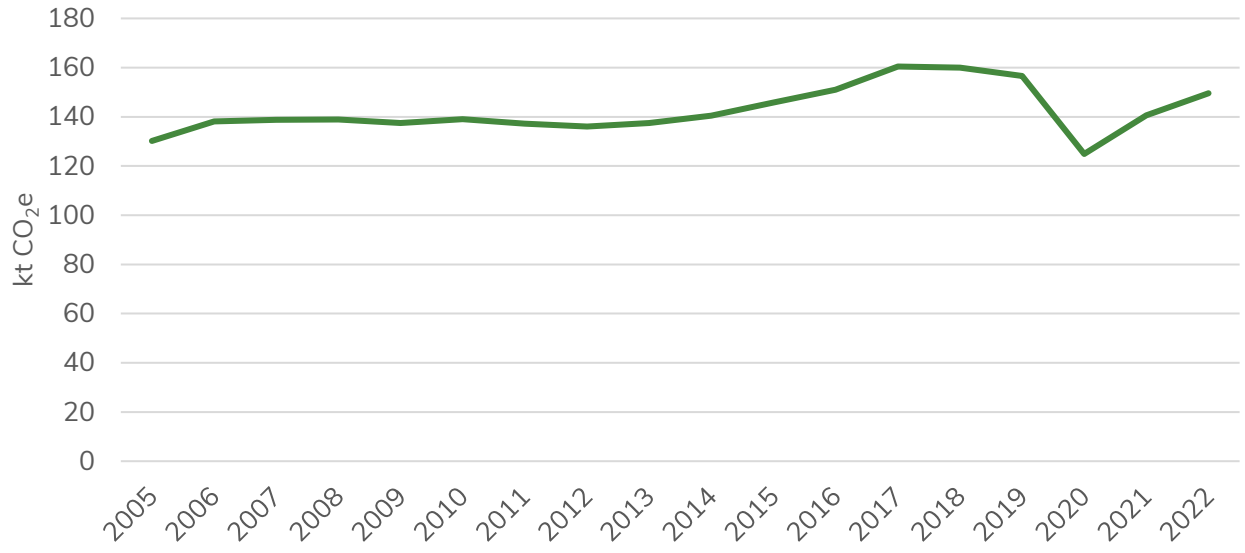


Figure 30 Transport greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park (UK Government, 2025).

Other notable changes in the emissions timeline for the National Park include the reduction of agriculture related emissions (Figure 31) from 90.5 kt CO_2e in 2021 to 77.7

kt CO_2e in 2022 representing a 17.8% decrease (Table 4). This is the lowest the emissions from this sector have been recorded since 2005. This supports the longer-term (from 2005) downward trend in this sector which is important in meeting the assumptions set out by Small World Consulting in a reduction of agriculture emissions to support the pathway to net zero under their forecast scenario.

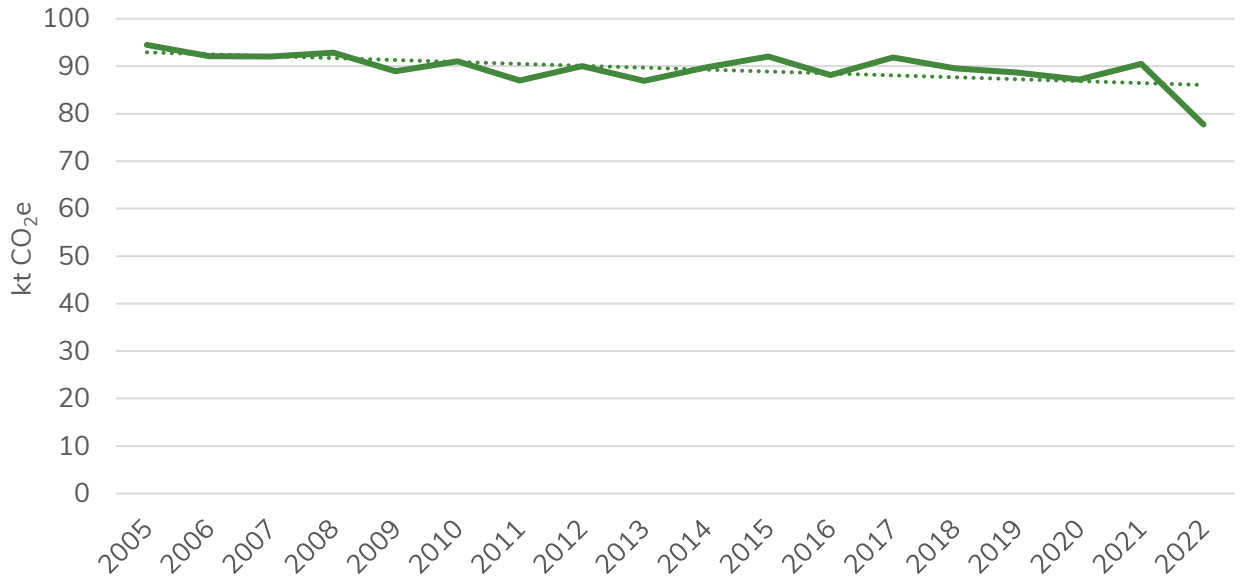


Figure 31 Agriculture greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park. UK Government, 2025.

Although emissions from waste (Figure 32) had been reducing to 2017 (6.7 kt CO_2e), they rose in 2018 (7.1 kt CO_2e) and have continued to rise to 2022 (9.9 kt CO_2e). Overall, between 2005 to 2022 emissions from waste have decrease by 27.7% (Table 4)

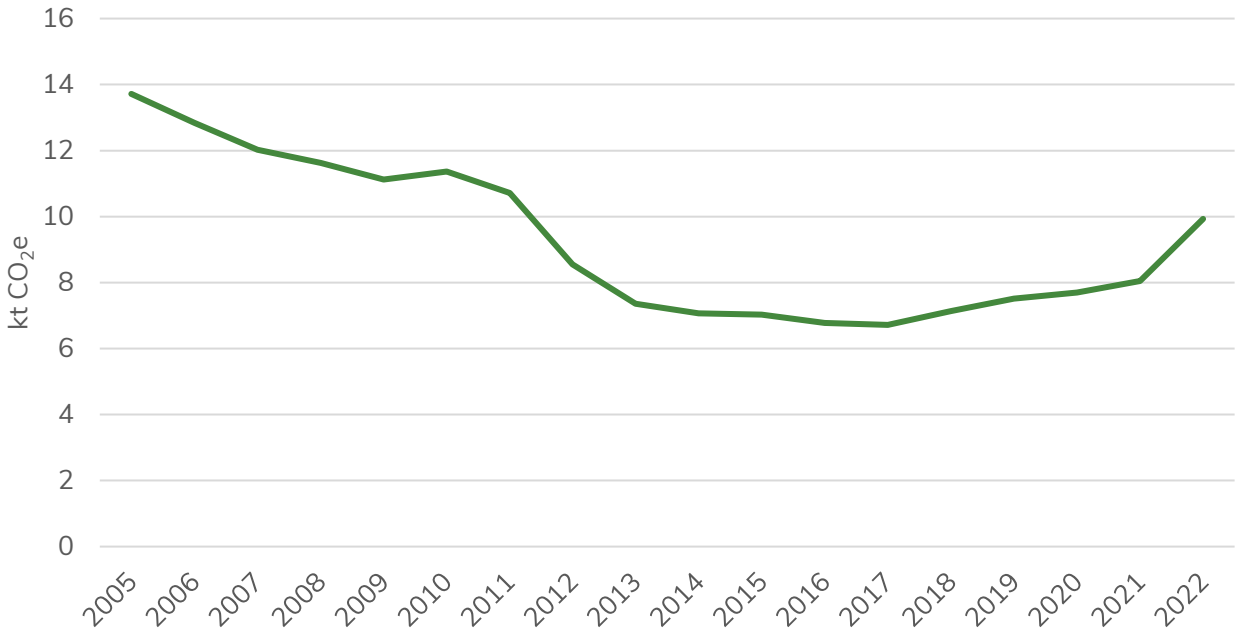


Figure 32 Waste greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park. UK Government, 2025.

In terms of emissions from Industry (Figure 33) there has been a significant reduction since 2005 from 56.4 kt CO_2e to 17.0 ktCO2e in 2022, representing a 69.9% decrease (Table 4). Although there has been some fluctuation, the data reports a strong downward trend in industry related emissions in the National Park. Similarly commercial emissions (Figure 34) have reduced significantly from 32.4 kt CO_2e in 2005 to 11.9 kt CO_2e in 2022 (Table 4) representing a 63.3% decrease , presenting a strong trend of declining emissions over the period.

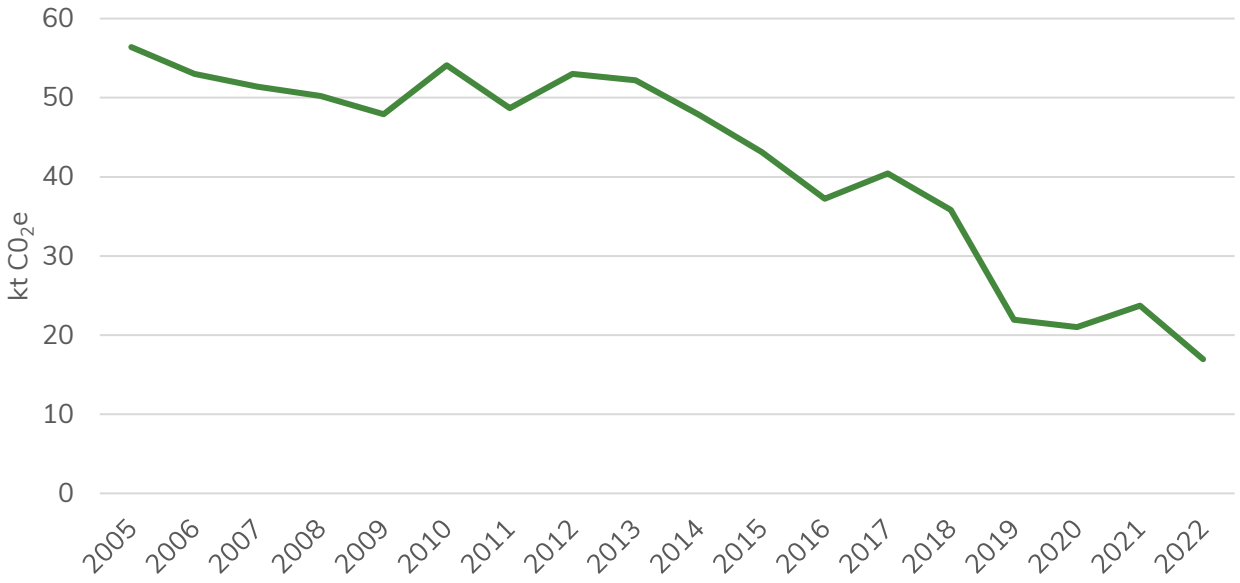


Figure 33 Industry greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park. UK Government, 2025.

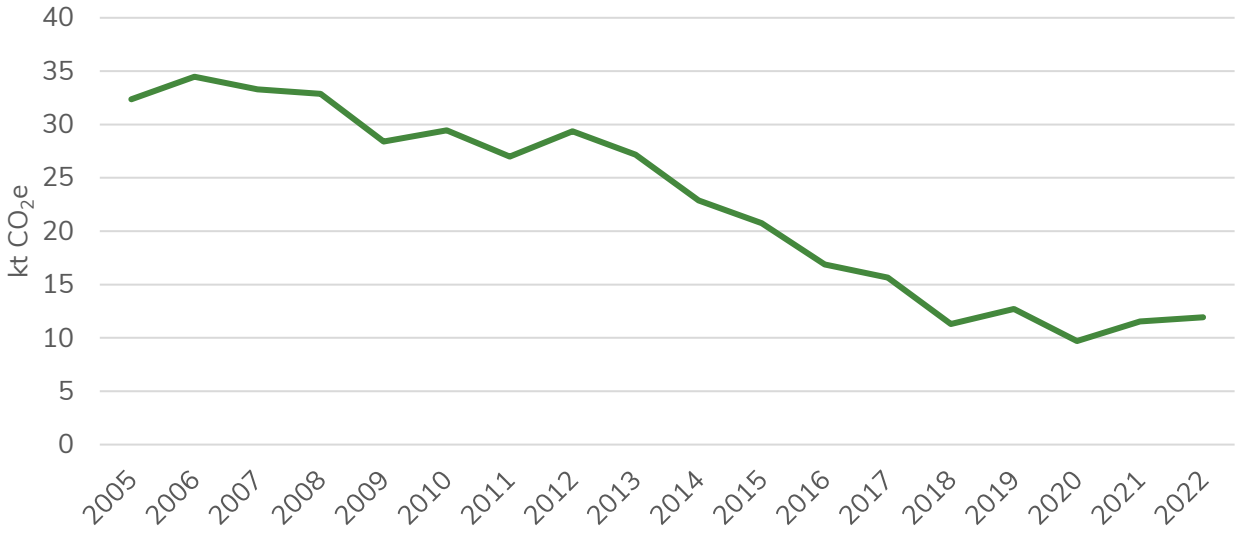


Figure 34 Commercial greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park. UK Government, 2025.

The estimated emissions from the public sector (Figure 35) have also reduced from 4.8 kt CO_2 in 2005 to 1.3 kt CO_2 in 2022, representing a decrease of 72.9% (Table 4) (with consistent reductions year on year since 2012).

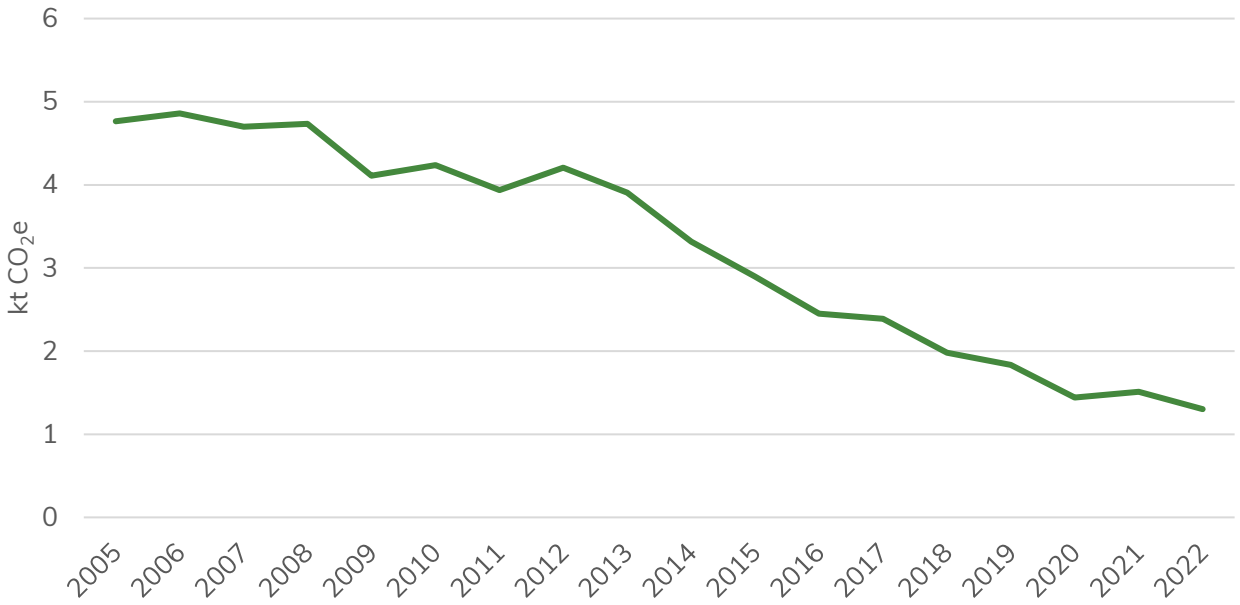


Figure 35 Public sector greenhouse gas emissions estimates 2005 – 2022 (kt CO_2e) in the Cairngorms National Park. UK Government, 2025.

Domestic greenhouse gas emission has reduced by 54% from 2005 from 80.0 kt CO_2e to 36.8 kt CO_2e (Table 4). This may in part be attributed to national policy and mechanisms to reduce domestic energy use but improving building fabric and offering support for domestic renewable energy uptake.

The net emissions from land use, land use change and forestry have had a significant positive effect on reducing the overall greenhouse gas emissions in the Cairngorms National Park. the land use, land use change and forestry net emissions have reduced from -225.2 kt CO_2e to -321.3 kt CO_2e between 2005 to 2022, representing a 42.7% (Table 4) decrease, which has positively affected the overall reduction in greenhouse gas emissions in the National Park (Figure 29).

Table 4 Emissions by end-user sector (kt CO_2e) for the Cairngorms National Park 2005 – 2022. UK local authority and regional greenhouse gas emissions national statistics 2005 – 2022

kt CO_2e	2005	2022	% change 2005 - 2022
Industry	56.4	17.0	-69.9%
Commercial	32.4	11.9	-63.3%
Public sector	4.8	1.3	-72.9%
Domestic	80.0	36.8	-54%

Transport	130.2	149.5	+14.8%
Land use, land use change and forestry net emissions	-225.2	-321.3	-42.7%
Agriculture	94.5	77.7	-17.8%
Waste management	13.7	9.9	-27.7%

Comparison with Scotland

At this point it is useful to compare the estimated emissions in the National Park with the Scottish average. This can be done in two ways:

- Per capita emissions (tCO_2e) – which has been calculated using the total estimated emissions for the National Park and Scotland dived by the reported (Census 2022[21]) population for each geography.
- Emissions per km^2 (kt CO_2e)

Table 5 Greenhouse gas emissions in Scotland and the Cairngorms National Park. UK local authority and regional greenhouse gas emissions national statistics 2005-2022. UK Government – see footnotes.

	Cairngorms National Park		Scotland	
	2005	2022	2005	2022
Total emissions (kt CO_2e)	186.7	-17.1	62,984.8	37,706.7
Per capita emissions (tCO_2e)	11.8	-1.0[22]	12.3	6.9[23]
Emissions per km^2 (kt CO_2e)	0 (0.041)	-0 (-0.004)	0.8	0.5

The Cairngorms National Park total emissions have decreased significantly more, proportionally, compared to the Scottish proportional reduction in greenhouse gas emissions (109.2% decrease for the Cairngorms National Park between 2005 and 2022, against a 40.1% decrease for Scotland over the same period).

[21] Note this gives a different value from that reported by UK Government, which for 2022 does not take into account the latest Census 2022 population values.
[22] Recalculated figure using Census 2022 population data.
[23] Recalculated figure using Census 2022 population data.

However, when taken on a per capita basis the decrease for the National Park (-108.5% over this period is significantly higher than for Scotland as a whole (-43.9%). This however reflects the significant influence the land use, land use change and forestry net emissions have on the total emissions values for the National Park.

Route to Net Zero

The Report by Small World Consulting goes on to look at a consumption-based carbon baseline for the Cairngorms National Park which is estimated at 423,718 tCO_2e per year. Some components of the wider carbon footprint of the Cairngorms National Park presented in the previous sections have been excluded from the 2019 consumption-based carbon baseline and the associated emissions reduction targets. These excluded components are:

- Residents' travel by air, ferries, trains, buses and other transport (excl. cars). Local public transport will be counted through the energy greenhouse gas emissions linked to local industry and travel outside of the National Park is beyond the scope of influence by local authorities.
- Residents' holiday accommodation outside the National Park.
- Residents' housing (construction and maintenance).
- Residents' health, education and other public services.
- Residents' and visitors' other bought services (e.g. financial, telecoms, travel agents, hairdressers).
- Residents' and visitors' art, sport and other leisure activities.
- Residents' and visitors' water, waste and sewerage.
- Industries' supply chains (both within and outside the National Park).

The 2022 – 2027 Cairngorms National Park Partnership Plan includes woodland and peatland targets broken down into short-term (to 2027) and long-term (to 2045), are summarised in Table 6.

Table 6 Woodland and peatland targets from the 2022 – 2027 Partnership Plan. The targets in bold are used for the alternative scenario explored in this section.

	Target total 2027 (ha)	Annual rate to 2027 (hectare/ yr)	Target total 2045 (ha)	Annual rate to 2045 (hectare/ yr)
Woodland expansion	7,000	1,400	35,000	1,521

Peatland expansion	6,500	1,300	38,000	1,652

The projections are based on all the other land-based measures and decarbonisation efforts not involving land following the default assumptions made in based on the apportioned Sixth Cabon Budget for land use change and the associated additions to annual carbon sequestration fluxes (Table 7). They are also based on the assumption of the short-term targets from the National Park Partnership Plan persisting between the base year and 2050.

Table 7 Cairngorms National Park: Apportioned Sixth Carbon Budget targets for land use change and the associated additions to annual carbon sequestration fluxes. The projections are based on these targets being maintained until 2050 under the proposed pathway. Small World Consulting have used generic definitions of the land use options adopted for all the landscapes on the programme, even though some of them are either less relevant (cover cropping) or need a more nuanced interpretation (native and productive conifers) in the Cairngorms National Park context. Small World Consulting, 2022.

Proposed land use targets	Value hectareper year
Agroforestry (improved grassland and cropland)	27.8
New Hedgerows (improved grassland & cropland)	1.6
Legumes (improved grassland)	215
Cover Cropping (cropland)	1.3

Associated Carbon Sequestration	Value tCO_2e per year per year
New Non-Commercial Woodland	-18,456
New Commercial Woodland	-22,117
Restored Peatland	-10,368
Agroforestry (improved grassland & cropland)	-65
New Hedgerows (improved grassland & cropland)	-16.9
Legumes (improved grassland)	-441
Cover Cropping (cropland)	-1.5

In terms of translating the assumptions on woodland – the projections are based on the assumption that the National Park Partnership Plan woodland target is split equally between productive commercial woodland and permanent woodland for environmental benefits.

Small World Consulting, based on the National Park Partnership Plan short-term targets (Table 6) and the Sixth Carbon Budget parameters (Table 7) forecast that the Cairngorms National Park could see a total cumulative reduction in the net annual greenhouse gas emissions of 1,490,220 tCO_2e per year between the base year (2019) and 2050[24]. Percentage breakdown of the projected total cumulative reduction in the net annual greenhouse emissions by individual footprint categories and land-based measures is provided in Figure 36.

The adjusted land use targets imply that the Cairngorms National Park would reach Net Zero emissions in 2026 and would act as a net carbon sink in subsequent years (Figure 37). Small World Consulting's Report highlights that the actual net zero date is likely to be delayed by several years given the comparatively limited progress in reducing emissions and scaling up land-based measures in the UK to date, which means it could take some time to reach the recommended levels of ambition.

[24] The net estimate includes both reductions in emissions and increases in carbon sequestration, depending on the contributing footprint category.

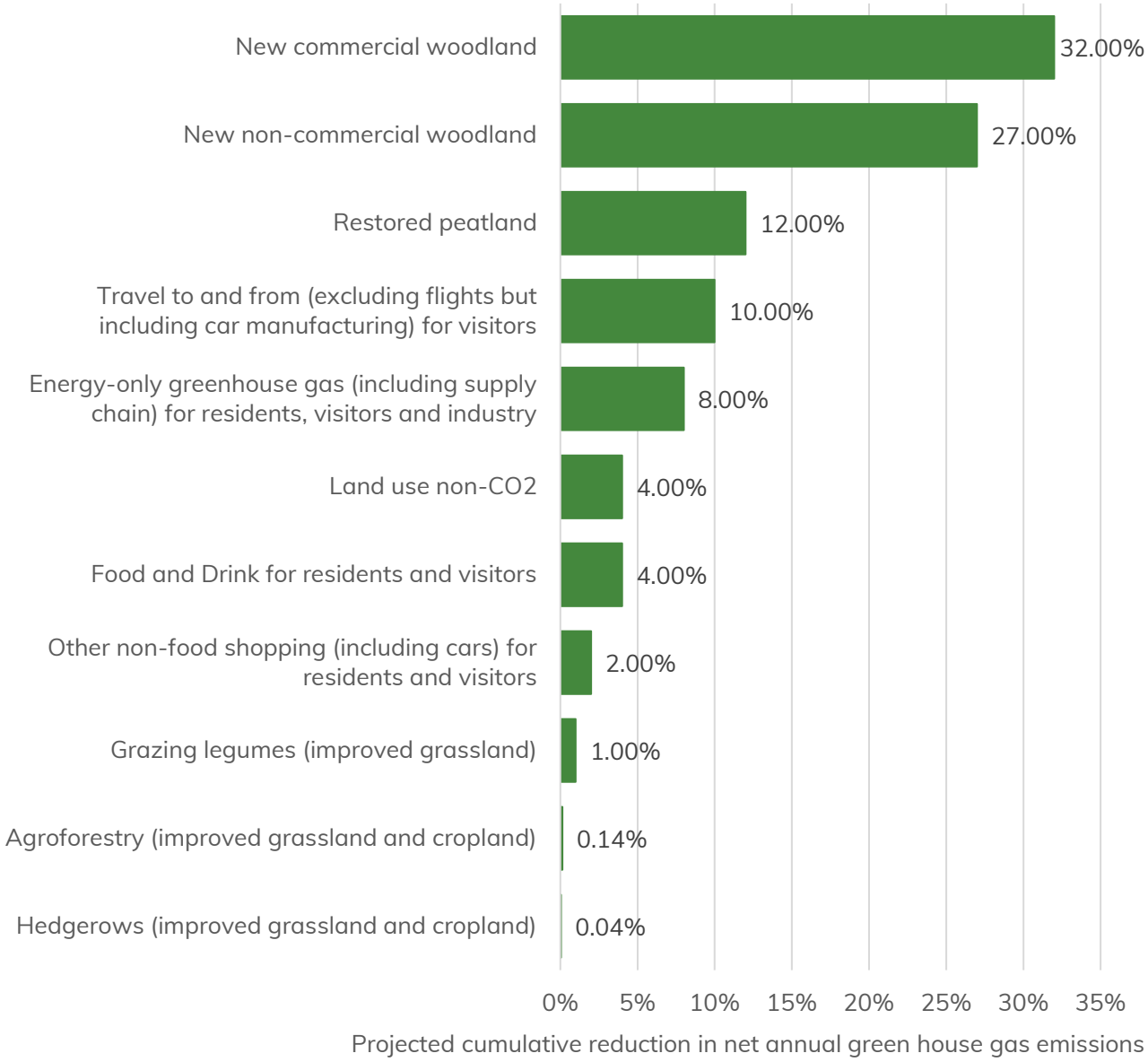


Figure 36 . Percentage breakdown of the projected cumulative reduction in net annual greenhouse gas emissions for the Cairngorms National Park between the base year (2019) and 2050 according to the individual emitting categories and carbon sequestration measures considered in the Small World Consulting Reports' assessment. The estimated are based on land use targets from the National Partnership Plan 2022 – 2027. Small World Consulting, 2022.

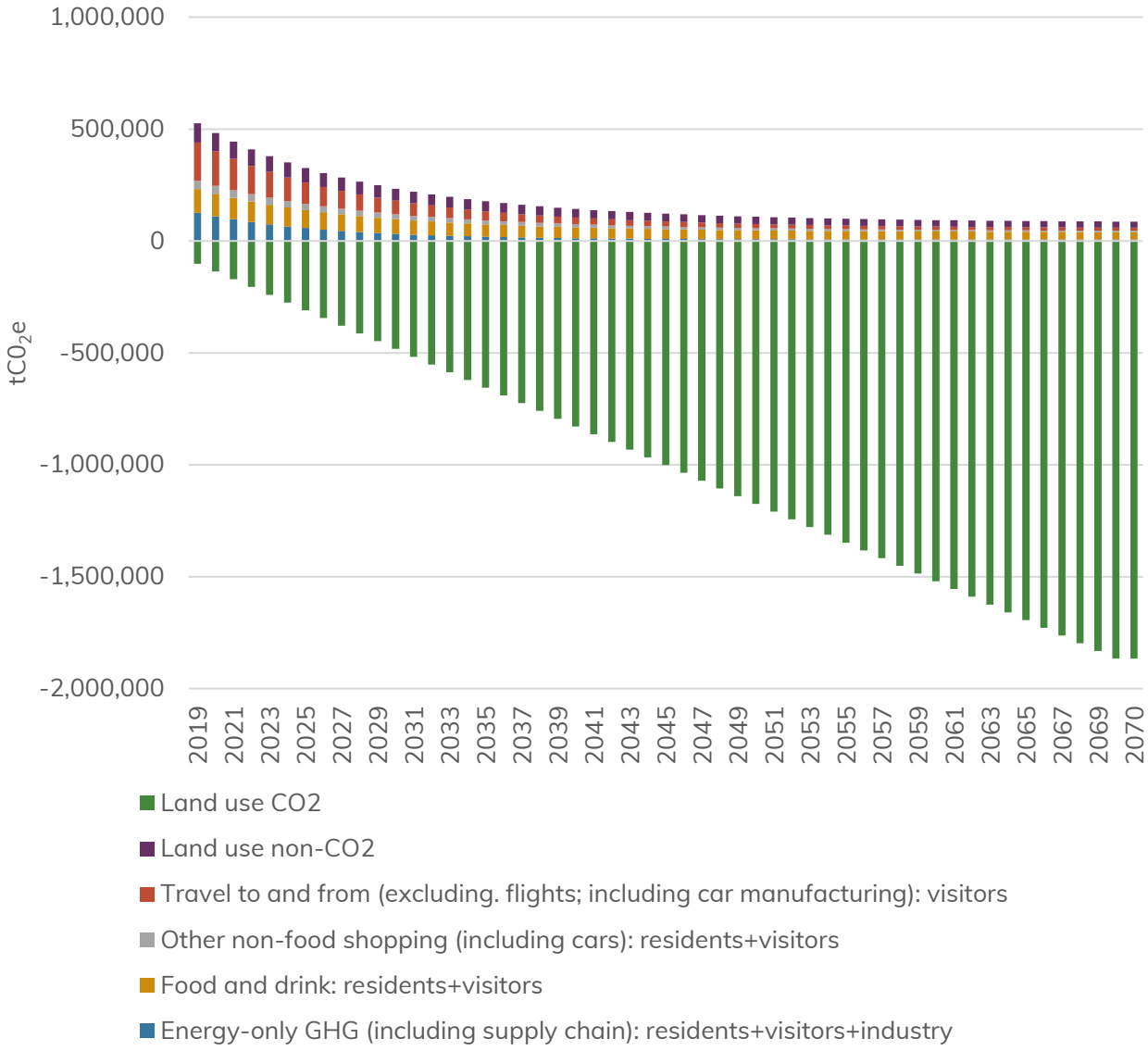


Figure 37 Forecasted pathway to net zero for the Cairngorms National Park, based on the woodland and peatland targets from the National Park Partnership Plan 2022 – 2027. Small World Consulting, 2022

Key Messages

The average temperatures in the Cairngorms National Park are increasing on average between 1 – 1.5°C) from the 1960 – 1989 baseline). The days of air frost are decreasing, and the annual precipitation is increasing overall. Forecasts predict more extreme climatic events alongside overall increase in temperature and precipitation across the National Park. There is predicted to be a reduction in snow cover days which will potentially affect the viability of the winter sports industry. Droughts and extreme wind events are also expected to increase.

On average greenhouse gas emissions per capita are higher in the National Park compared to the Scottish average. The main contributors of both residents and visitors are food and drink and travel in the National Park.

Data from the UK government on regional greenhouse gas emissions shows that total greenhouse gas emissions have fallen from 186.7 kt CO_2e in 2005 to -17.1 kt CO_2e in 2022. This data indicates that the National Park achieved net-zero in 2019. Despite this significant reduction in overall emissions, between 2005 and 2022 there has been an increase of 14.8% in transport related emissions in the National Park.

The more comprehensive scenario (Figure 37) provided by Small World Consulting shows that if all the relevant targets are met, the Cairngorms National Park Authority would reach net zero in around 2024 in the under the core scenario and 2025 under the scenario using National Park Partnership Plan targets. In the years following 2024 / 2025, the Cairngorms National Park would start to make a significant contribution to carbon storage for Scotland and the UK

The Local Development Plan may have an effect on greenhouse gas emissions, particularly through its influence over the scale and citing of development and influence over reducing vehicle use. Design policies may also play a role, as the implementation of good design should consider the energy efficiency of buildings as an integral factor.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 2: Air
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: biodiversity, Fauna and Flora
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

Topic 2: Air

Context

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. Domestic activities such as driving, heating and cooking also contribute, as do natural sources like sea salt, wildfires, volcanic activity, soil erosion and farming.

Poor air quality can have both short term and long-term effects on human health. In general, healthy people may not suffer from any serious ill effects; however, people with pre-existing health conditions such as heart disease, lung conditions and asthma may be adversely affected by day-to-day changes in air pollution levels. The Royal College of Physicians (2016) estimated that particulate matter in the air (PM_{10} and $PM_{2.5}$) could have caused the deaths of 2,500 - 3,500 people in Scotland.

Air pollution can also damage the wider environment, causing the acidification of soils and water or the deposition of nutrients, negatively affecting plant and animal life. Air pollution can also damage the fabric of buildings and historic monuments.

Air Pollution in the Cairngorms National Park

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.

In the UK, air quality is a devolved matter, with the Scottish Government having responsibility for the development of air quality policy and legislation for Scotland. The air quality objectives for Scotland are set out in the Air Quality (Scotland) Regulations 2000 (as amended). 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)

The air quality of Scotland is generally better now than it has been at any time since before the Industrial Revolution. Increasingly strict control over industrial emissions,

tighter fuel and emission standards for road vehicles and the control of smoke from domestic premises yielding positive results. An independent review of the Cleaner Air for Scotland Strategy (Scottish Government, 2019) found that between 1990 and 2016 significant reductions were seen in the emissions of PM_{10}(-64%), $PM_{2.5}$ (-67%) nitrogen oxides (-72%) and sulphur dioxide (-94%). Human exposure to air pollution is now largely associated with transport emissions. The effects of this pollution occur more predominately in urban areas.

Particulate Matter, commonly known as PM, refers to a mixture of solid particles and liquid droplets suspended in the air. These particles vary in size, composition, and origin. Sources of PM include natural processes such as dust storms, forest fires, and volcanic eruptions, as well as human activities like industrial emissions, vehicle exhaust, and construction sites.

PM is categorized based on its size, measured in micrometres (μm). The two most commonly discussed categories (and focus of this report, alongside NO_2) are $PM_{2.5}$ and PM_{10}. $PM_{2.5}$ refers to particles with a diameter of 2.5 micrometres or smaller, while PM_{10} includes particles with a diameter of 10 micrometres or smaller. To put it into perspective, a human hair is approximately 70 micrometres in diameter, meaning PM particles are invisible to the naked eye.

Poor air quality can have both short term and long-term effects on human health. In general, healthy people may not suffer from any serious ill effects; however, people with pre-existing health conditions such as heart disease, lung conditions and asthma may be adversely affected by day-to-day changes in air pollution levels. The Royal College of Physicians (2016) estimated that particulate matter in the air (PM_{10} and $PM_{2.5}$) could have caused the deaths of 2,500 - 3,500 people per year in Scotland. A more recent study (Abed Al Ahad et al, 2023) found that "higher all-cause mortality was associated with increasing concentrations of $PM_{2.5}$, PM_{10}, NO_2, (and SO_2) pollutants. NO_2, PM_{10}, and $PM_{2.5}$ were also associated with cardiovascular, respiratory, cancer and other-causes mortality[25]'. The study concluded that there was 'an association between long-term (16-years) exposure to ambient air pollution and all-cause and cause-specific mortality. The results suggest that policies and interventions to enhance air quality would reduce the

[25] Mary Abed Al Ahad, Urška Demšar, Frank Sullivan, Hill Kulu, Long-term exposure to air pollution and mortality in Scotland: A register-based individual-level longitudinal study, Environmental Research, Volume 238, Part 2, 2023, https://doi.org/10.1016/j.envres.2023.117223. (https://www.sciencedirect.com/science/article/pii/S0013935123020273)

mortality hazard from cardio-respiratory, cancer, and mental / behavioural disorders in the long-term.'

Air pollution can also damage the wider environment, causing the acidification of soils and water or the deposition of nutrients, negatively affecting plant and animal life. Air pollution can also damage the fabric of buildings and historic monuments.

Air quality management areas

The Environment Act 1995 required the Government to develop a UK National Air Quality Strategy the primary purpose of which is to reduce the levels of eight major pollutants by 2005. At the core of the Strategy was a new duty and responsibility for local authorities to carry out regular reviews and assessments of air quality within their areas, and where air quality objectives are unlikely to be met by 2005, to declare an Air Quality Management Area (AQMA). In such cases, local authorities will have a duty to prepare an action plan for improving air quality in the designated areas. The dominant source of the eight major pollutants is road traffic. The Government has issued guidance to local authorities on Local Air Quality Strategies and Action Plans, Air Quality and Traffic Management, Air Quality and Land Use Planning, and reviewing Air Quality.

Air Quality does not currently present any problems in the Cairngorms National Park and does not require the designation of any Air Quality Management Areas to achieve air quality standards or objectives. Data on the declared Air Quality Management areas (outwith the National Park) can be accessed here:

- https://www.scottishairquality.scot/laqm/aqma#!/la/469

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 during the ten-year period of the Local Development Plan that development will cause air quality objectives to be exceeded.

National trends

Air quality trends for Scotland are provided by the Scottish Air Quality Database Annual Report for 2023, which was published in December 2024[26]. The report provides the following trend analysis:

[26] Full report available here: https://www.scottishairquality.scot/sites/default/files/publications/2024-12/SAQD_annual_report_2023_final_0.pdf

- **NO_2** - All NO_2 urban background sites analysed display statistically highly significant decreasing trends (at the 0.001 level) since 2007 which is consistent with the last five years trend. The exception to this is Grangemouth where the trend has switched to not statistically significant increasing trend. All three rural sites show small but highly significant decreasing trends over the last 10 years. Over the last five years the trend has plateaued. Emissions of nitrogen oxides in Scotland were estimated to be 76 kt in 2022, representing 12% of the UK total for nitrogen oxides. Emissions have declined by 63% since 2005, mainly due to changes in transport sources. NO_x emissions decreased by 7% between 2021 and 2022, with a 4% decrease in emissions in this period from the transport sector. 55% of the emissions were due to the transport sector in 2022

- **PM_{10}** - All PM_{10} Background sites analysed show significant decreasing trends at varying levels. The exception to this is Glasgow Anderston when looking at the five-year trend. Emissions of PM_{10} in Scotland were estimated to be 10 kt in 2022, declining by 48% since 2005. These emissions account for 8% of the UK total PM10 emissions. PM_{10} emissions increased by 1.2% between 2021 and 2022, led by increases in several sectors including construction and demolition (7% increase) and the transport sector (4% increase).

- **$PM_{2.5}$** - In general, 10-year trend analysis of PM2.5 sites data show a decreasing trend at varying level of statistical significancy. The five-year trend analysis indicates that levels are plateauing with concentrations general levelling out or showing small decreasing or increasing trends but not statistically significant. Emissions of $PM_{2.5}$ in Scotland were estimated to be 5kt in 2022, declining by 58% since 2005. These emissions account for 8% of the UK total for $PM_{2.5}$ in 2022. The primary drivers for the decline in emissions since 2005 are the continued switch from coal to natural gas in electricity generation, and reductions in emissions from the transport sector. It should be noted that between 2021 – 2022 there was a 3% increase in emission in the transport sector.

- **Ozone** - Three of Scotland's rural air quality monitoring stations have been monitoring ozone for 32 years. Two of these sites show small but highly statistically significant increasing trends over this period. The other shows a level trend over this period. 10-year trends at six ozone sites, shows that four sites have increasing

trends in O_3 concentrations at varying levels of statistical significance. The other two sites have slight decreasing trends with no statistical significance.

In 2022, Scotland's ammonia emissions (NH3) were estimated at 31 kt, making up 12% of the UK total. Since 2005, emissions have fallen by 14%, with agriculture remaining the primary source. Early reductions were mainly due to declining livestock numbers and decreased use of nitrogen-based fertilisers. A further 2.4% drop between 2021 and 2022 was largely driven by reduced nitrogen fertiliser use. In the Cairngorms National Park ammonia emissions were highest in the straths and glens, where farming operations are present and negligible in mountain and upland areas (Figure 38).

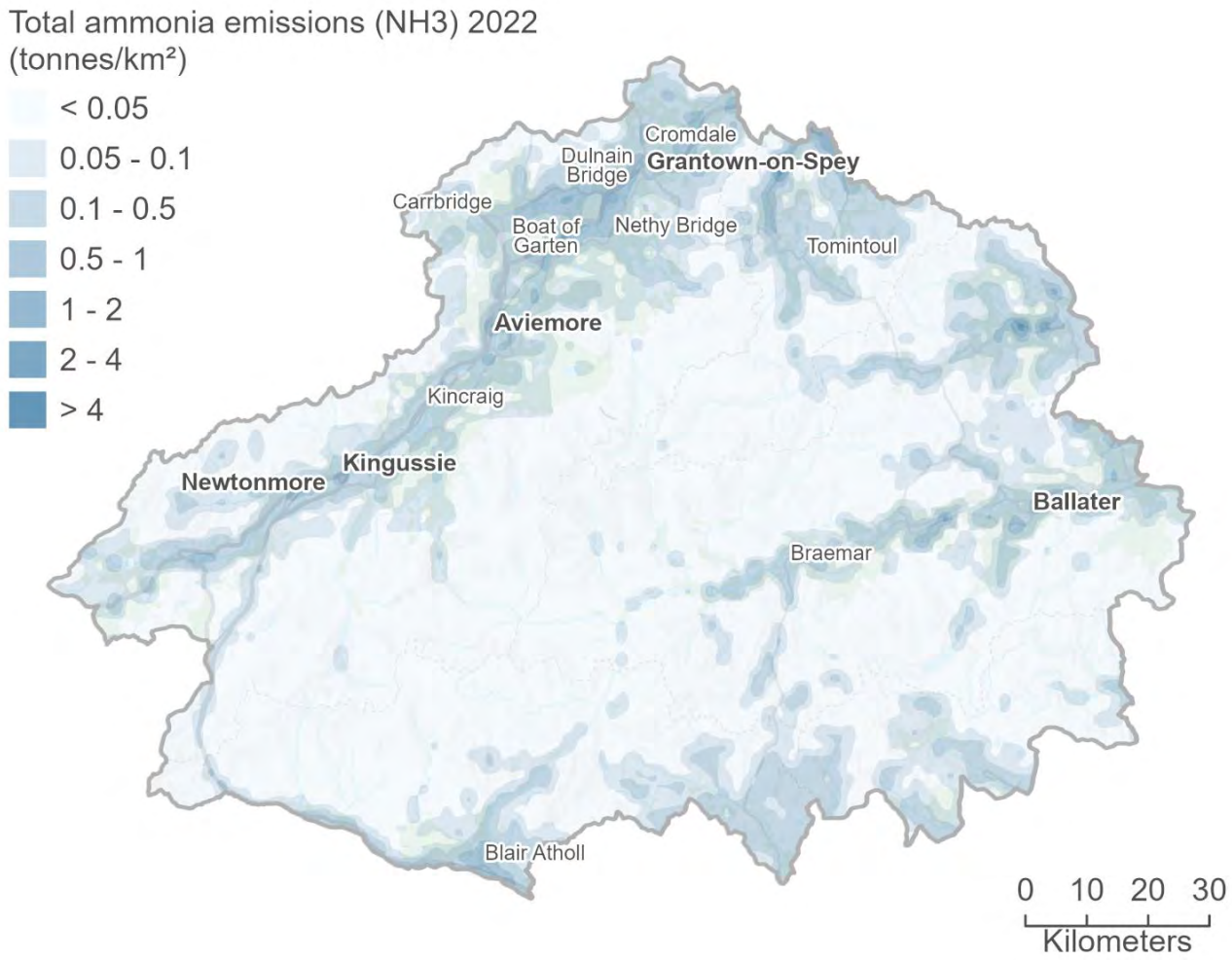


Figure 38 Total ammonia emissions (NH3) in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

In 2022, Scotland emitted an estimated 7 kt of sulphur dioxide (SO2), accounting for 6% of the UK total. Emissions have plummeted by 93% since 2005, largely due to ongoing transformations in the power generation sector. Power station emissions alone have declined by 99% over that period. A further 0.1% drop from 2021 to 2022 was driven by a 20% reduction in power station output. In the Cairngorms National Park, in 2022, the majority of sulphur dioxide emissions are cantered in or around settlements which is expected due to the domestic heating infrastructure heavily reliant on oil and solid fuel energy generation, in the absence of a gas network (Figure 39). Sulphur dioxide can also be emitted both by natural processes, such as forest fires which can also occur in the National Park.

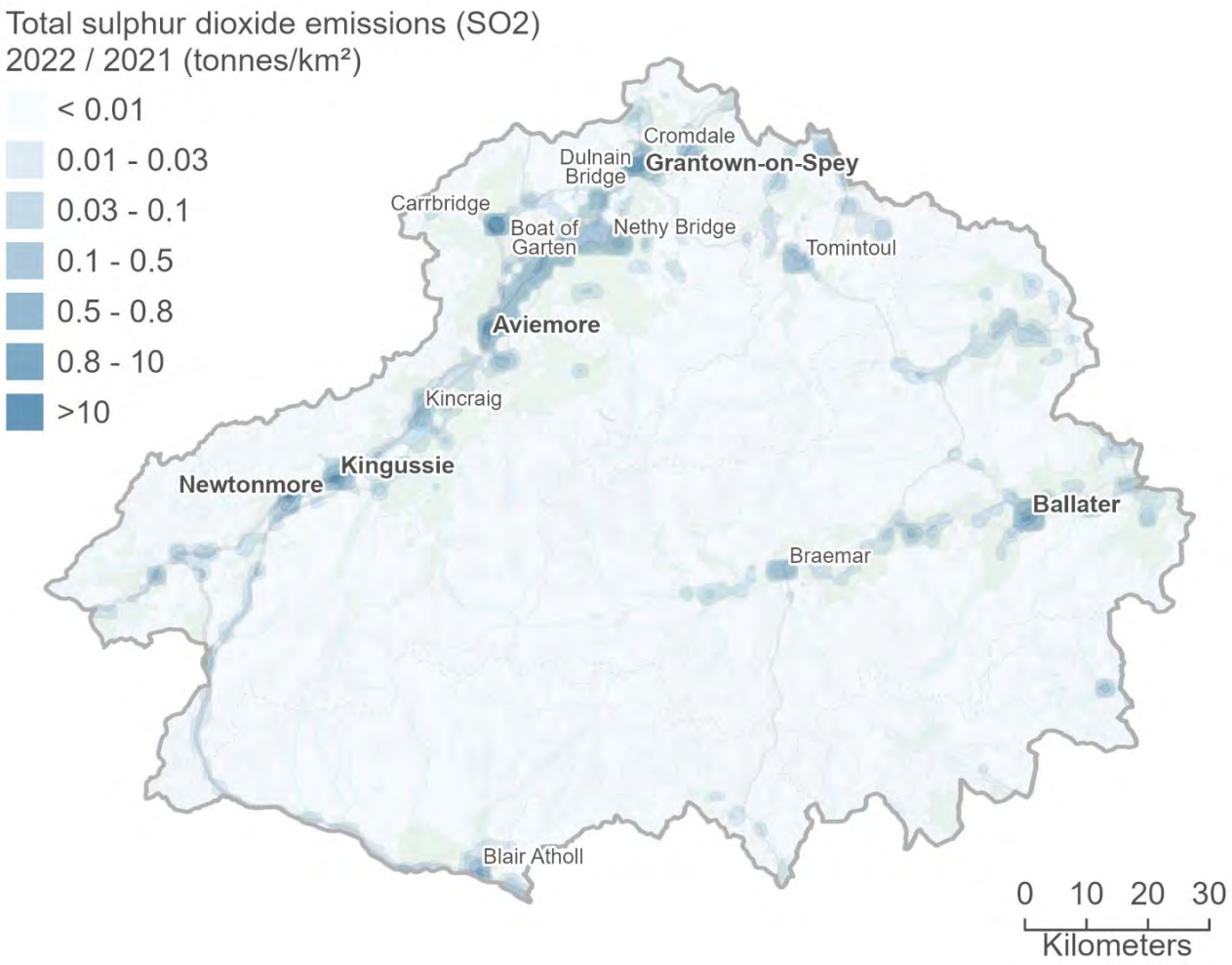


Figure 39 Total sulphur dioxide emissions (SO2) in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

Scotland's carbon monoxide (CO) emissions were estimated at 86 kt in 2022, representing 7% of the UK's total. Since 2005, emissions have dropped by 62%, mainly due to shifts in transport-related sources. Between 2021 and 2022, overall carbon monoxide emissions fell by 1%, driven by a 1.7% reduction from road transport. Figure 40 shows the carbon monoxide (CO) emissions in the Cairngorms National Park, which is highest in and around the settlements, along the main transport routes and to a lesser degree emitting from areas of dense vegetation.

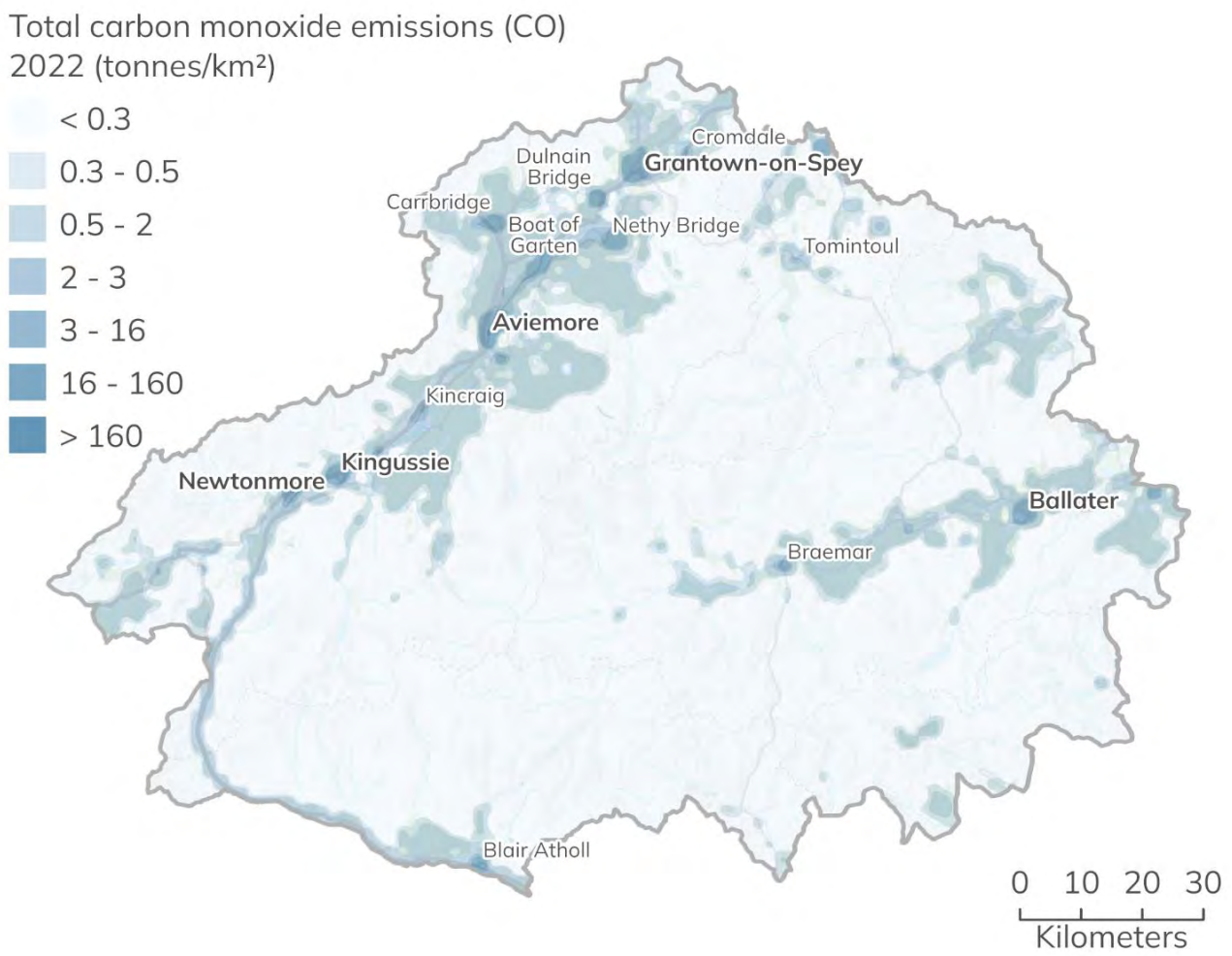


Figure 40 Total carbon monoxide emissions (CO) in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

In 2022, Scotland's non-methane volatile organic compound (NMVOC) emissions were estimated at 144 kt, 19% of the UK total. Since 2005, emissions have declined by 20%, thanks to significant reductions in fugitive and road transport sources, each falling by

85%. However, between 2021 and 2022, NMVOC emissions rose by 3.9%, mainly due to a 3% increase from the food and drink industry, which contributed 46% of the overall upward trend. In the Cairngorms National Park, in 2022, non-methane volatile organic compound emissions were highest in and around settlements and areas of dense vegetation and along the busier transport routes (Figure 41). Private vehicle dependence is high in the National Park, due to the limited availability of public transport options. The A9 is also a major trunk road that runs through the National Park, connecting Peth and Inverness. Other areas with elevated non-methane volatile organic compound (NMVOC) emissions highlighted in Figure 41 correspond to woodland.

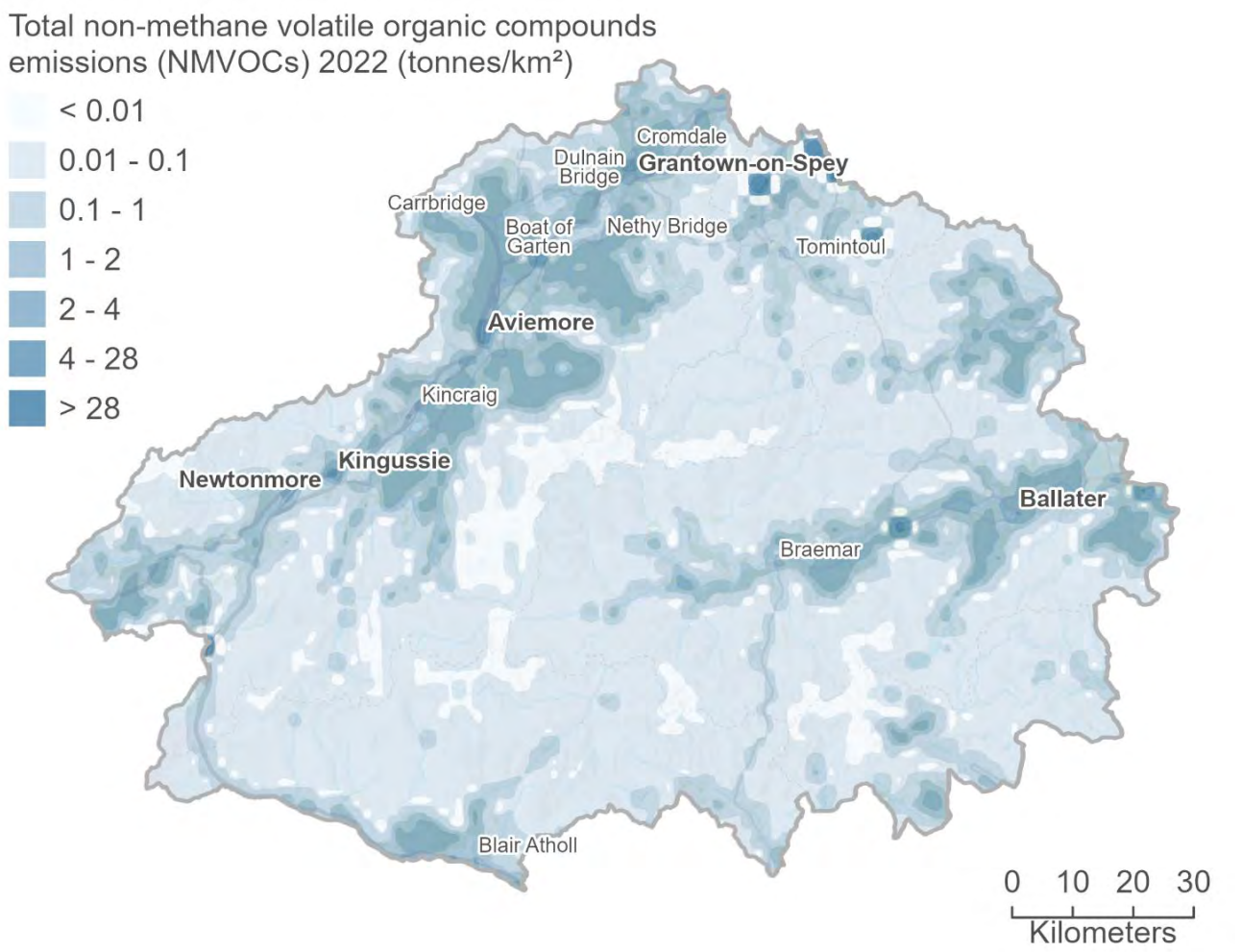


Figure 41 Total non-methane volatile organic compounds emissions (NMVOCs) in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

Air quality in the Cairngorms National Park

The ongoing dualling of the A9 and how this could change traffic levels and visitor numbers in the Cairngorms National Park means that air quality could be a future concern. In particular, the potential for increasing pollutants associated with traffic emissions such as $PM_{10,}$ $PM_{2.5}$ and nitrogen dioxide (NO_2) needs to be given consideration. Spatial data on the emission of PM_{10}, $PM_{2.5}$ and NO_2 is available from the UK National Atmospheric Emissions Inventory for 2022. The highest emissions are located along the A9 and within the main settlements of Aviemore, Grantown-on-Spey and Ballater, where traffic volumes are greatest (Figure 42, Figure 43 and Figure 44).

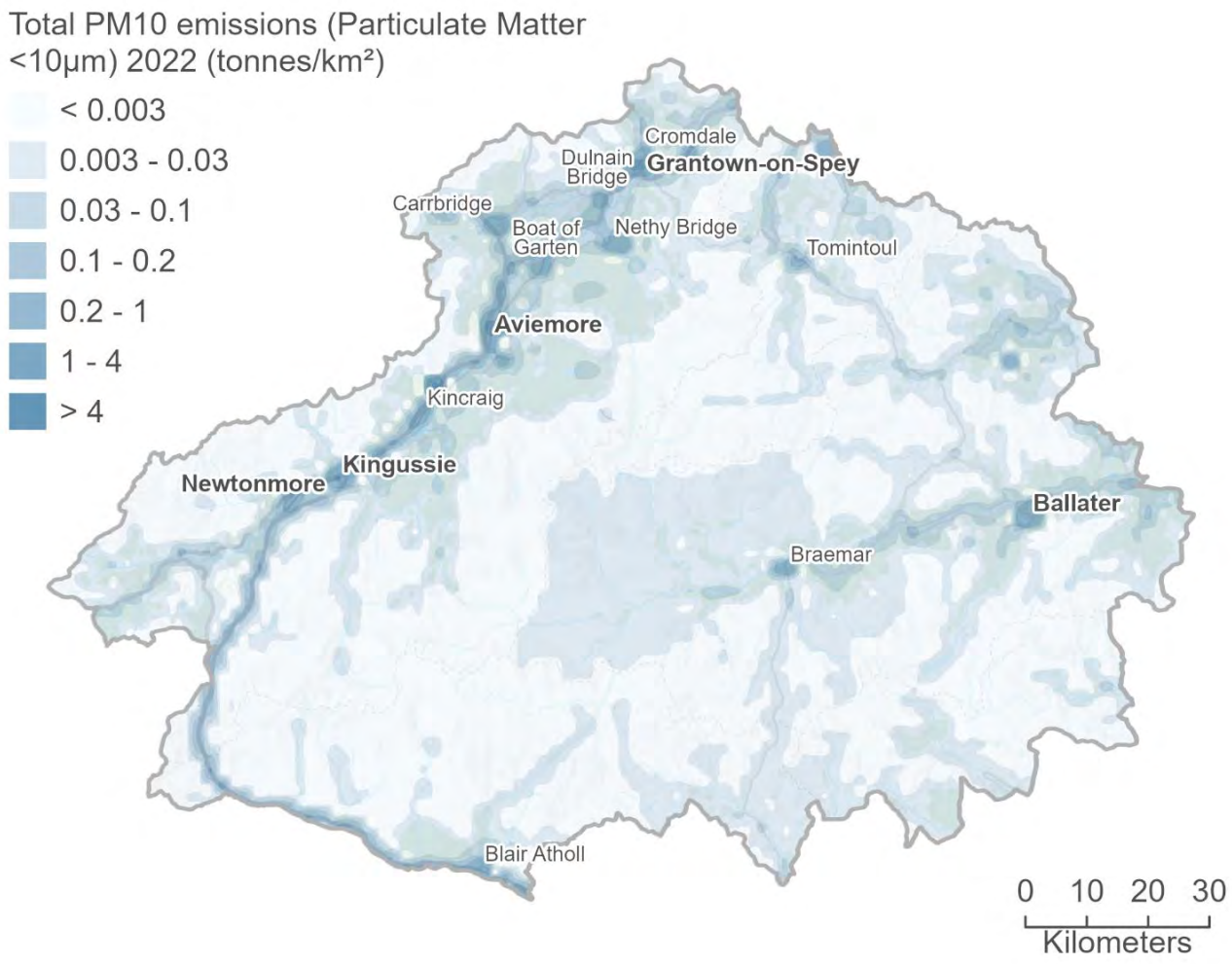


Figure 42 Total PM10 emissions in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

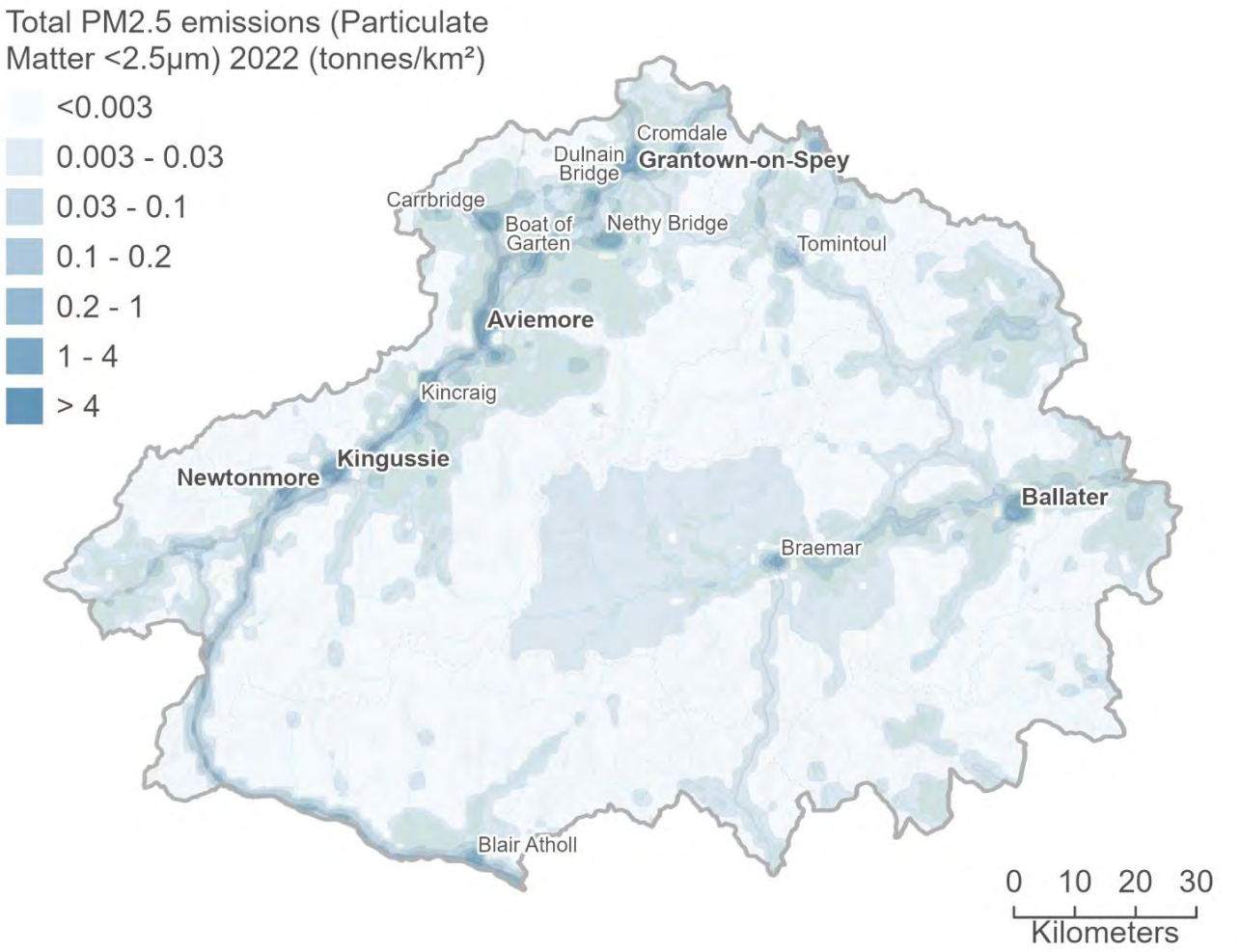


Figure 43 Total PM2.5 emissions in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

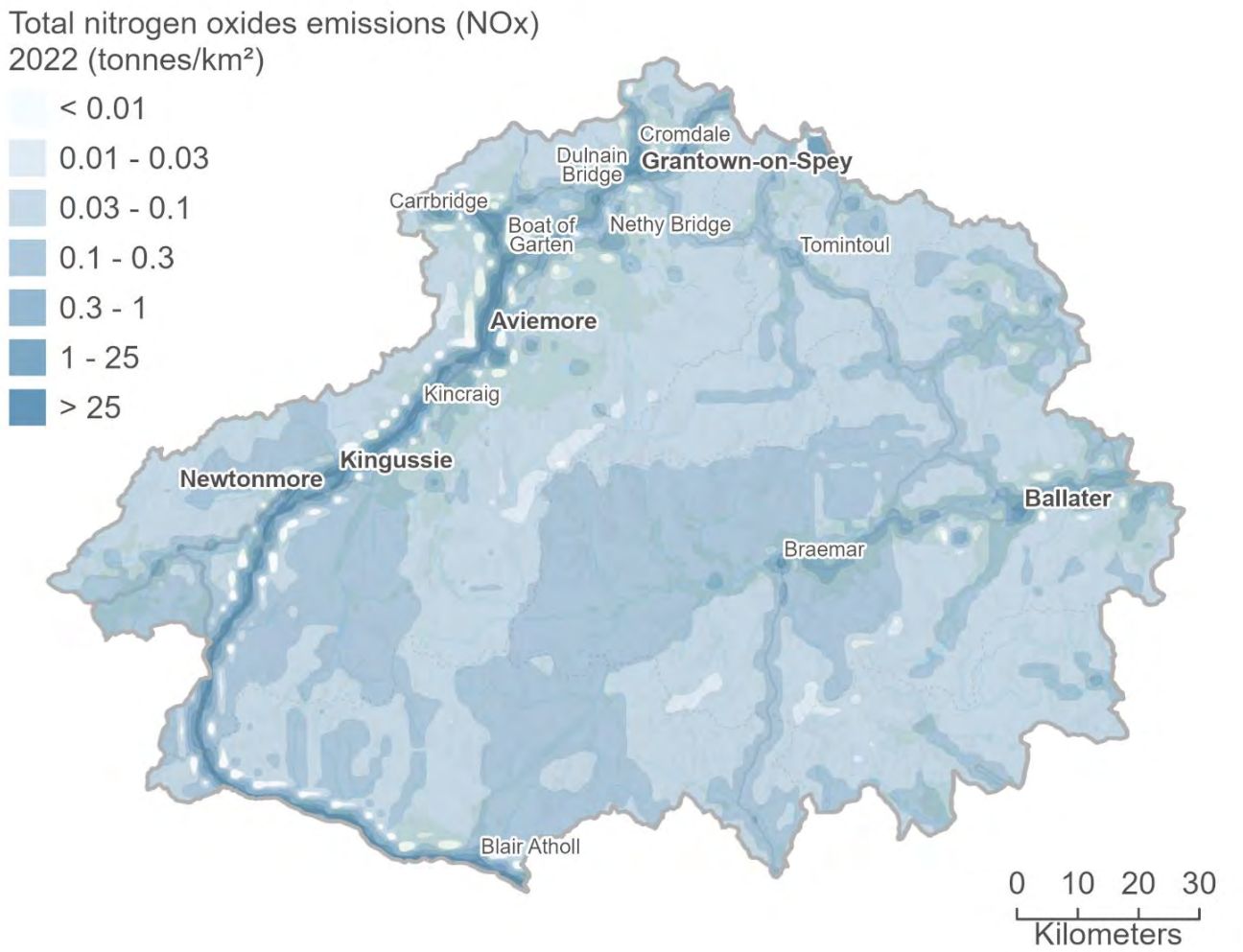


Figure 44 Total NOx emissions in the Cairngorms National Park in 2022. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © National Atmospheric Emissions Inventory 2025.

There is higher reliance on driving as a means of transport in rural areas, and journey times are longer. Private motorised vehicle use is the main mode of transport in the Cairngorms National Park for employment purposes, with public transport use being particularly low. Due to population growth and increasing visitor numbers, is likely that travel by private vehicle will increase in the National Park unless there is a modal shift to alternative means of travel.

The main issue affecting the Cairngorms National Park is its low population density spread over a wide area meaning more people are likely to own and use a car compared

to urban centres. This is supported by evidence from the Rural Scotland Key Facts[27] (2021). The higher reliance on driving as a means of transport in rural areas, means drive times to key services including GPs, primary and secondary schools, and shops are often longer than in urban areas. In remote rural areas, 63% people live within a 15-minute drive time to a secondary school, compared to 91% of people in accessible rural areas and 100% of people in the rest of Scotland.

Scottish Government are committed to delivering a 20% reduction in car kilometres by 2030. This will be particularly challenging in rural areas such as the Cairngorms National Park, as the trend is currently for increasing car kilometres per person in rural areas (Department for Transport, 2021). Due to population growth and increasing visitor numbers, this is likely to increase within the National Park over the Plan period.

Scottish Pollutant Release Inventory

Air pollution for other sources is very limited, however there are three sites within the National Park that are on the Scottish Pollutant Release Inventory (Table 8). The inventory is a Pollutant Release and Transfer Register and has the primary purpose of making publicly available officially reported annual releases of specified pollutants to air and water from Scottish Environment Protection Agency regulated industrial facilities.

Table 8 Scottish Pollutant Release Inventory in the Cairngorms National Park.

National Identity Code[28]	Site name	Company name	Activity
2293	Granish Recyclg Ctr/TS, Granish Farm, Aviemore	David Ritchie and Sons Limited	Installations for the disposal of non-hazardous waste
99	Highland Coun, Granish L/F, Aviemore, Inverness	The Highland Council	Installations for the disposal of non-hazardous waste
2250	Tayside Contracts, Blair Atholl Roads Depot TS	Tayside Contracts	Installations for the disposal of non-hazardous waste

[27] See https://www.gov.scot/publications/rural-scotland-key-facts-2021/documents/
[28] The unique identifier for Scottish Pollutant Release Inventory sites.

Only one of these sites, Granish Landfill Site (99) in Aviemore, has reached thresholds where reporting has been required. The site releases methane, which has a reporting threshold of 10 tonnes and is both an air and atmospheric pollutant. Annual emissions have however seen a significant decline across the reporting period of 2007 – 2023 (Figure 45).

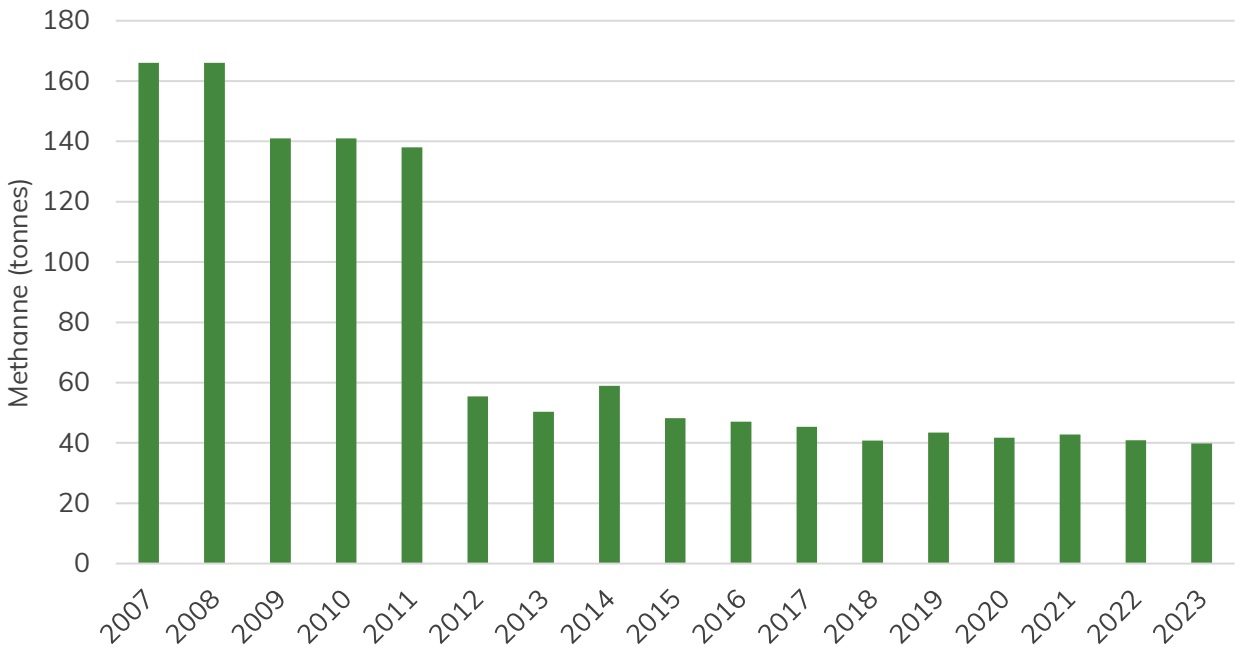


Figure 45 Methane emissions from Granish Landfill Site, Aviemore (Scottish Pollutant Release Inventory national identity code 99), 2007 – 2023 (Source: Scotland Environment Web, 2025).

Key messages

Air pollution is relatively low within the Cairngorms National Park, with no Air Quality Management Areas 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 Local Development Plan may have an influence over air quality both on its own and in combination with other Plans, Programmes and Strategies such as the A9 Dualling Strategy. The Local Development 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.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 9: Population and Human Health

Topic 3: Water

Context

"Water is a heritage which must be protected and defended."
The European Union Water Framework Directive (2000/60/EC).

The Cairngorms National Park has no coastline but encompasses the headwaters of three of Scotland's major rivers as well as many smaller ones. Many of the rivers and their tributaries as well as lochs and wetlands are designated as European sites and Sites of Special Scientific Interest. The rivers are also important, providing water for business and people within and outwith the National Park, as they flow downstream towards the sea.

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.

Examples include (but are not limited to) wastewater and trade effluent from industrial activities, and surface water collected then discharged in urban areas.

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 cumulative effect. Activities associated with diffuse pollution are varied and include (but are not limited to) run-off from roads, sediment and other matter released during agricultural and forestry activities, 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 the focus of attention. Diffuse sources of water pollution can have a significant effect on biodiversity and human health. The effects include (but are not limited to) contamination of water supplies, nutrient enrichment of water bodies leading to changes in habitats and the species that rely on them, oxygen depletion and smothering of substrates and habitats relied on by fish and other wildlife for key stages in their lifecycles.

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 – more commonly known as the Controlled Activity Regulations (CAR) – and their further amendments of 2013, 2017, and 2021 apply regulatory controls over activities which may affect Scotland's water environment.

This legislation arose from the European Community (EC)'s Water Framework Directive (WFD) becoming law in Scotland as the Water Environment and Water Services (Scotland) Act 2003 (WEWS Act). The regulations cover rivers, lochs, transitional waters (estuaries), coastal waters groundwater, and groundwater dependant wetlands.

The European Union Water Framework Directive (2000/60/EC) sets out the objectives for water protection in Scotland. The Water Framework Directive sets out several objectives to improve the quality of water and water bodies:

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

All these objectives must be integrated for each river basin. The Scottish Environment Protection Agency (SEPA) are responsible for monitoring water quality in Scotland to the requirements set out by the Water Framework Directive. The Directive requires all water features above a certain size threshold to be 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 classed as being in bad status.

Surface water quality

Scottish Environment Protection Agency identify 157 waterbodies within and overlapping the National Park boundary (Table 9). These are used as the basis for a proportional baseline for the National Park's area.

Table 9 Information on surface waterbodies within and overlapping the boundary of the Cairngorms National Park.

Reference number	Waterbody name	Category	Sub-basin district	Catchment	Artificial?	Heavily modified?	Heavily Modified or Artificial Water Body reason	Length (km)	Area (km^2)
5702	River North Esk / Water of Lee (Water of Mark to Water of Effock Confluences)	River	Tay	River North Esk (Tayside)	No	No		1.905	
5703	River North Esk / Water of Lee (Loch Lee to Water of Mark Confluence)	River	Tay	River North Esk (Tayside)	No	No		1.933	
5704	Water of Unich	River	Tay	River North Esk (Tayside)	No	No		17.16	
5721	Water of Effock	River	Tay	River North Esk (Tayside)	No	No		7.835	
5722	Water of Mark	River	Tay	River North Esk (Tayside)	No	No		21.432	

5723	Water of Lee	River	Tay	River North Esk (Tayside)	No	No		7.959	
5800	River South Esk (White Water to White Burn Confluences)	River	Tay	River South Esk (Tayside)	No	No		32.052	
5801	River South Esk (Source to White Water Confluence)	River	Tay	River South Esk (Tayside)	No	No		9.526	
5810	Prosen Water (Source(s) to Burn of Lednathie Confluence)	River	Tay	River South Esk (Tayside)	No	No		25.052	
5813	White Water	River	Tay	River South Esk (Tayside)	No	No		10.423	
6523	River Isla (Glencally Burn to Dean Water Confluences)	River	Tay	River Tay	No	No		39.791	
6524	River Isla / Canness Burn	River	Tay	River Tay	No	No		24.803	
6536	Allt Fearnach	River	Tay	River Tay	No	No		14.548	
6540	Black Water (Allt Mor to R Ericht Confluences)	River	Tay	River Tay	No	No		19.774	
6541	Black Water (Source to Allt Mor Confluence)	River	Tay	River Tay	No	No		15.15	
6544	Allt An Daimh / Allt Mor	River	Tay	River Tay	No	No		8.223	

6545	Allt a Ghlinne Bhig	River	Tay	River Tay	No	No		9.989	
6546	Glen Lochsie Burn	River	Tay	River Tay	No	No		9.124	
6552	Allt Glen Loch	River	Tay	River Tay	No	No		6.222	
6598	River Tilt	River	Tay	River Tay	No	No		21.547	
6599	Fender Burn	River	Tay	River Tay	No	No		11.223	
6600	Feith an Lochain	River	Tay	River Tay	No	No		18.311	
6601	An Lochain	River	Tay	River Tay	No	No		8.453	
6602	Tarf Water	River	Tay	River Tay	No	No		42.801	
6603	Banvie Burn	River	Tay	River Tay	No	No		11.972	
6604	Allt Bhaic	River	Tay	River Tay	No	No		7.527	
6605	River Bruar	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	17.186	
6606	Caochan Lu	River	Tay	River Tay	No	No		12.257	
6607	Alt a Chrombaidh	River	Tay	River Tay	No	No		7.777	
6608	Allt Anndeir	River	Tay	River Tay	No	Y	Water Storage - Hydropower Generation	33.022	
6609	Edendon Water	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	17.483	
6610	Allt Coire Dhomhain	River	Tay	River Tay	No	No		10.599	

6611	Errochty Water	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	11.864	
6836	River Garry (Errochty Water Confluence to Loch Faskally)	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	15.117	
6911	River Garry from Garry Intake to Errochty Water confluence	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	13.195	
6912	River Garry from Loch Garry to Garry Intake	River	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation	7.009	
6914	Upper Allt Girnaig	River	Tay	River Tay	No	No		10.383	
6915	Lower Allt Girnaig	River	Tay	River Tay	No	No		2.977	
20347	River Pattack - Loch Laggan to Loch Pattack	River	Argyll	River Lochy	No	No		16.572	
23018	Elrick Burn	River	North Highland	River Findhorn	No	No		11.222	
23084	River Avon / River Livet - lower catchment	River	North East Scotland	River Spey	No	No		34.703	

23085	River Avon - Burn of Loin to Water of Ailnack	River	North East Scotland	River Spey	No	No		14.244	
23086	River Avon - Loch Avon to Burn of Loin	River	North East Scotland	River Spey	No	No		23.67	
23090	Chabet Water	River	North East Scotland	River Spey	No	No		9.356	
23091	Burn of Lochy	River	North East Scotland	River Spey	No	No		20.071	
23092	Conglass Water	River	North East Scotland	River Spey	No	No		19.704	
23093	Water of Ailnack	River	North East Scotland	River Spey	No	No		21.544	
23094	Burn of Loin	River	North East Scotland	River Spey	No	No		10.382	
23095	Builg Burn	River	North East Scotland	River Spey	No	No		9.098	

23096	River Spey - R. Nethy to R. Avon	River	North East Scotland	River Spey	No	No		30.976	
23097	River Spey - R. Feshie to R. Nethy	River	North East Scotland	River Spey	No	No		27.69	
23100	Allt Breac	River	North East Scotland	River Spey	No	Yes	Agricultural Land Drainage	9.274	
23101	Cromdale Burn	River	North East Scotland	River Spey	No	No		8.843	
23102	Allt an Fhithich	River	North East Scotland	River Spey	No	No		11.736	
23103	Allt Choire Odhair	River	North East Scotland	River Spey	No	No		7.662	
23104	Glenbeg Burn	River	North East Scotland	River Spey	No	No		8.944	
23105	Allt Mor	River	North East Scotland	River Spey	No	No		12.289	

23106	River Dulnain - lower catchment	River	North East Scotland	River Spey	No	No		26.548	
23110	River Dulnain - Allt an Aonaich	River	North East Scotland	River Spey	No	No		8.321	
23111	River Dulnain - Allt Lorgy	River	North East Scotland	River Spey	No	No		11.03	
23112	River Dulnain - Allt Ruighe Magaig	River	North East Scotland	River Spey	No	No		7.773	
23113	River Dulnain - Feith Mhor	River	North East Scotland	River Spey	No	Yes	Agricultural Land Drainage	7.266	
23114	River Dulnain - Duthil Burn	River	North East Scotland	River Spey	No	No		9.299	
23115	River Dulnain - Allt Mor	River	North East Scotland	River Spey	No	No		6.837	
23116	River Nethy - d/s Nethy Bridge	River	North East Scotland	River Spey	No	No		1.784	

23117	River Nethy - u/s Nethy Bridge	River	North East Scotland	River Spey	No	No		56.164	
23118	Craigowrie Burn	River	North East Scotland	River Spey	No	No		8.307	
23119	River Druie - d/s Coylumbridge	River	North East Scotland	River Spey	No	No		2.627	
23121	River Druie - u/s Loch Einich	River	North East Scotland	River Spey	No	No		1.609	
23122	River Luineag - u/s Loch Morlich	River	North East Scotland	River Spey	No	No		14.321	
23123	Burn out of Loch an Eilein	River	North East Scotland	River Spey	No	No		2.789	
23124	Burn into Loch an Eilein	River	North East Scotland	River Spey	No	No		3.127	
23125	Allt na Fearna - d/s Loch Alvie	River	North East Scotland	River Spey	No	No		2.068	

23126	Allt na Fearna - u/s Loch Alvie	River	North East Scotland	River Spey	No	No		9.249	
23127	River Feshie - Allt a Mharcaidh	River	North East Scotland	River Spey	No	No		9.442	
23128	River Spey - Loch Insh to R. Feshie	River	North East Scotland	River Spey	No	No		1.042	
23129	River Feshie - main stem d/s R. Eidart	River	North East Scotland	River Spey	No	No		25.317	
23130	River Feshie - Allt Ruadh	River	North East Scotland	River Spey	No	No		6.837	
23131	River Feshie - Allt Fhearnasdail	River	North East Scotland	River Spey	No	No		25.189	
23132	River Eidart	River	North East Scotland	River Spey	No	No		11.494	
23133	River Feshie - u/s R. Eidart	River	North East Scotland	River Spey	No	No		13.841	

23134	Allt Na Baranachd	River	North East Scotland	River Spey	No	No		9.139	
23136	Raitts Burn	River	North East Scotland	River Spey	No	No		10.243	
23137	River Gynack	River	North East Scotland	River Spey	No	No		9.613	
23138	River Tromie - d/s Allt Bhran	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	13.327	
23140	River Tromie - u/s Loch an t-Seilich	River	North East Scotland	River Spey	No	No		9.131	
23141	River Tromie - Allt Garbh Ghaig	River	North East Scotland	River Spey	No	No		9.023	
23142	River Spey - Spey Dam to Loch Insh	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	34.813	
23143	Milton Burn	River	North East Scotland	River Spey	No	No		19.616	

23144	Allt na Beinne / Allt na Feithe Buidhe	River	North East Scotland	River Spey	No	No		7.022	
23145	River Calder	River	North East Scotland	River Spey	No	No		30.532	
23146	River Truim - lower catchment	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	11.43	
23148	Allt Breakachy	River	North East Scotland	River Spey	No	No		6.593	
23149	River Mashie	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	16.453	
23150	Markie Burn	River	North East Scotland	River Spey	No	No		10.611	
23151	River Spey - Garva to Spey Reservoir	River	North East Scotland	River Spey	No	No		4.916	
23152	River Avon - u/s Loch Avon	River	North East Scotland	River Spey	No	No		2.407	

23187	River Deveron - source to Black Water confl.	River	North East Scotland	River Deveron	No	No		25.289	
23294	River Don - Strathdon to Alford	River	North East Scotland	River Don	No	No		38.499	
23295	River Don - source to Strathdon	River	North East Scotland	River Don	No	No		37.902	
23297	Water of Carvie	River	North East Scotland	River Don	No	No		5.975	
23298	Deskry Water	River	North East Scotland	River Don	No	No		15.954	
23299	Water of Buchat	River	North East Scotland	River Don	No	No		13.39	
23332	River Dee - Ballater to Banchory	River	North East Scotland	River Dee (Grampian)	No	No		42.525	
23339	Water of Tanar	River	North East Scotland	River Dee (Grampian)	No	No		36.806	

23340	Davan Burn	River	North East Scotland	River Dee (Grampian)	No	No		3.579	
23343	Tullich Burn	River	North East Scotland	River Dee (Grampian)	No	No		9.858	
23344	Pollagach Burn	River	North East Scotland	River Dee (Grampian)	No	No		8.123	
23345	River Dee - Braemar to Ballater	River	North East Scotland	River Dee (Grampian)	No	No		34.097	
23346	River Dee - White Bridge to Braemar	River	North East Scotland	River Dee (Grampian)	No	No		15.551	
23347	River Gairn - lower catchment	River	North East Scotland	River Dee (Grampian)	No	No		10.36	
23348	River Gairn - Glenfenzie Burn	River	North East Scotland	River Dee (Grampian)	No	No		6.306	
23349	River Gairn - Lary Burn	River	North East Scotland	River Dee (Grampian)	No	No		8.203	

23350	River Gairn - upper catchment	River	North East Scotland	River Dee (Grampian)	No	No		28.037	
23351	River Muick - Spittal of Glen Muick to Dee	River	North East Scotland	River Dee (Grampian)	No	No		12.71	
23352	River Muick - Allt Darrarie	River	North East Scotland	River Dee (Grampian)	No	No		8.918	
23353	River Muick - Loch Muick to Allt Darrarie	River	North East Scotland	River Dee (Grampian)	No	No		2.889	
23354	River Muick - Allt an Dubh Loch	River	North East Scotland	River Dee (Grampian)	No	No		7.372	
23355	Girnock Burn	River	North East Scotland	River Dee (Grampian)	No	No		11.1	
23356	Crathie Burn	River	North East Scotland	River Dee (Grampian)	No	No		6.447	
23357	Feardar Burn	River	North East Scotland	River Dee (Grampian)	No	No		8.263	

23358	Gelder Burn	River	North East Scotland	River Dee (Grampian)	No	No		10.915	
23359	Allt Lochan nan Eun	River	North East Scotland	River Dee (Grampian)	No	No		7.918	
23360	Slugain Burn	River	North East Scotland	River Dee (Grampian)	No	No		6.087	
23361	Clunie Water - Callater Burn to Dee	River	North East Scotland	River Dee (Grampian)	No	No		5.146	
23362	Clunie Water - upper catchment	River	North East Scotland	River Dee (Grampian)	No	No		32.833	
23363	Quoich Water - main stem	River	North East Scotland	River Dee (Grampian)	No	No		14.262	
23364	Quoich Water - Allt Dearg	River	North East Scotland	River Dee (Grampian)	No	No		9.887	
23365	Ey Burn	River	North East Scotland	River Dee (Grampian)	No	No		22.994	

23366	Lui Water	River	North East Scotland	River Dee (Grampian)	No	No		28.596	
23367	River Dee - source to White Bridge	River	North East Scotland	River Dee (Grampian)	No	No		24.686	
23368	Geldie Burn	River	North East Scotland	River Dee (Grampian)	No	No		29.434	
23372	Logie Burn / Loch Davan	River	North East Scotland	River Dee (Grampian)	No	No		9.817	
23577	Ernan Water	River	North East Scotland	River Don	No	No		11.94	
23578	Water of Nochty	River	North East Scotland	River Don	No	No		13.541	
23638	River Truim from source to Allt Cuaich confluence	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	15.607	
23639	Allt Cuaich	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	10.138	

23640	River Tromie from Loch an t-Seilich to confluence with Allt Bhran	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	3.772	
23641	Allt Bhran	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	9.862	
23907	Crombie Water	River	North East Scotland	River Spey	No	No		12.14	
23908	River Livet / Blye Water	River	North East Scotland	River Spey	No	No		22.471	
23909	River Luineag	River	North East Scotland	River Spey	No	No		6.208	
23910	Am Beanaidh	River	North East Scotland	River Spey	No	No		21.586	
23913	Modified channel between Spey Reservoir and Loch Crunachdan	River	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation	2.307	

23914	Allt Crunachdain	River	North East Scotland	River Spey	No	No		5.551	
100181	Loch Alvie	Lake	North East Scotland	River Spey	No	No			0.58
100182	Loch Morlich	Lake	North East Scotland	River Spey	No	No			1.21
100183	Loch an Eilein	Lake	North East Scotland	River Spey	No	No			0.56
100187	Loch Insh	Lake	North East Scotland	River Spey	No	No			1.31
100189	Loch Avon	Lake	North East Scotland	River Spey	No	No			0.56
100192	Loch Kinord	Lake	North East Scotland	River Dee (Grampian)	No	No			0.77
100193	Loch Einich	Lake	North East Scotland	River Spey	No	No			0.74

100195	Spey Reservoir	Lake	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation		0.87
100199	Loch an t-Seilich	Lake	North East Scotland	River Spey	No	Yes	Water Storage - Hydropower Generation		1.13
100202	Loch Muick	Lake	North East Scotland	River Dee (Grampian)	No	No			2.19
100209	Loch Lee	Lake	Tay	River North Esk (Tayside)	No	Yes	Water Storage - Drinking Water Supply		0.9
100349	Loch Garry	Lake	Tay	River Tay	No	Yes	Water Storage - Hydropower Generation		1.64

Water quality within the Cairngorms National Park is generally very high and is on a trend of improvement. In 2023 around 98% of waterbodies were calculated as having high or good status, with only one waterbody, River Muick – Allt an Dubh Loch (ID number 23354), classified as poor. No waterbodies were classified as bad (Figure 46). Most waterbodies therefore meet the Water Framework Directive objective of good status.

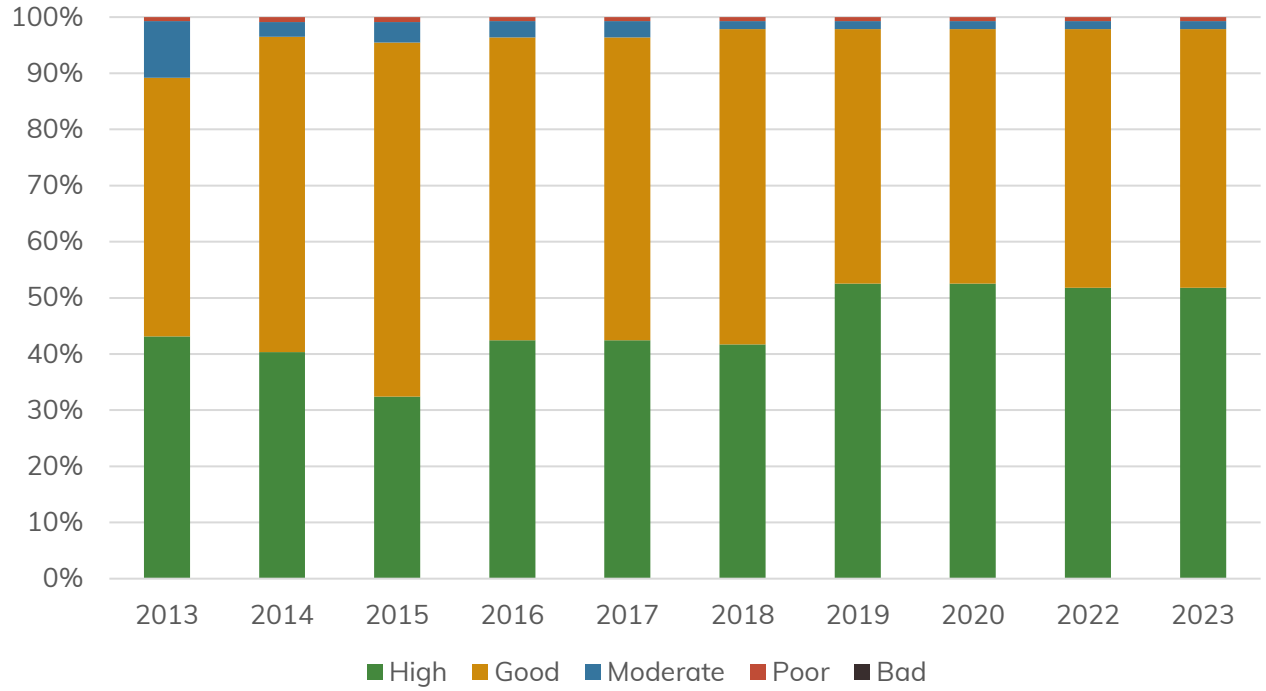


Figure 46 Proportion of waterbodies by water quality in the Cairngorms National Park, 2013 – 2023[29] (Scottish Environment Protection Agency, 2024).

The pressure identified by Scottish Environment Protection Agency on Allt an Dubh Loch, which is a tributary to the River Muick and is within the River Dee Catchment area, is acidification from the burning of fossil fuels, for example through acid rain and the acidification of soils. Scottish Environment Protection Agency record that action has been completed to address the pressure, but it is expected that ecological recovery will take longer.

[29] Data for 2021 is not available.

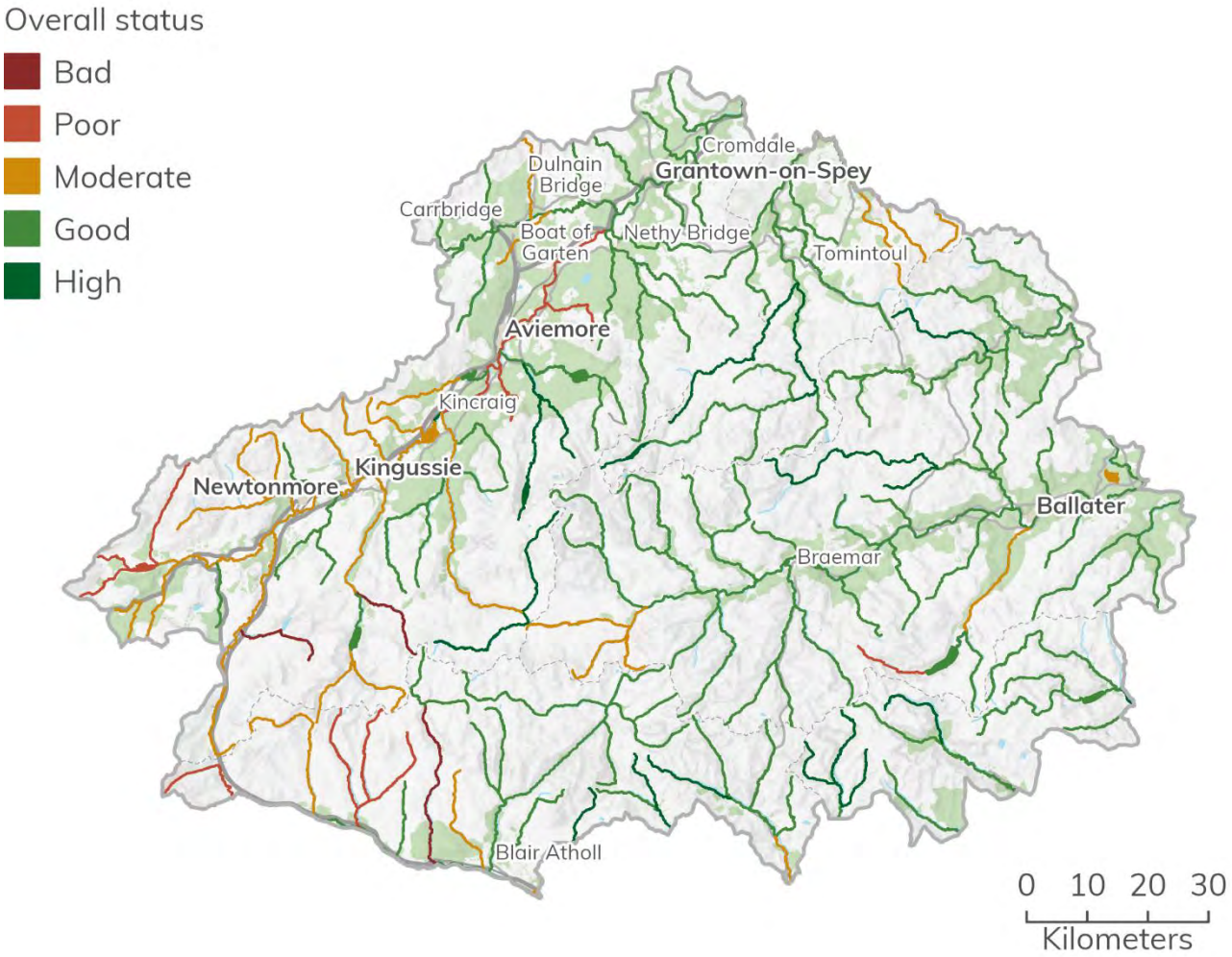


Figure 47 Overall status of surface waterbodies within the Cairngorms National Park in 2023. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Water quality is however but one criterion used by Scottish Environment Protection Agency in coming to an overall designation for the overall status of waterbodies. Furthermore, Scottish Environment Protection Agency use a 'one out-all out' approach to designation, so if a waterbody performs poorly under one criterion (Figure 49), that will set its overall classification.

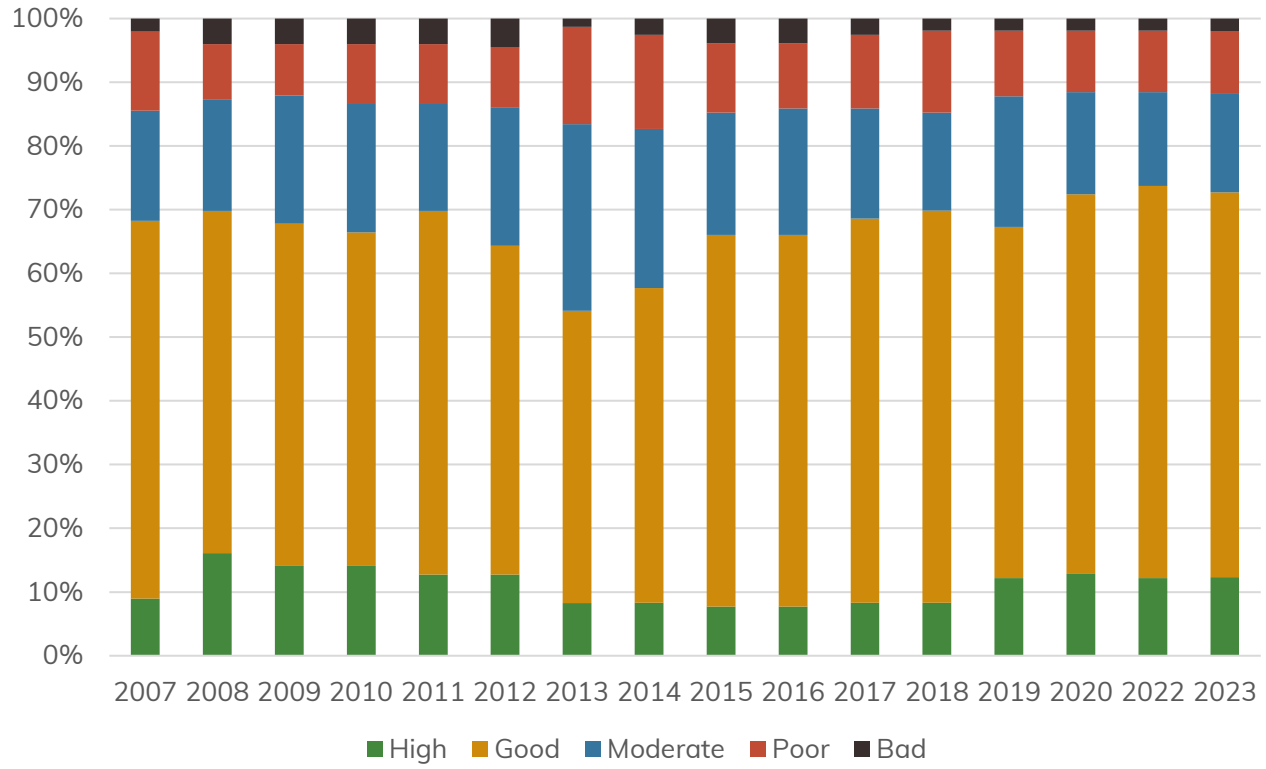


Figure 48 Proportion of waterbodies by overall status in the Cairngorms National Park, 2013 – 2023[30] (Scottish Environment Protection Agency, 2024).

The overall status of waterbodies within the Cairngorms National Park quality is relatively good, with around 73% calculated to have achieved high or good status in 2023. This has varied in recent years, with a high point of around 74% in 2022 and a nadir of around 54% in 2013. The proportion of waterbodies with a poor or bad status was around 12% in 2023, down from a high of around 17% in 2013 (Figure 48). The main reasons for waterbodies not achieving overall good status is the presence of a large number of barriers to fish and pressure on water flows and levels. Hydro electricity generation is the main cause of both pressures (Figure 50 and Figure 51).

[30] Data for 2021 is not available.

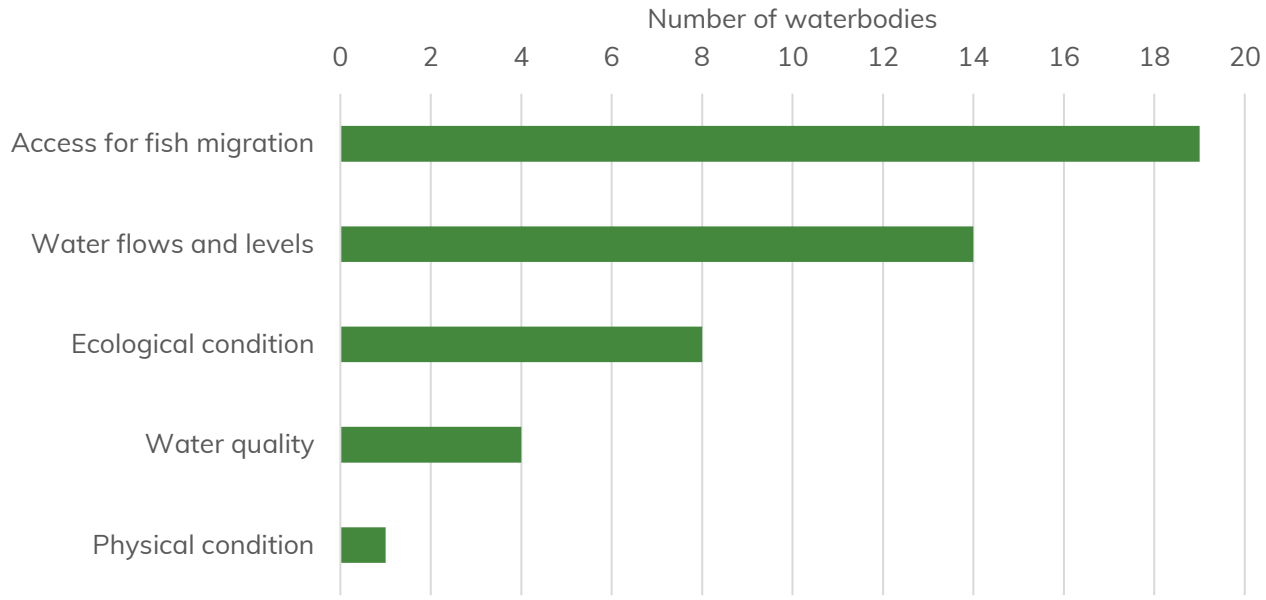


Figure 49 Impacted condition of waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

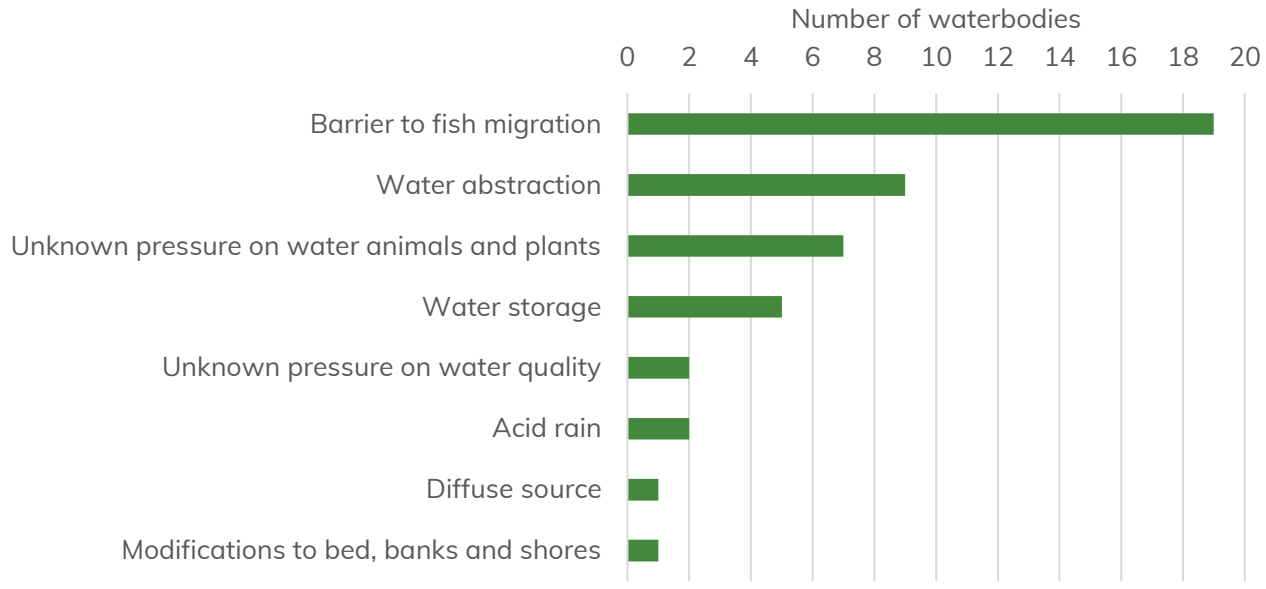


Figure 50 Pressures responsible for waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

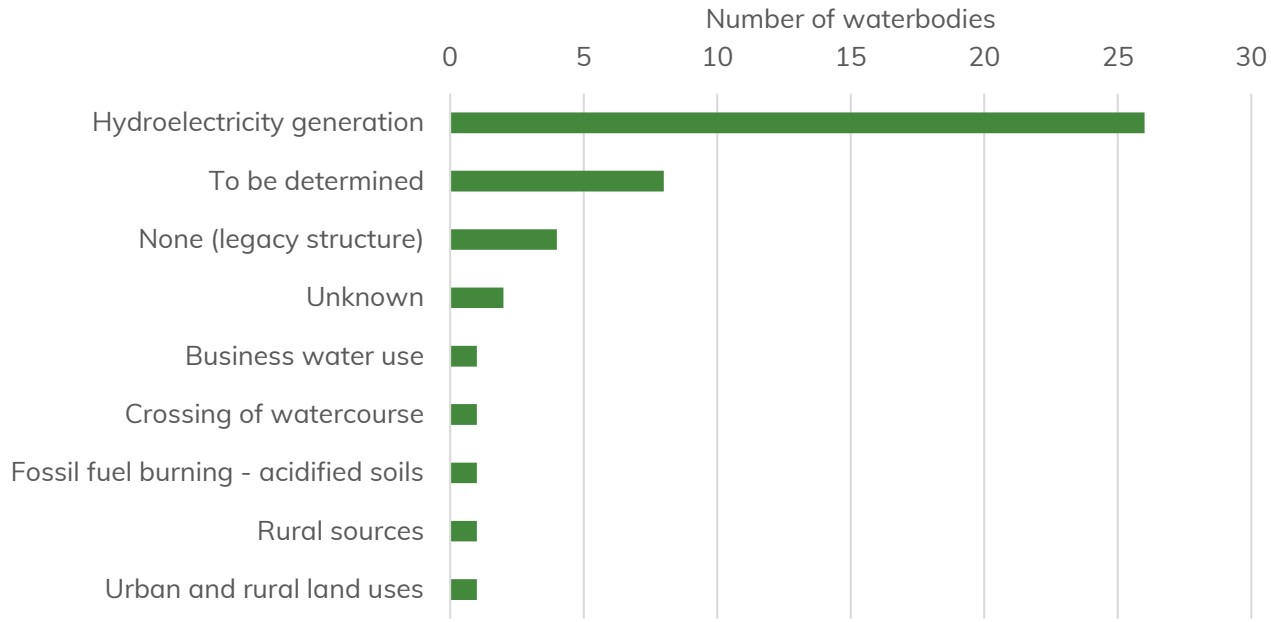


Figure 51 Activities responsible for pressures responsible for waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

Table 10 Information on surface water bodies with a poor or bad overall condition within and overlapping the Cairngorms National Park, including actions set out to address them through the River basin management plan for Scotland 2021 – 2027. Where actions are identified they are to be delivered during the 2021 – 2027 timeframe of management plan. For full details see https://informatics.sepa.org.uk/RBMP3/

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
6605	River Bruar	Bad	Bad	Good	Good	Water flows and levels	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
							Water storage			
6608	Allt Anndeir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
						Water flows and levels	Water abstraction	Hydroelectricity generation	No action planned	
							Water storage			
6610	Allt Coire Dhomhain	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
6912	River Garry from Loch Garry to Garry Intake	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
										and the business responsible
						Water flows and levels	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23097	River Spey - R. Feshie to R. Nethy	Poor	Poor	Poor	Poor	Physical condition	Farming	Action not planned		
						Water storage	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23118	Craigowrie Burn	Poor	Poor	Poor	Good	Physical condition	Modification to bed, banks and shores	Farming	Partnership working	Scottish Environment Protection Agency, other public bodies, voluntary organisations and land mangers
23123	Burn out of Loch an Eilein	Poor	Poor	Good	Good	Access to fish migration	Barrier to fish migration	None (legacy structure)	Partnership working	Scottish Environment Protection Agency and voluntary organisations working with

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
										businesses and local community
						Ecological condition	Unknown pressure on water animals and plants	Unconfirmed	To be determined	To be determined
23124	Burn into Loch an Eilein	Poor	Poor	Moderate	Moderate	Access for fish migration	Barrier to fish migration	None (legacy structure)	working	Scottish Environment Protection Agency and voluntary organisations working with businesses and local community
						Physical condition	Modifications to bed, banks and shores	Action not planned		
23150	Markie Burn	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23151	River Spey - Garva to Spey Reservoir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
23354	River Muick - Allt an Dubh Loch	Poor	Poor	Poor	Good	Water quality	Acid rain	Fossil fuel burning – acidification of soils	Action has been completed but it is expected that ecological recovery will take longer	
23639	Allt Cuaich	Bad	Bad	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Water flows and levels	Water abstraction			
23641	Allt Bhran	Bad	Bad	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Water flows and levels	Water abstraction			
23913	Modified channel between Spey Reservoir and Loch Crunachdan	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Physical condition	Modifications to bed, banks and shores	Hydroelectricity generation	No action planned	
						Water flows and levels	Water storage	Hydroelectricity generation	No action planned	

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
23914	Allt Crunachdain	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
100183	Loch an Eilein	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	None (legacy structure)	Partnership working	Scottish Environment Protection Agency and voluntary organisations working with businesses and local community
100195	Spey Reservoir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Ecological condition	Unknown pressure on water animals and plants	Unconfirmed	To be determined	To be determined
						Physical condition	Modification to bed, banks and shores	Hydroelectricity generation	No action planned	

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
100349	Loch Garry	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Physical condition	Modification to bed, banks and shores	Hydroelectricity generation	No action planned	
						Water flows and levels	Water abstraction	Hydroelectricity generation	No action planned	

Groundwater quality

Twenty-four groundwater waterbodies have been identified within or overlapping the Cairngorms National Park (Table 11 and Figure 52). A number of these, namely Aberlour (150666), Cabrach (150627), Clachnaben (150705), Craigevar Castle (150642), and Northern Highlands (150701), cover very little of the National Park's geography relative to their size.

Only one groundwater waterbody had an overall classification that did not achieve good status in 2023, namely Aberlour (150666), of which only a small part is located within the National Park. Pressures relating to saltwater interaction are the cause, with the waterbody given an overall status of poor.

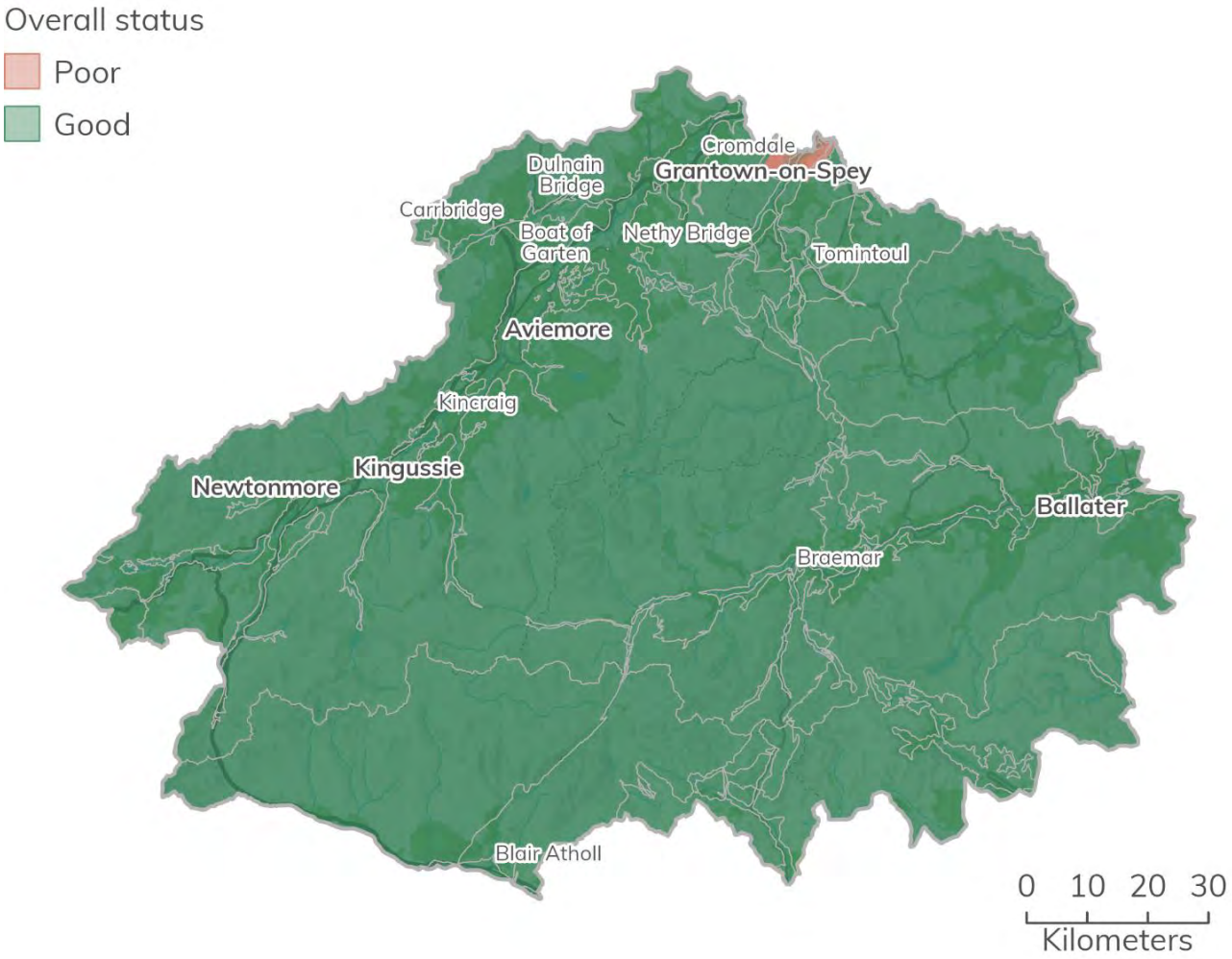


Figure 52 Overall status of groundwater waterbodies within the Cairngorms National Park in 2023. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Table 11 Information on groundwater waterbodies within and overlapping the boundary of the Cairngorms National Park.

Reference number	Waterbody name	Sub-basin district	Aquifer typology	Dominant flow typology	Aquifer productivity typology	Area (km^2)	Area in National Park (km^2)	Proportion in National Park
150691	Rannoch	Tay	Precambrian North	Fracture	Very low to low	1273.40	412.83	32.42%
150629	Braemar	North East Scotland	Highland calcareous	Fracture	Low to moderate	183.97	183.97	100.00%
150701	Northern Highlands	North Highland	Precambrian North	Fracture	Very low to low	9382.31	0.08	0.00%
150705	Clachnaben	North East Scotland	Precambrian South	Fracture	Very low to low	212.98	0.09	0.04%
150735	Tummel and Tay Sand and Gravel	Tay	Superficial aquifers	Intergranular	Moderate to high	75.97	5.99	7.88%
150748	Glen Esk Sand and Gravel	Tay	Superficial aquifers	Intergranular	Moderate to high	11.70	2.83	24.20%
150792	Middle Dee Sand and Gravel	North East Scotland	Superficial aquifers	Intergranular	Moderate to high	57.74	9.59	16.61%
150795	Upper Dee Sand and Gravel	North East Scotland	Superficial aquifers	Intergranular	Moderate to high	63.90	63.90	100.00%
150666	Aberlour	North East Scotland	Precambrian North	Fracture	Very low to low	388.25	14.87	3.83%

150642	Craigievar Castle	North East Scotland	Precambrian South	Fracture	Very low to low	241.71	1.37	0.57%
150520	Tomintoul	North East Scotland	Old Red Sandstone North	Fracture (minor intergranular)	Low to high	53.12	53.12	100.00%
150627	Cabrach	North East Scotland	Precambrian South	Fracture	Very low to low	180.71	4.40	2.44%
150654	Glenlivet	North East Scotland	Highland calcareous	Fracture	Low to moderate	314.13	169.11	53.83%
150798	Middle Spey Sand and Gravel	North East Scotland	Superficial aquifers	Intergranular	Moderate to high	73.00	17.33	23.74%
150709	Strathnairn, Speyside and Cairngorms	North East Scotland	Precambrian North	Fracture	Very low to low	3726.04	2147.20	57.63%
150693	Upper Glen Coe	Argyll	Precambrian North	Fracture	Very low to low	1393.70	15.16	1.09%
150639	Blair Atholl	Tay	Highland calcareous	Fracture	Low to moderate	234.95	205.10	87.30%
150699	Killin, Aberfeldy and Angus Glens	Tay	Precambrian South	Fracture	Very low to low	3741.11	420.01	11.23%
150814	Upper Spey Sand and Gravel	North East Scotland	Superficial aquifers	Intergranular	Moderate to high	252.42	242.32	96.00%
150727	Glenshee and Strathardle Sand and Gravel	Tay	Superficial aquifers	Intergranular	Moderate to high	38.36	10.36	27.01%

150682	Ballater	North East Scotland	Precambrian South	Fracture	Very low to low	574.67	572.14	99.56%
150665	Aboyne	North East Scotland	Precambrian South	Fracture	Very low to low	382.58	47.07	12.30%
150708	Strathdon	North East Scotland	Precambrian South	Fracture	Very low to low	283.05	281.58	99.48%
150783	Glen Clova Sand and Gravel	Tay	Superficial aquifers	Intergranular	Moderate to high	43.07	31.77	73.75%

Protected sites

Around 52% of the Cairngorms National Park is protected by some form international or national nature designation, a number of have freshwater or wetland features. These are:

- Sites of Scientific Interest
- Special Areas of Conservation
- Ramsar sites.

In the case of Ramsar sites, they are specifically designated to conserve and protect wetlands. Table 12 contains details of protected sites within the Cairngorms National Park that have freshwater or wetland features.

Table 12 Sites of Special Scientific Interest, Special Areas of Conservation and Ramsar sites within the Cairngorms National Park that have freshwater habitat and wetland features.

Site Name	Designation	Feature Name	Feature Category	Summary Condition
Abernethy Forest	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
		Raised bog	Wetlands	Favourable
Alvie	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
Caenlochan	Site of Special Scientific Interest	Dystrophic loch	Freshwater habitats	Favourable
Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Not Assessed
Creag nan Gamhainn	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Unfavourable
Eastern Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Favourable

Site Name	Designation	Feature Name	Feature Category	Summary Condition
Fodderletter	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Favourable
Glen Callater	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Glen Fender Meadows	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Recovering
Loch Brandy	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Loch Moraig	Site of Special Scientific Interest	Mesotrophic loch	Freshwater habitats	Favourable
		Springs (including flushes)	Wetlands	Favourable
Morrone Birkwood	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
Muir of Dinnet	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
		Oligo-mesotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Site of Special Scientific Interest	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable
Cairngorms	Special Area of Conservation	Acid peat-stained lakes and ponds	Freshwater habitats	Favourable
		Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Creag Meagaidh	Special Area of Conservation	Clear-water lakes or lochs with aquatic	Freshwater habitats	Favourable

Site Name	Designation	Feature Name	Feature Category	Summary Condition
		vegetation and poor to moderate nutrient levels		
Insh Marshes	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Muir of Dinnet	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
		Degraded raised bog	Wetlands	Favourable
River Tay	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Abernethy Forest	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
		Raised bog	Wetlands	Favourable
Alvie	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
Caenlochan	Site of Special Scientific Interest	Dystrophic loch	Freshwater habitats	Favourable
Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Not Assessed
Creag nan Gamhainn	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Unfavourable

Site Name	Designation	Feature Name	Feature Category	Summary Condition
Eastern Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Favourable
Fodderletter	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Favourable
Glen Callater	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Glen Fender Meadows	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Recovering
Loch Brandy	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Loch Moraig	Site of Special Scientific Interest	Mesotrophic loch	Freshwater habitats	Favourable
		Springs (including flushes)	Wetlands	Favourable
Morrone Birkwood	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
Muir of Dinnet	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
		Oligo-mesotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Site of Special Scientific Interest	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable
Cairngorm Lochs	Ramsar	Oligotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Ramsar	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable

Special Protection Areas may, which are designated for birds, may also cover freshwater and wetland habitats. Table 13 provides details on the Special Protection Areas that primarily cover freshwater and wetland habitats.

Table 13 Special Protection Areas within the Cairngorms National Park that primarily cover freshwater and wetland habitats.

Site Name	Feature Name	Summary Condition
Loch Vaa	Slavonian grebe (Podiceps auritus), breeding	Unfavourable
Muir of Dinnet	Greylag goose (Anser anser), non-breeding	Unfavourable
	Waterfowl assemblage, non-breeding	Unfavourable
River Spey – Insh Marshes	Hen harrier (Circus cyaneus), non-breeding	Favourable
	Osprey (Pandion haliaetus), breeding	Favourable
	Spotted crake (Porzana porzana), breeding	Favourable
	Whooper swan (Cygnus cygnus), non-breeding	Favourable
	Wigeon (Anas penelope), breeding	Unfavourable
	Wood sandpiper (Tringa glareola), breeding	Favourable

Information on the condition of all protected sites is contained within the following supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2025/01/Cairngorms-National-Park-protected-site-information.pdf

Bathing waters

Scotland has over 80 designated bathing waters where Scottish Environment Protection Agency monitor water quality from 15 May to 15 September and publish the sampling results and classification online[31]. The classification describes the general water quality condition for each location – excellent, good, sufficient and poor – based on four years of monitoring data. These classifications are calculated at the end of one season for display during the following season.

There is only one designated bathing water in the Cairngorms National Park, which is at Loch Morlich (Figure 53), which is one of only three inland bathing waters in Scotland.

[31] See https://bathingwaters.sepa.scot/locations-and-results/

For all monitoring years reported by Scottish Environment Protection Agency, 2017 – 2024 (current), the classification has been 'excellent'.

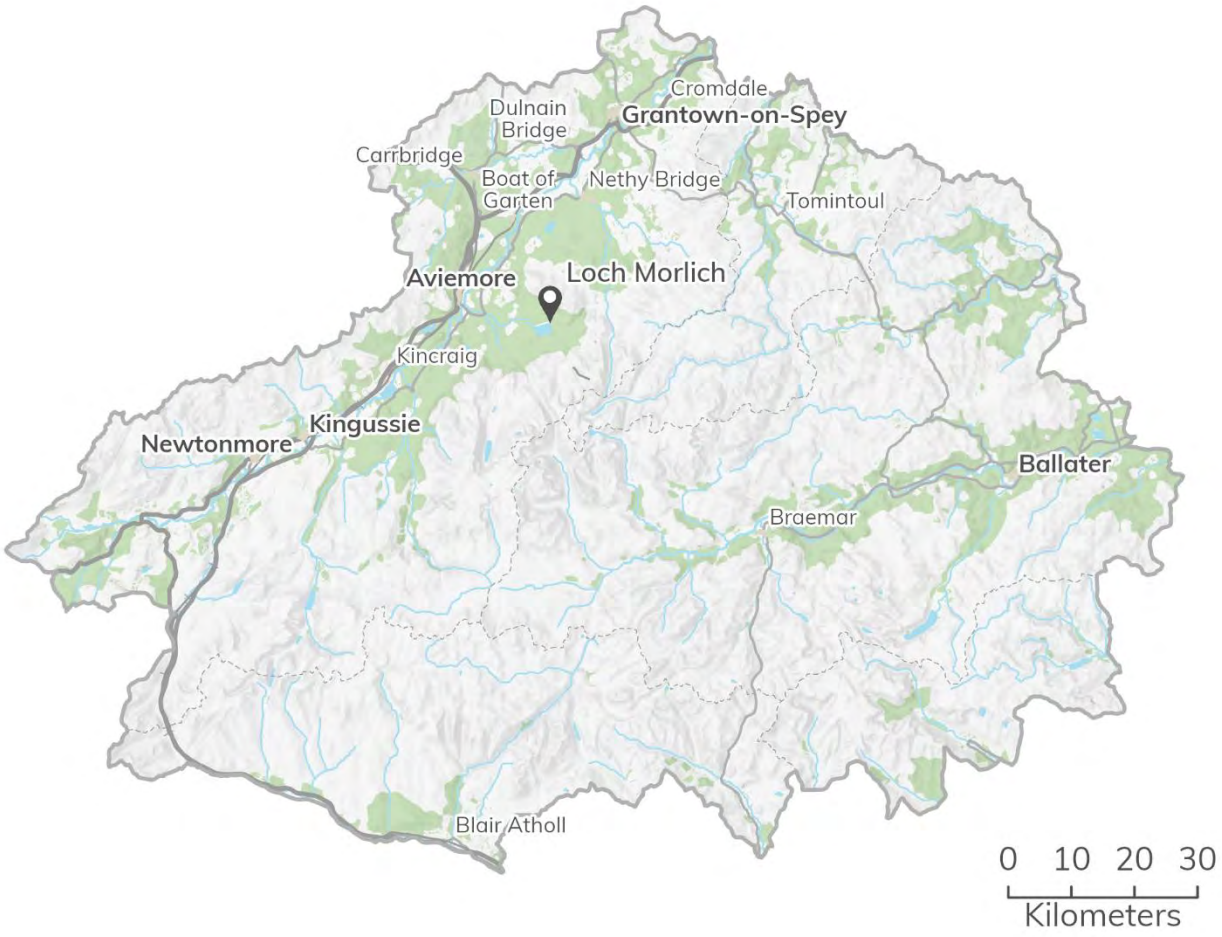


Figure 53 Map showing the location of Loch Morlich designated bathing water. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Loch Morlich's bathing water is at risk of short-term pollution following heavy rainfall and bathing is not advised during or 1 – 2 days after heavy rainfall due to the risk to bathers' health from water pollution.

Waterbody predictions

Surface Water

In terms of water quality, the Scottish Environment Protection Agency[32] predicts that the number and percentage of waterbodies rated as high, good, moderate or poor will reduce to zero in the longer term beyond 2027 (Figure 54). By 2027, there are predicted to be no surface water sites with poor water quality and beyond 2027 no sites are predicted to be classified as moderate or poor (Figure 54).

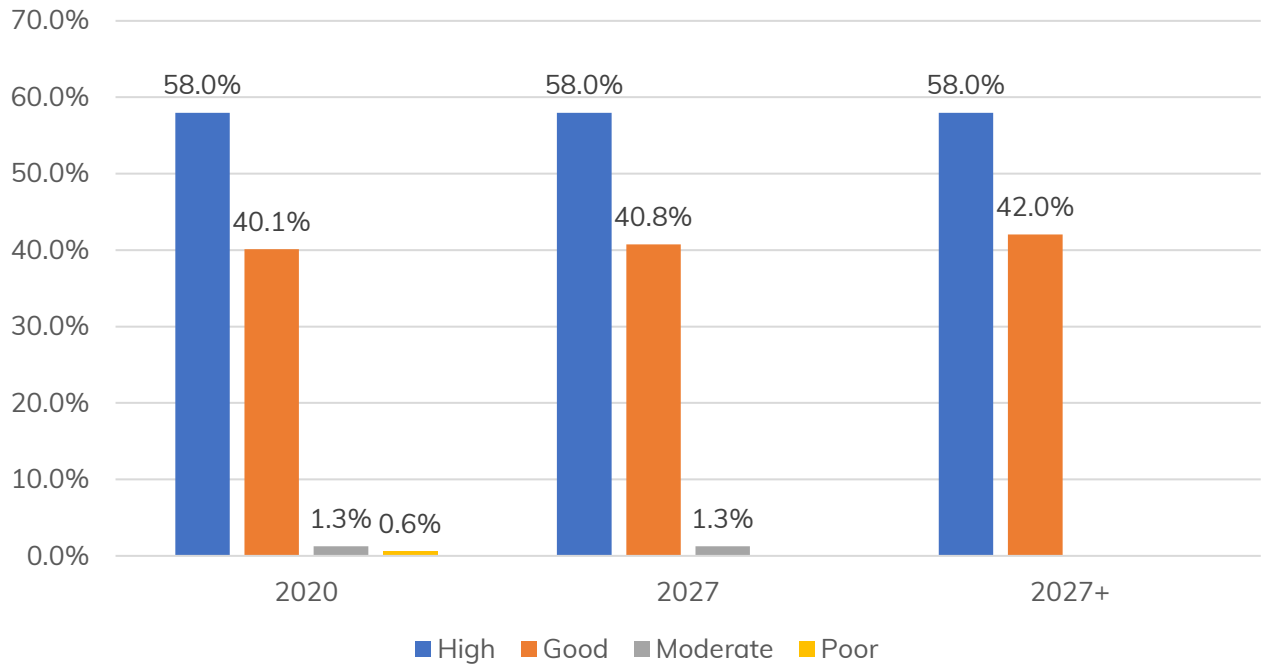


Figure 54 Percentage of waterbodies in the Cairngorm National Park rated high, good, moderate or poor in 2020 and predicted percentages for 2027, and beyond 2027. (Scottish Environment Protection Agency, 2025.)

Surface water - overall condition

The overall impacted condition of the surface waterbodies considers water quality, water flows and levels, physical condition, access for fish migration and freedom from invasive species and classifies each site, now, and with forecasts for 2027 and beyond 2027.

Looking forward the number and proportion of surface waterbodies classified as high remains constant at 20 in 2027 and beyond (Figure 55). The proportion of waterbodies

[32] https://informatics.sepa.org.uk/RBMP3/

classified as good is predicted to increase from 54.8% (86 sites) in 2020 to 66.2% (104 sites) in 2027 rising to 68.8% (108 sites) beyond 2027. The proportion of sites classified as poor in 2020 is 6.4% (10 sites) is expected to fall to 0.6% or one site beyond 2027. From 2027 there is predicted to be no sites classified as poor ecological potential or bad ecological potential.

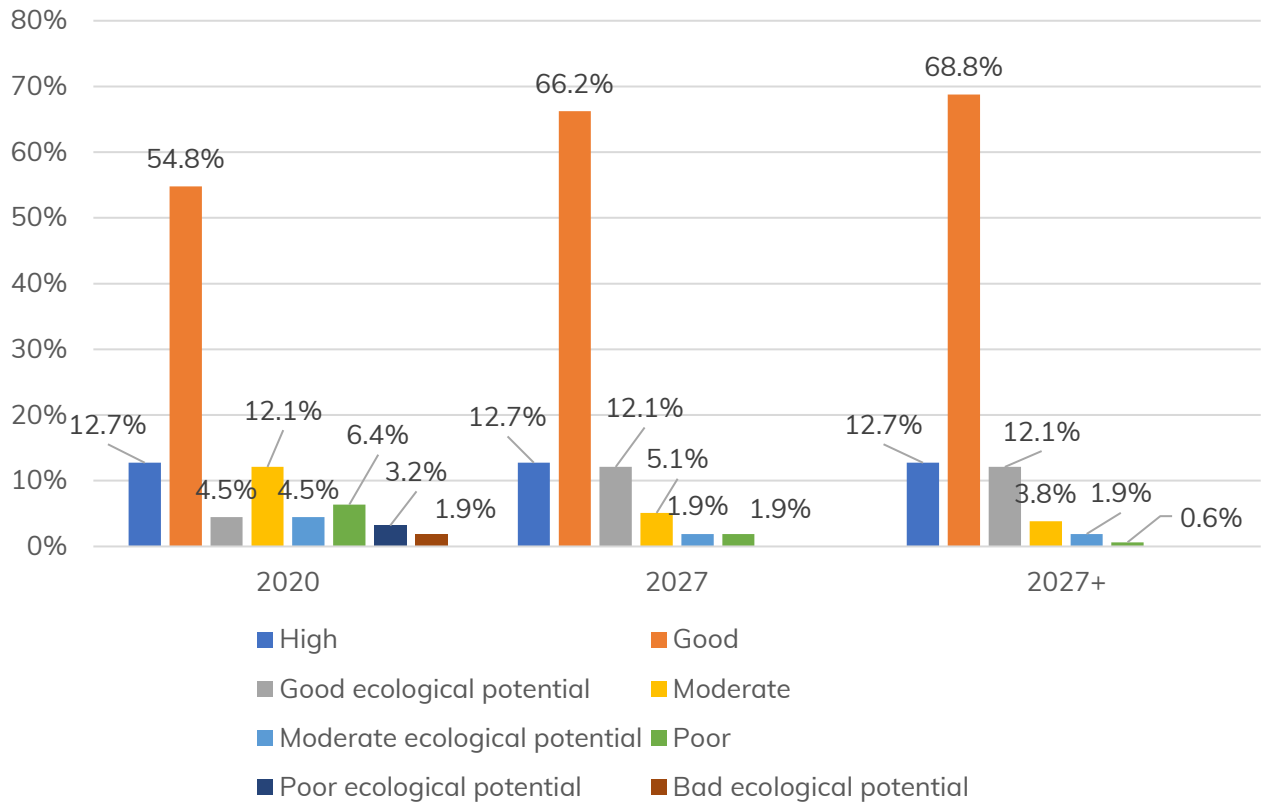


Figure 55 The overall impacted condition of the surface waterbodies in 2020 and predicted in 2027, and beyond 2027. (Scottish Environment Protection Agency, 2025.)

The shift to a greater proportion having an improved status is likely to be a result of continuing remediation works on historical engineering and barriers to fish passage.

Ground water quality

There is no change in the classifications for ground water quality or the overall condition, which is good for all sites in 2020, forecast for 2027 and beyond 2027. It should be noted as stated in the preceding section that one site namely Aberlour (150666) did not achieve a good status in 2023.

Protected sites overall condition

There are 30 protected sites monitored by the Scottish Environment Protection Agency in the Cairngorms National Park. Protected sites are classified as excellent, favourable or unfavourable. Only three rivers are included in the forecasts. The River Spey, River Dee, and River South Esk. All three sites are classified as unfavourable in 2022, and expected to be improved to be classified as favourable in 2027 and beyond (2027+)

Pollution

Scottish Pollutant Release Inventory water releases

The Scottish Pollutant Release Inventory is a Pollutant Release and Transfer Register and has the primary purpose of making publicly available officially reported annual releases of specified pollutants to air and water from Scottish Environment Protection Agency regulated industrial facilities. It also provides information on off-site transfers of waste and wastewater from these facilities.

Operators of sites carrying out specific activities (67 activities covering 10 major sectors) above defined capacity thresholds are obliged to report to Scottish Pollutant Release Inventory an annual basis. The activities and thresholds are largely determined by European reporting requirements, but some thresholds have been lowered to be relevant to pollutant releases in the UK and Scotland.

There are three Scottish Pollutant Release Inventory sites within the Cairngorms National Park (Table 14). None of these sites reported any water releases between 2007 and 2023, the latest year of reporting.

Table 14 Scottish Pollutant Release Inventory in the Cairngorms National Park.

National Identity Code[33]	Site name	Company name	Activity
2293	Granish Recyclg Ctr/TS, Granish Farm, Aviemore	David Ritchie and Sons Limited	Installations for the disposal of non-hazardous waste

[33] The unique identifier for Scottish Pollutant Release Inventory sites.

National Identity Code[33]	Site name	Company name	Activity
99	Highland Coun, Granish L/F, Aviemore, Inverness	The Highland Council	Installations for the disposal of non-hazardous waste
2250	Tayside Contracts, Blair Atholl Roads Depot TS	Tayside Contracts	Installations for the disposal of non-hazardous waste

Nitrates

Agricultural activity can pollute water with nitrates, which are harmful to both humans and the environment. Areas where groundwaters have nitrate concentrations of more than 50mg/l, or are thought to be at risk of nitrate contamination, are known as Nitrate Vulnerable Zones. The Cairngorms National Park is not covered by any Nitrate Vulnerable Zones.

Waters sensitive to sewage discharges

In accordance with the Urban Waste Water Treatment (Scotland) Regulations 1994, as amended, Scottish Government fund Scottish Environment Protection Agency to review environmental waters every four years to determine whether they are sensitive to the effects of sewage discharges. According to the most recently published data, there are no areas identified within the Cairngorms National Park as sensitive.

Water scarcity

Climate change is likely to bring more uncertainty and may exert pressure in areas that have not yet experienced water scarcity[34]. According to a study by the Centre of Expertise for Waters[35], Scotland's supply of natural water resource is becoming increasingly variable and there is evidence that meteorological and hydrological droughts have become more frequent. There is evidence that water demand in the

[34] This section is informed by Scottish Environment Protection Agency's Planning Advice Note for Planning Authorities: Local Development Plan Evidence Gathering: Water Scarcity. See: https://www.sepa.org.uk/media/op5dcbka/pan-for-water-scarcity-evidence-3.docx

[35] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2022_07%20Main%20report%20and%20appendices_2024_04_15_V3_FINAL.pdf

future may increase in areas, and at times of the year, where supply is projected to decrease. Behavioural responses to the extreme events associated with the climate crisis may serve to exacerbate this if not managed.

Scottish Water have modelled the impact of a moderate climate change scenario on the supply demand balance across Scotland's water supply network[36]. It is estimated that the combined deficits of the 189 Scottish water resources zones could amount to 240 Megalitres per day by 2050. This estimate uses a scenario for a 1 in 150-year return period drought with no additional leakage reduction, no reduction in consumption per person and with a population increase to 5.6 million.

Further research by the Centre of Expertise for Waters highlights the potential impact of water scarcity on distilleries and agricultural abstractors[37]. Much of the National Park's land is within agricultural use and there are also a number of distilleries, notably in the River Spey catchment.

According to the study, observed shifts from water surpluses to water deficits in late summer and early autumn are the main drivers of the degree of exposure of most land cover types to climatic stress, depending on their spatial distribution in relation to west vs east geographical gradient. For cultivated land, arable land (of which there is little in the National Park), and to a lesser extent improved grasslands were found to be most exposed to climatic water stress. The impacts on all types of agricultural abstractions were similar to those for arable land, although a greater proportion of agricultural abstractions fell into areas under future climatic water balance deficit in April and September than was the case for arable land alone.

For distilleries, which require large quantities of water for cooling process during whisky production, the study found that based on observed data for the recent 1990 – 2019 period, 20% and 88% of distillery abstractions in Scotland were in water deficit in March and August, respectively, while almost all distillery abstractions were in continuous water stress between April to July. For the future period 2020 – 2049, these statistics ranged from no change to almost universal water surplus in March and 95% deficit in August, depending on the specific climate model scenario.

[36] See https://storymaps.arcgis.com/stories/f9bc4491b0a6409aa7cd1aa757bac6cb
[37] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2023_05_Main_report_and_appendices_FINAL_V2.pdf

Given the importance of these two sectors to the National Park's economy, it is likely that water scarcity presents a risk to the wellbeing of the National Park's population.

Scottish Environment Protection Agency publishes data that identifies areas which are currently at risk of water scarcity / drought. This includes water scarcity seasonal reports and a Drought Risk Assessment Tool. This information is short term and provides a snapshot of current water scarcity / drought risk levels across Scotland which can provide some indication of areas already susceptible to water scarcity.

In April 2025 water scarcity levels in all hydrometric areas in Scotland were flagging an early warning of scarcity, while one recording station within the National Park, at Feshie Bridge was flagged as having low river follows for a period of 1 – 9 days. The tool can be accessed here:

- https://www2.sepa.org.uk/drought-risk-assessment-tool

In order to provide information for the management of water resources, Scottish Environment Protection Agency monitor water levels at 20 sites within the Cairngorms National Park, as well as at a number of locations just outside the National Park boundary. Water levels are converted to flow at most river gauging stations.

The trends can be used as an indicator of climate change or as an identifier of potential risks such as water scarcity or flooding. Figure 56 and Figure 57 show the average gauged daily flows within given calendar years for monitoring stations on the River Spey and the River Dee. Figure 58 and Figure 59 represent the series of annual maximum flows within a given water year (October to September).

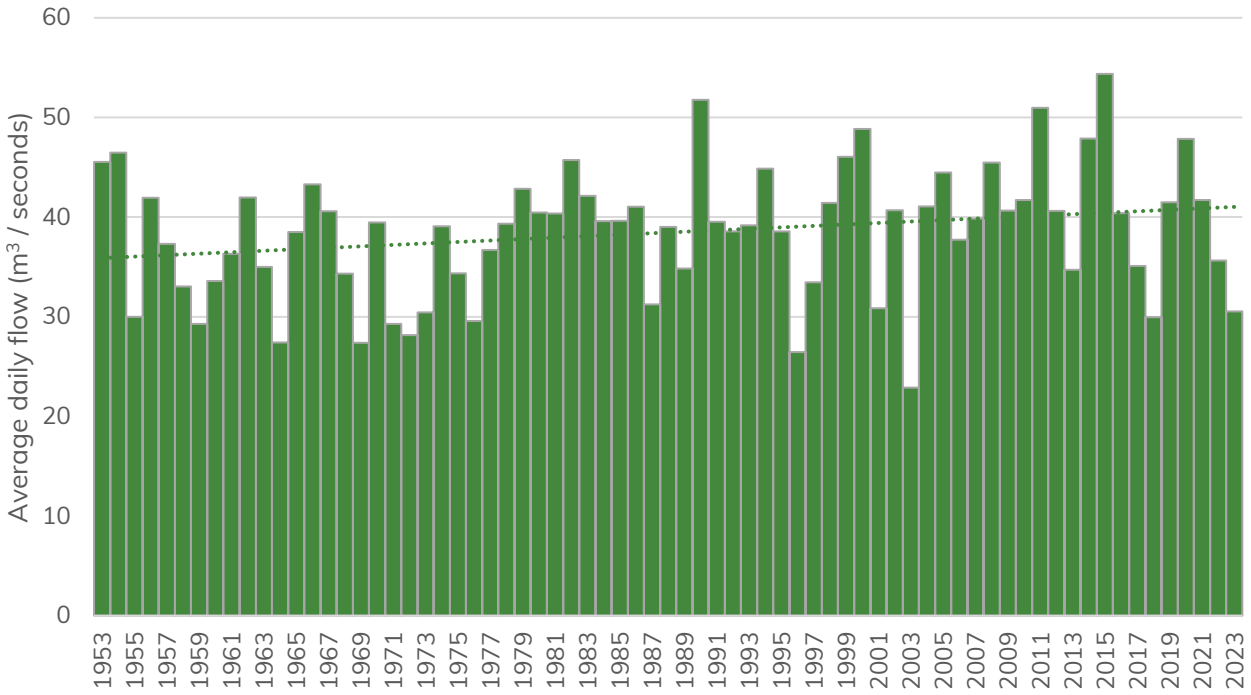


Figure 56 Average gauged daily flows (m^3 / seconds) and trend for the River Spey from the Grantown-on-Spey monitoring station (8010) between 1953 and 2023 (Scottish Environment Protection Agency 2025).

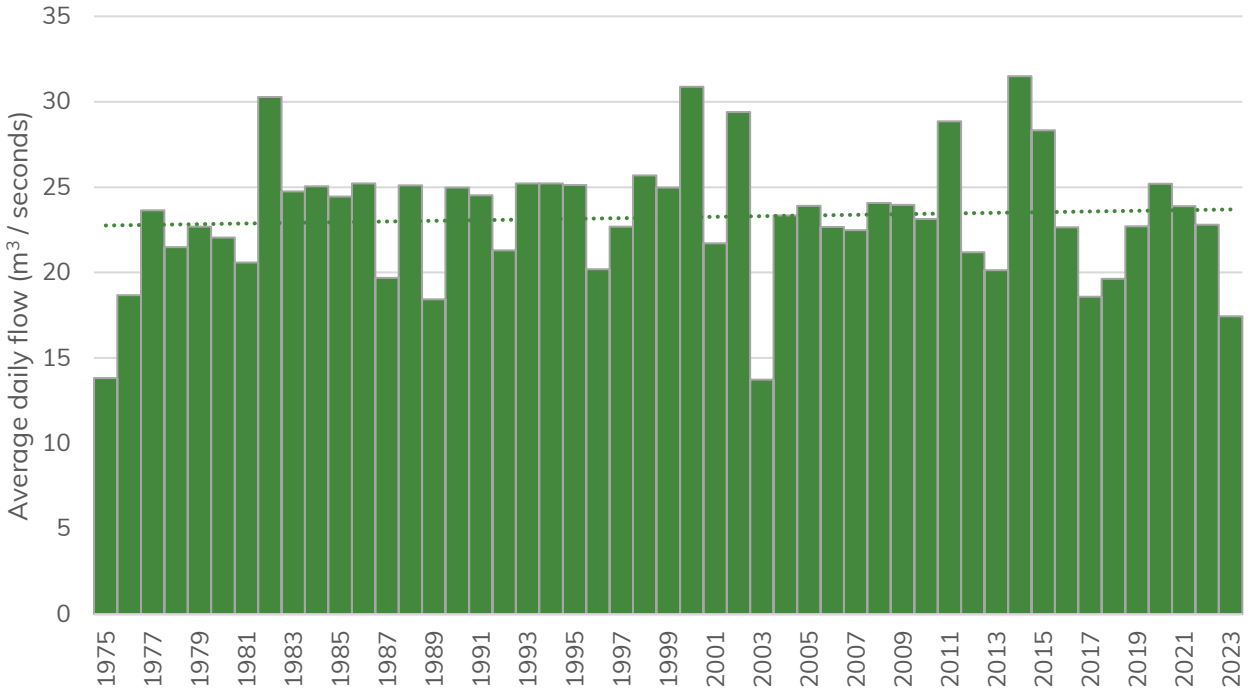


Figure 57 Average gauged daily flows (m^3 / seconds) and trend for the River Dee from the Polhollick monitoring station (12003) between 1975 and 2023 (Scottish Environment Protection Agency 2025).

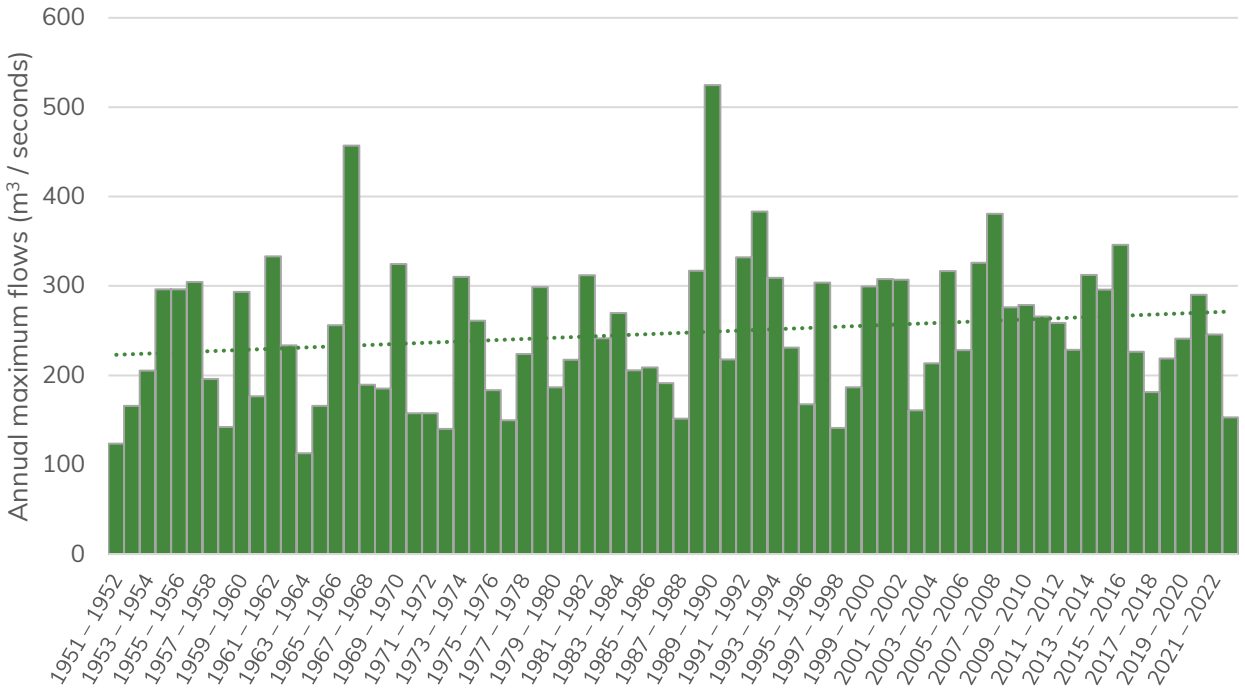


Figure 58 Annual maximum flows (m^3 / seconds) and trend for the River Spey from the Grantown-on-Spey monitoring station (8010) between 1951 and 2023 (Scottish Environment Protection Agency 2025).

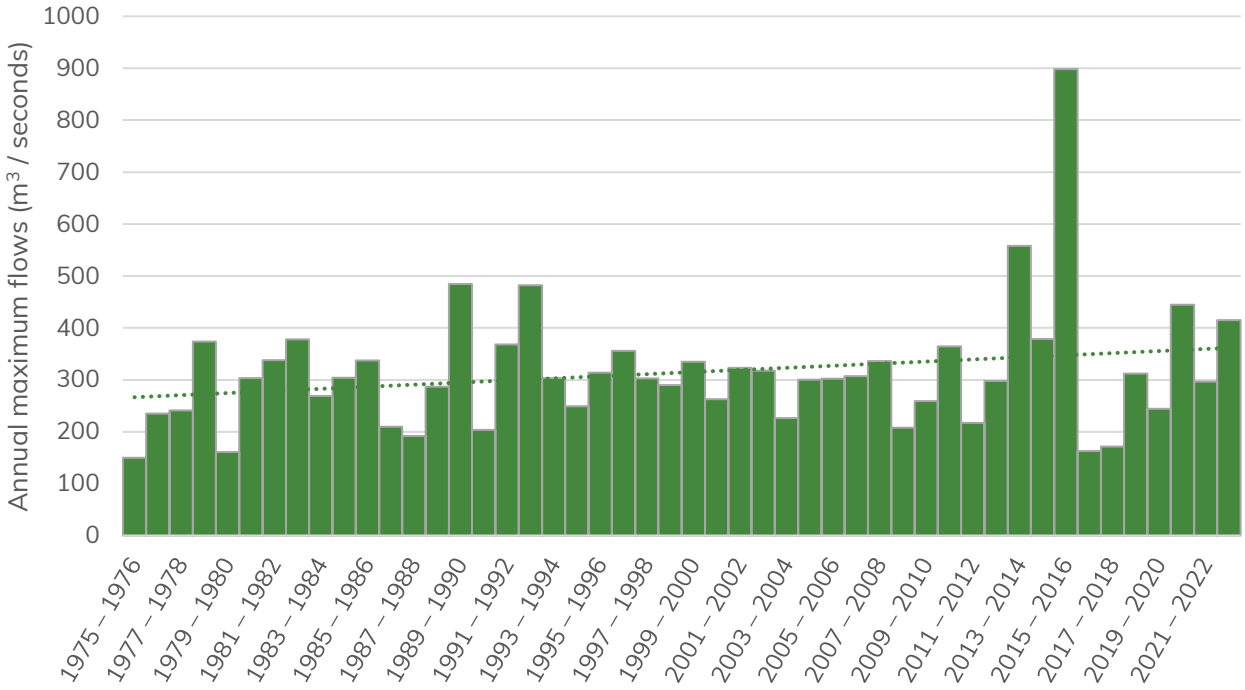


Figure 59 Annual maximum flows (m3 / seconds) and trend for the River Dee from the Polhollick monitoring station (12003) between 1975 and 2023 (Scottish Environment Protection Agency 2025).

The data from both stations shows a general trend for higher average daily flows and annual maximums across the monitoring period. This trend is indicative of an increase in rainfall and extreme weather events, which are expected as a result of climate change. It does not however indicate that water scarcity will not be an issue in the future, as this is combination of both supply and demand.

Abstraction

Scottish Water abstractions are designated as Drinking Water Protected Areas under Article 7 of the Water Framework Directive. The Protected Areas are categorised as surface water or groundwater. The entire National Park is covered by groundwater Drinking Water Protected Areas (the areas are the same as those shown in Figure 52) and large areas of the Spey, Tay, Dee, Don, South Esk and North Esk catchments are covered by surface water Drinking Water Protected Areas (Figure 60)[38].

[38] Maps of all Drinking Water Protection Areas are available here: https://www.gov.scot/publications/drinking-water-protected-areas-scotland-river-basin-district-maps/

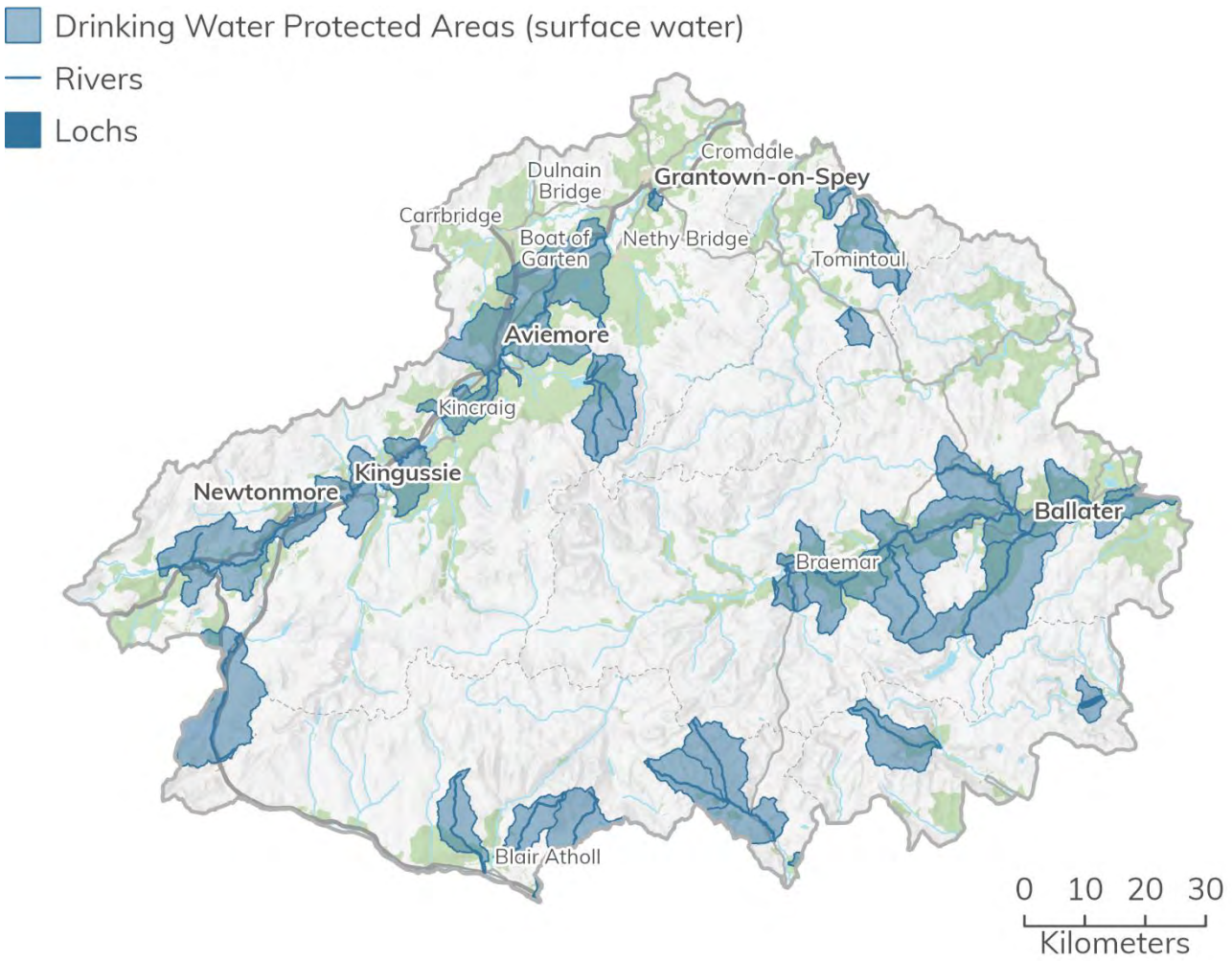


Figure 60 Surface water Drinking Water Protected Areas in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

In order to protect the quality of water within these areas, Scottish Water recommend that households and businesses:

- Store all detergents, oils, fuels and chemicals securely, do not leave any potential contaminants such as organic matter, biosolids, fertilisers manure or feedstuff next to watercourses as rainfall could wash them into ditches, streams, burns, rivers and lochs.
- Ensure vehicles and equipment that use oils, chemicals and fuels are maintained and any leaks or spillages are cleaned up and contained.

- Try to avoid driving through, or working in watercourses, where possible provide alternative drinking points for animals, and if unavoidable follow Scottish Environment Protection Agency guidelines.
- Make sure septic tanks / waste water treatment works, household oil tanks, slurry and drains are operated and maintained correctly and do not leak into the environment and watercourses.
- Take particular care and follow instructions if using chemicals, pesticides and fertilisers such as weed killers and slug treatments.
- Dispose of all animal remains (including deer) as directed by Scottish Government stock disposal guidelines. If recovery is impossible, at least 50m away from, and down slope from watercourses.

A number of the National Park's settlements are located within surface water Drinking Water Protected Areas, including Aviemore, Ballater, Kingussie and Newtonmore. While Scottish Water set out specific precautions developers must take in developing sites, in line with the Public Water Supplies (Scotland) Regulations 2014, as amended.

Water infrastructure

Scottish Water have a requirement to identify and provide new strategic capacity for water and wastewater to meet demand of all new housing development and the domestic requirements of commercial and industrial development. Factors such as the total number of proposed developments, their scale and their distance from the treatment works may affect Scottish Water's ability to service them and therefore there is the potential that future growth investment may be required.

Scottish Water have provided information on the capacity of their water and waste water treatment works serving properties within the Cairngorms National Park. Scottish Water state that it is important to emphasise that they are funded to provide growth at their treatment facilities to meet the demands of domestic development and the domestic demands of non-domestic development. Irrespective of which capacity status apples to a treatment works, Scottish Water will work with developers to manage any development as it comes forward and agree build out rates and operational factors, to allow development to occur whilst any investment is delivered.

The one key factor in making this arrangement work successfully is open and early engagement, to allow all parties to maximise time to plan and any financial investment

streams efficiently. This will support the shared aims of delivering sustainable growth for Scotland. Therefore, the Park Authority is committed to engaging with Scottish Water in the preparation of the Proposed Plan.

Water treatment works capacity

Scottish Water is responsible for the provision of public water services across Scotland and supplies the majority of drinking water to buildings within the Cairngorms National Park. The majority of the populated areas within the National Park, including all settlements identified by the National Park Partnership Plan's spatial strategy, are served by Scottish Water's public water supply network.

Scottish Water have provided capacity information for the water treatment works serving properties in the Cairngorms National Park (Table 15). Because of the ever-changing nature of capacity at Scottish Water's treatment works, a static numerical value can often distract or can lead to misinterpretation. For that reason, capacity indicators are presented at a very high-level. Capacity information will be more robustly detailed as and when a Pre Development Enquiries or formal Applications to Connect In are received by Scottish Water. The following descriptors apply in this instance:

- Capacity currently available
- Limited capacity available.

The 'limited capacity availability' descriptor indicates that some proposals / planning applications, depending on size, will need more investigation / additional information as part of any formal assessment.

Table 15 Scottish Water water treatment works capacity within the Cairngorms National Park (Source: Scottish Water, 2025).

Local authority area	Water treatment works reference	Water treatment works name	Settlements served by the works	Capacity status
Aberdeenshire	WTW000578	Ballater	• Ballater • Dinnet	Capacity currently available
Aberdeenshire	WTW000744	Braemar	• Braemar	Capacity currently available
Aberdeenshire	WTW000490	Lumsden	• Strathdon	Capacity currently available

Local authority area	Water treatment works reference	Water treatment works name	Settlements served by the works	Capacity status
Aberdeenshire	WTW000577	Crathie	• Crathie	Capacity currently available
Angus	WTW000582	Whitehillocks	• No settlements	Capacity currently available
Highland	WTW000762	Aviemore	• Aviemore • Grantown on Spey • Kingussie • Newtonmore • Boat of Garten • Carrbridge • Cromdale • Dulnain Bridge • Insh • Kincraig • Nethy Bridge	Limited capacity currently available
Highland	WTW000552	Dalwhinnie	• Dalwhinnie	Capacity currently available
Highland	WTW000748	Laggan Bridge	• Laggan	Capacity currently available
Moray	WTW000470	Tomnavoulin	• Glenlivet • Tomnavoulin	Limited capacity currently available
Moray	WTW000472	Blairnamarrow	• Tomintoul	Limited capacity currently available
Perth and Kinross	WTW000563	Killiecrankie	• Blair Atholl • Calvine • Killiecrankie • Pitagowan	Limited capacity currently available

Wastewater treatment works capacity

The treatment of wastewater relates to anything that flows through a sewer, including household and industrial waste. It is treated at wastewater treatment works, to remove contaminants and pollutants to clean the remaining water (called effluent) so that it can be safely returned to the water environment, such as rivers, lochs, or the sea. The amount of treatment depends on the number of people who live in a catchment area that the treatment works serve and the sensitivity / classification of the water body where the treated water will be discharged.

Scottish Water have provided capacity information for the waste water treatment works serving properties in the Cairngorms National Park (Table 16). Because of the ever-changing nature of capacity at Scottish Water's treatment works, a static numerical value can often distract or can lead to misinterpretation. For that reason, capacity indicators are presented at a very high-level. Capacity information will be more robustly detailed as and when a Pre Development Enquiries or formal Applications to Connect In are received by Scottish Water. The following descriptors apply in this instance:

- Capacity currently available
- Potential future investment required.

The 'Potential future investment required' descriptor indicates that some proposals / planning applications, depending on size, will need more investigation / additional information as part of any formal assessment.

Table 16 Scottish Water wastewater treatment works capacity within the Cairngorms National Park (Source: Scottish Water, 2025).

Local authority area	Waste water treatment works reference	Waste water treatment works name	Settlements served by the works	Capacity status
Aberdeenshire	STW001757	Ballater	• Ballater	Potential future investment required
Aberdeenshire	STW001735	Balnault Cotts	• No settlements	Potential future investment required
Aberdeenshire	STW001713	Braemar	• Braemar	Potential future investment required
Aberdeenshire	STW001772	Dinnet	• Dinnet	Potential future investment required
Aberdeenshire	STW001740	Fergach Cottages	• Crathie (part)	Potential future investment required
Aberdeenshire	STW001360	Poldhulie Cottages	• Strathdon (part)	Capacity currently available
Highland	STW002317	Aviemore	• Aviemore	Potential future investment required
Highland	STW003727	Boat of Garten	• Boat of Garten	Capacity currently available
Highland	STW001289	Carrbridge	• Carrbridge	Capacity currently available

Local authority area	Waste water treatment works reference	Waste water treatment works name	Settlements served by the works	Capacity status
Highland	STW001320	Cromdale	• Cromdale	Capacity currently available
Highland	STW001269	Dalnavert Lower	• No settlements	Potential Future Investment Required
Highland	STW001268	Dalnavert Upper	• No settlements	Potential future investment required
Highland	STW001658	Dalwhinnie	• Dalwhinnie	Potential future investment required
Highland	STW001305	Dulnain Bridge	• Dulnain Bridge	Potential future investment required
Highland	STW003753	Glenmore	• Glenmore	Potential future investment required
Highland	STW001309	Grantown	• Grantown-on-Spey	Potential future investment required
Highland	STW001311	Grantown	• Grantown-on-Spey	Potential future investment required
Highland	STW001252	Insh	• Insh	Potential future investment required
Highland	STW001263	Kincraig	• Kincraig	Capacity currently available
Highland	STW003752	Kingussie	• Kingussie	Capacity currently available
Highland	STW001657	Laggan Bridge	• Laggan	Potential future investment required
Highland	STW001246	Lynchat	• No settlements	Potential future investment required
Highland	STW001299	Nethy Bridge	• Nethy Bridge	Capacity currently available
Highland	STW003471	Newtonmore	• Newtonmore	Capacity currently available
Moray	STW001342	Braes of Glenlivet	• Glenlivet	Potential future investment required
Moray	STW001330	Tomintoul	• Tomintoul	Capacity currently available
Moray	STW001338	Tomnavoulin	• Tomnavoulin	Potential future investment required
Perth and Kinross	STW001677	Blair Atholl	• Blair Atholl	Potential future investment required

Local authority area	Waste water treatment works reference	Waste water treatment works name	Settlements served by the works	Capacity status
Perth and Kinross	STW001682	Killiecrankie	• Killiecrankie	Potential future investment required
Perth and Kinross	STW001670	Pitagowan	• Pitagowan	Potential future investment required

Private water supplies

As a rural area, many properties within the Cairngorms National Park are served by private water supplies.

The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 came into force in October 2017 and are regulated and enforced by Local Authorities. The main objective of the Regulations is to ensure the provision of clean, safe drinking water and to deliver significant health benefits to those using private water supplies.

Currently, information on the location of addresses served by private water supplies in the Cairngorms National Park is only available for Aberdeenshire and Moray local authority areas (Figure 61). Even within these areas, it is not necessarily complete but should be a dataset of properties which are not charged for the Sewerage Element.

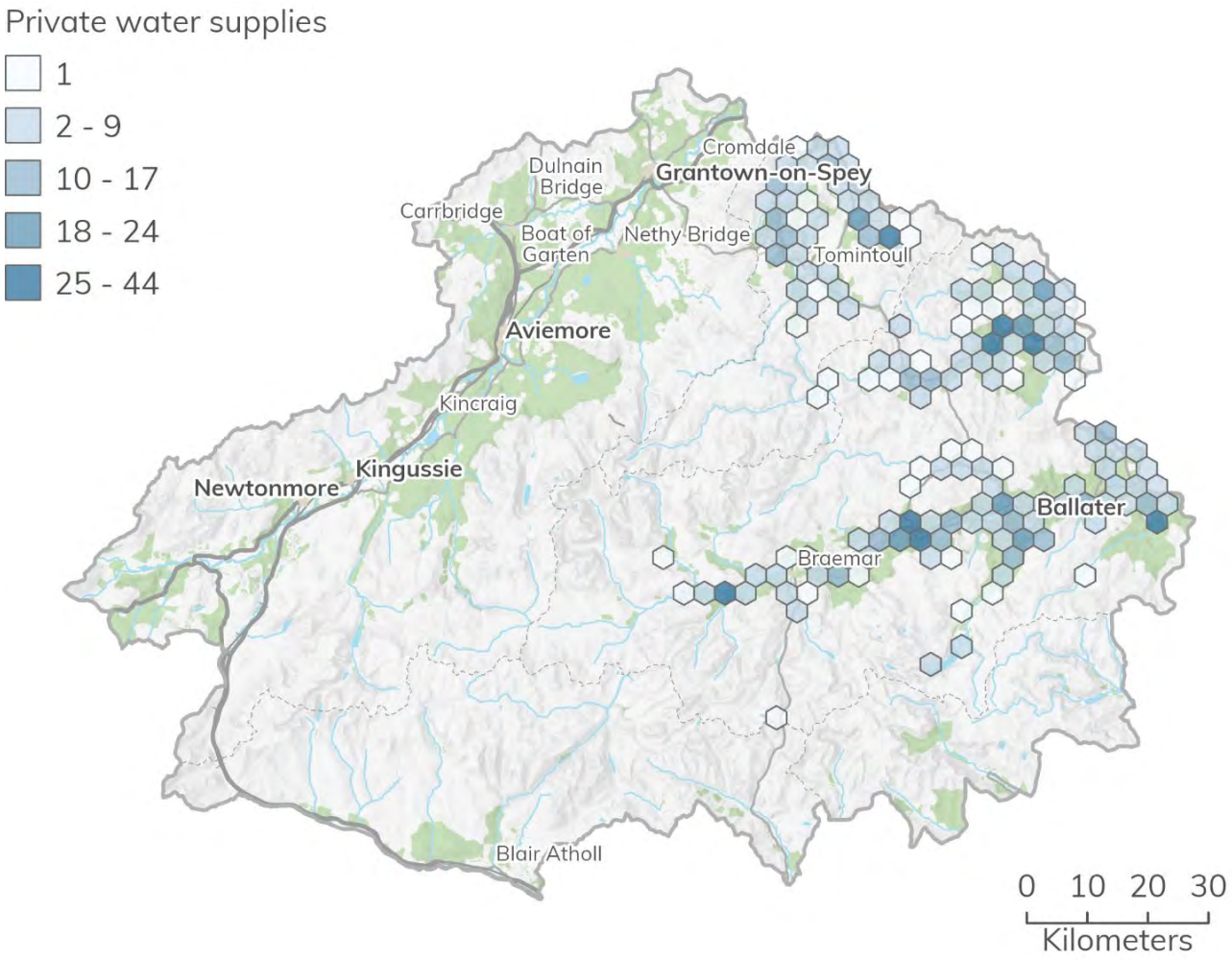


Figure 61 Addresses served by private water supplies within Aberdeenshire and Moray areas of the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Government.

In 2020 the Centre of Expertise for Waters published a study on the likely impacts of climate change on private water supplies in Scotland. In particular, the study looked at the consequences on their resilience to water shortages in order to assess changes in vulnerability of private water supplies due to reduced quantity of water as a result of climate change.

The study indicates that the private water supplies in the National Park are mostly at low to moderate risk. However, there are localised areas, in particular within Badenoch and Strathspey and Deeside, where the risk is high.

The Cairngorms National Park gets much of its water from its major rivers (known as abstraction), which are also affected by climate change (e.g. fluctuating seasonal rains), and this could affect how drinking water is consumed and stored in the future. As a result, reducing the need for drinking water in the home by capturing and using of rainwater for gardening etc. is very important.

Septic tanks

As a rural area, many properties within the Cairngorms National Park are served by septic tanks. The purpose of a septic tank is to treat wastewater from properties that are generally not connected to the public wastewater system.

Under section 79 of the Environmental Protection Act 1990 and under Part 6, Section 37 of the Water Resources (Scotland) Act 2013 Scottish Environment Protection Agency, Scottish Water and local Authorities all have a responsibility for the registration, management and compliance of septic tanks within Scotland. The Scottish Assessors also currently identifies 678 septic tanks. These are tanks that serve more than one dwelling. Those that serve just one dwelling may be treated as an appurtenance of the dwelling i.e. they are classified as domestic and treated as being reflected in the council tax band.

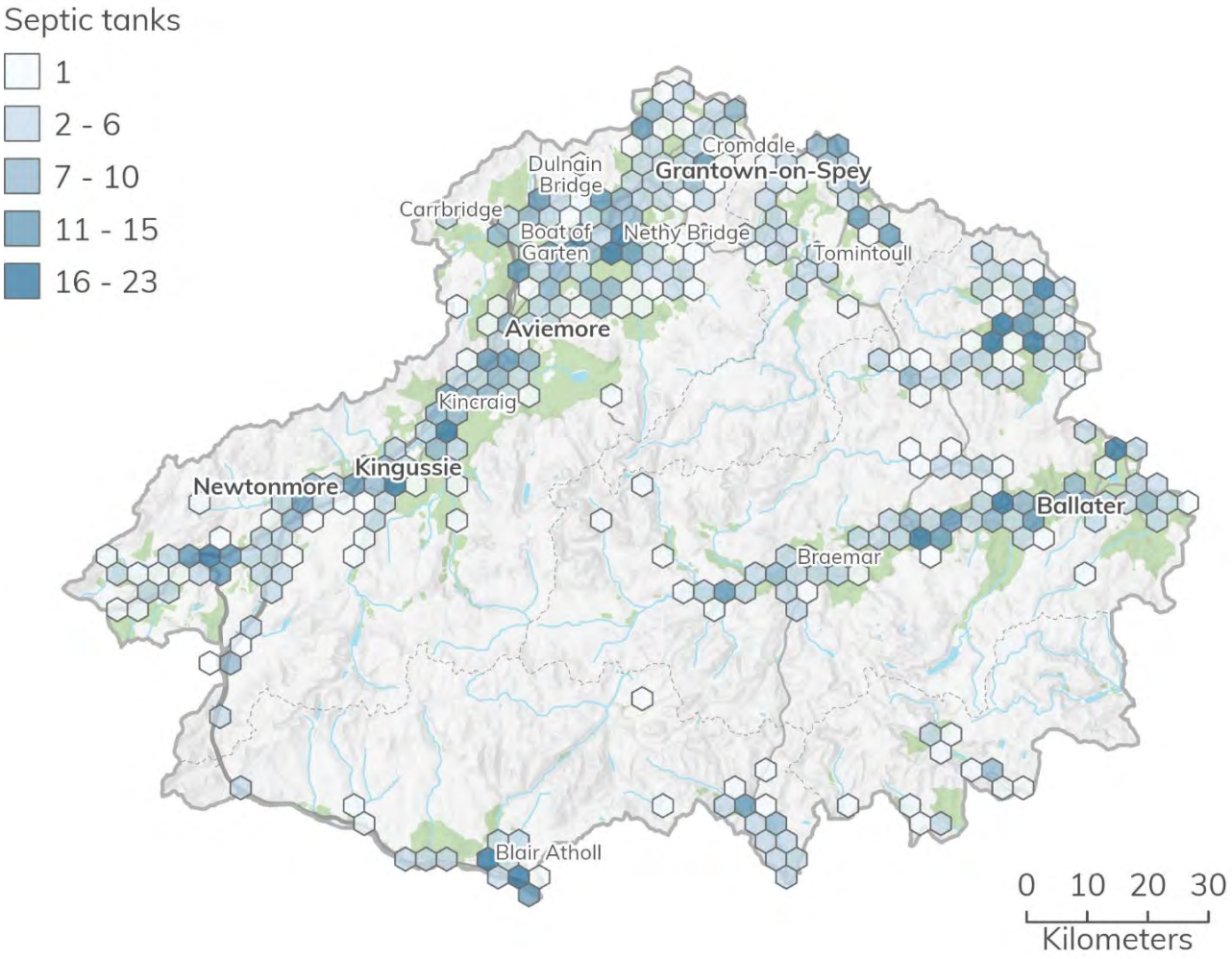


Figure 62 Addresses served by septic tanks within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Government.

This dataset presented in Figure 62 is an amalgamation of licenced Scottish Environment Protection Agency, Scottish Water, Scottish Assessors and some local authorities Septic Tanks in Scotland.

Scottish Environment Protection Agency have approximately a quarter of the septic tanks mapped as it has only been a requirement since 2012 that when buying or selling a house that these get licenced. Scottish Water have partial information, and the Scottish Assessors collect some as well. Scottish Environment Protection Agency, local authorities, Scottish Water and Scottish Assessors are keen to combine data to create a complete and comprehensive view of all Septic Tanks in Scotland, although this work is not yet competed.

Public conveniences

There are approximately 32 public conveniences within the Cairngorms National Park (Figure 63 and Table 17). This data is collated form information held by the Park Authority, local authorities, and internet scrape. Further public conveniences may exist.

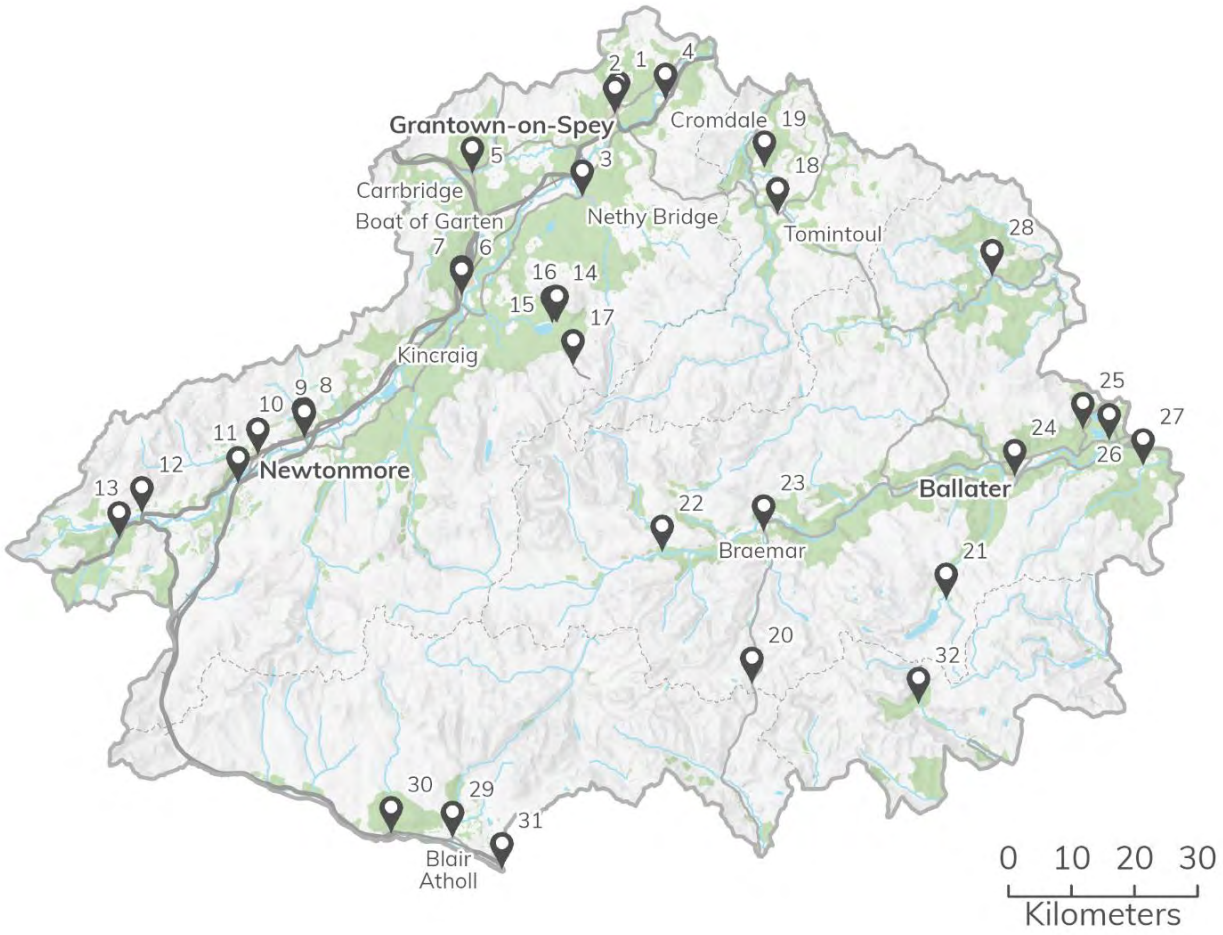


Figure 63 Public conveniences identified within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

Table 17 List of public conveniences within the National Park that are identified in Figure 63.

Map reference	Name	Settlement / location
1	Burnfield Avenue car park	Grantown-on-Spey

Map reference	Name	Settlement / location
2	High Street car park	Grantown-on-Spey
3	Nethy Bridge Community Centre	Nethy Bridge
4	Cromdale sports pavilion and public toilets	Cromdale
5	Carrbridge car park	Carrbridge
6	Grampian Road car park	Aviemore
7	Aviemore Station	Aviemore
8	Ardvonie car park	Kingussie
9	Kingussie Station	Kingussie
10	Main Street public toilets	Newtonmore
11	Ralia	Newtonmore
12	Picnic site and public toilets	Laggan
13	Laggan Wolftrax Centre	Laggan
14	Glenmore public toilets	Glenmore
15	Glenmore beach toilets	Glenmore
16	Glenmore Visitor Centre	Glenmore
17	Cairngorm Mountain	Cairngorm
18	Tomintoul - back lane car park	Tomintoul
19	Bike Glenlivet	Glenlivet
20	Glenshee Ski centre	Glenshee
21	Spittal of Glenmuick	Glenmuick
22	Linn of Dee car park	Linn of Dee
23	Braemar car park	Braemar
24	Ballater car park	Ballater
25	Muir of Dinnet Visitor Centre	Dinnet
26	Clarack car park	Dinnet
27	Glen Tanar Visitor Centre	Glen Tanar
28	Strathdon public toilets	Strathdon
29	Blair Atholl Visitor Centre	Blair Atholl
30	House of Bruar	Blair Atholl
31	Killiecrankie Visitor Centre	Killiecrankie
32	Glen Doll Ranger Centre	Glen Clova

Water refill locations

Figure 64 shows the location of Scottish Water Top up Taps in the National Park. Further water refill locations may exist, however not been identified publicly.

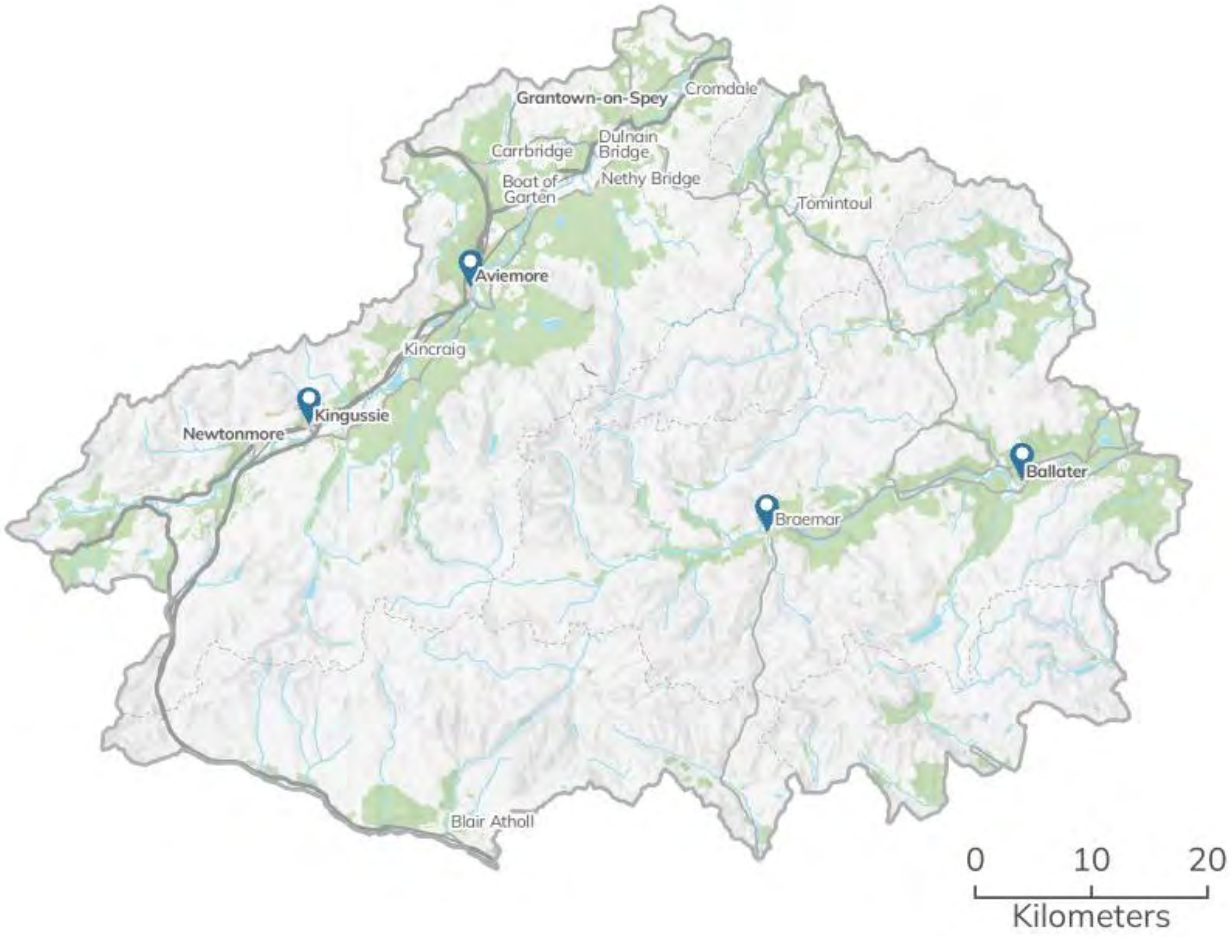


Figure 64 Location of Scottish Water 'Top up Taps' in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Water 2025.

Detailed information on the location of the Top up Taps can be found on Scottish Water's website:

- https://www.yourwateryourlife.co.uk/find-my-nearest-tap/

Flooding

Detailed information on flood risk is contained within the Strategic Flood Risk Assessment for the National Park. This section will summarise the findings of the Strategic Flood Risk Assessment, which may be accessed via the following link:

- https://cairngorms.co.uk/document-collection/strategic-flood-risk-assessment-2024-march-2024

The Strategic Flood Risk Assessment was published in April 2024 and uses Version 2.1 of Scottish Environment Protection Agency's flood hazard maps. On March 11 2025 Scottish Environment Protection Agency published a public beta of Version 3.0 of the maps, which extends the range of information available to include the publication of a new surface water and small watercourses flood hazard map, and a new dataset which shows the potential effects of climate change on surface water flooding.

Flood risk in the Cairngorms National Park

All of the rivers and watercourses within the Cairngorms National Park have the potential to flood to some degree. Significant events include the Great Muckle Spate, destroying several bridges in the Spey catchment in 1829 and more recently, Storm Frank, in December 2015, when the River Dee was reported as having burst its banks causing damages to Ballater Caravan Park and local businesses.

Most flooding 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, Don and Tay, 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 (Figure 65) Furthermore, in some areas surface water flooding, which can arise for a number of reasons, is a significant risk.

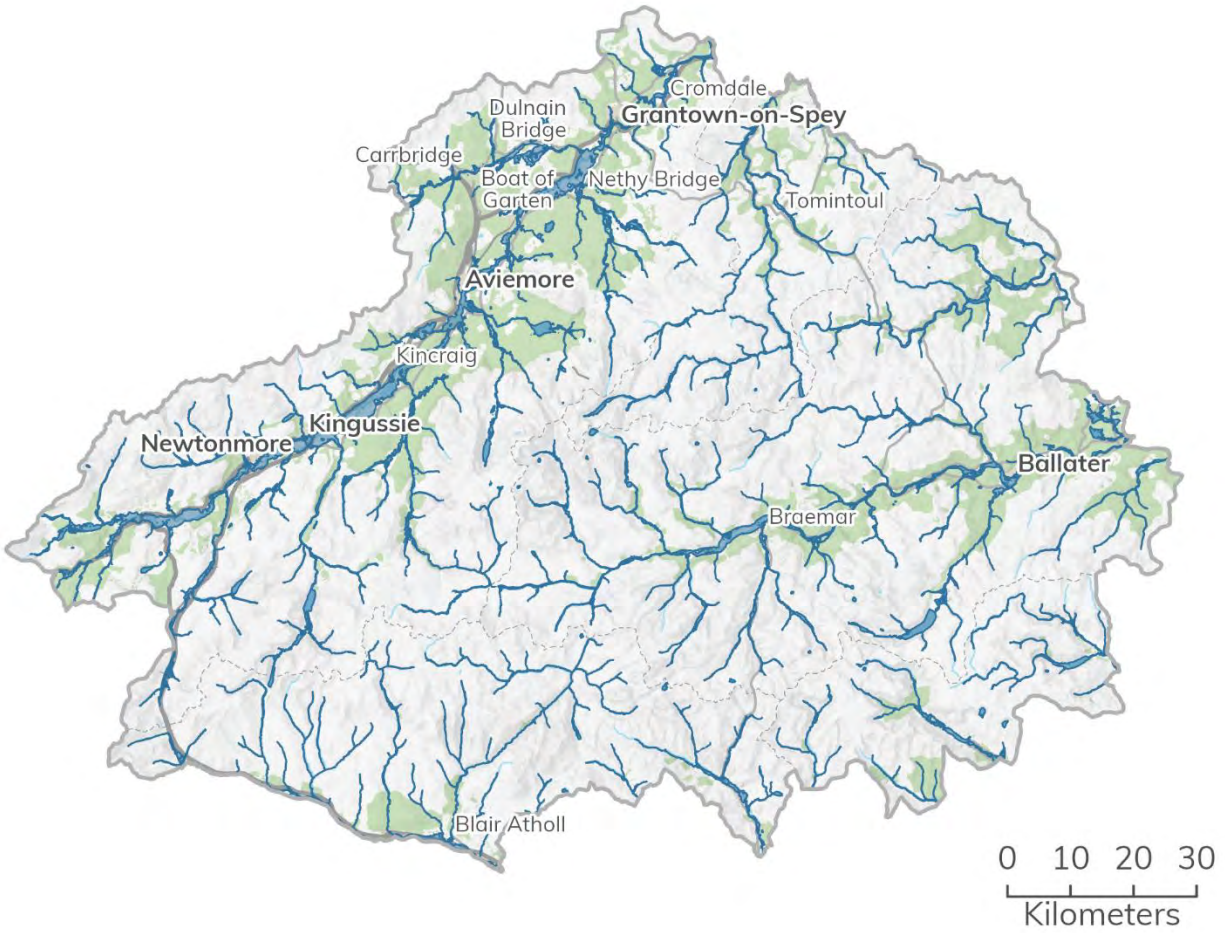


Figure 65 Future river flood extents (medium flood risk (0.5% annual exceedance probability) by 2080) in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

The area of Cairngorms National Park in the 0.5% annual exceedance probability (AEP) zone for river flooding is 176 km^2, representing 3.9% of National Park's 4,528 km^2 land area. When comparing against the 0.5% annual exceedance probability plus climate change flooding zone (a zone identified by Scottish Environment Protection Agency in their flood risk maps, taking into account projected climate change) this area rises to 184 km^2 hectares, or 4.1% of land area (Figure 65). The number of properties (domestic and non-domestic) in the 0.5% annual exceedance probability zone is approximately 565 (out of approximately 11,603), representing 4.9% of the total. When compared

against the 0.5% annual exceedance probability plus climate change river hazard zone there are approximately 991 properties or 8.5% of the total.

Version 3.0 of Scottish Environment Protection Agency's introduces a major update to surface water mapping. The update extends the range of information available to include small watercourses (with a catchment area smaller than 10km^2) and a climate change scenario for the medium probability flood event (0.5% annual exceedance probability). The climate change scenario shows the potential changes to surface water and small watercourse flooding for a 2070 high emissions scenario.

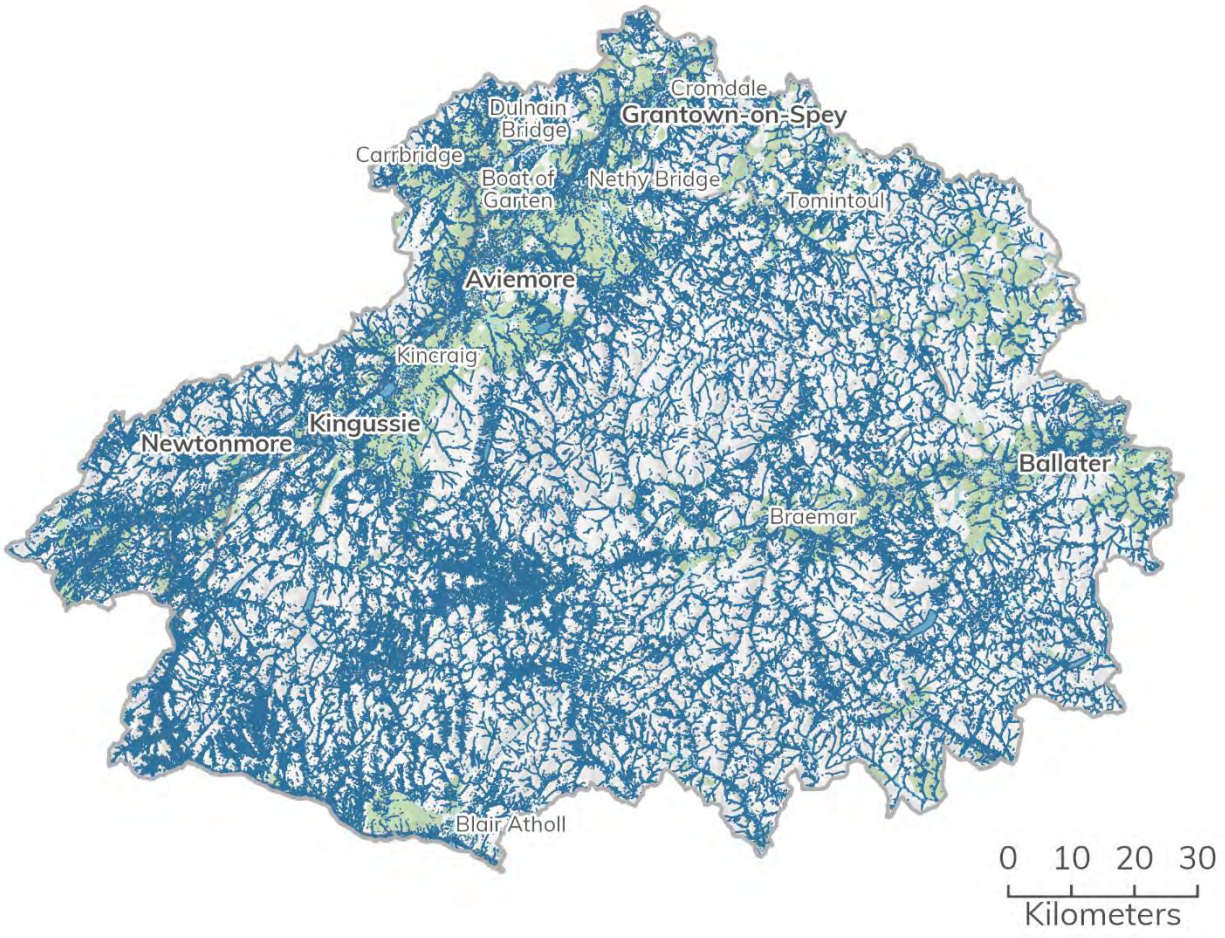


Figure 66 Future surface and small watercourse flood extents (medium flood risk (0.5% annual exceedance probability) by 2070) in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

The area of Cairngorms National Park in the 0.5% annual exceedance probability zone for surface and small watercourse flooding is 187 km^2, representing 4.1% of National Park's 4,528 km^2 land area. When comparing against the 0.5% annual exceedance probability plus climate change flooding zone this area rises to 275 km^2 hectares, or 6.1% of land area (Figure 66). The number of properties (domestic and non-domestic) in the 0.5% annual exceedance probability zone is approximately 59 (out of approximately 11,603), representing 0.5% of the total. When compared against the 0.5% annual exceedance probability plus climate change surface water and small watercourse hazard zone there are approximately 156 properties or 1.3% of the total.

Table 18 provides a summary of this information.

Table 18 The geographical extent and estimated number of properties[39] at risk of flooding within the Cairngorms National Park according to Scottish Environment Protection Agency's river and surface water and small watercourses flood map datasets (version 3.0). Property estimates are based on Ordnance Survey National Geographic Database, 2025.

Flood map dataset	Scenario	Extent of flood risk zone	Proportion of National Park covered by extent of flood risk zone	Domestic properties within extent of flood risk zone	Proportion of domestic properties within extent of flood risk zone	Non-domestic properties within extent of flood risk zone	Proportion of non-domestic properties within extent of flood risk zone	All properties within extent of flood risk zone	Proportion of all properties within extent of flood risk zone
River	Medium probability[40]	176 km^2	3.9%	488	4.7%	77	6.0%	565	4.9%
	Medium probability + climate change 2080 – high emissions	184 km^2	4.1%	858	8.3%	133	10.3%	991	8.5%
Surface water and	Medium probability	187 km^2	4.1%	53	0.5%	6	0.5%	59	0.5%

[39] Estimates are based on point data contained within Ordnance Survey's National Geographic Database.
[40] Medium probability represents a 0.5% annual exceedance probability of flooding.

Flood map dataset	Scenario	Extent of flood risk zone	Proportion of National Park covered by extent of flood risk zone	Domestic properties within extent of flood risk zone	Proportion of domestic properties within extent of flood risk zone	Non-domestic properties within extent of flood risk zone	Proportion of non-domestic properties within extent of flood risk zone	All properties within extent of flood risk zone	Proportion of all properties within extent of flood risk zone
small watercourses	Medium probability + climate change 2070 – high emissions	275 km^2	6.1%	136	1.3%	20	1.5%	156	1.3%
Combined river and Surface water and small watercourses datasets	Medium probability	313 km^2	6.9%	534	5.2%	82	6.3%	616	5.3%
	Medium probability + climate change 2070 / 2080 – high emissions	403 km^2	8.9%	858	8.3%	133	10.3%	991	83.5%

To meet National Planning Framework 4's definition of flood risk, the test for whether or not a proposed development is likely to be at risk will be its relationship to the 0.5% annual exceedance probability plus climate change extents for river, surface water and small watercourse flooding. As set out in National Planning Framework 4, the Park Authority will apply the avoidance of development in areas at flood risk as a first principle.

Potentially vulnerable areas

There are seven Potentially Vulnerable Areas identified within the National Park boundary (Figure 67) identified within the Cycle 2 flood risk management plans and local flood risk management plans, which cover years 2022 – 2028. Combined, there are approximately 1,760 people and 1,110 homes and businesses currently at risk from flooding within these areas. This is likely to increase to 2,570 people and 1,580 homes and businesses by the 2080s due to climate change (Table 19).

The objectives and actions for the Potentially Vulnerable Areas are set out within their relevant flood risk management plans and local flood risk management plans. These are summarised within the Strategic Flood Risk Assessment[41]. It is recognised that objectives and actions may change through the Cycle 3 of the flood risk management cycle.

[41] See https://cairngorms.co.uk/document-collection/strategic-flood-risk-assessment-2024-march-2024

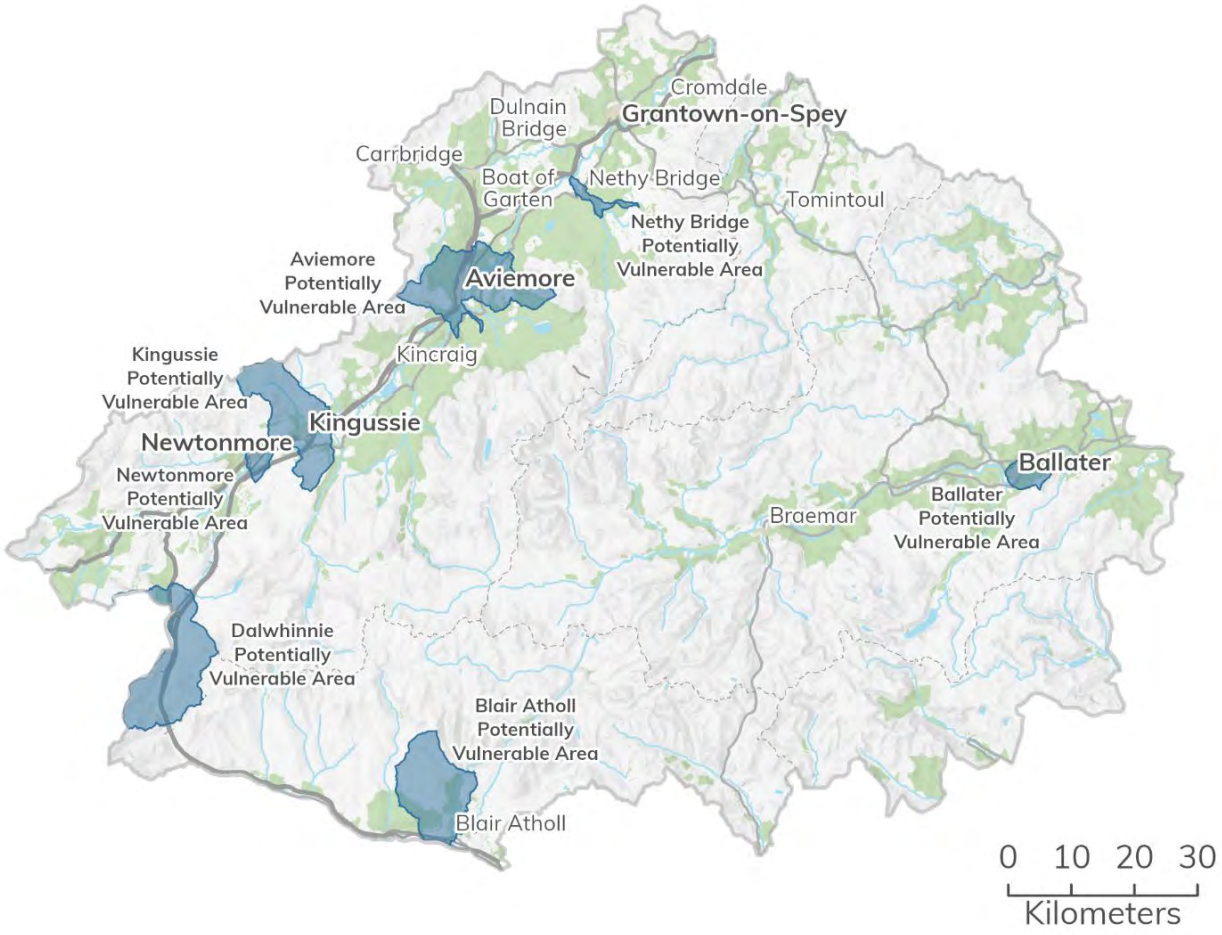


Figure 67 Potentially Vulnerable Areas within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Table 19 Number of people and homes and businesses within Potentially Vulnerable Areas within the Cairngorms National Park.

Area	River catchment	Number of people at risk	Number of homes / business at risk	Number of people at risk by 2080	Number of people at risk by 2080
Aviemore	Spey	430	240	490	270
Ballater	Dee	670	370	1,300	720
Blair Atholl	Tay	50	70	80	100

Area	River catchment	Number of people at risk	Number of homes / business at risk	Number of people at risk by 2080	Number of people at risk by 2080
Dalwhinnie	Spey	30	30	30	30
Kingussie	Spey	270	180	330	220
Nethy Bridge	Spey	180	120	200	130
Newtonmore	Spey	130	100	140	110

Reservoir inundation

Due to licensing limits, Scottish Environment Protection Agency's data is not available to directly analyse against National Park Authority data using the Park Authority's Geographical Information Systems. However, it is available via Scottish Environment Protection Agency's online portal and will be considered where necessary in relation to citing new development. The Strategic Flood Risk Assessment identifies thirteen reservoirs that have the potential to inundate parts of the Cairngorms National Park (Table 20 and Figure 68).

Table 20 Reservoirs on the Controlled Reservoirs Register that have the potential to inundate parts of the Cairngorms National Park in the event of a dam breach. Information taken from the Controlled Reservoirs Register, 2024.

Reservoir name	River catchment	Risk designation[42]	Maximum cubic capacity of reservoir at top water level (m^3)
Loch An-t Seilich	Spey	High	4,500,000
Loch Cuaich	Spey	High	1,680,000
Loch Ericht	Spey	High	230,000,000
Loch Phoneis	Spey	High	200,000
Pattack Hydro Reservoir	Spey	High	195,916
Spey Reservoir	Spey	High	5,100,000
Pronie Loch	Don	High	75,000
Lochan on Bruar Water	Tay	Medium	40,000
Loch Garry Reservoir	Tay	High	1,880,000

[42] The risk designation categories are high, medium or low. Designations are based on the consequence of an uncontrolled release of water and the effect that this could have on the surrounding area below the reservoir. A high-risk designation does not mean that the reservoir has a higher risk of flooding.

Reservoir name	River catchment	Risk designation[42]	Maximum cubic capacity of reservoir at top water level (m^3)
Errochty Reservoir	Tay	High	32,500,000
Loch Tummel	Tay	High	36,400,000
Loch Garry Reservoir	Tay	High	1,880,000

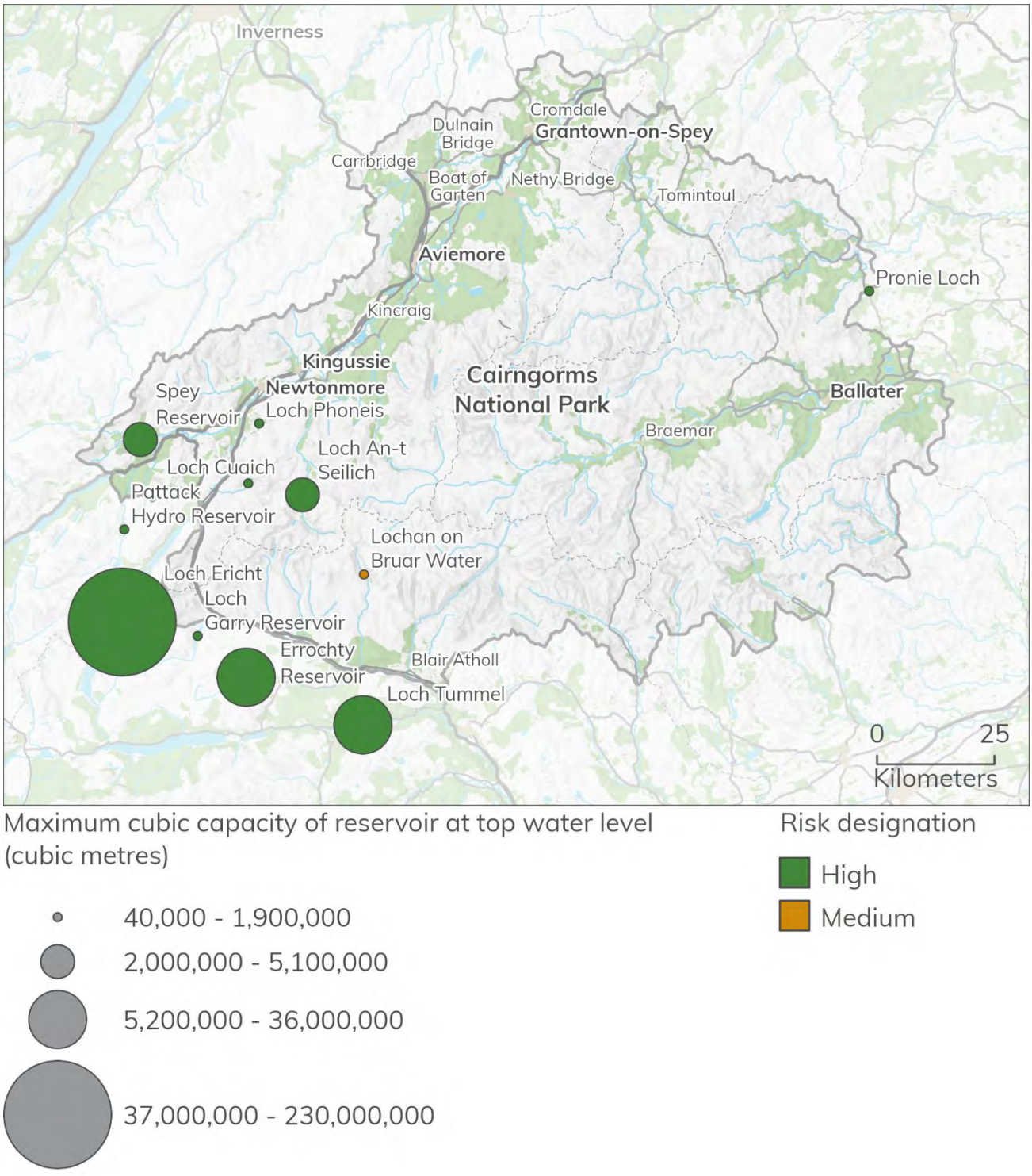


Figure 68 Reservoirs on the Controlled Reservoirs Register that have the potential to inundate parts of the Cairngorms National Park in the event of a dam breach. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains information © Scottish Environment Protection Agency 2025.

Beaver translocation

Recent changes by the Scottish Government offering protection and encouraging the expansion of beavers has allowed beaver to be identified within the Cairngorms Nature Action Plan as a priority species.

Extensive work on mapping the suitability of habitats within the upper reaches of the River Spey has been conducted to assess the best possible locations for the future translocation efforts (Figure 69). Currently, three proposed release sites for beavers have been identified; Rothiemurchus Estate, Wildland Ltd and the Royal Society for the Protection of Birds Insh Marshes Reserve. The release sites have been carefully chosen to minimise any potential negative impacts such as flooding from dams affecting transport routes, beavers foraging and damaging habitats within protected sites or damaging important riparian habitats.

On 5 December 2023 NatureScot approved the Park Authority's licence application to translocate Eurasian beavers to the Upper Spey catchment in the National Park. The first beavers were translocated a few weeks later with plans to translocate a maximum of 50 individuals over the next five years.

The translocation of beavers to locations within the catchment, and the projected growth and expansion of their population, presents a number of opportunities and risks for wetlands and their environment, some of which may impact on flood risk and land use planning. The main benefit of beavers comes from their dam building. Beaver dams impede the water flow (quantity and velocity) of water in a channel, which has multiple benefits, including increasing water storage and increasing the length of time taken for a flood to reach its peak and reduce the height of the peak and increasing water storage. According to Nature Scot, beavers have a potentially significant role in flood management and are advocating to Scottish Environment Protection Agency the opportunity for beavers to be part of natural flood management where appropriate.

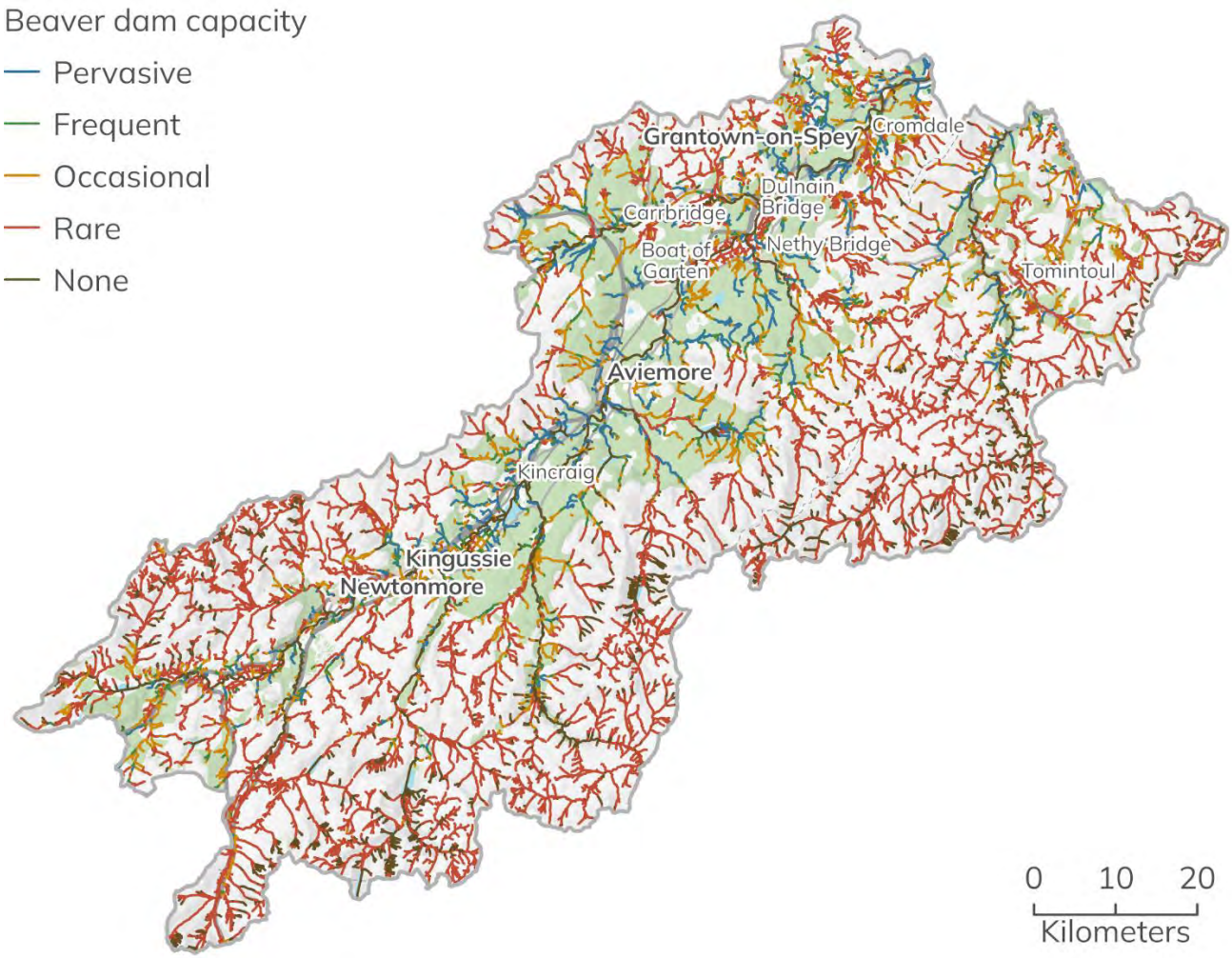


Figure 69 Capacity of waterbodies within the River Spey catchment for beaver dams. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Beaver Trust and University of Exeter 2025.

It is acknowledged that beaver activity may also present risk, including:

- Increased erosion of bare banks through burrowing and lack of structural support of riparian vegetation, along with the undermining of mature tree species which may fall into river pulling root bulb and bank.
- The undermining of riverbanks may damage buildings and / or infrastructure.
- Increased water levels from damming or blocking watercourses (Figure 69) or manmade structures such as culverts or bridges, may result in in damage to buildings and / or infrastructure.

The Park Authority has published a monitoring and mitigation plan, which includes a range of mitigation scenarios relating to matters including flood risk. These are set out in detail in Table 1 (page 17) of the plan:

- https://cairngorms.co.uk/wp-content/uploads/2023/12/Redacted-Appendix-14-Monitoring-and-Mitigation-Plan-2023.pdf

Flood management

Flood management involves a range of strategies aimed at reducing the risk and impact of flooding, encompassing both preventing floods and mitigating their effects. This includes measures like building flood defences, managing land use, and implementing natural flood management techniques. The information contained within this section is a summary of the information within the Strategic Flood Risk Assessment[43].

Flood defences

Data held by the Scottish Flood Defence Asset Database and the local authorities that cover the National Park confirms that there are no formal flood defences within the Cairngorms National Park. There are locations where informal defences exist, which are considered where they are known and relevant to the Strategic Flood Risk Assessment; sources for this information include local authority flood management teams, the Ballater Flood Protection Study and Spey Catchment Initiative.

Surface water management

There are currently no surface water management plans covering the National Park. The Local Flood Risk Management for Findhorn, Nairn and Speyside contains an action for the Highland Council to produce a Highland wide surface water management plan. This plan is currently being development and has been narrowed down from the whole Highland area to focus on a number of hot spots where a short list of potential interventions will be identified.

Natural flood management

Natural flood management involves techniques that aim to work with natural hydrological and morphological processes, features and characteristics to manage the sources and pathways of flood waters. These techniques include the restoration, enhancement and alteration of natural features and characteristics, but exclude

[43] See https://cairngorms.co.uk/document-collection/strategic-flood-risk-assessment-2024-march-2024

traditional flood defence engineering that works against or disrupts these natural processes.

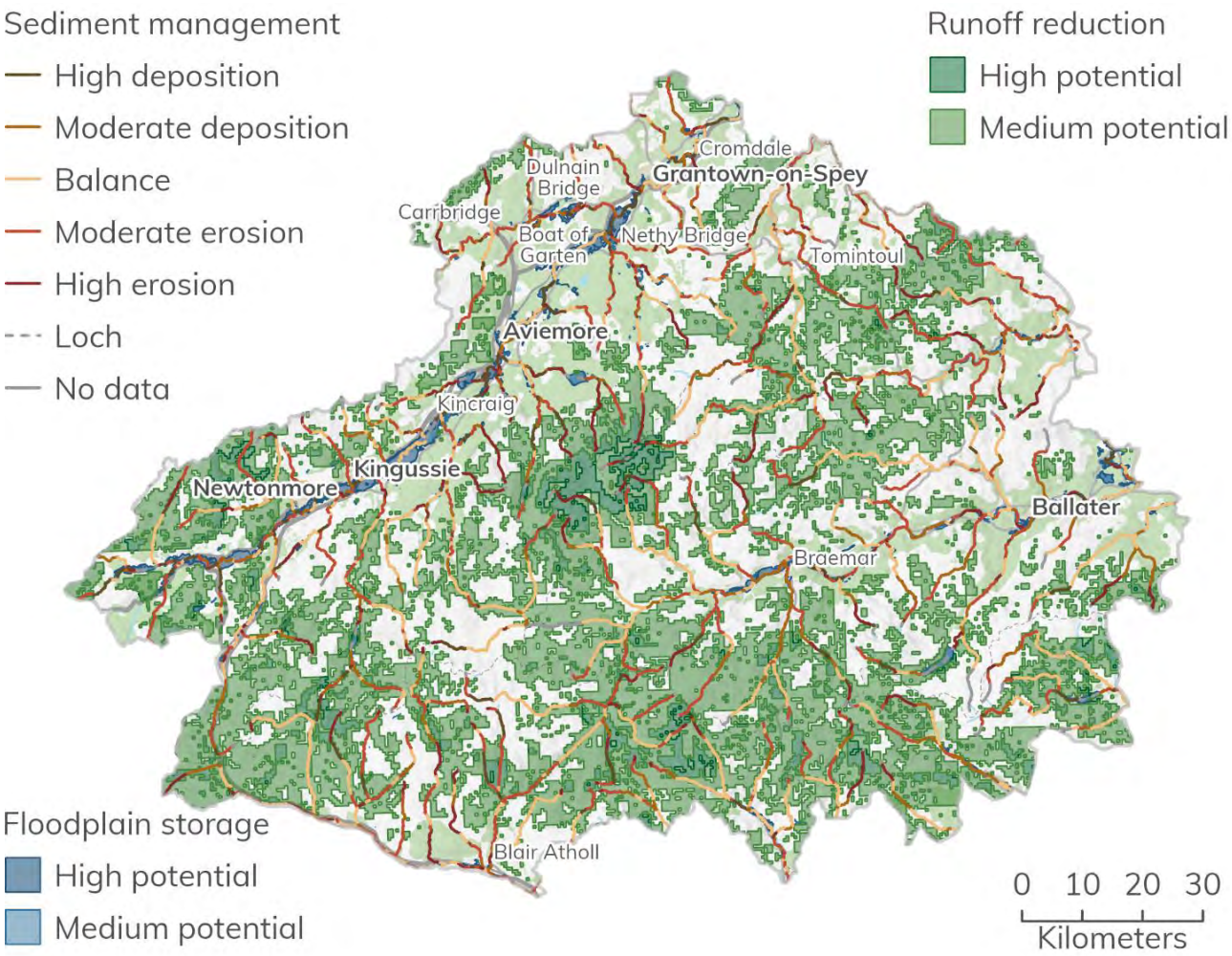


Figure 70 Opportunity areas for natural flood management within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Scottish Environment Protection Agency and database right 2025. All rights reserved.

Scottish Environment Protection Agency's natural flood management data indicates areas where land use change to restore nature could reduce flood risk (Figure 70). As the Cairngorms National Park lacks a coastline it has not been necessary to consider estuarine surge attenuation or wave energy dissipation opportunities. Further information on potential natural flood management opportunities is available from the Ballater Flood Protection Study, while records of past and current interventions have

been provided by the Spey Catchment Initiative, Dee District Salmon Fishery Board / River Dee Trust and Dee Catchment Partnership.

Further information on catchment and Potentially Vulnerable Area level natural flood management opportunities within the National Park is presented within the Strategic Flood Risk Assessment[44].

It is recognised that the identification and protection of blue and green infrastructure and nature networks, and improving the connectivity between them, may play a part in delivering natural flood management.

Key messages

Water quality within the Cairngorms National Park is relatively high, with 98% of surface waterbodies with a high or good status. The situation was particularly poor in 2013, which saw a large increase in the number of waterbodies falling into lower classifications.

River level data from the Spey and Dee indicates a general trend for higher monthly maximum river levels over the time they were monitored, indicating an increase in flood risk in these catchments.

Beavers now a priority species under the Cairngorms Nature Action Plan. Up to 50 Eurasian beavers to be translocated to the Upper Spey area by 2028. They bring potential risks and benefits. Potential benefits include Beaver dams that slow water flow, boost storage, lower flood peaks. Potential risks include bank erosion, undermining trees or infrastructure. Also dam-related water level rises damaging buildings or transport.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 2: Air
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape

[44] See https://cairngorms.co.uk/document-collection/strategic-flood-risk-assessment-2024-march-2024

- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

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.

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.

The State of Scotland's Soil Report 2011 identifies seven threats to soil functions:

- Loss of organic matter
- Sealing
- Contamination
- Change in soil biodiversity
- Erosion and landslides
- Compaction
- Emerging issues, such as genetically modified organisms, asbestos, nanoparticles and biochar.

Carbon rich soils

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 organic soil. These soils are important global reserves of soil carbon and support important habitats and species.

Figure 71 shows a measure of estimated peat depth while Figure 72 shows the distribution of carbon and peatland classes across the National Park. It gives a value to indicate the likely presence of carbon rich soils, deep peat and priority peatland habitat for each individually mapped area, at a coarse scale. Table 21 provides details on the carbon and peatland classes shown on Figure 72.

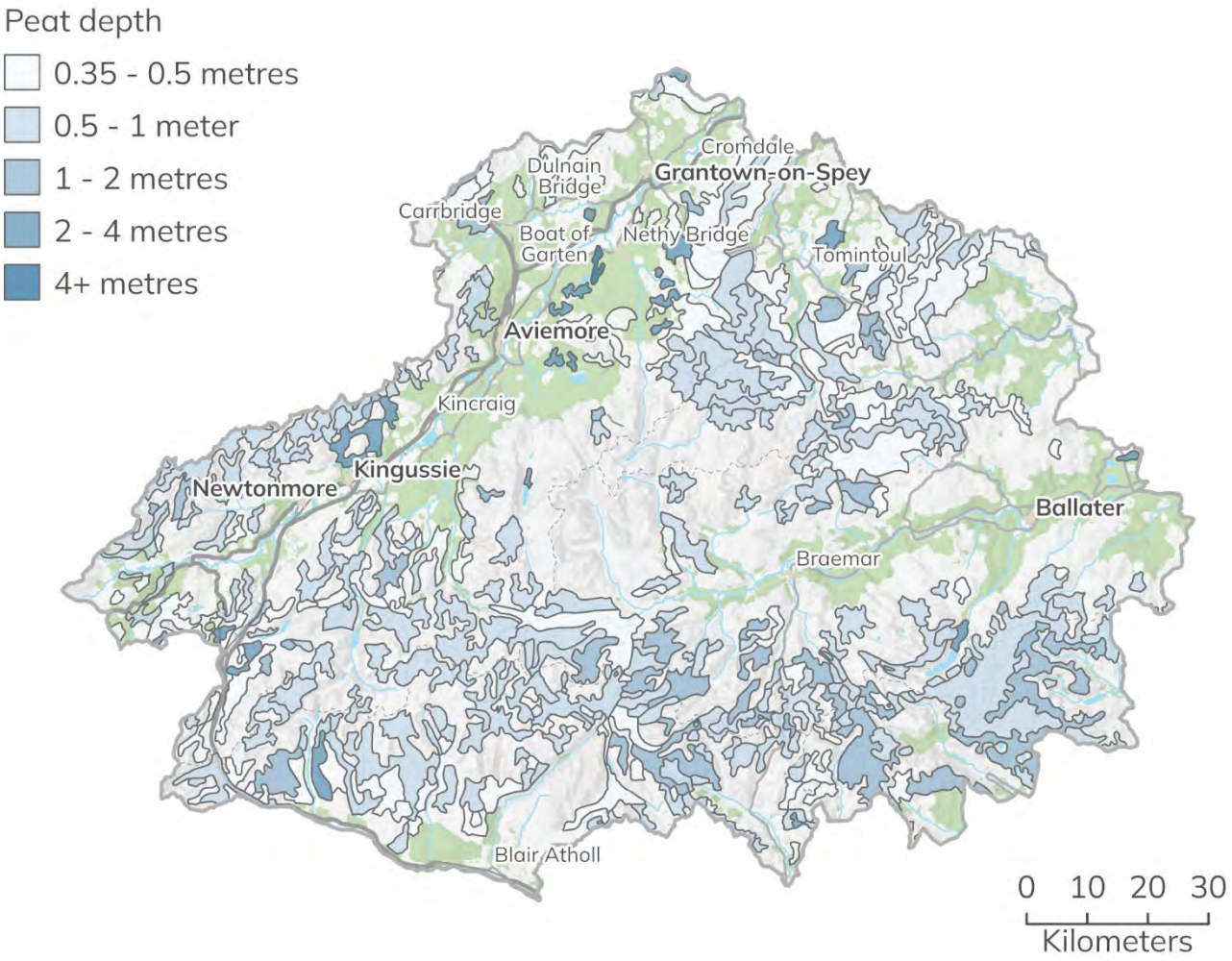


Figure 71 Depth of peat in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

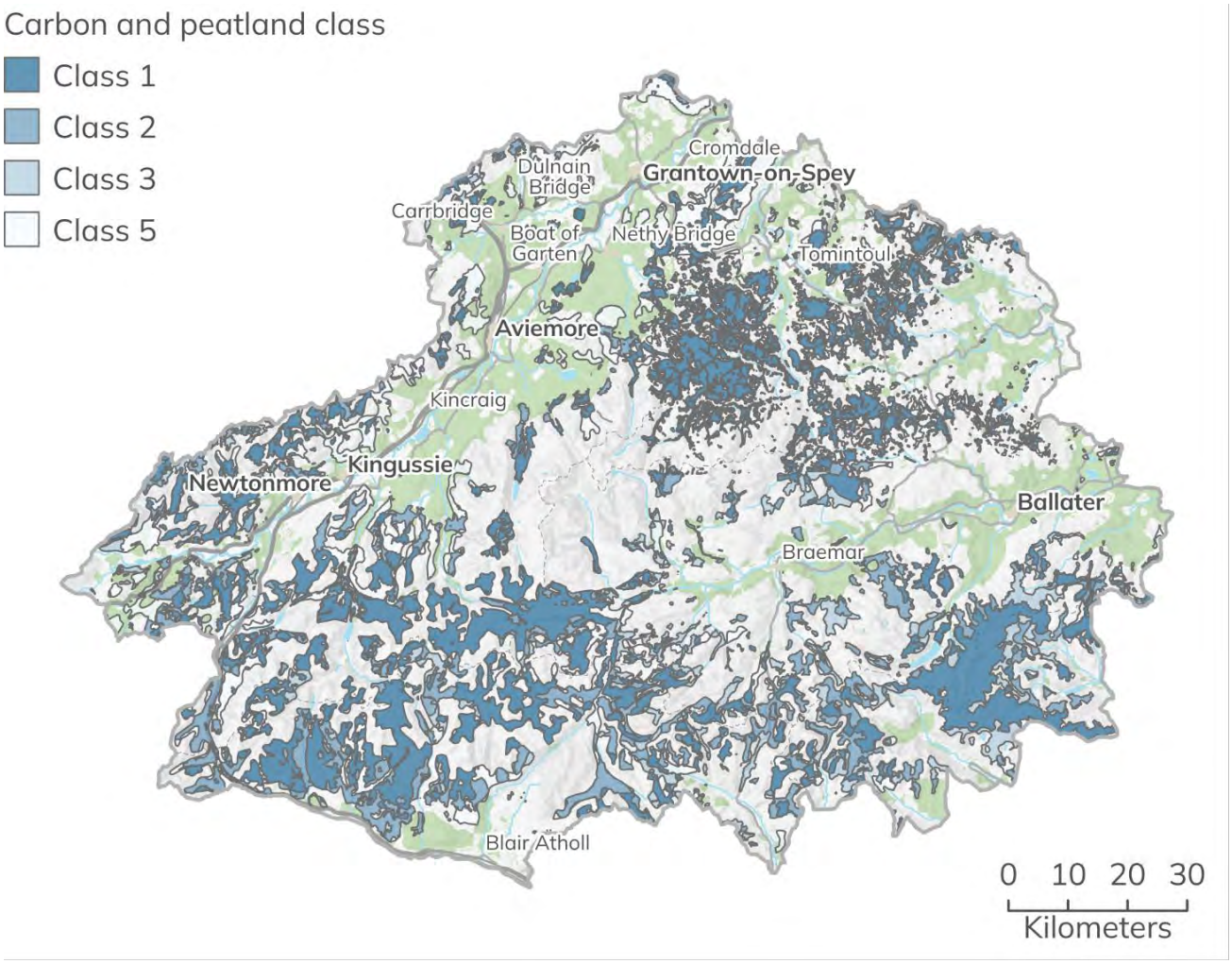


Figure 72 Carbon and peatland classes across the Cairngorms National Park (NatureScot, 2016). Table 21 provides information on the classes shown on this map.[45]. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © NatureScot 2024.

Table 21 Definition of carbon and peatland classes

Class	Class description	Indicative soil	Indicative vegetation
1	Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value.	Peat soil	Peatland

[45] Class 4 soils are not included on the map as they are areas that are unlikely to include carbon-rich soils.

Class	Class description	Indicative soil	Indicative vegetation
2	Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential.	Peat soil with occasional peaty soil	Peatland or areas with high potential to be restored to peatland
3	Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils are carbon-rich soils, with some areas of deep peat.	Predominantly peaty soil with some peat soil	Peatland with some heath
5	Soil information takes precedence over vegetation data. No peatland habitat recorded. May also include areas of bare soil. Soils are carbon-rich and deep peat.	Peat soil	No peatland vegetation

Blanket bog is the second most extensive habitat within the National Park and is susceptible to erosion from human activity and impacted upon by grazing animals (e.g. deer and sheep). It is estimated that there are around 90,000 hectares of impacted peatland in the National Park and 57,000 hectares of this has experienced some form of erosion (Figure 73).

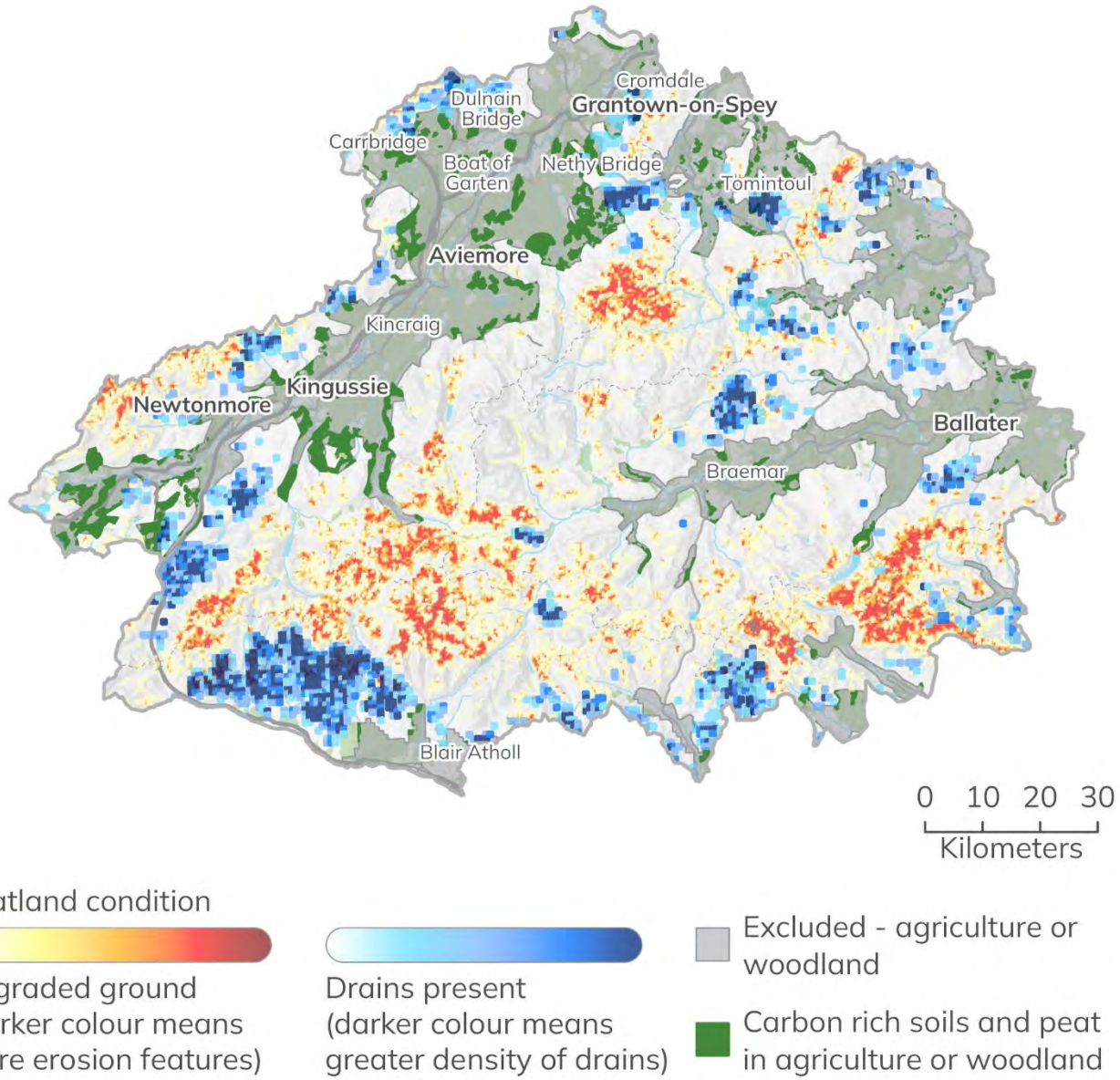


Figure 73 Condition of peatland within the Cairngorms National Park. Cairngorms National Park Authority
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The National Park Partnership Plan aims to have:

- A minimum of 38,000 hectares peatland is under restoration management by 2045.
- 80% of all drains are restored by 2035.
- All erosion features are restored by 2050.

According to NatureScot's Peatland ACTION data, around 3,180 hectares of completed and in-progress restoration projects have been led by the National Park Authority between 2021 and 2024 (Figure 74).

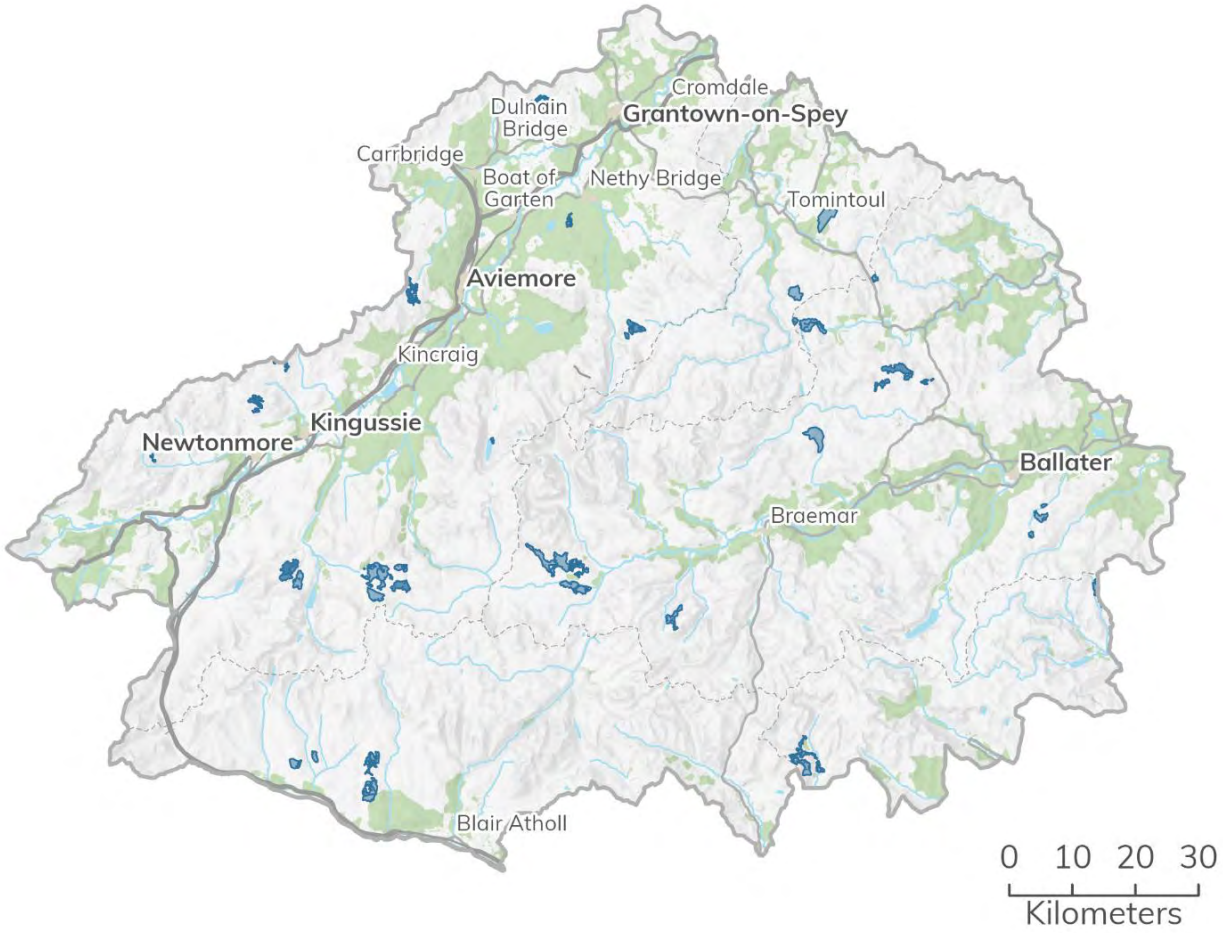


Figure 74 Peatland ACTION completed restoration footprints. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © NatureScot 2024.

Land capability for agriculture

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 based on 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 prime agricultural land, while land classified as 3.2 to 7 is considered to be non-prime.

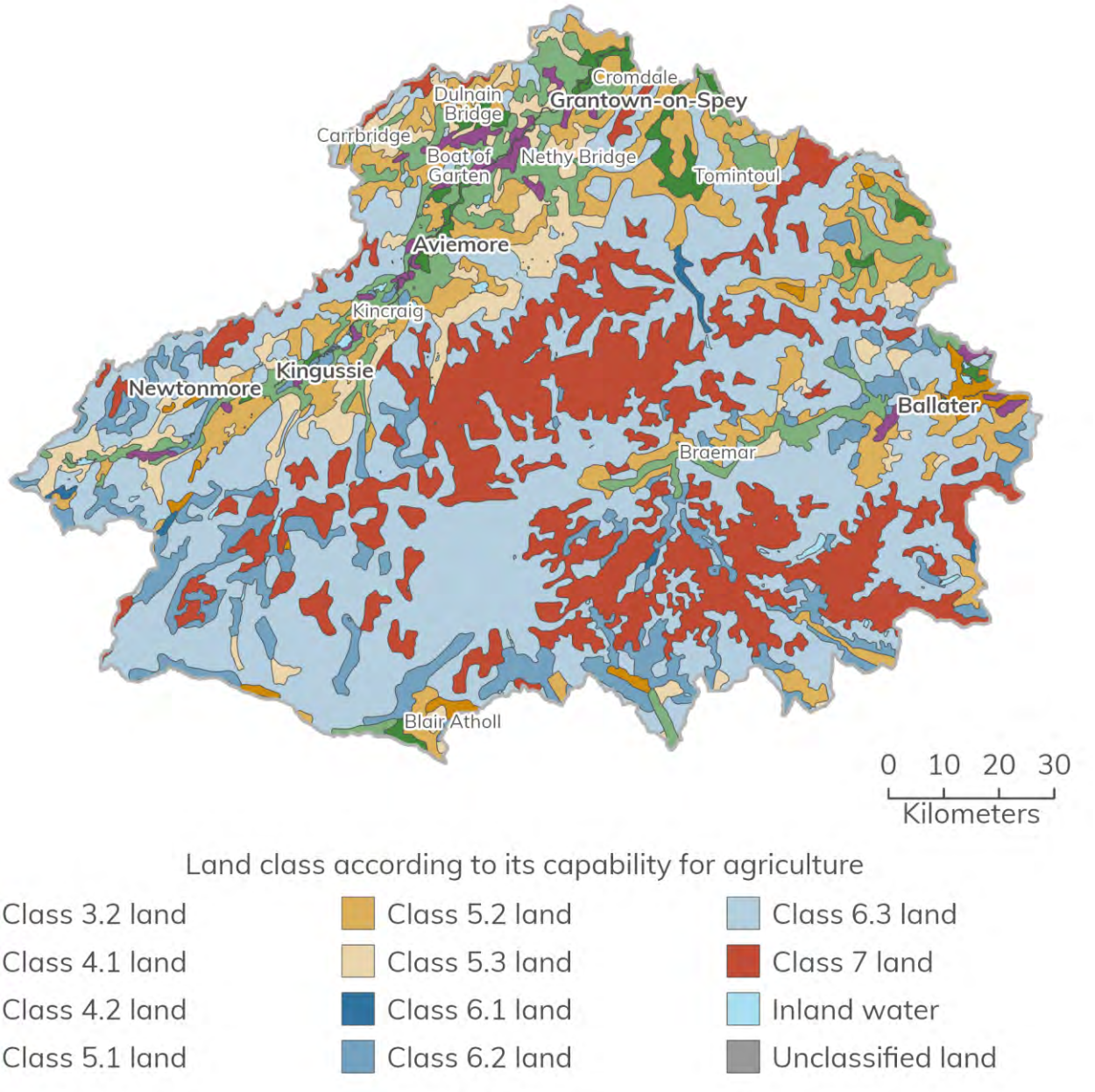


Figure 75 Land capability for agriculture within the Cairngorms National Park. Table 22 provides information on the classes shown on this map. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

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 75).

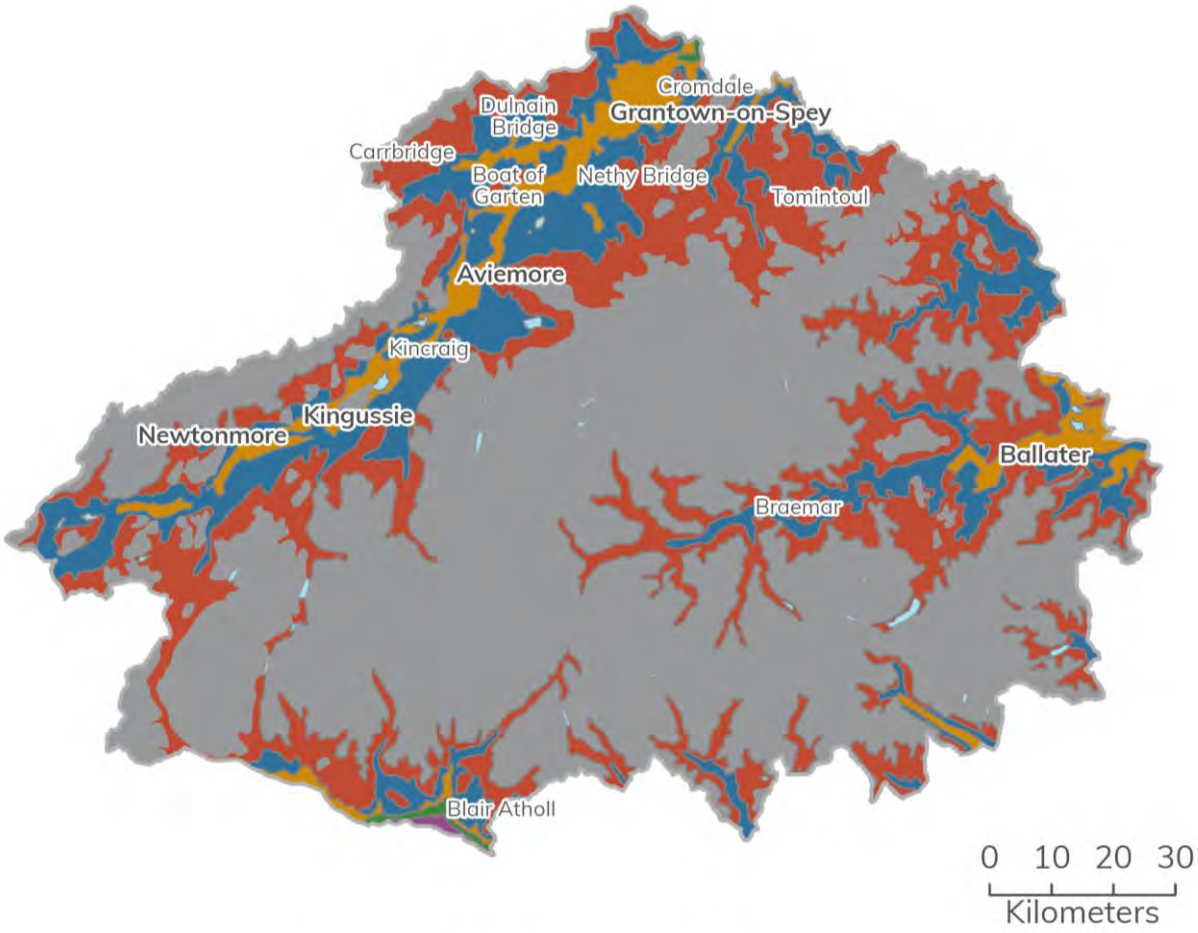
Table 22 Definition of land classes.

Class	Class description
1	Land capable of producing a very wide range of crops. Cropping is highly flexible and includes the more exacting crops such as winter harvested vegetables (cauliflowers, brussels sprouts, leeks), The level of yield is consistently high.
2	Land capable of producing a wide range of crops. Cropping is very flexible and a wide range of crops can be grown though some root and winter harvested crops may not be ideal choices because of difficulties in harvesting.
3.1	Land in this division is capable of producing consistently high yields of a narrow range of crops (principally cereals and grass) and/or moderate yields of a wider range (including potatoes, field beans and other common root crops). Short grass leys are common.
3.2	Land in this division is capable of average production but high yields of barley, oats and grass are often obtained. Other crops are limited to potatoes and forage crops.
4.1	Land capable of producing a narrow range of crops. Land in this division is suited to rotations which, although primarily based on ley grassland, include forage crops and cereals for stock feed. Yields of grass are high but difficulties of utilization and conservation may be encountered. Other crop yields are very variable and usually below the national average.
4.2	Land capable of producing a narrow range of crops. The land is primarily grassland with some limited potential for other crops. Grass yields can be high but the difficulties of conservation or utilisation may be severe, especially in areas of poor climate or on very wet soils. Some forage cropping is possible and, when the extra risks involved can be accepted, an occasional cereal crop.

Class	Class description
5.1	Restricted to grass production. Establishment of a grass sward and its maintenance present few problems and potential yields are high with ample growth throughout the season. Patterns of soil, slope or wetness may be slightly restricting but the land has few poaching problems. High stocking rates are possible.
5.2	Restricted to grass production. Sward establishment presents no difficulties but moderate or low trafficability, patterned land and/or strong slopes cause maintenance problems. Growth rates are high and despite some problems of poaching satisfactory stocking rates are achievable.
5.3	Restricted to grass production. Land in this division has properties which lead to serious trafficability and poaching difficulties and although sward establishment may be easy, deterioration in quality is often rapid. Patterns of soil, slope, and wetness may seriously interfere with establishment and/or maintenance. The land cannot support high stock densities without damage and this may be serious after heavy rain even in summer.
6.1	Land capable only of use as rough grazing. Land in this division has high proportions of palatable herbage in the sward, principally the better grasses, e.g. meadow grass-bent grassland and bent-fescue grassland.
6.2	Land capable only of use as rough grazing. Moderate quality herbage such as white and flying bent grasslands, rush pastures and herb-rich moorlands or mosaics of high and low grazing values characterise land in this division.
6.3	Land capable only of use as rough grazing. This vegetation is dominated by plant communities with low grazing values. Particularly heather moor, bog heather moor and blanket bog.
7	Land of very limited agricultural value. Land with extremely severe limitations that cannot be rectified.

Land capability for forestry

The National scale land capability for forestry map provides information on the potential for land to grow trees based on a number of factors including soil, climate and topography (Figure 76). The use of this land for forestry may yield a number of benefits, including carbon sequestration.



Classes of land capability for forestry

- Class F1 - Land with excellent flexibility for the growth and management of tree crops
- Class F2 - Land with very good flexibility for the growth and management of tree crops
- Class F3 - Land with good flexibility for the growth and management of tree crops
- Class F4 - Land with moderate flexibility for the growth and management of tree crops
- Class F5 - Land with limited flexibility for the growth and management of tree crops
- Class F6 - Land with very limited flexibility for the growth and management of tree crops
- Class F7 - Land unsuitable for producing tree crops

Figure 76 Land capability for forestry within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

Soil sealing and soil compaction

Data on the risks associated with avoiding compaction and erosion of soils is limited, with only part of the National Park benefitting from risk-based mapping from compaction (Figure 77 and Figure 78). The impact of development in this regard is limited and specific to the location and design of development sites.

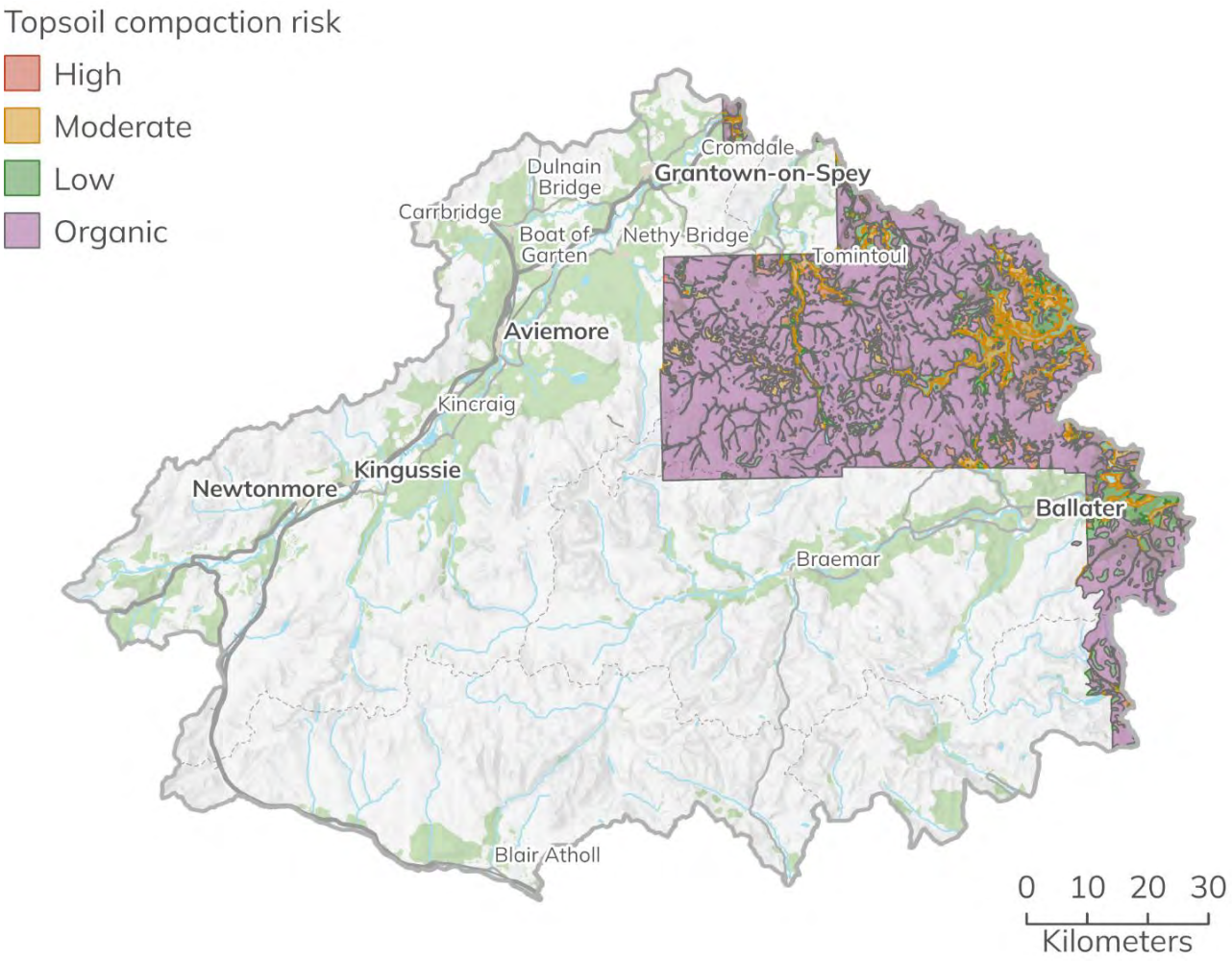


Figure 77 Risk of the topsoil becoming compacted due to the passage of machinery. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

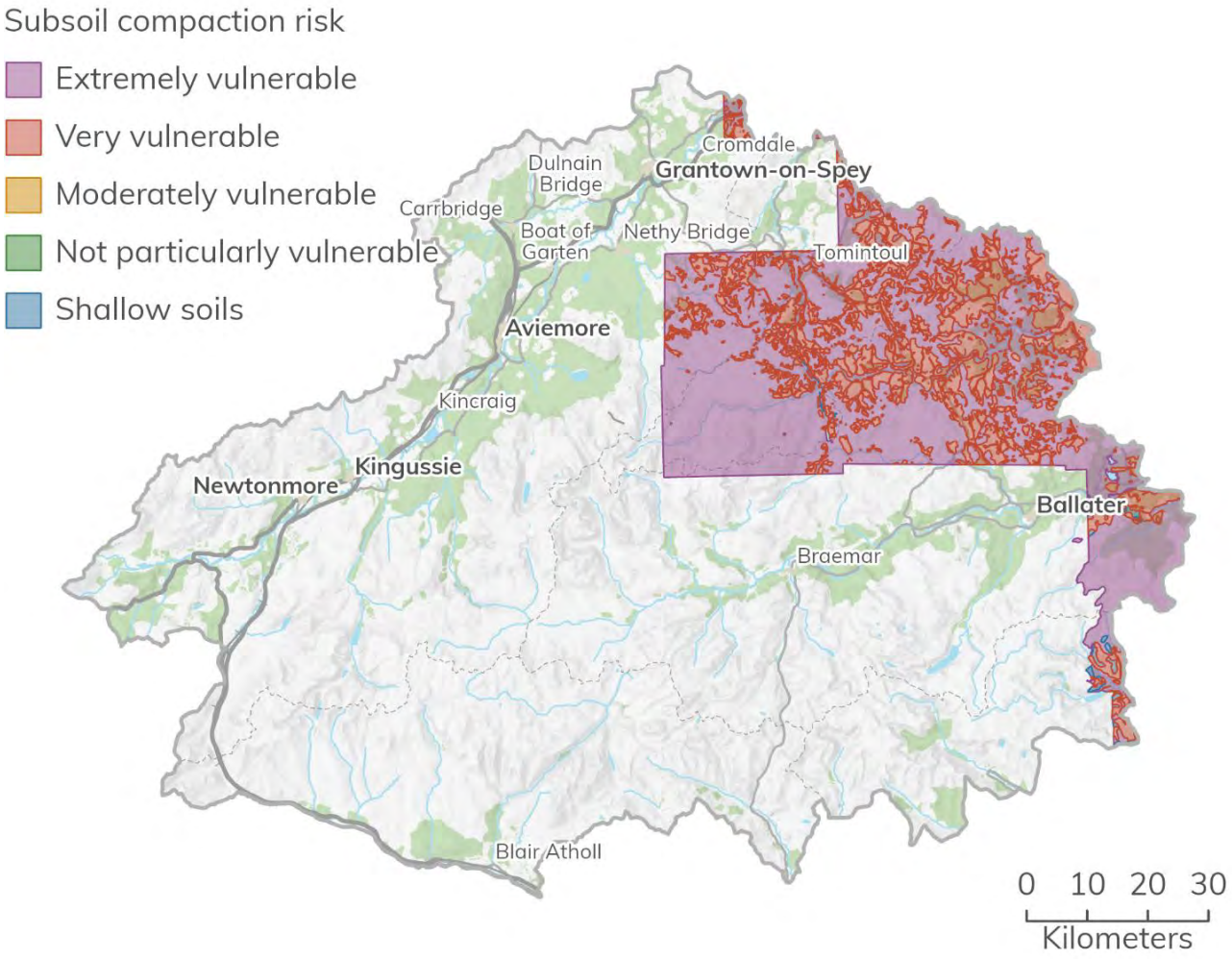


Figure 78 Risk of the subsoil becoming compacted due to the passage of machinery. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

Soil erosion and landslides

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, with the area partially covered by risk mapping (Figure 79). 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. The rate of soil loss due to erosion and the incidence of landslides can be increased by removing the vegetation cover that protects the soil (for example through ploughing to grow crops, deforestation or by engineering works). Tillage erosion also leads to the redistribution of soil downslope.

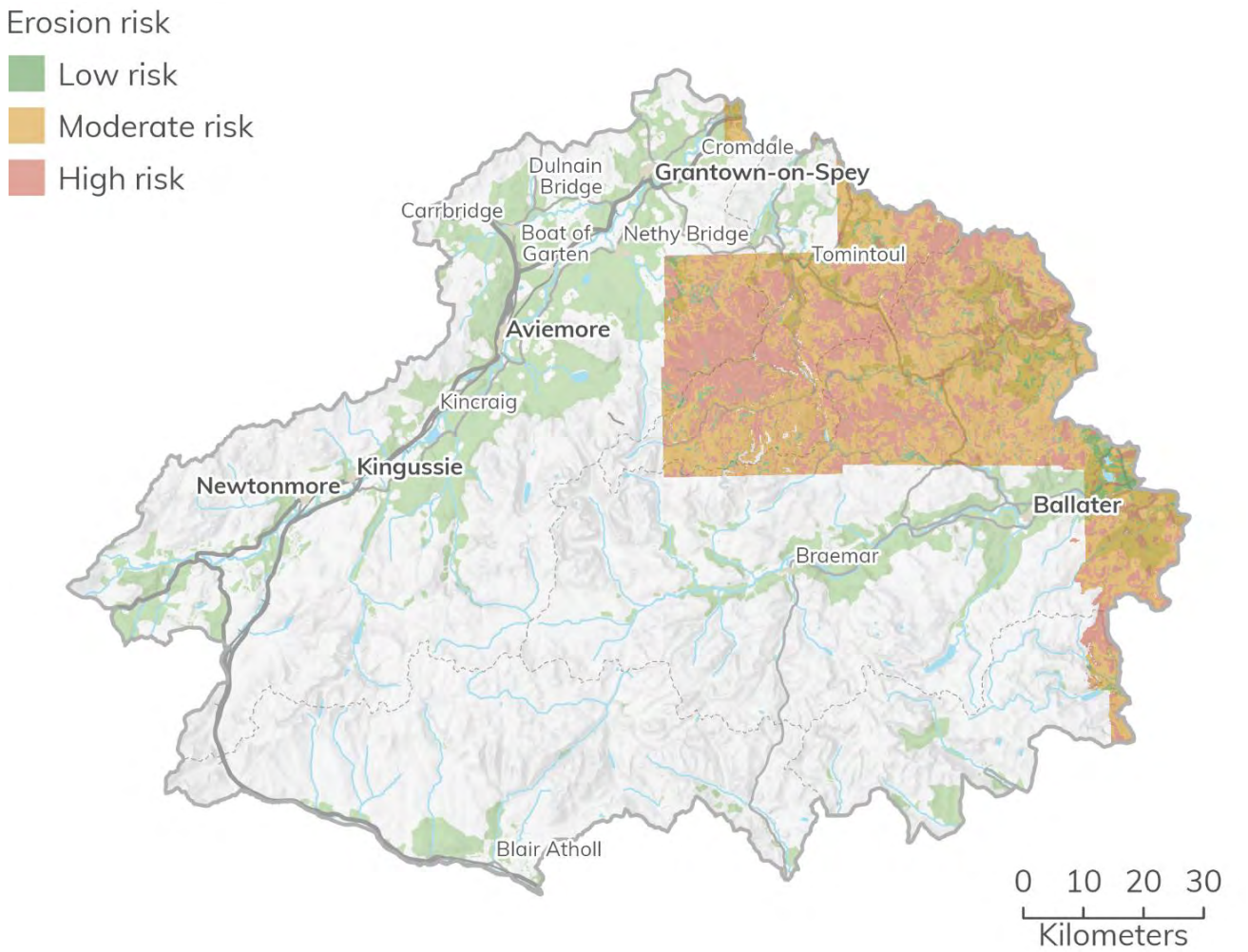


Figure 79 Simplified map of soil erosion risk within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © James Hutton Institute 2024.

The erosion of upland organic 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.

Landslides and 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, although deforestation is also likely to be an important factor.

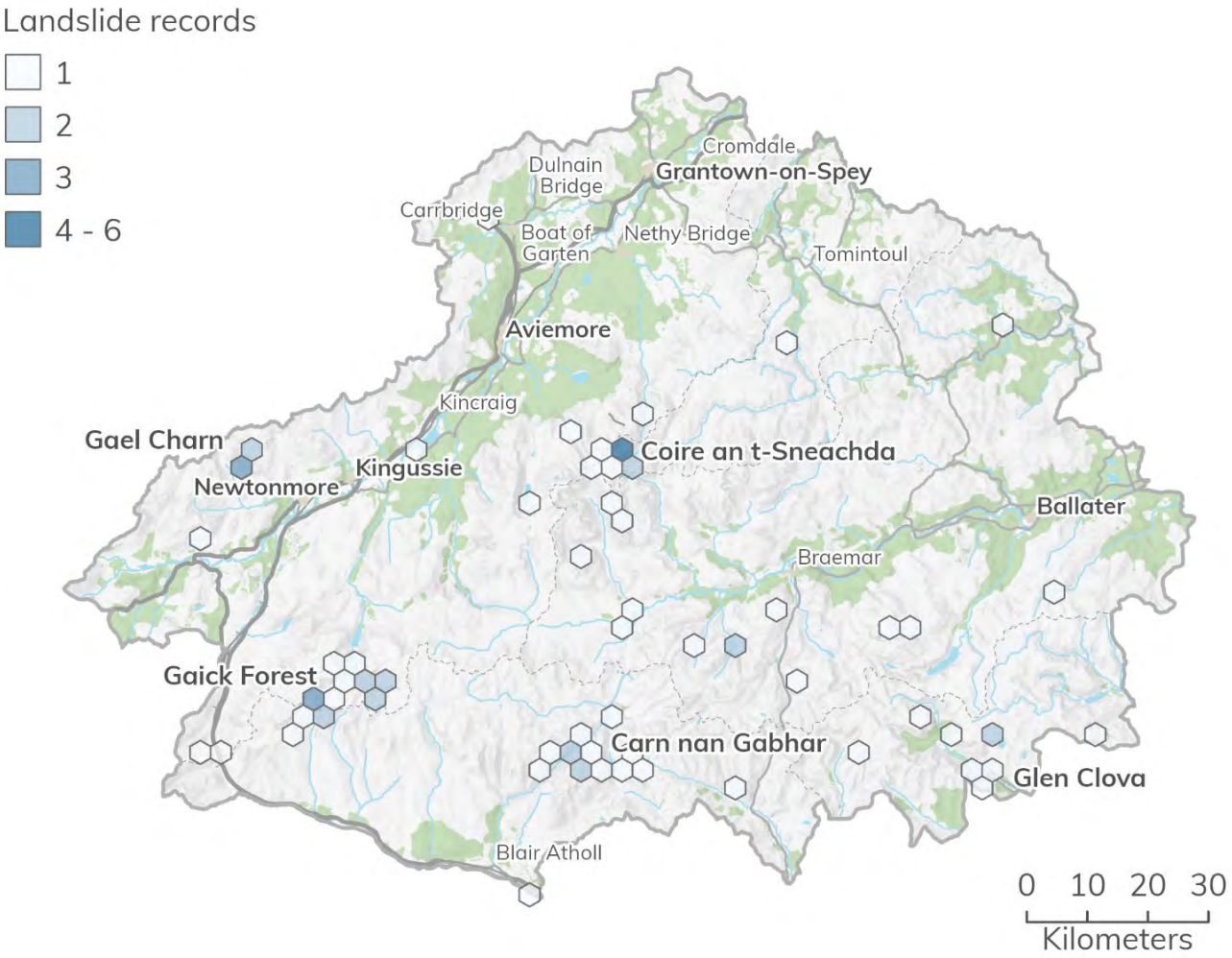


Figure 80 Density of landslide records on the National Landslide Database within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © British Geological Survey 2024.

Information on the extent and prevalence of historic landslides is provided by the British Geological Survey's National Landslide Database. The database identifies five clusters of recorded landslides within the National Park:

- Coire an t-Sneachda
- Gael Charn
- Gaick Forest

- Carn nan Gabhar
- Glen Clova.

Other locations are also recorded.

Transport Scotland have carried out studies to assess debris flow hazards on the Scottish road network and address the risks resulting from these as they affect Transport Scotland's road network and the road users. The output of this assessment was a list of high hazard ranking sites across Scotland, of which there are a number identified along the A9 and A86 within the Cairngorms National Park, combined covering around 22 kilometres of trunk road (Figure 81).

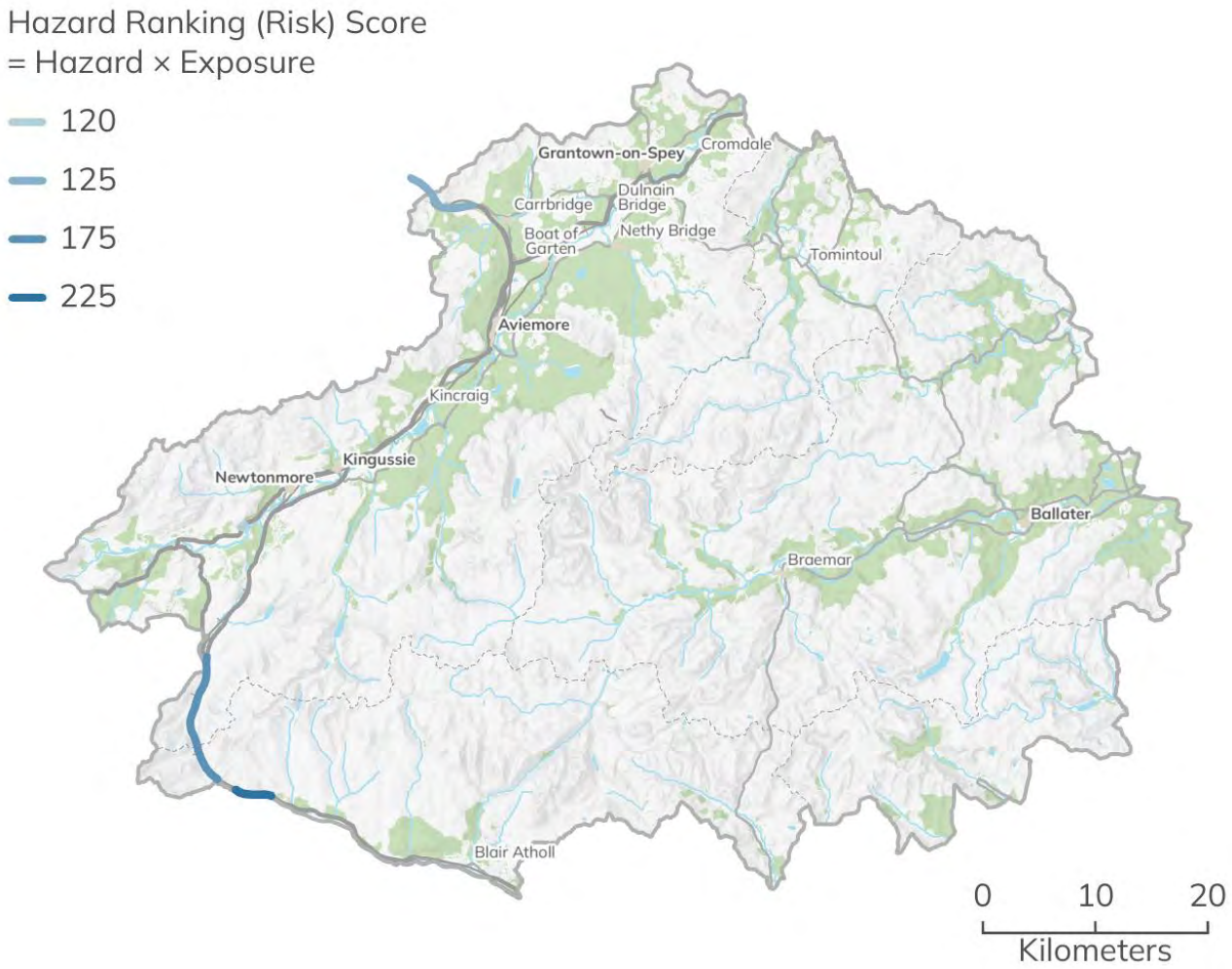


Figure 81 Sites that are at high risk (have a hazard ranking score of 100 or greater) of debris flows on the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Transport Scotland, 2025.

The study recommends two approaches to the management and mitigation of debris flow hazards:

- Exposure reduction, which involves for example education, warning, signing and road closure.
- Hazard reduction, which includes engineering measures that protect the road, reduce the opportunity for debris flow to occur, or involve realignment of the road.

Further information on the purpose and methodology of this study can be found here:

- https://www.transport.gov.scot/media/23546/j10107.pdf

The risk identified and management approaches within this context are unlikely to have direct implications for the local development plan as the areas identified are not within areas where development is likely to be promoted.

Landslide and debris flow activity is reported to have increased over the last 200 – 500 years and it is thought that localised extreme rainfall was the major contributing factor to the Scottish landslides in 2004. Triggering of peat slides is also commonly attributed to intense rainfall events.

Climate change is therefore likely to lead to an increase in the frequency of landslides and in the intensity of soil erosion.

Cultural and locally important soils

National Planning Framework 4 states that locally, regionally, nationally, and internationally valued soils, including 'land of lesser quality that is culturally or locally important for primary use' should be protected.

Land that is 'of quality that is culturally or locally important for primary use' is defined in National Planning Framework 4 to include:

- Food production
- Flood management
- Water catchment management
- Carbon storage.

Matters relating to food production are covered in the following sections on agriculture and crofting. Details relating to flood management and water catchment management are covered in detail within the Strategic Flood Risk Assessment Report. The report identifies areas of flood risk, flood management schemes and proposals, locations where natural flood management techniques may be used, and past and current projects being undertaken to restore floodplains and wetland systems.

National Planning Framework 4 does not provide any examples of what might be classified as 'culturally' important. Examples of cultural and locally important soils may include crofting field patterns (Figure 83) and a broad range of soils that have been historically modified by historic practices. Very little holistic data exists regarding these cultural soils. Much of the impact of these soils is managed at a site level by information relating to the historic assets and places.

Land used for agriculture

It is difficult to estimate the precise area of land used for agriculture within the National Park. This is due to the agricultural parishes used to gather statistics for the Scottish Agricultural Census not nesting within the boundary of the Cairngorms National Park. A sample of parishes mush therefore be selected to form an aggregate. Based on a sample of parishes that best fit the National Park's geography[46], in 2023 there was approximately 570 agricultural holdings within or mostly within the National Park boundary.

According to the 2023 census, the total area of agricultural land, excluding common grazing, within these holdings was approximately 381,455 hectares, down from around 423,500 hectares in 2003. The majority of agricultural land is classified as rough grazing and this is where the greatest change in land use has occurred. All other types of agricultural land use have increased slightly over the time period (Figure 82).

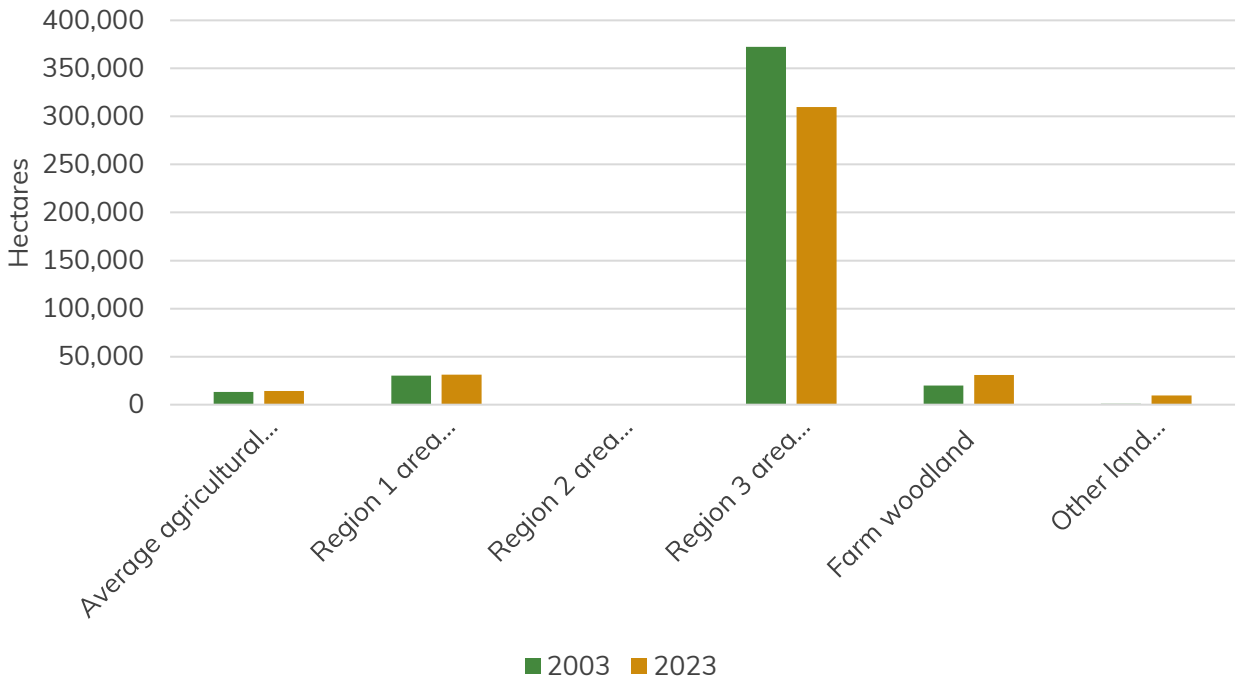


Figure 82 Area of agricultural land within or mostly within the Cairngorms National Park boundary according to 2003 and 2023 Agricultural Census.

[46] Reference numbers 16, 21, 38, 42, 43, 45, 234, 235, 438, 439, 440, 441, 442, 586 and 676.

Crofts

A croft is a small agricultural land holding, averaging five hectares. Crofting is a unique land tenure system found only in the Highlands and Islands and in designated areas of Scotland. Around 9% of Scotland's land area is held under crofting tenure, resulting in 21,514 crofts in Scotland in 2022 / 2023, with around 35,000 people living in crofting households. There are 92 croft holdings within the Cairngorms National Park, all within the area of The Highland Council (Figure 83).

The use of croft land is governed by specific legislation, namely the Crofters (Scotland) Act 1993, Crofting Reform etc Act 2007, Crofting Reform (Scotland) Act 2010, and Crofting (Amendment) (Scotland) Act 2013. Under this legislation, a crofter has a duty to cultivate the land or put it to a purposeful use. Cultivation includes activities such as keeping livestock or poultry, growing fruit, vegetables or other crops, growing fruit, vegetables or other crops, and planting trees and maintaining woodland. A purposeful use means any planned and managed use which does not adversely affect the croft, the public interest, the interests of the landlord or (if different) the owner; or the use of adjacent land. For example, this could include forestry, using the land for tourism and generating renewable energy.

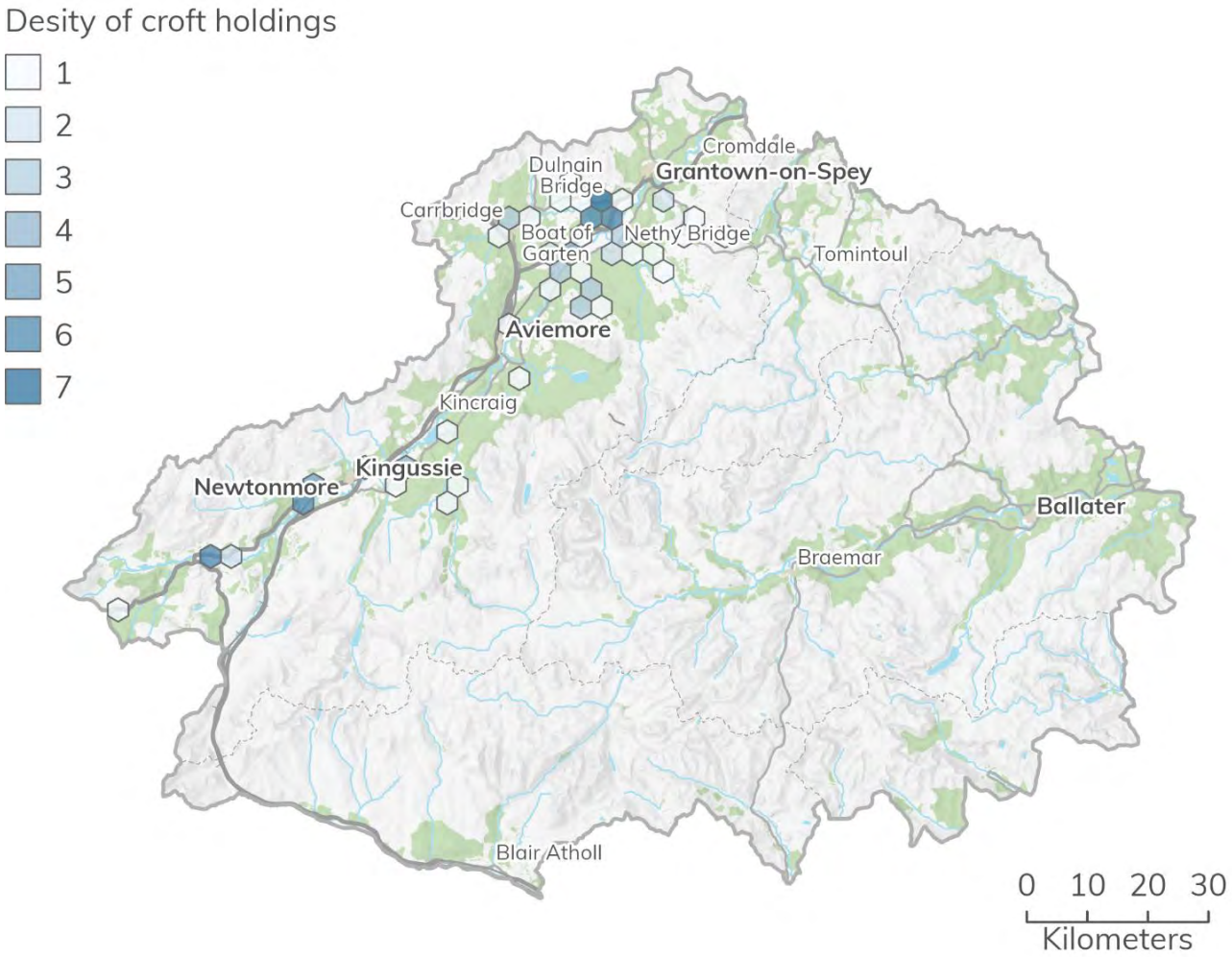


Figure 83 Density of croft holdings within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810

Crofting's small-scale food production is traditionally characterised by a mix of livestock rearing and crop cultivation. Environmental benefits may stem from the small scale, diverse and often low-intensity nature of crofting agriculture. According to a 2024 report by Biggar Economics for the Crofting Commission[47], crofting legislation and support (predominantly from government, but also from some non-government organisations) helps to sustain these productive ecosystems, contributing to soil health, carbon sequestration, biodiversity, and maintaining landscape quality. The report states that a holistic way of measuring the value of crofting land use has not yet been established but regenerative agriculture, agroecology and nature-based solutions are all relevant. These

[47] https://www.crofting.scotland.gov.uk/userfiles/file/research_publications/the-value-of-crofting-a-report-by-biggar-economics-for-the-crofting-commission.pdf

solutions include peatland restoration and woodland expansion, contributing towards Scottish Government's net-zero ambitions.

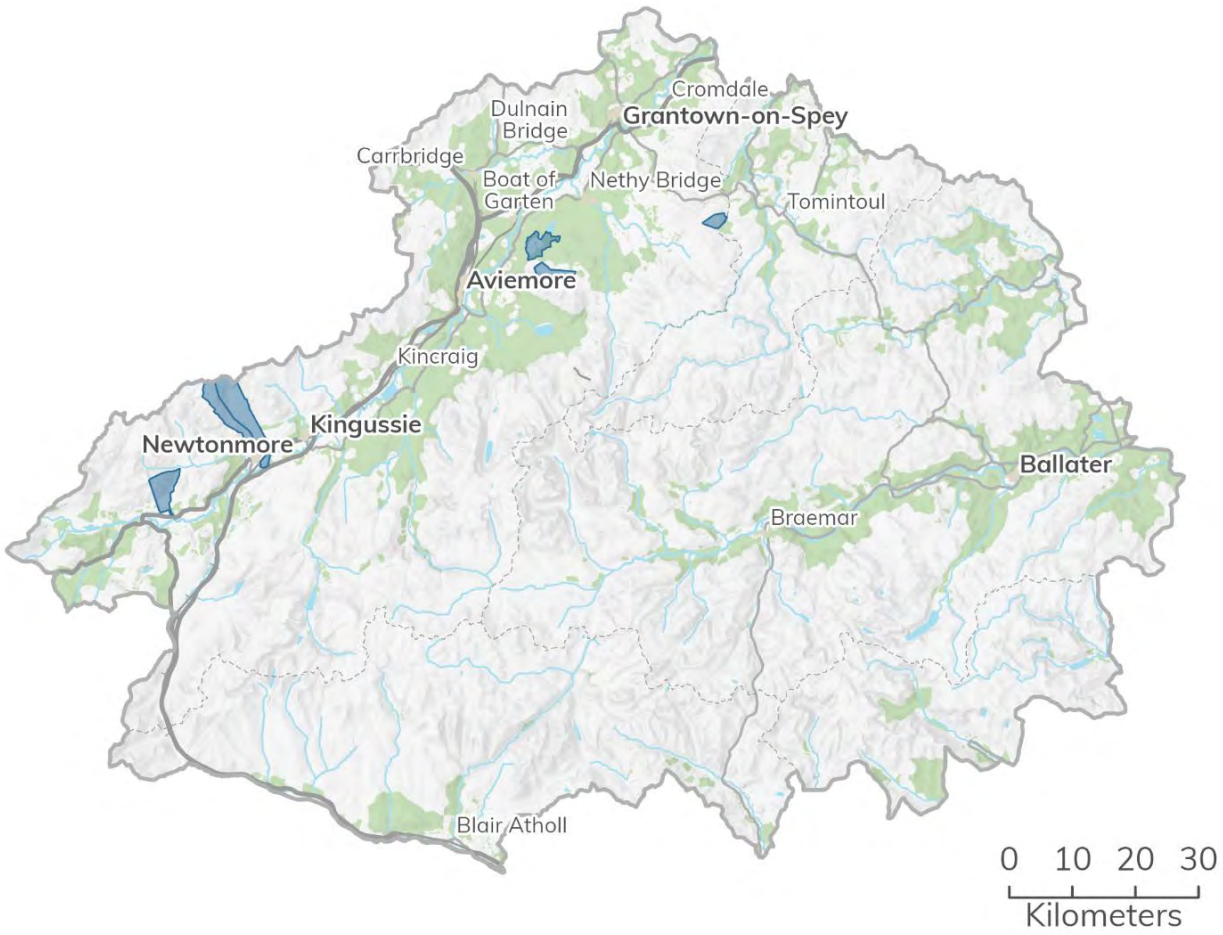


Figure 84 Mapped common grazing land in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Data © Scottish Integrated Administration and Control System 2025.

Crofts often share in common grazing, which may encompass large areas of land. Geographical data for the Cairngorms National Park is limited, however (Figure 84) presents data collected as of 2024. These areas may also encompass large areas of peatland, some of which may require restoration, as well as areas suitable for woodland expansion.

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.

There are 92 croft holdings exist within the National Park, all in The Highland Council area. Crofting's small-scale and diverse nature supports environmental benefits such as soil health, carbon sequestration, biodiversity, and landscape quality.

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

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 3: Water
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

Topic 5: Material assets

In Strategic Environmental Assessment 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 Strategic Environmental Assessment for the Cairngorms National Park, while others may be covered in other topics. For example, soil and water are covered by their own topics. The issues covered within this section are:

- Geo-conservation.
- Minerals and aggregates.
- Energy.
- Waste.
- Transport infrastructure.
- Digital infrastructure.

Geo-conservation

> ***'...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)***

Geo-conservation 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 geo-conservation are still being developed; however, in some areas a good deal has been achieved, particularly in the creation of 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'[48].

[48] https://data.jncc.gov.uk/data/45dcb105-6043-476c-aa84-1b874d313c94/JNCC-Report-450-FINAL-WEB.pdf

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.

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

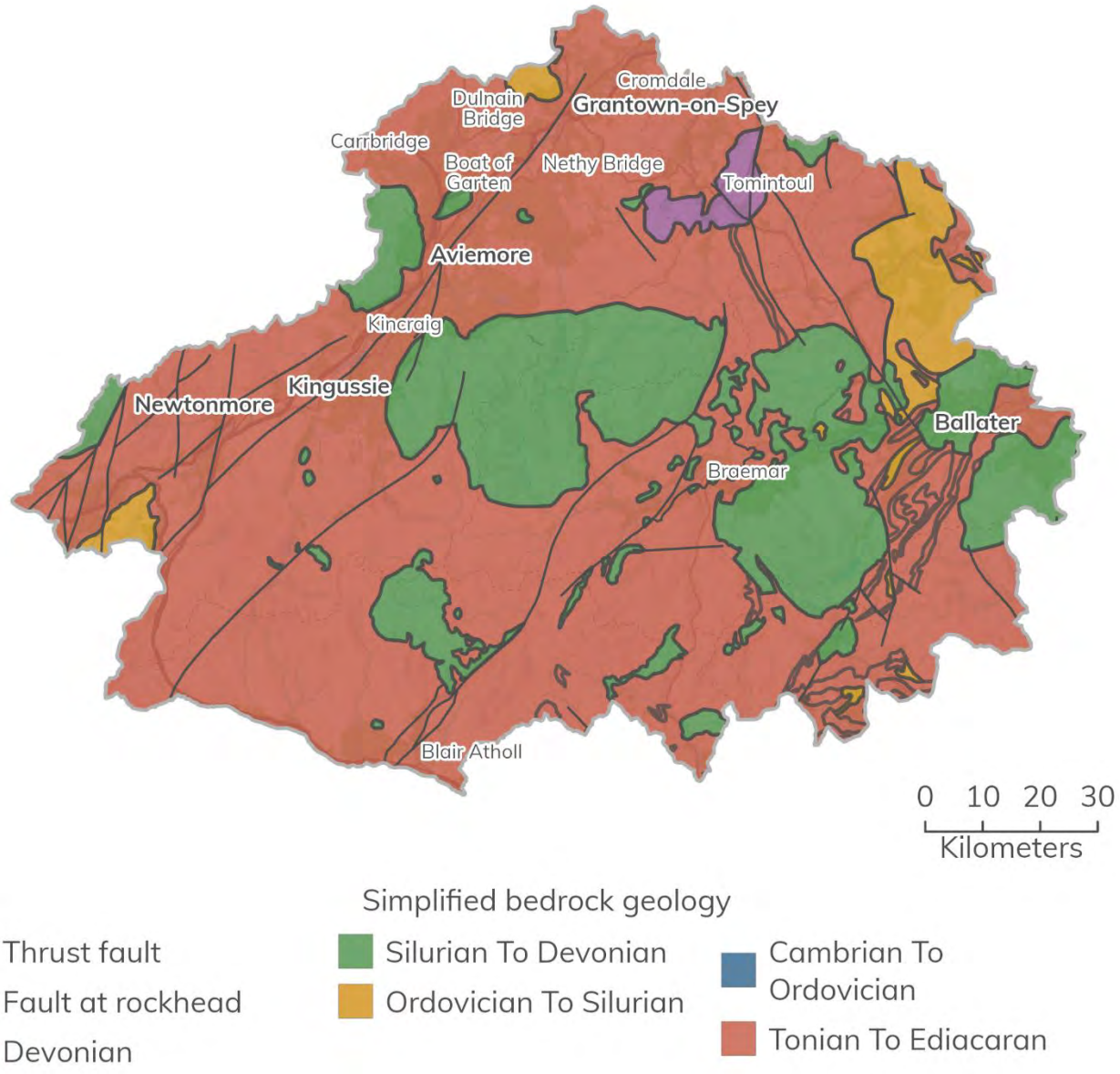


Figure 85 Simplified bedrock geology of the Cairngorms National Park by geological period. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © British Geological Survey 2024.

The landscapes of the Cairngorms National Park have a remarkable history stretching back to some 700 million years (Figure 85). 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. 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.

There are 16 Geological and Mixed Sites of Special Scientific Interest within the National Park, covering an area of some 680 km^2 (around 15% of the National Park's area) (Figure 86).

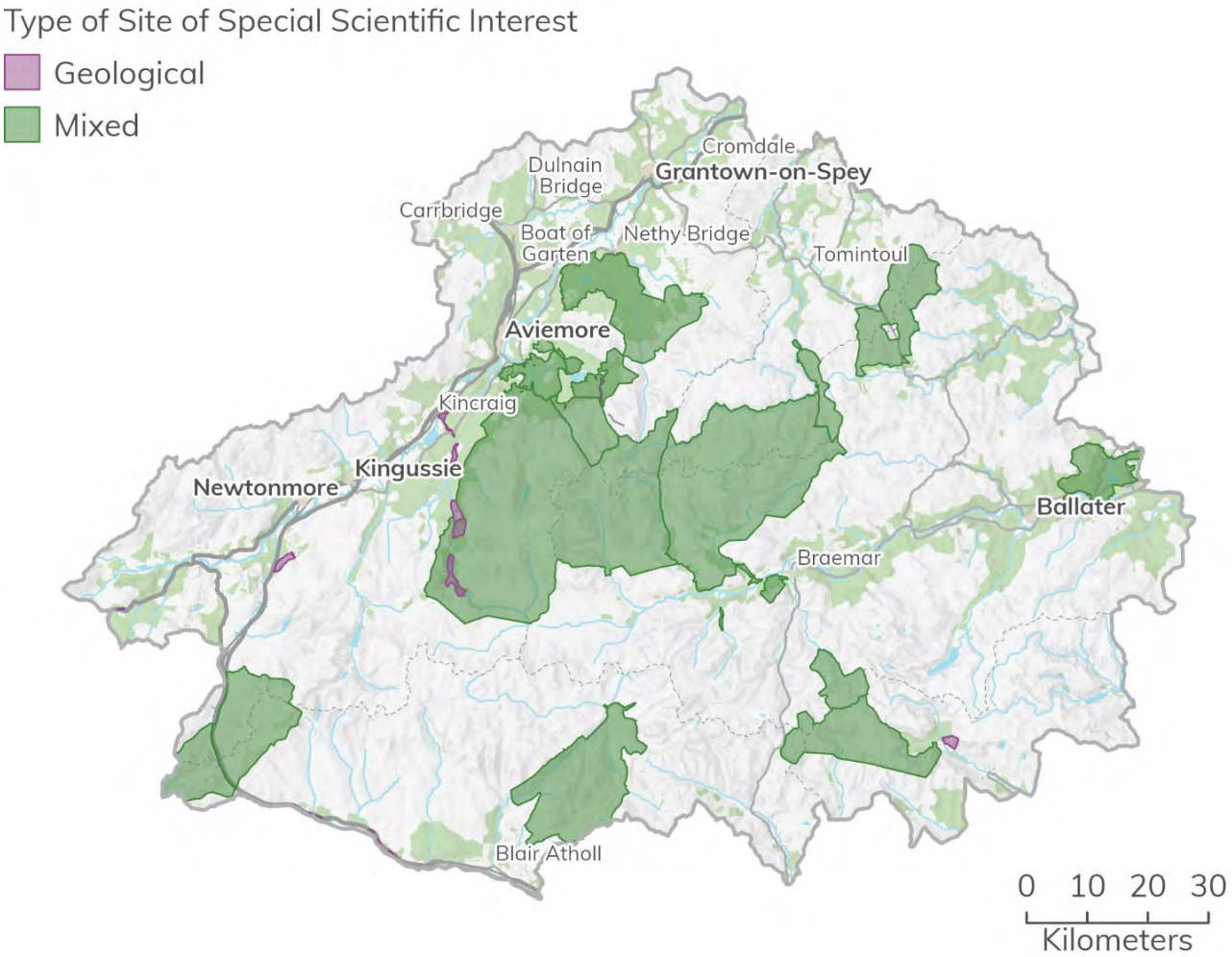


Figure 86 Geological and mixed Sites of Special Scientific Interest in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © NatureScot 2024.

Further protection is given to certain areas, which includes areas both within and out with Sites of Special Scientific Interest, by the 39 Geological Conservation Review sites within or overlapping the Cairngorms National Park boundary (Figure 87). Combined

they cover an area of around 592 km^2, the vast majority of which lies wholly within the National Park itself. In fact, the majority of this area (around 526 km^2) is attributed to a single Geological Conservation Review site, the Cairngorms Mountains (site 2284), which is listed for its exceptional assemblage of pre-glacial, glacial, glaciofluvial and periglacial features.

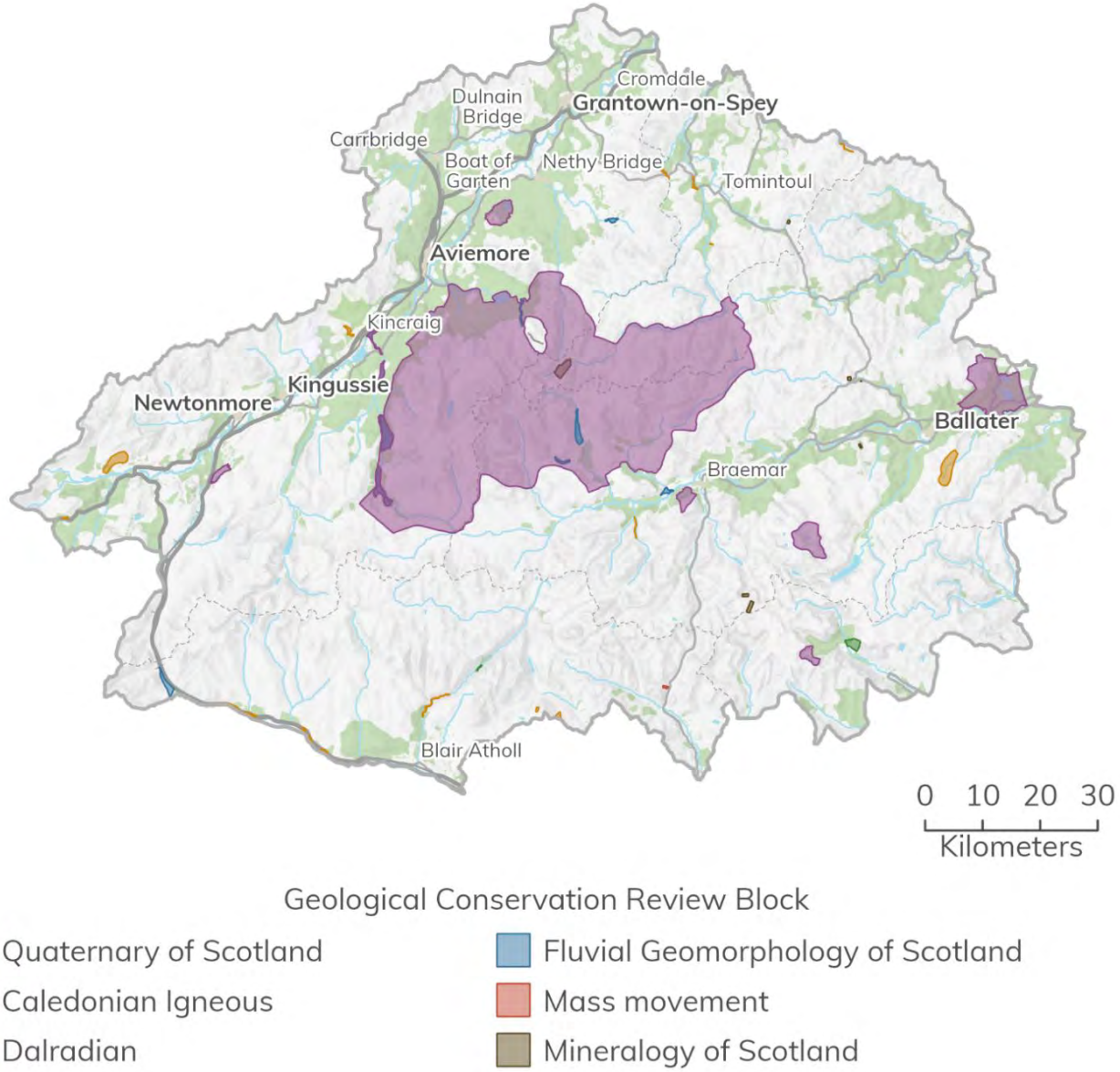


Figure 87 Geological Conservation Review sites within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © British Geological Survey 2024.

The Glen Esk Geological Conservation Review site has also been included on the Second 100 International Union of Geological Sciences Geological Heritage Sites List of Candidates as 'Barrow Zones, Scottish Highlands'. It represents the first systematic study of regional metamorphism through analysis of index minerals in metamorphosed mudstones.

A report on the geodiversity of the National Park by the British Geological Survey on behalf of the National Park Authority was published in 2011. This report represented a first pass at selecting the most important localities for Local Geodiversity Sites in the National Park, based on available information and local knowledge of British Geological Survey geologists. Thirty-five bedrock geodiversity sites (including 23 Geological Conservation Review Sites) and fifty-four Quaternary sites (including 38 Geological Conservation Review Sites) were proposed as National Park geodiversity sites. These sites were not regarded as the final definitive list, but as a framework to which additional sites can be added as more information becomes available. They do not, unless covered by another form of protection, have any status in themselves. They do however offer further spatial information about the rich geodiversity of the National Park. Further information can be found in:

- https://nora.nerc.ac.uk/id/eprint/18475/1/OR10019.pdf

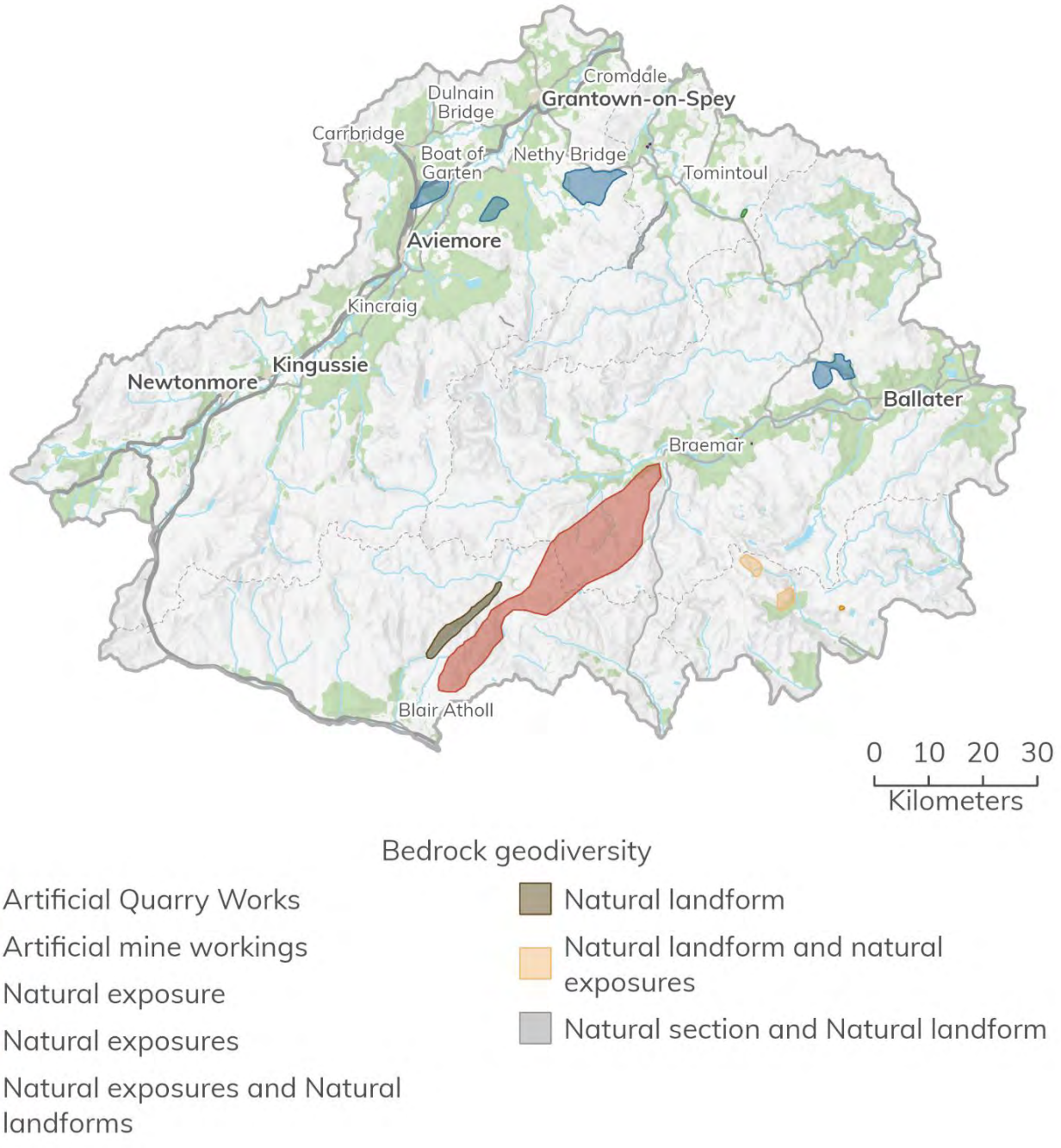


Figure 88 Bedrock geodiversity of the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © British Geological Survey 2024.

Although British Geological Survey mapping is available for the whole of the Cairngorms National Park, detailed geomorphological information is more limited. However,

NatureScot, along with the British Geological Survey, have compiled a spatial inventory of the geomorphology of the Cairngorm Mountains core area (Figure 89).

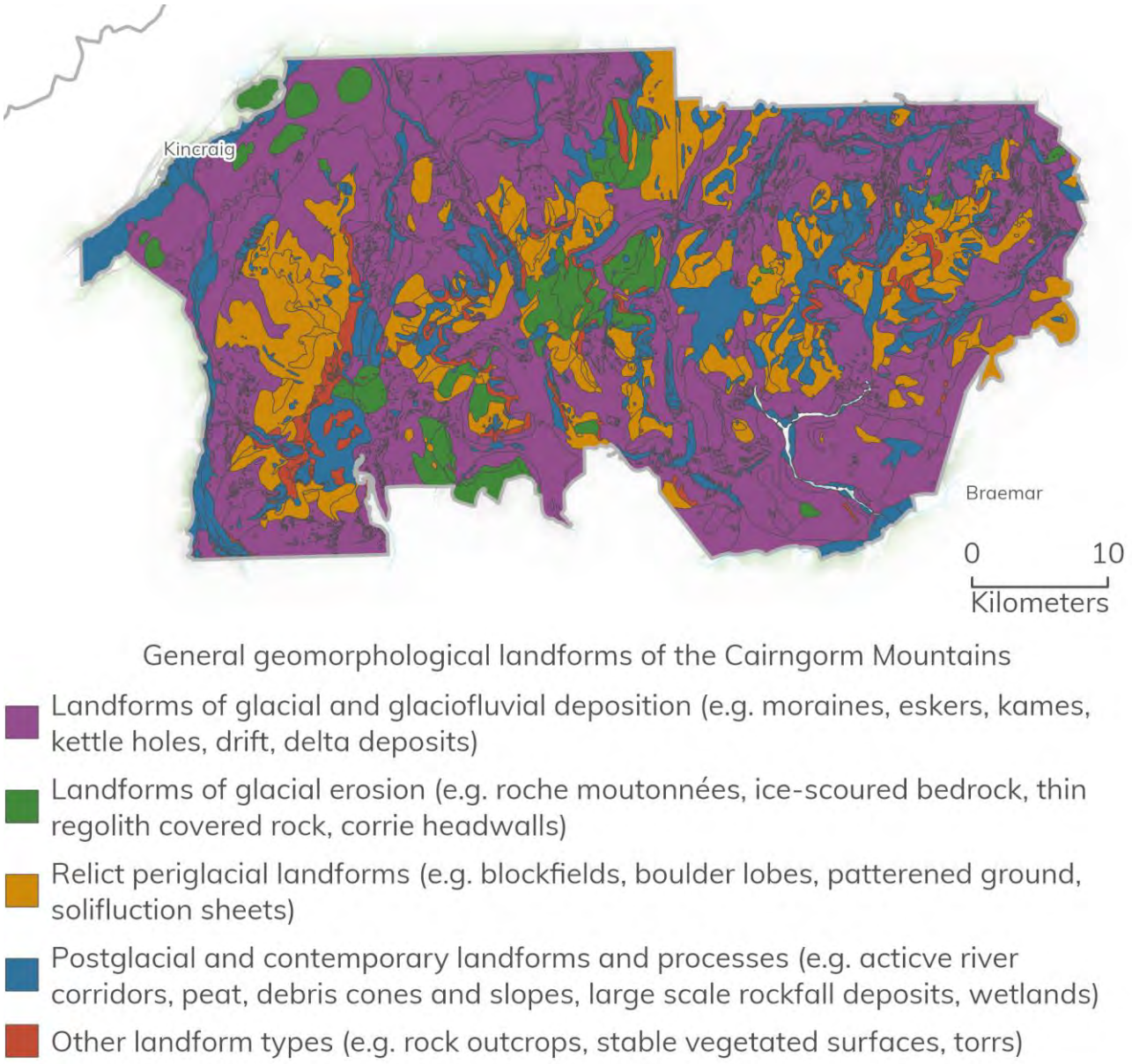


Figure 89 Geomorphological heritage of the Cairngorms Mountains. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © British Geological Survey and NatureScot 2024.

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 Late glacial and Holocene paleoenvironmental 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 (for example, 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 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.

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

Minerals and aggregates

The Cairngorms National Park forms part of the Highland, North East Scotland and Tay Area regions for the purposes of the Scottish Aggregates Survey 2019. This makes The Park Authority unique among planning authorities within Scotland, as the boundaries of all other authorities are contiguous with boundaries of the regions. In 2019, it was estimated that across these regions:

- 1,237,000 tonnes of sand and gravel was extracted.
- 8,749,000 tonnes of crushed (hard) rock was extracted.

There are no active quarries or inactive quarries with planning consent within the Tay Area or North East Scotland regions of the National Park. These encompass Angus, Aberdeenshire, Moray and Perth and Kinross local authority areas.

Figure 90 and Table 23 provides details of quarries within the National Park that have planning permission and / or have planning applications pending decision. The following quarries currently have applications pending decision[49]:

- Alvie Quarry (Easter Delfour) (24/02574/S42)
- Meadowside Quarry (20/04784/S42)
- Granish Quarry (16/04604/FUL).

While Tullochgribban Quarry has consent to operate until 2042, it is not currently operational and is classified as long-term derelict land by the 2023 vacant and derelict land survey.

[49] The planning applications are being determined by the Highland Council. The planning references provided are therefore those of the Highland Council,

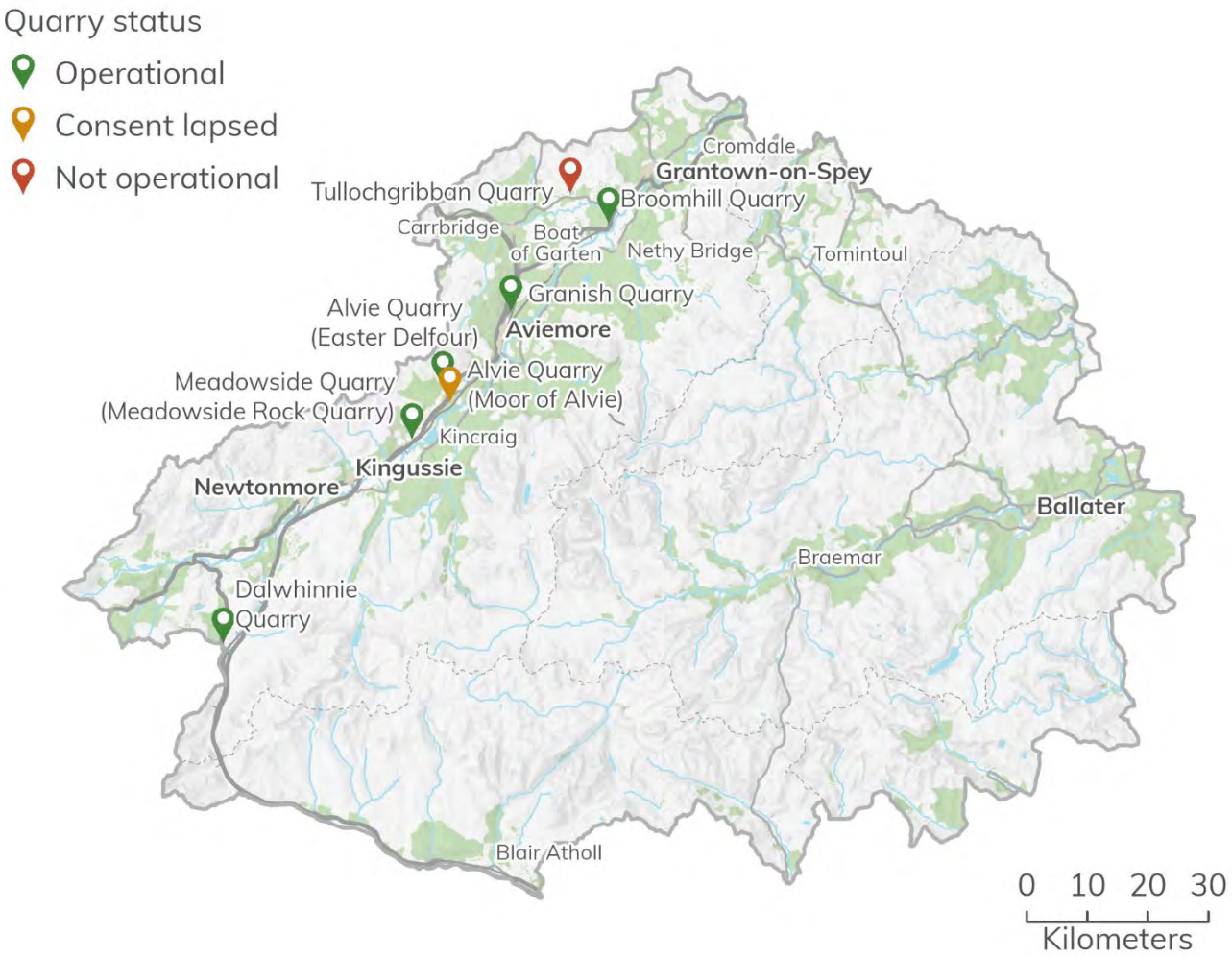


Figure 90 Quarries with consent or planning applications pending decision within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

While data on permitted reserves and planning permission timescales is available to the National Park Authority, information on extraction rates, as gathered and published in the 2019 aggregates survey, is not. This is because the data is commercially sensitive and cannot be published at the geography of the National Park without issues of disclosure arising. It is therefore not possible to calculate a landbank for construction aggregates within the market areas of the National Park. The National Park Authority is however satisfied that there is sufficient access to construction aggregates through the quarries active within the local authorities that cover the National Park, both within and outwith its boundary.

Table 23 Quarries with consent or planning applications pending decision within the Cairngorms National Park.[50]

Quarry name	Location	Planning application reference	Consent expires	Status	Annual permitted reserves (tonnes)	Total permitted reserves (tonnes)	Material
Alvie Quarry (Easter Delfour)	Kincraig	00/00279/FULBS	2025	Operational	12,000	No data available	Igneous and metamorphic rock
Meadowside Quarry (Meadowside Rock Quarry)	Kincraig	15/01723/S42	2031	Operational	50,000 – 150,000	No data available	Igneous and metamorphic rock
Alvie Quarry (Moor of Alvie)	Kincraig	11/04428/FUL	2019	Consent lapsed	No data available	No data available	Sand and gravel
Granish Quarry	Aviemore	12/04734/S42	2028	Operational	No data available	No data available	Sand and gravel
Broomhill Quarry	Dulnain Bridge	18/01332/S42	2029	Operational	30,000	120,000	Igneous and metamorphic rock
Dalwhinnie Quarry	Dalwhinnie	18/01434/FUL	2054	Operational	70,000	250,0000	Sand and gravel
Tullochgribban Quarry	Dulnain Bridge	07/00117/FULBS	2042	Not operational	No data available	No data available	Sand and gravel

[50] The planning applications references used in this table are those given by the Highland Council not the Cairngorms National Park Authority. This is due to some consents predating the designation of the National Park.

Energy

Electricity infrastructure and capacity

The National Grid Electricity Ten Year Statement (EYYS) outline that over the next decade the British Electricity Transmission System faces growing system needs, driven primarily by low carbon and renewable generation. This will drive requirements for new network capability in the move towards the 2035 UK Government target of 100% zero carbon electricity system and beyond. In Scotland, future generation growth is primarily from renewable generation located at the peripherals of the network. Different solutions are required to ensure the high voltages are managed in central Scotland.

Electrical transmission

SSEN Transmission are responsible for the electrical transmission serving the distribution network that provides electricity to the residents and businesses in the Cairngorms National Park. The primary source of data of open data on SSEN Transmission can be accessed here:

- https://www.ssen-transmission.co.uk/

SSEN Transmission are investing over £20bn to upgrade the network infrastructure across the north of Scotland between now and 2030.

As a mass transporter of renewable energy, the north of Scotland electricity transmission network has a major role to play in supporting delivery of Scotland and the UK's 2030 net zero targets, connecting new onshore and offshore renewables generation and transporting the power generated to demand centres in the rest of Scotland and beyond.

This investment is critical to powering change and meeting Scotland and the UK's renewable energy targets, accelerating Scotland's delivery to meet the 2030 offshore wind connection dates, known as the Pathway to 2030.

The projects include new overhead lines, substations and subsea links and are part of a major upgrade of the electricity transmission network across Great Britain. More information on SSEN Transmission projects can be found here:

- https://www.ssen-transmission.co.uk/projects/2030-projects/

SSEN Transmission projects

The Electricity Supply Operator's (ESO) plan for the North of Scotland sets out proposals for a number of projects to proceed now for delivery by 2035, which combined represent a potential estimated investment of over £5bn for SSEN Transmission (Figure 91).

SSEN Transmission have indicated that the 'progression of these investments will require an appropriate regulatory framework, including early confirmation that SSEN Transmission will be the Delivery Body, alongside securing all planning and regulatory approvals. They will also be subject to extensive public consultation to help inform the development of these new and upgraded network infrastructure requirements.'

In the Cairngorms National Park there is one project that falls within the National Park boundary, the Beauly Denny 400kV Upgrade. The project involves the upgrading of existing overhead power lines to accommodate home grown renewable electricity generation.

The existing Beauly – Denny overhead line is 137 miles long and runs from Beauly, north of Inverness, to Denny near Falkirk. It was the first 400kV overhead line built in the network area and became fully operational in 2015. There are two circuits on the overhead line, one running at 400kV and the other at 275kV. Scottish and Southern Energy Networks Transmission are now required to upgrade the second circuit to 400kV to help transport large scale renewable generation from the North of Scotland to areas of demand.

Due to the overhead line being constructed for 400kV operation on each of its two circuits but put into service with one operating at the lower voltage of 275kV, Scottish and Sothern Energy Networks transmission team do not anticipate any alterations to the existing overhead line will be required in order to upgrade it. More details on the completed project can be found here:

- https://www.ssen-transmission.co.uk/projects/project-map/beauly-denny-400kv-upgrade/

The VISTA (Visual Impact of Scottish Transmission Assets) project between Boat of Garten and Nethy Bridge has moved into the operational phase. The Cairngorms National Park schemes saw 12km of overhead line and 46 existing transmission towers near the villages of Boat of Garten and Nethy Bridge replaced with underground cabling. As part of the VISTA initiative, a 132kV twin cable section of the existing 132kV double overhead line circuit has been installed between Beauly and Boat of Garten.

More details on the completed project can be found here:

- https://www.ssen-transmission.co.uk/projects/project-map/vista---boat-of-garten-to-nethy-bridge/

SSEN Transmission's Projects delivering a network for Net Zero: Pathway to 2023 also sets out the new Peterhead to Beauly transmission line (Figure 91). Although the planned new Peterhead to Beauly 400kV transmission line project will not directly impact the National Park, its delivery will bring indirect benefits in terms of reinforcing the electricity supply to the distribution network operating within the National Park and may help to improve capacity for any future renewable energy generating which may come forward in the next ten-year Local Development Plan period.



Figure 91 Planned improvements to the SSEN Transmission network in the central highlands. Map provided by SSEN Transmission, 2024.

In the case of proposals for new or improvements to existing grid infrastructure, it would be preferable for underground connections to be utilised where possible. However, SSEN Transmission have requested that the National Park Authority needs to be mindful that new electrical transmission grid projects may need to be administered within the

next ten-year Local Development Plan which could not be undergrounded due geological constraints or that the environmental impact of excavating carbon-rich soils may outweigh the benefits of the development. SSEN Transmission have communicated they recognise the starting point and would be attempting to underground as much infrastructure as possible in National Parks due to the special qualities of its landscape and direct economic benefits this provides to local economies through tourism.

Electrical distribution

Electricity doesn't reach the homes and businesses of the residents in the National Park via the transmission network; it's the distribution network that handles this part of the operation. SSEN Distribution are the responsible organisation who 'distribute' the electricity to the end users in the North of Scotland and the National Park. They connect the transmission network to where electricity is used, 'distributing' it at lower, more usable voltages.

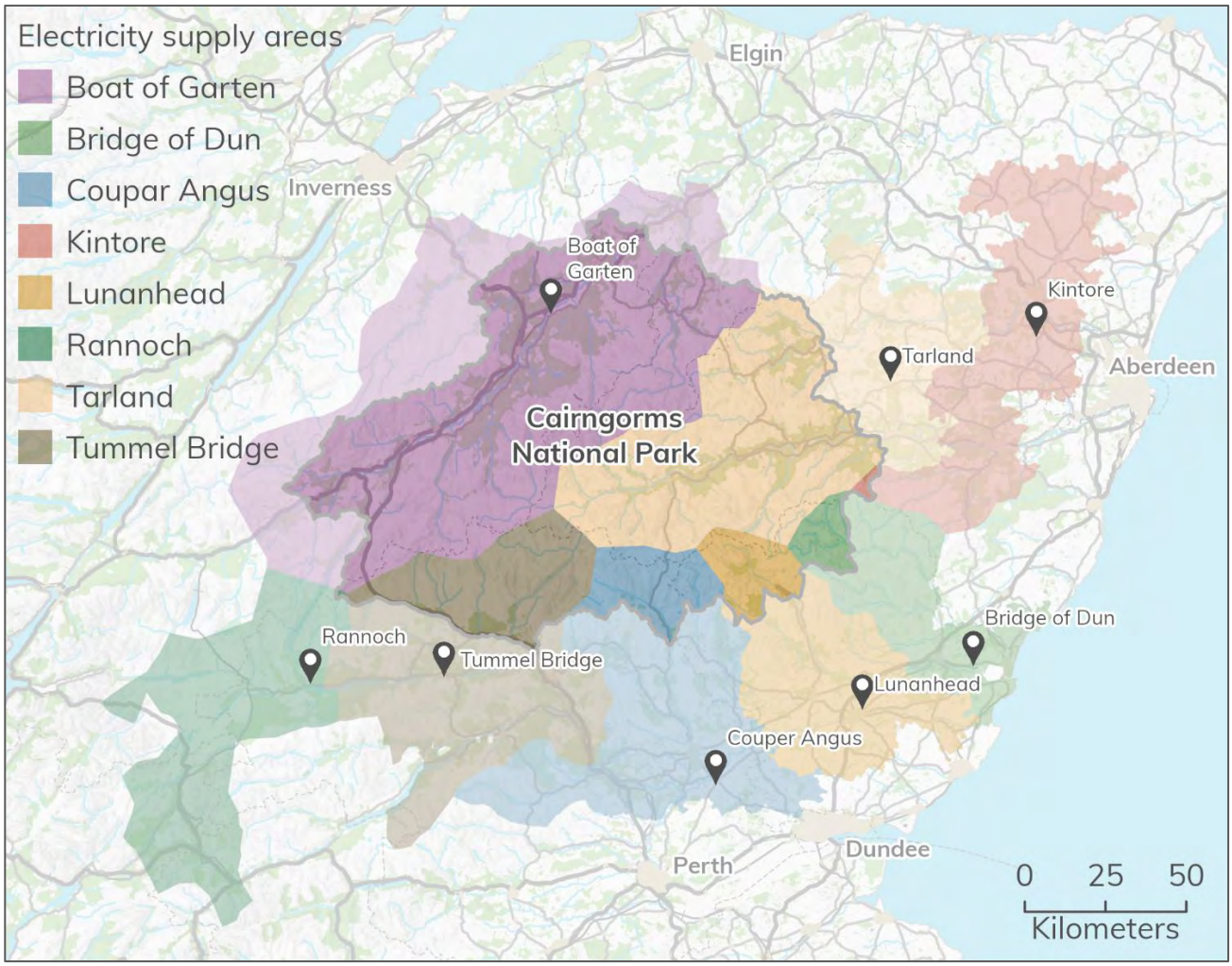


Figure 92 Grid Supply Points and Grid Supply Areas serving areas covered by the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © SSEN Distribution, 2024.

The Grid Supply Points are where the transmission network is connected to the Distribution network. Grid Supply Point are substations that act as the interface between SSEN's 132kV network and the transmission network operated at 400kV or 275kV. The supply of electricity enters the distribution network through the Grid Supply Points (GSP's) which serve supply areas (Figure 92).

Each of the Grid Supply Points shown in Figure 92 are then connected to smaller Substations within the supply areas that provide electricity to the areas of the National Park. It is worth noting that some of the substations are outwith the National Park boundary but are distributing electricity to areas within the National Park boundary (Figure 93). Each of the substation located within a supply area are connected to the Grid Supply Point for that area.

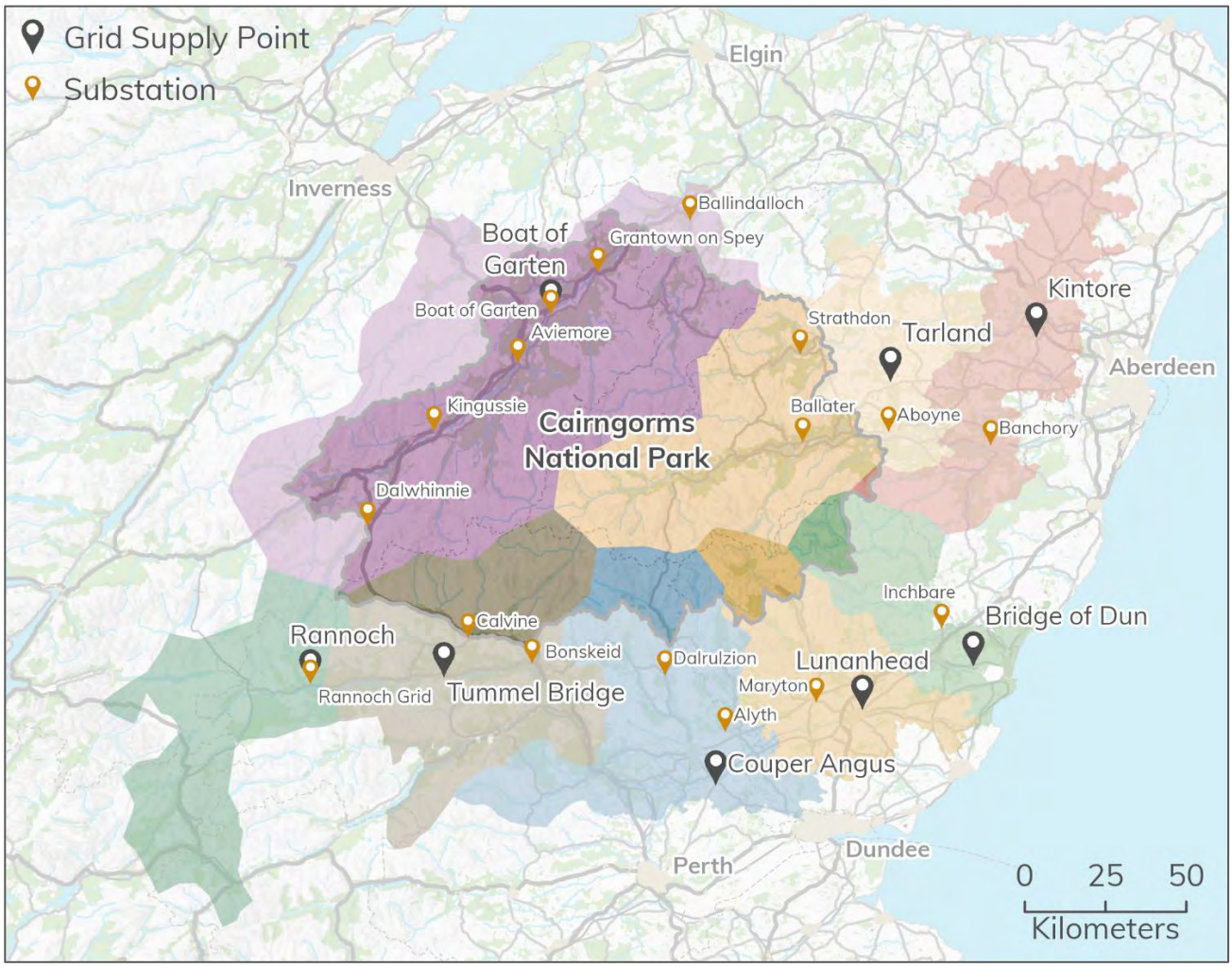


Figure 93 Substations that distribute electricity to the areas of the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © SSEN Distribution, 2024.

Network capacity

SSEN Distribution publish network maps that provide an indication of their network's capability to connect loads greater than 200amps and generators applying under the G99 process to major substations (Figure 94).

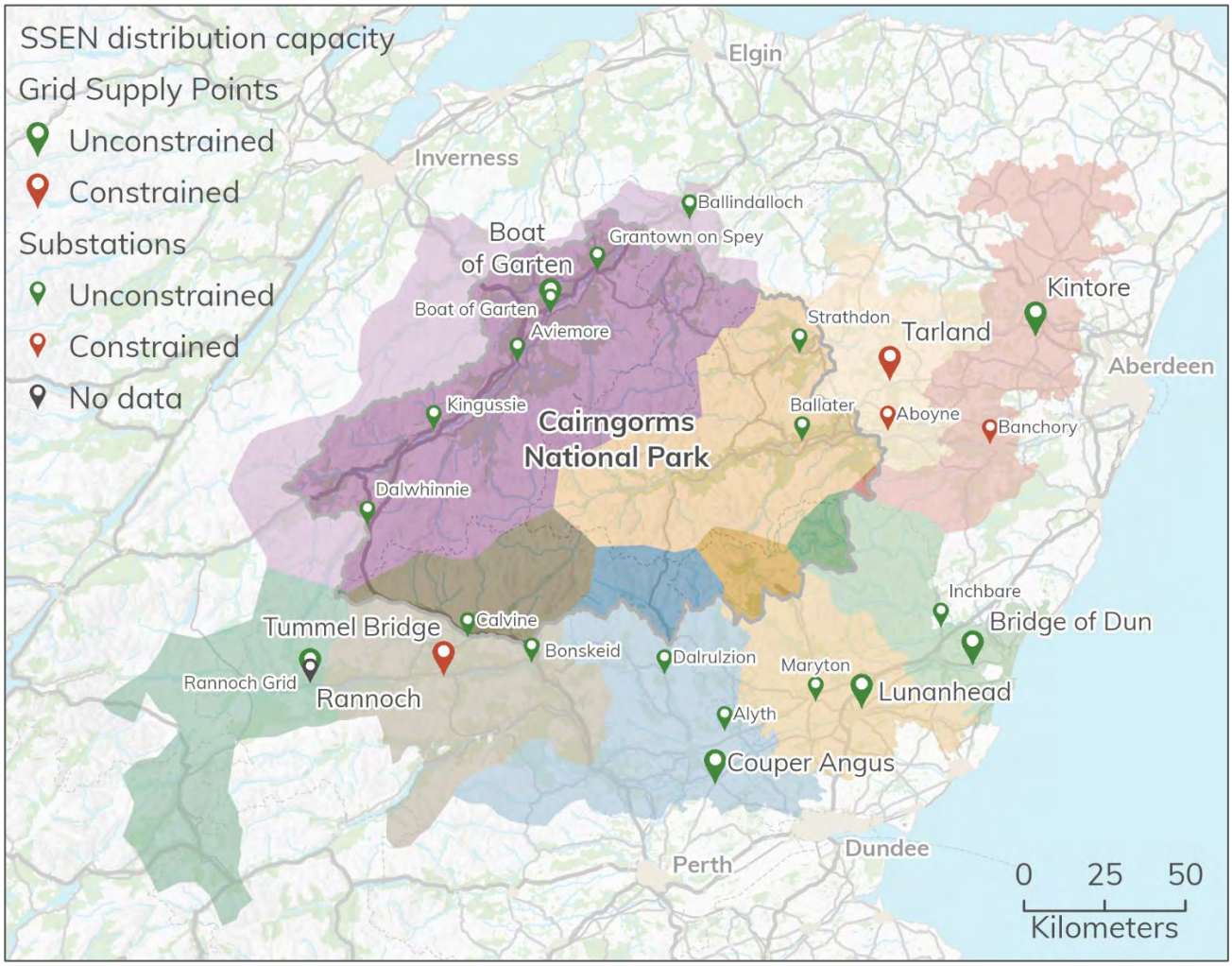


Figure 94 Network Capacity – classification of grid supply points and substation SSEN distribution assets serving the areas of the Cairngorms National Park in terms of the Distribution status. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © SSEN Distribution, 2024.

The data provides constraint information down to primary substation level. The data provides an indication of the network's capability and provides information on the potential opportunities to connect to the network. The distribution network data for the SSEN Distribution assets in the National Park which includes the Grid Supply Points and substations reports all currently have an unconstrained transmission status attributed to them. When looking at the SSEN Distribution asset status', there are a small number of

assets which have a constrained distribution status attributed to them. If there is a constrained substation this means the network does not have the capacity to transport electricity required or produced from a new connection. If the transmission or distribution works are constrained or partially constrained, then reinforcement works will be needed to connect to the network here which will incur additional costs to complete the connection. If constraint statuses are partially or fully constrained further information is provided on what works are underway and what the completion date is.

Existing SSEN Distribution assets

Figure 95 shows the locations of all substations in the National Park, including Primary Substations, ground and pole mounted distribution units.

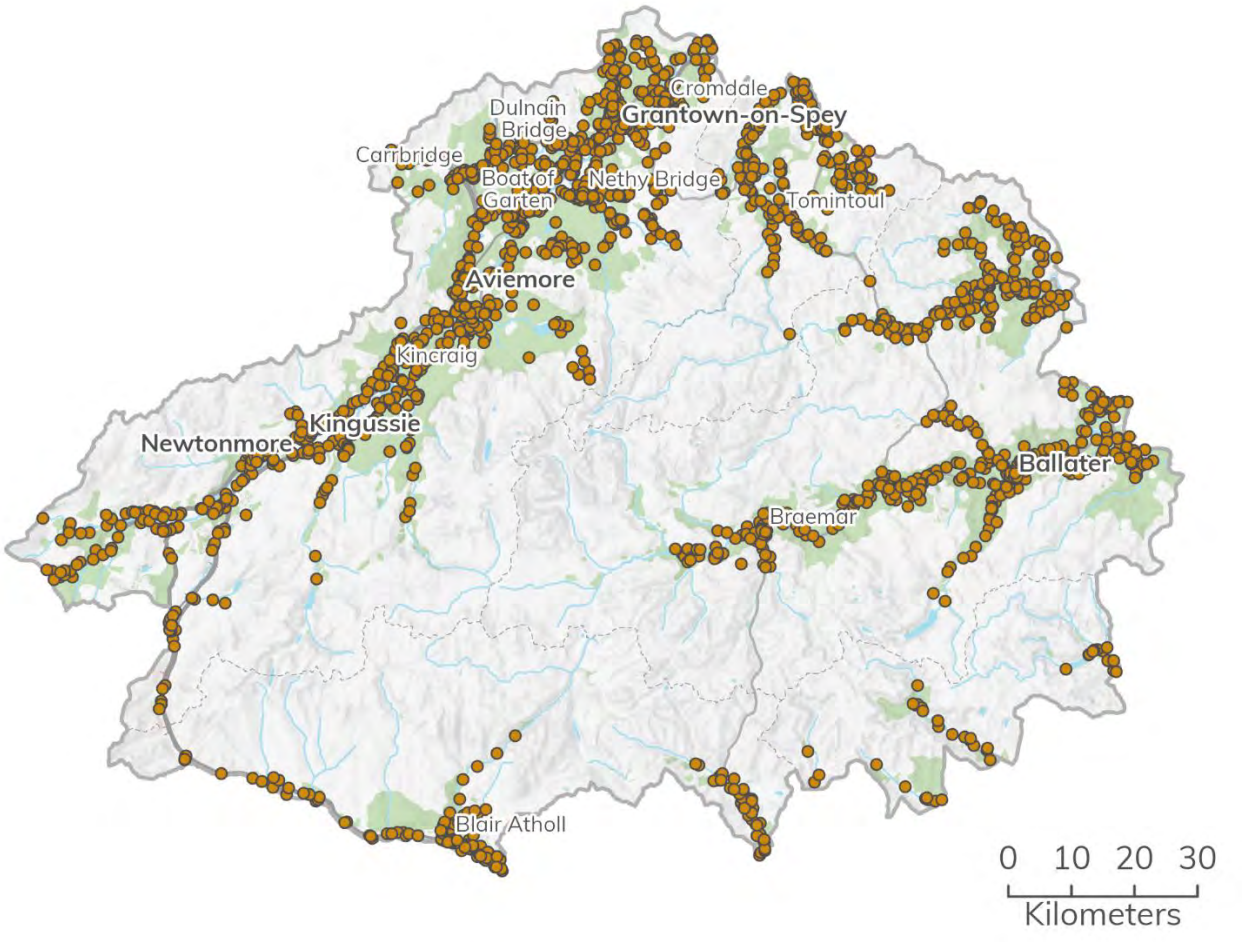


Figure 95 Map showing all SSEN distribution substations (including primary substations) in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © SSEN Distribution, 2024

Energy generation

In order to safeguard the special landscape qualities of the Cairngorms National Park, the Scottish Planning Policy has historically implemented restrictive policies on large scale renewable energy development in the National Park. This policy approach has been carried forward by National Planning Framework 4. As a result, developments of energy generating infrastructure have been relatively minor in scale and number.

At a national level the Scottish Energy Statistics Hub sets out the national targets for renewable energy generation. One of the headline targets in Scotland's Energy Strategy is for the equivalent of 50% of the energy for Scotland's heat, transport and electricity use to come from renewable sources. This is also one of Scotland's 81 indicators in the National Performance Framework.

Scotland's renewable energy target is calculated by the sum of renewable electricity generation and biofuel use, divided by Scotland's total final energy consumption. Progress towards this target comes from both increasing renewable generation and falling energy consumption.

Final electricity consumption in Scotland also continues to fall, with 21.8 TWh consumed in 2023[51]. Electricity consumption in Scotland is now 74% of 2005 consumption (29.5 TWh). A record 38.4 TWh of renewable electricity was generated in Scotland in 2024 – a 13.2% increase compared from 33.9 TWh in 2023. Scotland continues to generate more electricity than it needs. In 2024, there was 19.7 TWh of net electricity exports to other UK nations.

Figure 96 shows the total kW of renewable energy generation development granted permission in the Cairngorms National Park, according to the available data from planning permissions granted by the Park Authority and the five local authorities covering the National Park's area. The Park Authority have permitted approximately 11,198 annual kW of renewable energy between 2014 to 2023, approximately 69% of which was for biomass and 21% for hydro-electric generation. It should be noted that this may not reflect the amount actually generated, due to some permissions not being implemented and also variations in predicted and actual generation once built. Furthermore, due to the small population size in the National Park and its rural nature, larger developments can skew the annual total figures.

[51] https://www.gov.scot/publications/energy-statistics-for-scotland-q4-2024/pages/key-points/

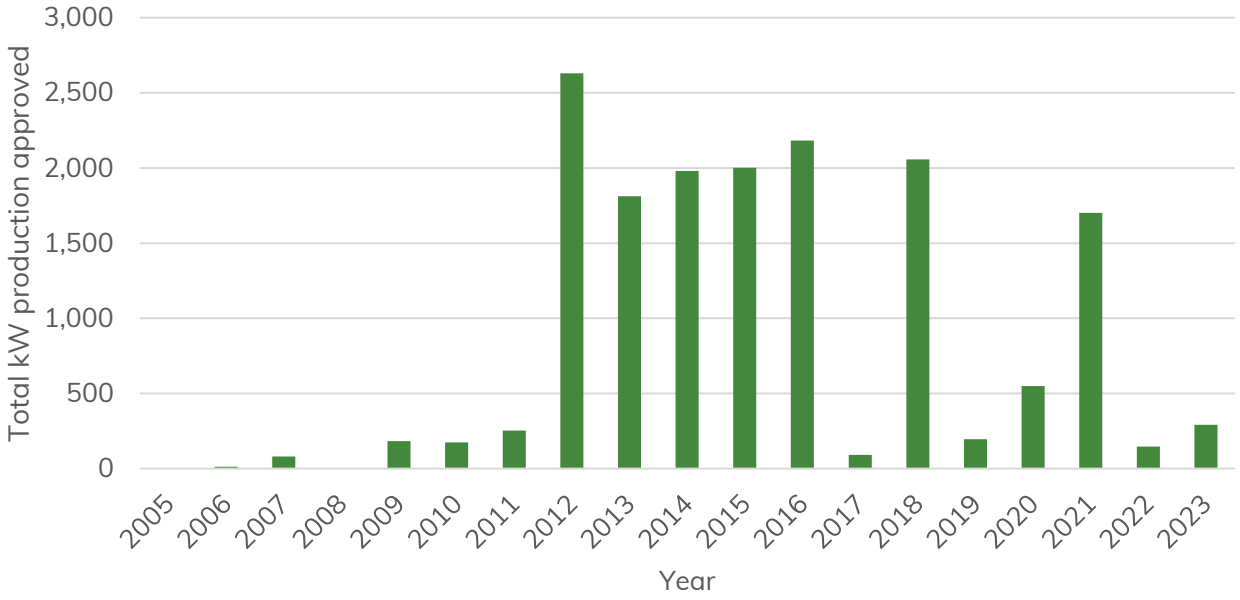


Figure 96 The total annual kW of installed renewable energy generation delivered through planning consents in the National Park, 2005 – 2023 (Data available through planning applications submitted to Cairngorms National Park Authority and local authorities).

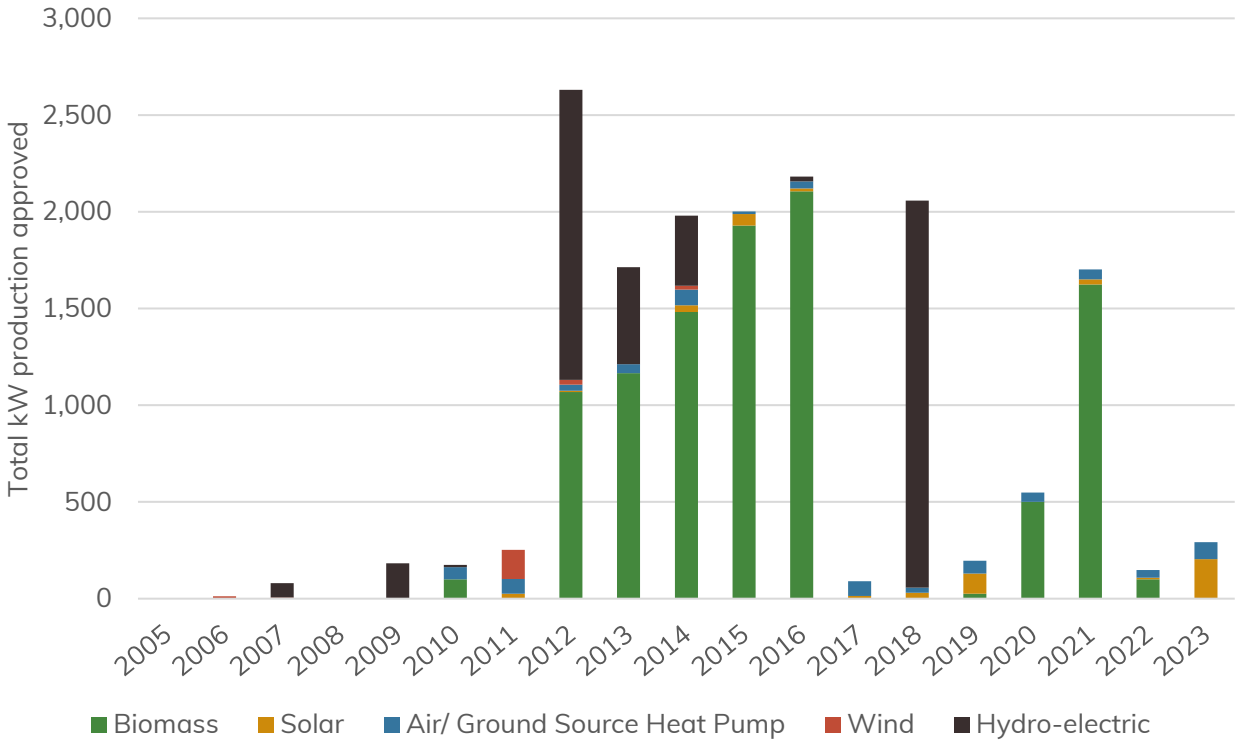


Figure 97 Total kW of renewable energy production approved via planning applications per type per year from 2005 - 2023. (Data available through planning applications submitted to Cairngorms National Park Authority and local authorities).

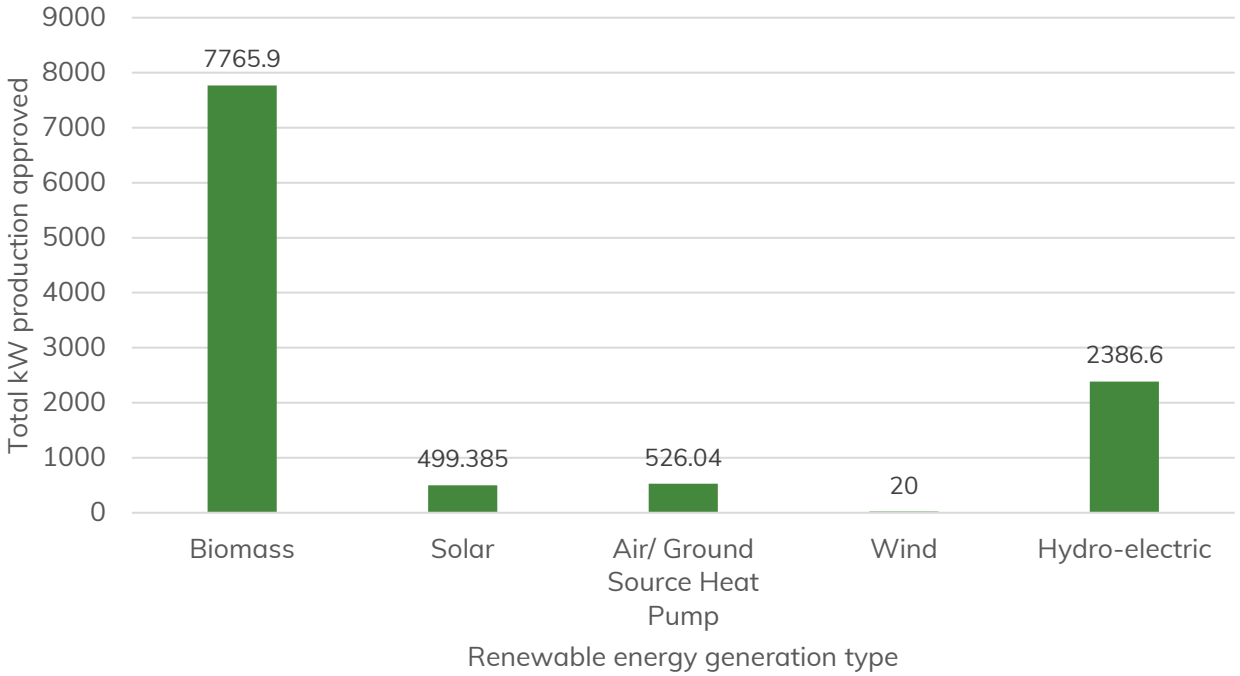


Figure 98 The total annual kW of planned renewable energy installation (all types) by year 2014 – 2023 reflecting approved planning applications. (Data available through planning applications submitted to the National Park Authority and local authorities).

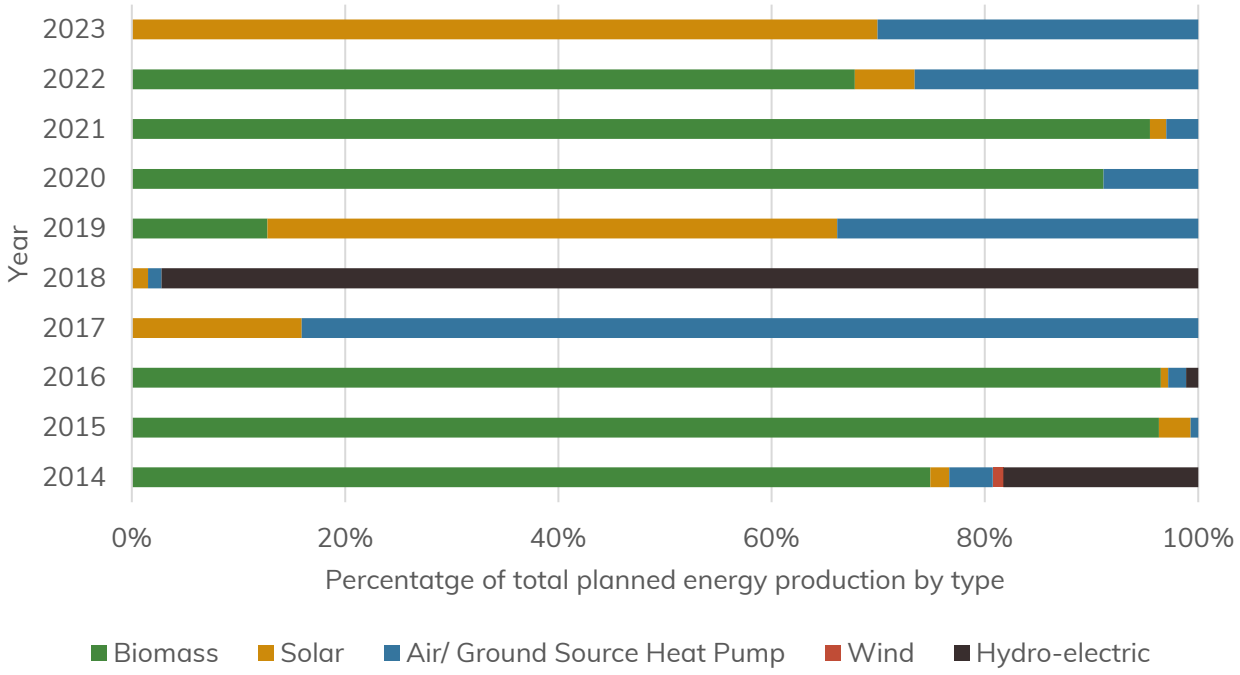


Figure 99 Proportion of energy production mix by type per year of granted planning applications from 2014 – 2023. (Data available through planning applications submitted to the National Park Authority and local authorities).

Installing certain renewable energy technologies, such as solar panels and biomass boilers, is within the permitted development rights of most householders and businesses provided certain conditions are met. This means that no data is available on energy generation installed under permitted development rights as it is not recorded officially. Therefore, does not offer a comprehensive indication of the amount of energy generated within the Cairngorms National Park – the figures are likely to be higher. Guidance on micro-renewable energy developments, which is not limited to those developed under permitted development rights, is available from a range of sources, including NatureScot[52] and Historic Environment Scotland[53].

Solar

There are no large or medium scale solar farms in the National Park. The majority of the applications are small scale residential energy generation serving the immediate buildings with excess sold back to the National Grid. In terms of overall numbers there are relatively few applications submitted which include solar energy production (Figure 101).

With respect to approved planning applications within the National Park for solar energy production development between 2016 and 2019 this was increasing. During 2020 no applications were submitted or approved, likely reflecting the development environment imposed by the COVID-19 Pandemic. However, post pandemic further solar energy development has been approved and 2023 saw a significant increase in the combined kW of solar energy generation applications being approved at 204.4kW.

[52] https://cairngorms.co.uk/wp-content/uploads/2024/11/NatureScot-Micro-renewables-and-the-natural-heritage-guidance-note-revised-2016.pdf
[53] See https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=7604a41c-077c-42ab-941f-a60b009a4f95

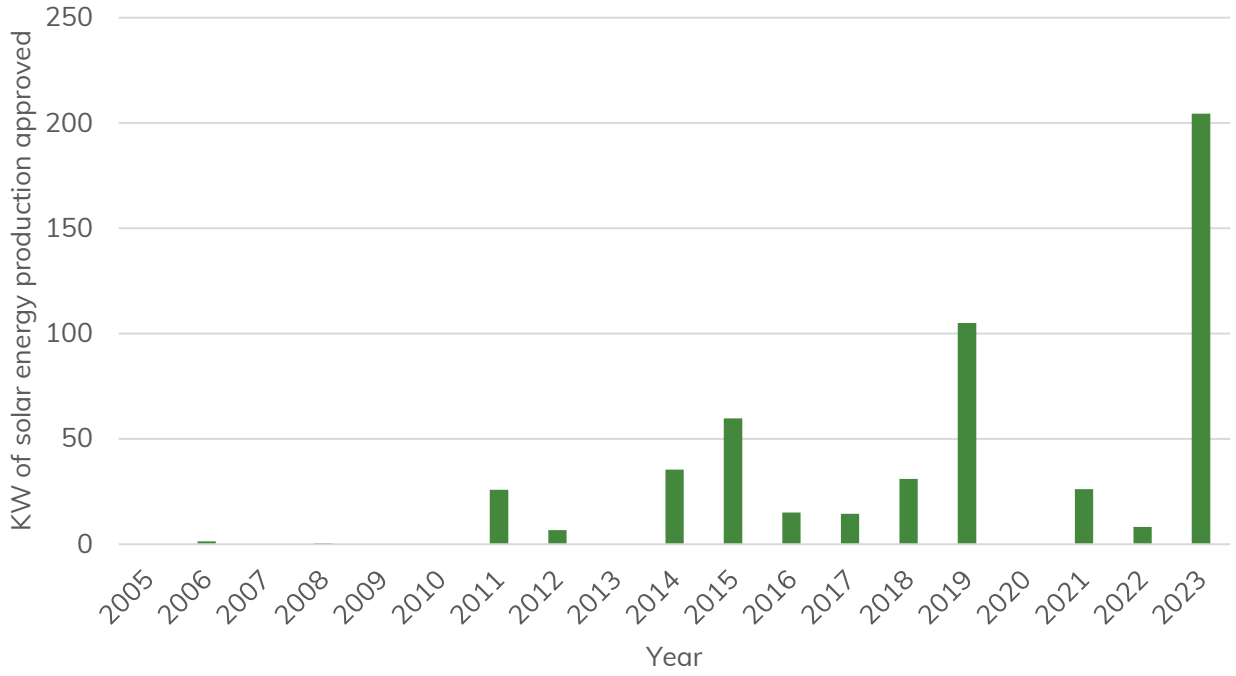


Figure 100 Annual solar kW capacity in terms of planning applications approved for solar energy development in the Cairngorms National Park, 2005 – 2023. (Data available through planning applications submitted to the National Park Authority and local authorities).

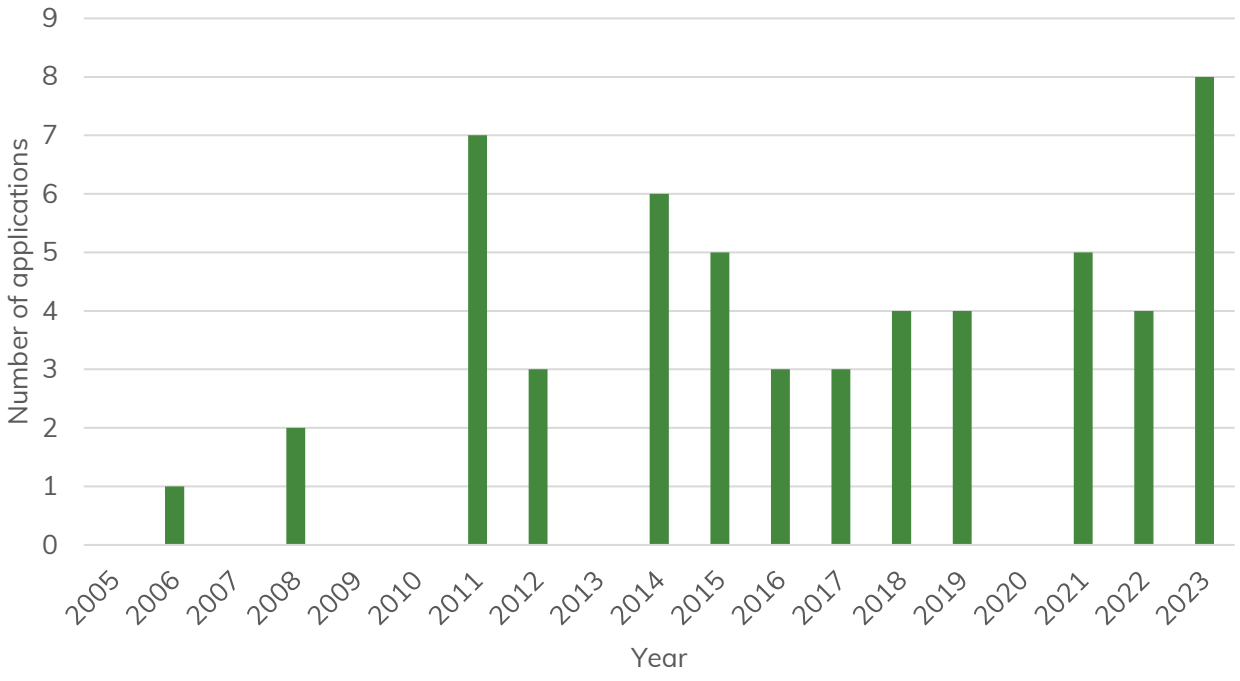


Figure 101 Number of individual applications submitted annually for solar energy generation. (Data available through planning applications submitted to the National Park Authority and local authorities).

NatureScot provide general pre-application and scoping advice for solar farms[54], and proposed developments within the National Park will need to consider a range of environmental considerations, factors, including:

- Protected sites and their qualifying features, including Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas and Ramsar sites.
- Protected species, such as bats.
- The special landscape qualities of the National Park.
- Wild land designations.
- Carbon rich soils, such as peatlands.

Wind

National Planning Framework 4's Policy 11 (b) states 'Development proposals for wind farms in National Parks and National Scenic Areas will not be supported.'

The development for small-scale wind energy could be acceptable under the current policy framework if it meets the following criteria: to minimise impacts from noise and shadow flicker and minimises impact on all aviation interests.

In terms of planning applications for wind energy development there has not been any submitted or granted since 2014 (which was single application for a 20kW wind turbine in Grantown-on-Spey). The last significant (in terms of production capacity within the National Park context) wind energy generation application was granted in 2011 for a 150kW wind turbine at the Lecht ski Resort (Figure 97).

Hydroelectric

Hydroelectric energy generation make up some of the largest individual energy (kW) producing developments in the Cairngorms National Park. The largest schemes are located at Glen Muick where there is a 2,000kW hydroelectric development, and Blair Atholl where there is a 1,500kW generating hydroelectric scheme. There are also a number of small scale private and community Hydroelectric schemes (Table 24).

Table 24 List of planning applications for hydroelectric schemes in the National Park from 2005 – 2023. (Data available through planning applications submitted to the National Park Authority and local authorities).

Location	Power	Year approved	Planning reference
Strathdon	75kW	2007	06/456/CP
Strathdon	11kW	2010	09/014/CP

[54] See https://www.nature.scot/doc/general-pre-application-and-scoping-advice-solar-farms

Location	Power	Year approved	Planning reference
Glen Clova	180kW	2009	09/0117/CP0
Dalwhinnie	99kW	2013	2011/0411/DET
Kingussie	700kW	2014	2011/0281/DET
Blair Atholl	1,500kW	2012	2012/0055/DET
Kingussie	20kW	2014	2013/0376/DET
Braemar	100kW	2013	2013/0261/DET
Glenfernate	100kW	2013	2013/0192/DET
Glen Prosen	100kW	2013	2013/0125/DET
Balmoral	100kW	2013	2013/0067/DET
Braemar	100kW	2013	2013/0261/DET
Glen Isla	100kW	2014	2013/0409/DET
Glen Esk	57.5kW	2014	2014/0205/DET
Glen Esk	84.1kW	2014	2014/0207/DET
Glen Esk	100kW	2014	2014/0206/DET
Laggan	9MV	2015	2015/0339/DET
Glen Muick, Ballater	25kW	2016	2016/0134/DET
Glen Muick, Ballater	2,000kW	2018	2018/0063/DET

Ballater, Laggan, and Newtonmore community action plans, specifically mentioned the desire to explore the future possibility of developing community hydroelectric schemes.

There is also a small (2.5MV) hydroelectric scheme at Cuaich Power Station at Loch Cuaich by Dalwhinnie, Inverness-shire PH19 1AF Scotland. The plant is owned and operated by Scottish and Southern Energy and has been operating since 1959.

Pumped Hydro Storage is one of the national developments identified for the North region in National Planning Framework 4. NatureScot provide guidance on the natural heritage considerations relating to hydroelectric developments[55] Development within the National Park will need to consider a range of environmental factors, including:

- Protected sites and their qualifying features, including Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas, and Ramsar sites.
- The special landscape qualities of the National Park.
- National Scenic Areas.
- Wild land designations.

[55] See https://www.nature.scot/sites/default/files/2018-05/A1521095%20-%20Hydroelectric%20schemes%20and%20the%20natural%20heritage%20-%20Dec%202015.pdf

- Flood risk, water quality and river flow rates.

Flood risk, including the risk from reservoir inundation, is considered by the Strategic Flood Risk[56] .

Battery storage
In National Planning Framework 4, battery storage is regarded as a green technology and considered a form of energy generation. Battery Energy Storage Systems (BESS) allow excess energy generated through renewable means to be stored at low demand periods for use when generation cannot meet demand at a later point.

In the Cairngorms National Park, only one application for battery storage development has been submitted and approval was granted in September 2022. The development was for the construction of a battery energy storage facility (49.9 MW), control building, switch room, battery storage containers, inverter containers, landscaping and associated works near Boat of Garten. Conditions attached to the approval notice included (but not limited to) a decommissioning and restoration plan, landscaping plan and noise impact assessments to ensure noise does not exceed 30Db. Policy surrounding future developments for battery storage may need to reflect the conditions set out in this application. The application and its determining form the only evidence of prior Battery Storage applications in the National Park.

Moray Council informed the Park Authority in 2024 that they have noticed increasing pressure for battery energy storage and a particular issue with these being proposed on designated employment sites.

Bioenergy
The majority of applications for biomass in the National Park to date have been for systems that utilise a woodchip or pellet burning system.

Biogas technology represents a potential future development opportunity for farm diversification in the National Park, however, to date no application pertaining to this type of energy generation have been forthcoming. It is expected that the emerging Bioenergy Policy, once adopted will set out the emerging role for bioenergy with carbon capture and storage in Scotland.

[56] See https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

Depending on the scale of expansion of the bioenergy industry in Scotland, there may be implications (positive or negative) for land use and the natural heritage. At a National level, NatureScot highlight the need to monitor the demand for bioenergy feedstocks, quantities produced, trade flows, changes in land use and seek to understand the potential impacts on biodiversity[57].

Hydrogen

The UK Government will take decisions on the role of hydrogen in the Great Britain gas network from 2026. Given the Scottish Government's proposed hydrogen use hierarchy and the absence of a gas network in the National Park, hydrogen is not currently considered as a significant potential energy resource in the Cairngorms National Park. There are no planned hydrogen projects identified on Scottish Government's Hydrogen Asset Map in the Cairngorms National Park[58].

Hydrogen does have the potential to help decarbonise the energy used in distilleries, of which there are many in the National Park.

Energy from waste

Waste management within the National Park is the responsibility of the local authorities that cover its area. There are no energy from waste plants within the Cairngorms National Park and there are no proposals for developing one. Due to the location and scale of waste management facilities in the National Park, there are unlikely to be any opportunities for such facilities to operate viably.

Figure 102 shows the location and types of energy from waste plants within local authorities covering and surrounding the National Park. The Highland Council have a 5-year contract that commenced 1 January 2023 to deliver residual waste to Viridor Dunbar Waste Services Limited's energy from waste facility in Dunbar, East Lothian, which is not shown on the map.

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[57] NatureScot's position on bioenergy is set out in their Position Statement: Bioenergy and natural heritage (August 2013): https://cairngorms.co.uk/wp-content/uploads/2024/11/NatureScot-Position-Statement-on-Bioenergy-and-the-Natural-Heritage-Final-2013.pdf
Background to this paper is available here: https://cairngorms.co.uk/wp-content/uploads/2024/11/NatureScot-Background-to-Position-Statement-on-Bioenergy-and-the-Natural-Heritage-2013.pdf
NatureScot have informed the Park Authority that these documents are now out of date, and that there will be an updated version of the position statement provided by the Scottish Government as a result of the recent consultation on the Draft Bioenergy Policy Statement 2024.

[58] See https://experience.arcgis.com/experience/413bd1f94258456a8538f42c19f9e4be

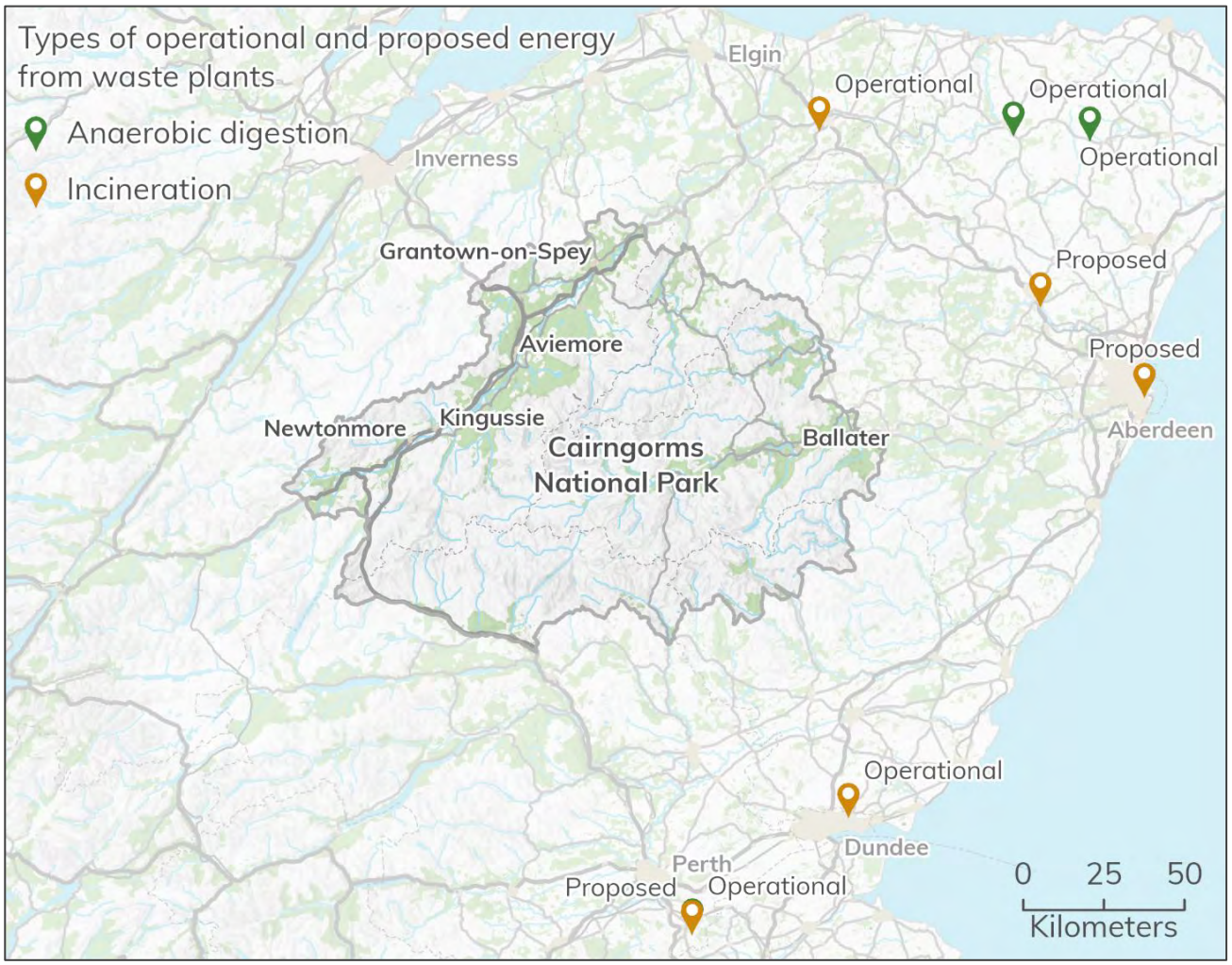


Figure 102 Location and type of operational and proposed energy from waste plants within local authorities surrounding the Cairngorms National Park Authority. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © Greenspace Scotland, 2024

SSEN Distribution energy generation capacity

To understand the potential for further energy generation in the National Park, it is necessary to understand the capacity of the existing network. SSEN Distribution provide generation availability and demand maps for the Scottish Hydro Electric Power Distribution licence area. The maps provide an indication of the networks capability to connect large-scale developments to major substations. Accompanying the maps, SSEN Distribution also provide data on Grid Supply Point (GSP) details, Grid Supply Points and substation transformer ratings, fault level information, and contracted and quoted generation projects at each Grid Supply Point. Data pertaining to the SSEN Distribution assets within or serving the National Park geography have been included in this report.

SSEN Distribution provide detailed breakdown of circuit information at Grid Supply Points and substation locations such as voltage, constraint levels and contracted generation (Figure 103 and Table 25).

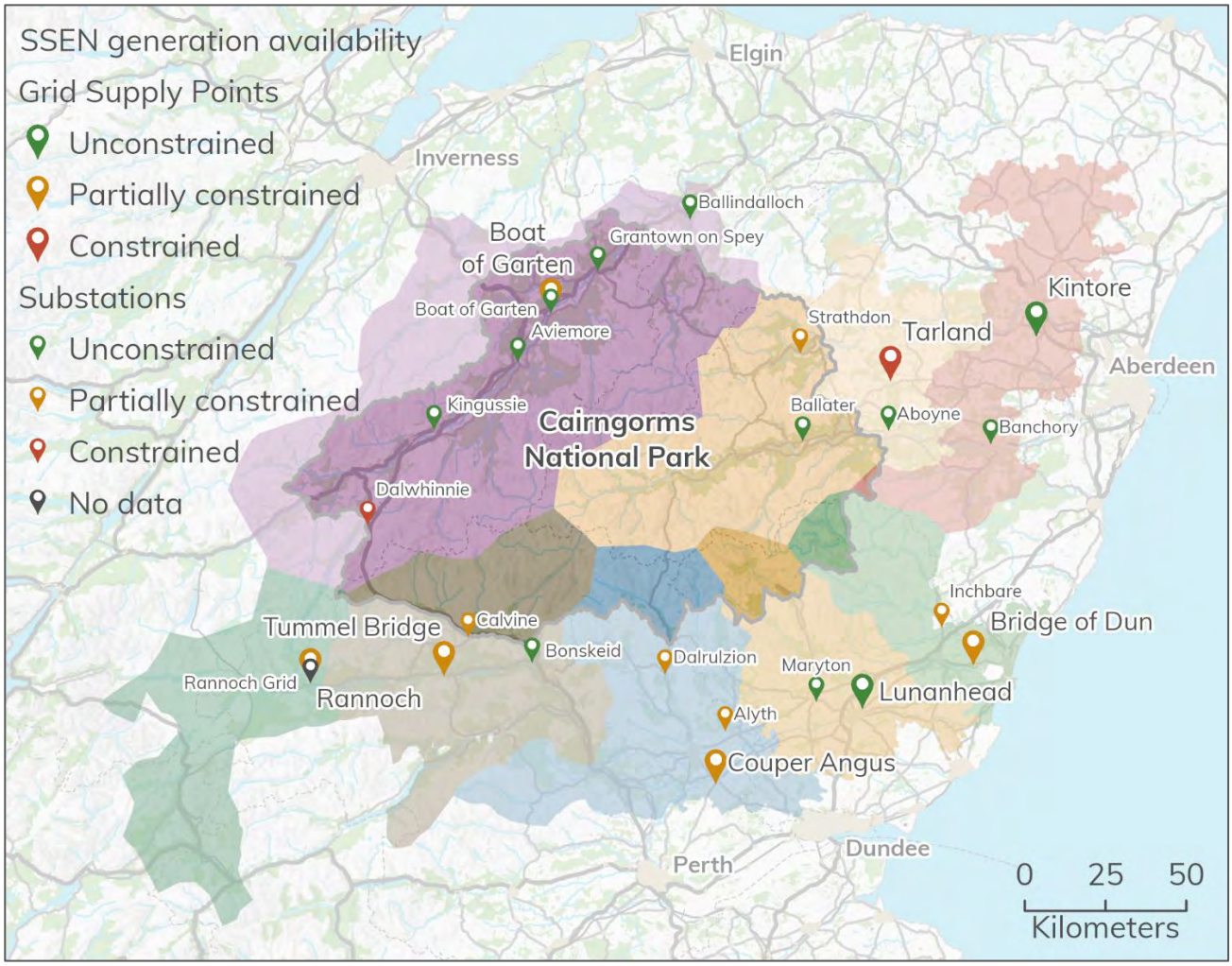


Figure 103 Map of SSEN distribution generation availability at grid supply points and substations in the Cairngorms National Park, Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810. Contains data © SSEN Distribution, 2024.

Table 25 SSEN distribution generation availability at grid supply points and substations in and serving the Cairngorms National Park. Data from SSEN Distribution, 2024.

Location	Asset type	Classification	Contracted generation (MVA[59])	Reverse power flow capacity	Break fault level rating
Boat of Garten	Grid Supply Point	Partially constrained	140.11		9.22 / 25
Dalwhinnie	Substation	Constrained	0.5	100%	0.68 / 13.1
Kingussie	Substation	Unconstrained	0.74	50%	4.54 / 13.1
Aviemore	Substation	Unconstrained	0	50%	7.14 / 13.1
Boat of Garten	Substation	Unconstrained	0	50%	7.39 / 13.1
Grantown on Spey	Substation	Unconstrained	0	50%	5.84 / 13.1
Ballindalloch	Substation	Unconstrained	0	50%	3.02 / 20
Tummel Bridge	Grid Supply Point	Partially Constrained	55.9		No information available
Calvine	Substation	Partially Constrained	0.52	100%	No information available
Tarland	Grid Supply Point	Constrained	53.04		6.86 / 25
Strathdon	Substation	Partially Constrained	0.17	100%	1.28 / 13.1
Ballater	Substation	Unconstrained	0.23	50%	4.38 / 16

[59] MVA stands for megavolt-amperes, and it is equivalent to one million volt-amperes. MVA is used to measure the electrical load of a system.

Location	Asset type	Classification	Contracted generation (MVA[59])	Reverse power flow capacity	Break fault level rating
Bridge of Dun	Grid Supply Point	Partially Constrained	36.27		8.11 / 31.5
Rannoch	Grid Supply Point	Partially Constrained	62.79		No information available

Energy infrastructure planned interventions

This section provides information on planned interventions in the SHEPD licence area, within or affecting distribution networks on the Cairngorms National Park. There are two planned interventions potentially affecting supply in the National Park, namely at Tarland and Tummel Bridge.

Tarland

Tarland Grid Supply Point is located within the Aberdeenshire region of the SHEPD licence area and currently supplies approximately 10,237 customers. The area it serves partially covers part of the area of the National Park (Figure 92) Tarland Grid Supply Point currently supplies the following primary substations; Aboyne, Ballater, Mossat, Strathdon, Whitehouse. There are plans to supply a new substation at Braemar:

- The planned reinforcement project in initial development at Braemar will deliver a new proposed substation that will establish a new twin 6.3MVA primary substation in the Braemar area.

Tarland Grid Supply Point group reinforcement projects in detailed development and delivery include a project to separate Aboyne Primary from the Tarland 33kV ring and establish a new Primary Substation in Braemar.

Tummel Bridge

Tummel Bridge Grid Service Point is located within the Perthshire region of the SHEPD licence area and currently supplies approximately 6,836 customers. The Grid Service Point supplies the following primary substations; Aberfeldy, Bonskeid, Calvine, Fincastle, Kinloch Rannoch, Pitlochry and Tummel Bridge.

Tummel Bridge Grid Service Point reinforcement projects in initial development within the National Park include a project to replace the single 2.5MVA transformer with a 6.3MVA unit at the Calvine substation.

SSEN Distribution ED2 (2023 – 2028) capital projects

Additional SSEN Distribution ED2 (2023 – 2028) capital projects that are planned for delivery in the Cairngorms National Park are shown in Table 26. The ED2 period is SSEN Distribution's price control five-year timeline whereby they are provided with suitable funds from Ofgem to complete certain projects. SSEN Distribution have informed the National Park Authority that there will be further projects in the ED3 period, post 2028 for the next five years but these are still being developed. In addition to the above there

will be a large volume of new connection projects whereby SSEN Distribution are providing supplies to new homes, industrial buildings, etc. These are more reactive projects lead by customers requesting supply and are part of SSEN Distribution's business as usual activities.

Table 26 List of SSEN Distribution ED2 (2023 – 2028) Capital Projects.

Project number	Project name	Grid reference
PH002739	Aboyne and Ballater 11kV network reinforcement	NJ47370192
PH003314	Ballater River Dee Crossing Solution	NO36829488
PH004221	Tarland Ring Voltage Solution	Various locations on Electric Office
PH004324	AONB 806.001 Braemar / Marr Lodge Linn o Dee	NO13029085
PH003316	Dalwhinnie 33kV CB and Pole Structures Replacement	NN63678467

Coupar Angus Grid Supply Point T2 was disconnected from network in May 2022 after it tripped the local protection. Coupar Angus T2 will be replaced with a 6.3MVA transformer. It is expected to be completed in September 2024.

Waste

Estimates of household waste and recycling rates for local authority areas for 2011 – 2022 are recorded by Scottish Environment Protection Agency. 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 must be made.

Between 2011 and 2021 mid-year population estimates have been used as a proxy for proportionally attributing the waste produced and recycled for the local authorities that cover the Cairngorms National Park's area to the National Park itself. For 2022, Scottish Census population estimates have been used. It is recognised that this is a blunt means of estimation and estimates based on estimates should always be treated with caution. However, no other form of data on this subject is available.

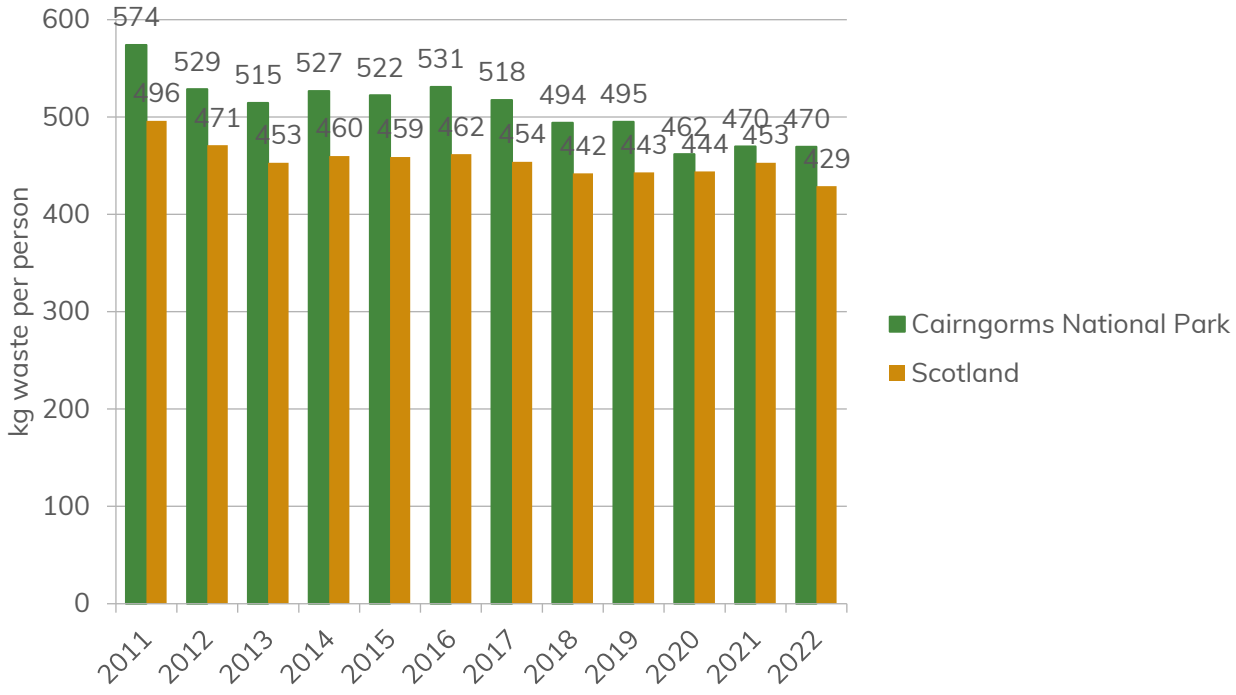


Figure 104 Mean average kg of waste generated per person in the Cairngorms National Park and Scotland. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.

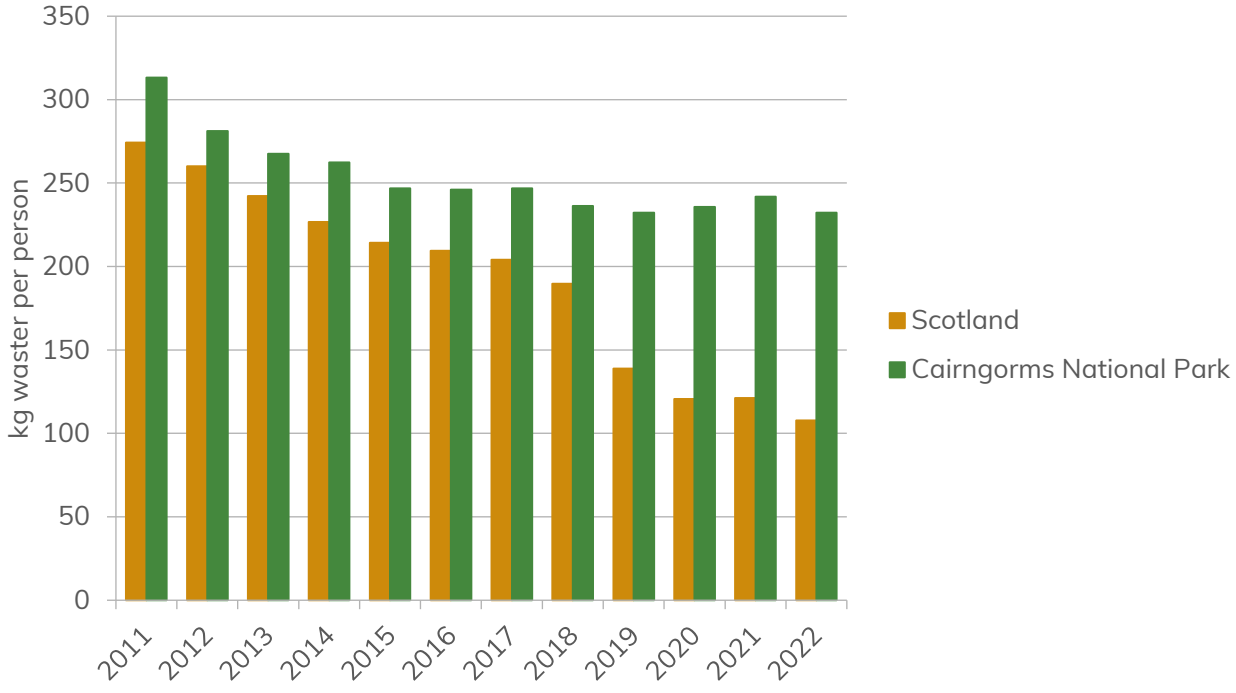


Figure 105 Mean average kg of waste sent to landfill per person in the Cairngorms National Park and Scotland. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.



Figure 106 Mean average kg of waste recycled per person in the Cairngorms National Park and Scotland. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.

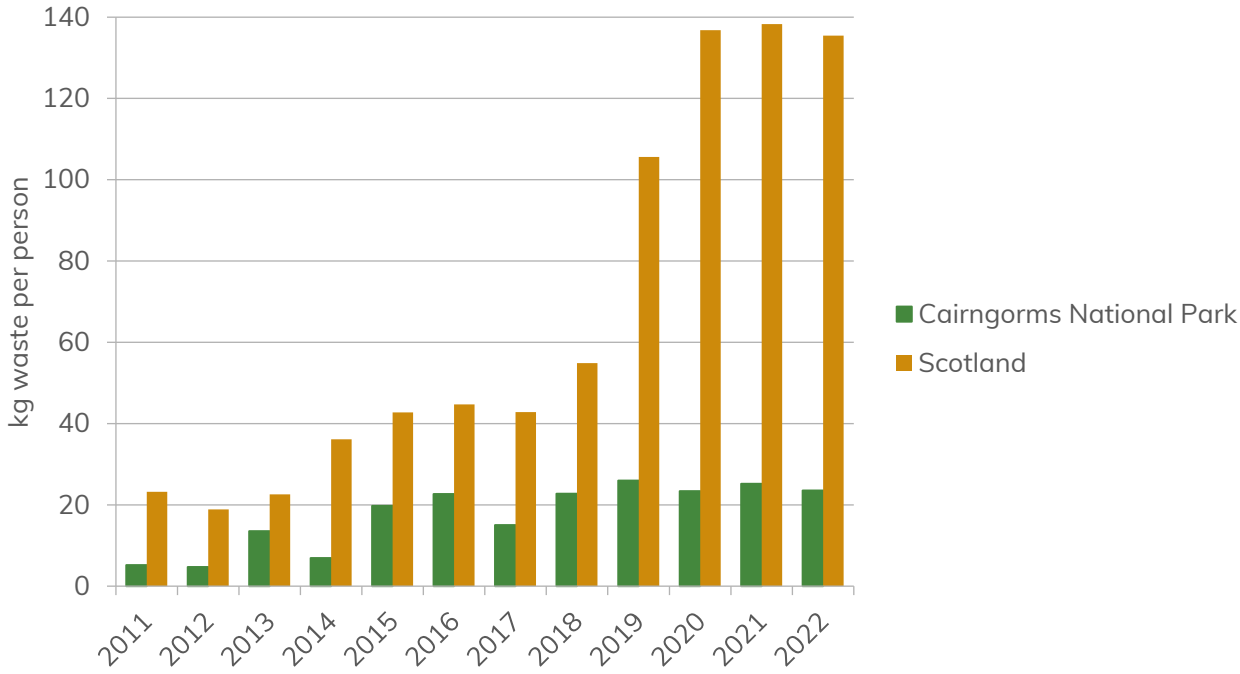


Figure 107 Mean average kg of waste diverted from landfill by other means in the Cairngorms National Park and Scotland. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023 (waste diverted from landfill, apart from waste recycled, comprising waste disposed by incineration, recovered by incineration, recovered by co-incineration and waste managed by other methods).



Figure 108 Mean average tonnes of CO_2 equivalent per person produced from waste in the Cairngorms National Park and Scotland. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.

Household waste per person produced in the Cairngorms National Park in 2022 was slightly higher than the Scottish average, nationally it was approximately 429kg per person, compared to an average of 470kg in the National Park (Figure 104). Trends over the last decade (for available data from 2013 to 2022) indicate that the average waste produced per person per year has reduced by approximately 9% in the National Park which is above the 5% reduction seen nationally (Figure 104).

In the Cairngorms National Park significantly more waste is sent to landfill compared to the Scottish figures. In 2022, in the National Park 232kg of waste per person was sent to landfill compared to the national average figure of 107.7kg per person (Figure 105). Again, looking at trends over the last ten years (for available data from 2013 to 2022) the average amount of waste being sent to landfill in the National Park has reduced by approximately 11%, from 268kg per person in 2013 to 232kg per person in 2022. Although the reduction in the National Park is positive, it is not reflective of the approximate 55% reduction in the amount of average waste sent to landfill per person seen across Scotland (Figure 105).

The mean average amount of waste recycled in 2022 (Figure 106) is slightly higher in the Cairngorms National Park (218kg) compared to the Scottish average (186kg), however this may simply reflect the overall higher amount of waste generated per person in the National Park (Figure 104). The amount of waste recycled per person in the National Park increased from 2013 to 2016 from approximately 237kg to 268kg but reduced to 218kg reflecting the rise and fall in the overall amount of waste generated. Over the last decade the average amount of waste recycled per person per year in the National Park has fallen by approximately 22% compared to a marginally decrease nationally of approximately 1% (Figure 106).

The amount of waste of waste diverted from landfill by other means is much lower in the Cairngorms National Park at 24kg per person in 2022, compared to 135kg for the whole of Scotland (Figure 107). As the National Park Authority does not process waste for the National Park residents it is reliant on the local authorities and therefore reliant on their waste processing strategies to determine ultimately how much waste is sent to landfill and how much is diverted from landfill.

In terms of the average amount of $C0_2$ equivalent (CO_2e) produced per person in relation to waste in 2022, the National Park is only slightly higher at 1.06 tonnes of CO_2 per person per year compared to 1.02 tonnes of CO_2 per person per year across the whole of Scotland (Figure 108). Both nationally and in the National Park the average amount of CO_2 generated per person (in tonnes per year) has been steadily reducing over the last decade.

The following graphs, Figure 109 to Figure 113 show the Scottish Environment Protection Agency waste data for the five local authority areas that cover the National Park.

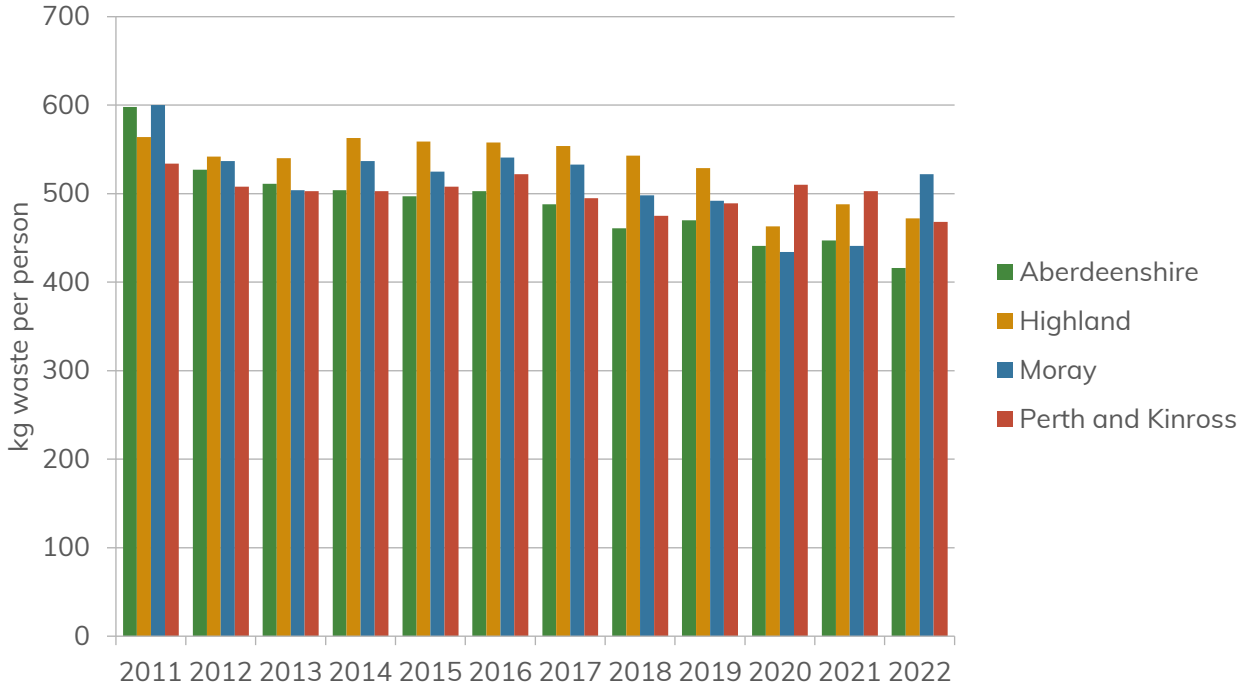


Figure 109 Average total kg of waste generated per person in the different local authority areas of the National Park. Figures obtained from the local authority data from Scottish Environment Protection Agency, 2023.

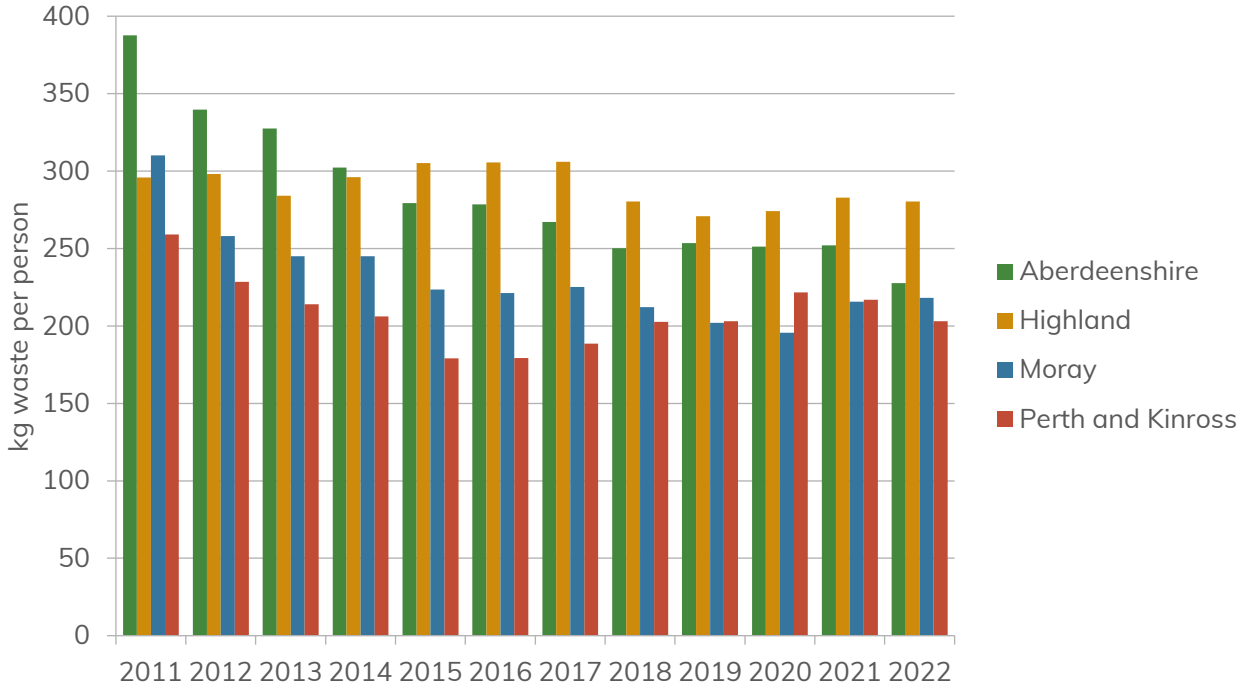


Figure 110 Average kg of waste sent to landfill per person by local authority area of the National Park. Figures obtained from the local authority data from Scottish Environment Protection Agency, 2023.

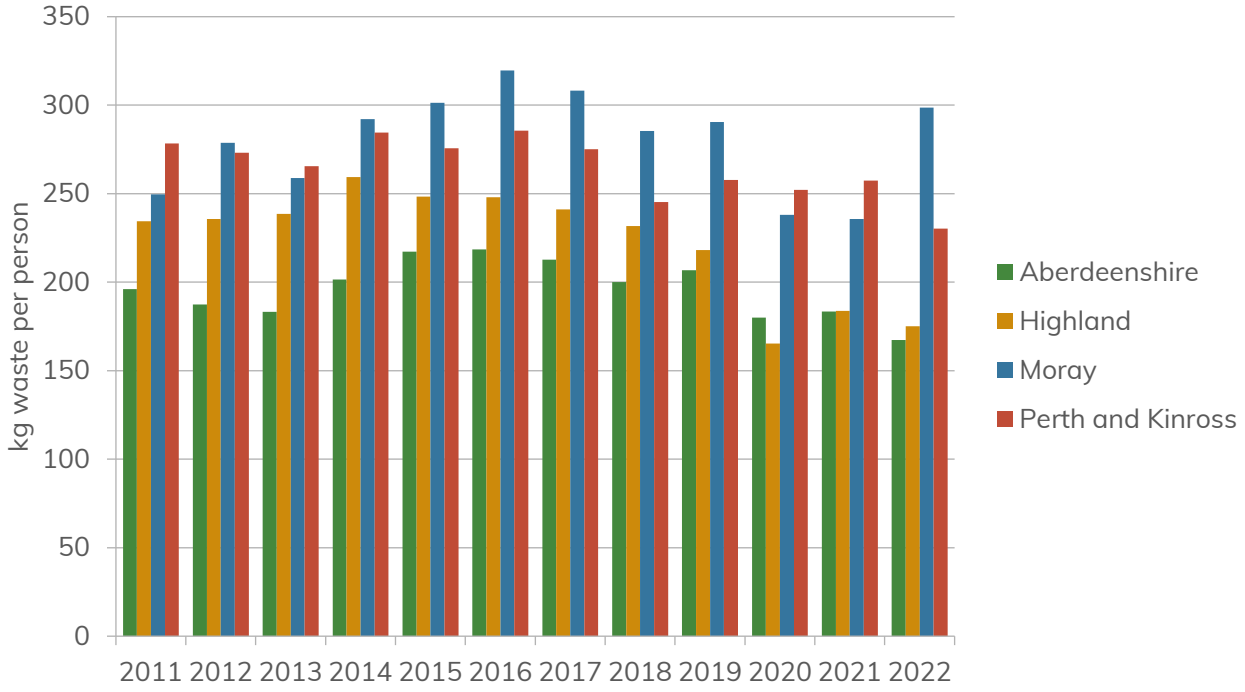


Figure 111 Average kg of waste recycled per person by local authority area of the National Park. Figures obtained from the local authority data from Scottish Environment Protection Agency, 2023.

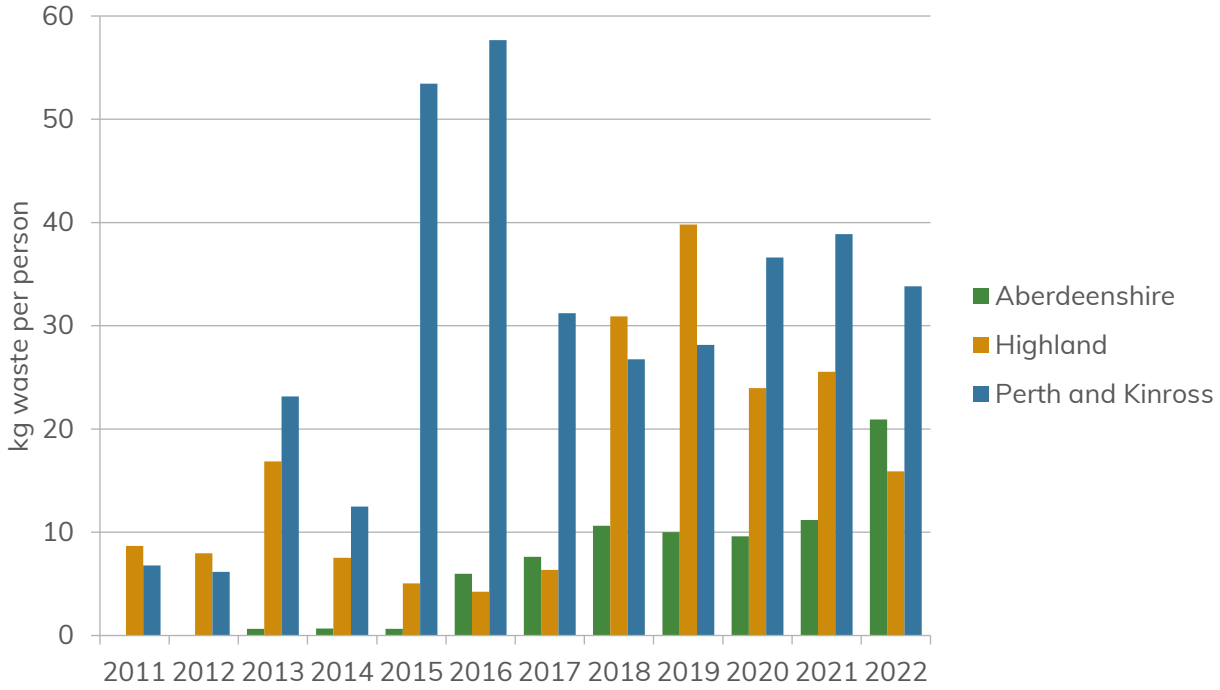


Figure 112 Average kg of waste recycled per person by local authority area of the National Park. Figures obtained from the local authority data from Scottish Environment Protection Agency, 2023. Moray has been excluded from the chart above as from 2011 – 2021 Scottish Environment Protection Agency records no waste diverted from landfill at all and only one tonne in 2022.

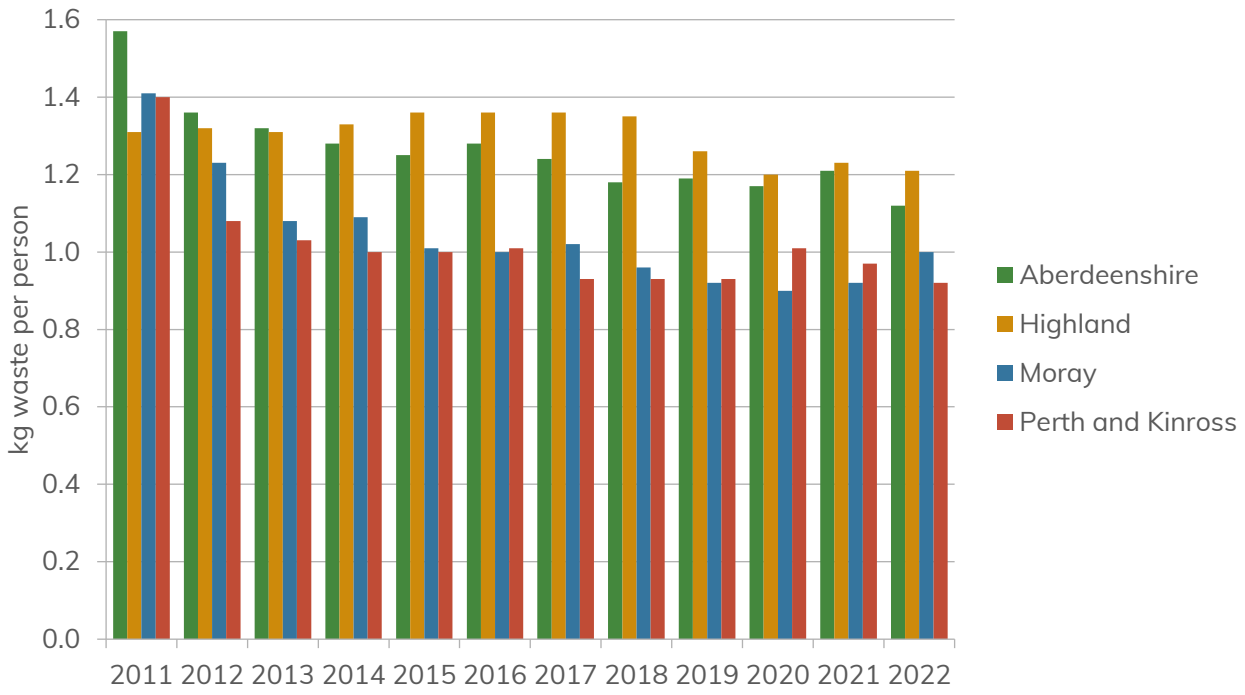


Figure 113 Average tonnes of CO_2 equivalent produced from waste by local authority area in the Cairngorms National Park. Figures obtained from the local authority data from Scottish Environment Protection Agency, 2023.

Looking at the 2022 data (the latest available at the time of writing), Moray residents generated the highest amount of waste at approximately 522kg per person per year compared to the lowest value of approximately 416kg per person per year in Aberdeenshire (averaging 470kg per person across the National Park (Figure 104)). Highland residents generated approximately 472kg of waste per person per year and Perth and Kinross, a similar amount at 468kg per person per year in 2022. Although Morays' waste per person increased in 2022, all four local authorities have seen their waste generated per person decreasing from 2011 to 2022 (Figure 109).

Despite Moray residents generating more waste per person in 2022, Highland sent more waste to landfill at approximately 280kg per person per year, compared to 228kg per person per year in Aberdeenshire, 218kg per person per year in Moray and 203kg per person per year in Perth and Kinross (Figure 110).

In terms of waste diverted from landfill (Figure 112) (which comprises of waste disposed by incineration, recovered by incineration, recovered by co-incineration and waste managed by other methods) the figures for Moray, show that no waste is diverted from landfill, from 2011 to 2021. In 2022, one tonne, was recorded as being diverted.

The amount of waste diverted from landfill in Aberdeenshire has been increasing over the last decade from approximately 0.7kg of waste per person in 2013 to 21kg in 2022 (Figure 112). In 2015 and 2016 Perth and Kinross diverted significantly more waste from landfill with approximately 53kg and 58kg per person respectively. This has decreased in the years from 2017 – 2022, when in 2022 approximately 34kg of waste per person was diverted from landfill in Perth and Kinross. The numbers for Highland have also fluctuated over the last decade, increasing from approximately 16.9kg per person 2013 to 40kg per person in 2019, reducing to approximately 16kg per person in 2022. These figures, including the National Park mean average of approximately 24kg of waste per person diverted from landfill are all far below the national average of 135kg of waste per person diverted from landfill (Figure 107).

Highland produced the highest amount of average CO_2 equivalent from waste per person of all the four local authorities in 2022 at 1.21 tonnes of CO_2 equivalent per person per year from waste generated (Figure 113). Adversely Perth and Kinross produced 0.92 tonnes of CO_2 equivalent per person in 2022. Nationally Scottish residents produced on average 1.02 tonnes of CO_2 equivalent per person in 2022, less than the residents of the National Park (1.06 tonnes per person in 2022), but more than those in Perth and Kinross and Moray. However, given the largest population of the National Parks residents live in the Highland region (where the highest contributors per person are recorded) this brings the National Park average figure up above the Scottish average of 1.02 tonnes of CO_2 equivalent per person per year (Figure 108).

Biodegradable Municipal Waste cannot be landfilled after 2025 due to the Scottish BMW landfill ban. This was originally meant to come into force in 2021 but later deferred due to lack of capacity in alternative treatment methods. This may be a consideration for the local authorities in terms of expanding new operations to accommodate the changes.

Recycling rates

In 2022 the recycling rate in the Cairngorms National Park was 46.3% (Table 27), which was higher than the national average in 2022 of 43.4% (Scottish Environment Protection Agency data, 2022). The Scottish national target for recycling is 70% by 2025 (Scotland's Zero Waste Plan). For comparison the recycling rate for the five local authorities that overlap the National Park in 2022 were as follows:

- Highland – 37.2%
- Aberdeenshire – 40.2%
- Moray – 57.8%
- Perth and Kinross – 49.3%

- Angus – 51.7%.

Table 27 Average mean recycling rates in the Cairngorms National Park. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean kg of waste generated per person	515	527	522	531	518	494	495	462	470	470
Mean kg of waste recycled per person	236.5	259.4	260.6	267.9	259.3	240.6	243.3	208.9	212.0	217.8
Recycling rate (%)	45.9%	49.2%	49.9%	50.5%	50.1%	48.7%	49.2%	45.2%	45.1%	46.3%

Given the fact that over half the Cairngorms National Park residents reside in the Highland region of the National Park which suffered a low recycling rate in 2022, this will have affected the overall mean average recycling rate in the National Park. It should be recognised, as already mentioned that the National Park is not responsible for waste management in the area, with this function falling to the Local Authorities that cover its area.

Landfill and 'diverted from landfill' rates

Using the mean average figures for the waste (kg) generated per person and waste diverted from landfill per person we are able to calculate percentages for the sent to landfill rates and diverted from land fill rates (Table 28).

Table 28 Average mean rates for the amount of waste sent to landfill and diverted from landfill in the Cairngorms National Park. National Park figures derived from local authority data from Scottish Environment Protection Agency, 2023.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Landfilled	**52.0%**	**49.8%**	**47.3%**	**46.3%**	**47.6%**	**47.8%**	**46.9%**	**51.0%**	**51.5%**	**49.4%**
Diverted from landfill (other[60])	**2.6%**	**1.35%**	**3.8%**	**4.3%**	**2.9%**	**4.6%**	**5.3%**	**5.1%**	**5.7%**	**5%**

[60] Other is also to describe the waste diverted from landfill constituting waste that is not reused, recycled, or landfilled. It includes household waste treated by incineration, mechanical biological and heat treatment.

In 2022 approximately 49.4% of waste was landfilled in the National Park from the waste generated per person. This is significantly higher than the national average whereby 25.1% of the household waste generated went to landfill. For comparison the landfilled rate for the five local authorities that overlap the National Park in 2022 were as follows:

- Highland – 59.5%
- Aberdeenshire – 54.7%
- Moray – 42.2%
- Perth and Kinross – 43.5%
- Angus – 1.9%.

In terms of diverted from landfill in 2022, 5% of the waste in the National Park was diverted, which is significantly lower than the national figure of 31.5%. For comparison the rates for waste diverted from landfill for the five local authorities that overlap the National Park in 2022 were as follows:

- Highland – 3.4%
- Aberdeenshire – 5%
- Moray – 0%
- Perth and Kinross – 7.2%
- Angus – 46.4%.

Transport Infrastructure

The Cairngorms National Park benefits from relatively good major transport infrastructure links compared to many other rural areas in Scotland. A mainline railway between Perth and Inverness and three main A-Class trunk roads (A9, A95 and A86) and a number of other A roads that connect the National Park with Highland, Moray, Aberdeenshire, Perth and Kinross and the west of Scotland (Figure 115). There are also a numerous cycle and walking opportunities in the National Park.

Roads and private vehicle use

A9 Dualling Project

The main considerations regarding roads within and across the National Park boundary is currently the work underway towards the completion of the A9 Dualling. Since the work on the A9 Dualling project began, completed works pertinent to the National Park include the section from Kincraig to Dalraddy that was operational in 2017. In December

2023 the Cabinet Secretary for Transport, Net Zero and Just Transition announced the delivery plan for the remaining A9 Dualling projects in Parliament.

Plan for future progress in the Cairngorms National Park

Completion of the whole A9 Dualling project will be delivered via a hybrid approach, combining use of capital funded design and build contracts with, subject to ongoing due diligence and further decision making in late 2025, use of resource funded mutual investment model (a form of public-private partnership) contracts.

Delivery Plan – key stages affecting the National Park:

- Procurement of Design and Build contracts for Pitlochry to Killiecrankie – procurement is planned to commence in Summer 2025, contract award is expected in Autumn 2026 and dualling is expected to become operational by the end of 2030. Although predominately outwith the National Park boundary, works affecting this section of the A9 may affect traffic entering or leaving the National Park.
- Subject to confirmation in late 2025, procurement of two mutual investment model contracts, for (in order of procurement):
- A9 North, comprising the Crubenmore to Kincraig and Dalraddy to Slochd projects – procurement is planned to commence in Winter 2026 / 2027, contract award is expected in Autumn 2028 and dualling is expected to become fully operational by the end of 2033, at the earliest
- A9 Central, comprising the Killiecrankie to Glen Garry, Glen Garry to Dalwhinnie and Dalwhinne to Crubenmore projects – procurement is planned to commence in Winter 2028 / 2029, contract award is expected in Autumn 2030 and dualling is expected to become fully operational by the end of 2035, at the earliest.

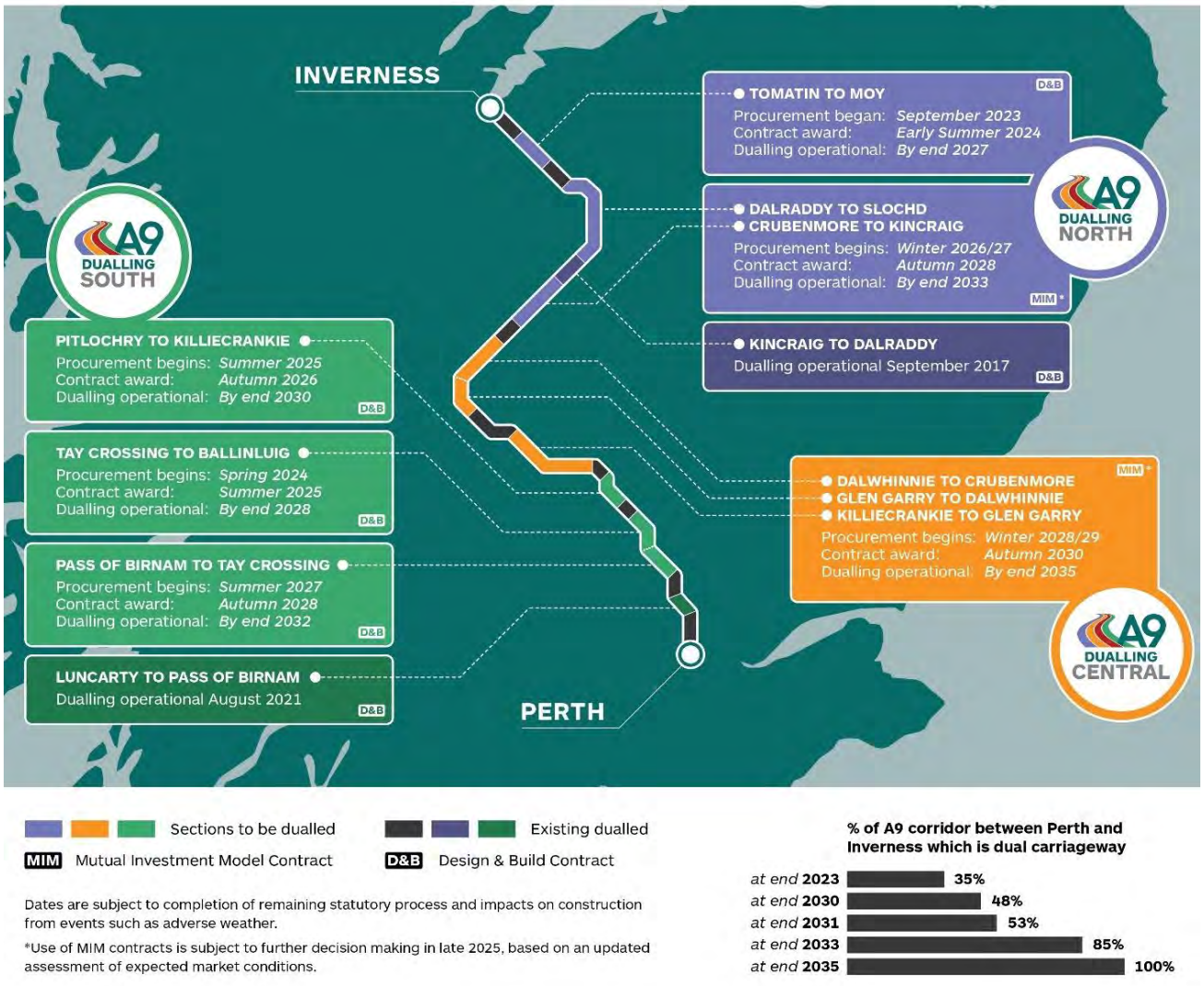


Figure 114: Graphic illustration showing the procurement timeline for each section in a table format alongside map of route, with total percentage of A9 corridor completed by each year. Transport Scotland 2023.

Transport Scotland expect that nearly 50% of the A9 between Perth and Inverness will be open as dual carriageway by the end of 2030, rising to 85% by the end of 2033 and 100% by the end of 2035 (Figure 114).

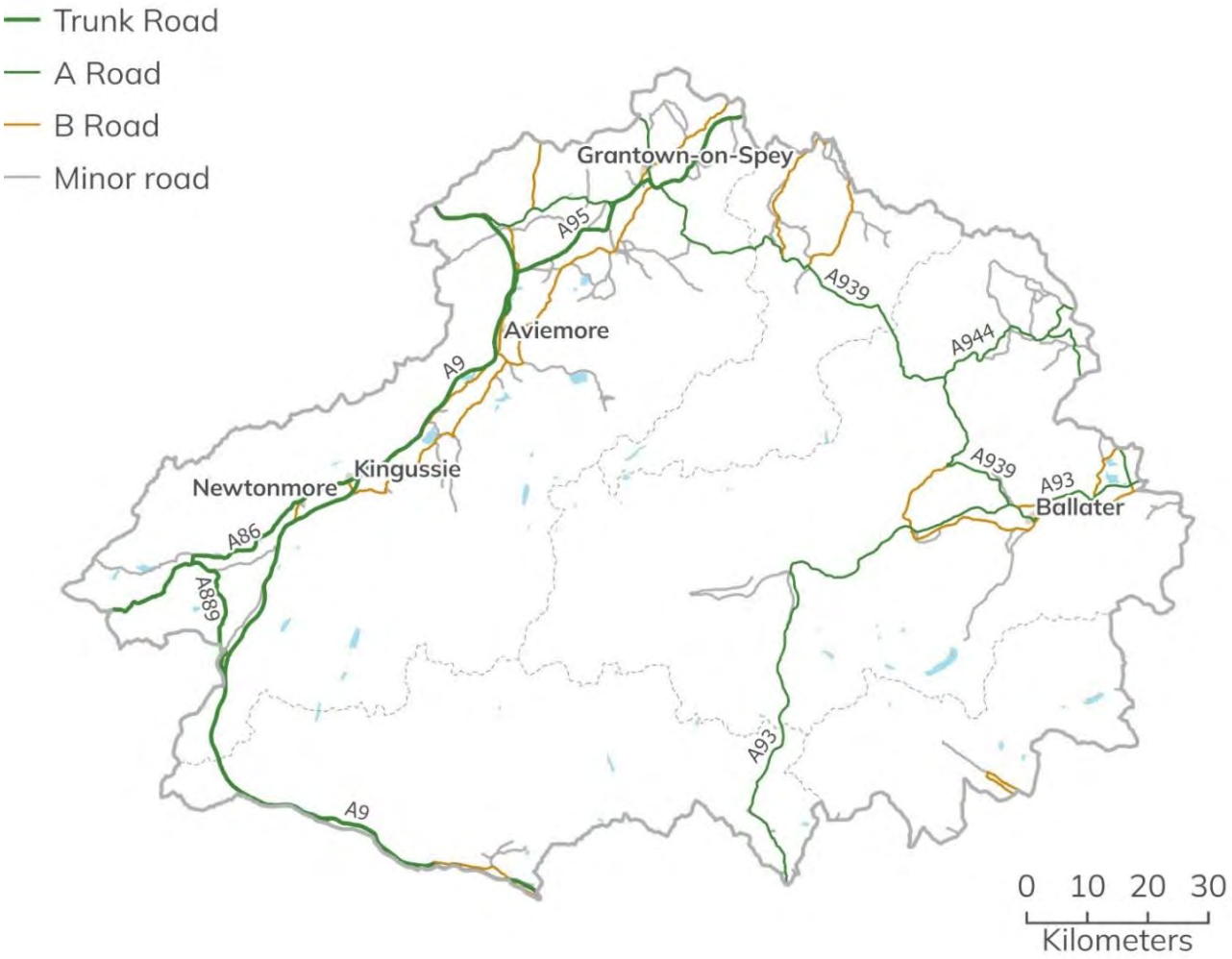


Figure 115 Major road and rail links outwith / into the National Park Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

When completed the A9 dualling project will 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 involving:

- Full grade separation of junctions to remove at-grade junctions[61].
- 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.

[61] An at-grade junction or intersection is a junction where two or more roads converge, diverge, meet or cross at the same height.

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 touts 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, 2023).
- It is therefore anticipated that the programme will have significant implications for the Local Development Plan, which may result in cumulative effects that demand consideration.

Networks of other A, B, C and unclassified roads provide access to other parts of the Cairngorms National Park. The geography of the area means that links between certain parts of the National Park are relatively poor due to topography and climate affecting their travel times and navigation in poor weather. A notable example is the route between Badenoch and Strathspey and Deeside, with the principal road, the A939 being susceptible to inclement weather Networks of other A, B, C, and unclassified roads provide access to other parts of the National Park, although many are narrow and twisty, increasing journey times. The travel times influence access to services for residents and visitors.

Table 29 Available approximate road infrastructure (in km), and the Authority responsible for its maintenance, in the Cairngorms National Park (source: Local Authorities).

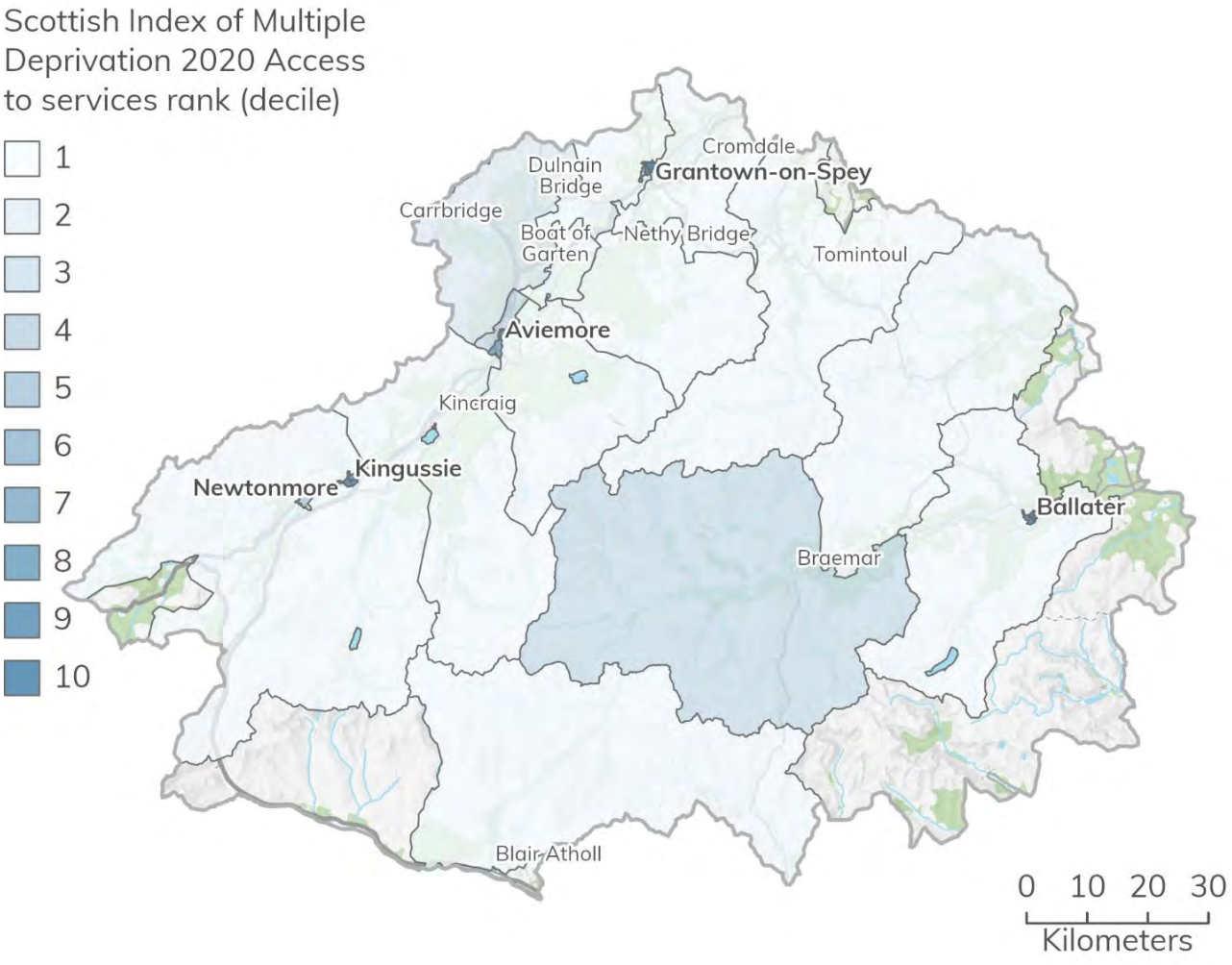
Local Authority	A Class (Trunk)	A Class	B Class	C Class	Unclassified	Total[62]
Angus[63]	0	0	65.363	49.499	5.979	120.841
Highland[64]	128	40.7	106.7	69.9	169.9	515.2
Moray	0	18.1	24.4	10.6	24.6	77.7

[62] Figures may not sum due to rounding.
[63] 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.
[64] Figures refer to the Badenoch and Strathspey Area of Highland Council.

Perth and Kinross	43.54[65]	16.6	15.16	0.34	23.0	124.3

Scottish Index of Multiple Deprivation (SIMD)

The Scottish Index of Multiple Deprivation (SIMD) gives an indication some of the accessibility issues faced by certain parts of the National 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 (Figure 116). 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.



[65] Trunk A Roads value managed by Perth and Kinross Council includes only one side of the dual carriageway along Glen Garry.

Figure 116 Scottish Index of Multiple Deprivation (SIMD) 2020 geographic access to services rank by decile of data zones within Cairngorms National Park (1 is the most deprived decile, 10 is the least deprived decile). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

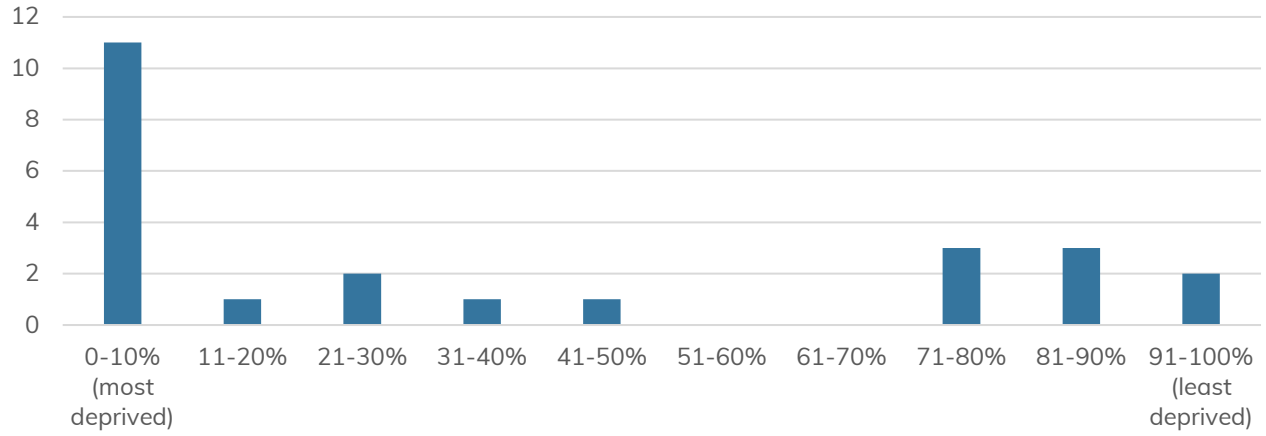


Figure 117 Data zone distribution by decile of the geographic access to services deprivation domain (Scottish Index of Multiple Deprivation, 2020).

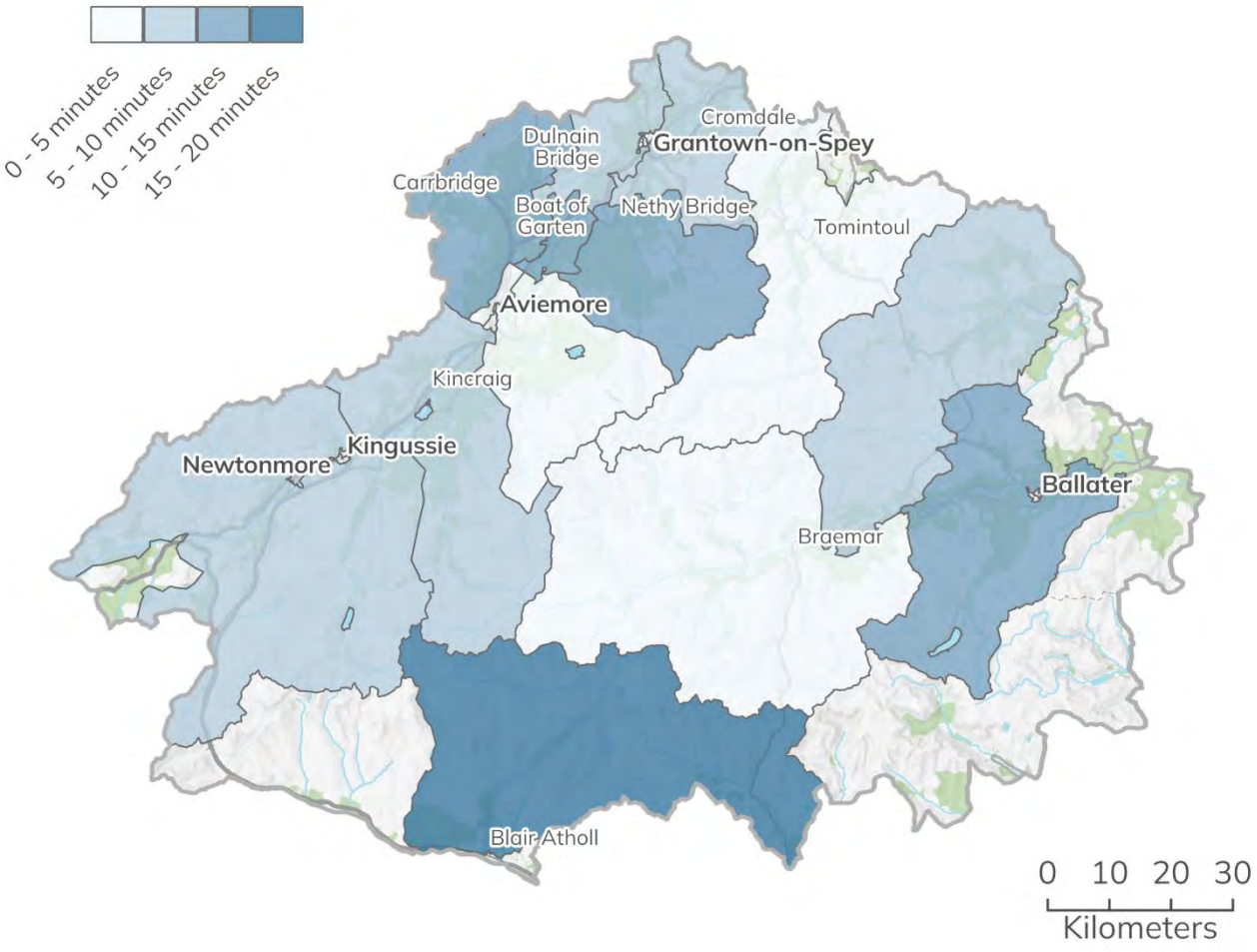


Figure 118 Average drive times to a general practitioner's surgery (Scottish Index of Multiple Deprivation 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

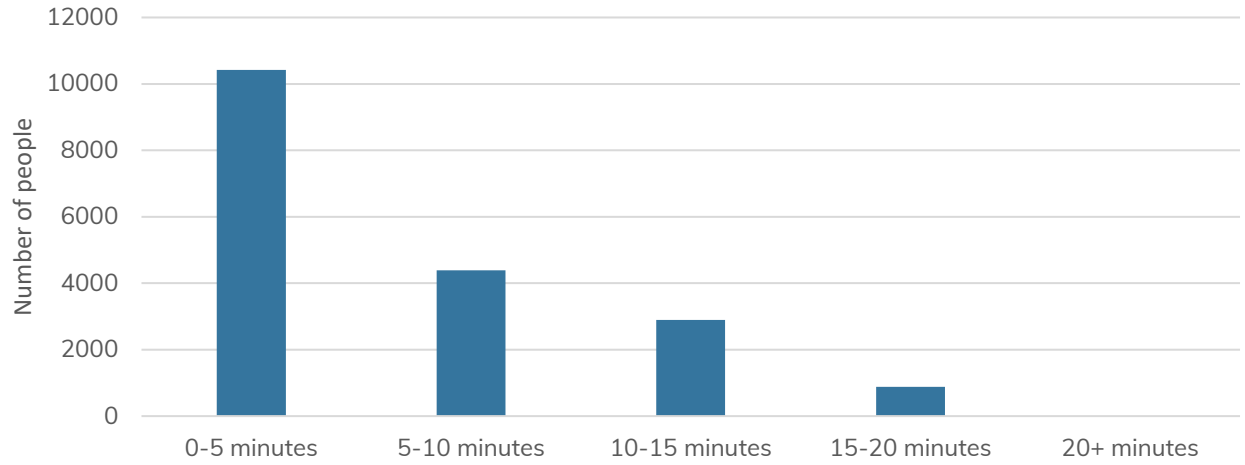


Figure 119 Population distribution by average drive time (minutes) to a general practitioner's surgery (SIMD, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

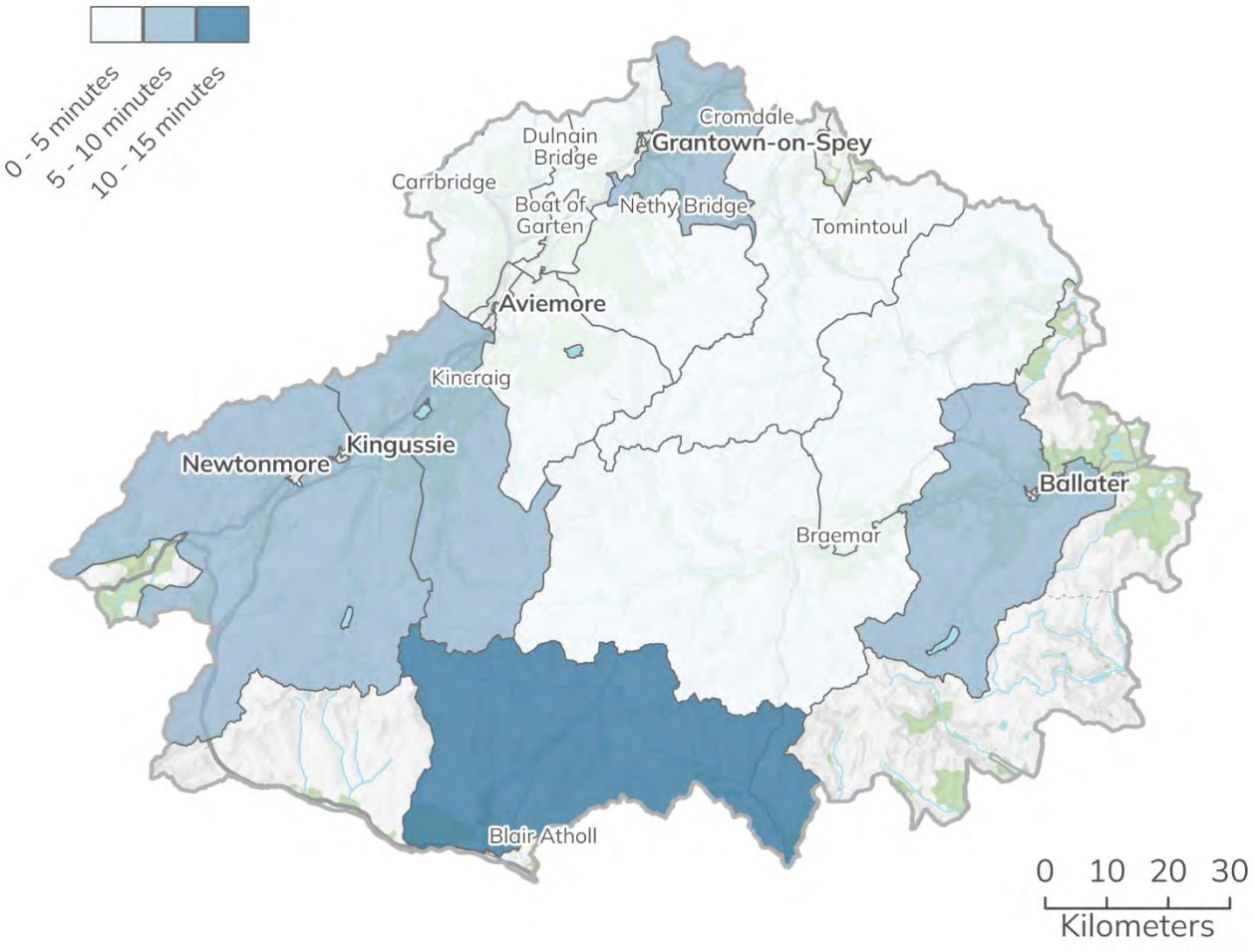


Figure 120 Average drive times to a post office (Scottish Index of Multiple Deprivation, 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

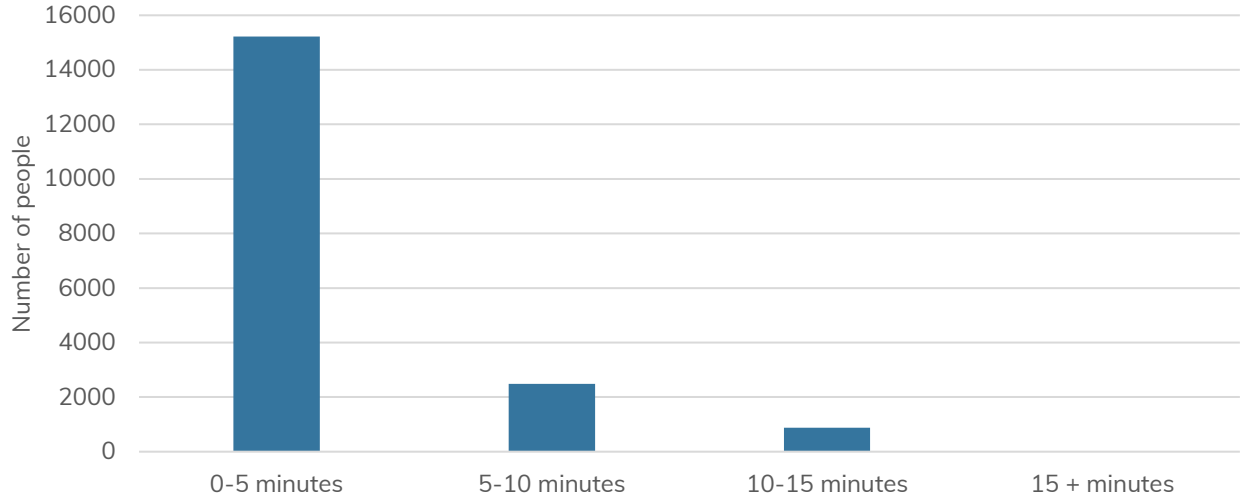


Figure 121 Population distribution by average drive time (minutes) to a post office (Scottish Index of Multiple Deprivation, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

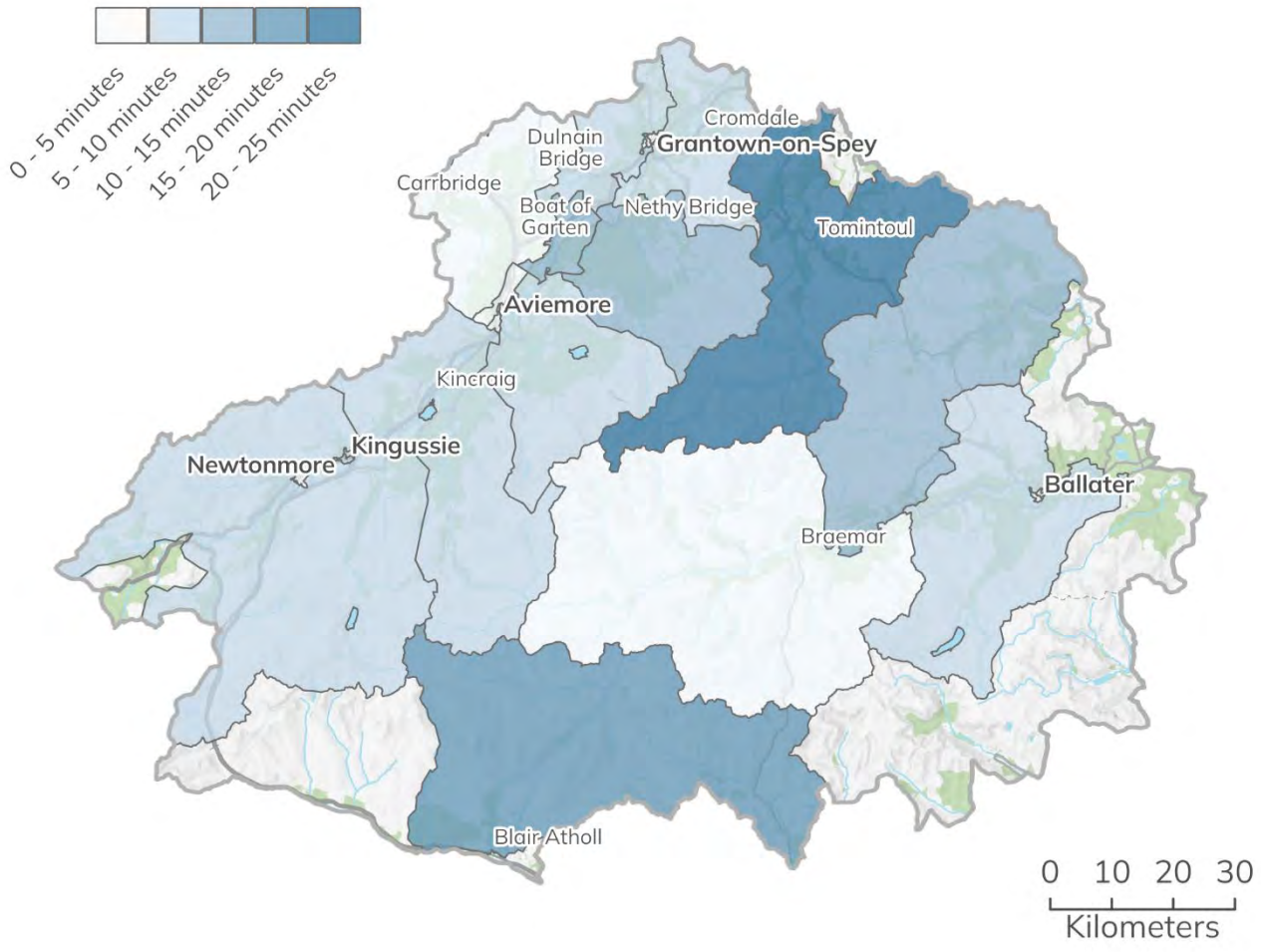


Figure 122 Average drive times to a petrol station (Scottish Index of Multiple Deprivation, 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

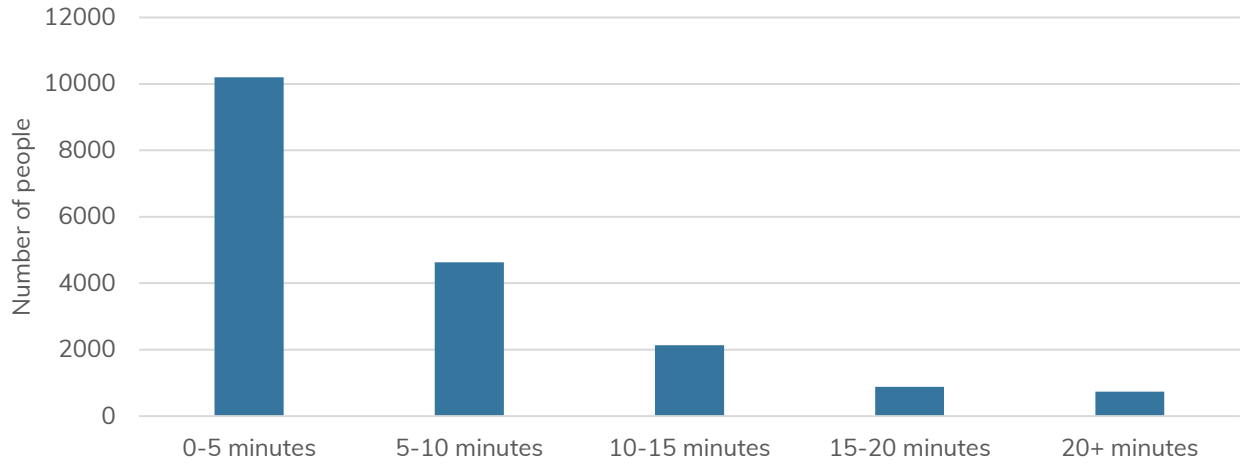


Figure 123 Population distribution by average drive time (minutes) to a petrol station (Scottish Index of Multiple Deprivation, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

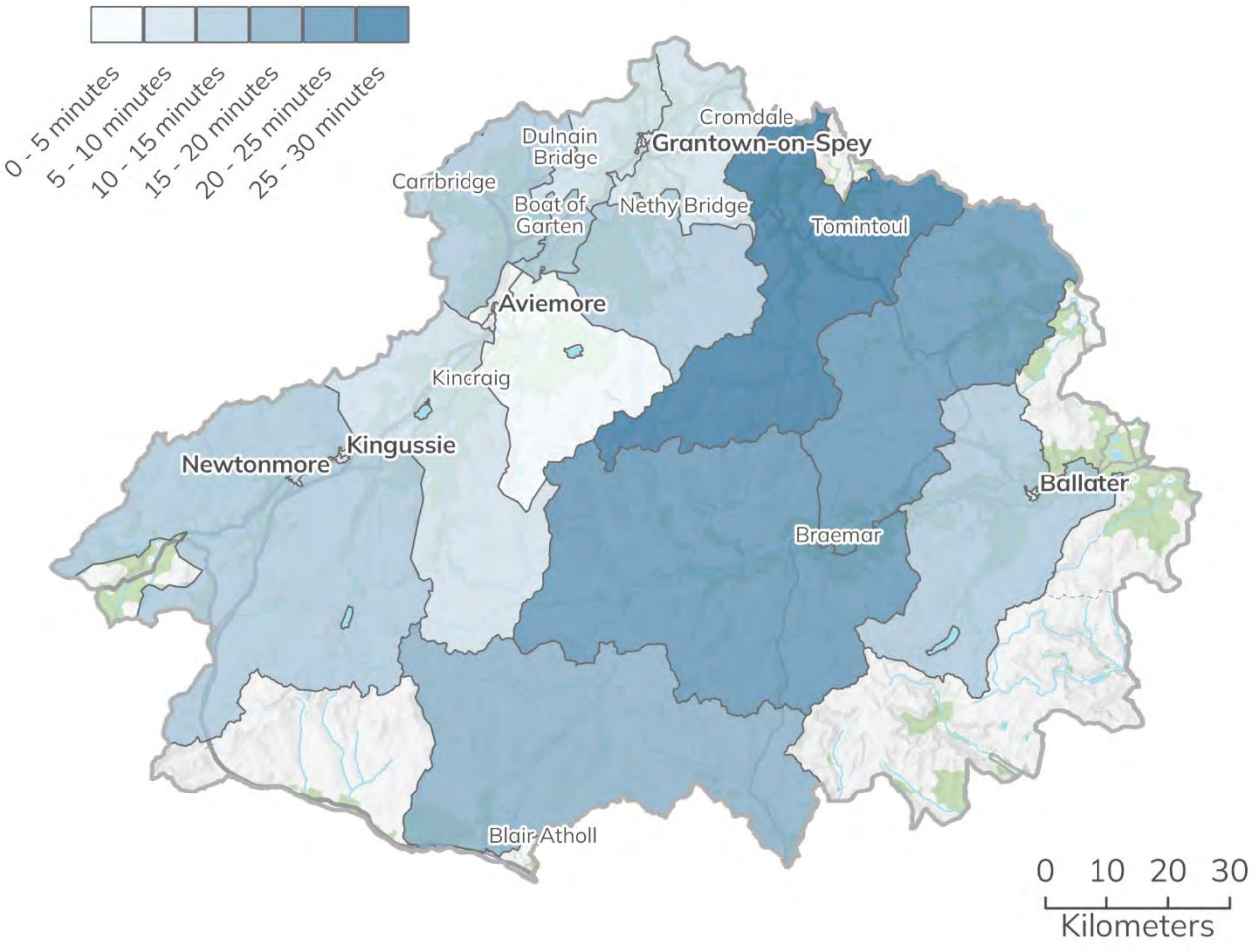


Figure 124 Average drive times to a retail centre (Scottish Index of Multiple Deprivation, 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

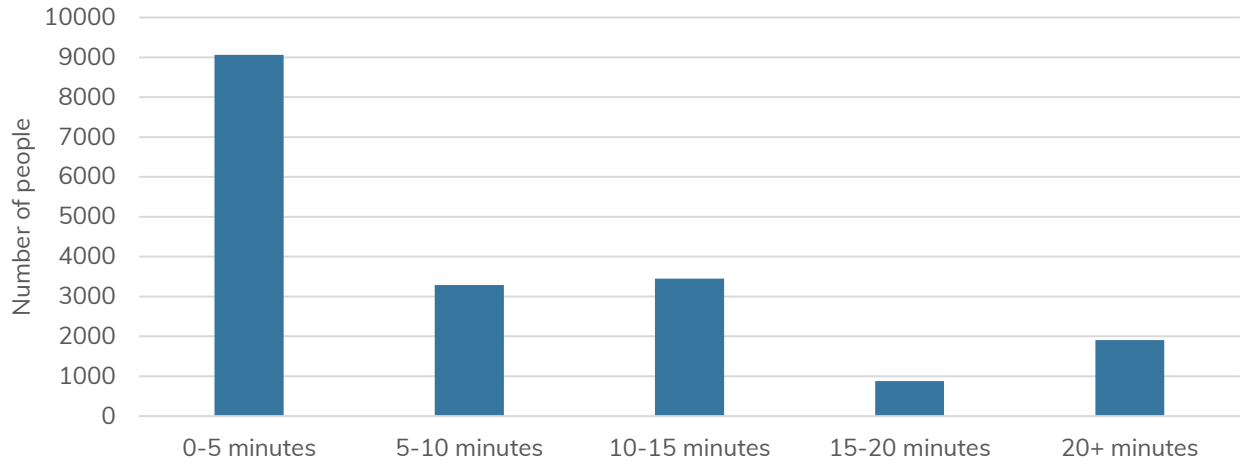


Figure 125 Population distribution by average drive time (minutes) to a retail centre (Scottish Index of Multiple Deprivation, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

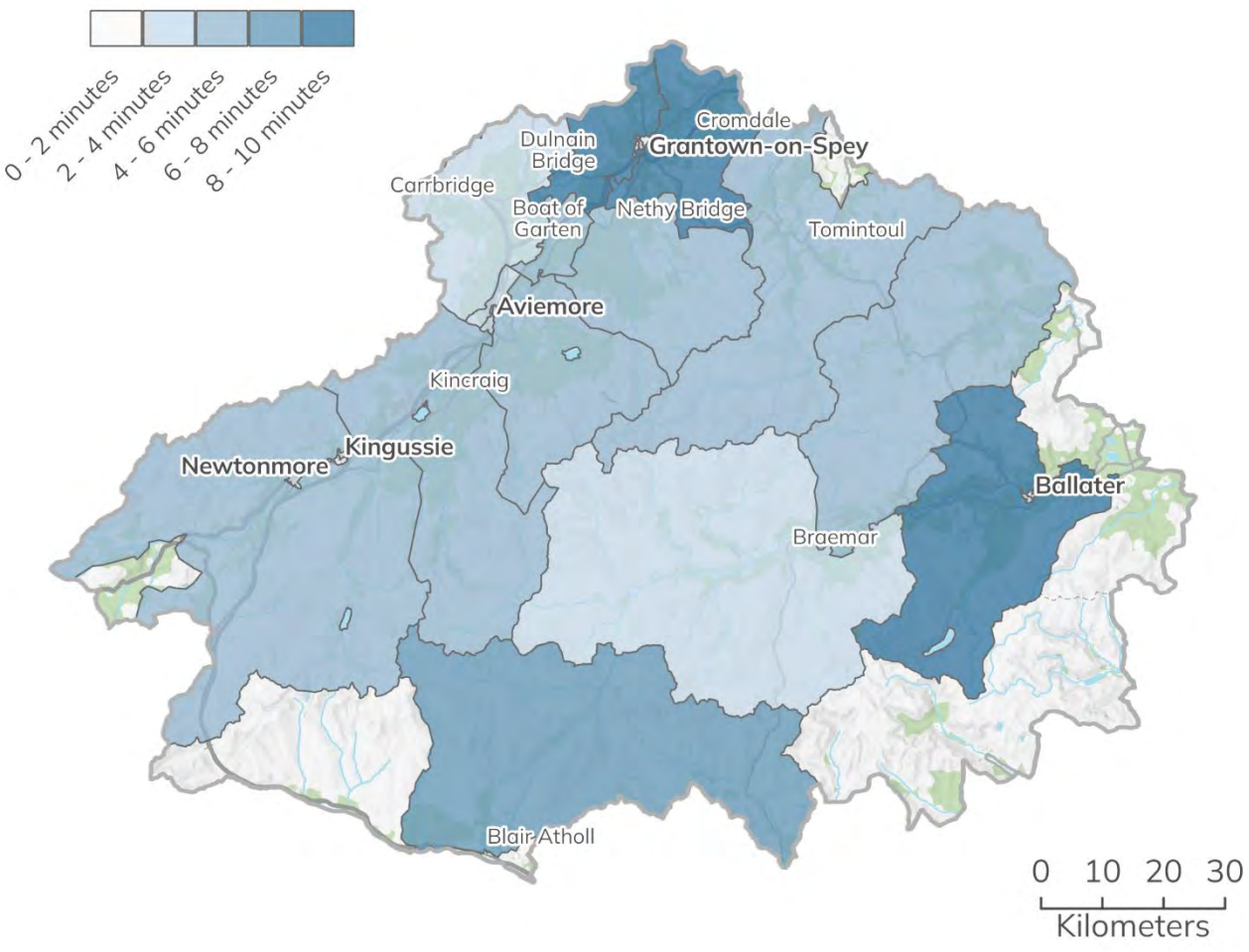


Figure 126 Average drive times to a primary school (Scottish Index of Multiple Deprivation, 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

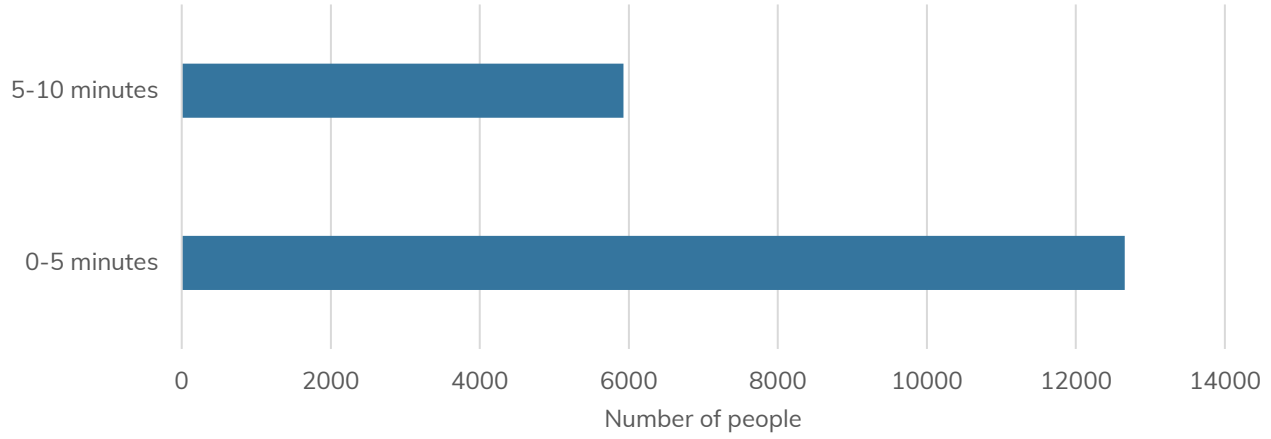


Figure 127 Population distribution by average drive time (minutes) to a Primary School (Scottish Index of Multiple Deprivation, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

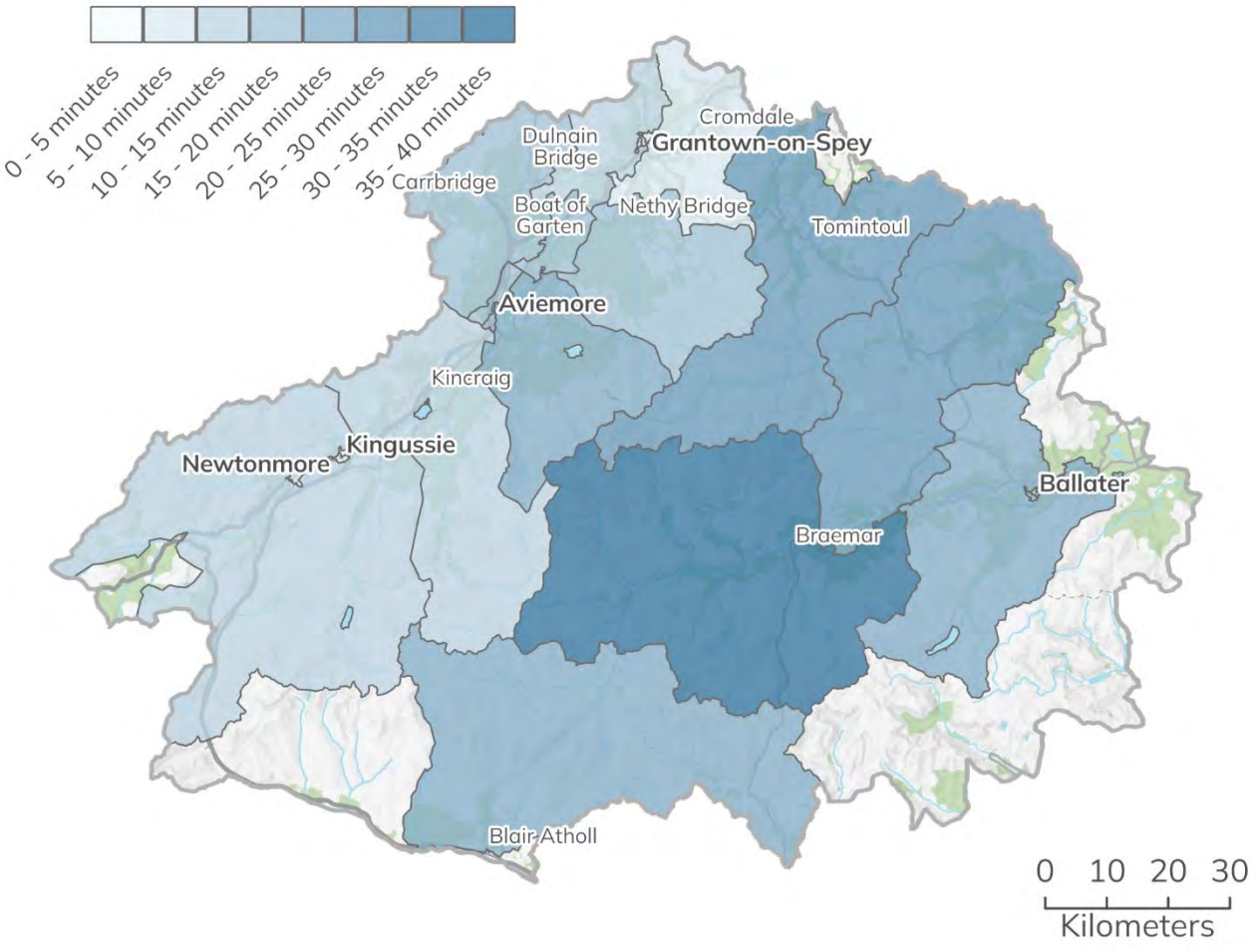


Figure 128 Average drive times to a secondary school (Scottish Index of Multiple Deprivation, 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

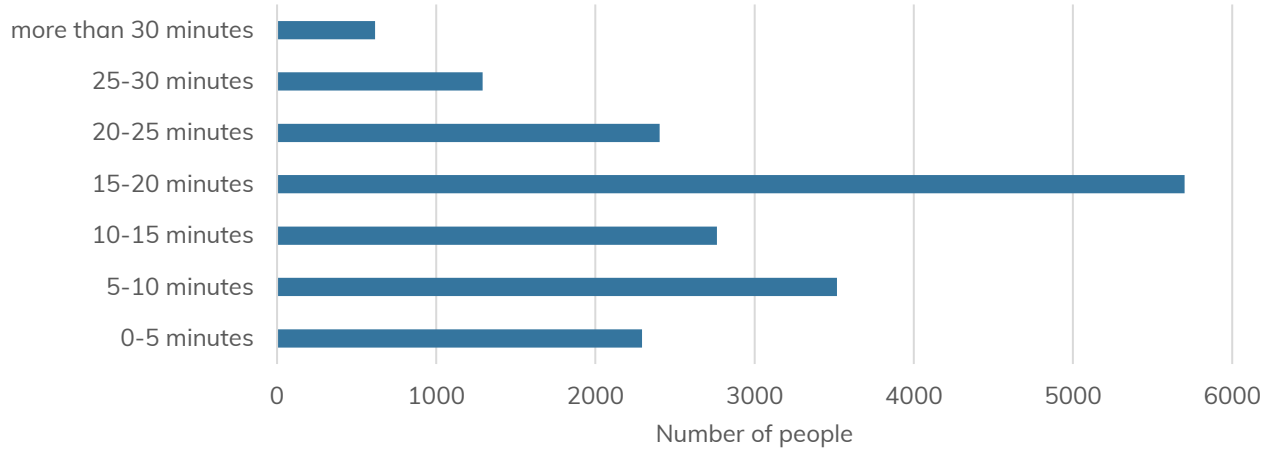


Figure 129 Population distribution by average drive time (minutes) to a Secondary School (Scottish Index of Multiple Deprivation, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

The drive times reflect the nature of the road infrastructure in the Cairngorms National Park, with the population often having to travel for a long time to reach key services. The rural nature of the area is also demonstrated through the relatively high instances of car ownership. According to the 2011 Census (Figure 130) 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 population of the National Park have a reliance on the road infrastructure of the area for access to services, as well as for work.

The rurality of the area is also demonstrated through the relatively high instances of car ownership within the Cairngorms National Park. According to the 2022 Census around 87% of households had access to a car or van, which is higher than the Scottish level of around 74%. This is a slight increase since 2011 when car or van access was 85% and 70% in the National Park and Scotland respectively (Figure 130 and Figure 131 and Figure 132).

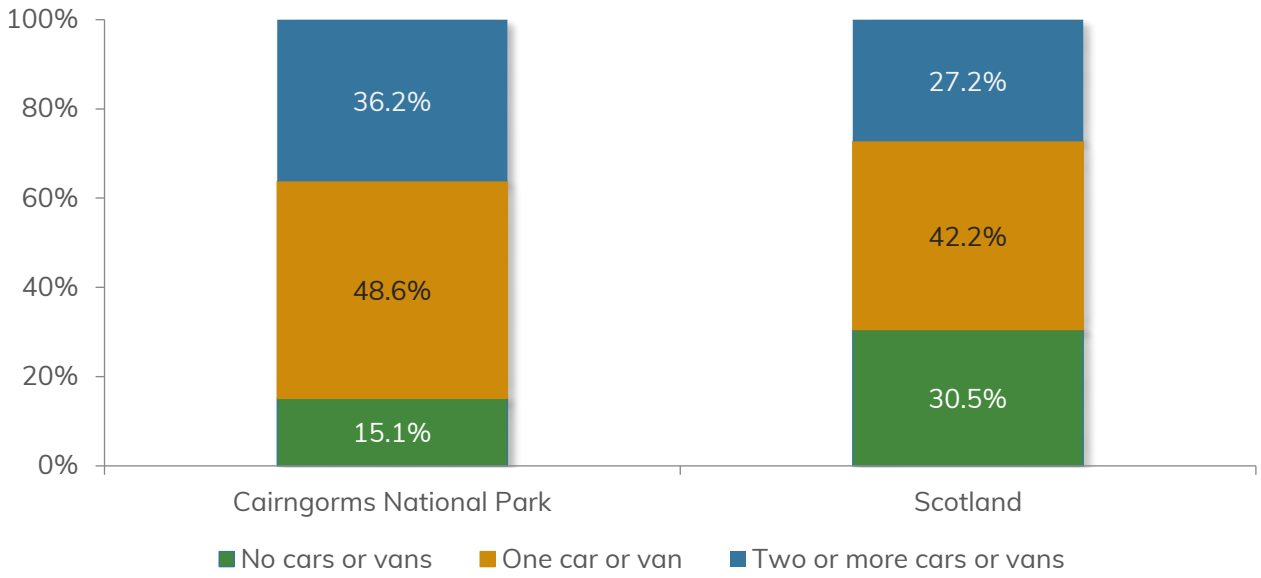


Figure 130 Proportion of household access to a car or van in 2011 (Census table LC1401SC).

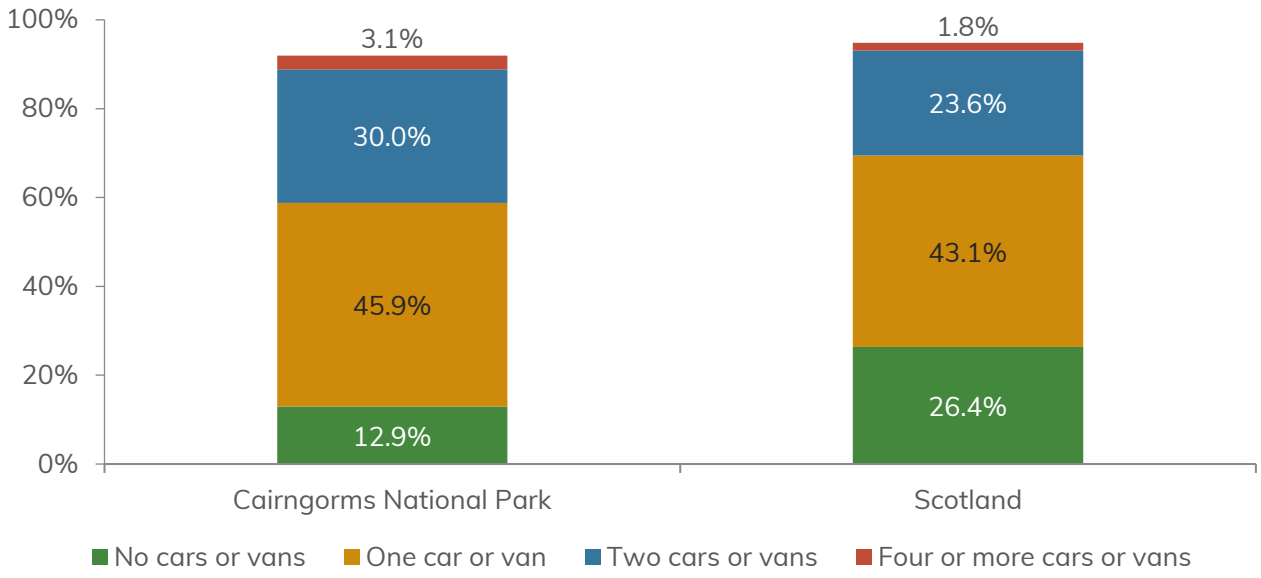


Figure 131 Proportion of households access to a car or van in 2022 (Census table UV405).

Information on the composition of households by car ownership is not available for the 2022 Census yet. 2011 Census estimates indicated that one person households were more likely to have no cars or vans than other types of households (Figure 132). Census estimates demonstrate that a high proportion of the National Park's population have a reliance on the area's road infrastructure.

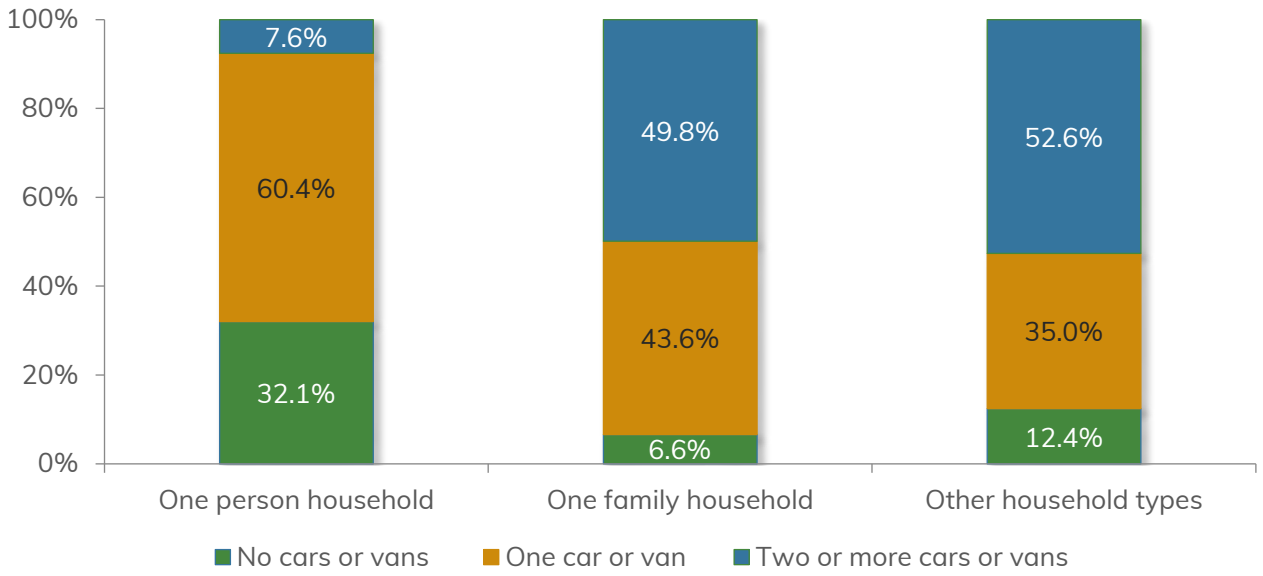


Figure 132 Car or van availability by household composition in the Cairngorms National Park in 2011 (Census table LC1401SC).

Traffic flows in the Cairngorms National Park.

Road traffic open data (provided by the UK Department of Transport) provides street-level data for every junction-to-junction link on the motorway and 'A' road network, and for some minor roads in Great Britain.

Data covering a selection of points in the Cairngorms National Park (Figure 133) has been extracted for the A-roads in the National Park. The data point references shown in Figure 133 correspond to the graphs Figure 134 – Figure 155. For the purposes of this report the data from selected points on the B-roads in the National Park have been included here. Data points where traffic is only measured in one direction, and / or covers the same section of road with no significant differences in numbers have been excluded. The raw data also includes data on cycle traffic however, due to the small numbers these figures have been excluded from the graphs.

All traffic flow numbers represent the daily traffic volumes as averaged over an annual period (Average Annual Daily Traffic – AADT). Information on the methodology and vehicle definitions used by the Department of Transport in the collection of the data can be accessed here:

- https://roadtraffic.dft.gov.uk/about

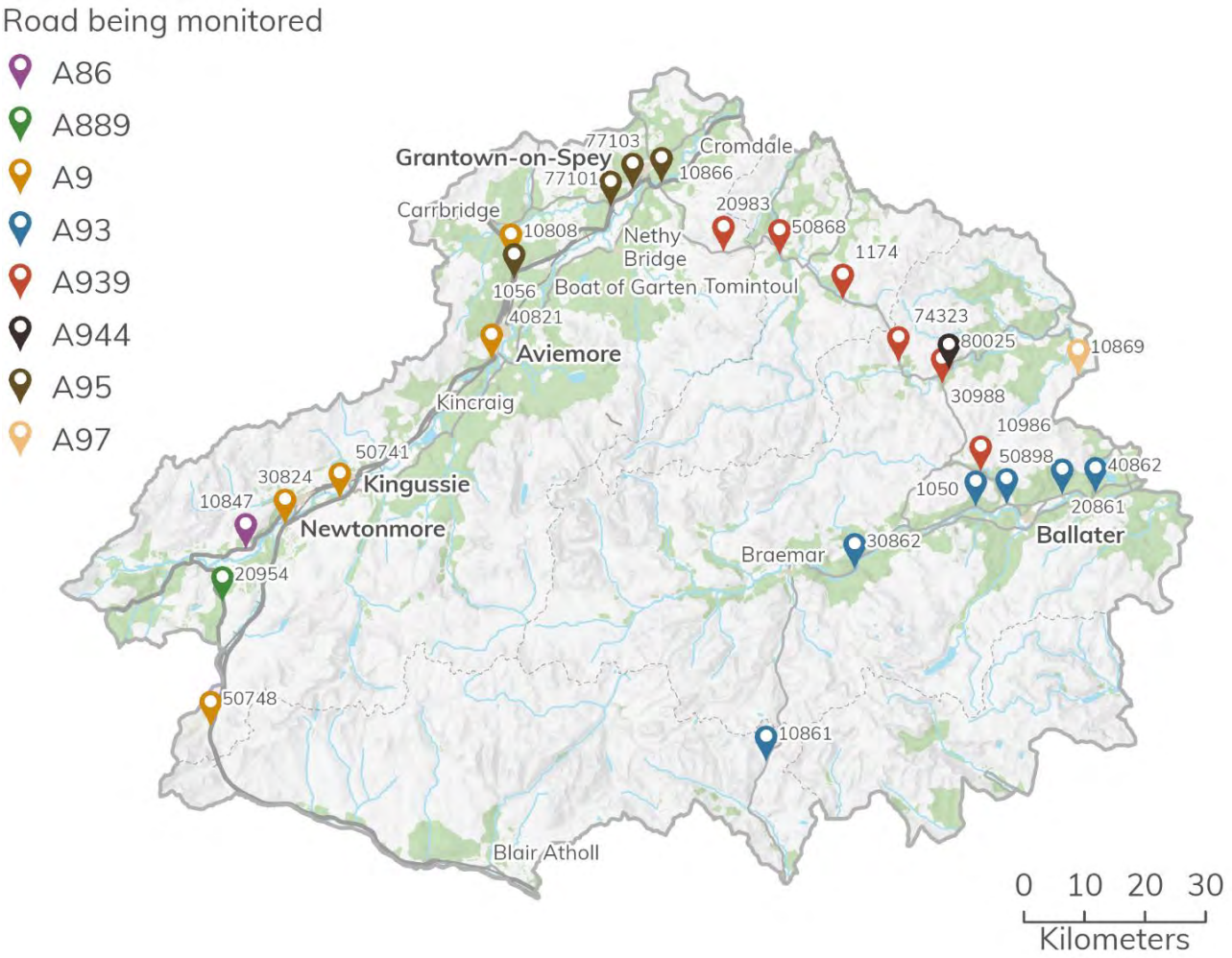


Figure 133 Traffic flow monitoring points in the Cairngorms National Park (Road traffic statistics, Department for Transport, 2024). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

A9 traffic flows

The busiest section of the A9 in terms of average annual daily traffic flows is between Calvine and Dalwhinnie (map point reference 50748 see Figure 133) which in 2023 recorded 10,190 motorised vehicles traveling in both directions (Figure 134). This Part of the A9 coming north from Perth also serves the A990 connecting to the A86 to Spean Bridge. From 2004 to 2023 there has been a modest increase in two-wheel motor vehicles

At point 50748, the large increase in reported traffic flows in 2017 may not necessarily represent a significant increase from 2016 rather a correcting of the exact numbers as from 2009 to 2016 the figures were based on estimates with the 2017 figures produced from an automatic counter (please refer to the methodology for details on how count

figures are derived). Average annual daily traffic flow for the sum of all motorised vehicles at all points along the A9 despite reducing significantly in 2020, in 2023 exceeded those reported in previous years (Figure 134). From 2004 to 2019 there was an increase in the number of two-wheeled vehicles, and cars and taxis, which declined sharply in 2020 and in 2023 the figures remain lower than in 2019.

The number of buses and coaches using this stretch of the A9 (Calvine to Dalwhinnie) had already started to decline before the COVID-19 Pandemic peaking in number in 2017 (92 per day) and reducing year on year in 2018 (89 per day) and 2019 (85 per day). They reduced significantly in 2020 (52 per day) and have since began to increase to a number on par with the 2016 figures (73 per day in 2023, compared to 71 per day in 2016). The largest increases have been in light goods vehicles (LGVs) and heavy good vehicles (HGVs) from 2004 to 2023. Both categories of vehicle were steadily increasing until 2020 and in 2022 both categories of vehicles were higher than in 2019 and continued to increase in 2023. In 2023 the number of LGVs increased 16.9% from the 2019 figures and 241.0% from the 2004 figures. HGVs increased 4.7% between 2019 – 2023, and 104.6% since 2004 (Figure 134).

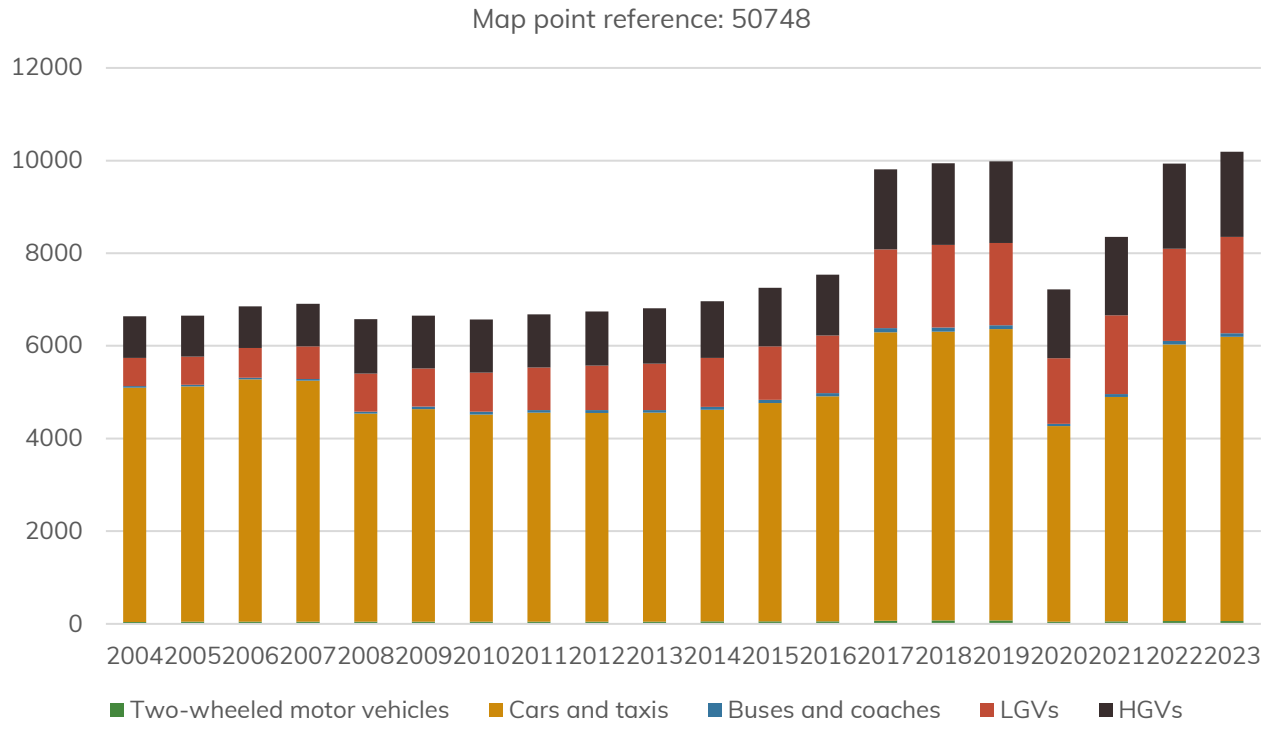


Figure 134 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 50748 on the A9 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Traveling north to point 30824 (Figure 133) the overall traffic figures reduce slightly with average annual traffic flows between the Dalwhinnie A889 Junction and Newtonmore, in 2023 the combined total (all vehicle categories) was 9,039 per day (Figure 135). The number of cars and taxis reported passing this point are significantly higher in 2023 (5,491 per day) than in 2019 (5,087 per day). There has been little change in the number of two-wheeled vehicles, a trend being harder to establish due to the low number recorded. Similar to the figures reported at point 50748, the numbers of buses and coaches were already declining before the events of 2020. In 2017 the number of buses and coaches was recorded at 110 per day. Falling to 102 per day in 2019, by comparison in 2022 and 2023 the number was stable at 97 per day.

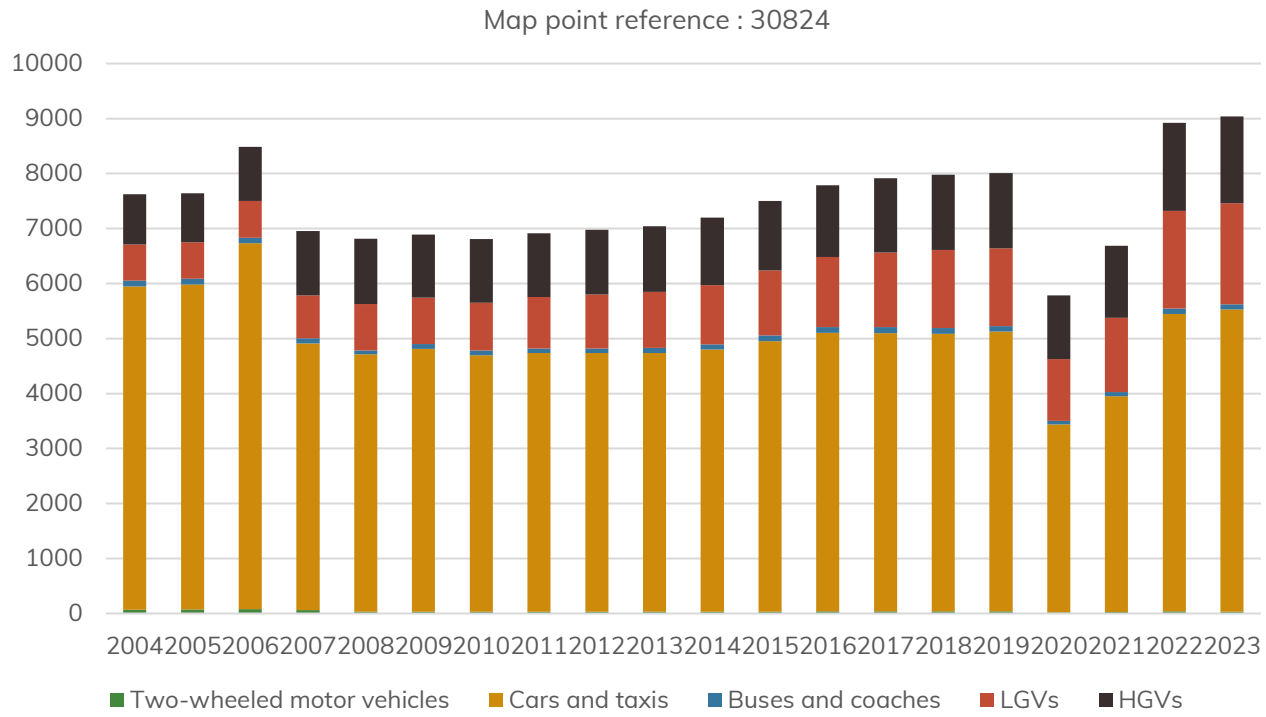


Figure 135 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 30824 on the A9 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

The data collected at point 50741 (Figure 136) relates to the portion of A9 between Newtonmore and Kingussie. Here we note a similar pattern in terms of two-wheeled vehicles and cars and taxis remaining below the figures record in 2019 compared to 2023. There was also a reduction in the number of buses and coaches per day in 2019. Comparing the figures for LGVs and HGVs from 2019 to 2023 both categories have increased with a more significant gain evident in the number of LGVs.

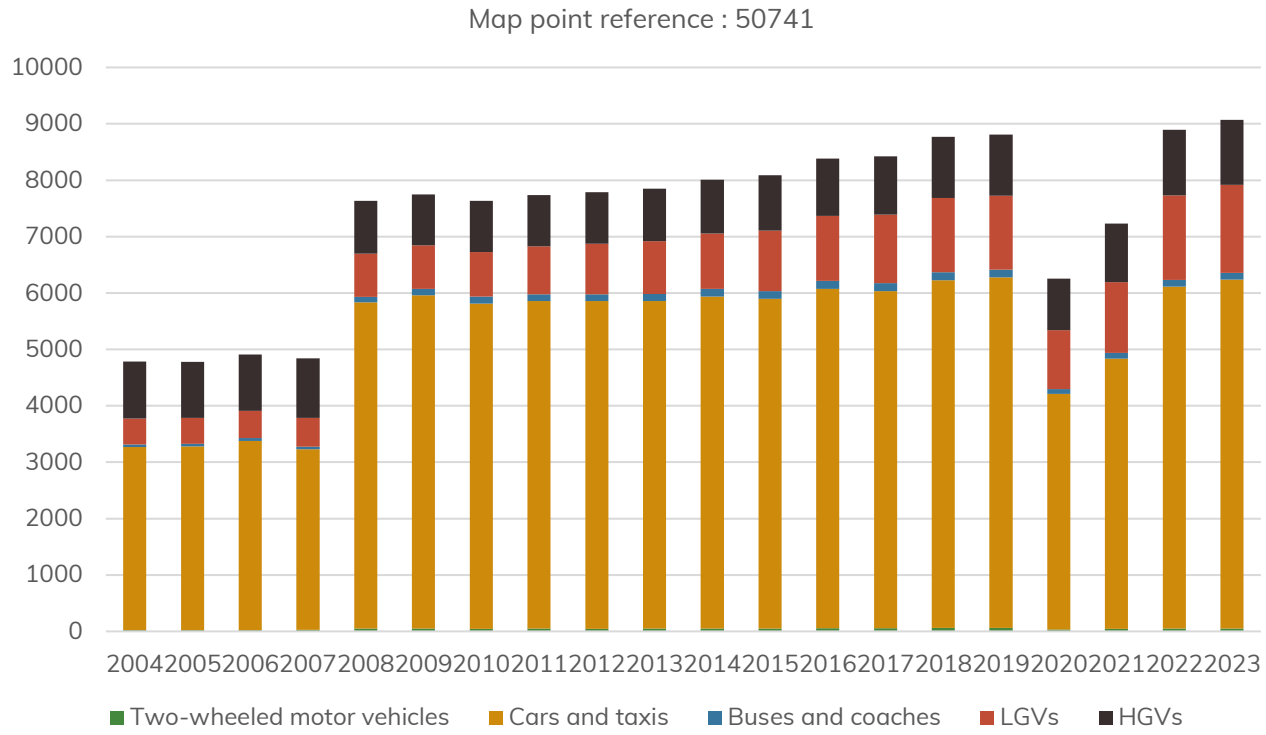


Figure 136 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 50741 on the A9 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 40821 is on the section of A9 between Kincraig and Aviemore reflects the trends seen at point 50741 however the total number of motorised vehicles reported at point 40821 was 8,800 per day (Figure 137) slightly lower than the 9,069 per day recorded at point 50741 in 2023 (Figure 136).

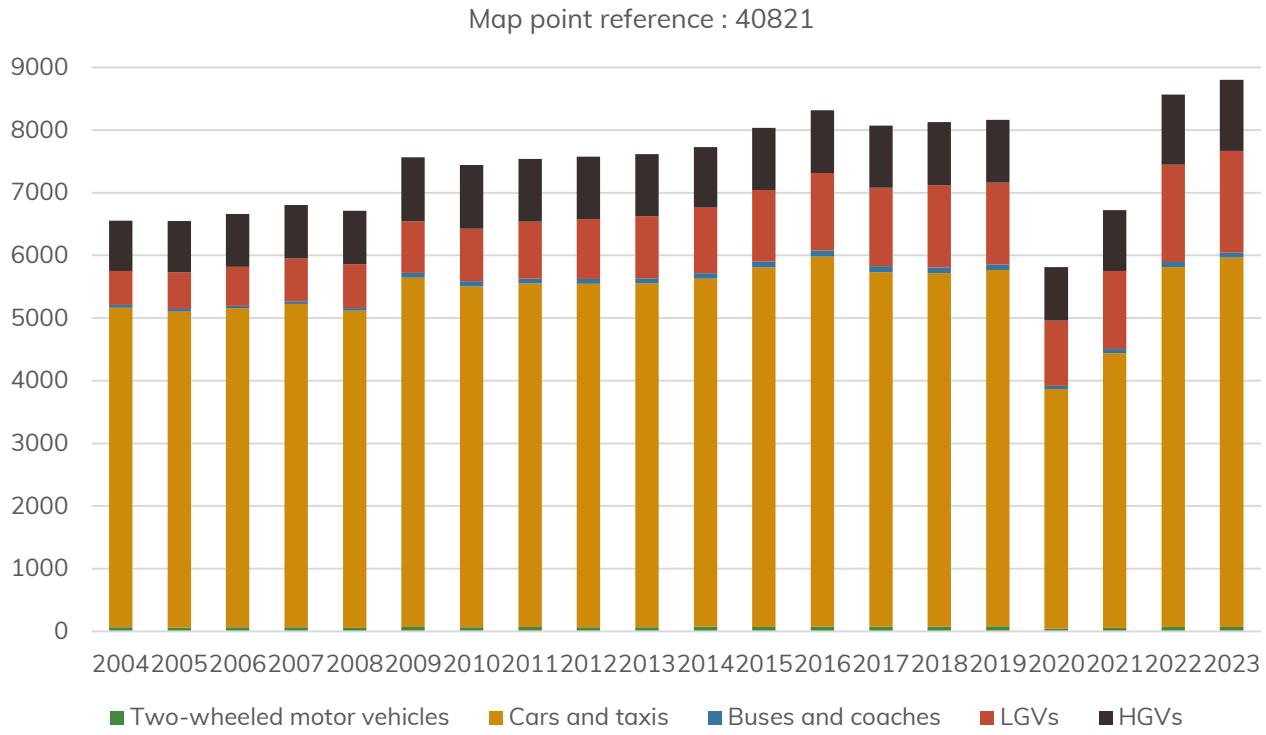


Figure 137 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 40821 on the A9 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 10808 is located on the stretch of road between Aviemore and the Slochd, which monitors traffic entering and leaving the Cairngorms National Park from the North (Figure 133). Between 2010 and 2019 the average annual daily traffic flow levels of two-wheeled vehicles and buses and coaches remained relatively stable (Figure 138). What is interesting at this point is the number of cars and taxis from 2004 to 2023 was highest in 2013 when 5,824 per day were reported. This reduced to 5574 per day in 2019 and in 2023 was recorded at 5,440 per day. Similar to other points along the A9 within the National Park the number of LGVs and HGVs have been increasing, both reducing slightly in 2020, but have now surpassed the 2019 figures (17.0 % increase in LGVs and 5.5% increase in HGVs, 2019 – 2023).

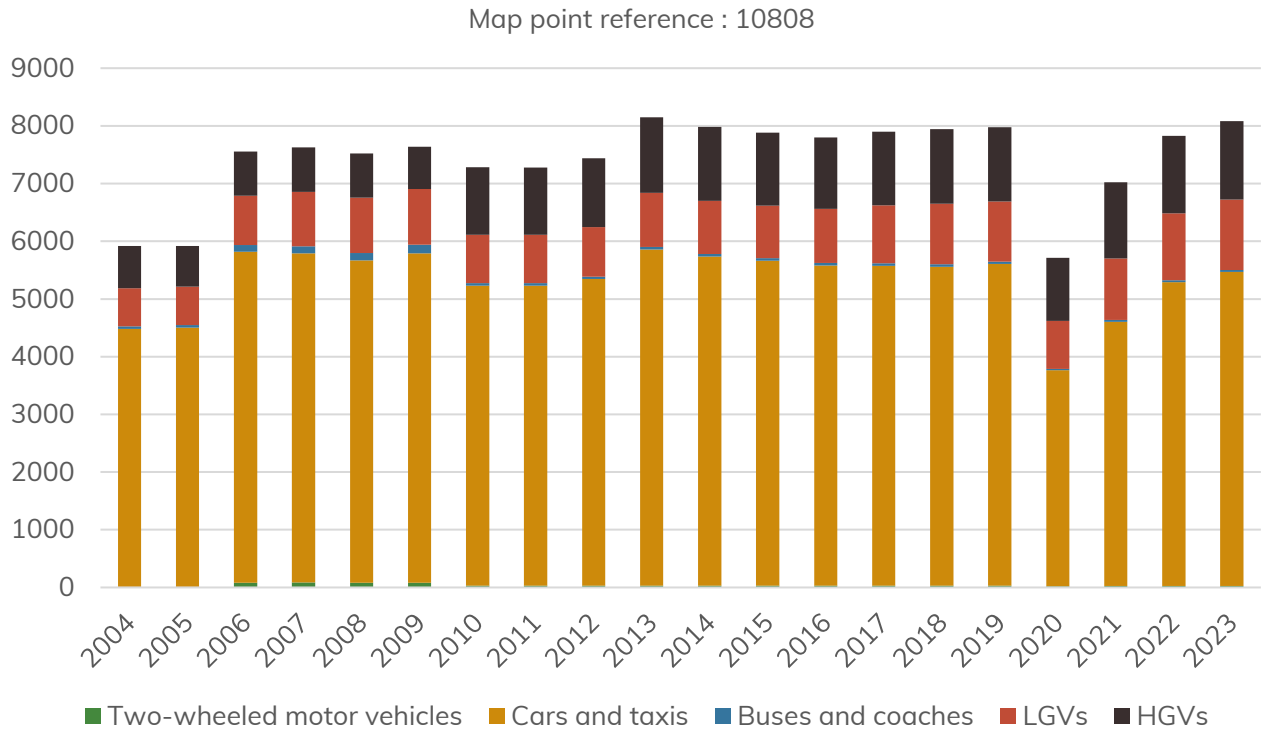


Figure 138 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 10808 on the A9 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

A9 Summary

The increase in overall traffic flow numbers on the A9 within the National Park can be, in part, attributed to increases in the number of LGVs (Approximately 21% increase, a mean value across all five points) and HGVs (approximately 9% increase) using the route. Other modes of transport are generally still below the levels seen in 2019 but are growing and therefore it is uncertain yet if in terms of transport numbers, they will continue to grow and surpass the pre-Covid figures or are an early indication of a change proportionally to the way people move around.

A95 traffic flows

Four points along the A95 between Aviemore and Cromdale have been included in this report (Figure 133), and the data is presented here (Figure 139, Figure 140, Figure 141 and Figure 142). The A95 is a key route linking Aviemore, With the settlements of Boat of Garten, Nethybridge and Dunlain Bridge, as well as Carrbridge, and directly to Grantown on Spey and Cromdale existing the Cairngorms National Park to the East out to Charlestown of Aberlour and connecting the National Park to Elgin and Keith in Moray.

Point 1056 – between Aviemore and Drumillie was the busiest in terms of average annual daily traffic flows (by a significant margin) compared to the other points along the A95. At point 1056 the total flow in 2023 was 6,785 per day (representing a 10% increase from the 2018 figure (6,127). Similar to the data presented for the A9 the data suggests that buses and coach numbers on this stretch of road were already declining prior to the COVID-19 Pandemic. The figures for cars and taxis, LGVs and HGVs are all higher in 2023 than reported in 2019. The largest categorical increase, on this stretch of the A95, between 2018 and 2023 was in the number of LGVs which increased by 26% from 1,372 to 1,723 per day.

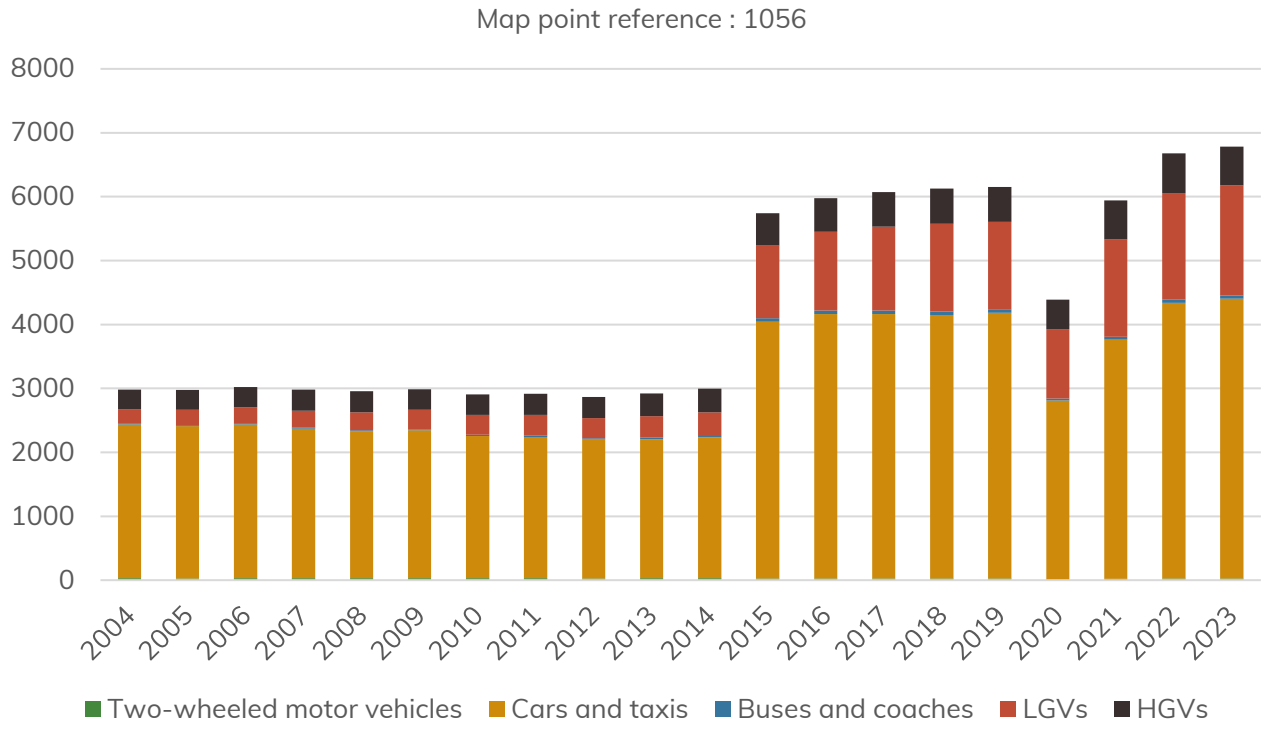


Figure 139 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 1056 on the A95 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 77101 between Broomhill and before the exit for Dunlain Bridge experiences significantly less traffic than the stretch of road from Aviemore to Drumillie (Figure 138 and Figure 139). The number of cars and taxis and HGVs were all lower in 2023 compared to the figures for 2018. The data trend for LGVs differs for the 2018 – 2023 period from other points in that the number of LGVs reduced by 19% from 905 per day in 2018 to 734 per day in 2023. The number of buses and coaches reported was 34 per day in 2023, compared to 42 per day in 2019 when it had been steadily increasing since 2005.

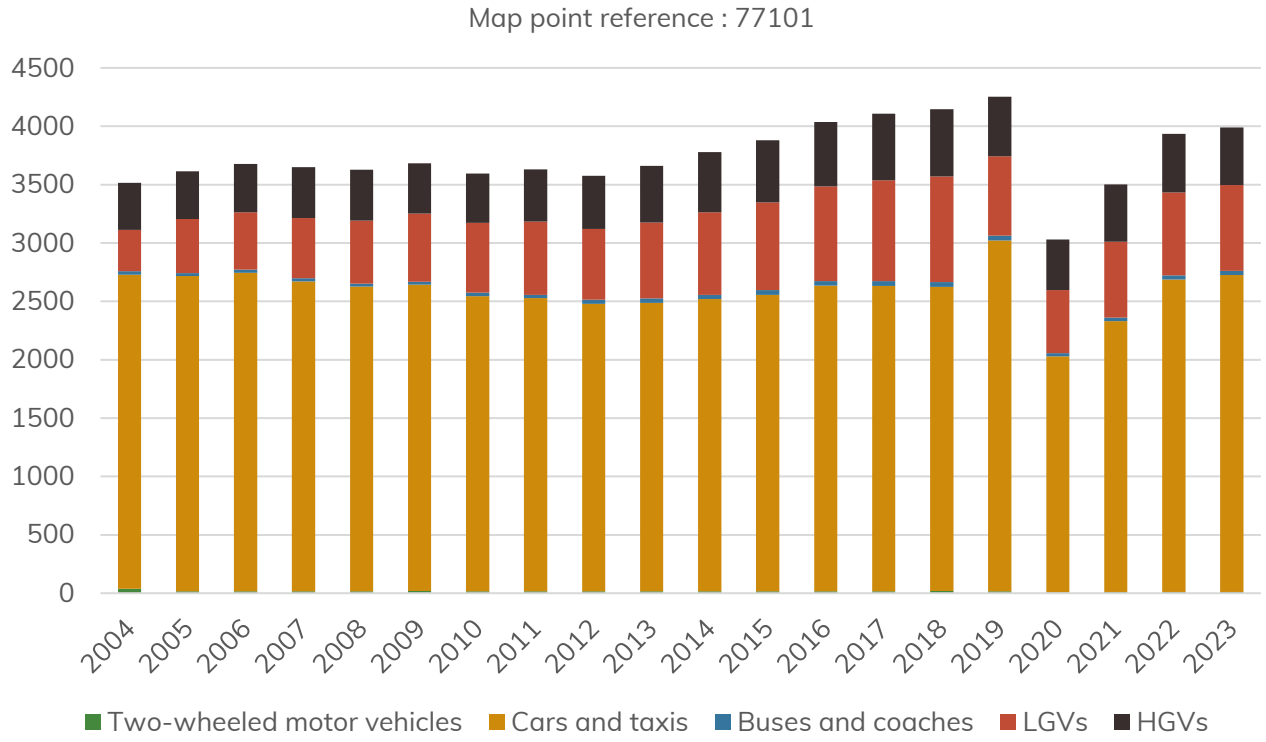


Figure 140 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 77101 on the A95 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 77103 lies between Dunlain Bridge and Grantown on Spey, the average annual daily traffic flow data is shown in Figure 141. The data on the number of two-wheeled vehicles was reducing from 54 per day in 2016 to 31 per day in 2019 pre-COVID-19 and was reported as 24 per day in 2023 (Figure 141). The number of buses and coaches also decreased from 2016 to 2019 (-49.0%) and although increasing from 2020 - 2023, are still lower than the figures for 2019. The number of cars and taxis, in 2023 (2,059) is lower than the number recorded pre-Covid in 2019 (2,212). It should be noted that the figures pre-2017 were estimated values and potentially corrected in 2017. Comparing the categories of motorised vehicle traffic flow numbers from 2023 to the pre-Covid

figure of 2019, only the number of LGVs has increased. Between 2018 and 2023 the number of LGVs increased 11% from 889 per day to 987 per day.

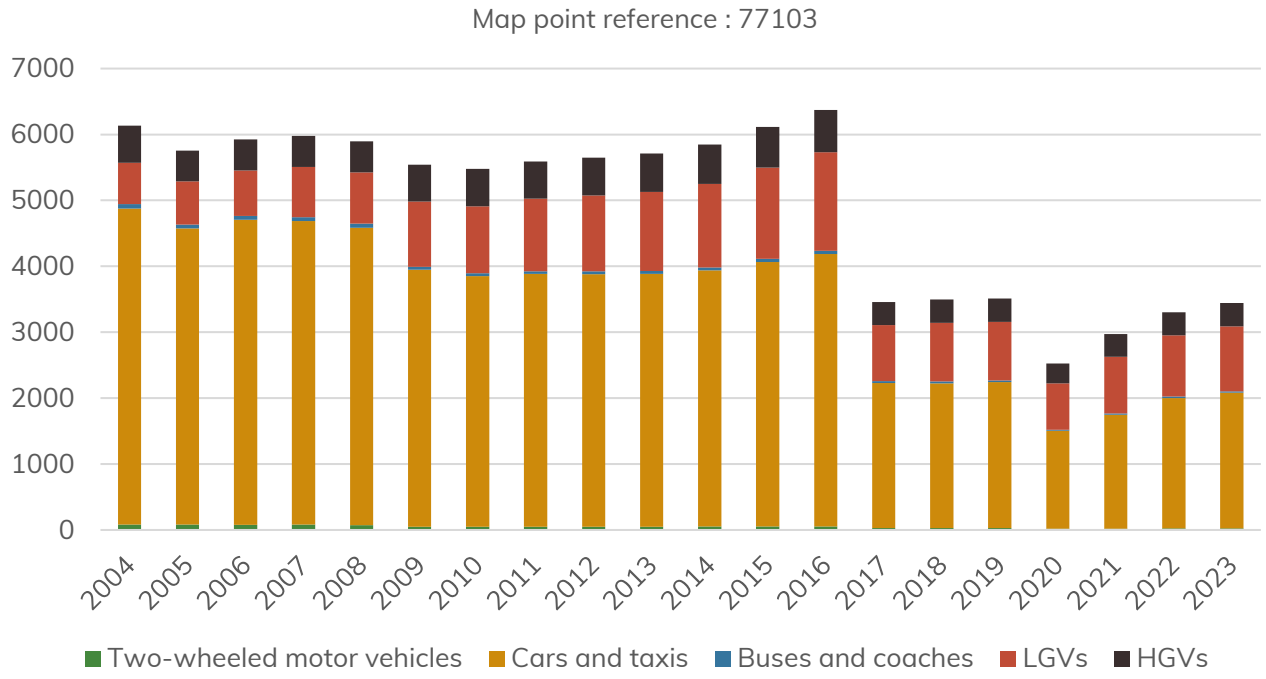


Figure 141 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 77103 on the A95 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

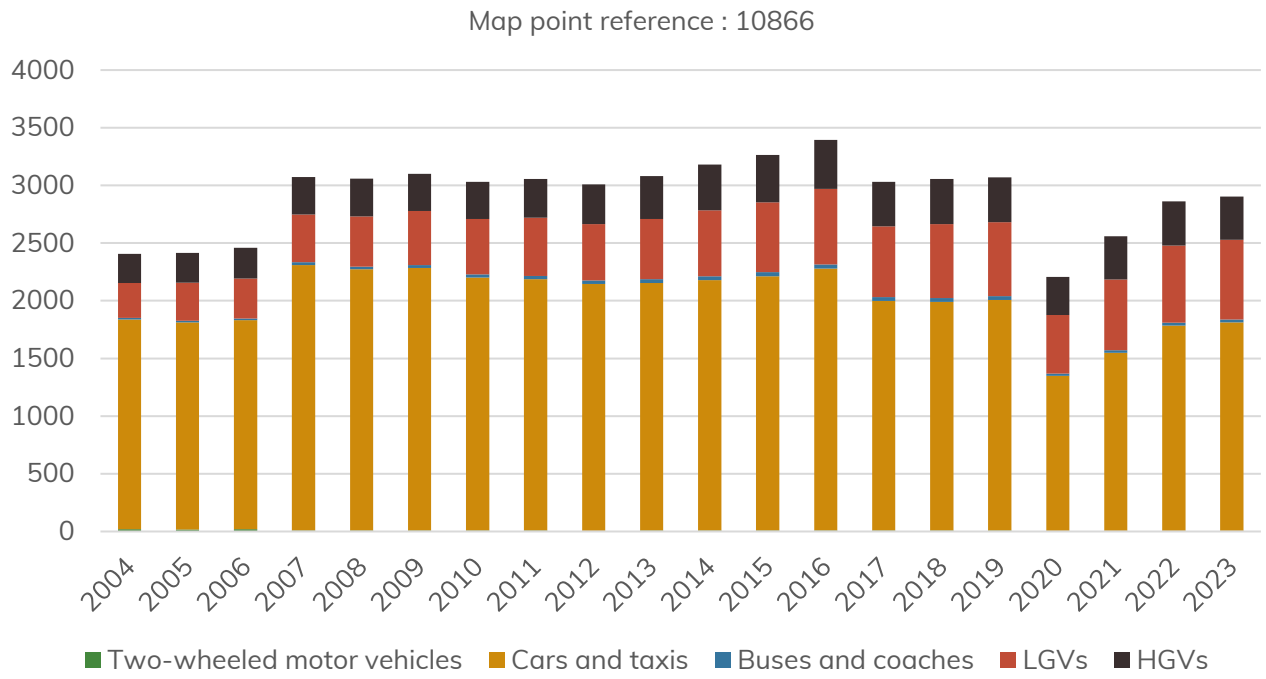


Figure 142 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 10866 on the A95 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

The data collected for point 10866 (Figure 142) between Grantown on Spey and Cromdale follows the same trends in terms of 2023 figures compared to pre-COVID-19 figures. The total sum of all categories of motorised vehicular traffic flow numbers at point 10866 was 2,902 per day, 542 vehicles per day lower than at point 77103 (between Grantown and Aviemore).

Aviemore is the largest settlement in the National Park and the data on traffic flow numbers reflects that with the busiest count point closest to the town. The total average daily traffic flow numbers for 2023 decrease the further they are from point 1056, significantly at first (reducing by 2,796 per day from point 1056 to point 77101) then less pronounced manner (reducing approximately 500 less vehicles per day up to the first point outwith the National Park). The point closest to Aviemore shares the trend of increasing HGVs and LGVs seen along the A9.

A93 traffic flows

The A93 originates in Perth and enters the southern boundary of the Cairngorms National Park near Glenshee. It follows a northerly route to Braemar, then on to Ballater and exits the National Park near Dinnet. Six data points along this strategic route have been included in this report.

Point 10861 (see Figure 133) is the first point surveyed entering the National Park from the south before one reaches the settlement of Braemar. Figure 143 shows the Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions from 2004 to 2023. Of all the count points surveyed on the A93 in the National Park, in 2023 the lowest combined vehicle traffic figure reported was at this point (814 per day in 2023). The figures for the number of two-wheeled vehicles, buses and coaches and HGVs were slightly lower in 2019 compared to 2023. LGVs were estimated have slightly increased, however cars and taxis were lower in 2023 compared to 2019. It should be noted that at this site no manual or automatic count has been performed since 2012. General trends at this point follow the wider traffic trends of increasing LGVs and levels of most modes of transport still below the levels reported for 2019 before the Pandemic.

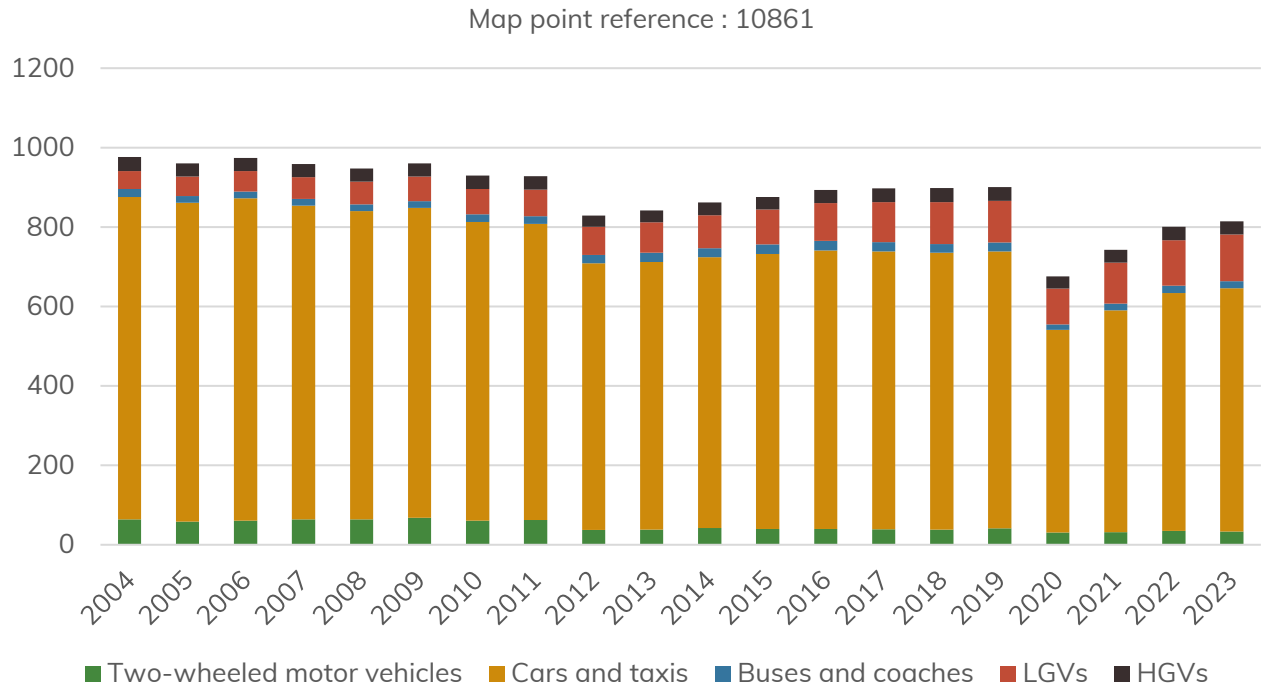


Figure 143 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 10861 on the A93 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 30862 (see Figure 133) on the A93 is located between Braemar and Balmoral. At this point over twice the number of average annual daily traffic was reported in 2023 compared to point 10861 (Figure 143 and Figure 144). From 2013 to 2019 overall traffic levels were increasing very slightly, with all modes reducing in 2020. In 2023 cars and taxis, and LGV numbers surpassed those reported for 2019. In 2019, 966 cars and taxis were reported using the road per day which increased to 1,312 per day in 2023. The number of two-wheeled vehicles reported using the road has declined since 2014 from 134 per day to 77 per day in 2023. Similarly, the number of buses and coaches has also declined from 50 per day in 2015 to 16 per day in 2023.

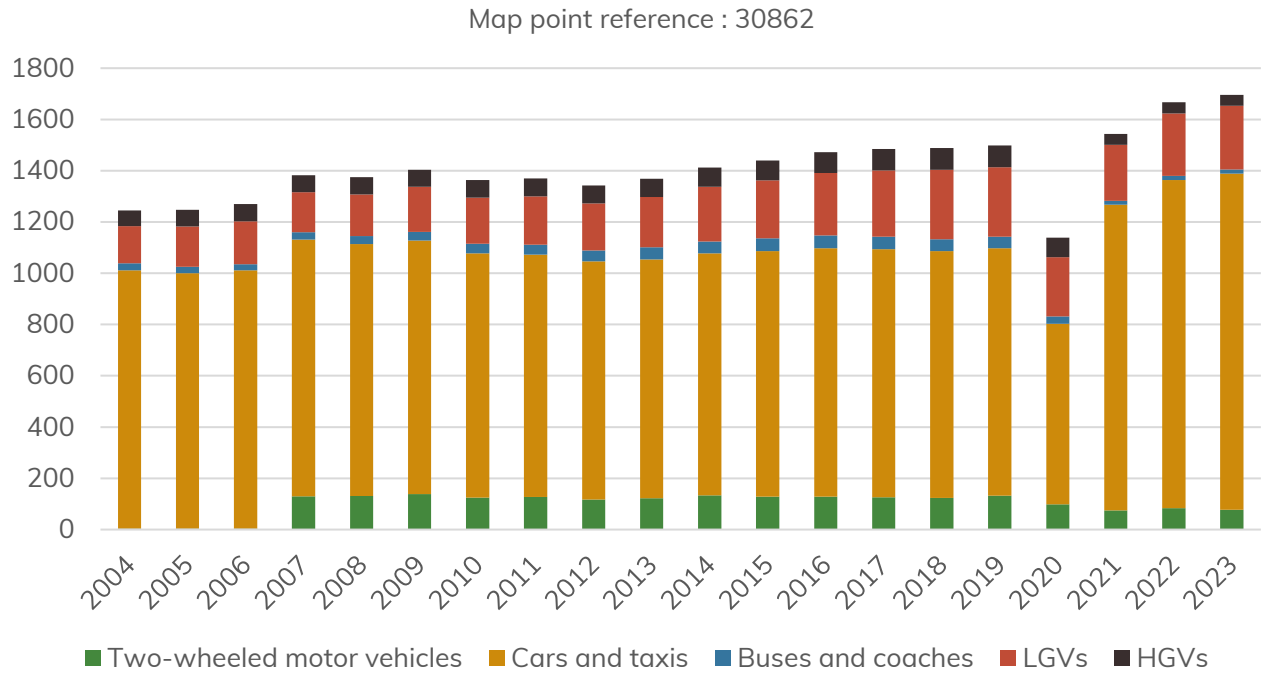


Figure 144 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 30862 on the A93 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024)

Point 1050 (see Figure 133) All years on Figure 145 are for data estimated, with the exception of 2011 which accounts for the increase seen between 2010 and 2011. Using the estimated data all modes of were reported lower in 2023 compared to 2019 with the exception of LGVs. The number of LGVs per day had been increasing steadily since 2013 and in 2023 made up 17.9% of all traffic recorded, cars and taxis constituted 72.6% of all traffic per day recorded.

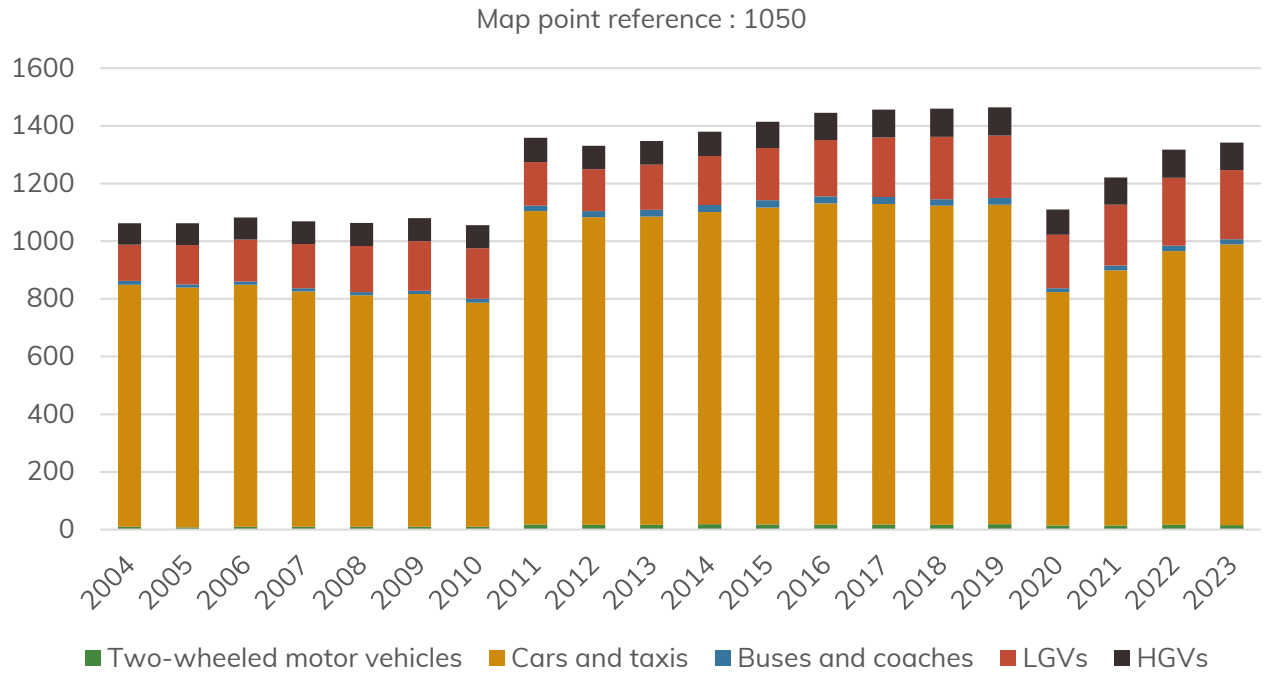


Figure 145 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 1050 on the A93 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Point 20861 and Point 40862 (see Figure 133) are located either side of Ballater and the data on the total number of vehicles passing through these points in 2023 was relatively similar with total average annual daily traffic flows of 2,866 per day at point 20861 and 2,909 per day at point 40862 (Figure 146 and Figure 147). The data set point 20861 was based on estimated data since 2009, whereas at point 40862 a manual count was performed in 2012. Significantly more two-wheeled vehicles were recorded at point 20861 (18 per day) in 2023 compared to 7 per day at point 40862 suggesting more increased traffic by this mode between Ballater and Braemar potentially. There were also more buses and coaches recorded at point 20861, which may also indicate more public transport / movement between the two settlements. The number of cars and taxis was comparatively similar with 1979 per day at point 40862 and 2047 per day at point 20861 in 2023. Similar to other points along this route within the National Park, the number of HGVs, two-wheeled vehicles, buses and coaches and cars and taxis were lower in 2023 compared to 2019. Notably the number of LGVs increased (despite reducing in 2020) between 2019 and 2023 at both points.

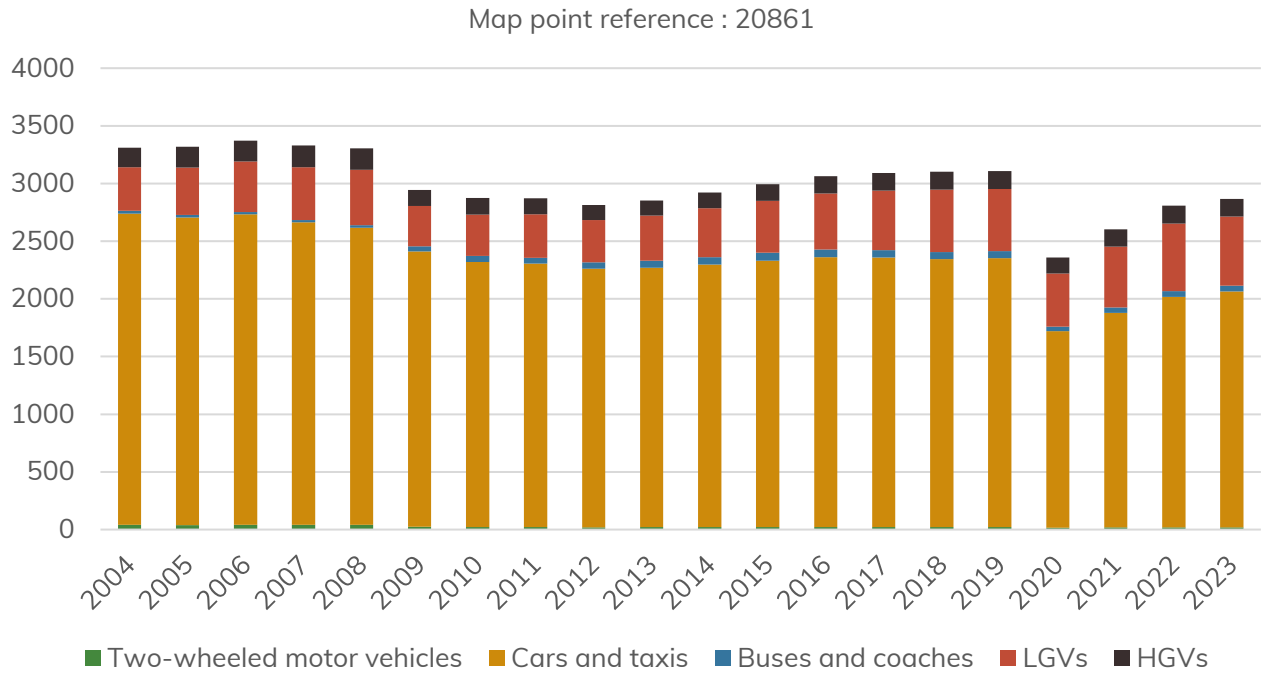


Figure 146 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 20861 on the A93 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

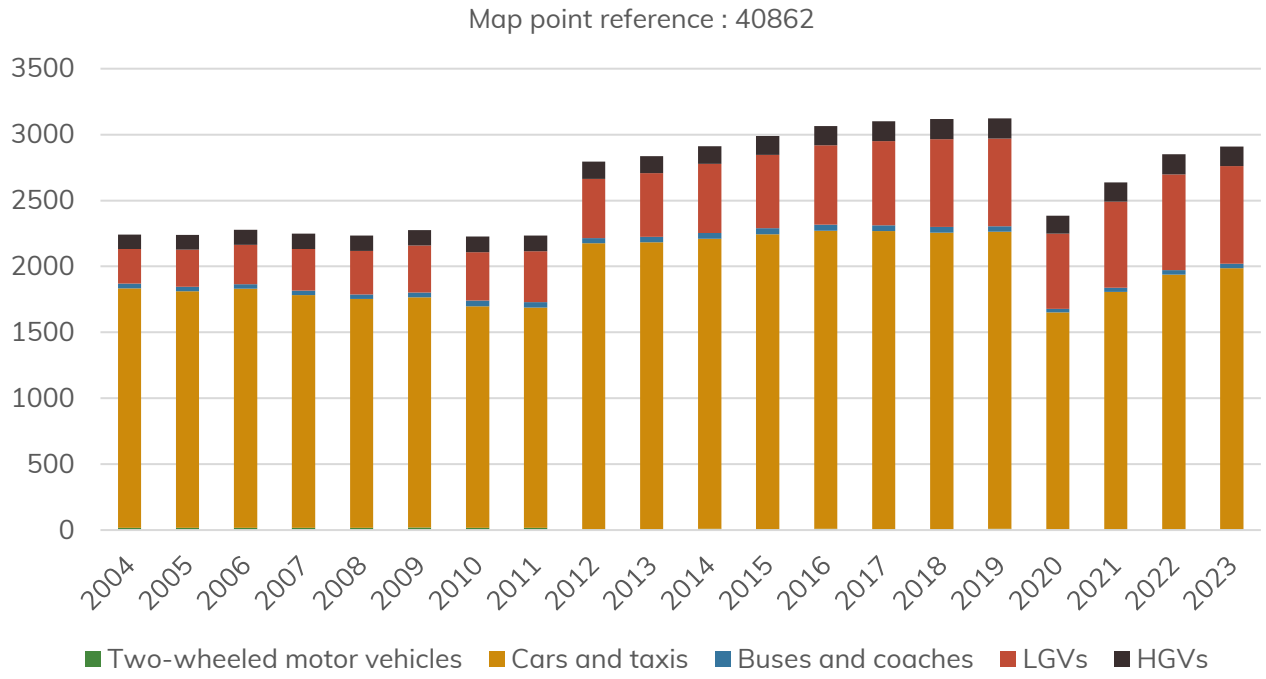


Figure 147 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 40862 on the A93 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024)

Overall traffic at all points along the A93 were lower in 2023 compared to 2019 with the exception of point 30862 (Figure 133) between Braemar and Ballater. Looking at the figures from 2019 pre-pandemic and 2023 across all roads, there appears to be a trend that supports an increase in LGV vehicles on the A93 with the National Park. Over the longer term, there is a reduction in buses and coaches along this road. It is unclear yet whether the figures for 2023 represent a new normal i.e. a reduction in vehicle traffic overall or simply part of the journey to figures seen before the COVID-19 Pandemic. Data for future years should give us a clearer picture of how the COVID-19 Pandemic has affected overall traffic flow numbers, if at all.

A939 traffic flows

The A939 connects the A93 near Bridge of Gairn to the A95 in the north, near Grantown on Spey. It is the main route used to access the village of Tomintoul and The Lecht Ski resort as well as the settlements in Strathdon. Three points on this route have been included in this report to give an indication of the traffic flow conditions along this main route in the National Park.

Point 30988 is near the junction with the A944 between Tor-na-Haish and Gairnshiel Lodge. It should firstly be noted that Figure 148 shows a significant increase in reported figures between 2008 and 2009 as the data line has been corrected with a manual count in 2009. The number of two-wheeled vehicles using the road has remained fairly stable from 2013 to 2019 (within the range of 57 – 62 per day), however post COVID-19 the level seems to be relatively stable at a lower level (47 – 52 per day). The number of cars and taxis is lower in 2023 (470 per day) compared to 2019 when it was reported as 535 per day). Buses and coaches post Covid have reduced slightly, and HGVs per day have remained fairly stable since 2009. The most significant change has been the increase in LGVs reported which has increased 10.9% from 110 per day in 2019 to 122 per day in 2023.

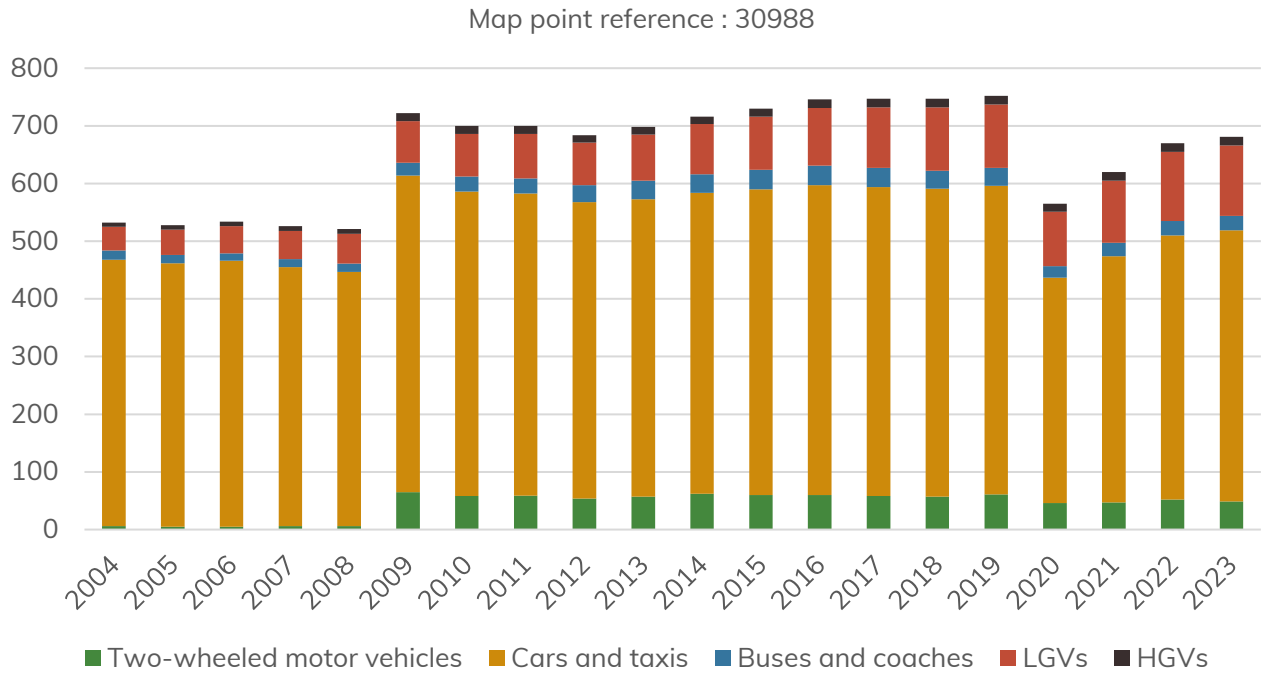


Figure 148 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 30988 on the A939 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

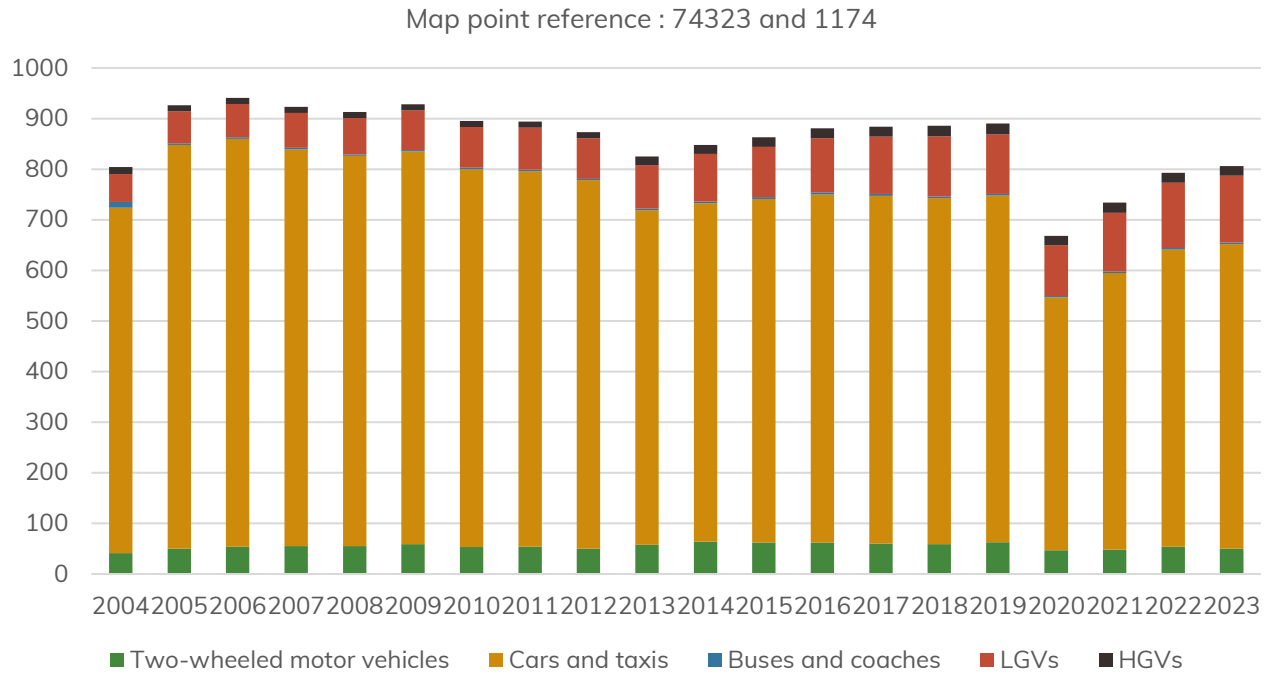


Figure 149 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 74323 and 1174 on the A939 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

There are two points on the A939 offered for statistical analysis, namely points 74323 and 1174 between Ballater and Grantown on Spey that serve, in part, as access routes to the Lecht Ski Centre. The two points are located either side of the Lecht Ski Centre, a popular tourist destination in the National Park. The data is identical for both points as they span the same stretch of road with no significant settlements of alternative destination between them. For the purpose of this report, they will be treated as one set of data. The two points are located either side of the Lecht Ski Centre, a popular tourist destination in the National Park. The data shows that the total number of average annual daily traffic numbers is lower in 2023 compared to 2019, when figures were steadily increasing before the COVID-19 Pandemic. There are significantly less cars and taxis, fewer two-wheeled vehicles and slightly less HGVs when comparing the figures from 2019 to 2023. The number of Buses and Coaches has remained fairly level since 2005 and given the low numbers (2 – 4 buses per day) no significant conclusions can be drawn from the data on buses and coaches. Similar toother roads and point data there has been a reported increase in LGVs throughout the period and from 2019 (118 per day) to 2023 (132 per day).

Point 50868 lies between Tomintoul and the A939 / B9136 junction which connects the A939 with Ballindalloch and the A95 leaving the National Park. In 2023 the combined (all modes of transport) average annual daily traffic flow was 719 per day (Figure 150), significantly lower than Point 20983 (851 per day). Point 20983 sits between the Bridge of Brown and Grantown on Spey on the A939. Both points follow a similar pattern in terms of less cars and taxis reported in 2023 compared to 2019 and an increase in LGV's from 2019 to 2023. In terms of buses and coaches there has been little change reported in the last 5 years and given the low numbers / range little significance can be attributed to the small fluctuations.

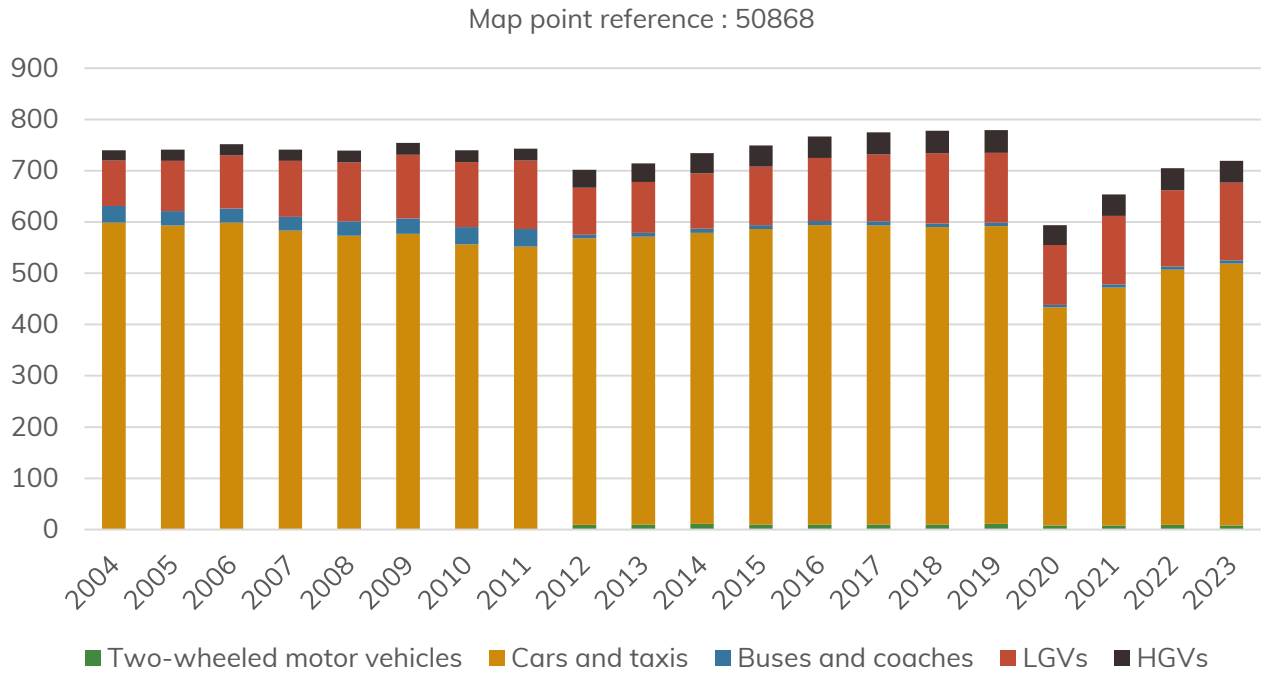


Figure 150 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 50868 on the A939 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

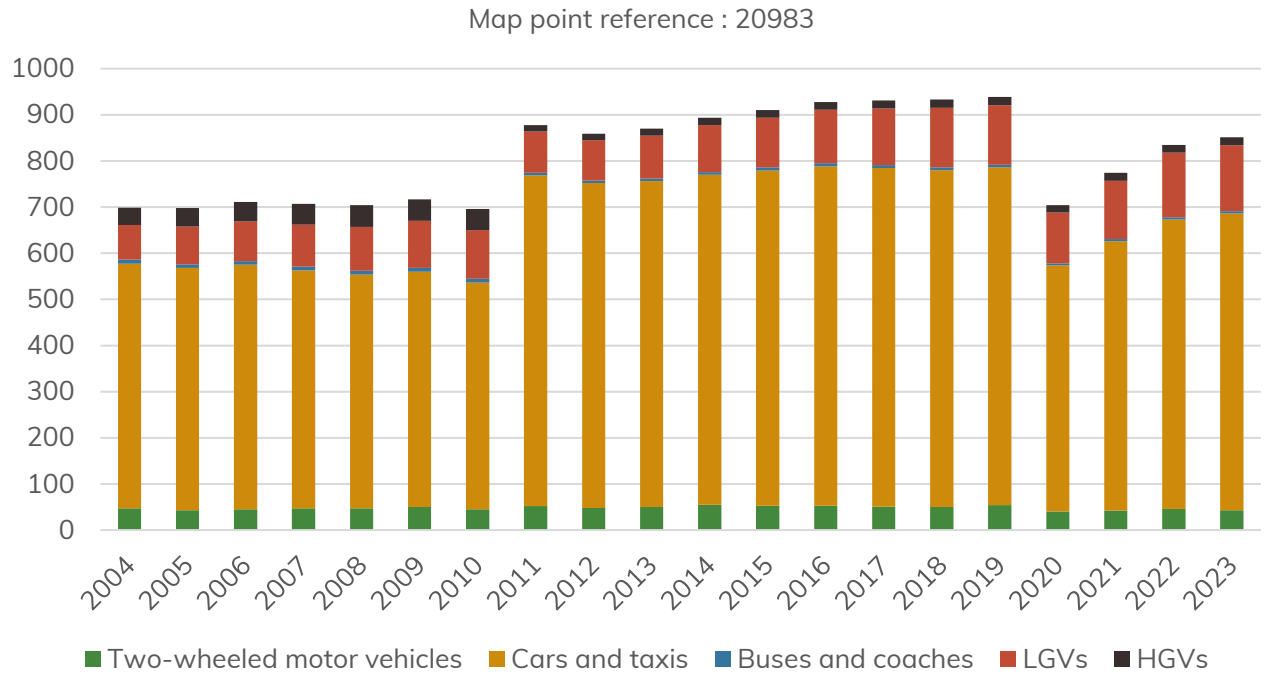


Figure 151 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 20983 on the A939 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

Total traffic on the A939 has reduced since the COVID-19 Pandemic, however it is unclear whether levels will remain lower or surpass the 2019 figures. In any case figures for cars and taxis and LGV's are increasing post Covid on the A939.

A97 traffic flows

The A97 runs from the A93 at Dinnet, exits the National Park briefly and goes north through Logie Coldstone before re-entering the National Park at Pronie Loch and connecting to the A944 between Strathdon and Glenbuchat Castle.

Figure 152 shows the average annual traffic flows for point 10869 (Figure 133) It should be noted that all years except 2009 are estimates for this monitoring point. Looking at 2009 onwards the data suggests little change in the number of cars and taxis or two wheeled vehicles using the road until 2020. From 2020 to 2023 there have been annual increases but the levels of cars and buses, and two-wheeled vehicles are still below the levels in 2019. From 2019 to 2023 there has been little change in the number of HGVs using this road and no change in the number of buses or coaches (which suggests there could be a single bus service using the road daily). The most notable change at this traffic monitoring point is the increase in LGVs, which has been steadily increasing (based on estimated figures) since 2009.

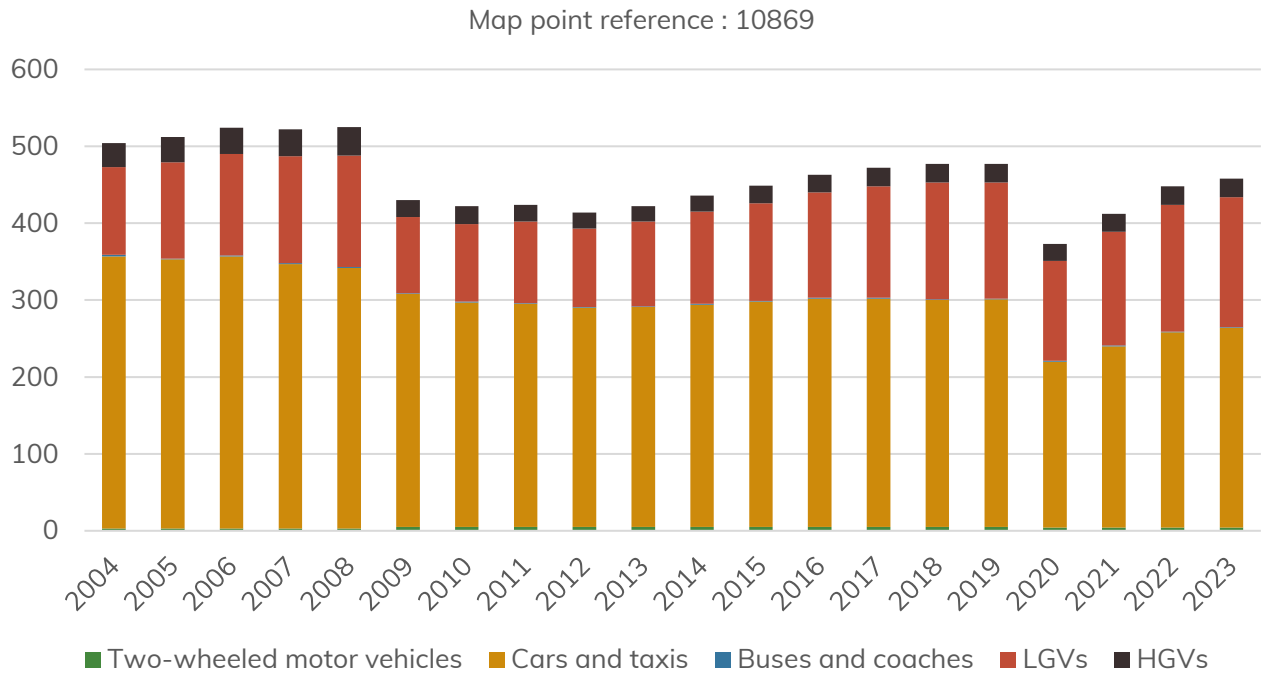


Figure 152 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 10869 on the A97 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024)

A944 traffic flows

The A944 runs from the A939 / A944 junction northwest to the A97. The traffic flow data in Figure 153 is based on estimates for all years except 2006 and 2019. The traffic flow data shown for this road is based on data collected at point 80025 (Figure 133).

The total estimated traffic flows for 2023 are lower than those recorded in 2019. Using the 2006 and 2019 years (manual / counted data) for comparison of longer-term change there has been significant increases in two-wheeled vehicles from 6 per day in 2006 to 21 per day in 2019, and a marked reduction in buses and coaches from 7 per day in 2006 to 3 in 2019. Between 2019 and 2023 there has been a slight estimated increase in LGVs, while the number of HGVs per day has remained relatively stable. The number of car and taxis using the road in 2023 (368 per day) is estimated to be lower than those recorded in 2019 which was 419.

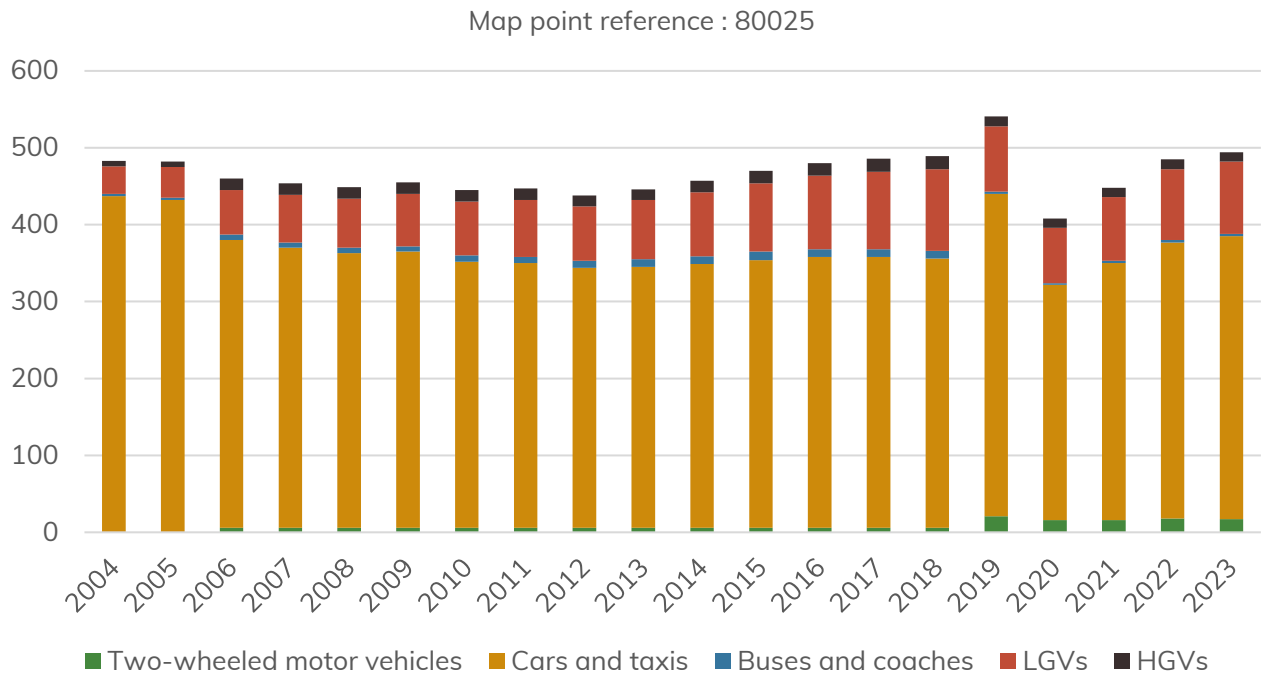


Figure 153 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 80025 on the A944 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

A96 traffic flows

The A86 starts at the A9 junction at Kingussie connecting to Spean Bridge southwest and outwith of the National Park where it connects to the A82. The count point (10847, see Figure 133) is located between Kingussie and Newtonmore. The years which actual physical counts were performed (as opposed to estimated data) was in 2015, 2021, 2020, and 2023.

Figure 154 shows that at point 10847 the numbers of two-wheeled vehicles and buses and coaches have remained relatively stable between 2015 and 2023 (with the exception of a reduction in two-wheeled vehicles in 2020). The largest gains in vehicle category accounting for an increase in traffic on this road are the modest increases in HGVs (26% increase between 2015 and 2023) and an increase in LGVs (increasing by 52% from 2015 to 2023). The number of cars using the A86 has increased since 2015 when 622 per day were counted which in 2021 was recorded at 661 per day and has been steadily increasing to 2023 (682 per day).

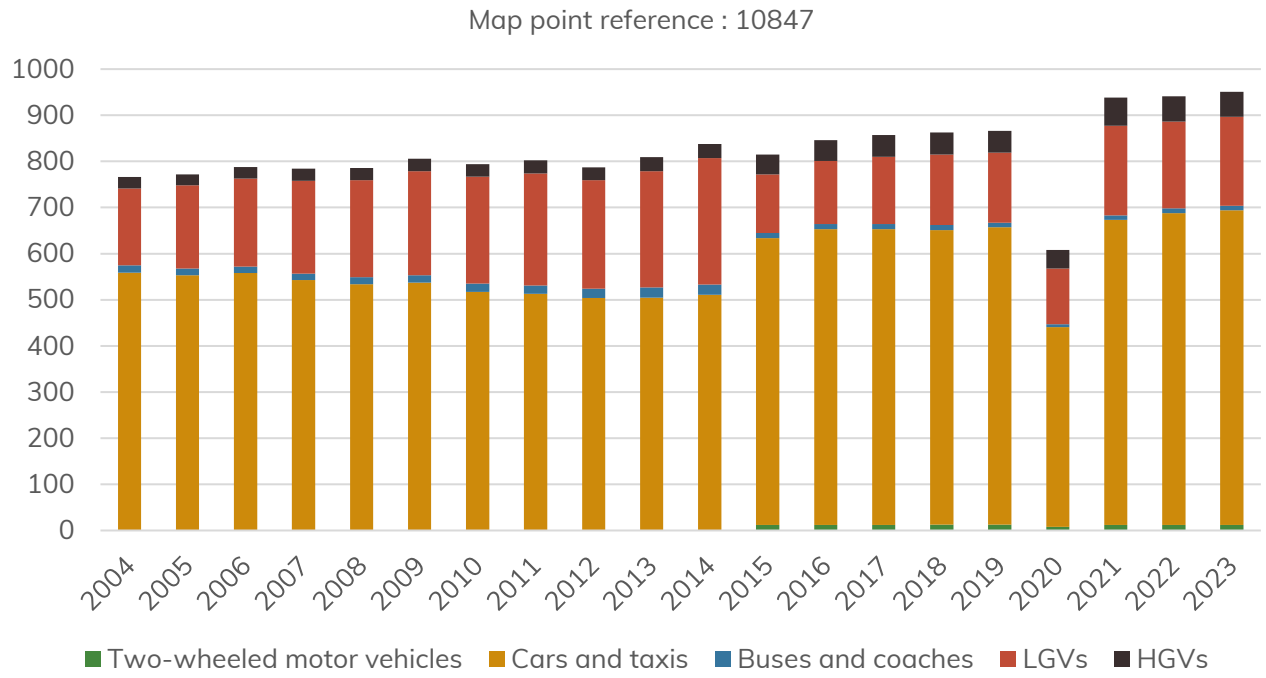


Figure 154 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 10847 on the A96 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024).

A889 traffic flows

The A889 exits the A9 just south of Dalwhinnie and joins the A86, between Laggan and Strathmashie. The data for point 20954 is based on estimated data until 2015 when a manual count was undertaken, further automatic counts were undertaken in 2022 and 2023 (Figure 155). For the purposes of analysis here, the report will comment on the data between 2015 to 2023. As has been the case with all the data shown for traffic flows, in 2020 during the COVID-19 Pandemic there was a reduction in all modes of transport.

Between 2015 and 2023, there has been little change in the number of buses and coaches or two-wheeled vehicles using the road. The number of car and taxis (+5.6%) has been steadily increasing as have the number of HGVs for the same period (+19.7%). The largest increase in vehicles between 2015 and 2023 using the road has been LGVs which has increased 46.6% from 2015 to 2023 (from 73 per day to 107 per day).

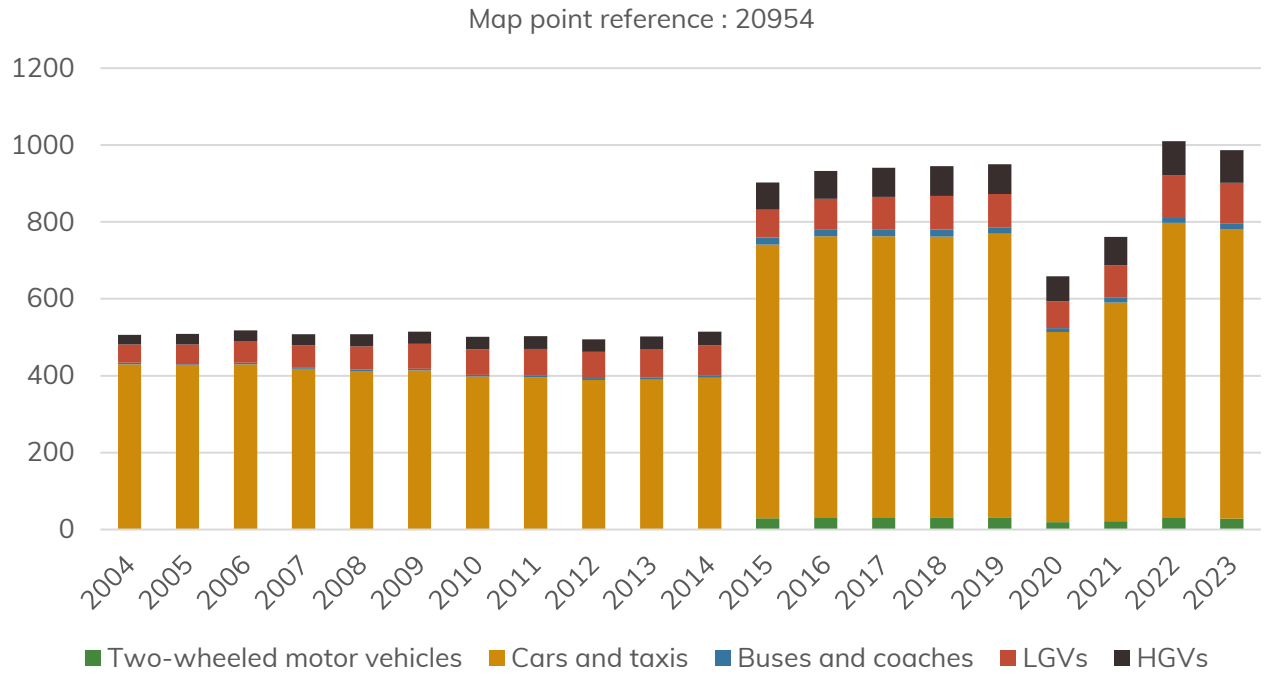


Figure 155 Average Annual Daily Traffic (AADT) numbers for all motorised vehicles in both directions at point 20954 on the A889 in the Cairngorms National Park from 2004 to 2023. (UK Department for Transport, 2024)

Road safety

Road traffic collision data has been obtained from Police Scotland for the purposes of this report as the data obtained from the Department of Transport did not contain specific location data which enabled it to be used in isolating the collision data pertaining to the geography of the Cairngorms National Park. During 2019 Police Scotland adopted the CRaSH (Collision Recording and Sharing) data recording and management solution. This is one of the first national IT solutions implemented by Police Scotland, which is also used by over half of the police forces in England and Wales. In light of this the data presented here is for the period of January 1 2020 to 3 March 2024. Further supporting information about the data used in the summary for road collision within the National Park can be viewed here:

- https://www.scotland.police.uk/about-us/how-we-do-it/road-traffic-collision-data/

Collision data within the National Park

Figure 156 shows the spatial distribution of road traffic collisions in the Cairngorms National Park from 1 January 2000 to 3 March 2024. Looking at the data for this period seven fatalities (50%) out of the total 14 fatalities occurred on the A9. Two fatalities were recorded on the A93, with one on each of the following roads: B970, A939, A938, A95 (and one on an unclassified road). 82.1% of all collisions occurred on A roads.

Of all the reported collisions covering this period on all roads in the National Park; 60 or 42.9% were located on the A9 (Figure 156). 17 collisions of varying were reported on the A939 representing 12.1% of all collisions in the National Park.

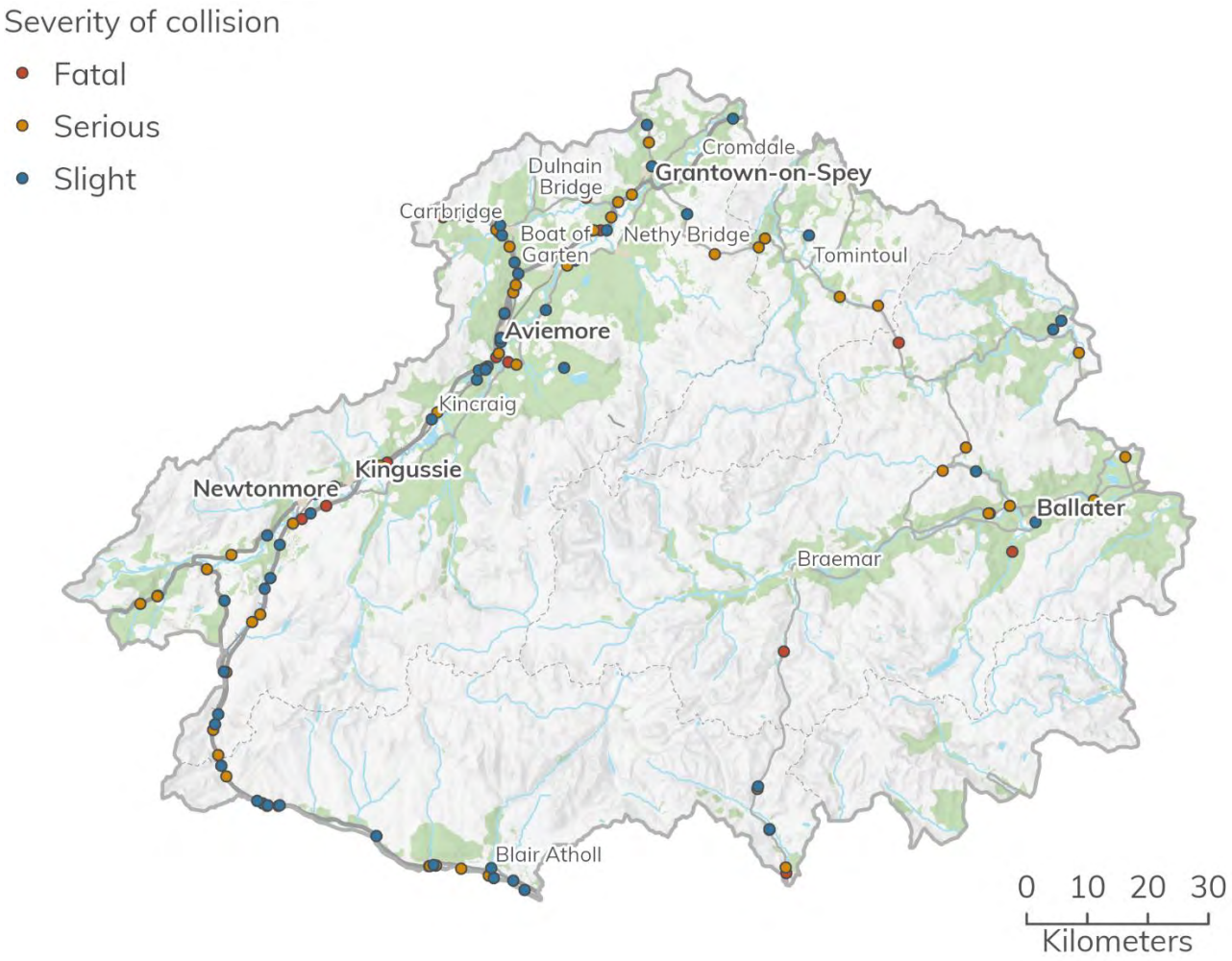


Figure 156 Reported road traffic collisions, by severity and location, reported to Police Scotland from January 2020 to 3 March 2024. Contains data from Police Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Complete data is not yet available for 2024 so Figure 157 shows the year-on-year data for collisions reported to Police Scotland for 2020 to 2023 in the National Park. Overall, the number of collisions in the Road traffic collisions in the National Park has increased from 31 in 2020 to 40 in 2023. No discernible trends are evident in the number of fatal or slight injuries resulting in collisions in the National Park from 2020 to 2023, however the number of serious injuries caused by collisions is increasing.

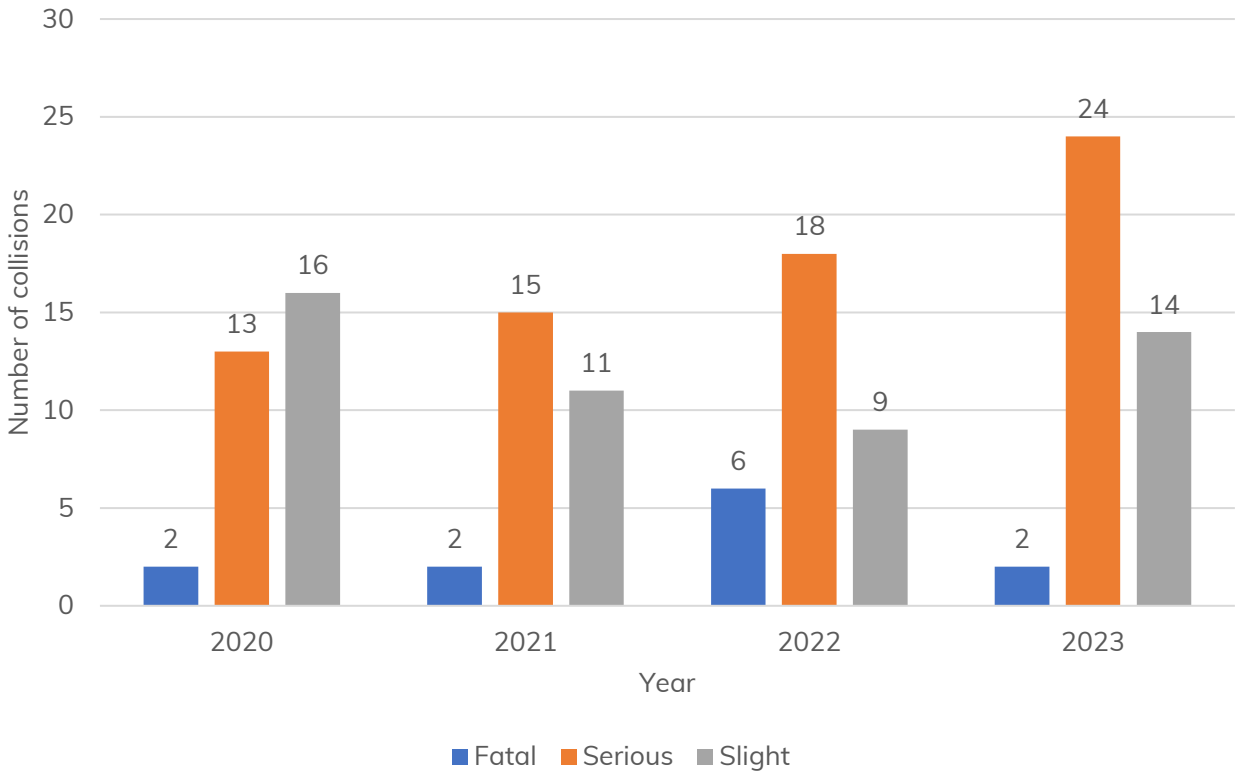


Figure 157 Reported road traffic collisions, by severity and location, reported to Police Scotland from January 2020 to 31 December 2023

The data provided by Police Scotland also shows there were six collisions reported to have involved cyclists between 1 January 2020 and 31 December 2023.

Collision data for the A9 between Peth and Inverness

This section looks at the collision data obtained by Police Scotland for the Stretch of the A9 from Perth to Inverness from 2013 to 2023. The A9 is a major route and connecting road used by residents in the National Park travelling and commuting to locations and cities outside the National Park as well as Visitors visiting the Park. Collisions on the A9 outwith the National Park affect users of the road accessing or leaving the National Park, affecting journey times and accessibility of the closest cites, namely Perth and

Inverness. In relation to Inverness, this is particularly important as Inverness is the location of both the closest airport and main hospital for the NHS Highland Health Care area.

Data has been obtained from an FOI request[66] , on the public record regarding information relating to traffic volumes, road traffic accidents, for road number A9 Perth to Inverness from 2011 to 2022.

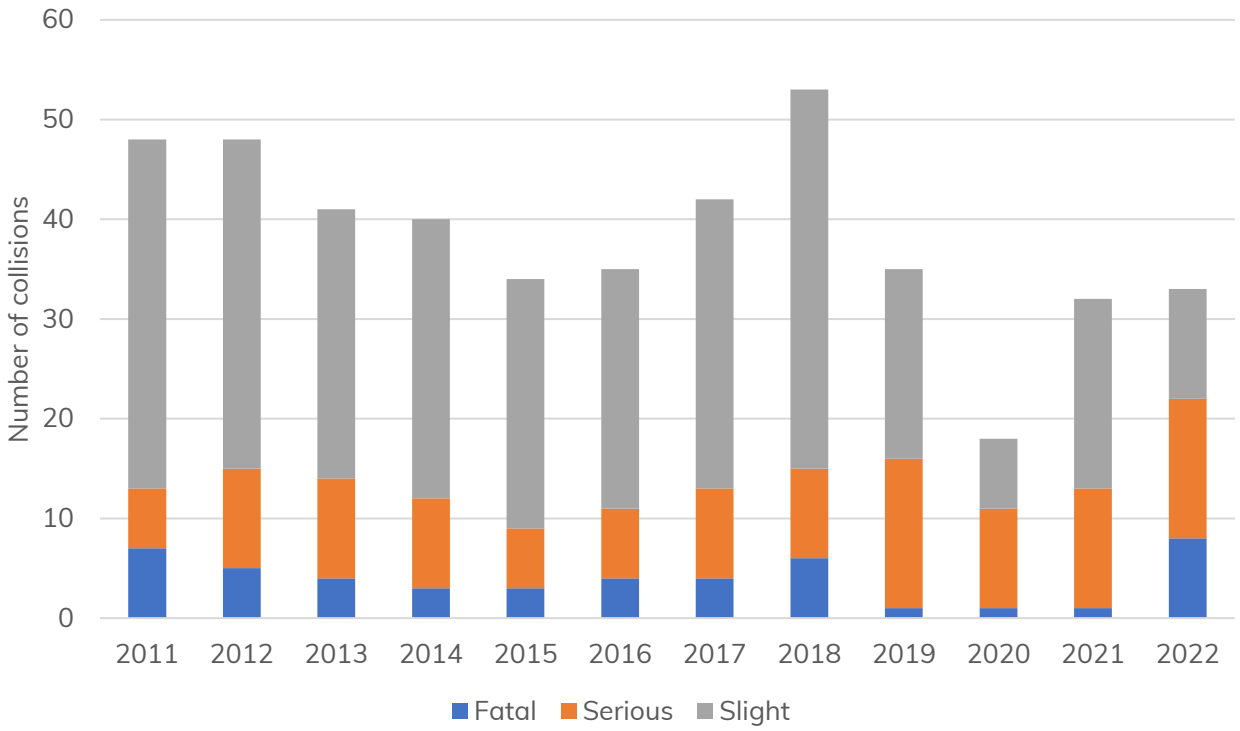


Figure 158 The number of collisions by severity; fatal, serious and slight on the A9 between Perth and Inverness from 2011 to 2022. Police Scotland, 2023.

Figure 158 shows that the number of reported collisions over the period of 2011 to 2022 (as reported by Transport Scotland[67]) has varied with no discernible trend evident. From 2013 to 2015 there appeared to be decreasing trend, however the number of collisions recorded in 2018 was higher than any previous years. Less accidents were recorded in 2019, far fewer in 2020 due to the COVID-19 Pandemic with a further increase in 2021 (after restrictions on travel had been lifted). In 2022, the overall number of collisions were only slightly higher than in 2022.

[66] https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.scotland.police.uk%2Fspa-media%2Fbq3nggow%2F23-0300-dl-response.docx
[67] https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.scotland.police.uk%2Fspa-media%2Fbq3nggow%2F23-0300-dl-response.docx

The data on the number fatalities per year is presented separately in Figure 159. 2022 was particularly bad for collisions that resulted in fatalities with 8 deaths on the A9 between Perth and Inverness. It is hard to establish a meaningful trend from the last five years with regard to Road Safety data pertaining to collisions due to the effect on Road traffic numbers of the COVID-19 Pandemic. Data in subsequent years will provide a more comprehensive picture of any emerging trends post-pandemic.

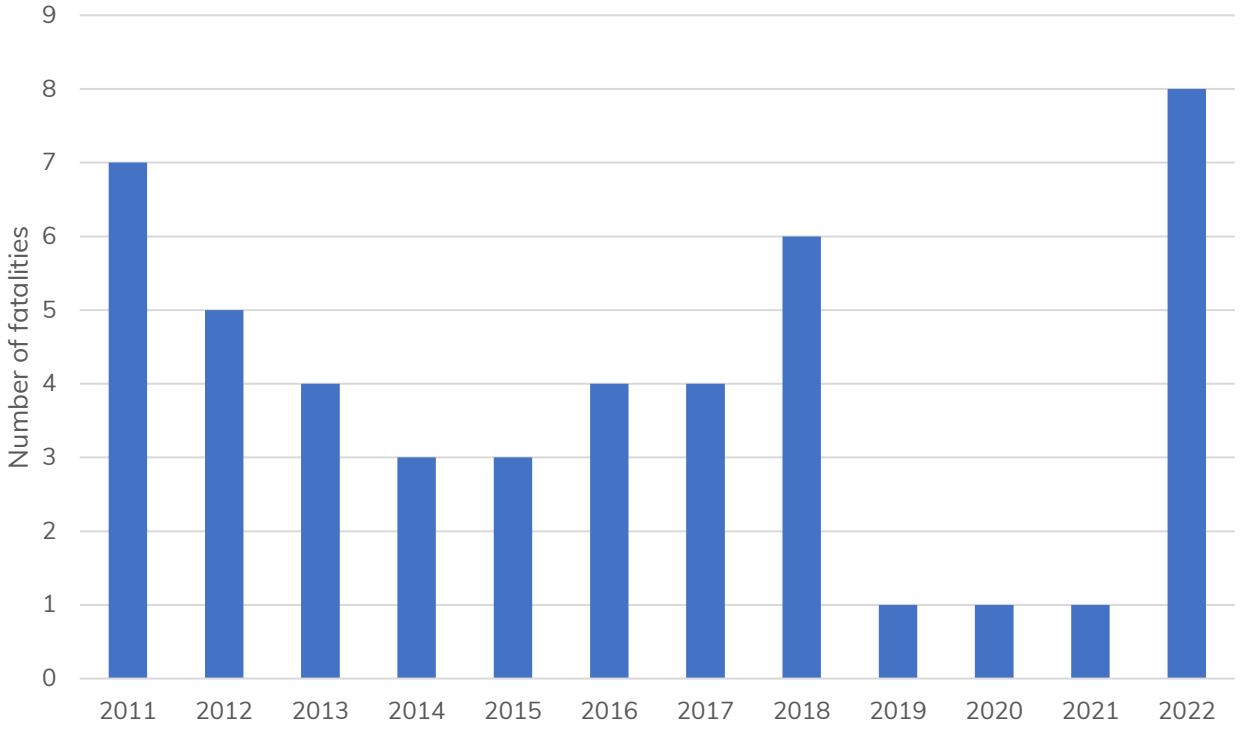


Figure 159 Number of fatalities on the A9 between Perth and Inverness from 2011 to 2022. Police Scotland 2023.

As previously mentioned in 2019, Police Scotland introduced a new system for recording traffic collisions. Due to improved recording and categorisation processes, it is expected that there will be an increase in the number of casualties and accidents on Scottish roads that are classified as serious. The evidence from other police forces within the UK that introduced the same system is that this increase will be around 20%. This increase would not affect an actual change in the severity of accident occurring on Scottish roads but would instead reflect more accurate recording. Statisticians within the Department for Transport have devised a method for adjusting the road casualty figures to ensure that they can be compared over time on a consistent basis.

Scottish Public Health Observatory: road traffic casualties

This document also briefly discuss road traffic casualties as presented by the Scottish Public Health Observatory at an intermediate data zone level.

Figure 160 shows the data for patients discharged from hospital after an emergency admission or died as a result of a road traffic accident (based on three-year aggregates age-sex standardised rate per 100,000 population). For the latest period up to 2021 to 2023 the areas covering Badenoch and Strathspey North and South presented higher numbers of patients discharged from hospital after an emergency admission or died as a result of a road traffic accident (67.4 people and 116.9 people respectively) than national average figures (51 people per 100,000). For the latest period up to 2021 to 2023 the areas covering Badenoch and Strathspey North and South (Figure 160) presented higher numbers of patients discharged from hospital after an emergency admission or died as a result of a road traffic accident (67.4 people and 116.9 people respectively) than national average figures (51 people per 100,000). In the area of East Cairngorms, the figure for the same period was recorded at 34.5 people per 100,000, and the lowest ranking area was the Badenoch and Strathspey area, where there were just 21.1 people per 100,000 discharged from hospital after an emergency admission or died as a result of a road traffic accident.

Overall, since 2002 – 2022 and 2021 – 2023 the numbers of people patients discharged from hospital after an emergency admission or died as a result of a road traffic accident have fallen in all areas and nationally, however the data shows fluctuations in figures, most evident in the East Cairngorms area (Figure 160). Overall, through the greatest reduction has been in the East Cairngorms area from a high of 309 people discharged from hospital after an emergency admission or dying as a result of a road traffic accident in 2002 – 2004 to 34.5 people in 2021 to 2023. The smallest change can be seen Badenoch and Strathspey South from 121.5 people discharged from hospital after an emergency admission or dying as a result of a road traffic accident in 2002 – 2004 to 116.9 people in 2021 to 2023 (Figure 160).

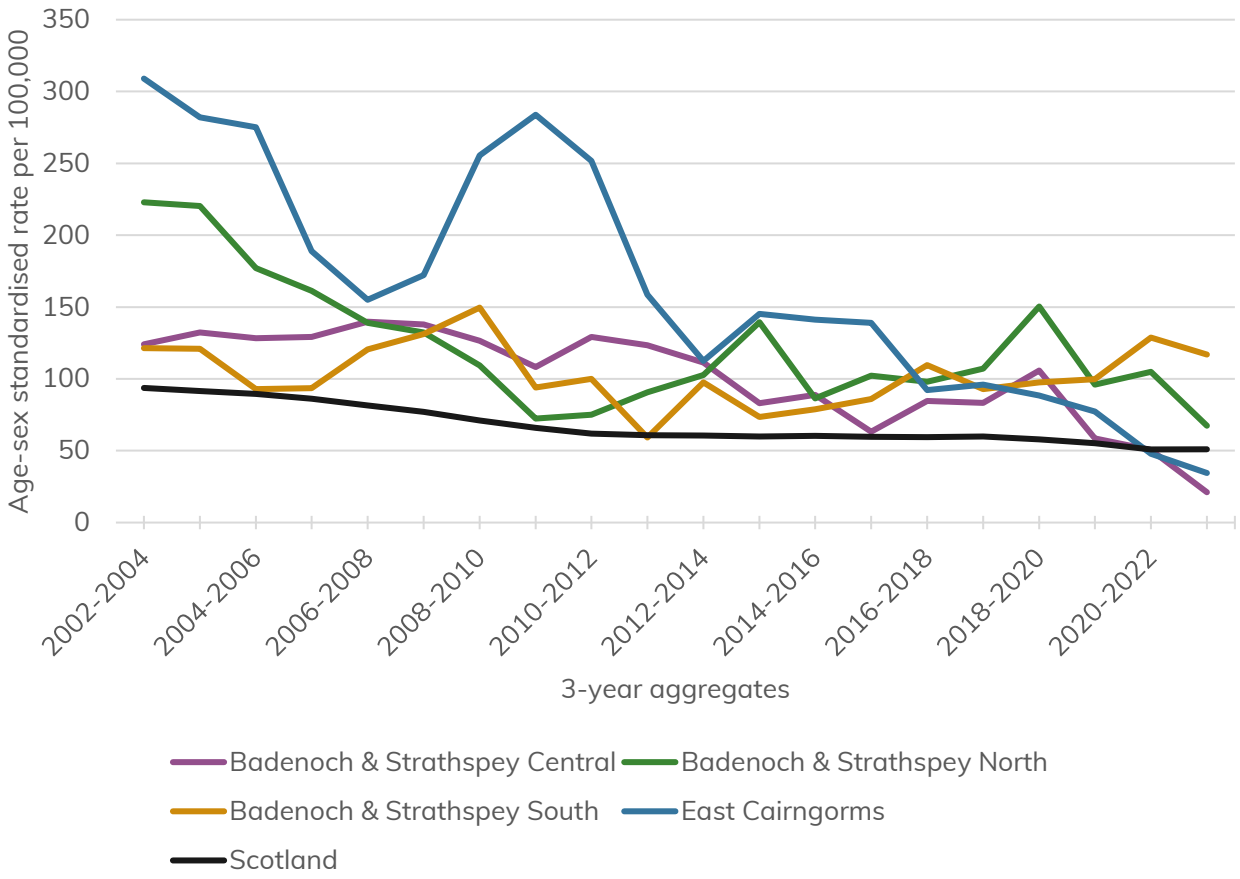


Figure 160 Road traffic accident casualties - patients discharged from hospital after an emergency admission or died as a result of a road traffic accident: 3-year aggregates age-sex standardised rate per 100,000 population. Scottish Public Health Observatory data.

Publicly owned and managed parking

Parking in the National Park is operated and maintained by a number of organisations including local councils, Forestry and Land Scotland, community groups and trusts and private estate and landowners.

Highland

Table 30 shows the off-street car parks operated by Highland Council in the Badenoch and Strathspey area of the National Park.

Table 30 Off-street car parks in the Badenoch and Strathspey area of the National Park managed by Highland Council.

Car park Reference	Location	Name	Primary Purpose	Car spaces	Coach spaces	Pay (Y / N)
CP0001	Carrbridge	Ellan Wood Car Park	Walk	6	0	N

Car park Reference	Location	Name	Primary Purpose	Car spaces	Coach spaces	Pay (Y / N)
CP0002	Aviemore	Grampian Road Car Park	Shopping	50	0	Y - Pay and display
CP0003	Carrbridge	Village Car Park	Visitor	30	0	N
CP0004	Grantown on Spey	High Street Car Park	Shopping	30	0	N
CP0005	Grantown on Spey	Spey Avenue Car Park	Visitor	20	0	N
CP0006	Grantown on Spey	Village Car Park	Visitor	30	0	N
CP0007	Kingussie	Ardvonie Car Park	Community	50	0	N
CP0008	Kingussie	Church Car Park	Community	50	0	N
CP0009	Kingussie	Spey Street Car Park	Visitor	35	0	N
CP0010	Newtonmore	Glen Road Car Park	Shopping	14	0	N
CP0011	Newtonmore	St Brides Parish Church Car Park	Community	10	0	N

Perth and Kinross

Perth and Kinross Council do not currently operate any parking in the National Park[68] (Blair Atholl). Just outwith Blair Atholl, to the north is the Glen Tilt Car Park near the old bridge of Tilt.

Moray

Moray Council operate and maintain the Tomintoul Main Street Car Park. It can accommodate 25 cars, and includes 1 disabled space.

Aberdeenshire

Aberdeenshire council operate and maintain the main car parks in Ballater and Braemar[69] (Table 31).

Table 31 Car parks managed by Aberdeenshire Council in the National Park.

[68] See https://www.pkc.gov.uk/article/20720/Map-of-car-parking
[69] See https://www.aberdeenshire.gov.uk/roads-and-travel/car-parking/car-parks/

Location	Name	Car spaces	Lorry / bus / over-sized vehicle spaces	Disabled spaces	Pay (Y / N)
Ballater	Church Square Car Park	40	7 (x2 oversized vehicle spaces)	2	N
Ballater	Station Square (Front) Car Park	16	0	2	N
Ballater	Station Square (Rear) Car Park	28	0	0	N
Braemar	Balnellan Road Car Park	31	0	3	N
Braemar	The Mews Car Park[70]	18	2	3	N

Dedicated tourism and outdoor access parking

There are a number of further car parks available in the National Park serving both visitors and locals accessing the outdoors.

Forestry and Land Scotland own and manage car parking at Loch Morlich and Glenmore.

There are a number of other formal and informal parking areas in the National Park, for example the parking in Grantown on Spey by the River Spey and next to Anagach Woods, these are managed by the respective landowners or Trusts responsible for the area.

Electric vehicles

According to UK vehicle licensing statistics, at the end of March 2024 there were 97,856 (Figure 161) plug-in electric vehicles (which includes hybrids petrol and diesel or purely electric cars) registered in Scotland. This is a significant increase in terms of numbers over the last five years, at the end of March 2019 there were 13,202 electric vehicles registered, representing a 641% increase.

The majority of the total electric plug-in vehicles quoted above are electric plug-in cars, which increased from 11,586 to 93,035 over the last 5 years (end of March 2019 to end of March 2024) representing an increase of 703.0%. During the last five years (end of March 2019 to end of March 2024) electric buses and coaches have increased from 26

[70] There are also 14 non-covered cycle spaces.

to 580 (+2130.8%), electric light good vehicles have increased from 540 to 3,244 (+500.7%) and electric heavy goods vehicles have increased from 5 to 32 (+540%).

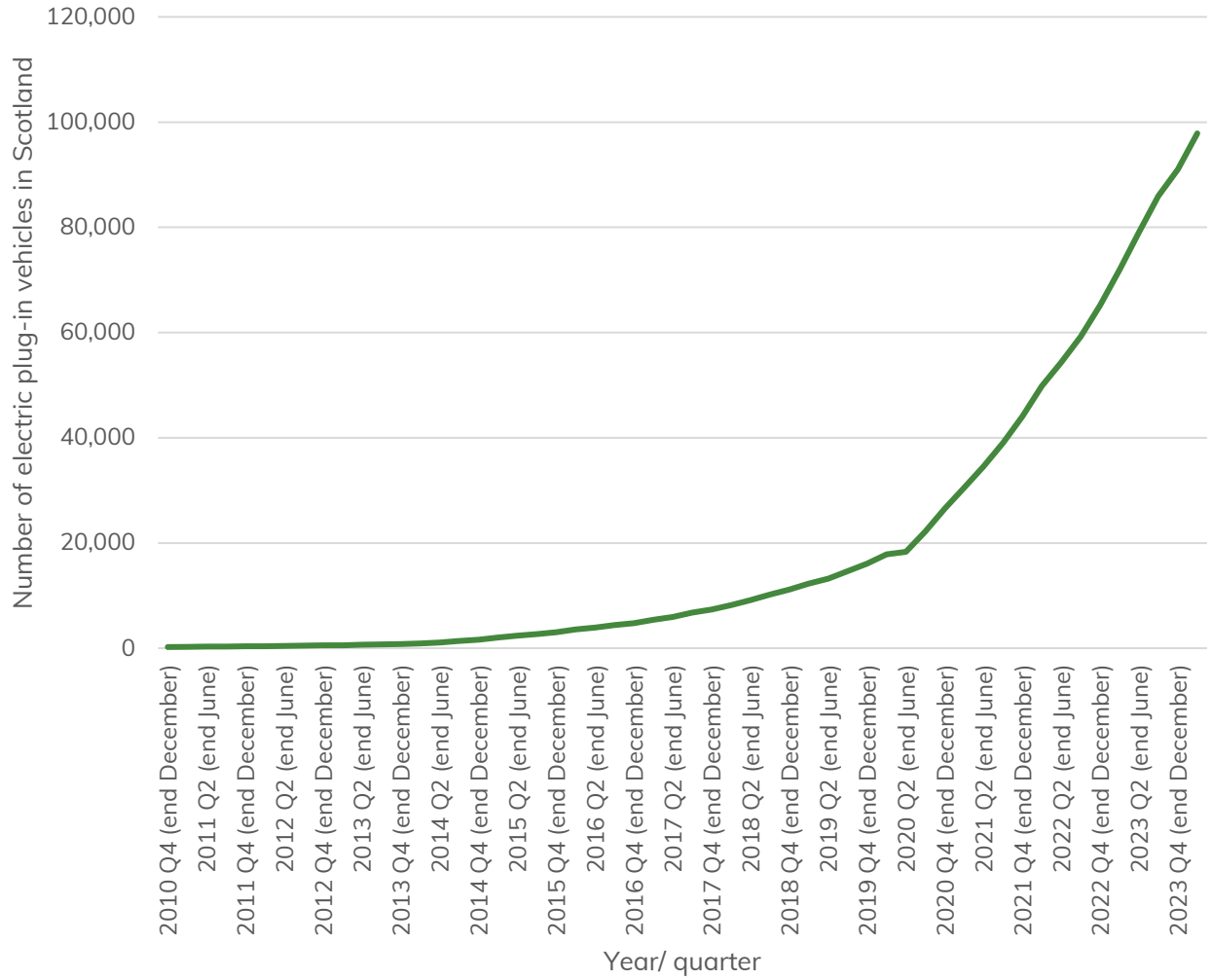


Figure 161 Total number of plug in electric, and hybrid plug in vehicles for all vehicle types registered in Scotland from 2021 to March 2024. Department for Transport (Department of Transport and Driver and Vehicle Licensing Agency (DVLA).

Scotland's public charging network comprises almost 4,000 public charge points[71] , and provides the greatest coverage of charge points per head of population than any other region of the UK outside of London. Over the coming years the network will need to continue to scale-up and grow at pace to meet the needs of a mass electric car and van fleet. The right type of charging infrastructure needs to be available in the right number and at the right locations across all areas of Scotland where it is required, making charging as convenient and reliable as possible to meet the needs of local communities,

[71] Zap Map data 31 May 2023, quoted in the Vision for Scotland's Public Electric Vehicle Charging Network.

businesses and visitors. As a popular visitor destination, the Cairngorms National Park needs to ensure it can provide a sufficient electric vehicle (EV) charging network to not only cater for residents, but also the increasing number of visitors the National Park receives.

Scotland set out their vision for delivery of the EV charging network in 'a network fit for the future: Vision for Scotland's public electric vehicle charging network, in June 2023. Scottish Government aim to build upon the progress made over the past decade with the ChargePlace Scotland network, and move beyond that strategy, to an approach centred on accelerating private investment in the public charging network, at scale and pace, across the length and breadth of Scotland. The vision sets out the acknowledgement that the network needs to be financed, grown and operated by the private sector as well as being integrated within a clean, green electricity system, harnessing Scotland's abundant renewable energy resources.

The report: My Life in the Highlands and Islands by the Highlands and Islands Enterprise (HIE)[72] found that, in 2022, 7% of households had already bought or leased an EV / hybrid, with a further 6% planning to do so in the next 2 – 3 years, with a further 24% 'considering' an EV. The main barriers to uptake were noted as:
High capital cost of these vehicles.
The availability of public EV charging.
Low range of current models.

Current EV Charging Infrastructure
Figure 162 shows the EV charging provision in the Cairngorms National Park based on the available data. There are EV charging points at all the strategic settlements and within or near to over half of the intermediate settlements; namely Boat of Garten, Braemar, Kincraig (Insh), Tomintoul and Blair Atholl (Castle). The settlements of Dinnet and Laggan both have accessible EV Chargers.

It should be noted that the large number of connections available in Grantown on Spey for employees represents the offices of the Cairngorms National Park Authority. Kingussie has the best provision of publicly accessible EV charging connections compared to other settlements in the National Prak. Aviemore has more connections overall with a large majority of the provision being met by hotels, resorts and other recreation businesses offering charging facilities to customers.

[72] See https://www.hie.co.uk/research-and-reports/our-reports/2022/october/13/myliferesearch/

It is worth noting that currently none of the rail stations in the National Park offer EV charging provision. Also, although Glenshee Ski Resort did historically advertise EV charging being available for its patrons, it currently does not nor does Cairngorm Mountain.

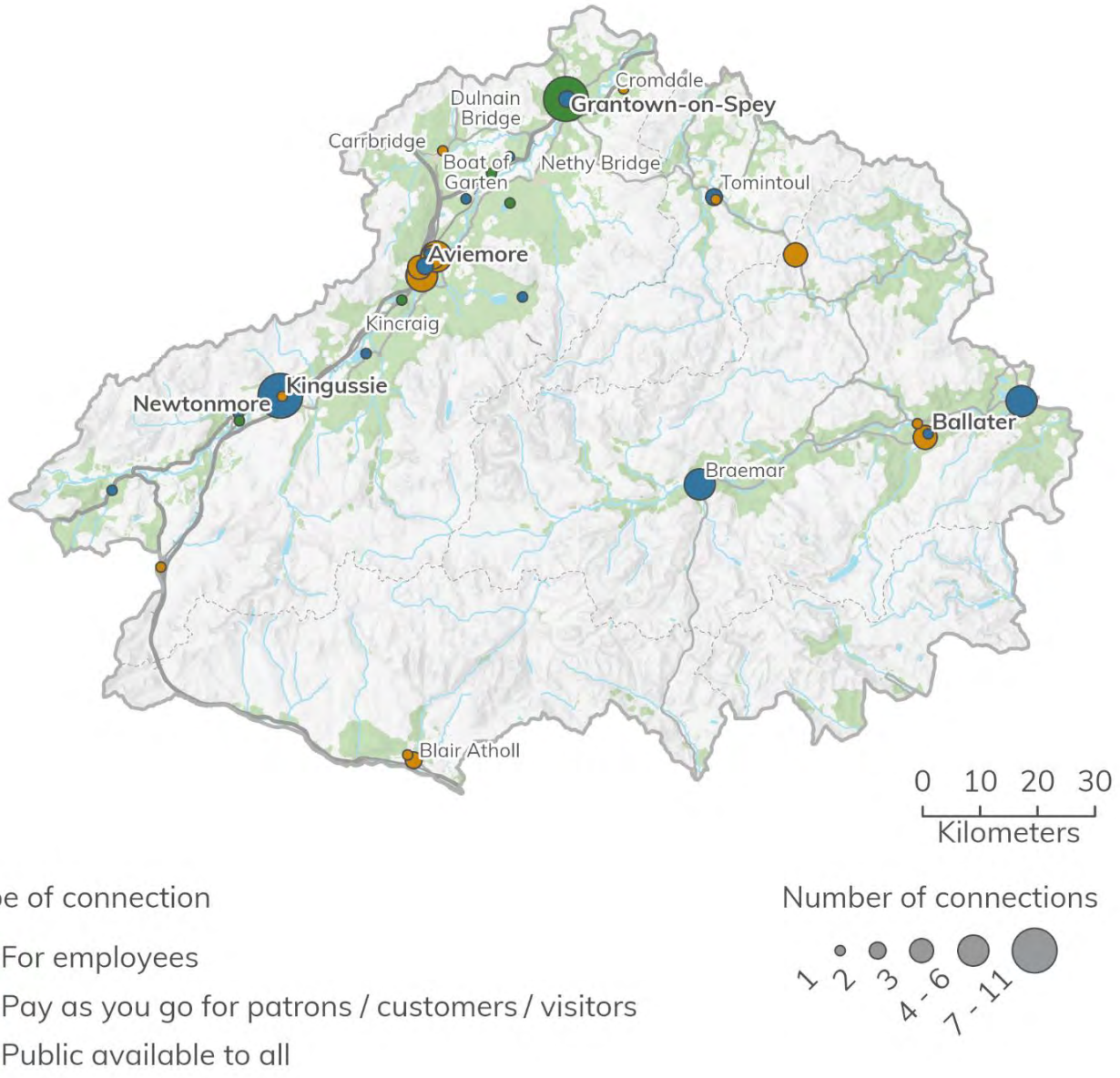


Figure 162 EV Charging provision (on readily available public data) within the Cairngorms National Park as of August 2024. Data obtained from Zapmap, Carwow, ChargePlace Scotland and ABRP websites, 20 August 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The majority of the EV charging points are owned and managed by ChargePlace Scotland (which is part of the Swarco network). ChargePlace Scotland is a publicly

owned and operated network of EV charging points. There are however numerous other providers including Tesla, Pod Point, Connect, Cora-Colt, Rich-Elmo and Joel-Olaf.

The ChargePlace Scotland network will not be funded after 2025 at the latest, although the Scottish Government is seeking to retain a single access method across any additional networks. Funding is also transitioning from public to private investment. All local authorities are therefore being encouraged to work together to develop strategies to attract private investment in EV infrastructure.

There is also a wide range of charging prices across the various points ranging from free at Loch Insh to 85p per kW (peak price) at the Aviemore Petrol Station on Grampian Road.

There are four types of chargers available across all locations: tesla chargers, CHAdeMO, Type 2 and CCS connections. There are also two points in Blair Atholl which have untethered connection where users need to bring their own cables.

Charging capacity also differs significantly across the National Park from 7kW up to 150 kWh (Tesla and CCS only).

Table 32 Electric Vehicle (EV) charging locations in the Cairngorms National Park (August 2024).

Settlement	Available connections	Cost details	Provider	Address
Aviemore	2 x Type 2 22kW	£0.45 per kWh. Minimum charge of £1.00. Connection fee of £1.00. An overstay fee of £5.00 applies after 3 hours.	ChargePlace	Wilderness Scotland Ltd, Dalfaber Industrial Estate, Aviemore
Aviemore	1 x Type 2 43kW 1 x CCS 50kW 1 x CHAdeMO 50kW	£0.70 per kWh. Minimum charge of £1.00. An overstay fee of £1.00 per minute applies after 45 minutes.	ChargePlace	Public Toilet Car Park, B9152 Grampian Road, Aviemore
Aviemore	2 x CCS (Up to 150kW)	85p/kWh	BP Pulse	Aviemore Petrol Station

Settlement	Available connections	Cost details	Provider	Address
Aviemore	4 x Type 2 22kW	One of connection fee of 50p then 55p per kWh	EVC	Macdonald Spey Valley Resort, Aviemore, PH22 1ST
Aviemore	6 X Type 2 22kW	58p per kWh + 50p connection fee	EVC	Spey Valley Aviemore Golf Club, Dalfaber Drive, Aviemore, PH221ST
Aviemore	4 X Tesla (Up to 120kW)	Payment: Tesla Public Supercharger	Tesla	MacDonald Highland Resort, Aviemore, Scotland, PH22 1PN
Aviemore	4 X CCS (Up to 150kW)	Unknown	Unknown	MacDonald Highland Resort, Aviemore, Scotland, PH22 1PN
Ballater	2 x Type 2 22kW	47p per kWh / 27p per kWh 8pm-8am	ChargePlace	Church Square Car Park, Ballater, Aberdeenshire , AB35 5NE
Ballater	2 x Type 2 22kW	Connection fee - 50p, then 60p per kWh	EVC	Ballater Golf Club, Victoria Road, Ballater, AB35 5QX
Ballater	2 x Type 2 22kW	Connection fee - 50p, then 60p per kWh	EVC	Ballater Golf Club, Victoria Road, Ballater, AB35 5QX

Settlement	Available connections	Cost details	Provider	Address
Ballater	Type 2 11 kW	No payment info	EVC	Craigendarroch Lodges, Ballater, AB35 5XA
Blair Atholl	3 x Type 2 7kW	30p / kWh – Untethered connection. Users need their own cable.	Cora-Colt	Blair Castle Caravan Park, Blair Atholl, PH18 5SR
Blair Atholl	2 x Type 2 7kW	30p per kWh – Untethered connection. Users need their own cable.	Pod Point	Blair Atholl Castle, Blair Atholl, PH18 5TH
Boat of Garten	2 x Type 2 22kW	£0.35 per kWh. Minimum charge of £2.00.	ChargePlace	Reidhaven Park Boat of Garten, PH24 3BL
Braemar	1 x Type 2 44kW 1 x CCS 43kW 1 x CHAdeMO 43kW	47p per kWh. Overstay fee of £30.00 applies after 1 hour	ChargePlace	Balnellan Road Car Park, Braemar Braemar, AB35 5YE
Braemar	2 x Type 2 22kW	47p per kWh / 27p per kWh 8pm-8am	ChargePlace	Balnellan Road Car Park, Braemar Braemar, AB35 5YE
Carrbridge	2 x Type2 22 kW	One of connection fee of 50p then 55p/kWh	EVC	Lochanhully Resort, PH23 3NA
Cromdale: Lochan Lodge (Tesla)	1 Tesla Connectors up to 13kW.	Free for Tesla customers, 24 / 7. Self-Park.	Tesla	Balnafettach Estate, Cromdale, PH26 3LW

Settlement	Available connections	Cost details	Provider	Address
Dalwhinnie	Type 2 7kW	Payment details unknown	Other	Tronius Apiary Cafe, Station Road, Dalwhiniie, PH19 1AB
Dinnet	1 x Type 2 7kW	180p per kWh for the first kWh then 30p/kWh. Min Charge £1.50	ChargePlace	Loch Kinord Hotel Aboyne, Ballater Road, AB34 5LW
Dinnet	2 x Type 2 7kW 2 x Type 2 11kW	180p per kWh for the first kWh then 30p per kWh. Min Charge £1.50	ChargePlace	Loch Kinord Hotel Aboyne, Ballater Road, AB34 5LW
Drumuillie	2 x Type 2 22kW	Not Available - employer charging	Zap-work	Pilmuir, Drumuillie, Scotland, Boat of Garten, PH24 3BX
Glenmore Lodge	2 x Type 2 22kW	40p per kWh	ChargePlace	Glenmore Lodge, Aviemore, Highland, PH22 1QZ
Grantown On Spey	1 x Type 2 44kW 1 x CCS 43kW 1 x CHAdeMO 43kW	70p per kWh. Min charge £1.00. Overstay charge £1.00 per min after 45 minutes.	ChargePlace	Burnfireld Avenue Car Park, Grantown on Spey, PH26 3HF
Grantown on Spey	2 x Type 2 7kW	Price Unknown, open 9.00 - 17.00 Monday - Sunday	ChargePlace	The Speyside Heather Centre, Skye of Curr Road, PH26 3PA
Grantown on Spey	10 X 7.4kW	Free to employees	ChargePlace	14 The Square, Grantown On

Settlement	Available connections	Cost details	Provider	Address
				Spey, PH26 3HG
Aviemore	2 x CHAdeMO 50kW 2 x Type 2 22kW 2 x CCS 50kW	64.8p per kWh	Swarco E	High Range Hotel, Grampian Road, Aviemore, PH22 1PT
Kingussie	2 x CCS 51kW 2 x CHAdeMO 51kW 5 x Type 2 22kW 1 x CHAdeMO 43kW 1 x CCS 43kW	£0.70 per kWh. Minimum charge of £1.00. An overstay fee of £1.00 per minute applies after 45 minutes.	ChargePlace	Ardvonie Car Park, Gynack Road, Kingussie, PH21 1ET
Kingussie	2 x Type 2 7.36kW	Payment: refer to Monta App	Monta	17 High Street, Kingussie, PH12 1HR
Laggan	2 x Type 2 22kW	£0.70 per kWh. An overstay penalty of £1.00 per minute, applies after 4 hours, with a 10-minute grace period.	ChargePlace	Laggan Wolftrax, Forestry Houses, Laggan, PH20 1BU
Lecht Ski Centre	4 x Type 2 7kW	60p per kWh	Project EV	Lecht Ski Centre, AB36 8YP
Loch Alvie	2 x 22kW	40p per kWh. Available 24hours	Luke-Orla	Rowan Tree Country Hotel
Loch Garten	2 x Type 2 7kW	Prices not available	Pod Point	Loch Garten RSPB, Scotland,

Settlement	Available connections	Cost details	Provider	Address
				Nethy Bridge, PH25 3HA
Loch Insh	2 x Type 2 7kW	Payment: ChargePlace Scotland	ChargePlace	Loch Insh Outdoor Centre, Kincraig
Newtonmore	CHAdeMO up to 50kW CCS Up to 50kW Type 2 22kW	70p per kWh	ChargePlace	Glen Road, Newtonmore, PH20 1DA
Newtonmore	2 x 22kW	30p per kWh. Available 24hours	Milo-Scot	Russwood Ltd, Station Road, Newtonmore, PH20 1AR
Aviemore	2 x CHAdeMO 50kW 2 x Type 2 43kW 2 x CCS 50kW	79p per kWh. Off-peak charges 8pm - 8am are 75p per kWh Overstay charge £10.00 after 90 minutes and £10.00 for every 90minutes thereafter.	GeniePoint	Premier Inn, Aviemore, PH22 1PX
Tomintoul	1 x CHAdeMO 22kW 1 x CCS 22kW 1 x Type Unknown 22kW	56p per kWh	ChargePlace	Tomintoul Car Park, Tomintoul, AB37 9EX
Tomintoul	2 x Type 2 22kW	Prices not available	ChargePlace	Glenlivet Estate Office, Tomintoul, Scotland, AB37 9EX

Rail

The Highland Main Railway Line runs between Inverness and Perth, through the Cairngorms National Park with stations at Carr-Bridge, Aviemore, Kingussie, Newtonmore, Dalwhinnie and Blair Atholl (Figure 163). The Highland Mainline is not currently electrified. Much of the line is single track, so trains coming in opposite directions are often timed to arrive at stations at the same time, where crossing loops permit them to pass. When trains are delayed and miss the scheduled crossing point, this can cause significant delays for other trains that cannot proceed until the line is clear.

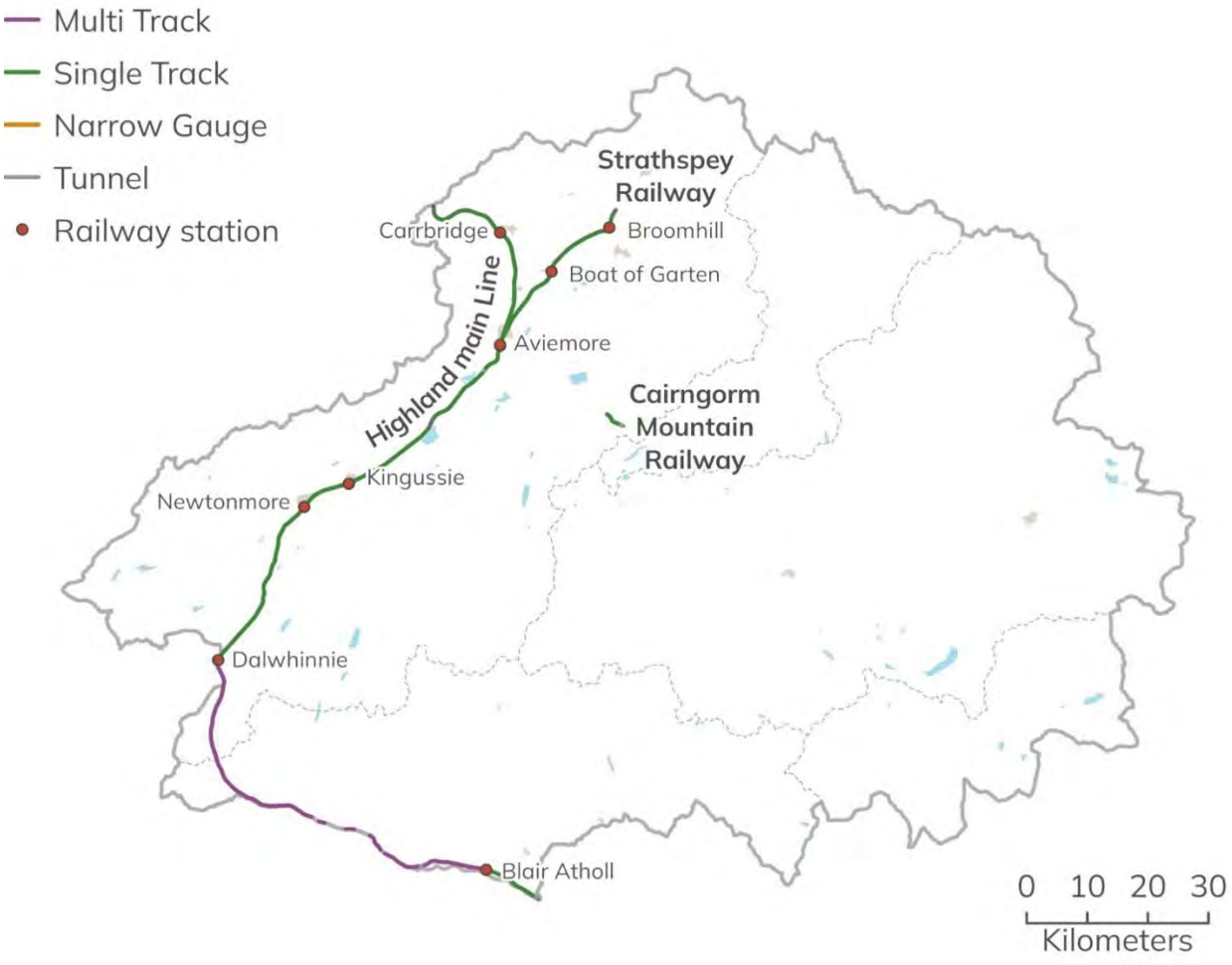


Figure 163 Map of rail lines in the Cairngorms National Park, 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

There are around 13 services per day between Perth and Inverness (2024 timetable), seven connect to Glasgow and five to Edinburgh, with one to London Kings Cross. The

line is also used by the Caledonian Sleep connecting Inverness and the stations in the National Park to London Kings Cross via an overnight service.

Using annual passenger usage at stations based on sales of tickets as an indicator of the overall use of the line, then there is an indication that use has increased significantly within the Cairngorms National Park over the last 17 years (Figure 164 and Table 33).

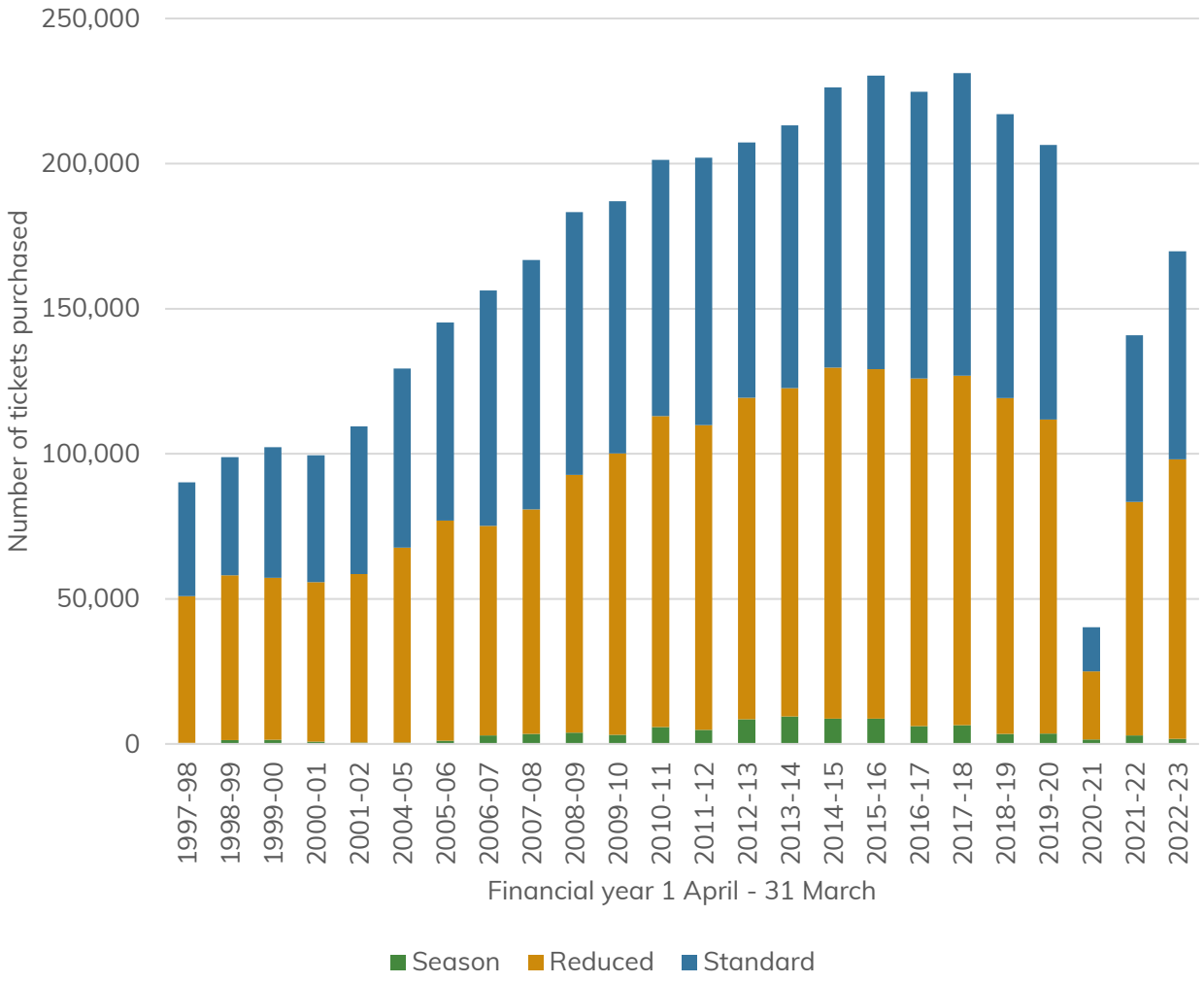


Figure 164 Office of Rail and Road figures for total annual passenger usage (the sum of entrances and exits) by fare type at stations within the Cairngorms National Park from 1997 – 1998 to 2022 – 2023. Note no data available for years 2002 – 2003 and 2003 – 2004.

Figure 164 shows that although the overall number of tickets sold in 2022 – 2023 have increased there has been a reduction in the number of season tickets purchased, from 2,878 in 2021 – 2022 to 1,800 in 2022 – 2023. The number of reduced and standard price tickets purchased have continued to increase since 2020 – 2021, however remain below the figures seen in 2019 – 2020. As the overall number of tickets sold were

already decreasing pre-Covid from 2017 – 2018 it is unclear yet whether the figures for 2022 – 2023 represent a return to the normal trend for decreasing passenger numbers or the continued recovery post-COVID-19.

Table 33 Office of Road and Rail annual passenger usage at stations (the sum of entrances and exits) within the Cairngorms National Park 1999 / 2000 – 2022 / 2023.

	Number of passengers using the station						
Year	Carr-Bridge	Aviemore	Kingussie	Newtonmore	Dalwhinnie	Blair Atholl	Total
1999 / 2000	2,432	61,795	21,196	4,013	1,937	10,893	102,266
2000 / 2001	2,441	62,338	19,207	4,146	2,027	9,341	99,500
2001 / 2002	1,930	70,230	22,585	4,062	2,062	8,573	109,442
2003 / 2004	1,531	70,272	23,815	4,184	2,066	8,613	110,481
2004 / 2005	1,910	80,977	27,725	5,396	1,619	11,708	129,335
2005 / 2006	2,987	91,456	30,045	6,815	2,013	11,896	145,212
2006 / 2007	3,954	101,294	32,135	6,585	1,774	10,491	156,233
2007 / 2008	5,508	108,353	33,416	7,060	1,975	10,443	166,755
2008 / 2009	3,796	121,090	38,054	7,446	2,296	10,580	183,262
2009 / 2010	4,500	124,972	35,838	7,972	2,208	11,572	187,062
2010 / 2011	5,118	132,336	38,544	9,484	1,894	13,948	201,324
2011 / 2012	5,636	132,052	40,298	9,406	1,984	12,608	201,984
2012 / 2013	4,454	136,456	40,954	8,958	2,172	14,280	207,274
2013 / 2014	5,540	141,311	41,400	8,326	2,472	14,084	213,133
2014 / 2015	6,256	150,724	42,522	8,636	2,460	16,062	226,660

	Number of passengers using the station						
Year	Carr-Bridge	Aviemore	Kingussie	Newtonmore	Dalwhinnie	Blair Atholl	Total
2015 / 2016	6,898	152,082	42,850	9,432	2,392	16,652	230,306
2016 / 2017	5,808	145,200	44,200	8,770	3,188	17,598	224,764
2017 / 2018	6,064	147,964	44,736	9,194	3,372	19,802	231,132
2018 / 2019	5,584	138,490	40,758	7,848	3,368	21,008	211,184
2019 / 2020	5,474	132,618	39,254	7,456	3,226	18,388	214,436
2020 / 2021	1,622	25,492	7,352	1,498	614	3,688	40,266
2021 / 2022	3,714	92,240	25,682	5,400	1,960	11,870	140,866
2022 / 2023	4,840	112,090	39,978	6,470	2,832	13,402	179,612

A marked reduction in rail use during the 2020 – 2021 period can be attributed to the impacts of the COVID-19 global pandemic which led to national lockdowns in Scotland. During 2022 – 2023 rail usage has increased but is not comparable to pre-covid levels. This may in part be due to a change in working arrangements as part of the legacy of the COVID-19 Pandemic. Many companies have moved to a hybrid way of working requiring less in people to travel into the office every day, if at all (Office of National Statistics, 2022).

A key consideration of rail users are the railway station facilities, such as the accessibility within the station and transport connections to and from the station. Table 34 summarises some of these considerations.

Table 34 Rail station facilities, accessibility and connection options in the National Park, 2024 (provided by Scotrail).

Railway station facilities	Carr-Bridge	Aviemore	Kingussie	Newtonmore	Dalwhinnie	Blair Atholl
Cycle Storage (spaces)	10	16	10	6	6	10
Sheltered Cycle Storage	No	Yes	No	No	No	No
Car park spaces	6	10	20	10	2	6
Taxi rank	No	No	No	No	No	Yes
Bus services	No	No	No	No	No	Yes
Cycle hire	No	No	No	No	No	Yes
Step free access to both platforms	No	Yes	No	Yes	No	Yes
National Key Toilets	No	No	No	No	No	No
Station accessibility category	B	B	B	A	B	B
Station accessibility notes	Level to platform 2, connecting footbridge with	Level to platform 1 - connecting footbridge with	Level to platform 1 and connecting footbridge with	This station has step-free access to single platform	Level to platform 1, connecting footbridge with	Level to platform 1- connecting footbridge with

Railway station facilities	Carr-Bridge	Aviemore	Kingussie	Newtonmore	Dalwhinnie	Blair Atholl
	stairs to platform 1	stairs to platform 2 or step-free route via level crossing using the Strathspey Railway entrance at south end of platform	stairs to platform 2 (low platform) Blue Badge parking bays: 1		stairs to platform 2	stairs to platform 2 or step-free route via level crossing and separate ramped entrance to platform 2 at south end of platform

All stations offer cycle parking, but many have limited provision for onward travel via public transport. Only Aviemore and Blair Athol provide connecting bus connection services, therefore meaning at Carrbridge, Dalwhinnie, Newtonmore and Kingussie rail users are reliant on private vehicle use to access the rail services. Accessibility is also an issue at stations in the Cairngorms National Park with limited accessibility to platforms at Carrbridge, Kingussie and Dalwhinnie. As also previously mentioned none of the stations in the National Park currently offer EV charging facilities.

Strathspey Railway

The Strathspey Railway runs a ten-mile heritage railway from Aviemore Station to Broomhill Station, passing through and stopping at Boat of Garten station. The line forms part of the former Inverness and Perth Junction Railway (later part of the Highland Railway) which linked Aviemore with Forres.

The organisation responsible have previously expressed an interest in restoring the line to Grantown on Spey, but as of yet no formal development application has been proposed or submitted to the Planning Authority.

A meeting with representatives of the Strathspey Railway Association in 2024 confirmed that the project to restore the railway to Grantown on Spey requires the grant of a Transport and Works (Scotland) Order, the application for which is dependent on funding (not currently available) from Transport Scotland and the Scottish Government.

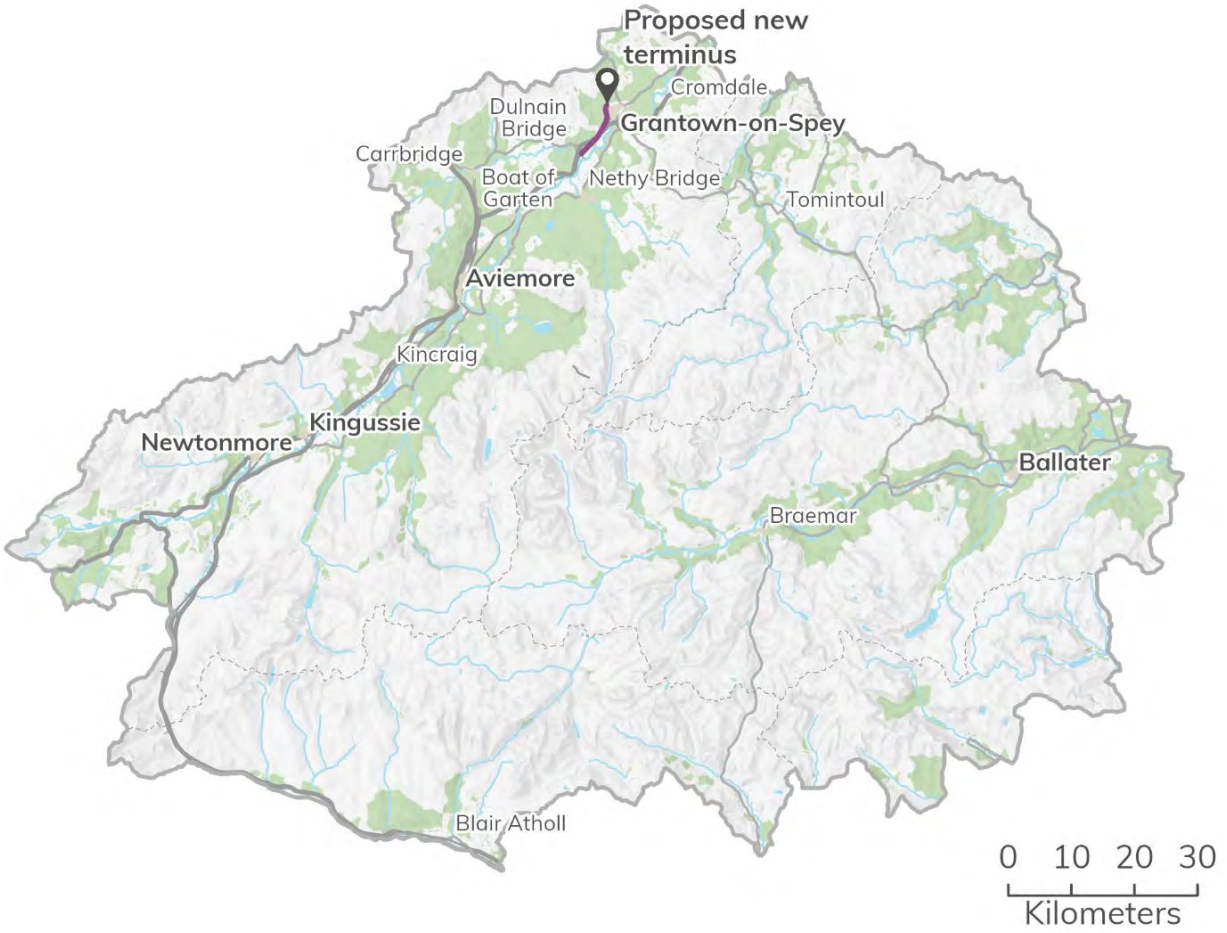


Figure 165 Indicative route of Strathspey Railway extension and proposed new terminus. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Accessibility

Network Rail are working with local authority and regional transport partnership colleagues, to improve accessibility at rail stations across Scotland. According to them, none of the stations in the Cairngorms National Park have been proposed for feasibility / design funding in 2024 – 2025 through the Department for Transport's Access for All (AfA) programme.

The Stations in Context (SiC) database gathers information about railway stations and the community they serve. Network Rail are currently in the process of collating Station in Context data and the mapping of the 500, 1,600 and 5,000 metre buffers in terms of access to stations. This data was not available at the time of writing this report.

Although no accessibility related station improvements are currently proposed by Network Rail for stations in the National Park, the Park Authority are aware of accessibility issues at these stations, for example as none of the stations have step free access between platforms.

Bus services / routes

Satisfaction with public transport is lower in rural areas. Adults living in remote rural (44%) and accessible rural (53%) areas are much less satisfied with the quality of public transport than those in large urban areas (78%)[73]. A survey of 5 – 21-year olds' travel behaviour and attitudes to transport found that respondents living in rural areas (and on islands) were more likely to reference timetables, frequency of buses, limited route options, and a lack of bus stops nearby as barriers to bus use[74].

The National Park overlaps five local authorities, meaning the provision of publicly funded and private bus services is further complicated by the number of providers operating in the National Park. This section provides a summary of the routes in each local authority area.

Highland

Stagecoach operates the local buses in Highland area of the National Park. The buses and coaches operating in the Highland region of the National Park are:

- Route 30 runs from Aviemore to Cairngorm Mountain Car Park, stopping at Coylumbridge and Glenmore. Running hourly services Monday -Friday with limited services at weekends.
- Route 36A runs from Aviemore to Dufftown, stopping at Boat of Garten, Grantown on Spey, and Cromdale in the National Park. The service runs four buses a day each way between Monday and Friday with no Saturday or Sunday services. It only runs 3 services each way during school holidays.
- Route 37A runs from Grantown on Spey to Advie, stopping in Cromdale. The service runs 8 services per day from Grantown on Spey to Cromdale. It should be noted that on Fridays there are on six services per day each way – this is due to reduced demand created by the Grantown High School finishing earlier on a Friday. On Saturday there are only four services each way between Grantown and Cromdale.

[73] See https://infogram.com/1pzg5qxldkwy2zf29ve97mvgdmb1dggnyrm?live
[74] See https://infogram.com/1pzg5qxldkwy2zf29ve97mvgdmb1dggnyrm?live

- Route 37 runs from Grantown on Spey to Aviemore, stopping in Nethybridge, Boat of Garten and Lochan Mor with eight services per day Monday to Friday. As with the 37A, the service changes two times for Friday to accommodate the changes to the local school timetable. On Saturday the service runs two buses from Carrbridge to Aviemore and a further seven from Grantown on Spey to Aviemore. The service runs four buses each way between Aviemore and Grantown on Sundays.
- Route X37 Runs from Aviemore to Inverness, stopping at Lochan Mor, Boat of Garten, Nethybridge, Grantown on Spey, Dulnain Bridge and Carrbridge (in the National Park). There are four services each way which run the complete route and a further two which only run from Grantown on Spey to Inverness each way Monday to Friday. On Saturday there are three services each way and none on Sunday.
- Route 39 offer services between Carrbridge and Dalwhinnie, stopping at Aviemore, Kingussie, Newtonmore and Laggan. The timetable for the 39 service is not consistent throughout the day. There is only one bus each connecting Dalwhinnie with Carrbridge and another which connects Dalwhinnie with Aviemore Monday to Friday. A similar situation exists for Laggan Bridge with two connecting services Monday to Friday. On Saturday and Sundays there are no bus services from or to either Dalwhinnie or Laggan.
- Kingussie, Aviemore and Newtonmore are reasonably well serviced during the week, however there are only two services each way connecting Newtonmore and Kingussie on Sundays.
- Route M39 follows a similar route to Route 39 with onward travel to Inverness. However, there is only one early morning service (06.35am) connecting Dalwhinnie to Inverness in the morning with no return options on Monday to Friday. There are five M39 services a day, however, Newtonmore is only connected to Inverness three times per day Monday to Friday and Laggan twice via this route. On Saturday and Sunday only Aviemore connects to Inverness on this route.
- Route 133 runs a circular route from Grantown on Spey to Cromdale, Advie, Lettoch, the Braes of Castle Grant, Ballieward then returning to Grantown on Spey. The service is provided to serve the School in Grantown, with one service in the morning and three in the afternoon. There are no services on this route on Saturday or Sunday.
- Route 136 runs from Aviemore to Grantown, stopping at Carrbridge and Dulnain Bridge. This service also serves the local schools, running three services a day. Only the early morning and lunch time buses connect to Aviemore and Carrbridge. There are no services on this route on Saturday or Sunday.

- Route 137 runs from Aviemore to Kingussie, stopping at Coylumbridge, Glenmore, Aviemore and Freshiebridge. The service serves the local schools running one morning bus from Aviemore to Kingussie, and two afternoon busses from Kingussie to Aviemore. There are no services on this route on Saturday or Sunday.
- Route 138 runs from the Myrtlefield Hotel to Kingussie, stopping at the Lochan Mor, Aviemore and Kincraig. The service runs three early morning services serving the Kingussie Schools with later services only between Aviemore and Kingussie. There is a lunch time service back from Kingussie, with a later service coinciding with the school closing times. There are no services on this route on Saturday or Sunday.
- Route 139 runs from Aviemore to Dalwhinnie, stopping at Kincraig, Kingussie and Newtonmore. The service operated twice daily to accommodate school children. There are no services on this route on Saturday or Sunday.
- Route 140 runs from Aviemore to Strathmashie House, stopping at Kincraig, Kingussie, Newtonmore and Laggan. The service operated twice daily to accommodate school children. There are no services on this route on Saturday or Sunday.
- Route 337 runs from Myrtlefield Hotel to Grantown on Spey stopping at Aviemore and Drumuillie. The service runs six buses per day on school days and one on non-school days. The first and last buses aimed at coinciding with the school closing times. There are no services on this route on Saturday or Sunday.
- Route M39 runs from Newtonmore to Inverness stopping at Kingussie and Aviemore
- Aimed at providing a service for commuters, arriving in Inverness at 08.28am. This route is also supported by the M91 (operated by Scottish Citylink and Mega bus jointly). There is one service connecting Kingussie and Newtonmore to Inverness on both Saturdays and Sundays (M91). The M91 which runs from Inverness to Edinburgh also connects Aviemore with Alvie, Kincraig, Kingussie, Newtonmore, Dalwhinnie and Blair Atholl. The M91 goes on to Perth where travellers can change coach for a connecting service to Glasgow.
- Routes M10 and M90 run throughout the day from Aviemore to Inverness Monday to Sunday.

Perth and Kinross

Bus services serving Blair Athol, House of Braur and Calvine are provided by Stagecoach East Scotland, the following services in the Perth and Kinross area of the Cairngorms National Park are:

Route 83 connects Calvine, House of Bruar and Blair Atholl. There are three services each way with a late morning, lunchtime and afternoon service. This bus would not be suitable for those commuting to work for a 9am – 5pm employment schedule.

Route 87 also connects Calvine, House of Bruar and Blair Atholl. There are 5 buses in each direction daily (Monday to Saturday) with an early morning and early evening service.

Moray

Tomintoul is served by one bus service which connects the village with Grantown on Spey. The service (364) is run by Moray Council. The service stops at Bridge of Brown and Lynemore enroute. There are two services ach way daily on Wednesdays.

Aberdeenshire

There are two bus services run by Stagecoach Bluebird that serve Ballater and Braemar. Route 201 connects Ballater with Aberdeen and connects with Route 203 to connect Ballater with Braemar. There are regular buses between Ballater and Braemar throughout the day Monday to Friday from 05.45 to 23.15. On Saturdays and Sunday there are less services between Ballater and Braemar but still seven or eight respectively between the settlements.

Generally, all settlements in the National Park are connected with bus routes, however the number of services varies considerably. Most notable is Tomintoul which only has two buses every Wednesday. There is good bus provision supporting the local High Schools lessening the need for private vehicle use transporting children to and from school. There are still large rural areas of the National Park not connected by bus meaning private vehicle use is the only method of transport to these remote locations.

Community transport options

Badenoch and Strathspey Community ConnXions is a registered charity working to improve the lives and wellbeing of people in their community enabling them to remain independent for longer. Based in Aviemore, they provide accessible transport and social inclusion services to all those with a need in the Badenoch and Strathspey area. They offer a car scheme and community bus service.

The car scheme is available for residents who don't have car of your own and are unable to access public transport. Journeys can be anything from visiting a friend, attending the doctor or simply going for a coffee. The trained volunteer drivers use their own cars.

The accessible bus service five days a week, throughout the Cairngorms National Park. Offering door-to-door transport, their fully trained drivers can assist people in wheelchairs or those with mobility or access problems. The bus routes pass many of its most popular tourist attractions such as the Highland Wildlife Park and Strathspey Steam Railway. Travel is free with a Scotland wide concession card.

Cycling and walking

The National Cycling Network (NCN) is a UK-wide network of signed paths and routes for walking, cycling, wheeling and exploring outdoors.

In the National Park there are two National Cycling Routes (Figure 166). In many parts of the National Park, the trunk road network provides the only connection between settlements for all or part of the route, and therefore any cycle journeys must be on or alongside the road. This can mean that in the absence of segregated cycling infrastructure means, cycling does not feel like a safe option for everyday journeys for local residents or visitors, even where the distance involved would make this possible.

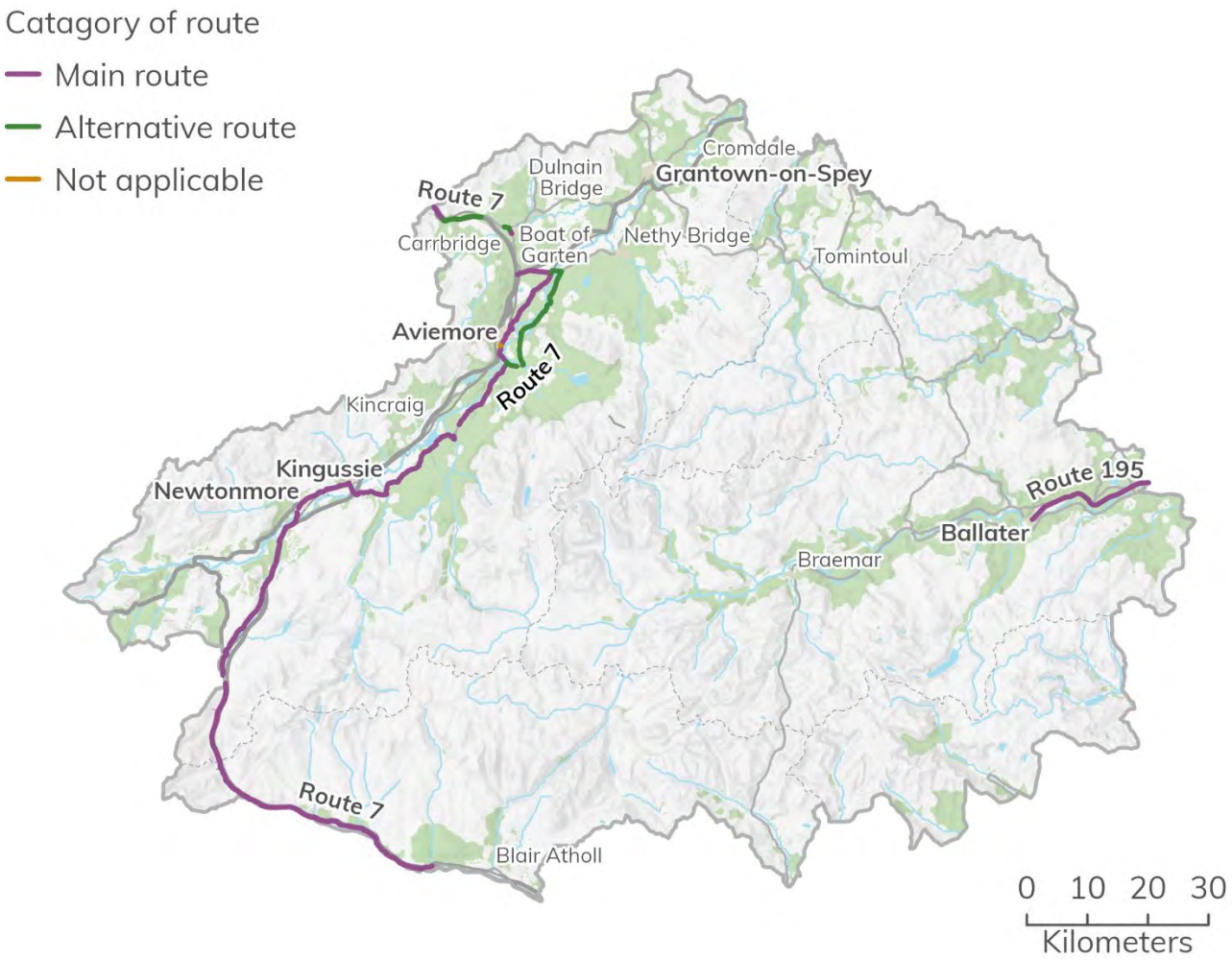


Figure 166 Map showing the National Cycling Routes that are within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Route 195

Also known as the Deeside Way, National Cycle Network Route 195 follows traffic-free paths and some short quiet-road sections along the former Deeside Railway line between Aberdeen and Ballater. It runs for 41 miles between Duthie Park, south of Aberdeen city centre, and the heart of the Victorian village of Ballater.

Route 7

Route 7 runs along the western side of the Cairngorms National Park to link Calvine, Dalwhinnie, Aviemore and Boat of Garten. The section of the route within the National Park, starts in the south at House of Braur running north adjacent to the A9 linking the settlements of Calvine, Newtonmore, Kingussie, Kincraig, Aviemore and Boat of Garten.

There are breaks in the route around Kincraig, and between Boat of Garten and Carrbridge. Also, between House of Braur and Pitlochry there is no dedicated cycle path linking the southern part of route 7 with the section starting in the National Park.

Community paths, upland paths and trails in the National Park also provide opportunities for both walking, wheeling and cycling. Main trails (Figure 167) include:

- The Speyside Way
- The Dava Way
- The Deeside Way
- The Cateran Trail.

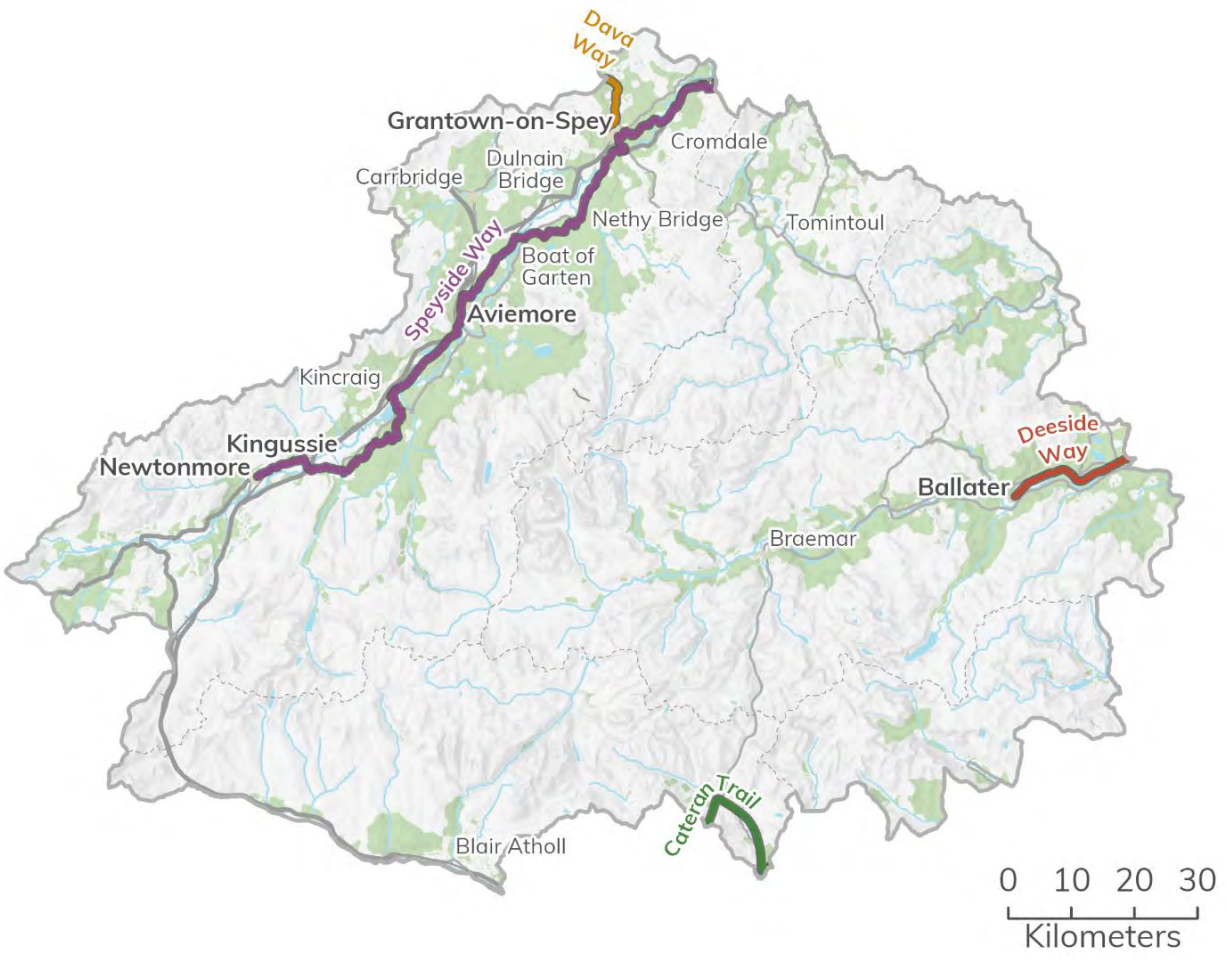


Figure 167 Long distance trails within the Cairngorms National Park. Cairngorms National Park Authority

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Speyside Way

The Speyside Way is one of four official Long-Distance Routes in Scotland, the route links the Moray coast with the edge of the Grampian Mountains, following the valley of the river Spey, spanning a distance of approximately 85 miles / 137 km. It is one of four National Long-Distance routes formally designated under the Countryside (Scotland) Act 1967 and as such the local access authorities (Moray Council and the Cairngorms National Park Authority) have a statutory duty to manage the route. To fulfil this obligation the Park Authority have developed a plan for the future management and maintenance of the route which includes priorities for investment over the next five years.

Dava Way

The Dava Way, another of Scotland's Great Trails, linking Forres in Moray with Grantown-on-Spey, a distance of 24 miles / 38 km. It follows the old Highland Railway line and winds its way up to the Dava summit at 320m before descending into Strathspey. A small section of approximately 4 miles / 6km at the southern end of the route lies within the Cairngorms National Park. This allows walkers to connect to the Speyside Way through Grantown on Spey. The route is managed and maintained by the Dava Way Association; a Scottish Charitable Incorporated Organisation (SCIO) run by a board of Trustees.

A range of improvements to the Dava Way and the Speyside Way in parts of Moray are included as part of Moray Council's Strategic Tourism Infrastructure Development Plan which focusses on enhancing all six long distance active travel / leisure routes in rural Moray.

Deeside Way

The Deeside Way runs from near the centre of Aberdeen to Ballater. It largely follows the line of the Old Royal Deeside Railway through woodlands and farmlands, for a total distance of 41 miles / 66 km. Approximately 7 miles / 11km of the route falls within the Cairngorms National Park running westwards from the National Park boundary to the current terminus in Ballater. Within the National Park the route is currently managed and maintained by Aberdeenshire Council with support from the Cairngorms National Park Authority. The Cairngorms National Park Partnership Plan 2022 includes a commitment to extend the route from Ballater to Braemar.

Cateran Trail

The Cateran Trail, one of Scotland's Great Trails, is a 64 mile / 102 km long route through Perthshire and the Angus Glens. This is a circular route divided into five stages, following old drove roads and ancient tracks across farmland, forests, and moors. A small section of approximately 6 miles / 10km at the north end of the route passes through the National Park near Spittal of Glenshee. The route is managed and maintained by Perth and Kinross Countryside Trust who are engaged in a programme to install multi-user gates along the route to allow better access for all visitors as well as for landowners.

Community paths

There are over a hundred community paths and trails across the National Park. As well as providing an important resource for local residents, these paths are an essential part of the infrastructure used by visitors to the National Park and are therefore well promoted through a series of community path leaflets. Responsibility for the management and maintenance of most of these paths rests with the landowner or land manager but in certain circumstances support is provided by the Cairngorms National Park Authority. In a small number of cases the Park Authority is responsible for maintenance through management agreements (details can be found in Appendix 4 of the Strategic Tourism Infrastructure Development Plan 2023 – 2028).

An assessment of these paths is due to be undertaken in 2023 / 2024. The need for two new community paths has also been identified following other recent visitor infrastructure investments – one to connect the town of Aboyne to Glen Tanar and another connecting the village of Dinnet with the new Clarack car park and Muir of Dinnet.

Upland paths

There are also many upland paths across the National Park and while in broad terms these are less heavily used than the community paths some are still subject to heavy use, most notably on some of the more popular hills. As their use is predominantly by more experienced walkers these are not as actively promoted by the Cairngorms National Park Authority, however many are commonly promoted through hillwalking guidebooks and websites. As with low ground paths, responsibility for their management and maintenance rests with the landowner or land manager but in certain circumstances support can be provided by the Park Authority.

Core Paths

One important means of access is via the National Park's public footpath network, of which the Core Paths network plays a significant role (see Figure 168). The Cairngorms National Park Authority has a duty under the Land Reform (Scotland) Act 2003 to prepare a Core Paths Plan. Section 17 (1) Act states that the core paths network should be: '... sufficient for the purpose of giving the public reasonable access throughout the area'.

The Cairngorms National Park Authority published its Core Paths Plan in 2015, which was developed in Partnership with the Local Outdoor Access Forum and Inclusive Cairngorms. The National Park Authority is planning to review and update the current Core Path Plan (expected in 2026) alongside the delivery of the next Local Development Plan. The aim of the Plan is to help people enjoy and understand the special qualities of the National Park through the identification of outdoor access opportunities. The path network should satisfy the needs of visitors and local people to get around, and link to the wider path network and beyond.

The network is made up of a mixture of existing and new paths, which together provide a cohesive system. The National Park now has a network that totals 1,073km of core path, 88km of which is on water (River Spey). Furthermore, over 300km of the network has been signed and promoted with a further 100 or so km to be developed and improved.

The National Park Authority is the Access Authority for the Cairngorms National Park, whereas the Local Authority (Access Authority) areas that overlap are responsible for the core paths outwith the National Park boundary. In some instances, the core paths in the National Park connect via paths outside the boundary in another Access Authority. Where this happens the section of path outwith the National Park is the maintained and managed by that Access Authority (Local Authority). The Local Authority Core Path Plans for Angus, Aberdeenshire, Moray, Highland and Perth and Kinross have therefore been included in the links to evidence section of this report.

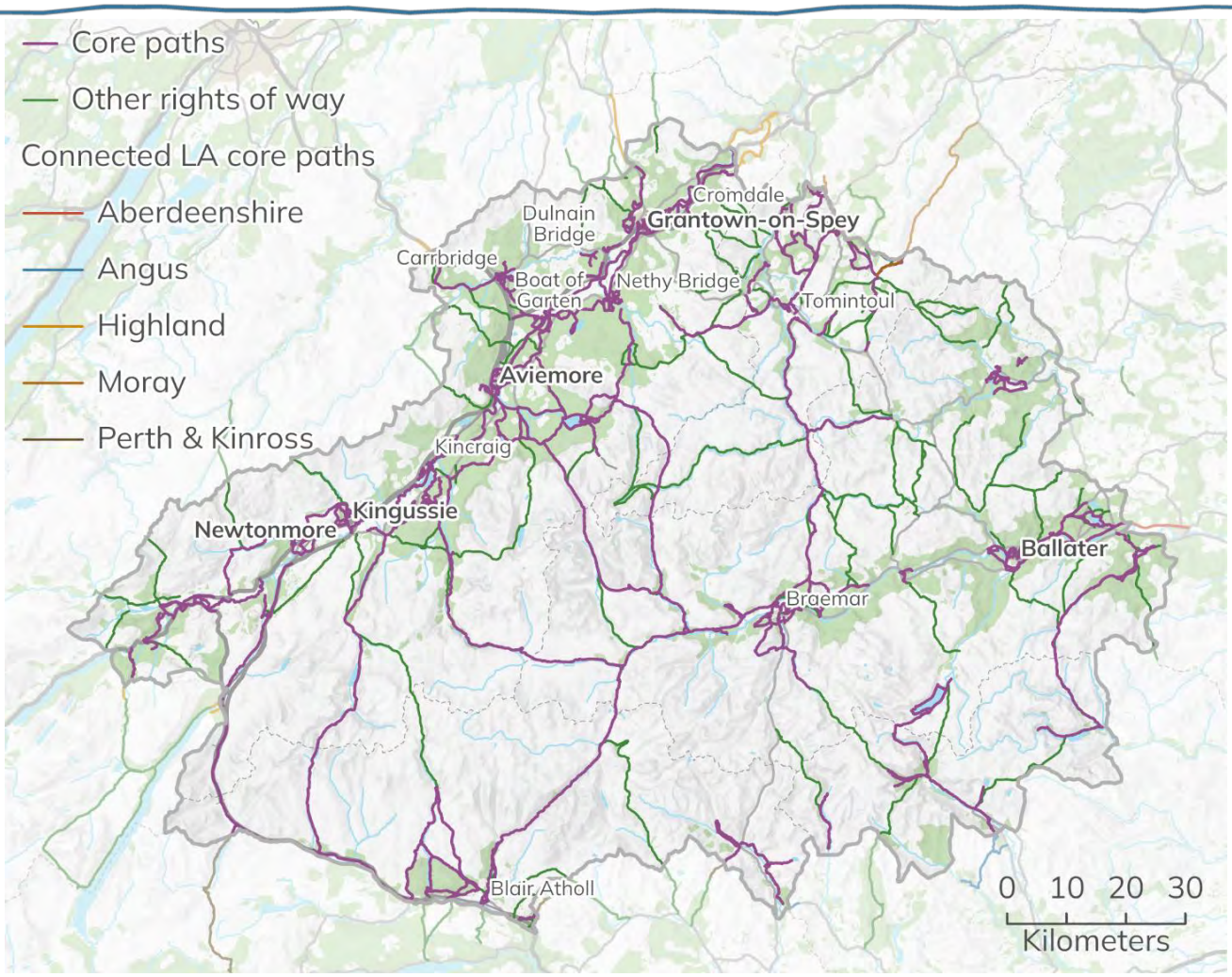


Figure 168 Map showing the public footpath network in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Further detail on rights of way and hill tracks in the National Park is available from The Scottish Rights of Way and Access Society (ScotWays) national Catalogue of Rights of Way in Scotland (CROW) and Scottish Hill Tracks publication.

Digital infrastructure

Good digital connectivity is increasingly seen as a basic service that is required by residents, businesses, students, visitors and the public sector. It allows; businesses to function more effectively and expand their reach, people to connect with each other as well as access services such as health care and education from remote areas. Connectivity through digital infrastructure in the Cairngorms National Park remains a challenge.

With the potential increase in systems and processes that utilise the 'Internet of Things' (IoT) concept within the Cairngorms National Park the availability of reliable fast broadband will be crucial to their delivery. The demand for bandwidth has been steadily growing as more applications are developed and rolled out with applications currently being developed for and rolled out for: healthcare, utilities, domestic consumer electronics and smart city products and services.

Fixed broadband in the National Park

There are four primary types of fixed line connections used to provide fixed broadband access, namely: asymmetric digital subscriber line (commonly referred to as ADSL), fibre to the cabinet (FTTC), hybrid fibre coaxial (HFC) cable and full fibre or fibre to the premises (FTTC) connections.

Asymmetric digital subscriber line

Asymmetric digital subscriber line is the most commonly available type of broadband, delivered through the copper wires of your phone line. Two different types of asymmetric digital subscriber line (ADSL) technology used in the UK are ADSL1 and ADSL2+. ADSL1 is capable of a maximum speed of about 8 Mbit/s, and ADSL2+ a maximum speed of about 24 Mbit/s.

However, the broadband speeds via both types of asymmetric digital subscriber line will depend on how far you live from your telephone exchange - the further away you are, the lower the speeds and the actual speeds you receive will typically be much lower than the maximum speeds shown above.

There are currently 28 telephone exchanges that cover the Cairngorms National Park, not all of which are located within the National Park 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 asymmetric digital subscriber line broadband, with all but two capable of providing connection speeds of up to 8 Mbit/s. (asymmetric digital subscriber line connection is a broadband connection provided over home telephone lines.) The two exchanges that are not equipped for these speeds are Clova and Advie, which only provide speeds of up to 512Kbit/s. Superfast fibre and cable broadband offers significantly faster speeds than Asymmetric digital subscriber line services.

Cable

Cable networks use fibre optic and coaxial cables to deliver superfast broadband services - as well as television and phone services - direct to homes. There is fibre to a street cabinet and coaxial cable from the cabinet to the premises.

Unlike with Asymmetric digital subscriber line, speeds are not lost with distance. Cable technology can deliver very fast broadband speeds and the fastest cable broadband packages offer speeds of 'up to' 152 Mbit/s.

Fibre (fibre-to-the-cabinet' and 'fibre-to-the-premises)

Fibre broadband is delivered via clusters of fibre optic cables (each one thinner than a human hair) and speeds are faster than asymmetric digital subscriber line. There are two types of superfast fibre broadband - 'fibre-to-the-cabinet' (commonly known as FTTC) and 'fibre-to-the-premises' (commonly known as FTTP).

With fibre-to-the-cabinet, fibre optic cables run from the telephone exchange to street cabinets before using standard copper telephone wires to connect to homes. Most fibre connections in the UK are fibre-to-the-cabinet services and are typically sold as offering speeds of 'up to' 38 Mbit/s or 76 Mbit/s.

Fibre-to-the-premises broadband - which, as the name suggests, involves fibre optic cables running directly to your home - is faster than fibre-to-the-cabinet but currently only constitutes a minority of broadband connections. Fibre-to-the-premises broadband services can offer speeds of up to 1 Gbit/s.

Ofcom categorised fixed broadband connections based on the download speed they can deliver. The following definitions are provided by Ofcom: Decent, Superfast, Ultrafast and Gigabit capable connections. Ofcom regularly collect and publish data on available connections and current connection capabilities. The methodology detailing the approach to collecting and analysing coverage data undertaken by Ofcom can be accessed here:

- https://www.ofcom.org.uk/__data/assets/pdf_file/0031/249286/connected-nations-methodology.pdf

This data has been used to examine the current broadband capability of the postcode areas in the National Park (Figure 169, Figure 170, Figure 171, Figure 172, Figure 173 and Figure 174)

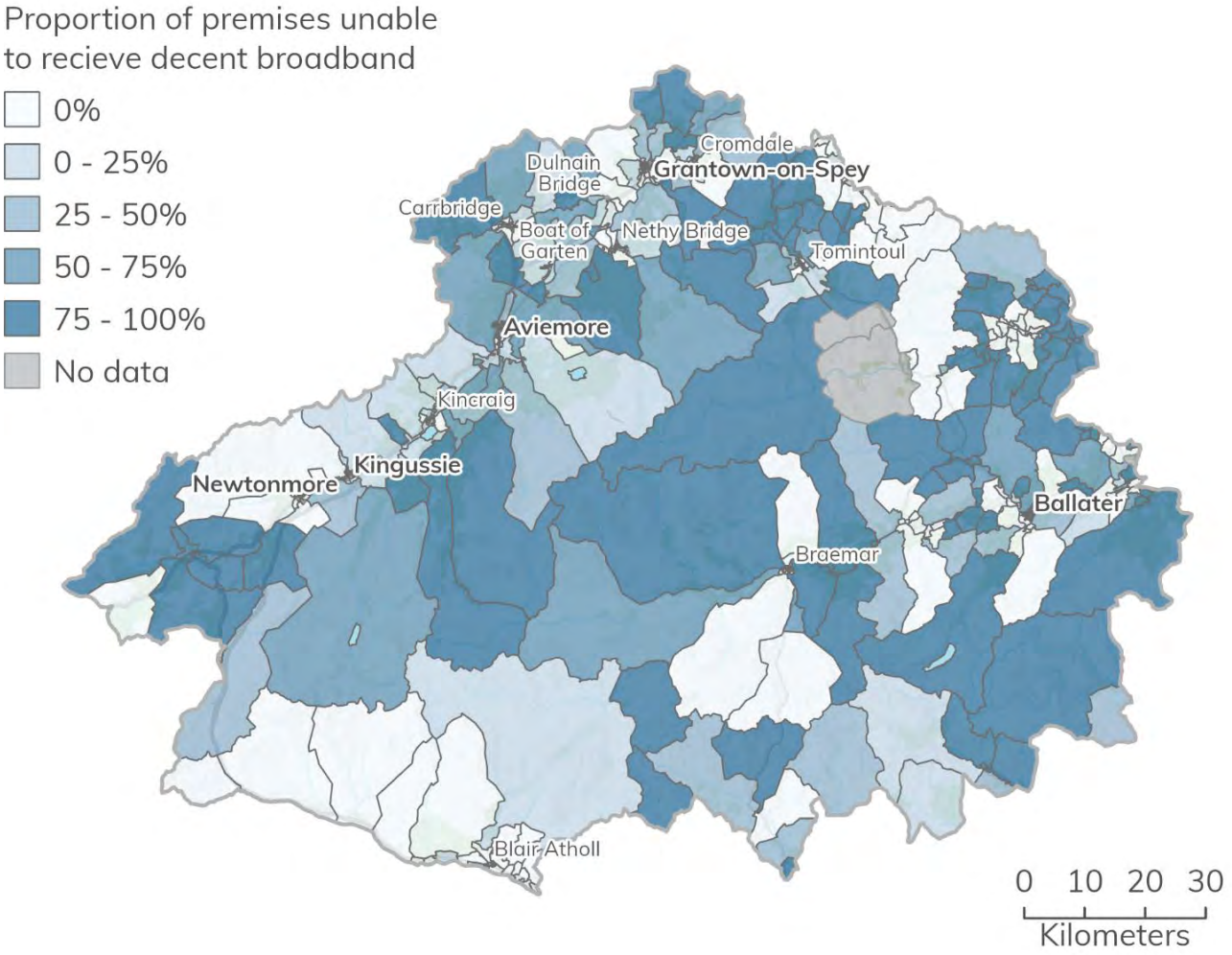


Figure 169 Proportion of premises in the National Park by postcode area unable to receive decent broadband (Ofcom, 2024). Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

'Decent' connections can provide at least 10 Mbit/s download and 1 Mbit/s upload speeds. It can be delivered by asymmetric digital subscriber line, fibre-to-the-cabinet, hybrid fibre coaxial cable or full fibre. Decent broadband provides sufficient speeds for making a high-definition video call. Over minimum decent broadband, downloading a one-hour High-Definition television episode (1 GB) would take almost 15 minutes. Figure 169 shows that as of 2024 there are still significant areas of the National Park unable to receive a decent broadband service. This includes some postcode areas in the areas of and surrounding the smaller settlements. Larger more rural postcode areas where availability is higher may not reflect a uniform availability due to the small number of properties surveyed by Ofcom for a given area.

Figure 170 shows a map of the postcode areas showing proportionally how many premises currently (Ofcom, 2024) receive a download speed of between 10-30 Mbit/s, which allows a decent connection. This map shows the majority of the areas with a high proportion of premises able to attain decent broadband connections are mainly in or adjacent to settlements (with the exception of Braemar). It is worth noting there are several areas adjacent and just outwith settlements (in the adjoining postcodes) where connectivity is significantly worse.

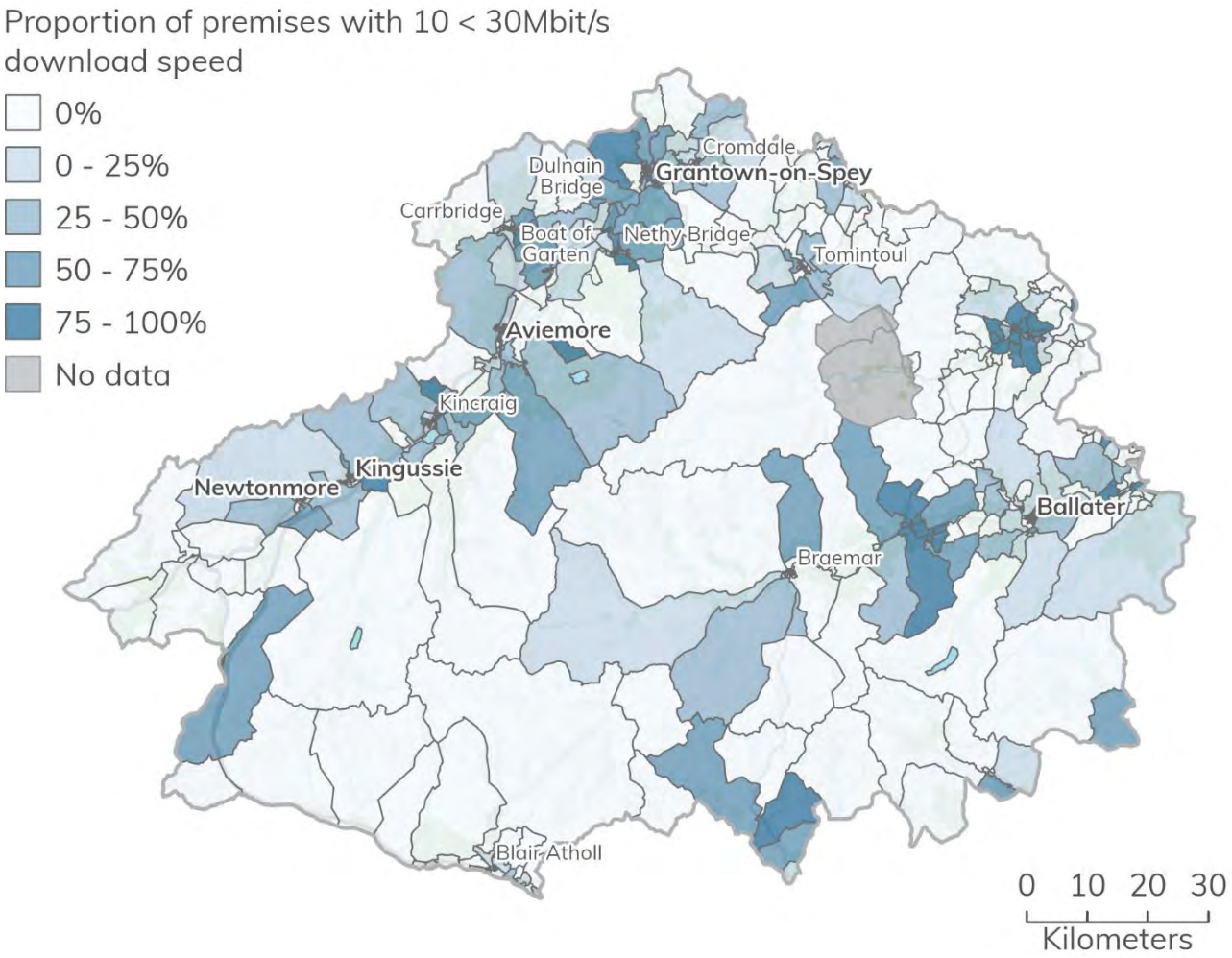


Figure 170 Proportion of properties in the National Park, by postcode area, with 10 – 30 Mbit/s of download (Ofcom, 2023). Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

'Superfast' connections provide download speeds of at least 30 Mbit/s and can be delivered by fibre-to-the-cabinet, hybrid fibre coaxial, cable or full fibre. Superfast broadband provides sufficient speed for one-person streaming 4K ultra high-definition

video. Downloading a one-hour high-definition television episode would take under four and a half minutes and several devices can work simultaneously.

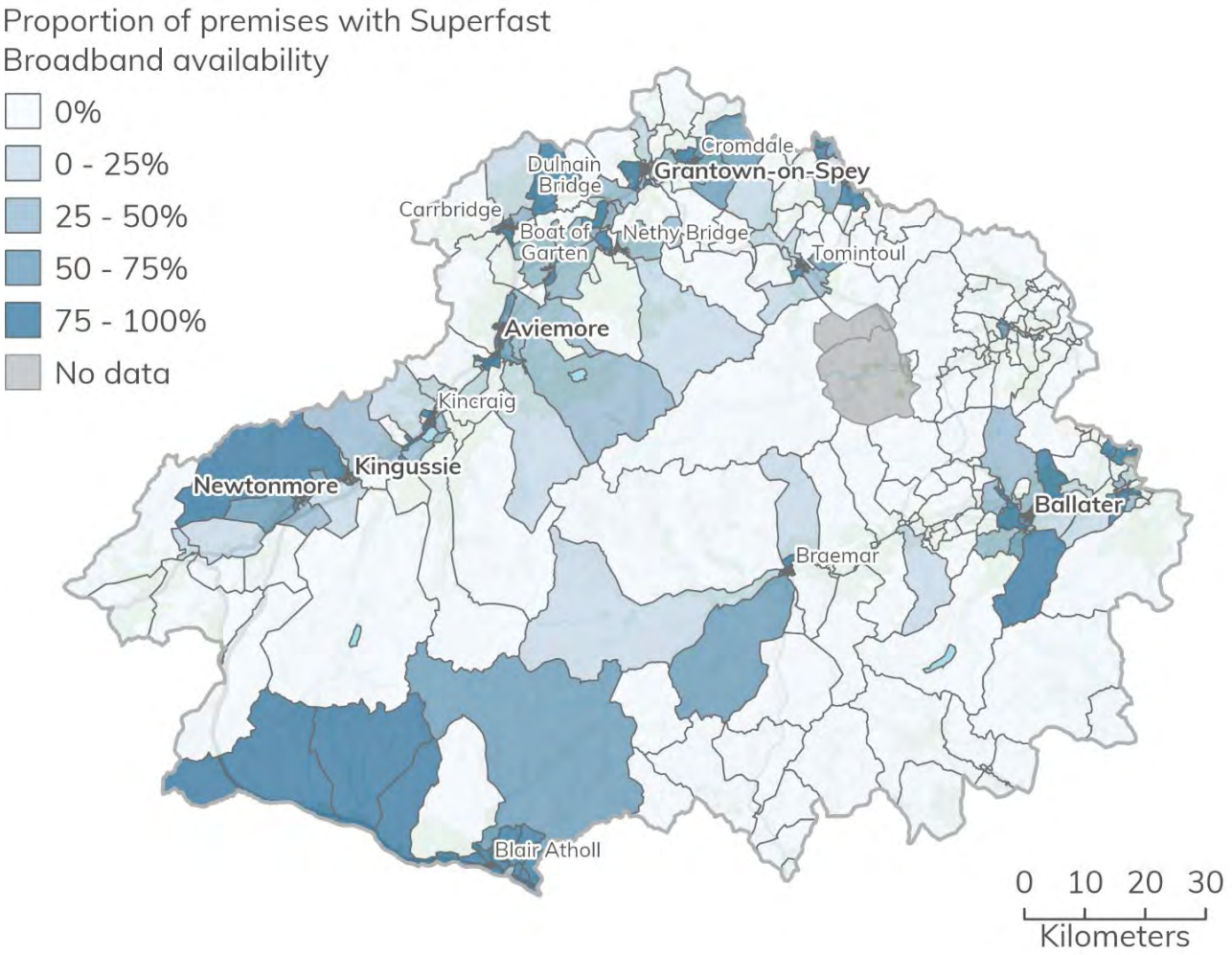


Figure 171 Proportion of premises in the National Park, by Postcode area that have superfast broadband availability (Ofcom, 2023) . Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Figure 171 shows the proportion of the premises in the post code areas within the Cairngorms National Park that have Superfast broadband availability. The majority of postcode areas with the highest proportion of premises able to attain superfast broadband are in or adjacent to the main settlements with the addition of the areas adjacent to the southern stretch of the A9 in the National Park. It should be noted that this will include areas that may also have Ultrafast and Gigabit- capable connections.

Figure 172 shows the proportion of premises in the National Park, by postcode area that are unable to attain Superfast broadband speeds. The map shows that the areas of the

National Park currently unable to access superfast broadband connectivity are predominantly rural postcode areas.

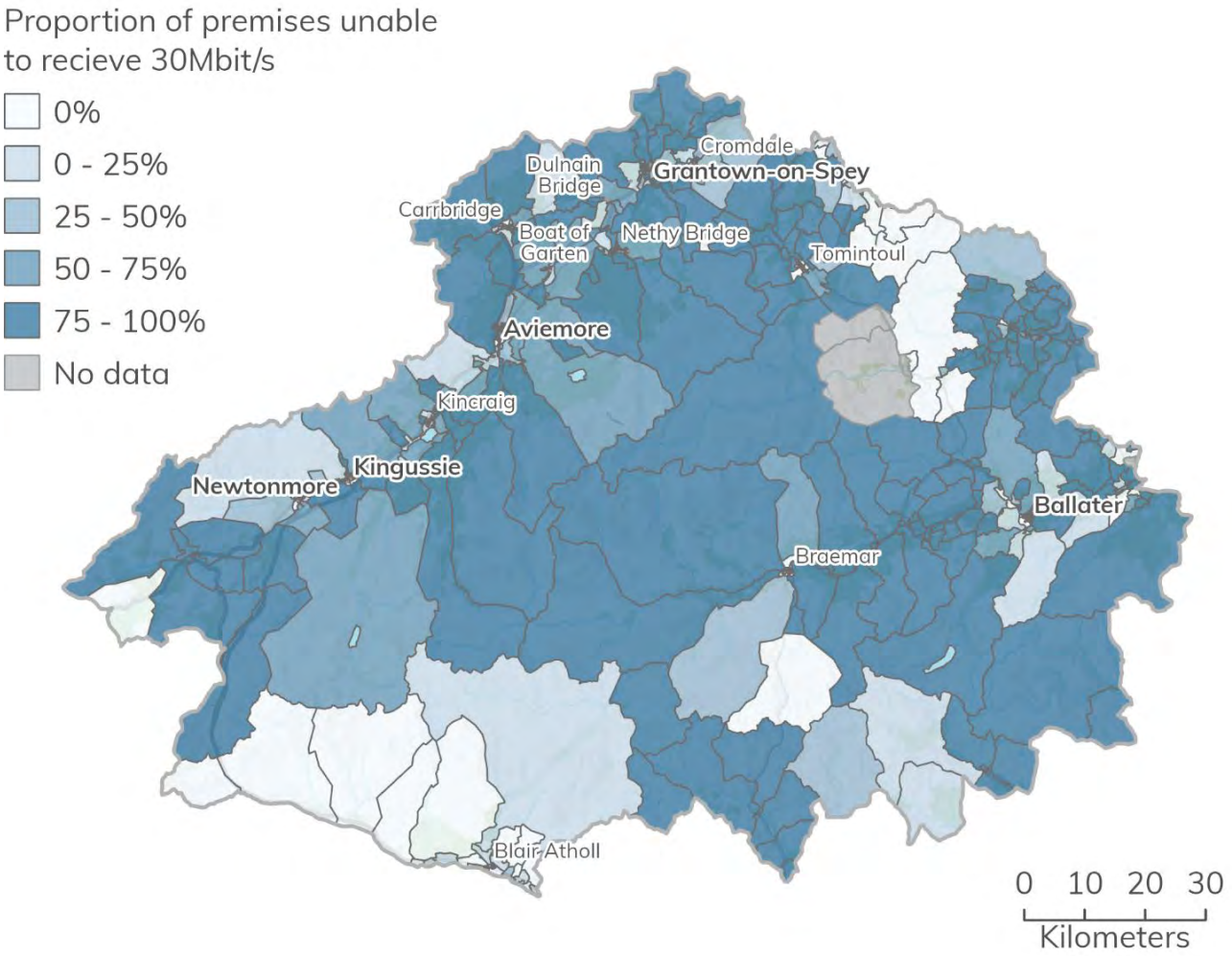


Figure 172 Proportion of premises in the National Park, by postcode area that are unable to attain superfast broadband speeds (Ofcom, 2023). Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

'Ultrafast' connections provide speeds of at least 100 Mbit/s (up to gigabit-capable connections). Figure 173 shows that in the Cairngorms National Park the postcode areas where ultrafast broadband is available are mainly located in and around the settlements of Aviemore, Blair Atholl and Ballater. Again, it is noted that the postcode areas adjacent to the southern stretch of the A9 in the National Park are also receive better connectivity.

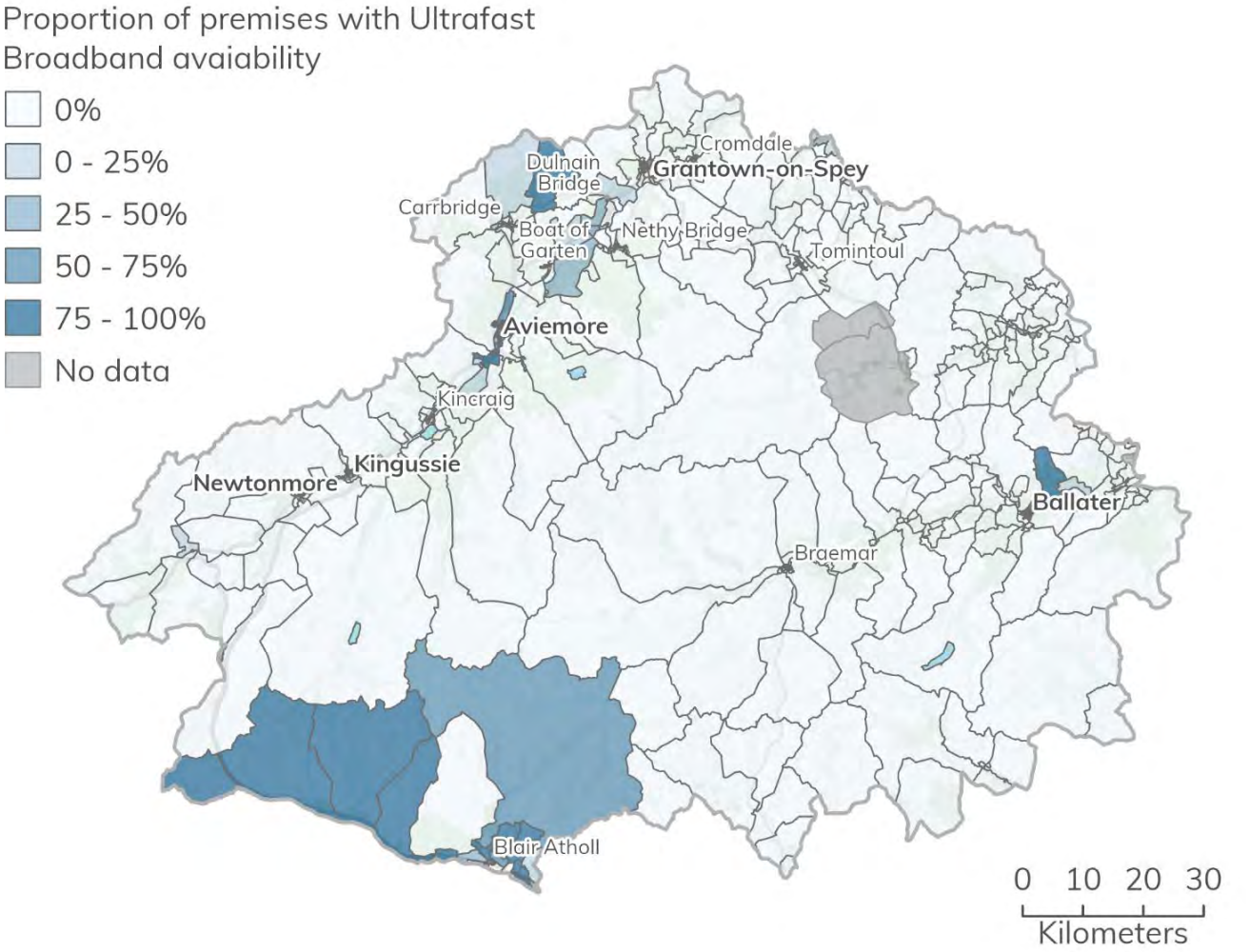


Figure 173 Proportion of premises in the National Park, by postcode area, with ultrafast broadband availability (Ofcom, 2023). Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

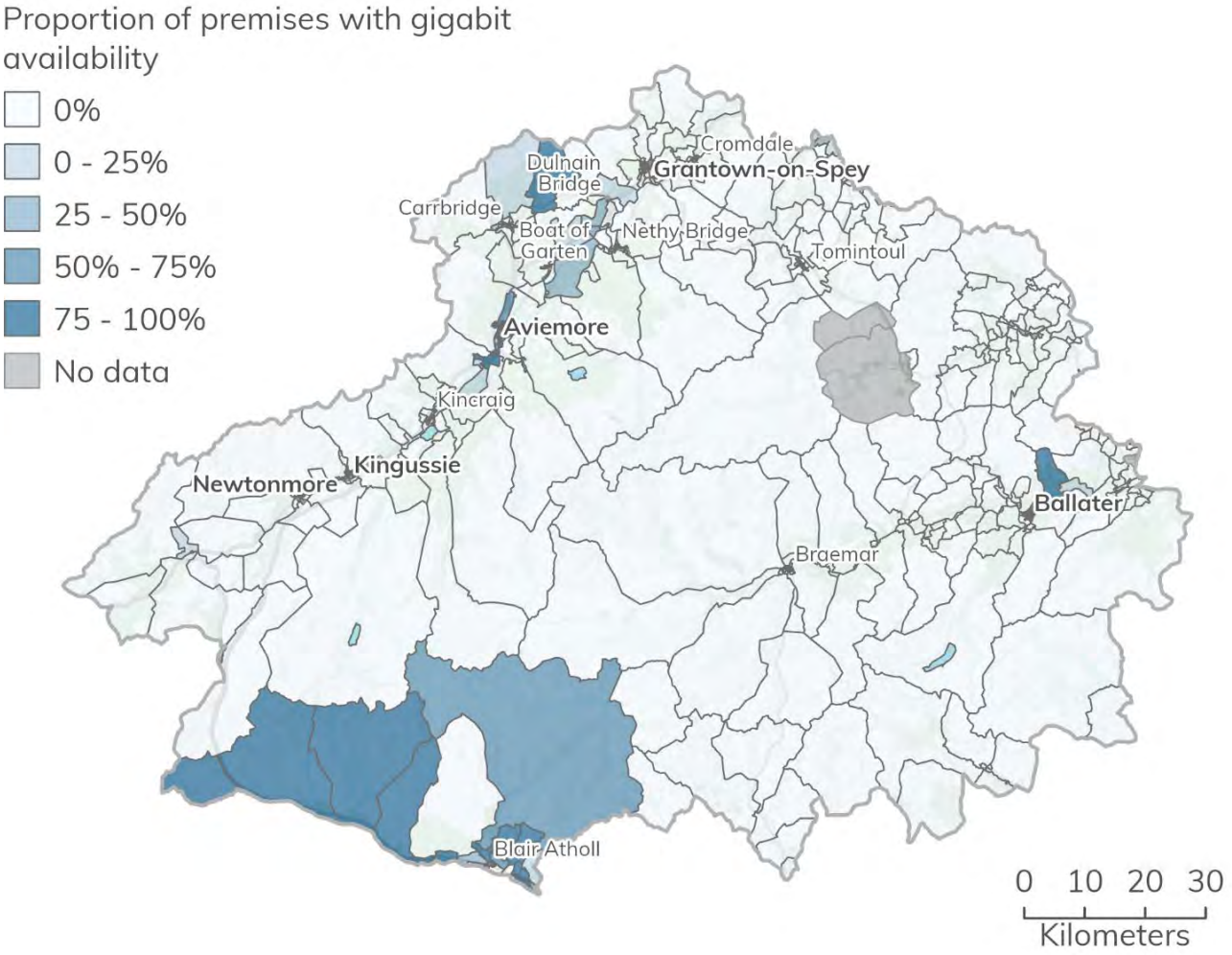


Figure 174 Proportion of premises in the National Park, by postcode area, with gigabit broadband availability (Ofcom, 2023). Contains data © Ofcom 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

'Gigabit-capable' connections are able to offer download speeds of 1 Gbit/s (1000Mbps) and above. It can be delivered by hybrid fibre-coaxial cable or full fibre. With gigabit-capable broadband, it is feasible to download a full 4K high-definition film (100 GB) in under 15 mins, or a one-hour high-definition television episode in eight seconds. Within the National Park there is no distinction between the areas able to receive ultrafast (Figure 173) and those able to receive gigabit connections (Figure 174) – leading to the assumption that upgrades in these areas have been completed to a gigabit standard of connectivity (and therefore by default also ultrafast).

The majority of the residents in the Cairngorms National Park are unable to achieve ultrafast or gigabit broadband connectivity, presenting particular challenges for those

relying on higher broadband speeds for employment or access to services / entertainment online that require them.

Fixed broadband coverage in the National Park

At the time of writing this report data from the Connected Nations Update: Summer 2023 provides the most up to date information. Ofcom collected and analysed data from over 70 fixed network and fixed wireless access (FWA) providers. Figure 169 to Figure 174, provide information on fixed broadband coverage and broadband availability from fixed wireless access postcodes within the Cairngorms National Park to all premises (commercial and residential).

Gigabit-capable coverage was introduced in the Connected Nations 2020 report and includes all coverage from full fibre networks and upgraded cable networks capable of delivering download speeds of 1 Gbit/s or higher.

Alternative broadband options in the National Park include fixed wireless services and satellite internet services.

Mobile network operators

Mobile networks and mobile broadband are vital services to the people living, working and visiting in the Cairngorms, due to the extensive areas of remote rural landscape. Mobile networks and mobile broadband are accessed through the use of a SIM card or eSim that is inserted into or registered with a device (such as mobile phone / smart phone, or SIM enabled router also known as a dongle). To operate mobile networks and broadband, the device must receive signal from masts and each mast can provide their network up to a certain distance/ radius (depending on the geography).

Mobile communications work on radio frequencies. In the UK, Ofcom grant licences to four operators to either purchase or lease a range of frequencies within the radio spectrum on which to run their mobile communications networks. These companies are known as mobile network operators (MNOs).

In the UK this means mobile network operators sit at the top of the pyramid of mobile service providers (with providers like Tesco mobile using O2's infrastructure and network to deliver its services). The four main mobile network operators in the UK are Vodafone UK, EE, O2 and Three. They effectively rent 'radio space' directly from the UK Government. Each of the mobile network operators build and is responsible for its own infrastructure (for example masts, transmitters, and control stations) to run its networks.

Having access to adequate mobile data access is essential for accessing public services for example parking meters in the Cairngorms National Park. In areas where there is limited or no broadband availability it is also vital for residents who need to access digital services.

4G mobile not-spots

In the Cairngorms National Park 4G coverage differs between the four mobile network operators which can be seen by observing the varying not-spot areas for each operator (Figure 175, Figure 176, Figure 177, Figure 178). The 4G mobile not-spot maps show the geographic of the National Park that receives no 4G coverage from a given mobile network operator. The spatial mapping data used in this section is derived from the published 4G coverage available on the mobile network operators' individual websites. Currently (in 2024) EE has the best 4G coverage in the National Park. It is worth noting that given the topography of the National Park interior there are large areas of the National Park that receive no signal from any of the mobile network operators. The data used to produce the 4G and 5G not-spot maps comes directly from the mobile network operators publicly available mapping showing coverage available through the service providers websites (produced using data extracted in 2024).

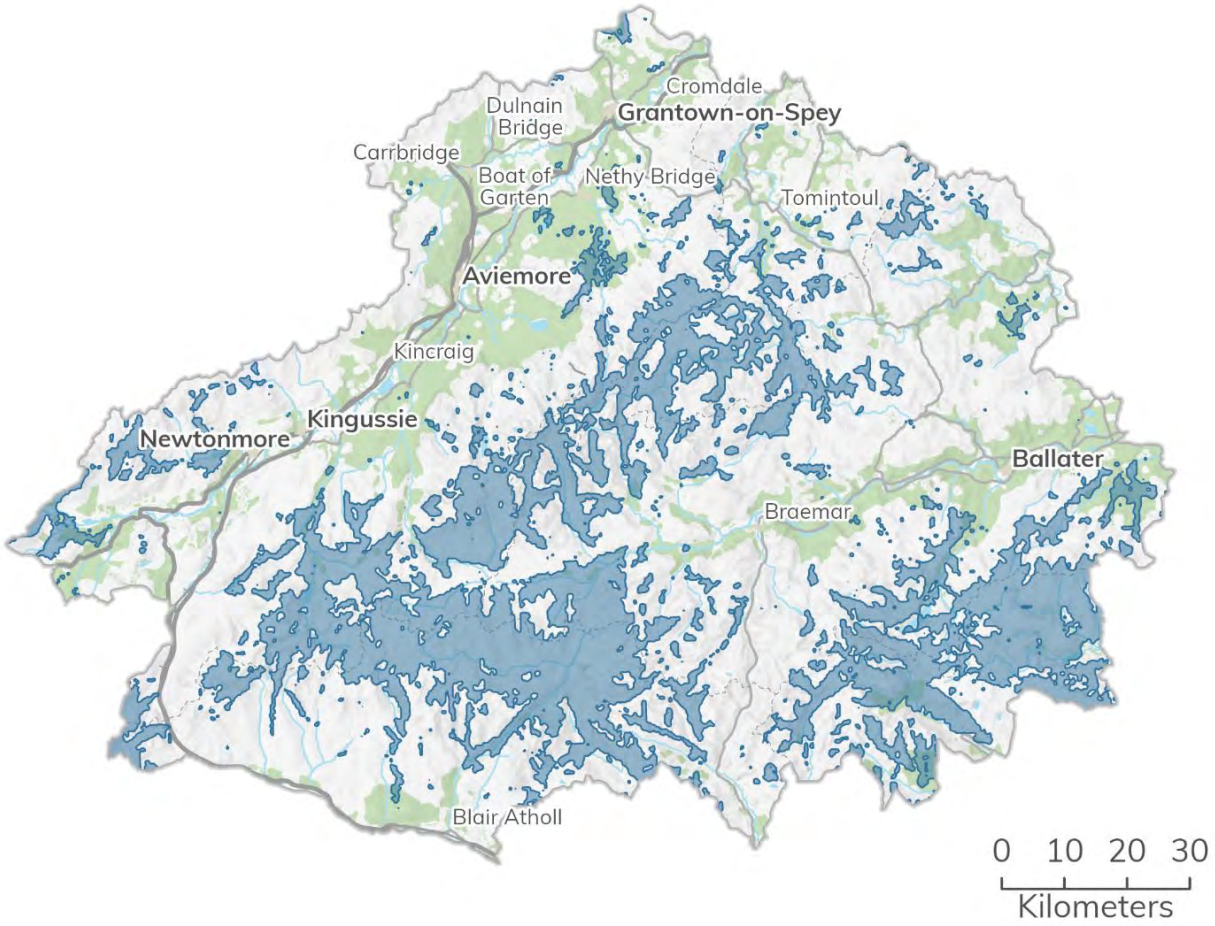


Figure 175 Map showing the EE 4G Not Spots in the National Park (March 2024). Contains data © EE 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

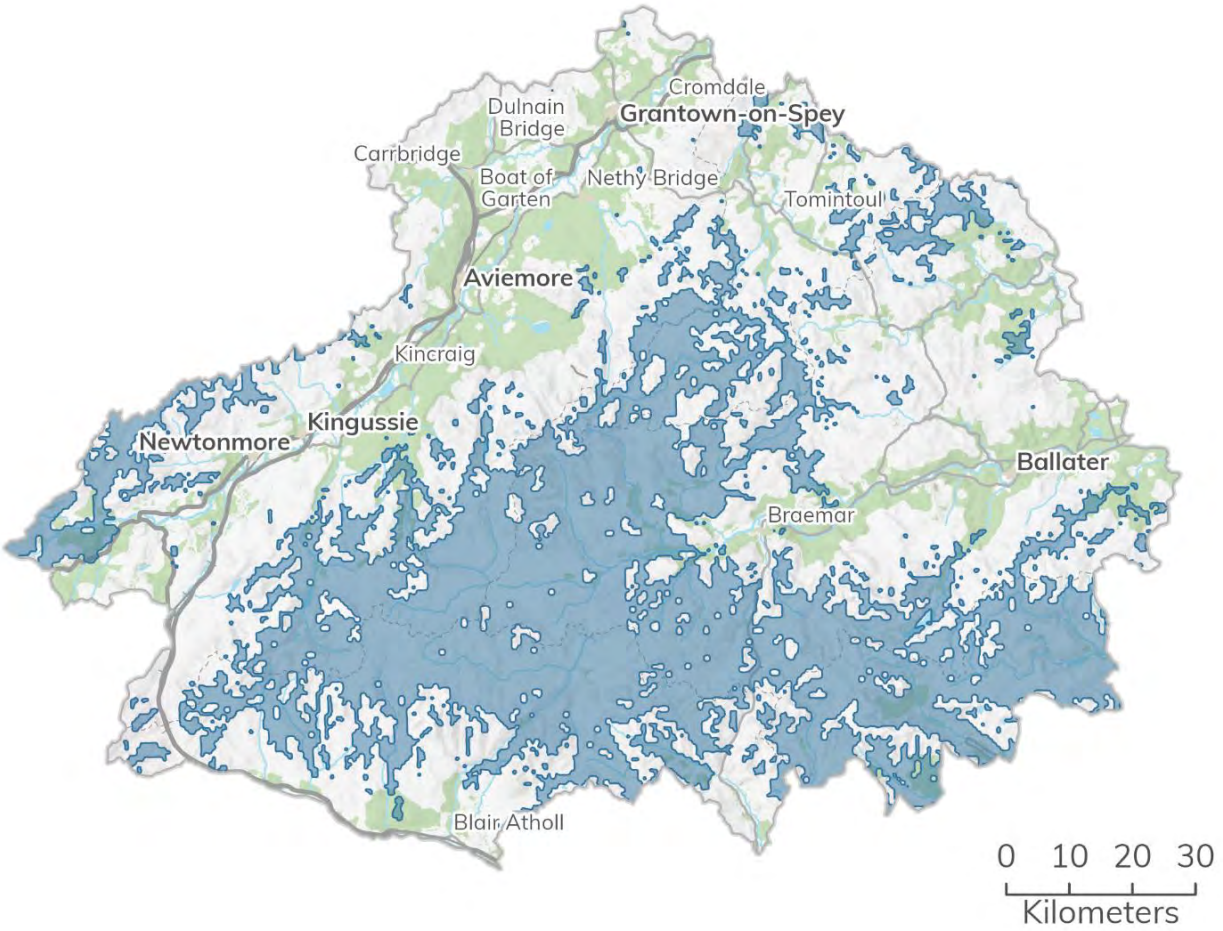


Figure 176 Map showing the O2 4G Not Spots in the National Park (March 2024). Contains data © O2 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

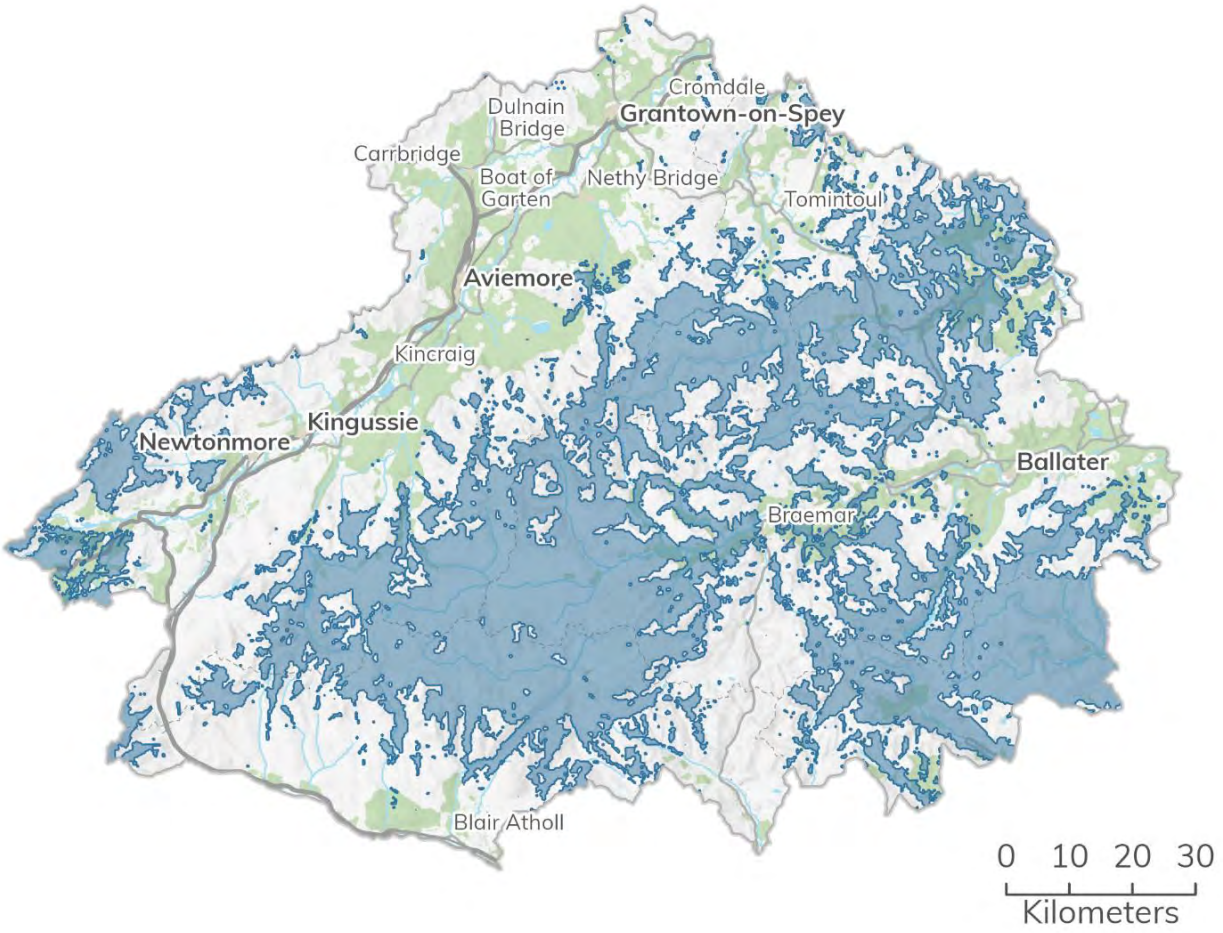


Figure 177 Map showing the Three 4G not spots in the National Park (March 2024). Contains data © Three 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

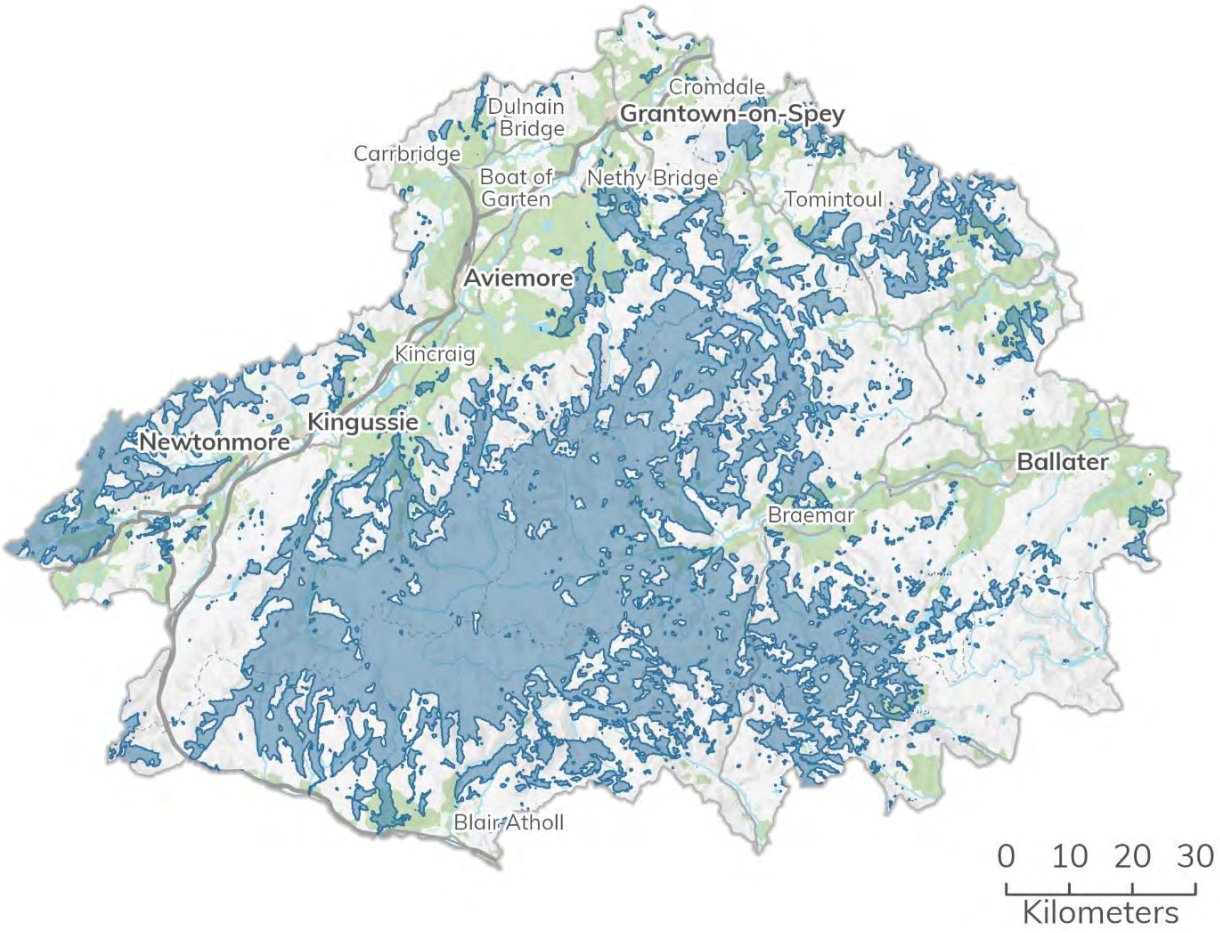


Figure 178 Map showing the Vodafone 4G Not spots in the National Park (March 2024). Contains data © Vodaphone 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

A total 4G not-spot area is a geographic area that receives no 4G coverage from any Mobile Network Operators (Figure 179). Currently 7% of the UK, by geography, is in a 4G total not spot (Ofcom's 2023 Connected Nations report). In contrast in the National Park approximately 8.8% (which is approximately 400km²) of the land area is classed as a total 4G mobile not-spot (not covered by any of the four mobile network operators).

A partial mobile not-spot is a geographic area served by at least one, but not all four mobile network operators. In the National Park approximately 50% (approximately 2250km²) of the area is considered as a partial mobile not-spot for 4G mobile services (Figure 179).

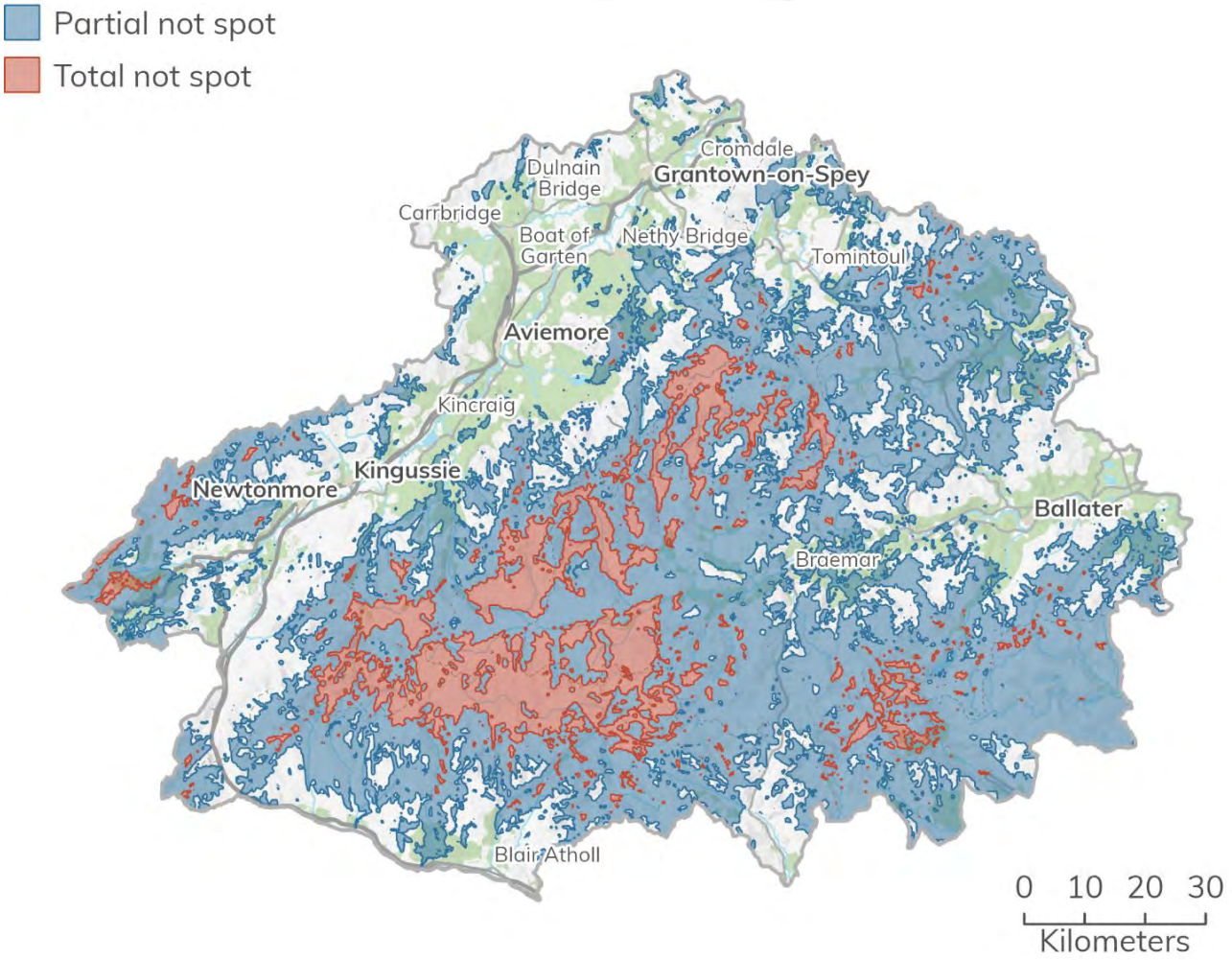


Figure 179 Partial and total 4G not-spots (March 2024). Contains data © EE, O2, Three, Vodaphone 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Mobile network operators have started, or are preparing to start, switching off their 3G networks. As they do, Ofcom estimates that – as well as existing 'not spots' – a small number of properties might lose access to a reliable, indoor, 3G-only mobile service (Ofcom, 2023).

The Shared Rural Network programme (launched in 2020) was initiated to improve 4G coverage across the UK. The Shared Rural Network (SRN) will deliver reliable mobile broadband to 95% of the UK, addressing the digital divide by improving 4G coverage in the areas that need it most.

Through the programme, UK's four mobile network operators– EE, Three O2 and Vodafone expect to improve geographic coverage to 74% of the UK's National Parks.

Individually, each operator will reach 90% geographic coverage, which will result in 84% of the UK having 4G coverage from all four operators, increasing choice and boosting productivity in rural areas.

To deliver the programme, it is expected that the mobile network operators will invest £532m to eliminate the majority of 'partial not-spots' – areas which receive coverage from at least one, but not all, operators. The UK Government will also provide a further £500m to build new masts to eliminate 'total not-spots' – hard to reach areas where there is currently no coverage at all. The majority of UK Government funding is being invested in Scotland.

5G Coverage

There is very limited 5G mobile coverage currently in the Cairngorms National Park (as of March 2024).

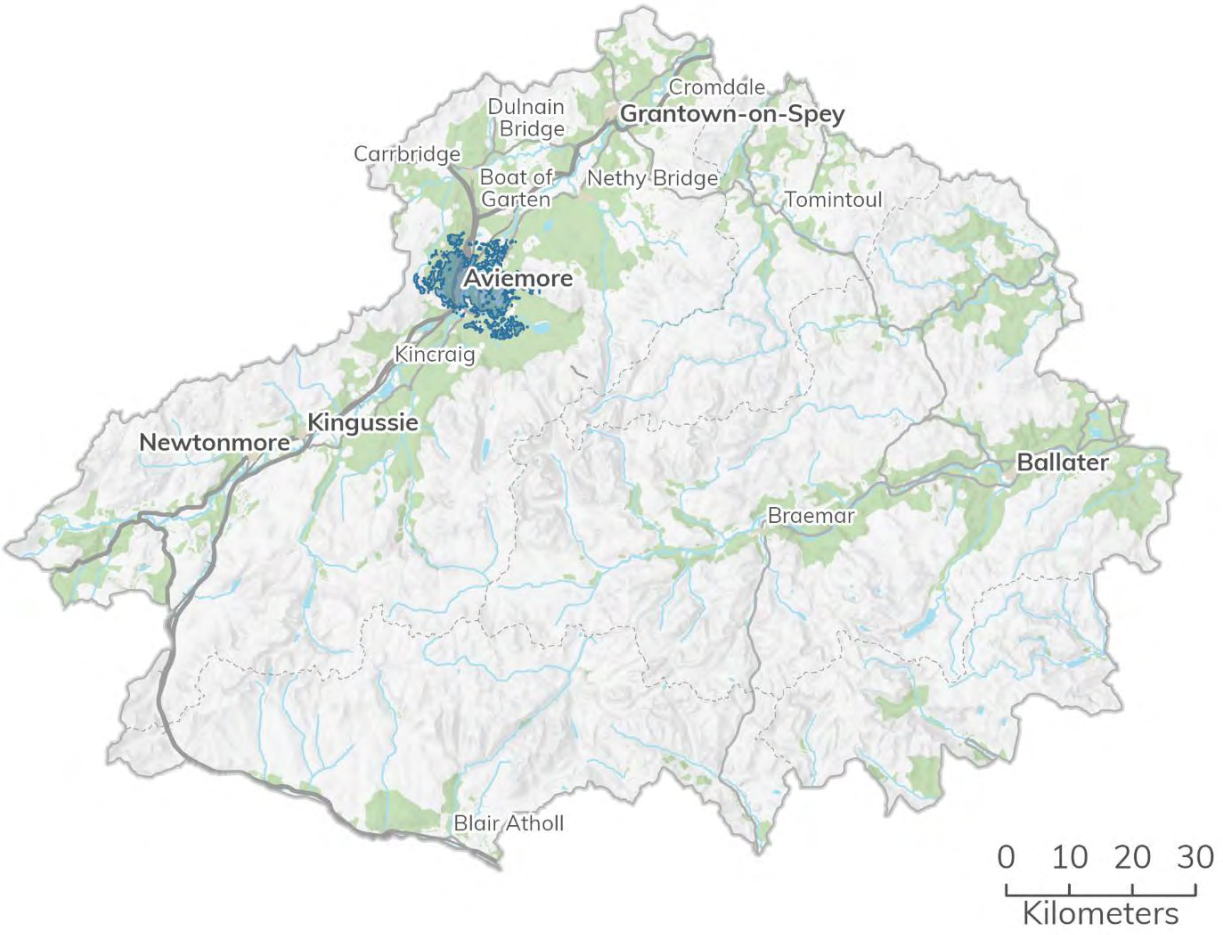


Figure 180 Map showing the current 5G availability from EE in the National Park, (March 2024). Contains data © EE 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Only EE and Three publish 5G availability in the National Park in Aviemore (Figure 180, Figure 181). O2 and Vodafone currently do not offer or publish availability on 5G availability anywhere in the National Park.

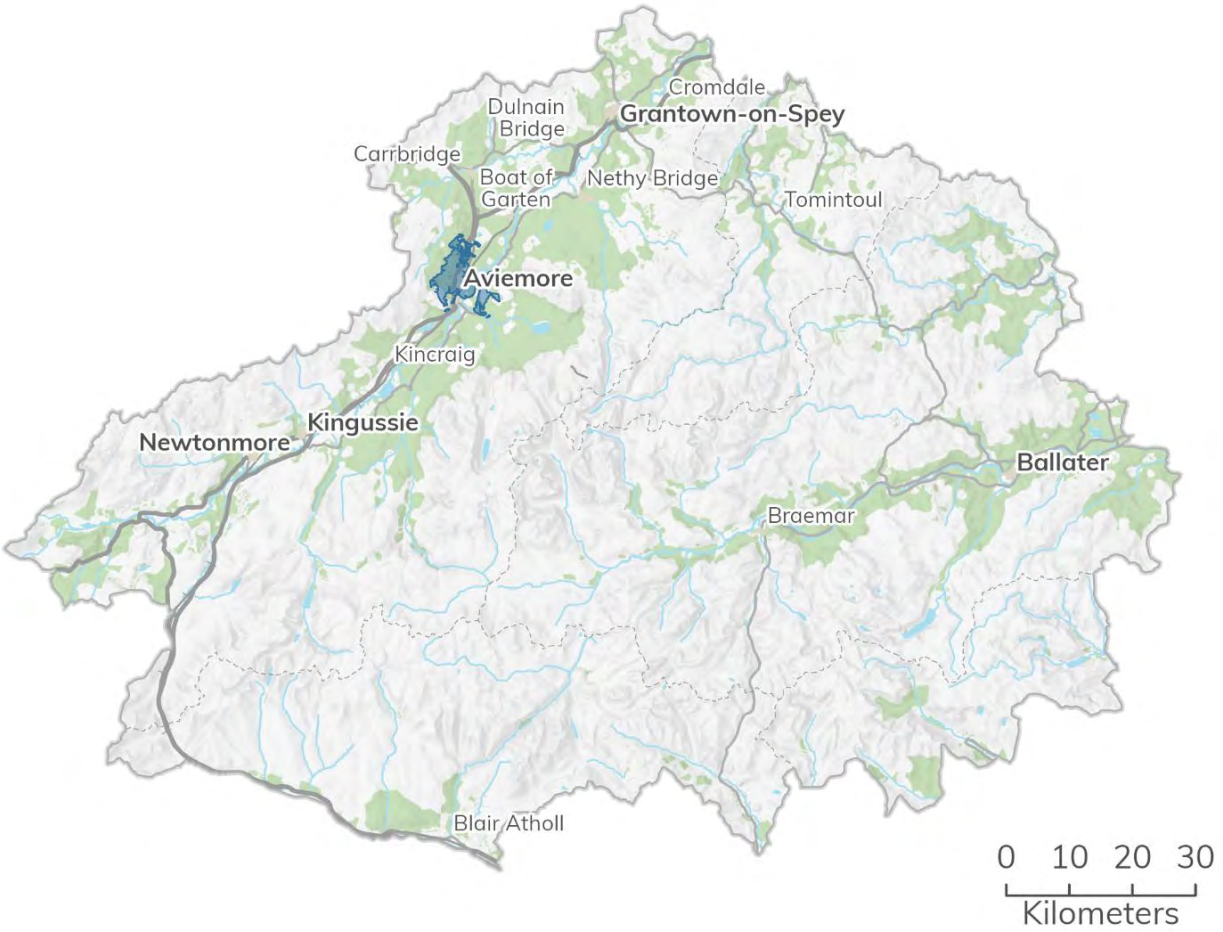


Figure 181 Map showing the current 5G availability from Three in the National Park (March 2024). Contains data © Three 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Telecommunication Masts

There are 76 telecommunication masts located within the Cairngorms National Park at 70 different locations (Figure 182). The masts serve one, two, three or all four of the mobile network operators depending on their location. The information was taken from the open-source website: cellmapper.net and independently verified by a planning

officer using satellite mapping. The distribution of masts across the National Park reflects the 4G mobile partial and total not-spot areas shown in Figure 179. Although the settlements are generally well-served by 4G availability by at least one mobile network operator, the interior due to its topography is where the majority worst connectivity is experienced.

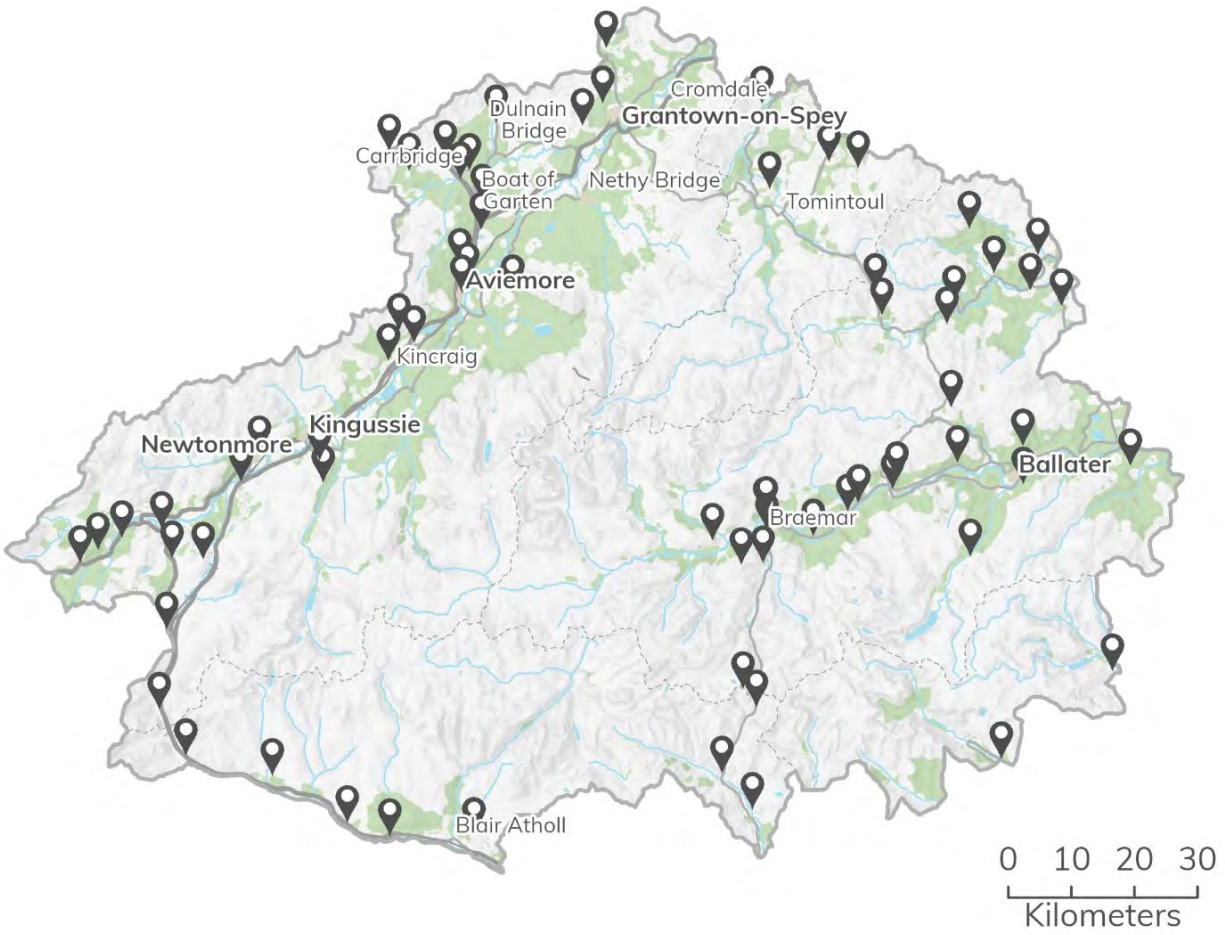


Figure 182 Telecommunication mast location in the Cairngorms National Park. Contains data © cellmapper.net, 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

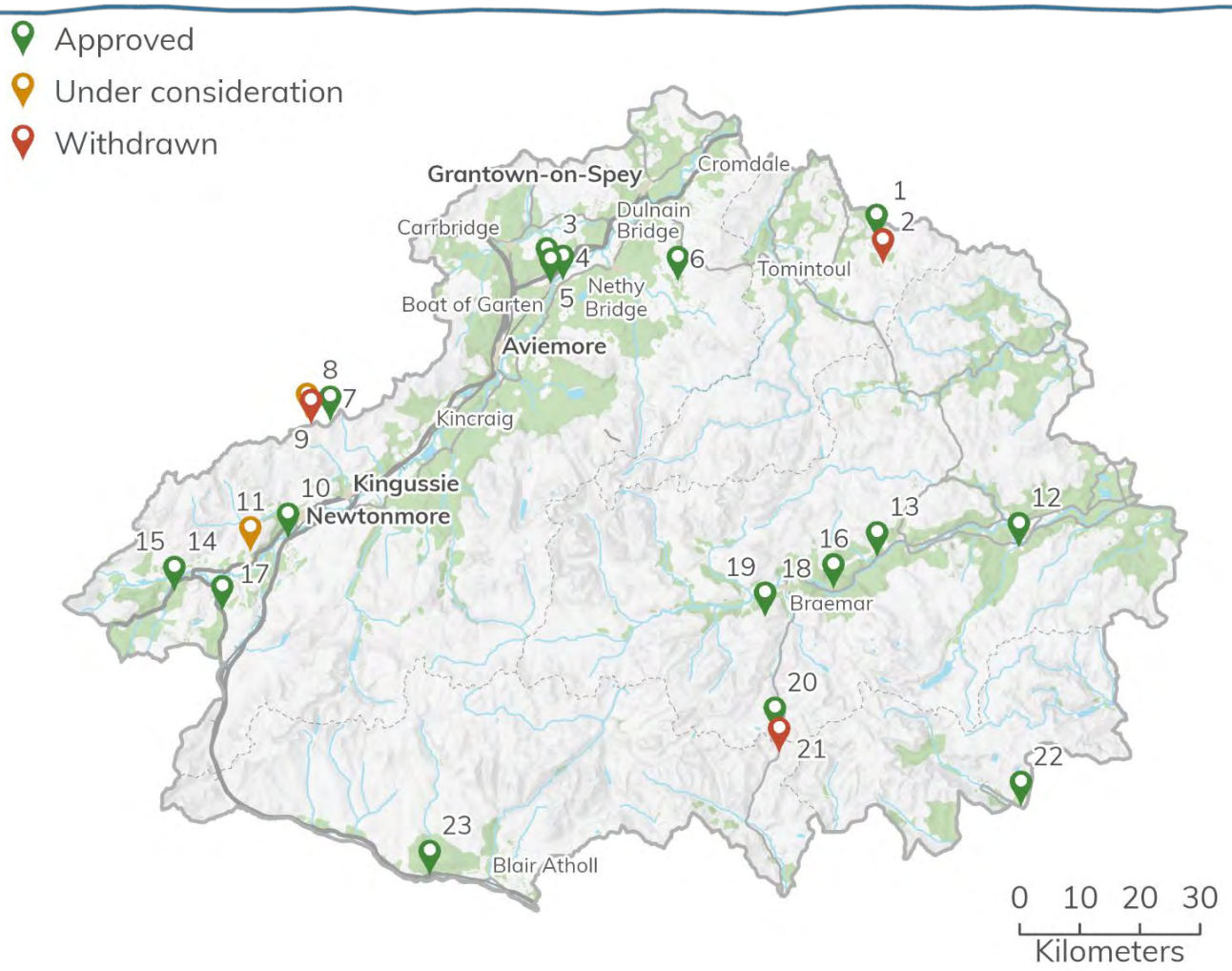


Figure 183 Telecommunication planning applications January 2019 – June 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

In the Cairngorms National Park between 2019 and 2024 18 planning applications for telecommunication mast locations have been approved, three have been withdrawn and two are currently under consideration by the relevant local authority. (Figure 183, Table 35). One further application has been called in by the National Park Authority and is currently pending for the proposed development of a new telecommunications base station installation Red Craig, 900M East of Braedownie, Glen Clova (2023/0274/DET). The approved applications for telecommunication masts vary in height from 6m to 35m.

Table 35 Table showing the details of the telecommunication planning applications January 2019 – June 2024 in the Cairngorms National Park area relating to the numbered entries on Figure 183.

Map reference	Planning application reference	Status	Description	Address
1	2019/0038/DET	Approved	Erect a 30m telecoms mast with associated cabinets/equipment to extend Emergency Services Network (ESN) mobile coverage across Chapeltown area. The new blue-light communications service will replace the current system known as Airwave.	Site To Rear Of Bochel Farm, Chapeltown, Ballindalloch
2	2019/0084/DET	Withdrawn	The installation of a 15.00m mast with 6no antennae 2no 600mm dishes and ancillary equipment cabinets.	On Site Adjacent To Eskemulloch, Ballindalloch, Moray
3	2023/0334/DET	Approved	Erection of 25m high telecommunications mast, antennae, dishes, cabinets, fenced compound and construction of 20m access track.	Drumuillie Forestry, Desisher Wood, A95, Boat of Garten
4	2021/0033/DET	Approved	Installation of a 17.5m telecoms mast.	Electricity Substation, Boat of Garten
5	2019/0026/DET	Approved	Installation of a 25m slimline lattice mast with 3m headframe (28m overall height) accommodating 3No. Antennas, 2No. 600mm dish, 1No. 300mm dish; associated 3No. Cabinets (1300x700x1450mm; 700x840x1800mm; 655x264x1015mm); and, all ancillary apparatus.	Land 25M East Of Scottish Fire And Rescue, Nethy Bridge Raod, Boat of Garten
6	2022/0401/DET	Approved	Erection of 30m high telecomms mast and ancillary development.	Lainchoil Plantation, Near C1124, Nethy Bridge, Strathspe, PH25 3EE
7	2019/0197/DET	Approved	Installation of 6m high radio repeater mast and associated equipment.	Land 520M NE Of Beinn Breac, Kingussie

Map reference	Planning application reference	Status	Description	Address
8	2022/0266/DET	Under consideration	Erection of 8m high lattice radio mast.	Land 4825M NW Of Keepers Cottage, Kingussie
9	2021/0328/DET	Withdrawn	Erection of 6m high lattice radio mast and equipment cabinet.	Land 4825M NW Of Keepers Cottage, Pitmain, Kingussie
10	2019/0252/DET	Approved	Erection of 20m high telecoms mast and equipment compound.	Land At Ralia Highland Gateway Centre, Near Newtonmore, PH20 1BD
11	2023/0418/DET	Under consideration	Installation of 25m high telecommunications mast and ancillary development within fenced compound.	Land North Of A86, Newtonmore
12	2019/0399/DET	Approved	Erection of 25m Mast and Installation of Cabinets, Erection of 1.5m Gabion Retaining Wall and 1.8m Fence and Formation of Access.	Land To South Of East Lodg, Ballater
13	2020/0275/DET	Approved	Installation of 16m High Telecommunications Mast and Associated Equipment Housing.	Layby On A93 Opposite Inver Croft, Crathie, Ballater
14	2020/0040/DET	Approved	Erection of 20m high telecoms mast, associated equipment and cabinets within fenced compound and formation of access.	Land 310M NE Of 1 Forestry Houses, Laggan
15	2020/0138/DET	Approved	Erection of 20m high telecoms mast, associated equipment and cabinets, drainage, RRV, within fenced compound and formation of access (as amended from 20/00347/FUL).	Land 310M NE Of 1 Forestry Houses, Laggan
16	2020/0288/DET	Approved	Erection of 35m Telecommunications Mast.	Site To East Of Brig O Dee Cottage, Braemar

Map reference	Planning application reference	Status	Description	Address
17	2019/0060/DET	Approved	Erection of 15m high telecoms mast, equipment cabinets and formation of access from A889.	Land Off A889, General Wades Military Road, Near Dalwhinnie, PH19 1AA
18	2021/0099/DET	Approved	Erection of Temporary 27m Mast Associated Antennas and Ancillary Infrastructure.	Morrone Hill Radio Facilities, Braemar, Aberdeenshire,
19	2024/0049/DET	Approved	Installation of antennas and transmission dishes on existing mast, ground-based apparatus and ancillary development.	Morrone Hill Radio Facilities
20	2020/0278/DET	Approved	Erection of Temporary Wind Monitoring Meteorological Mast.	Glenshee Ski Centre, Braemar
21	2019/0195/DET	Withdrawn	Installation of a 15m mast, 2 transmission dishes, equipment housing, erection of a fence and associated works.	Land At Gleann Beag, Glenshee
22	2019/0087/DET	Approved	Erection of a 20m Lattice Mast and the Installation of 6no. Antennae, 2no. Micro-Wave Dishes, Equipment Cabinets, Cabling, Fencing, Access Track and Ancillary Works.	Land Adjacent To Wheen, Glen Clova
23	2023/0397/DET	Approved	Erection of a telecommunications mast and installation of ancillary cabinets.	Land 130 Metres South West Of Clan Donnachaidh Museum, Pitagowan. Blair Atholl. PH18 5TW

Key messages

Material assets cover a wide range of environmental concerns. 39 Geological Conservation Review sites within or overlapping the Cairngorms National Park boundary; combined they cover an area of around 592 km^2. The National Park Authority

is however satisfied that there is sufficient access to construction aggregates through the quarries active within the local authorities that cover the National Park, both within and outwith its boundary.

The Park Authority have permitted approximately 11,198 annual kW of renewable energy between 2014 to 2023, approximately 69% of which was for biomass and 21% for hydro-electric generation.

Overall, between 2011 and 2022 the amount of household waste sent to landfill has been decreasing, however in recent years there has been little progress with 462kg generated per person in 2020, and 470kg per person in both 2021 and 2022. The amount of waste (kg per person) has been decreasing from 2011 to 2022. It should be noted that this began to increase in small increments from 208.9kg per person in 2020 to 217.8kg per person in 2022.

Transport infrastructure, while good along the Cairngorms National Park's main corridors, is poor elsewhere in the National Park, resulting in long drive times and high levels of deprivation in Scottish Index of Multiple Deprivation 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 Local Development Plan.

Rail use sharply declined in 2020 – 2021 but has seen growth in the following two years, however, is still below the levels of use in 2019 – 2020. Rail use was already declining pre-pandemic from 2017 – 2018 to 2019 – 2020. Car ownership in the National Park has increased from 85% in 2011 to 87% in 2022 and is significantly above the national levels (74%).

There remains a need to address the poor digital infrastructure in the Cairngorms National Park. The National Park's internet infrastructure is still in the process of being upgraded, although plans are yet to be confirmed for a third of the exchanges servicing the area. Despite Government led programmes there still remain large areas of the National Park that don't have access to superfast broadband. There also remains an issue with 4G connectivity in the National Park with large areas not able to receive any signal on any of the four main carriers.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 2: Air
- Topic 3: Water

- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

Topic 6: Biodiversity, fauna and flora

Context

Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide, with human actions threatening more species with global extinction now than ever before. For terrestrial and freshwater ecosystems, land-use change has had the largest relative negative impact on nature since 1970, followed by the direct exploitation, in particular overexploitation, of animals, plants and other organisms, mainly via harvesting, logging, hunting and fishing. Climate change is a direct driver that is increasingly exacerbating the impact of other drivers on nature and human well-being[75].

[75] For further information on the global context, see https://zenodo.org/records/6417333/files/202206_IPBES%20GLOBAL%20REPORT_FULL_DIGITAL_MARCH%202022.pdf?download=1

Scotland ranks amongst those countries where habitats and species have been most depleted by human impacts through history. The State of Nature Report 2023[76] states that declines in biodiversity may be driven by the intensive use of our land for agriculture and forestry, overgrazing and the use of our seas for fishing. These impacts are exacerbated by climate change, pollution, inappropriate development, invasive non-natives and disease.

National Planning Framework 4 makes reference to the Cairngorms National Park is a national asset with internationally significant habitats and landscapes. The National Park covers less than two per cent of the UK landmass but is home to 25% of its rare animal, insect, lichen, fungi and insect species. Habitats are rich and varied from, montane alpine habitats high on the Cairngorms plateaux; freshwater and riparian habitats of the renowned salmon rivers the Spey, Dee, Tay and South Esk; peatland habitats important for storing carbon; Caledonian pine woodlands, home of the rare capercaillie; to stands of aspen in Strathspey supporting rare insects and fungi. The foundations for ecosystem restoration, for habitats to reach their full ecological potential on a grand scale, are impressive.

Protected sites

Protected sites help to ensure that their natural features of special interest remain in good health for all to enjoy, now and in the future. International directives and treaties, domestic legislation and policy, or local needs and interests may call for the designation of sites.

Many organisations have roles in protected areas, including the National Park Authority. NatureScot directly manages some, advises on the management of others and monitors the condition of Sites of Special Scientific Interest and international sites, such as Special Areas of Conservation and Special Protection Areas. Monitoring the condition of these protected sites helps us to maintain their value. Where serious issues are uncovered, NatureScot, Scottish Ministers or courts may use various orders to compel conservation efforts.

This document provides a summary of the protected sites within and overlapping the boundary of the Cairngorms National Park. A key element of this is an appraisal of the site's qualifying features and identifying those with features that are in unfavourable

[76] See https://stateofnature.org.uk/wp-content/uploads/2023/09/TP26056-SoN-Scotland-summary-report-v5-1.pdf

condition (Figure 184). Information on protected sites has been extracted from the following Scotland Environment dashboard and is up-to-date as of the dashboard's update on 11 September 2024:

- https://informatics.sepa.org.uk/ProtectedNatureSites/

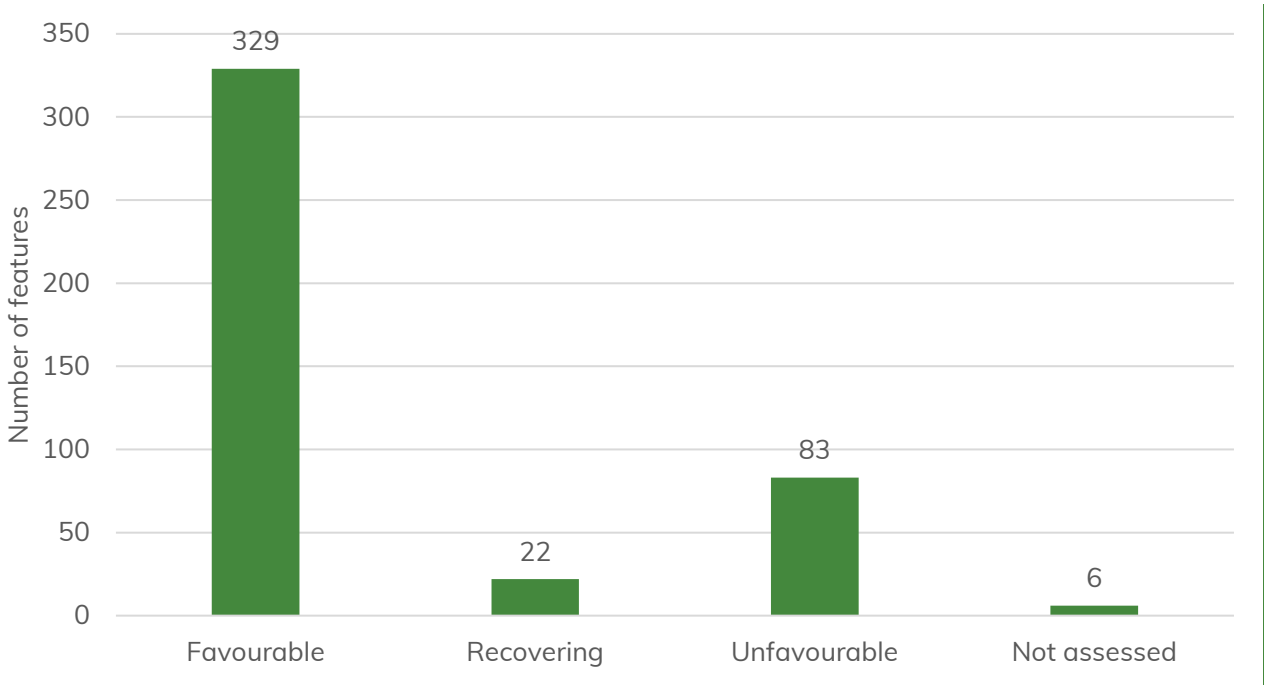


Figure 184 Condition of qualifying features of Special Areas of Conservation, Special Protection Areas, Ramsar Sites and Sites of Special Scientific Interest within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

Information on the protected sites considered in this paper is contained within the following supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2025/01/Cairngorms-National-Park-protected-site-information.pdf

International designations

Almost half of the Cairngorms National Park is designated as European sites comprising of Special Areas of Conservation and Special Protection Areas. These areas are designated to meet the needs of European Union directives and policies. There are also three Ramsar sites within the National Park, which are classified under the Convention on Wetlands of International Importance.

Special Areas of Conservation

There are 23 Special Areas of Conservation (Figure 185), which are designated to protect one or more special habitats and / or species. Combined, they cover around 1,600 km^2 of the National Park's area. There has been a slight increase in the number of features assessed to be in favourable condition, from 71 in 2010 to 99 in 2024 (Figure 186 and Figure 187). There has also been a decrease in features assessed as unfavourable, from 59 in 2010 to 26 in 2024. Unfavourable features include habitats such as blanket bog, bog woodland, dry heaths and wet heathland with cross-leaved heath. Monadhliath is the only Special Area of Conservation with no features in favourable condition, with its single qualifying feature of blanket bog having been most recently assessed in 2020.

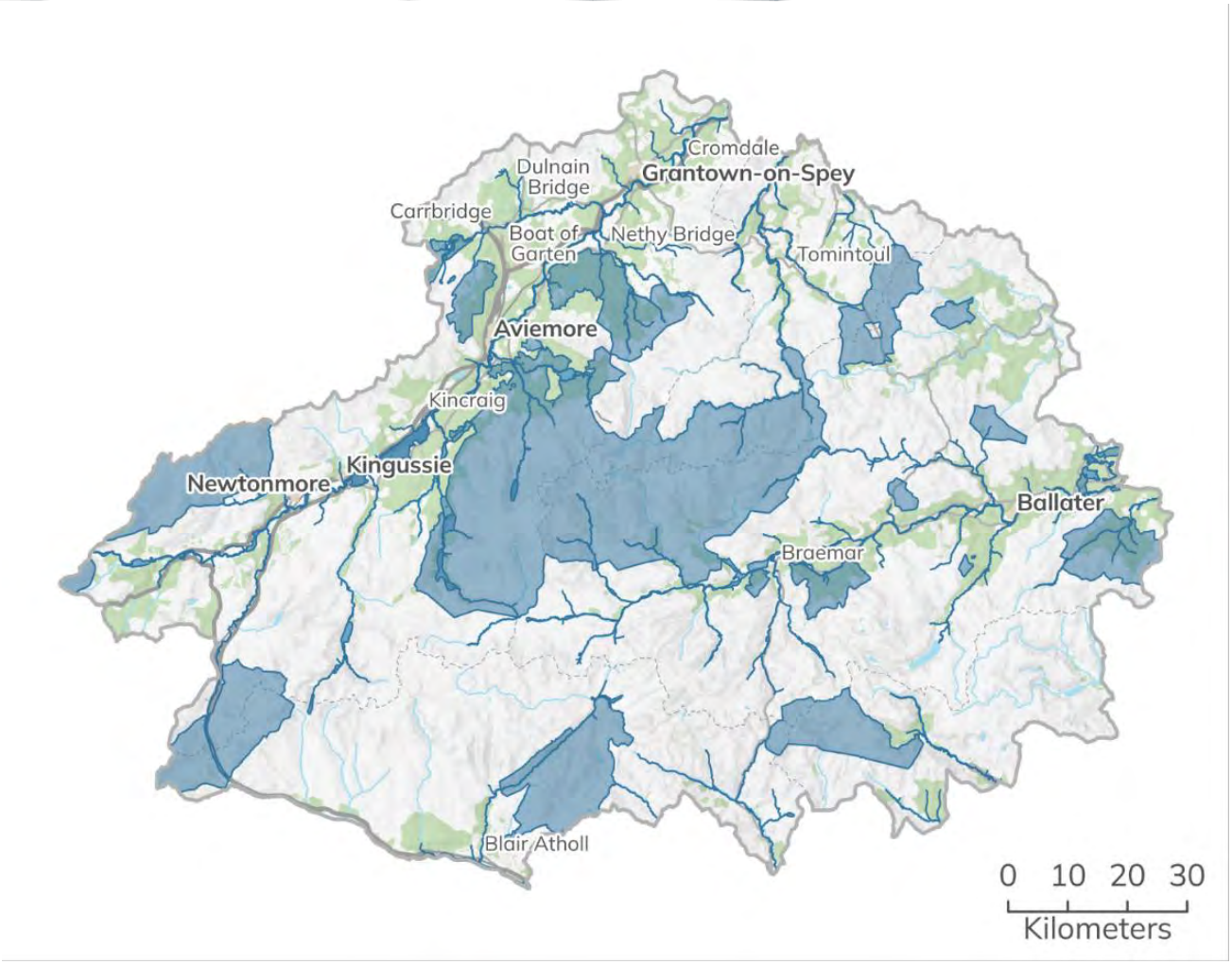


Figure 185 Special Areas of Conservation within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

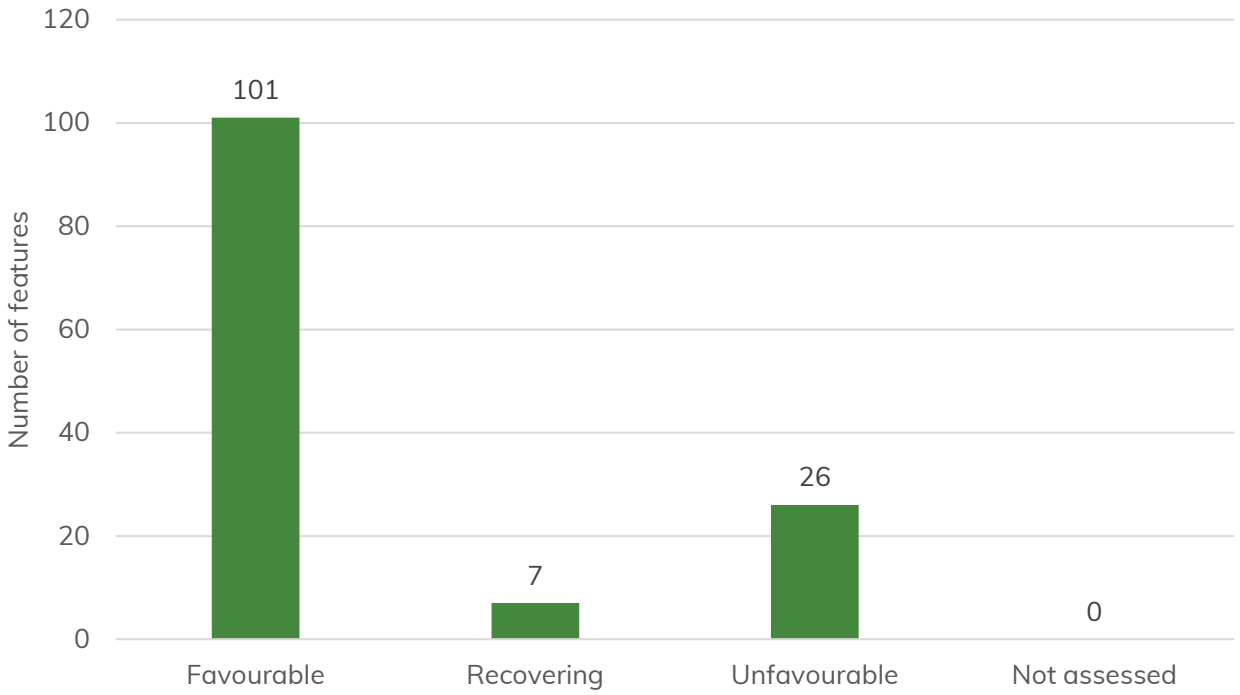


Figure 186 Condition of qualifying features of Special Areas of Conservation within and overlapping the Cairngorms National Park boundary as of 11 September 2024 data from NatureScot).

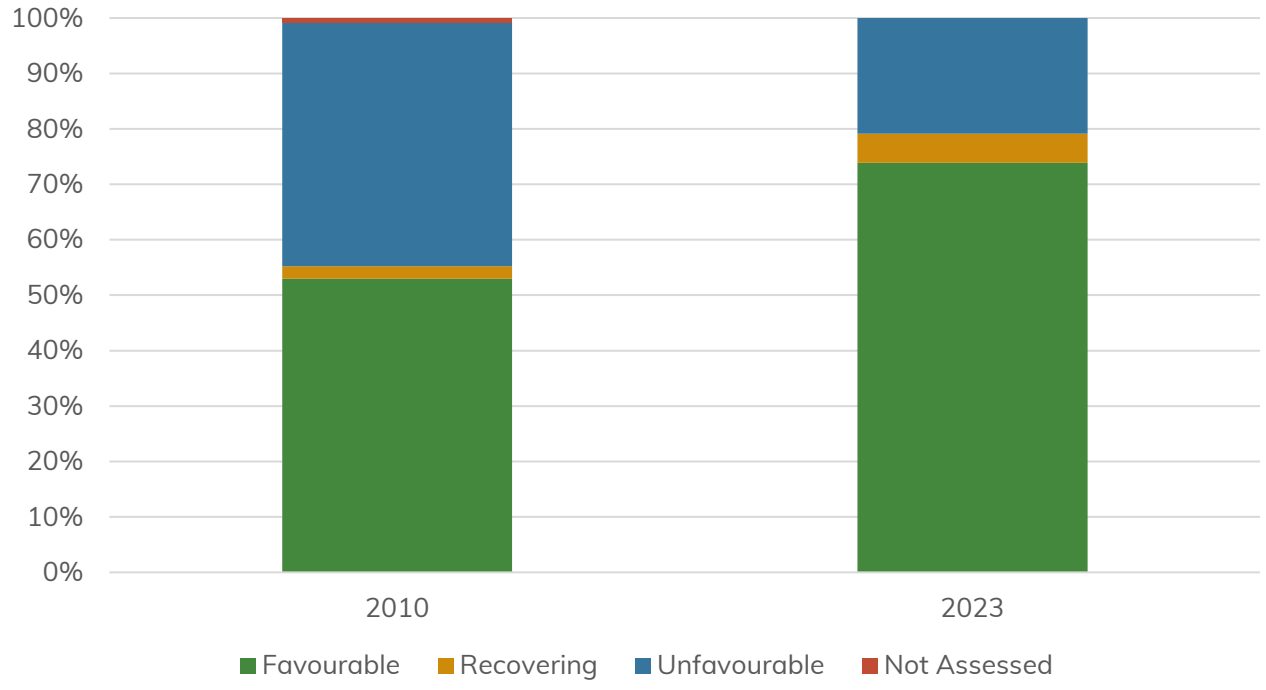


Figure 187 Comparison between the condition of qualifying features of Special Areas of Conservation within and overlapping the Cairngorms National Park boundary in 2010 and 2023. Data accurate as of 11 September 2024 (data from NatureScot).

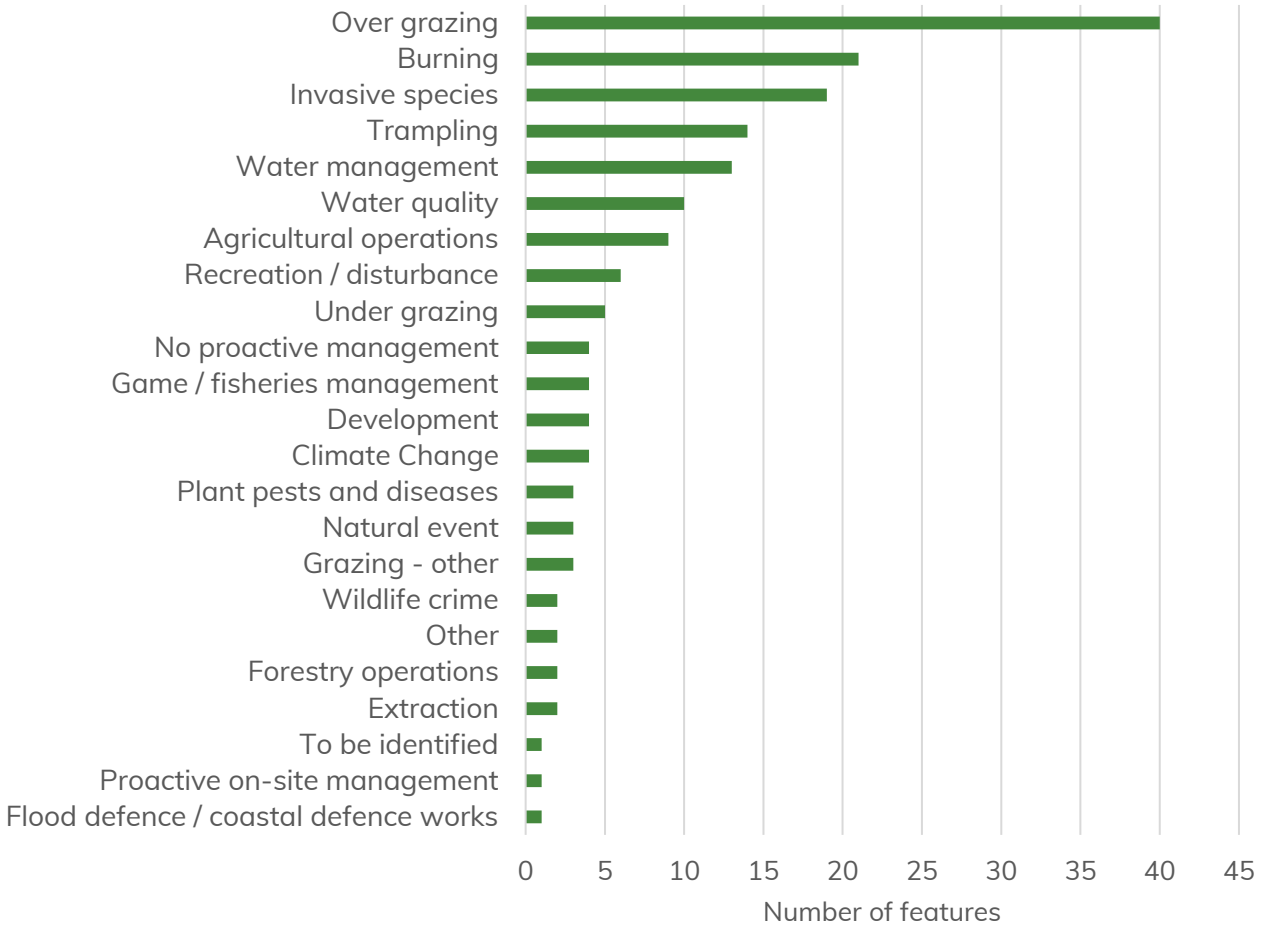


Figure 188 Pressures on qualifying features of Special Areas of Conservation within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

Special Protection Areas

There are 15 Special Protection Areas within and overlapping the Cairngorms National Park boundary, covering around 1,730 km^2 of the National Park's area (Figure 189). As of 2024, 20 features of the Special Protection Areas have been assessed as favourable, one feature as recovering, 18 features as unfavourable and one feature has not had an updated assessment (Figure 190). The data indicates that there has been an increase in unfavourable features, with 8 features assessed as unfavourable in 2010 (Figure 191). Species which have declined include dotterel.

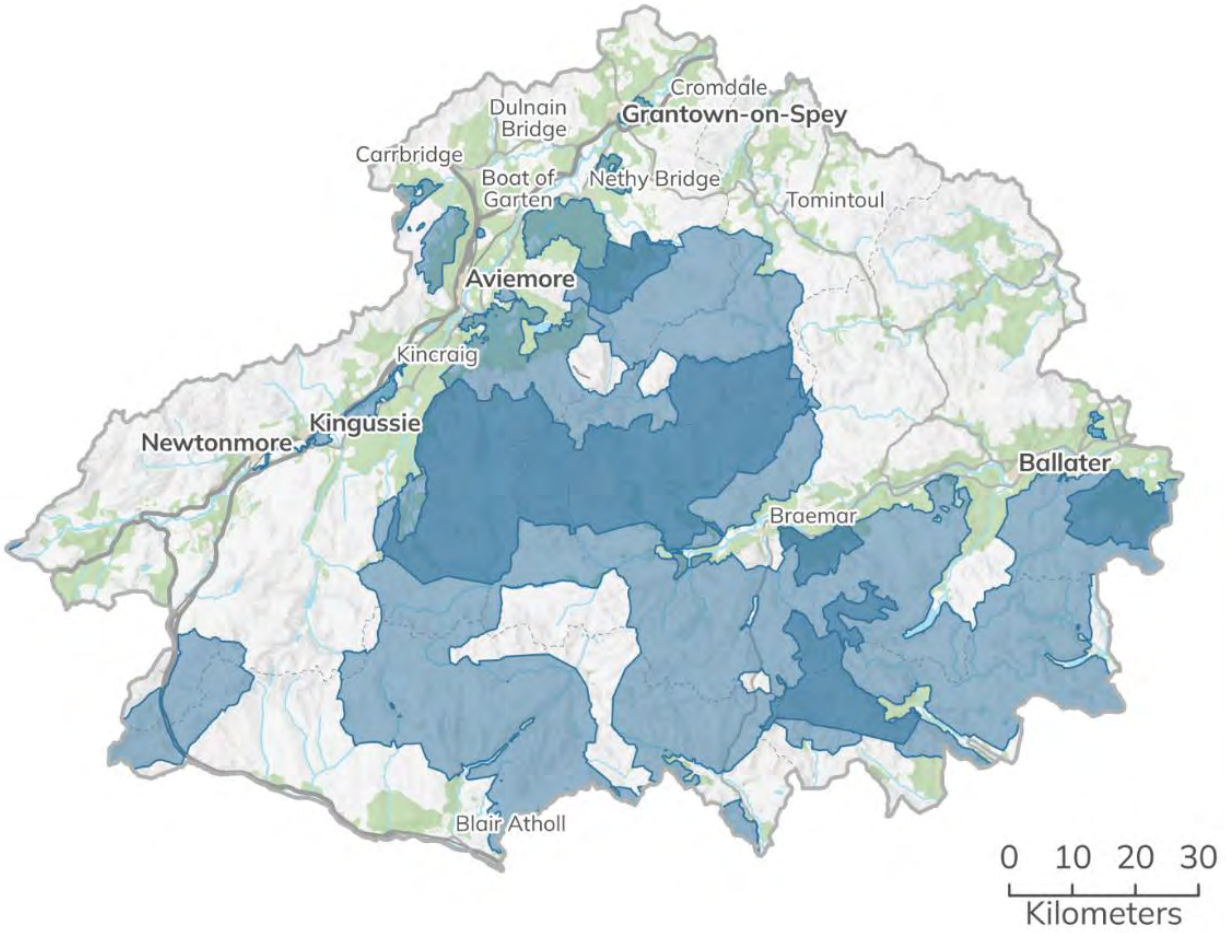


Figure 189 Special Protection Areas within the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

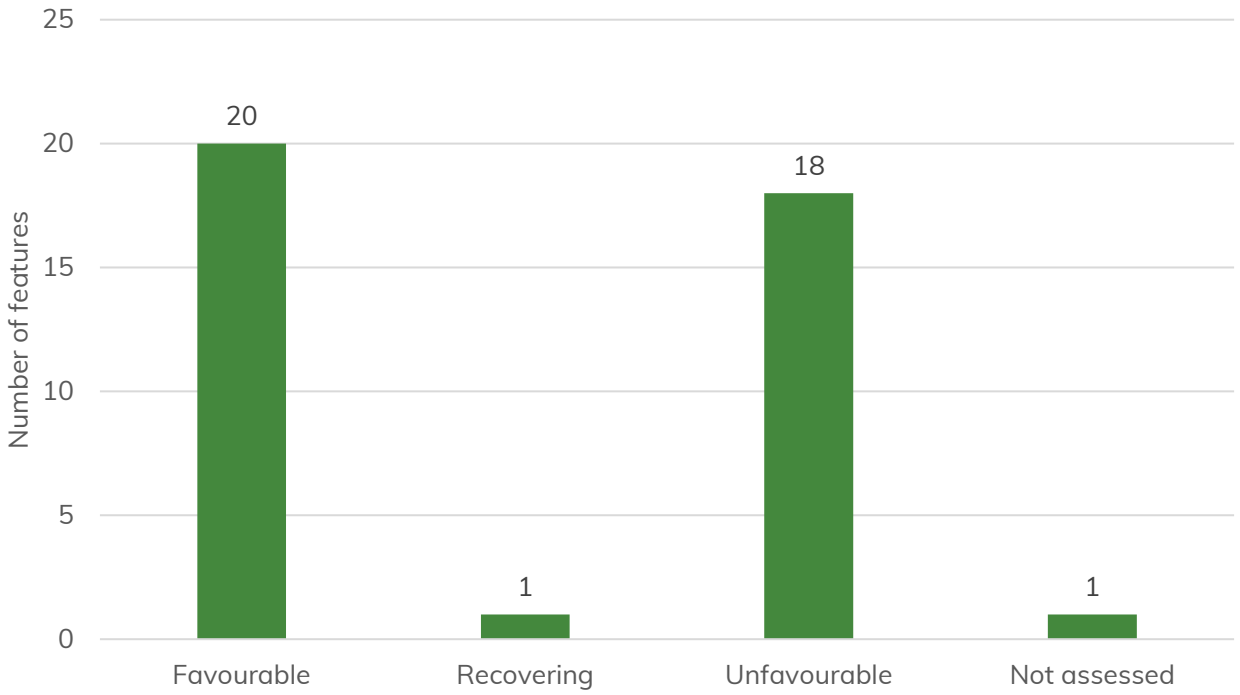


Figure 190 Condition of qualifying features of Special Protection Areas within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

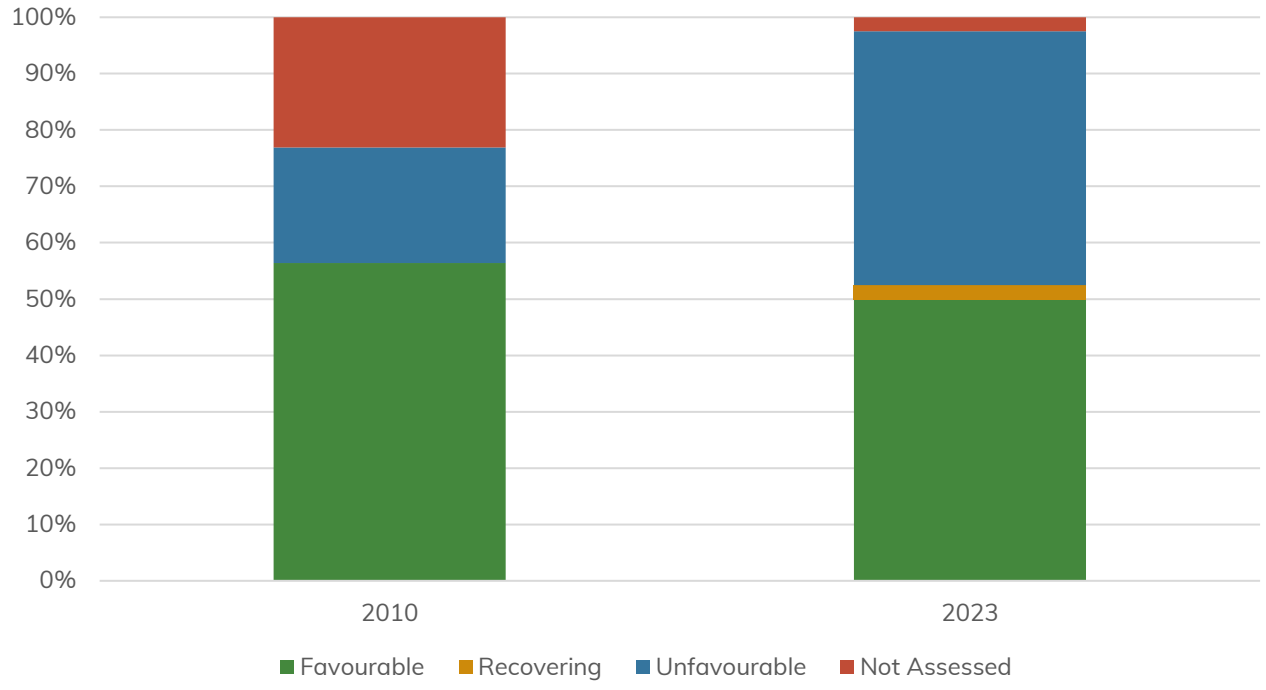


Figure 191 Comparison between the condition of qualifying features of Special Protection Areas within and overlapping the Cairngorms National Park boundary in 2010 and 2023. Data accurate as of 11 September 2024 (data from NatureScot).

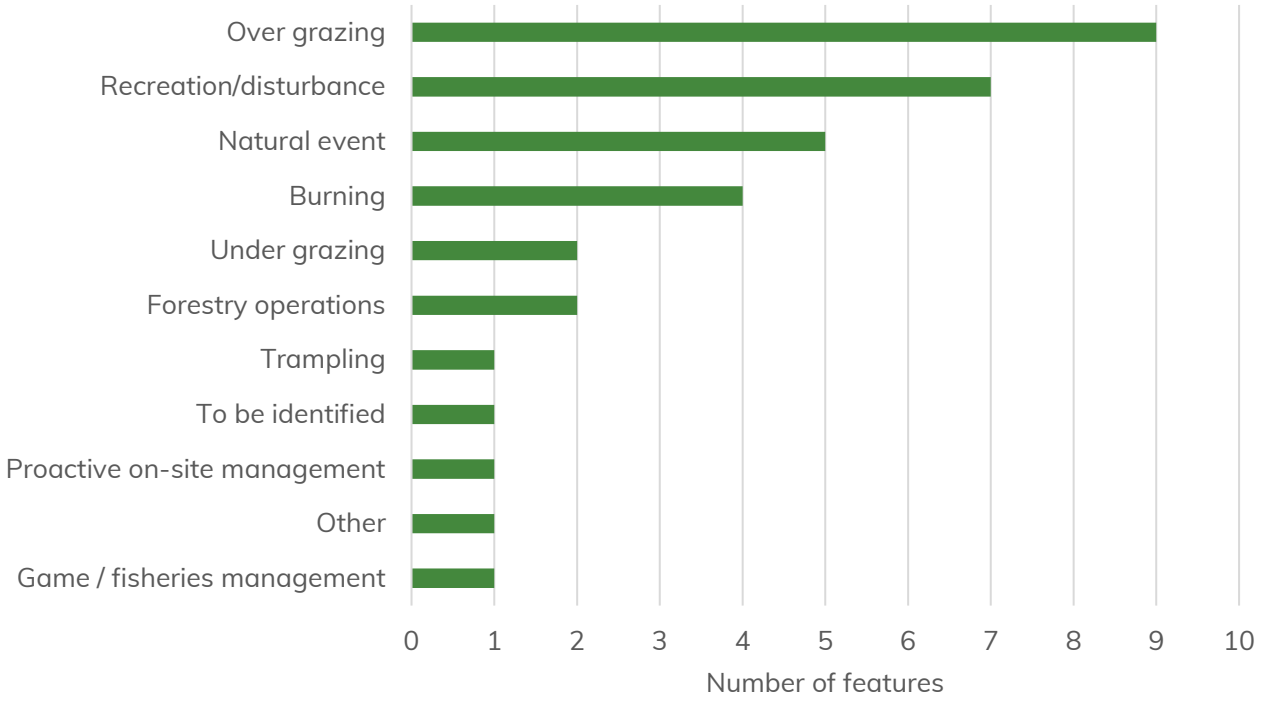


Figure 192 Pressures on qualifying features of Special Protection Areas within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

There are eight Special Protection Areas which have no features in favourable condition (Figure 193):

- Anagach Woods, for which breeding capercaillie[77] are the qualifying feature.
- Craigmore Wood, for which breeding capercaillie are the qualifying feature.
- Creag Meagaidh, for which breeding dotterel are the qualifying feature.
- Drumochter Hill, for which breeding dotterel and merlin are the qualifying features,
- Forest of Clunie, for which breeding hen harrier, merlin, osprey[78] and short-ear owl are the qualifying features.
- Loch Vaa, for which breeding Slavonian grebe are the qualifying feature.
- Lochnagar, for which breeding dotterel are the qualifying feature.
- Muir of Dinnet, for which non-breeding greylag goose and its water fowl assemblage are the qualifying features.

[77] Capercaillie are covered in more detail under the priority species section of this document.
[78] Raptors are covered in more detail under the priority species section of this document.

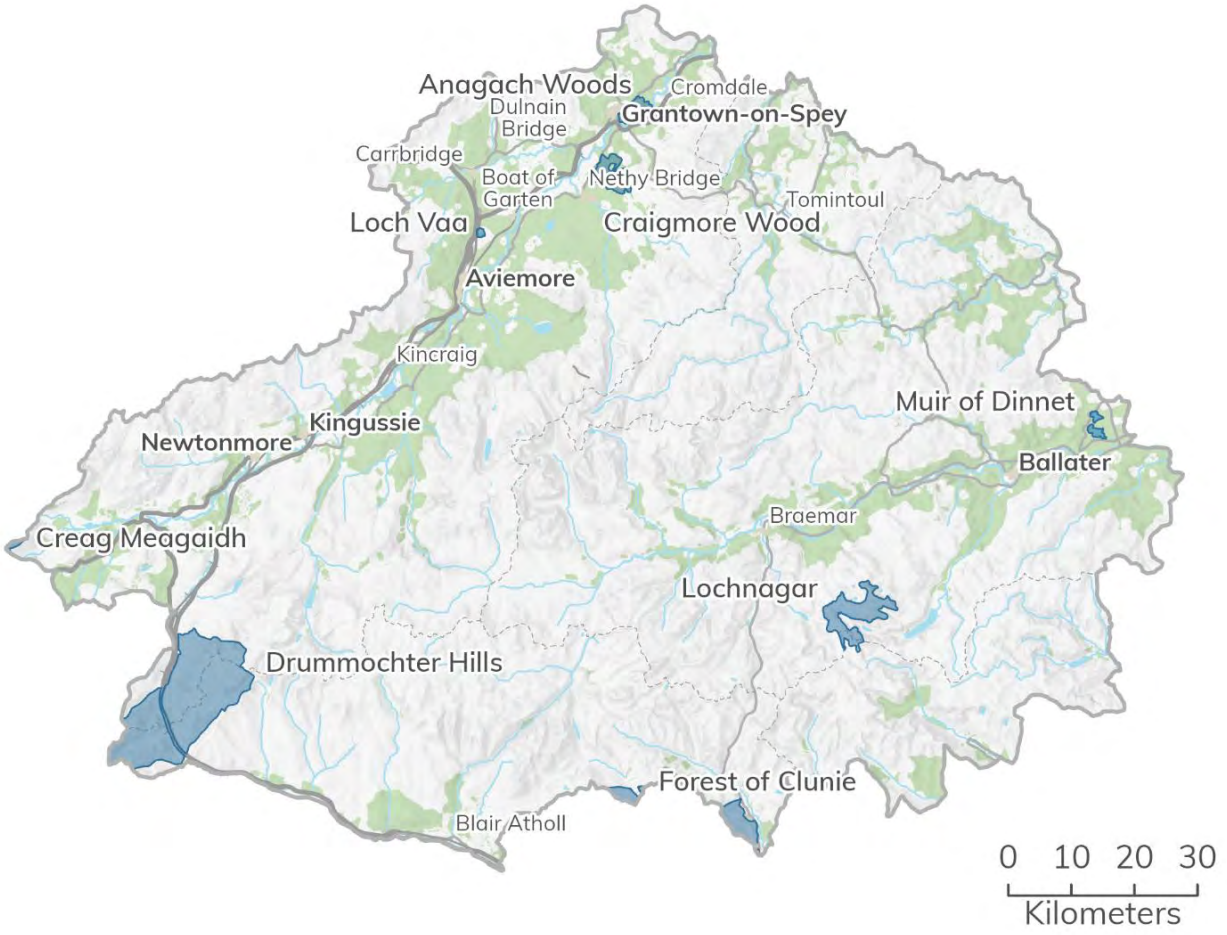


Figure 193 Special Protection Areas within the Cairngorms National Park that have no qualifying features in favourable condition. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Ramsar sites

There are three Ramsar sites within the National Park boundary (Figure 194), which are designated to conserve and protect wetlands. Muir of Dinnet is the only Ramsar site with no features in favourable condition, with its single qualifying feature of non-breeding greylag goose having been most recently assessed in 2012. The River Spey – Insh Marshes Ramsar site also has features in unfavourable condition, namely Its wetland woodland and breeding wigeon features. Otter are assessed as being in favourable condition, but declining, with the most recent assessment occurring in 2011. It's spotted crake and wood sandpiper qualifying features have not been assessed.

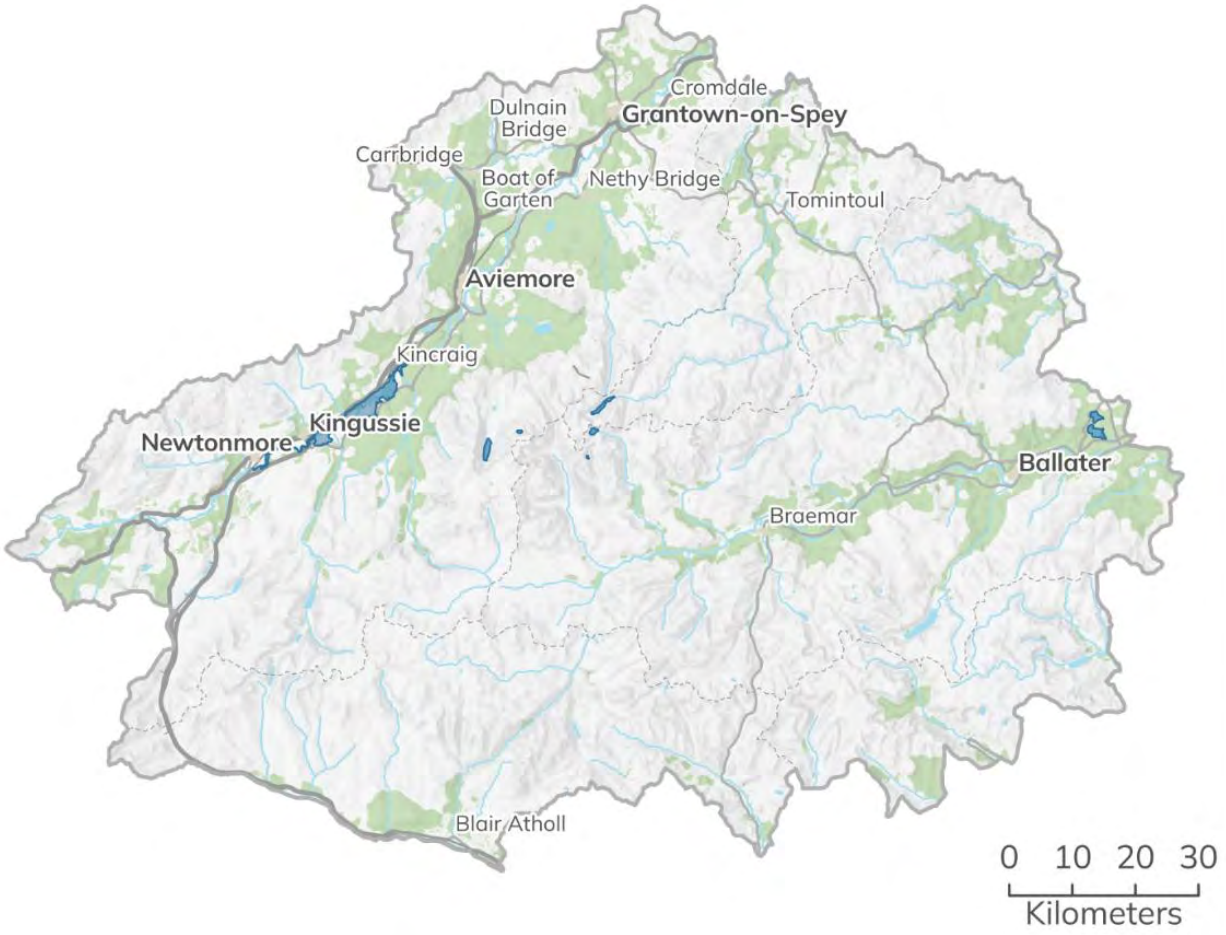


Figure 194 Ramsar sites within the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

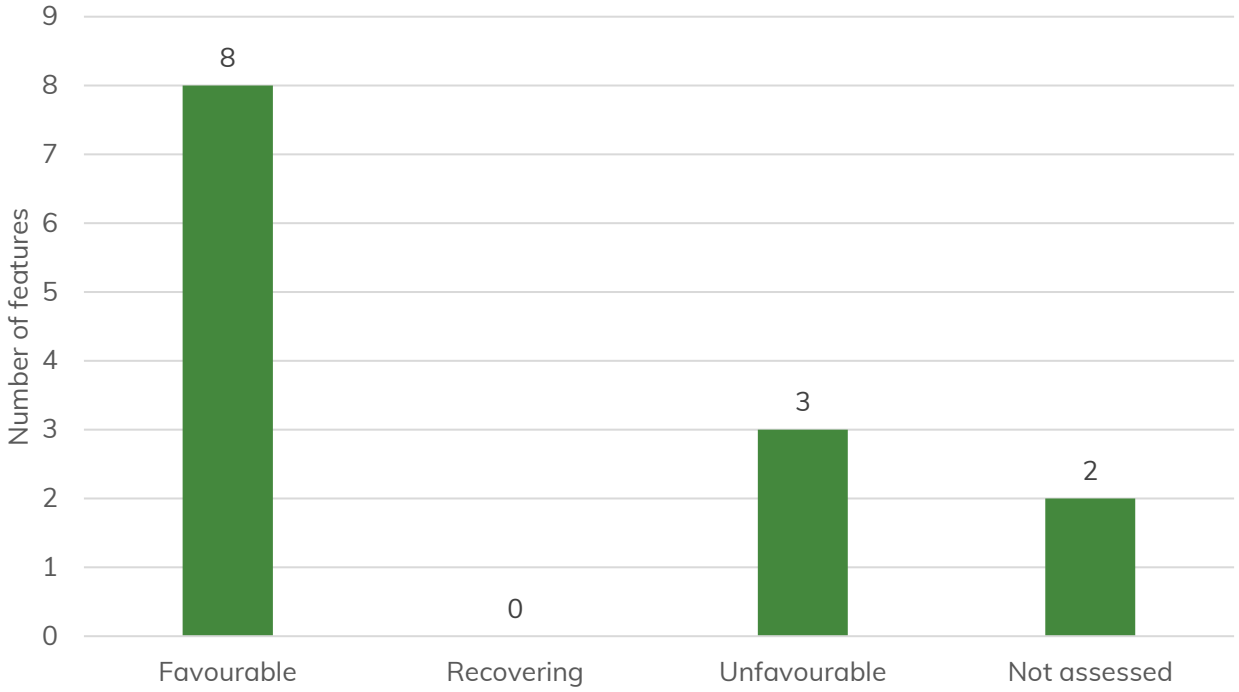


Figure 195 Condition of qualifying features of Ramsar sites within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from : NatureScot).

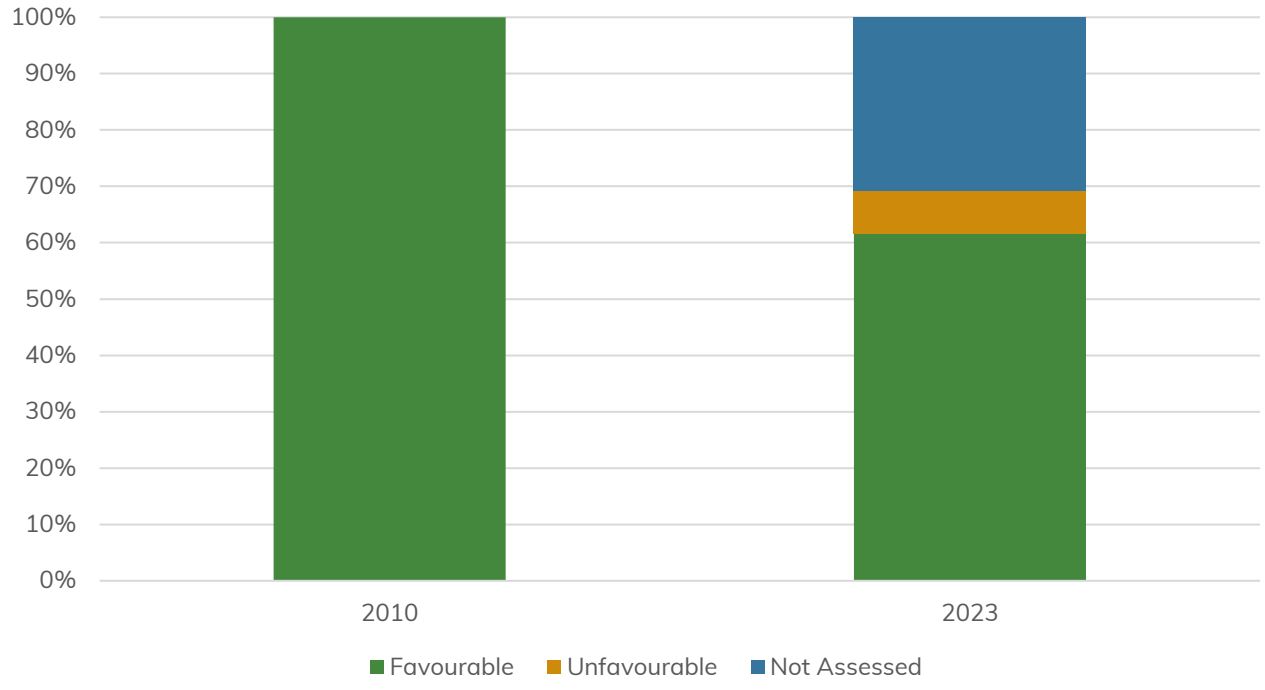


Figure 196 Comparison between the condition of qualifying features of Ramsar sites within and overlapping the Cairngorms National Park boundary in 2010 and 2023. Data accurate as of 11 September 2024 (data from NatureScot).

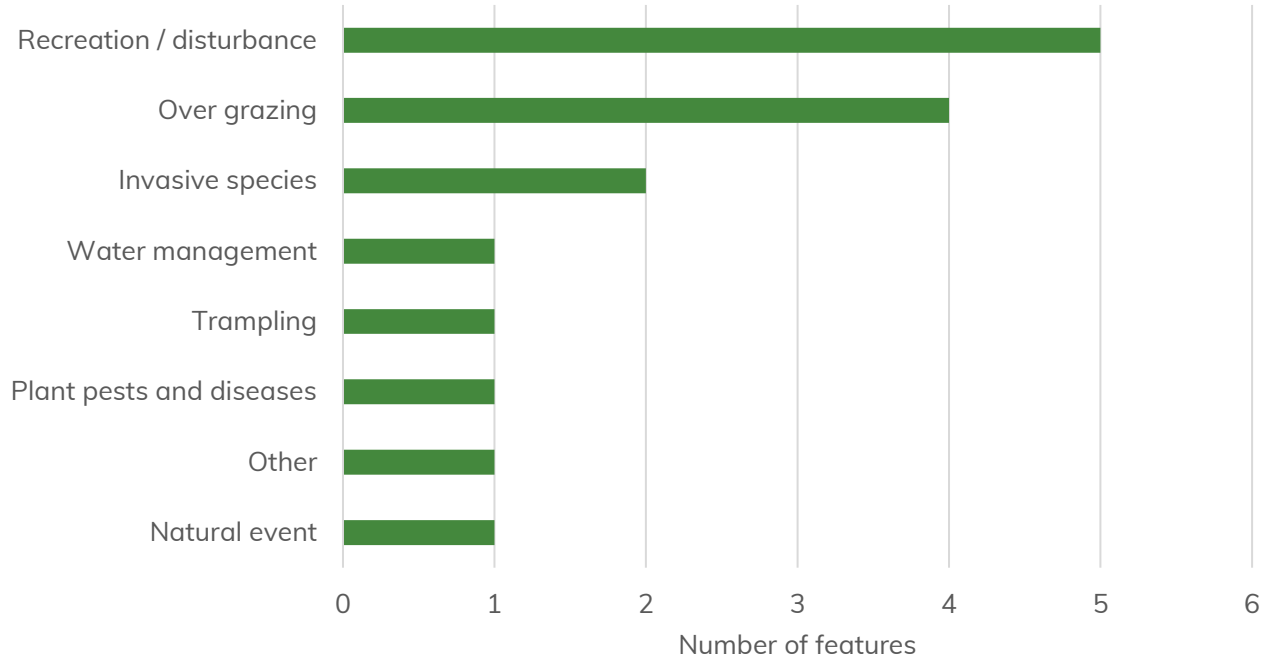


Figure 197 Pressures on qualifying features of Ramsar sites within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

National designations

There are 55 Sites of Special Scientific Interest (**Error! Reference source not found.**) and nine National Nature Reserves (Figure 203) either wholly or partially contained within the Park Boundary.

Sites of Special Scientific Interest

Sites of Special Scientific Interest are designated for areas of water and land that best represent Scotland's natural heritage and are designated to protect biological and geological. There are 59 Sites of Special Scientific Interest within and overlapping the Cairngorms National Park boundary, covering around 1,120 km^2 of the National Park's area. There has been a slight increase in the number of features assessed to be in favourable condition, from 147 in 2010 to 202 in 2024 (Figure 199 and Figure 200). There has also been an increase in features assessed as unfavourable, from 26 in 2010 to 34 in 2024. There are three Sites of Special Scientific Interest which have no features in favourable condition (Figure 202):

- Aldclune and Invervack Meadows, for which lowland calcareous grassland is the qualifying feature.

- Blair Atholl Meadow, for which lowland calcareous grassland is the qualifying feature.
- Creag Dhubh, for which upland birch is the qualifying feature.

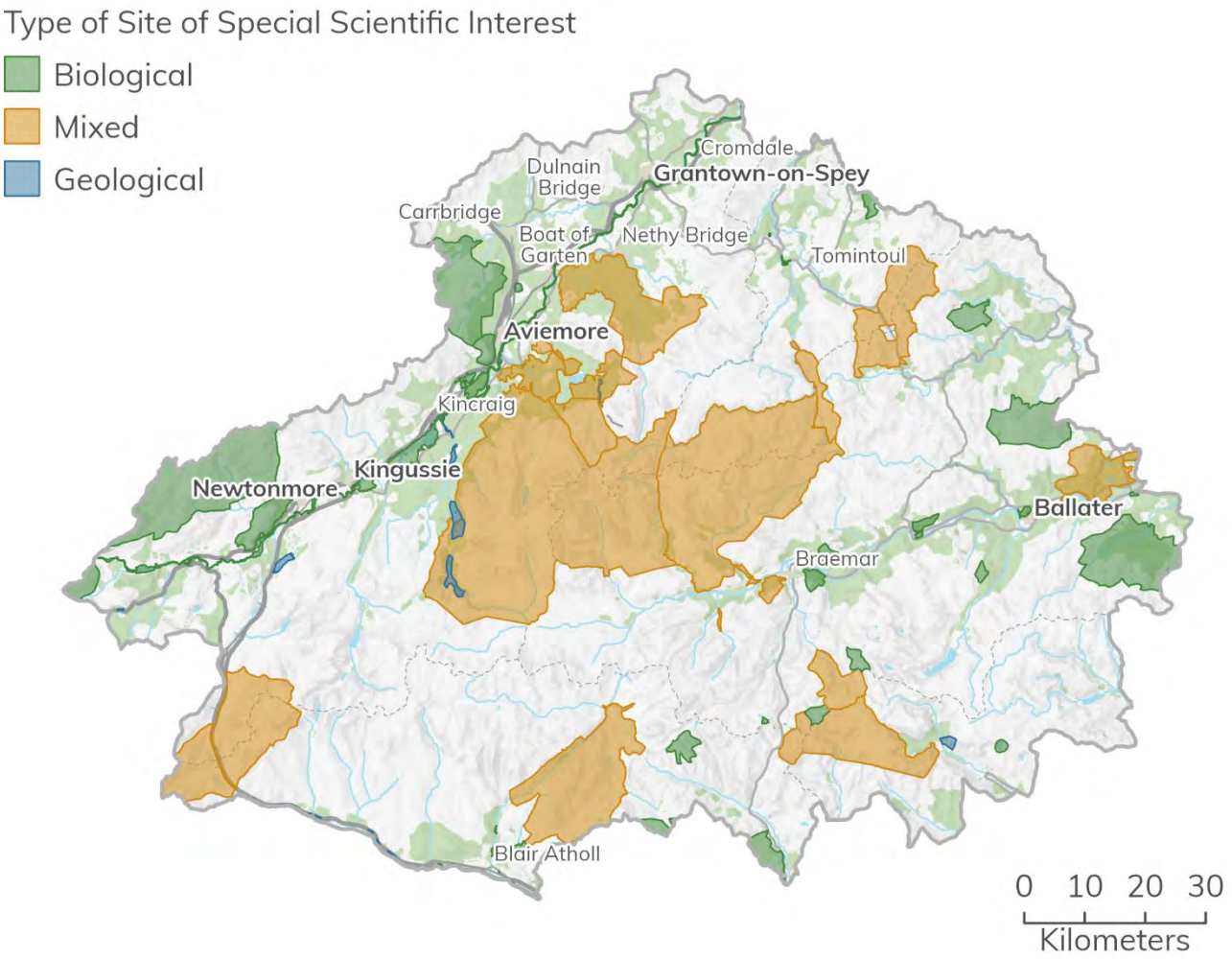


Figure 198 Sites of Special Scientific Interest within the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

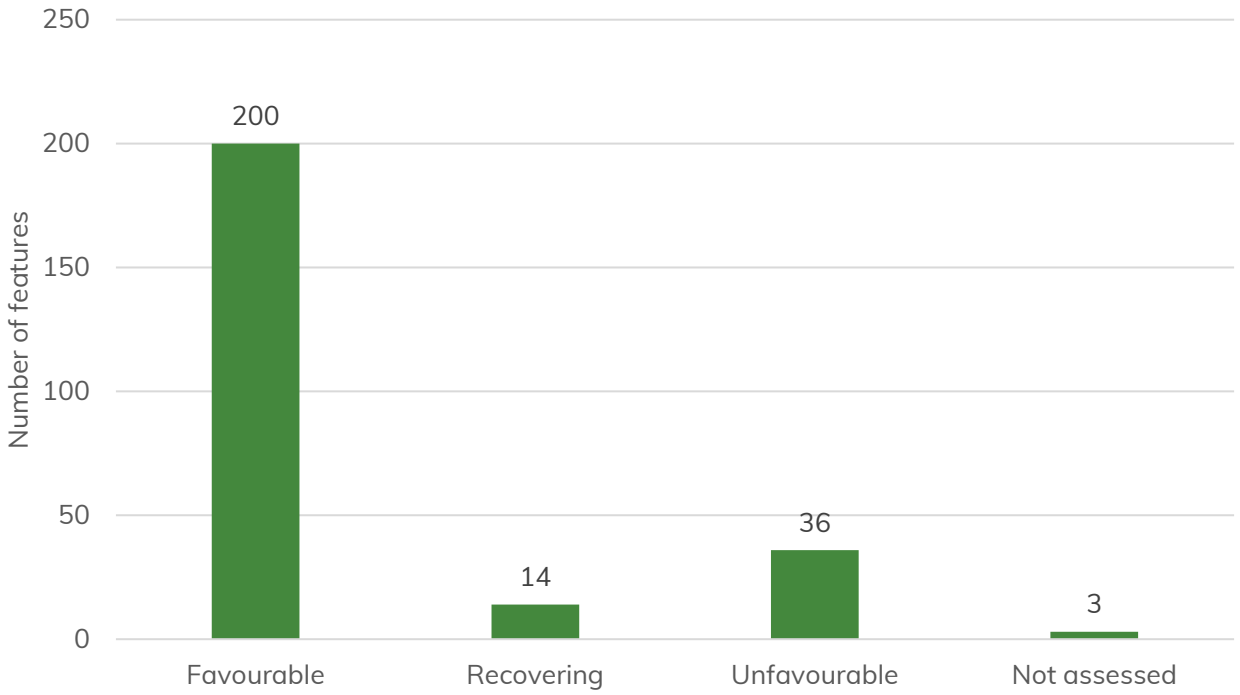


Figure 199 Condition of qualifying features of Sites of Special Scientific Interest within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

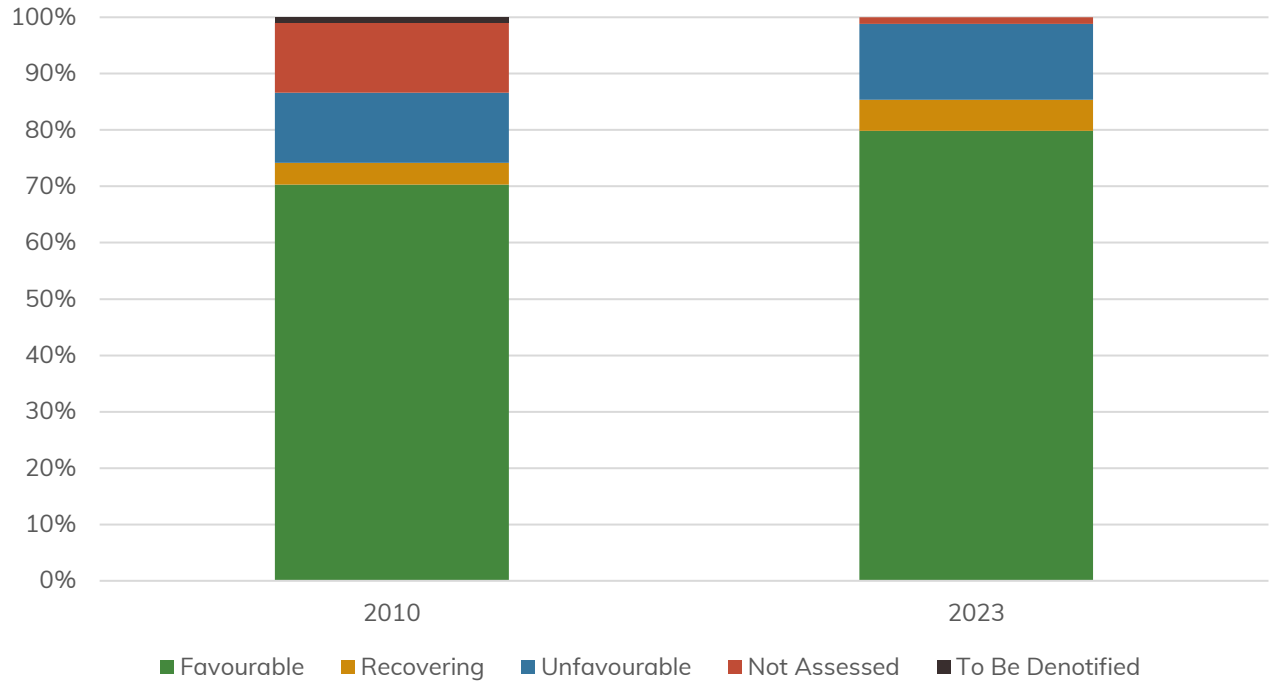


Figure 200 Comparison between the condition of qualifying features of Sites of Special Scientific Interest within and overlapping the Cairngorms National Park boundary in 2010 and 2023. Data accurate as of 11 September 2024 (data from NatureScot).

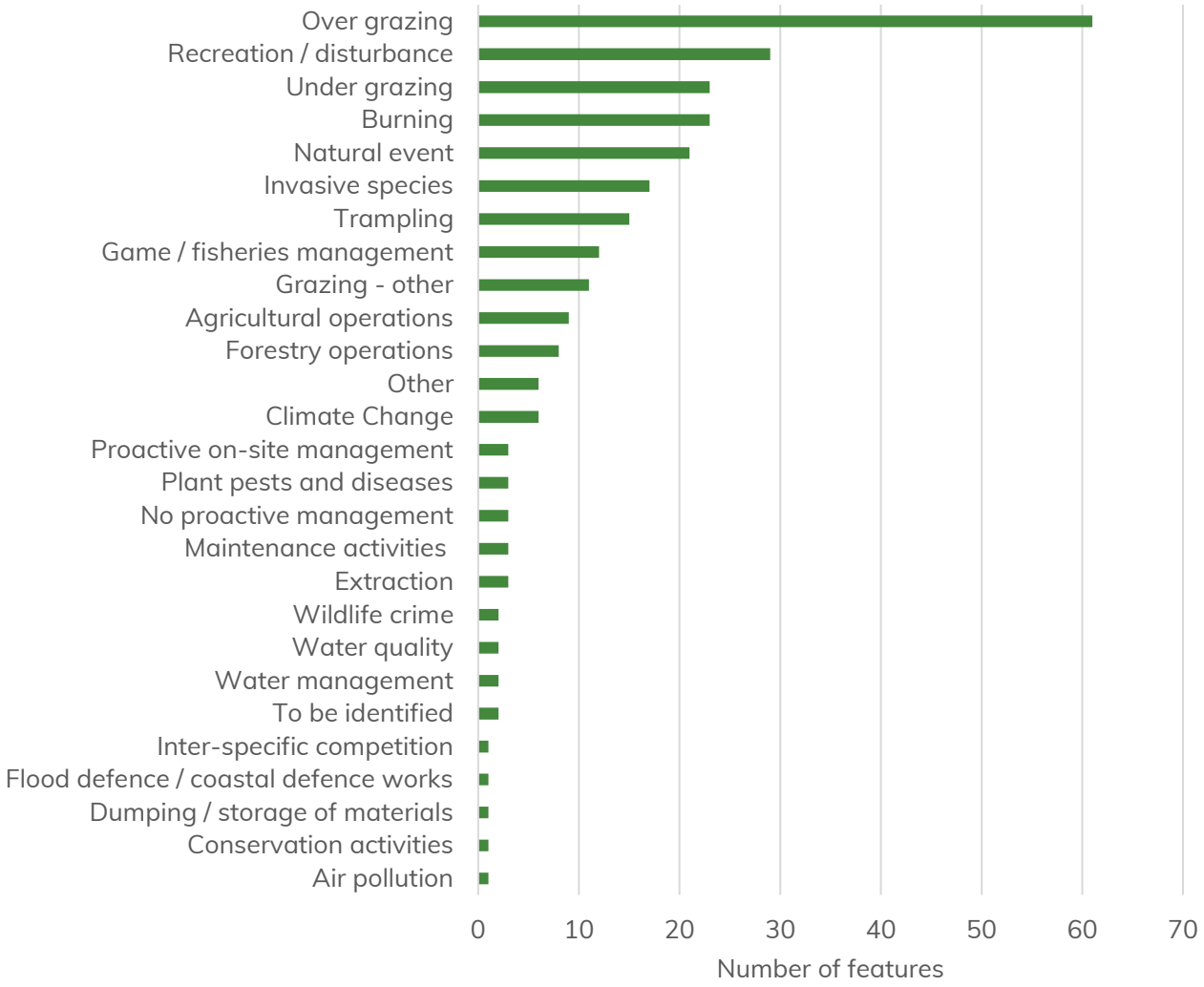


Figure 201 Pressures on qualifying features of Special Protection Areas within and overlapping the Cairngorms National Park boundary as of 11 September 2024 (data from NatureScot).

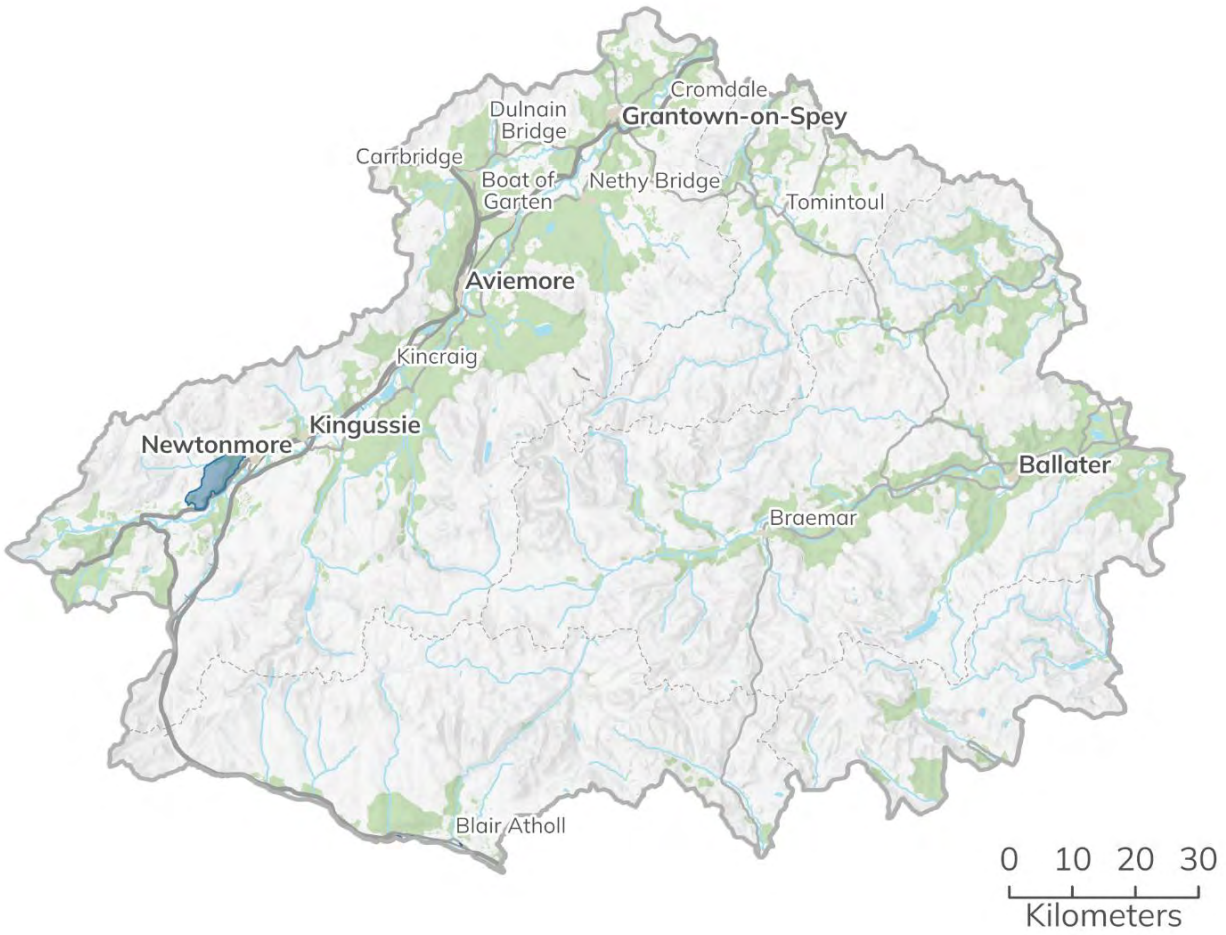


Figure 202 Sites of Special Scientific Interest within the Cairngorms National Park that have no qualifying features in favourable condition. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Natural Nature Reserves

National Nature Reserves are statutory nature reserves designed under Part III of the National Parks and Access to the Countryside Act 1949. They are areas of land that have been set aside for nature and contain nationally or internationally important habitats and species. Most National Nature Reserves have some form of visitor facilities and are managed to ensure that recreational activities do not adversely affect the designated features.

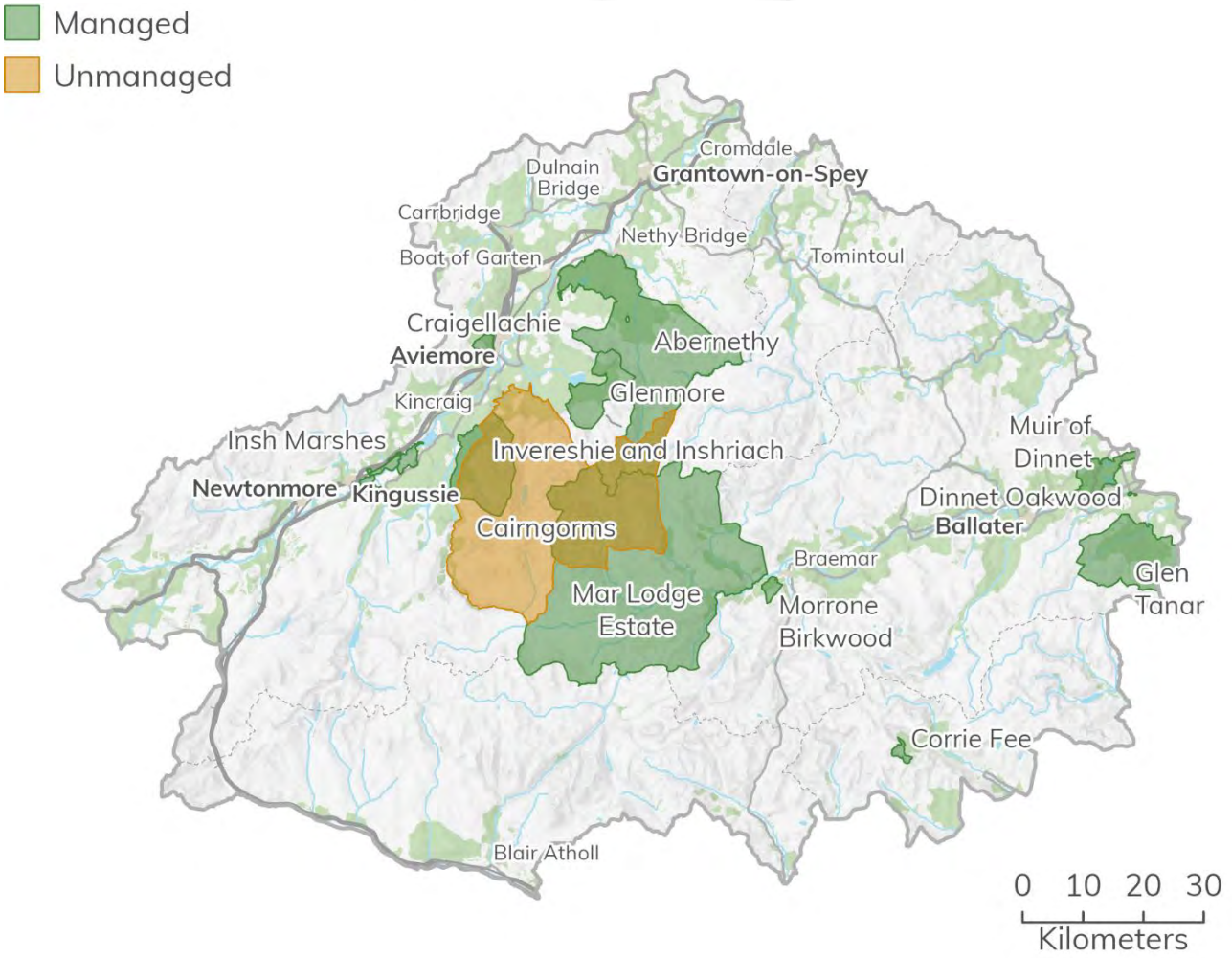


Figure 203 National Nature Reserves within the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The Cairngorms National Park has 12 National Nature Reserves (Figure 203) which are managed by a range of organisations, including NatureScot, the Royal Society for the Protection of Birds, Forest and Land Scotland and National Trust for Scotland. Only Cairngorms National Nature Reserve is unmanaged as a national nature reserve, although the parts overlapped by other national nature reserves are managed by their respective landowners.

Local and non-statutory designations

There are numerous non-statutory nature designations within Scotland. Many overlap with statutory designations. Those identified as being present within the Cairngorms National Park are:

- Biogenetic Reserves
- Royal Society for the Birds Reserves
- Forest Parks
- Woodland Trust Scotland sites.

Biogenetic reserve is a non-statutory designation made by the Council of Europe under:
Resolution 76 (17) on the European network of biogenetic reserves.
Resolution 79 (9) concerning the rules for the European network of biogenetic reserves.

Biogenetic reserves act as 'living laboratories' and are representative examples of various types of natural environment in Europe. They can consist of natural or semi-natural habitats and their selection is based on their value for nature conservation and protected status based on four criteria: 'typical', 'unique', 'rare' and / or 'endangered' which can be applied to habitats or species.

The protected status must be adequate to ensure the conservation or management of the sites in the long term in accordance with fixed objectives.

Scotland has two biogenetic reserves. These overlap the Forvie National Nature Reserve and Muir of Dinnet National Nature Reserve, the latter being located within the Cairngorms National Park (Figure 204). The boundary of Muir of Dinnet National Nature Reserve also overlaps with Special Area of Conservation, Special Protection Area, Ramsar and Site of Special Scientific Interest designations.

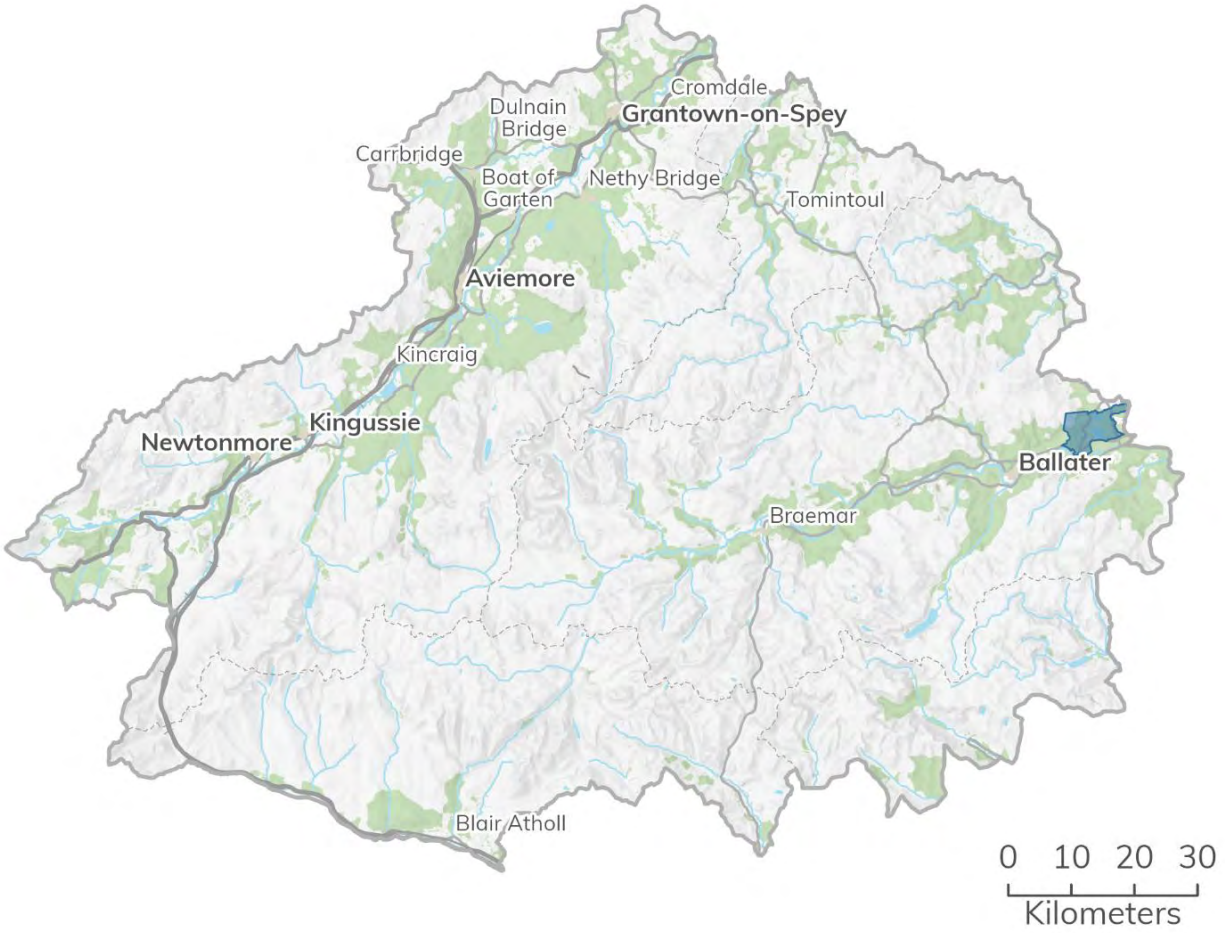


Figure 204 Muir of Dinnet Biogenetic Reserve. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

There are four Royal Society for the Birds Reserves in the Cairngorms National Park, which are managed principally for conservation purposes. Covering a combined area of around 516 km^2, the reserves are:

- Abernethy, which covers around 463 km^2.
- Ballinlaggan, which covers around 0.7 km^2.
- Crannach, which covers around 18 km^2.
- Insh Marshes, which covers around 34 km^2.

While the boundaries do not exactly match, Abernethy and Insh Mashes reserves are covered and protected by international and national designated sites. They are also part of the Cairngorms Connect nature restoration project. Only small areas of Crannach and Ballinlaggan are covered by statutory forms of protection. Unlike the other reserves, Ballinlaggan is a non-publicised reserve.

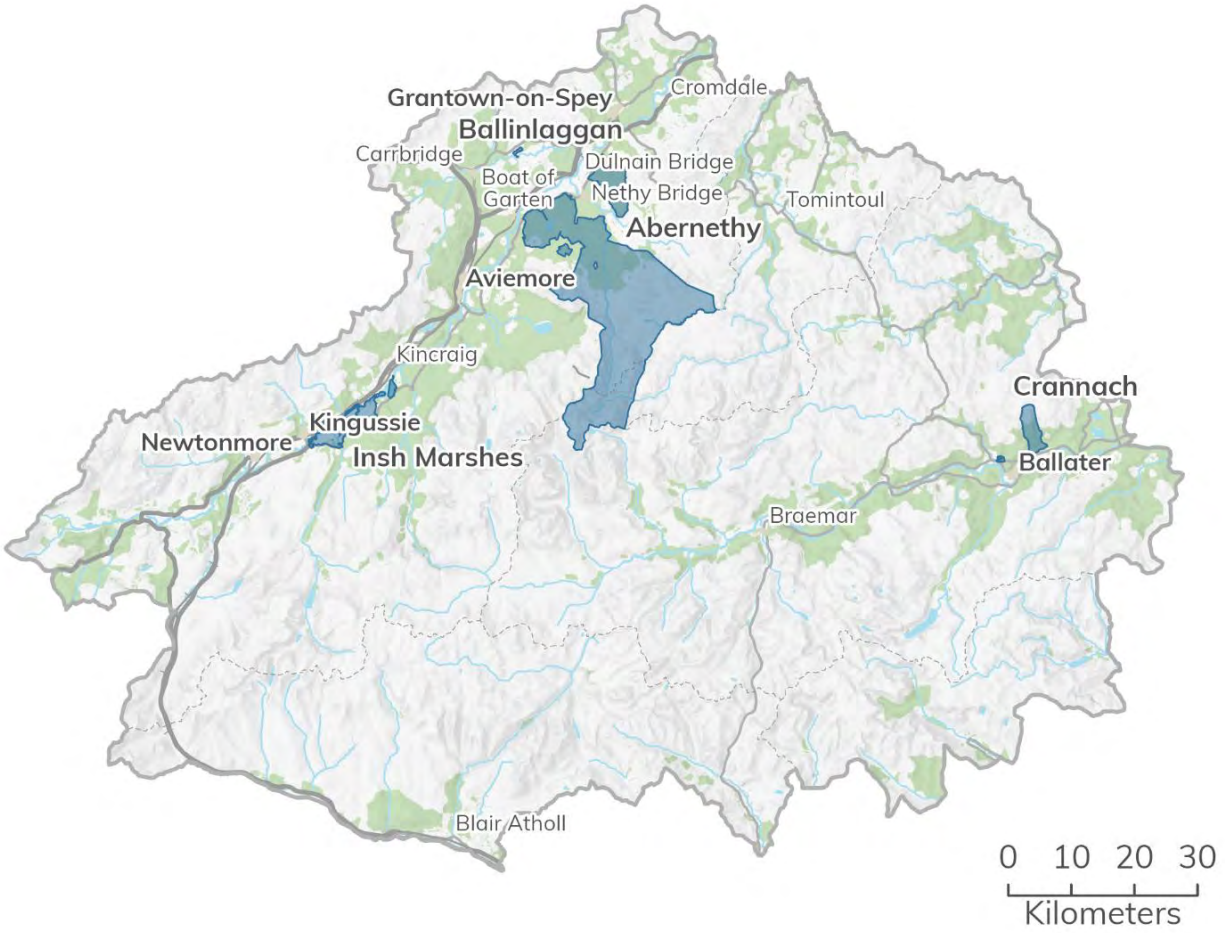


Figure 205 Royal Society for the Protection of Birds (RSPB) reserves in the Cairngorms National Park. Contains data © RSPB 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Forest and Land Scotland manage Forest Parks across Scotland, including Glenmore Forest Park (Figure 206). It is covered by a number of statutory international and national designations, including Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest and the Glenmore National Nature Reserves. The management of the Forest Park falls under the Strathspey Land Management Plan[79], which aims to balance management of designated and other priority biodiversity sites with a high-quality visitor experience by:

- Restoring native habitats and species on a landscape scale.

[79] See https://forestryandland.gov.scot/media/pffbuyx5/full-text-29-june-2022.pdf

- Managing visitor access to provide high quality experiences whilst protecting vulnerable species and habitats and maintaining the scenic and wild qualities of the area.
- Working in partnership with stakeholders and neighbours.

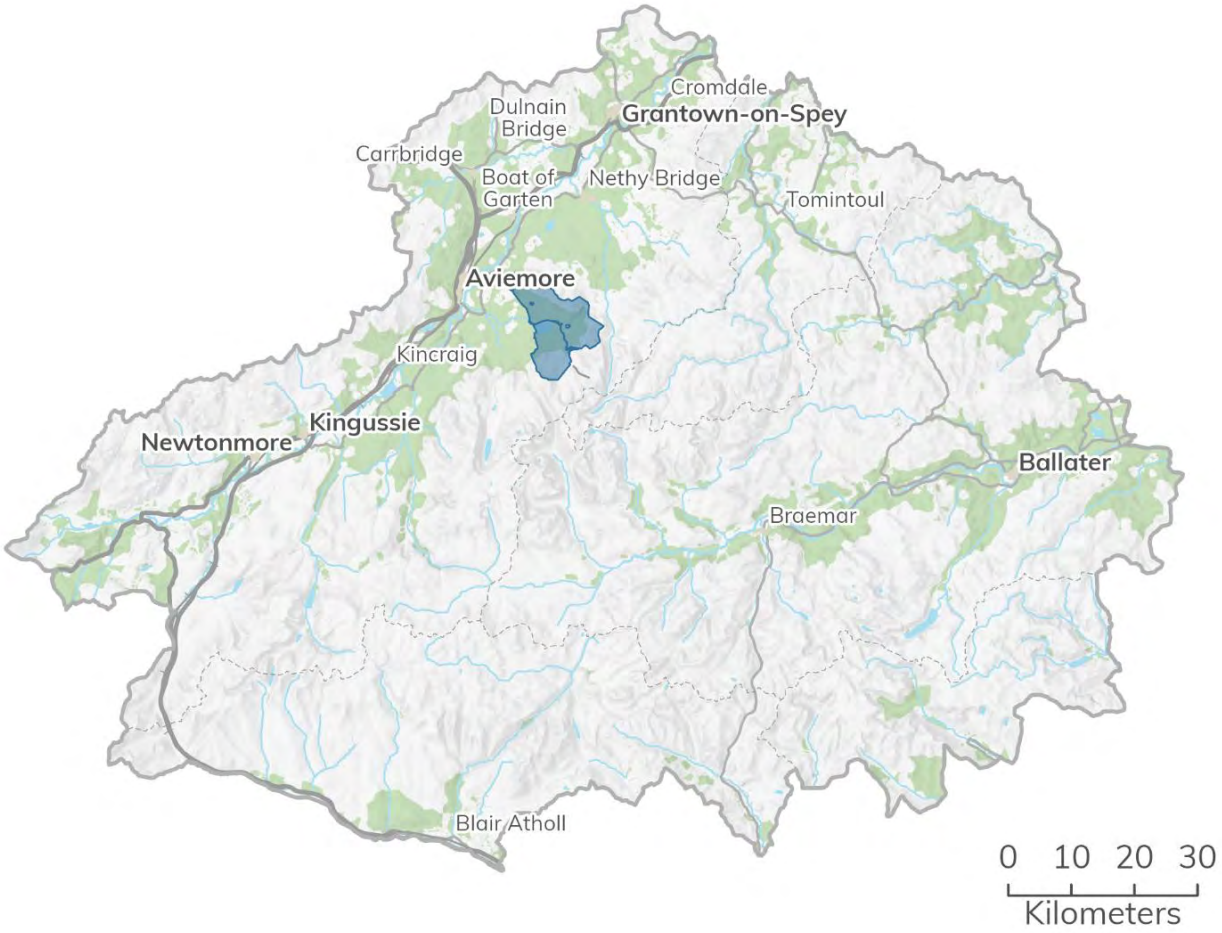


Figure 206 Glenmore Forest Park. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The Woodland Trust Scotland have one site in the Cairngorms National Park. Glencharnoch Wood is a 14.7 hectare site on the edge of Carrbridge and is part of a lager woodland network (Figure 207). The woodland is an impressive mini mosaic of a range of habitats typical of the Strathspey pinewoods that have developed in the last 7,000 years following the last ice age.

The site is of particular importance for its high density of Scottish wood ant and hairy wood ant nests and is also habitat for crested tit, crossbill, tree pipet and redstart.

Recreation infrastructure is present in the form of three waymarked trails either on or adjacent to the wood.

Glencharnch Wood is not covered by any international or national designations.

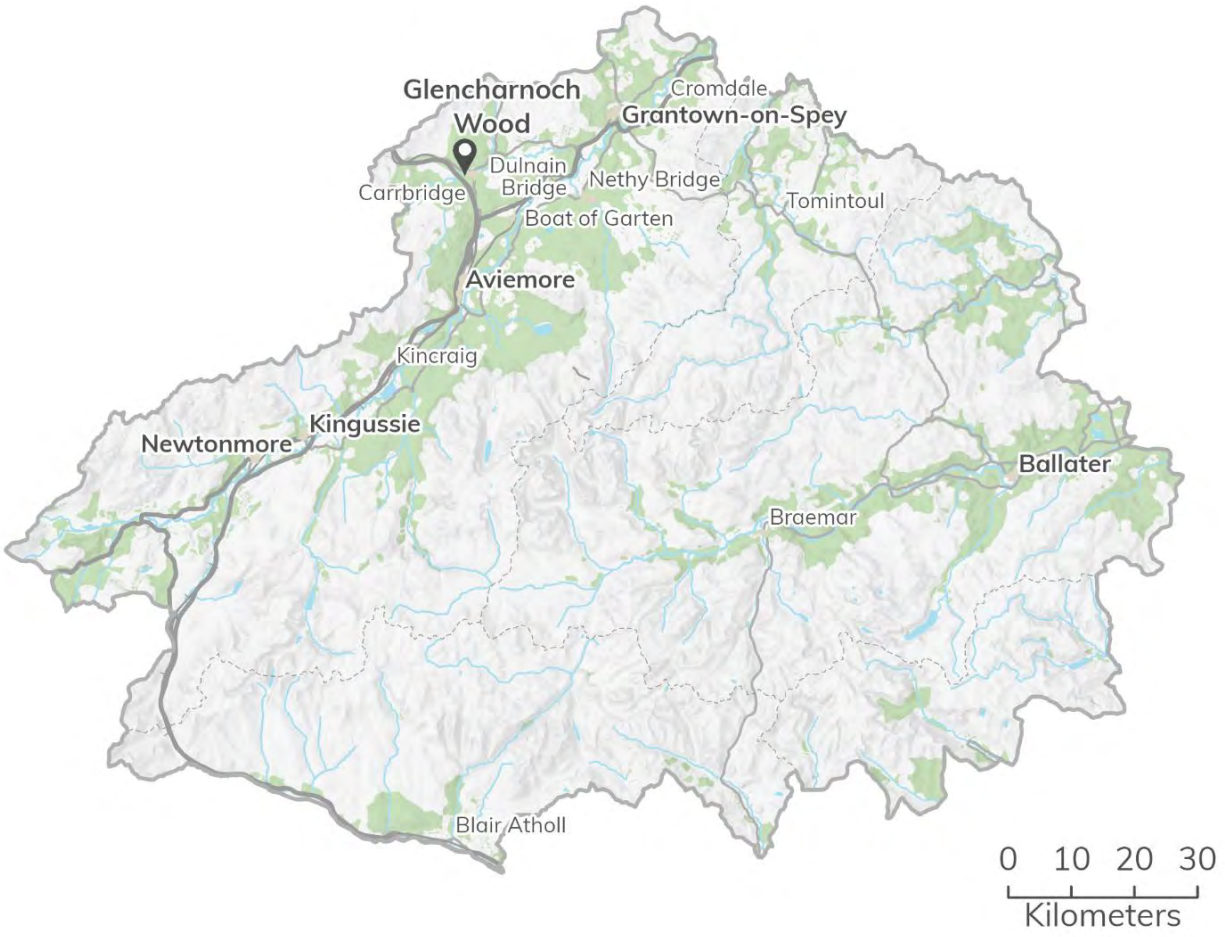


Figure 207 Woodland Trust Scotland sites within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

According to NatureScot's SiteLink portal, there are no Local Nature Reserves in the Cairngorms National Park[80].

[80] See https://opendata.nature.scot/datasets/0ec0b9714bc24d129c90e831212bd96d_0/explore?location=56.834477%2C-4.124147%2C6.88

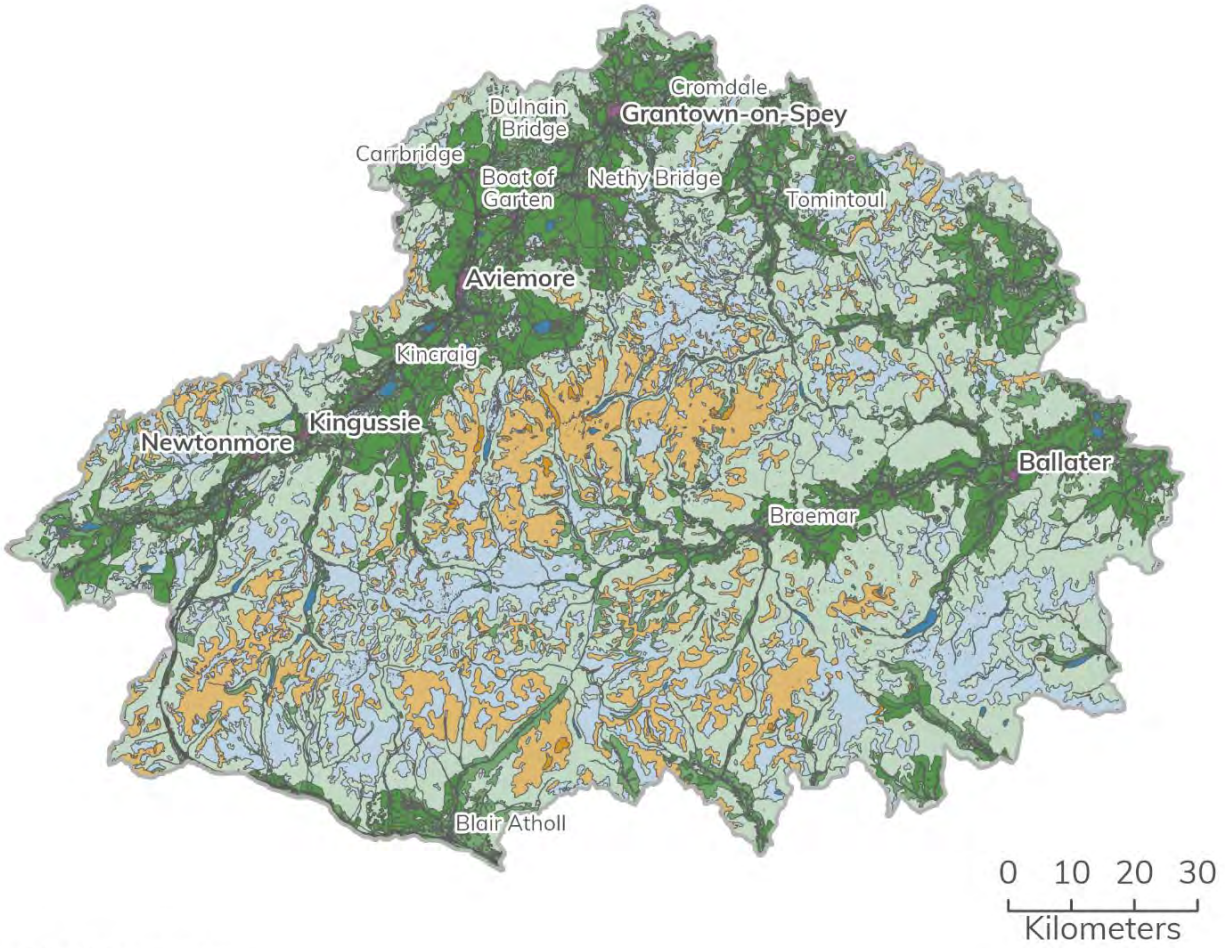
Priority habitats

The Cairngorms National Park contains some of the United Kingdom's best examples of natural and semi-natural habitats, including a quarter of Scotland's native woodlands, extensive arctic-like plateaux, the headwaters of four of Scotland's major rivers, functioning floodplains and the some of the last few remaining fragments of mountain woodland (Figure 208). The foundations for ecosystem restoration, for habitats to reach their full ecological potential on a grand scale, are impressive.

The Cairngorms Nature Action Plan 2019 – 2024 lists a number of priority habitats, reflecting 'Agendas for Action' in the previous National Park Partnership Plan 2017 – 2022, 'Priority Projects' in the Scottish Biodiversity Strategy, ongoing work from the first Cairngorms Nature Action Plan 2013 – 2018 and consultation with partners on current issues. These are:

- Woodland expansion and enhancement
- Moorland and peatland
- Nature friendly farming
- Freshwater and wetland restoration.

The evidence in this document is therefore structured according to the Cairngorms Nature Action Plan's priorities for these habitats and provides a summary of their current status and information on progress achieved through the implementation of the Action Plan. It is recognised that there is a strong interrelationship between each of these habitats and the species that rely on them and that they should not be considered in isolation.



Broad habitat types

- Woodland, forest and other wooded land
- Grasslands and lands dominated by forbs, mosses or lichens
- Regularly or recently cultivated agricultural, horticultural and domestic habitats
- Habitat complexes
- Heathland, scrub and tundra
- Inland unvegetated or sparsely vegetated habitats
- Montane habitats
- Inland surface waters
- Mires, bogs and fens
- Constructed, industrial and other artificial habitats

Figure 208 Broad habitat types found in the Cairngorms National Park as identified by the European Nature Information Systems (EUNIS). Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

As highlighted in the State of Nature Report 2023[81], Cairngorms Connect provides an example of this interconnectivity. Cairngorms Connect is the United Kingdom's largest habitat restoration project, covering 60,000 hectarein the National Park. It has a 200-year vision that aims to improve and protect habitats such as native woodland, peatlands and rivers.

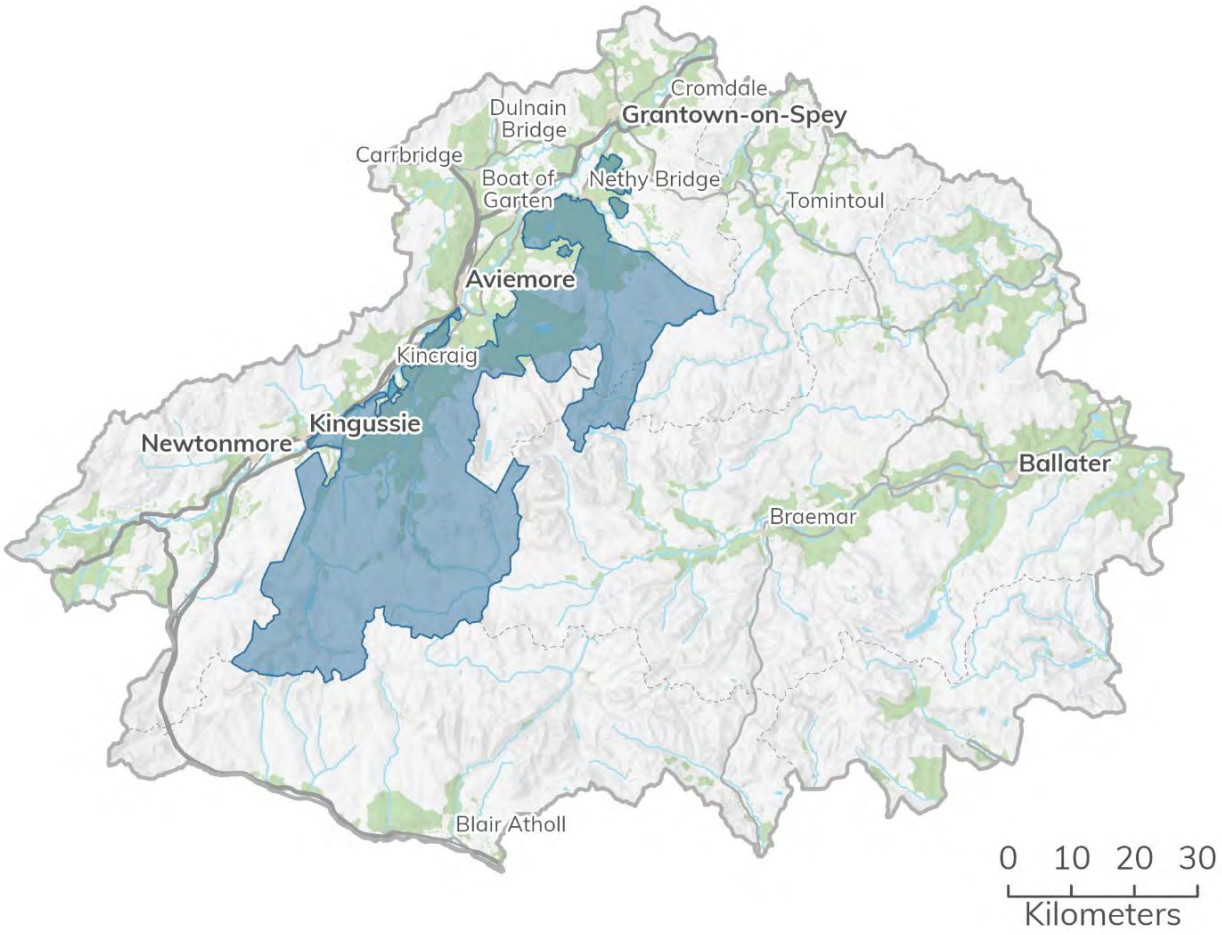


Figure 209 Cairngorms Connect area. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Neighbouring landowners have united around a shared vision for landscape restoration, including collaborative deer control. This enables native woodland to regenerate, resulting in its marked expansion including the return of palatable species that are otherwise challenging to regenerate, such as Aspen. There are early signs that this is benefiting a wider range of woodland-associated species, including birds such as

[81] See https://stateofnature.org.uk/wp-content/uploads/2023/09/TP26056-SoN-Scotland-summary-report-v5-1.pdf

Willow Warbler and moths such as Coxcomb Prominent and Lesser Swallow Prominent.

One of the key aspects of Cairngorms Connect is its focus on involving and collaborating with local people. Engaging with local communities is key to achieving wider conservation goals and ensuring that local people can benefit from the project. Cairngorms Connect works closely with local communities, including farmers and landowners, to develop conservation plans and initiatives that are compatible with their needs and interests. The project also provides opportunities for local people to participate in its conservation efforts through volunteering and citizen science programmes. These help to build a sense of ownership and pride in the local environment, while increasing public awareness of conservation issues.

Cairngorms Nature Index

The Cairngorms Nature Index is currently in development. It is the tool which will baseline the health of the major ecosystems in the National Park and monitor effectiveness of conservation action over time. Indices are being compiled for six major ecosystems within the National Park:

- Freshwater
- Mires and wetlands
- Montane
- Woodlands
- Managed uplands
- Managed lowland grasslands.

The Nature Index will use typical indicator species for each of the ecosystems to indicate the current health of the ecosystem.

The goal of the Nature Index will be to identify changes over time which in turn could be used to indicate whether developments within the National Park boundary are potential impacting on ecosystems, either negatively or positively. For further information see:

- https://storymaps.arcgis.com/stories/fdbca8769683464c91b1dc23818aa239

These ecosystems identified in the Cairngorms Nature Index are not the same as the priority habitats of the Cairngorms Nature Action Plan. Except for the Montane ecosystem, all are covered by the priority habitats of the Action Plan. Montane habitats are therefore covered under a sperate heading within this document.

To date, only the freshwater ecosystem outputs have been published. These have been referenced under the relevant sections of this document e.g. freshwater and wetland habitats (see page 530), farm and croft land (see page 526), freshwater pearl mussel (see page 564).

The Cairngorms Nature Index will be central to the identification of a nature networks within the Cairngorms National Park. See page 577 for further information.

Forest and woodland habitats

Within the National Park, the estimated tree cover is approximately 16%. The Park is home to many ancient woodlands, including Caledonian forest, which is predominately protected through Special Area of Conservation designation (Figure 214). There is a significant network of native forest connecting Strathspey, Strath Avon, Glenlivet, Donside, Deeside and the Angus Glens. This network is a widely recognised special quality of the park and supports many of the priority species identified within the Cairngorms Nature Action Plan. Although the park is only made up of 16% of woodland, it is estimated that approximately 79% of that woodland is comprised of native species, for example Scots pine or native broadleaved species. As part of this, the National Park contains the most extensive tracts of Caledonian forest in Britain, as well as some of the best examples in Scotland of bog woodland, montane willow scrub and stands of aspen[82].

The priority for woodland habitats within the Cairngorms Nature Action Plan 2019 – 2024 is for their expansion and enhancement. The 2063 vision of the Action Plan for woodlands is for:

'Patches of forest and woodland, some miles across, some as small as football fields, link together through farmland and open ground. They are expanding up hillsides and into quiet areas, providing refuge for species to flourish, like the once critically endangered but now flourishing capercaillie. They are made up almost entirely of native trees: a patchwork of different woodlands, including productive plantations, all with rich understories, trees of all ages, clearings, bogs and deadwood scattered throughout. The UK's largest natural forests are considered an exemplar of woodlands managed for multiple benefits.'

[82] Aspen is a priority species in the Cairngorms Nature Action Plan. Further information on its condition is provided on page 161.

The final report on the Action Plan highlights the achievements over the plan period associated with woodlands (Table 36).

Table 36 Achievement against Cairngorms Nature Action Plan 2019 – 2024 targets for woodland expansion and enhancement.

Target	Status
Woodland expansion 5,000 hectares of new woodland, including regeneration and montane	6,000 hectares of new woodland
Woodland expansion 70% of new woodland to be native species	95% native species
Woodland enhancement 750 hectares of Plantations on Ancient Woodland Sites (PAWS) and native woodlands under restoration	750 hectares under restoration

Existing and planned trees and woodlands

No single dataset provides the complete picture of trees and woodland of high nature conservation value in the National Park. However, a combination of the following datasets provides a good range of information:

- National Forest Inventory (Figure 210).
- Native Woodland Survey of Scotland (Figure 211).
- Caledonian Pinewood Inventory (Figure 213).
- Scottish Ancient Woodland Inventory (Figure 214).
- HabMoS - Mountain Woodland 2023 – wild, relict or remnant (Figure 215).
- HabMoS - Mountain Woodland 2023 – restoration sites (Figure 216).
- Riparian woodland data from NatureScot (Figure 217).
- Forestry Grant Scheme woodland creation claims (Figure 218).
- Forestry Grant Scheme woodland creation options (Figure 219).
- Forestry Grant Scheme Woodland – Improvement Grant – Habitats and Species – New Natural Regeneration Establishment claims (Figure 220).
- Local authority Tree Preservation Orders (Figure 221).
- Ancient Tree Inventory (Figure 222).
- Woody linear features framework data (Figure 223).
- Cairngorms National Park Authority aspen dataset (Figure 250).

There may be issues with individual datasets relating to, for example, on the size of woodland that has been recorded (for example, smaller woodland areas can be missed), on how up to date the data is for example, the Native Woodland Survey of Scotland presents data collected between 2010 to 2015), or on the accuracy of the mapping, particularly when it has been based on historic mapping (for example, the Ancient woodland Inventory). However, as stated, in combination they provide the best available data on woodlands in the National.

National Forest Inventory

The National Forest Inventory woodland map (Figure 210) covers all forest and woodland area over 0.5 hectare with a minimum of 20% canopy cover, or the potential to achieve it, and a minimum width of 20 metres. This includes new planting, clear fell, windblow and restock. The latest available inventory is for the year 2023.

Around 760 km^2 of the National Park's forests and woodlands are identified by the Inventory, of which approximately is classified as:

- 384 km^2 of coniferous woodland.
- 133 km^2 of assumed woodland.
- 94 km^2 of broadleaved woodland.
- 87 km^2 of felled woodland.
- 31 km^2 of young trees.
- 8 km^2 of mixed mainly broadleaved woodland.
- 7 km^2 of ground prepared for planting.
- 6 km^2 of windblow.
- 6 km^2 of mixed mainly conifer woodland.
- 3 km^2 of low-density woodland.
- 2 km^2 of shrub.
- 0.7 km^2 of failed woodland[83].

[83] Figures may not sum due to rounding.

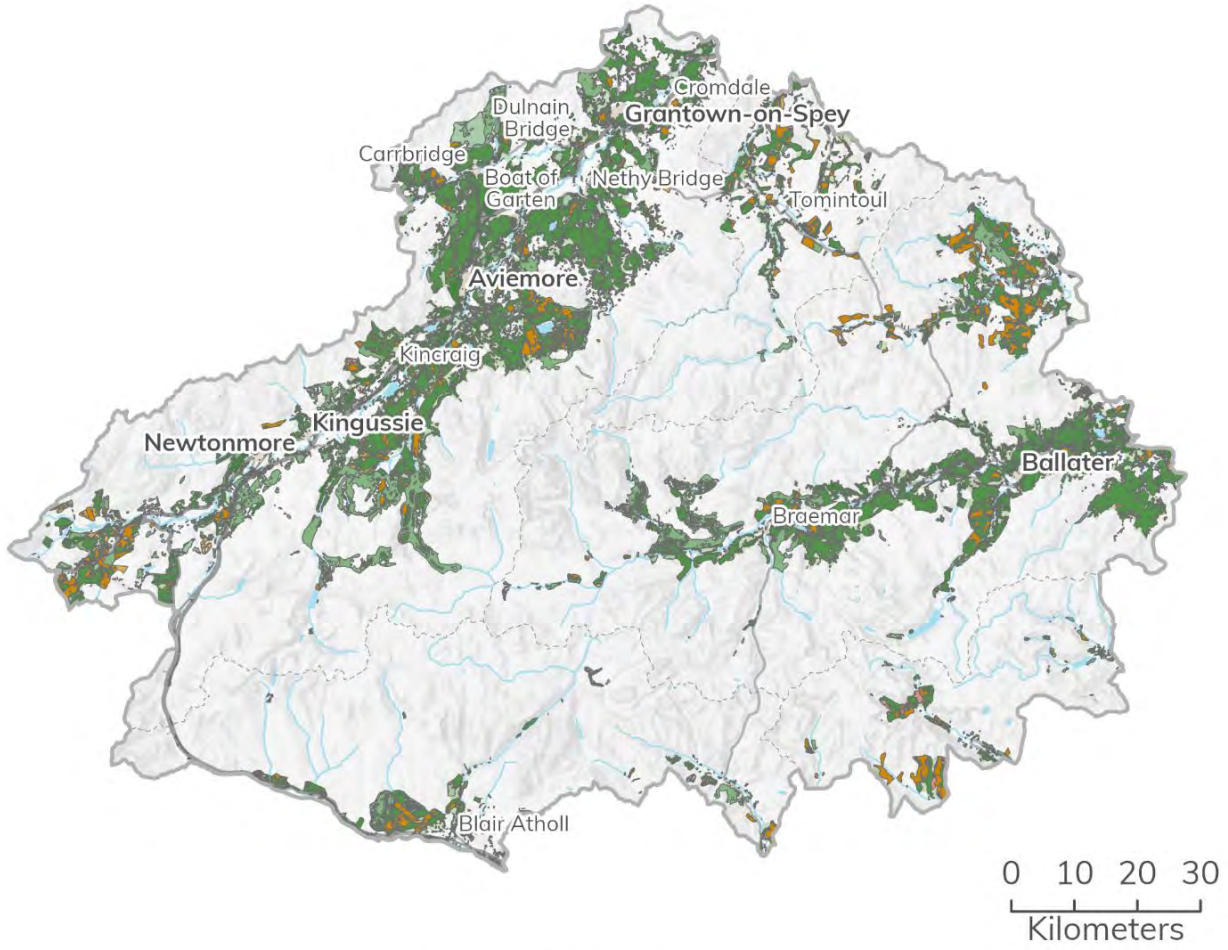


Figure 210 Forests and woodlands identified on the National Forest Inventory 2023 in the Cairngorms National Park, by their interpreted forest type. Contains data © Forestry Commission 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Native Woodland Survey of Scotland

The aim of the Native Woodland Survey of Scotland was to undertake a baseline survey of all native woodlands, nearly native woodlands and Plantations on Ancient Woodland Sites (PAWS) in Scotland in order to create a woodland map linked to a dataset showing type, extent and condition of those woods (Figure 211). The data presented in this report was extracted 25 November 2024 when it's most recent update was 22 July 2021.

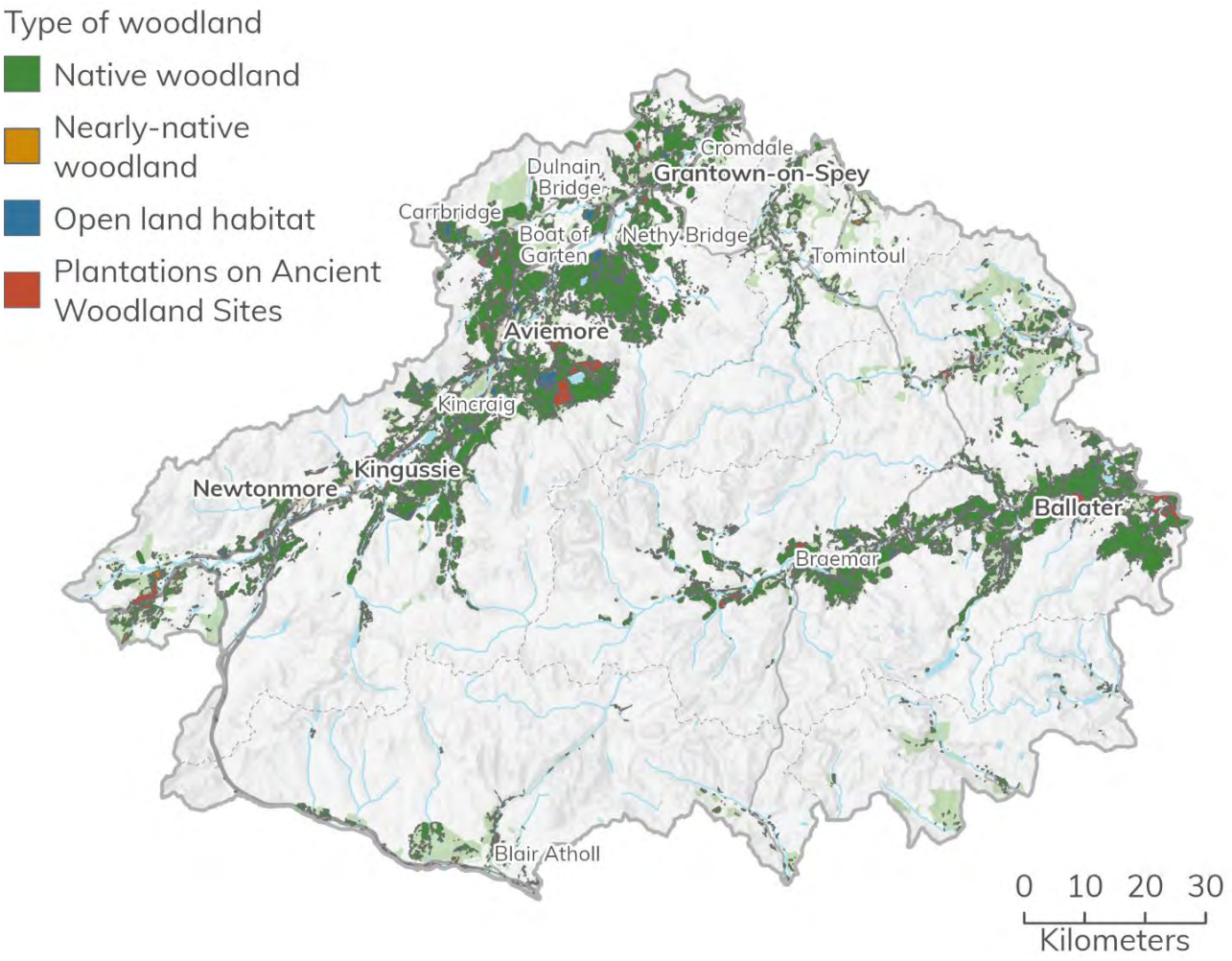


Figure 211 Woodland on the Native and Woodland Survey for Scotland within the Cairngorms National Park, categorised by type. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Around 475 km^2 of the National Park's forests and woodlands are identified by the Survey, of which approximately is classified as:

- 430 km^2 of native woodland.
- 5 km^2 of nearly-native woodland.

- 23 km^2 of open land habitat.
- 18 km^2 of Plantations on Ancient Woodland Sites (PAWS).

The most extensive dominant habitat type is native pinewood, covering around 306km^2 (Figure 212).

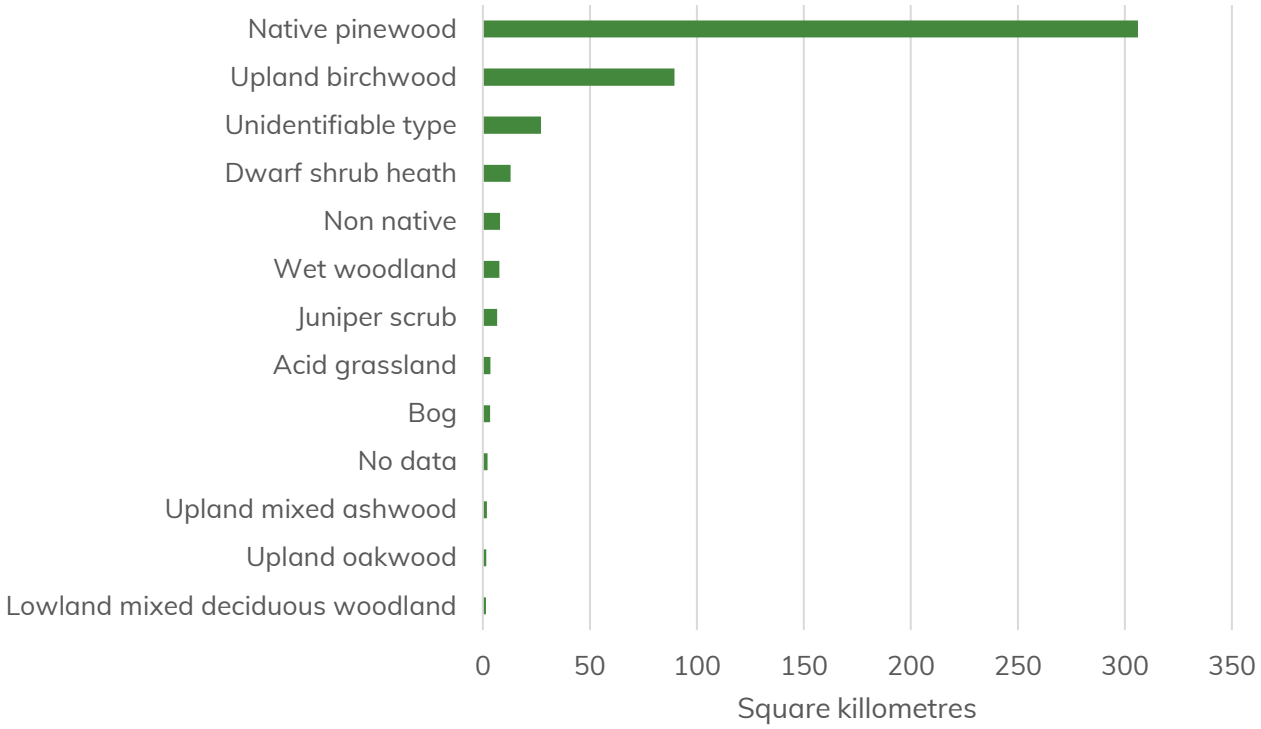


Figure 212 Main dominant habitat types (over one km^2 or above) of forests and woodlands identified Native Woodland Survey of Scotland (Source: Scottish Forestry 2024)[84].

Caledonian Pinewood Inventory

The Caledonian Pinewood Inventory records approximately 17,900 hectares of pinewood in Scotland. In all cases the balance of probability suggests that they are genuinely native, that is, descended from one generation to another by natural seeding.

In Scotland, pines were an important component of post-glacial natural forests (the so-called Wood of Caledon) which covered an estimated 70% of the country. They were largely confined to the poorest soils, often occurring in association with birch, but they also grew in mixture with other species in natural transitions to oak, ash and elm dominated woodland on the better soils, and to willows and alder on wet areas. Over many centuries vast areas of these ancient forests were cleared, and pinewood

[84] There are a further 18 dominant habitat types identified by the Native Woodland Survey of Scotland, each covering an area under one km^2. Combined these smaller areas cover an area of about 4km^2.

regeneration was prevented, either by allowing the land to be grazed or by replanting it with other tree species, usually of non-native origin. Other adverse effects were the browsing of deer and 'muirburning' to improve the grazing or the age structure of heather on adjacent grouse moors.

Approximately 10,300 hectares of the woodlands on the Inventory are in the Cairngorms National Park, representing around 57% of all such woodland in Scotland (Figure 213).

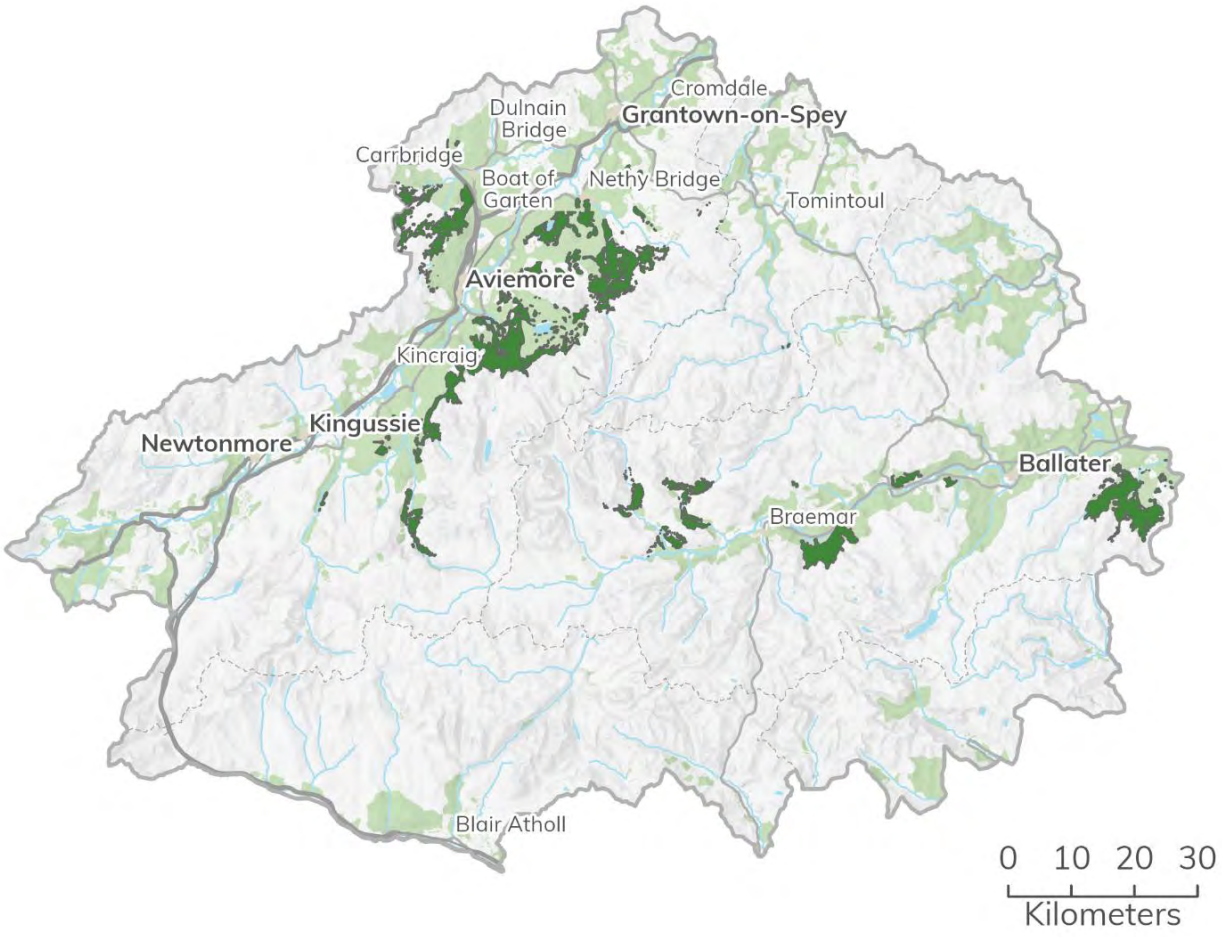


Figure 213 Forest and woodlands identified on the Caledonian Pinewood Inventory within the Cairngorms National Park. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Ancient woodland Inventory

In Scotland, Ancient Woodland is defined as land that is currently wooded and has been continually wooded, at least since 1750. Ancient Woods are important because:

- They include all remnants of Scotland's original woodland; their flora and fauna may preserve elements of the natural composition of the original Atlantic forests.
- They usually have much richer wildlife than that of more recent woods.
- They preserve the integrity of soil ecological processes and associated biodiversity.
- Some have been managed by traditional methods for centuries and demonstrate an enduring relationship between people and nature.
- Woods and veteran trees are ancient monuments whose value to the local community and historians may be as great as that of the older buildings in a parish.
- Once destroyed, they cannot be recreated.

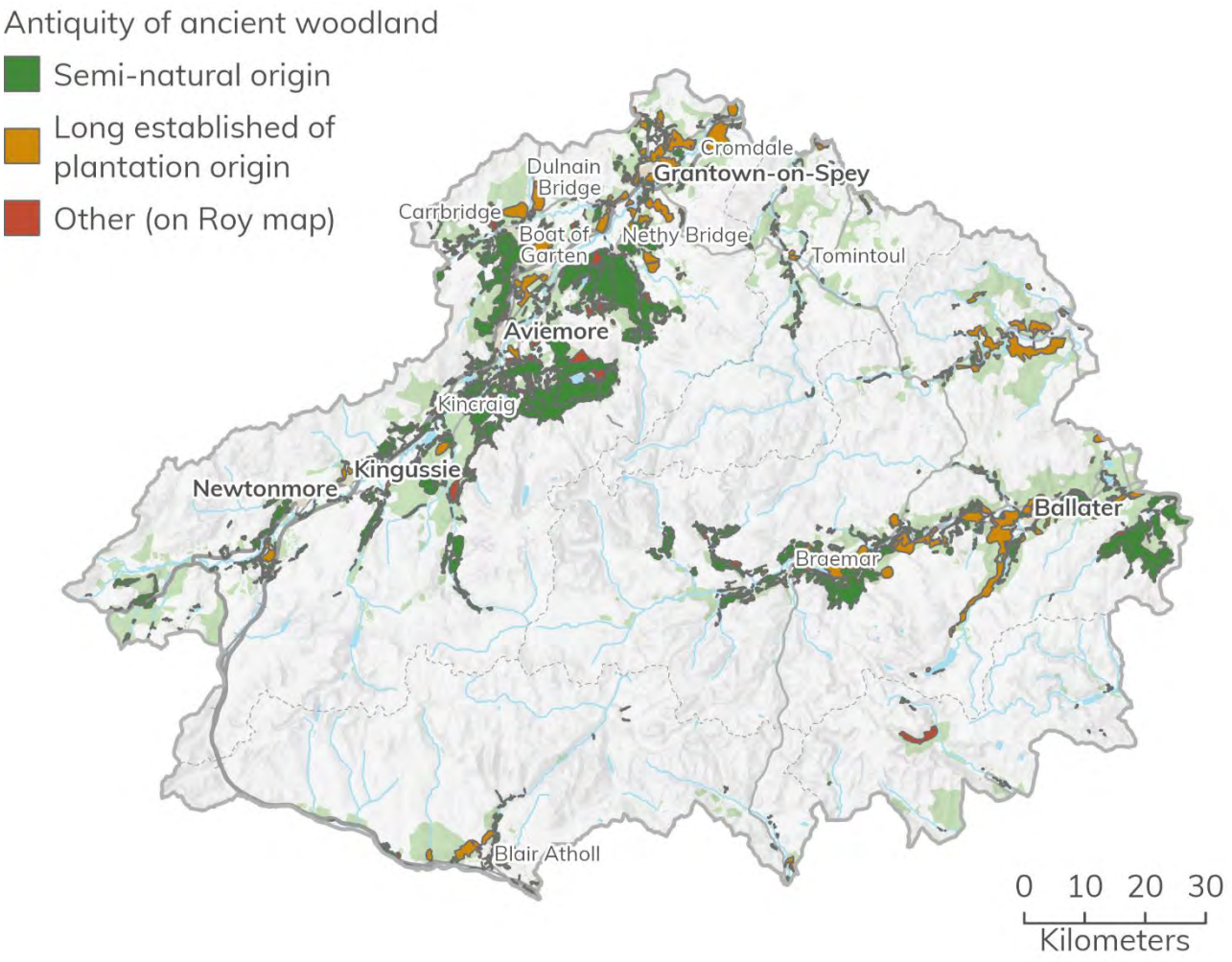


Figure 214 Forest and woodlands identified on the Ancient Woodland Inventory within the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Although there is no legislation specifically protecting ancient woodland, National Planning Framework 4 states that development proposals will not be supported where they result in any loss of ancient woodlands.

Around 340 km^2 of the Cairngorms National Park's woodlands are identified as being ancient according to the Ancient Woodland Inventory. Although not definitive due to historical mapping issues, the Inventory provides an indication of where ancient woodlands can be found in the National Park. Around 160 km^2 of ancient woodlands have been identified as being semi-natural. The data was last updated in October 2000, with no further updates planned.

HabMoS - Mountain Woodland 2023 – wild, relict or remnant

This dataset provides a collation of 'wild, relic or remnant' mountain woodland point records for Scotland. NatureScot commissioned this dataset to be used to inform landscape scale restoration, 30x30 goals, Nature Networks, United Kingdom and European Reporting and Area based casework, and training data for habitat mapping.

A total of 11,498 point records have been compiled across 24 tree and shrub taxa that feature in mountain woodland habitats in the Cairngorms National Park (Figure 215). From these records, there are a total of 117 that qualify for Annex 1 H4080, and a total of 178 that qualify for Annex 1 H5130. However, some geographical areas have had higher recording effort than others. The dataset was published 13 March 2023 and it is recommended that it is updated every three years, or annually for the Nationally Rare / Scarce arctic-alpine willows and scrub specialist species.

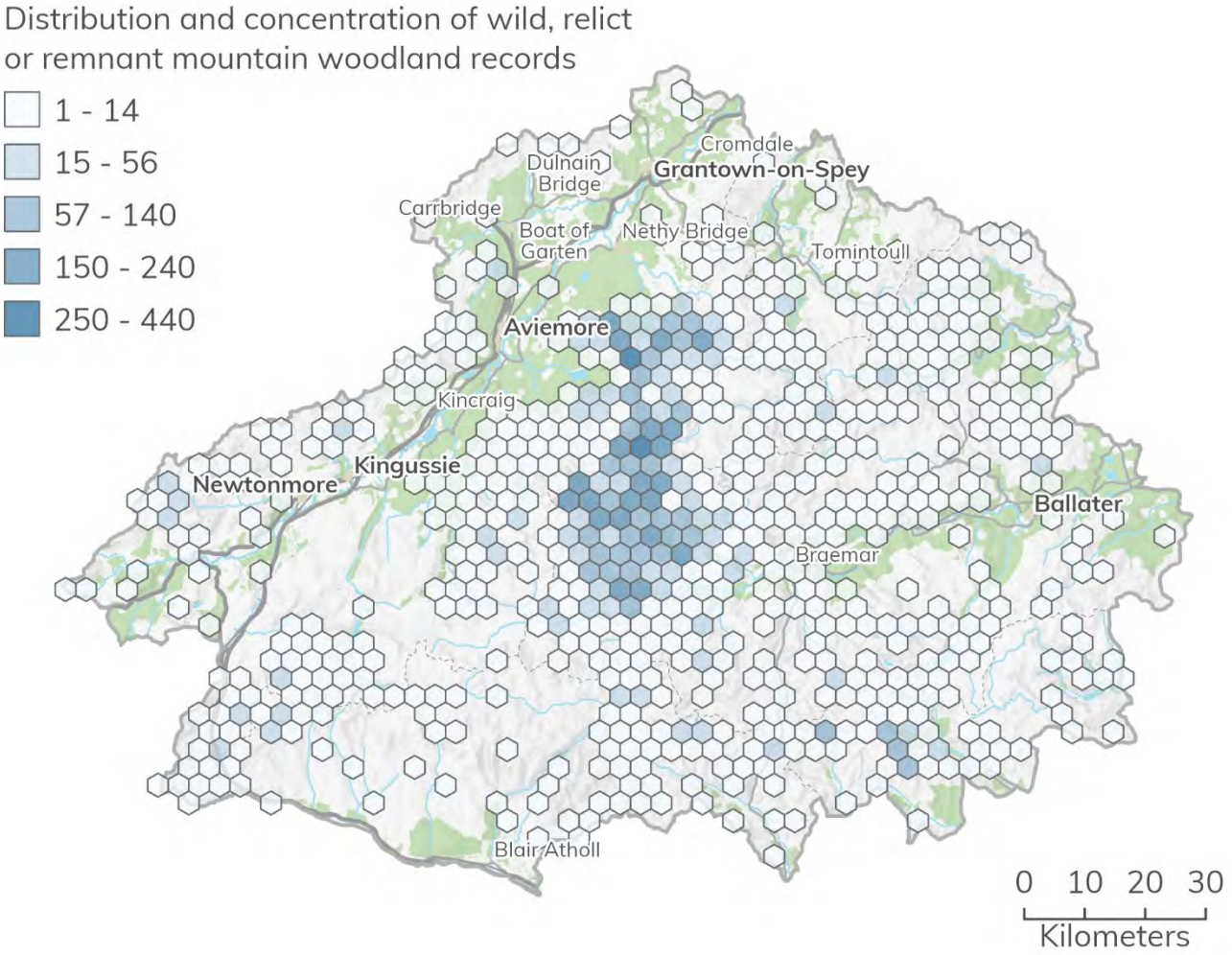


Figure 215 Distribution and concentration of wild, relict and remnant mountain woodland records in the Cairngorms National Park as of March 2023. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

HabMoS – Mountain Woodland 2023 – restoration sites

This dataset provides boundaries for mountain woodland restoration sites in Scotland. NatureScot commissioned this dataset to be used to inform landscape scale restoration, 30x30 goals, Nature Networks, United Kingdom and European Reporting and Area based casework, and training data for habitat mapping.

A total of 46 mountain woodland restoration sites have been compiled across the Cairngorms National Park, covering a total gross area of around 5,500 hectare(Figure 216). There are a total of 15 sites which contain a component targeting Annex 1 Habitat H4080, 2 sites which contain a component targeting H5130, and one site that targets both. Contributing organisations have participated in a purely voluntary capacity and the dataset will therefore not be an absolute list of all restoration work across Scotland.

The dataset was published 31 March 2023, and it is recommended that this new dataset is updated every three to five years.

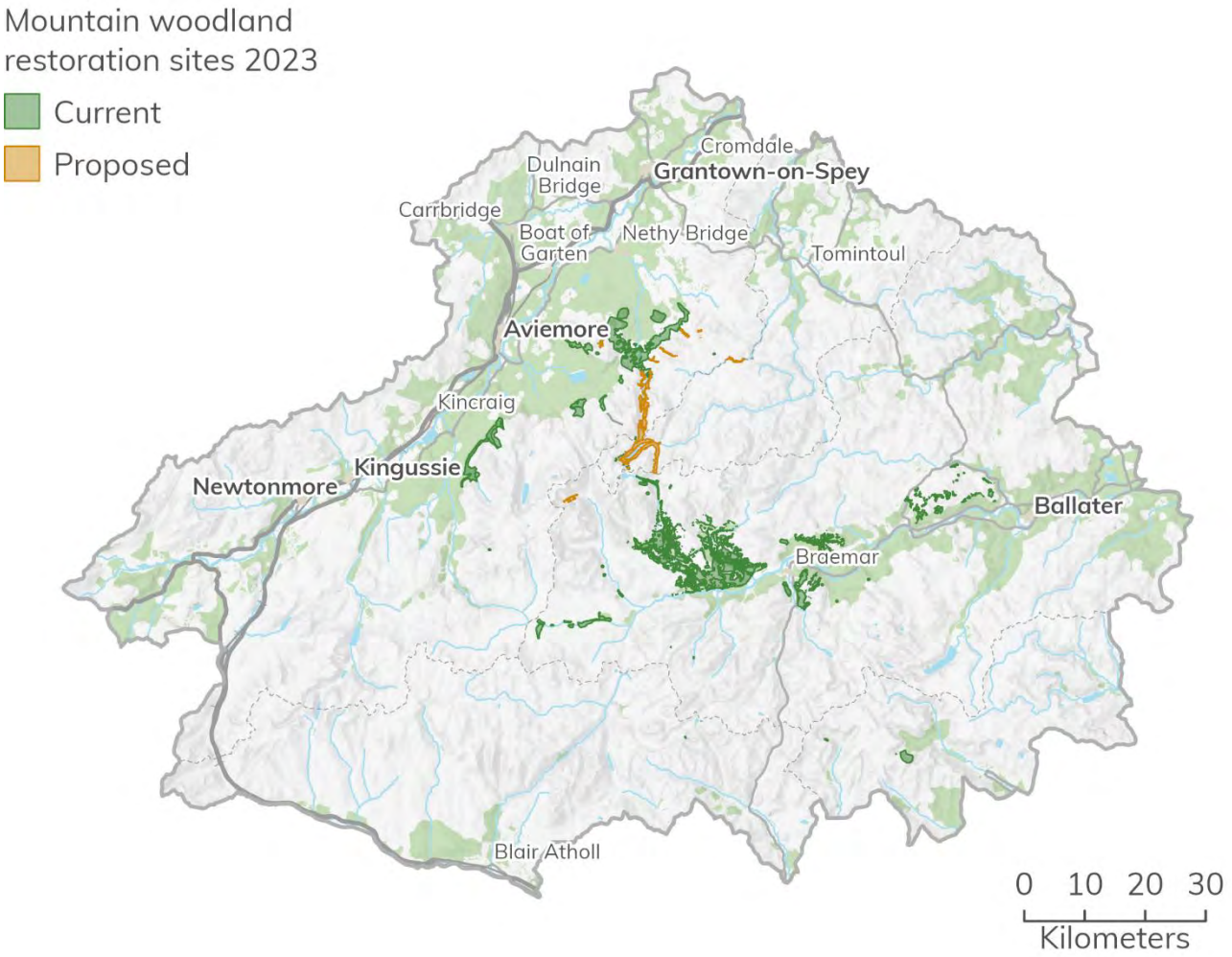


Figure 216 Mountain woodland restoration sites in the Cairngorms National Park as of March 2023. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Riparian woodland

Native woodland on the riparian zone is a vital part of the water ecosystem. It helps regulate the temperature of the water by providing shade, while falling leaves and insects feed the hungry animals below. It is linked closely with the freshwater and wetland priority habitats covered on page 530 of this report.

Riparian woodland data is hosted by NatureScot (Figure 217). It was mapped using a combination of existing open datasets, including the Native Woodland Survey of Scotland, Smallwoods dataset from Forest Research, National Forest Inventory,

Ordnance Survey open rivers data and Scottish Environment Protection Agency open rivers data. It includes coniferous and broadleaved woodland, native and non-native. The data presented in this report was extracted 25 November 2024 when it's most recent update was 16 June 2023.

It is recognised that the summary data provided by Figure 217 is difficult discern. It can be viewed at greater deal via NatureScot's data portal:

- https://opendata.nature.scot/datasets/snh::riparian-woodland-2/explore?location=57.060601%2C-3.588487%2C10.40

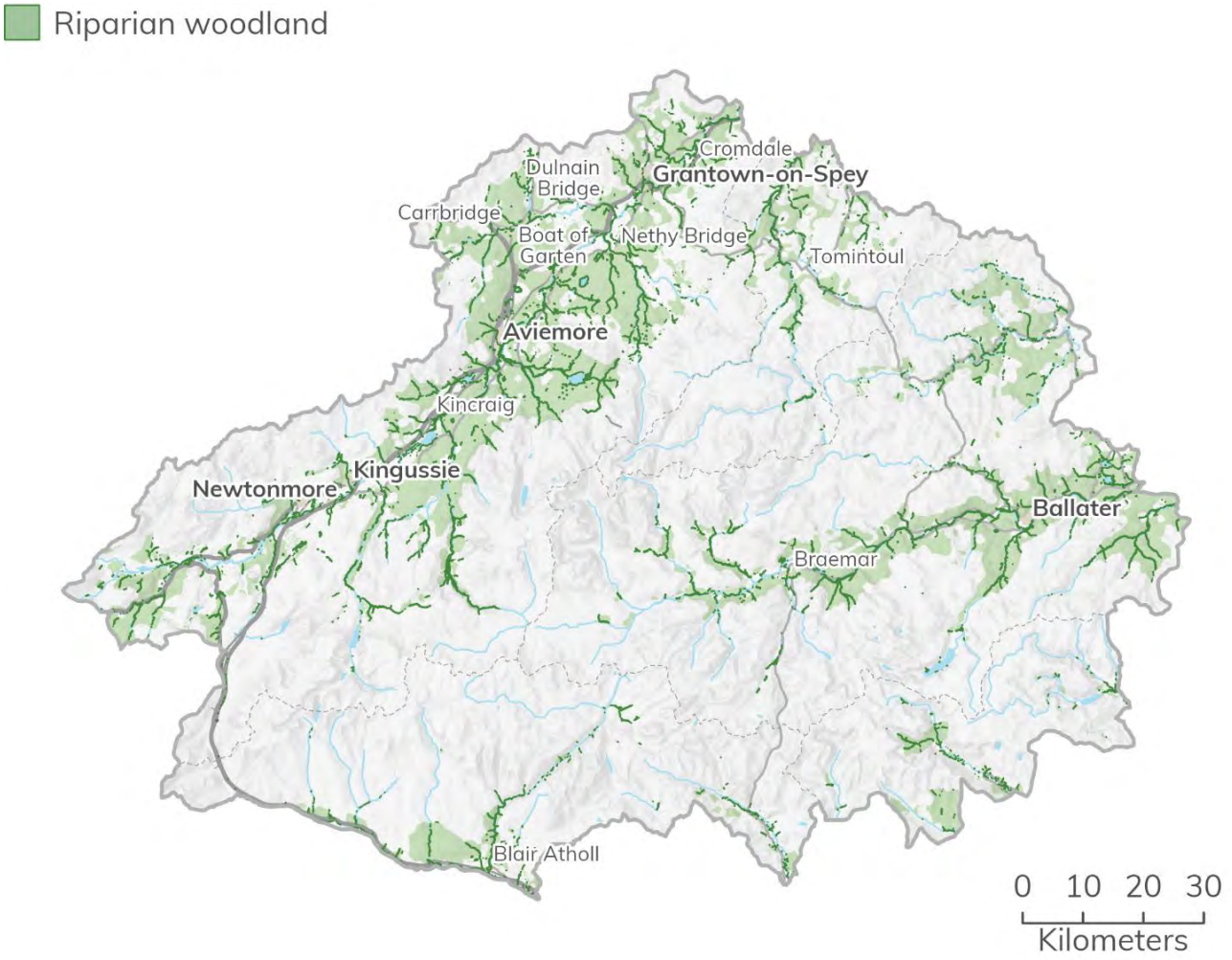


Figure 217 Mapping of riparian woodlands in the Cairngorms National Park. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Due to the overlap with flood risk constraints, it is unlikely that riparian woodland is at significant risk from development.

Opportunities for the expansion and enhancement of riparian of woodland are covered within the context of freshwater and wetland habitats (see page 530).

Forestry Grant Scheme woodland creation claims and options

The Forestry Grant Scheme (FGS) offers financial support for the creation of new woodland and the sustainable management of existing woodland. Within the scheme, there are a range of support options covering planting, woodland protection, harvesting and more.

The Scheme's woodland creation claims (Figure 218) and options (Figure 219) data can provide information on woodland areas that may not be picked up by other datasets. In the case of claims data, this is because the data is updated at a greater frequency than the inventories and surveys, such as the National Forest Inventory. In the case of options, this is because the areas have been approved for woodland creation under the grant scheme but may not yet have been planted. Woodland creation options might therefore not appear on the other datasets covered in this report. While it is possible that the woodland does not get planted, it is considered appropriate to also categorise these areas as woodland.

This information can be supplemented with data on claims for successful New Natural Regeneration Establishment under Scheme's Woodland Improvement Grant, Habitats and Species option. The Woodland Improvement Grant provides support for capital work that will benefit a range of priority habitats and species, as defined in the Scottish Biodiversity Strategy and European Directives. This option is aimed at:

- Improving the condition of native woodlands and restoring Plantations on Ancient Woodland Sites to native woodland.
- Restoration or conservation of non-woodland habitats (such as lowland raised bogs and blanket bogs) that are present within the internal boundary of the woodland
- Species associated with woodland edge (such as the pearl-bordered fritillary).
- Woodland Designed Landscapes.

This data is useful as natural regeneration may not be picked up in surveys such as the National Forest Inventory.

There is some overlap between the claim and option datasets, which were accessed 4 November 2024. At the time, the most recent update of both datasets occurred 14 November 2024.

There is just over 3,600 hectares of land with Forestry Grant Scheme woodland creation claims in the National Park (Figure 218), which was approved from 2016 – 2023, under the following options:

- 1,401 hectares of native Scots pine.
- 710 hectares of native broadleaves.
- 702 hectares of native upland birch.
- 385 hectares of diverse conifer.
- 310 hectares of conifer.
- 81 hectares of native low-density woodland.
- 45 hectares of broadleaves.
- 13 hectares of small or farm woodlands.

The claims for these areas were made from 2016 – 2023.

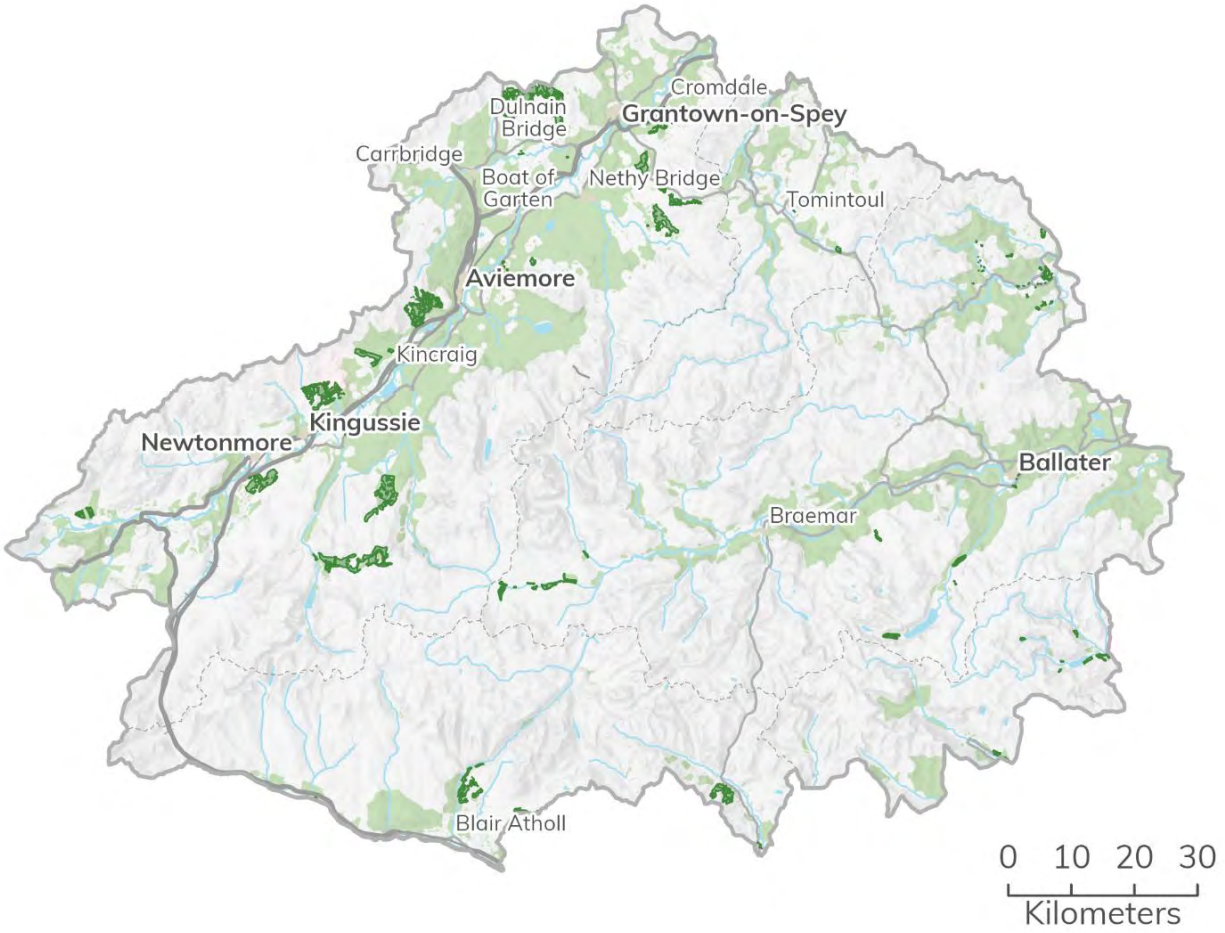


Figure 218 Forestry Grant Scheme woodland creation claims. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

There is just over 6,390 hectares of land with woodland creation options in the National Park (Figure 219), which was approved from 2015 – 2024, under the following options:

- 2,889 hectares of native Scots pine.
- 1,272 hectares of native upland birch.
- 1,134 hectares of native broadleaves.
- 483 hectares of diverse conifer.
- 386 hectares of conifer.
- 163 hectares of native low-density woodland.
- 50 hectares of broadleaves.
- 14 hectares of small or farm woodlands.

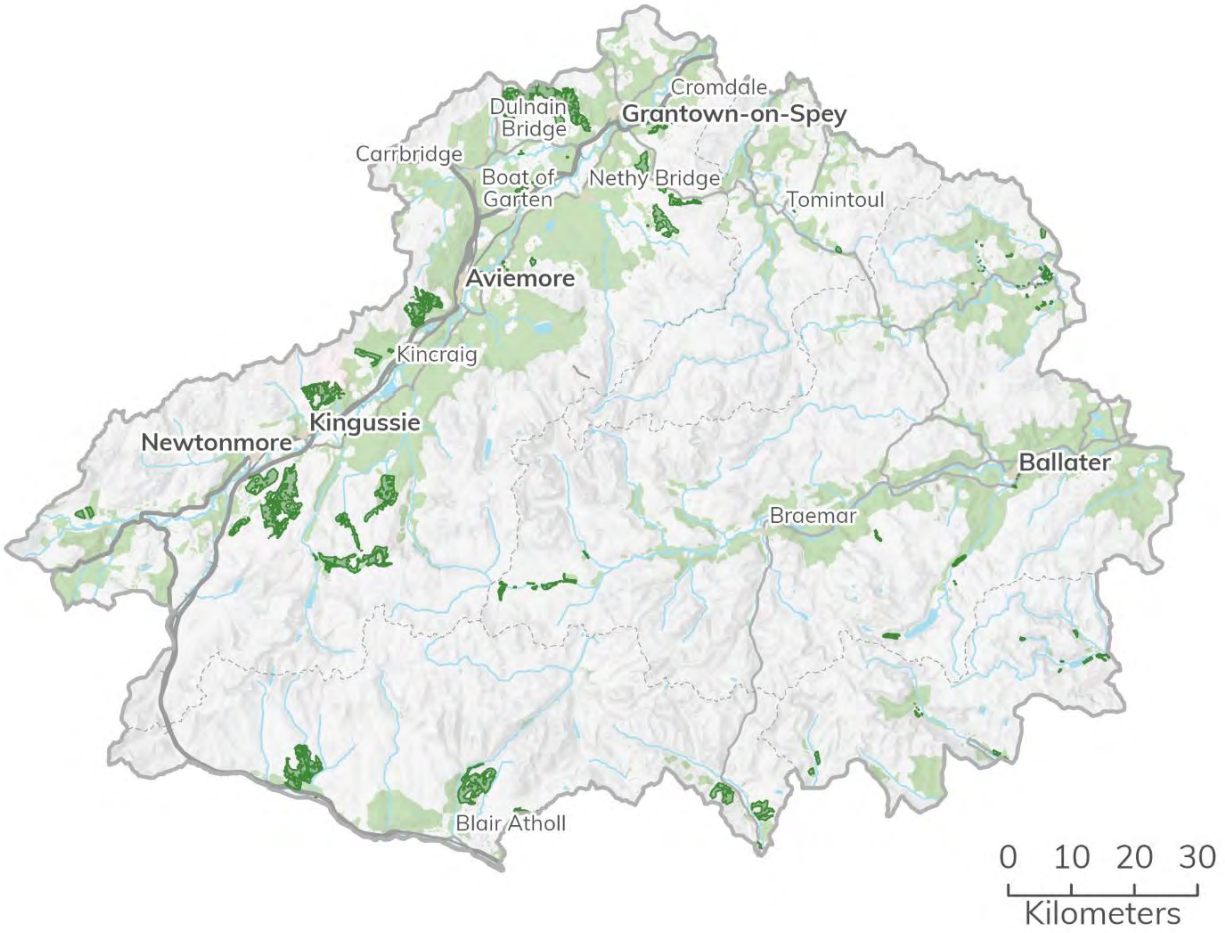


Figure 219 Forestry Grant Scheme woodland creation options. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The data presented in Figure 220 is for the successful establishment of natural regeneration of native tree species on open ground within or around the woodland edge where there are prospects of regeneration occurring, and where the successful establishment of native trees meets the objectives of the Woodland Improvement Grant – Habitats and Species option. There is just over 1,700 hectares of land within the National Park under this option.

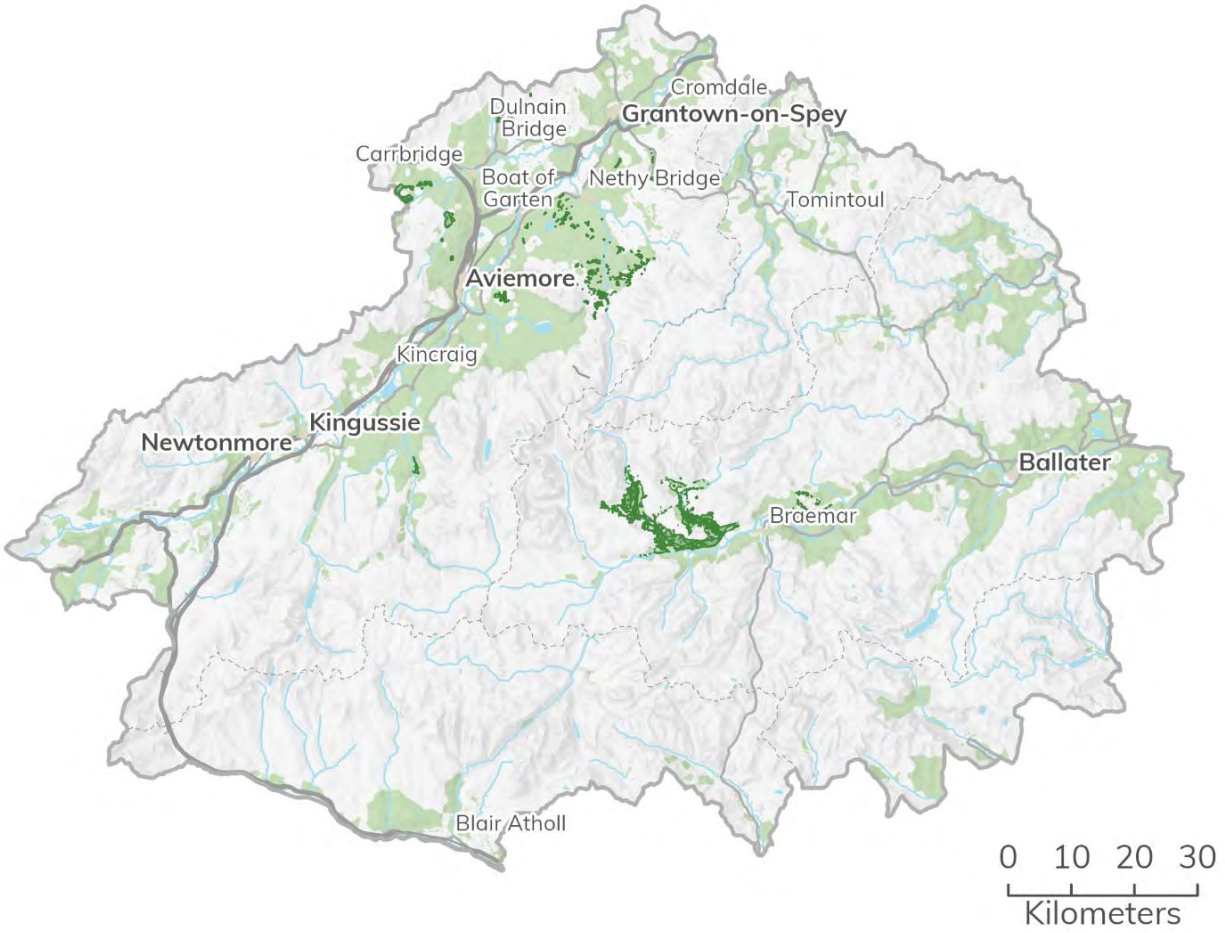


Figure 220 Forestry Grant Scheme Woodland Improvement Grant Habitats and Species new natural regeneration claims. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Trees and hedgerows

As noted, the datasets used in this document have their limitations, in particular, data on smaller areas of woodlands, hedgerows and / or individual trees is fragmentary with much lacking any form of identification. This can include trees of high value on field boundaries or along watercourses for example. Trees in urban and peri urban areas are important assets that need to be protected and encouraged, although they may not preclude development.

Town and Country Planning (Scotland) Act 1997, as amended and the Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010 grant planning authorities the ability to make Tree Preservation Orders if it appears to be:

- Expedient in the interest of amenity and / or
- That the trees, groups of trees or woodlands are of cultural or historical significance.

The Tree Preservation Order data held by the local authorities covering the National Park therefore offer a source of information on the location of these assets that have legal protection. There are 54 Tree Preservation Order records within the Cairngorms National Park (Figure 221). These records do not equate to the number of trees protected by the preservation orders, as some records relate to groups of trees.

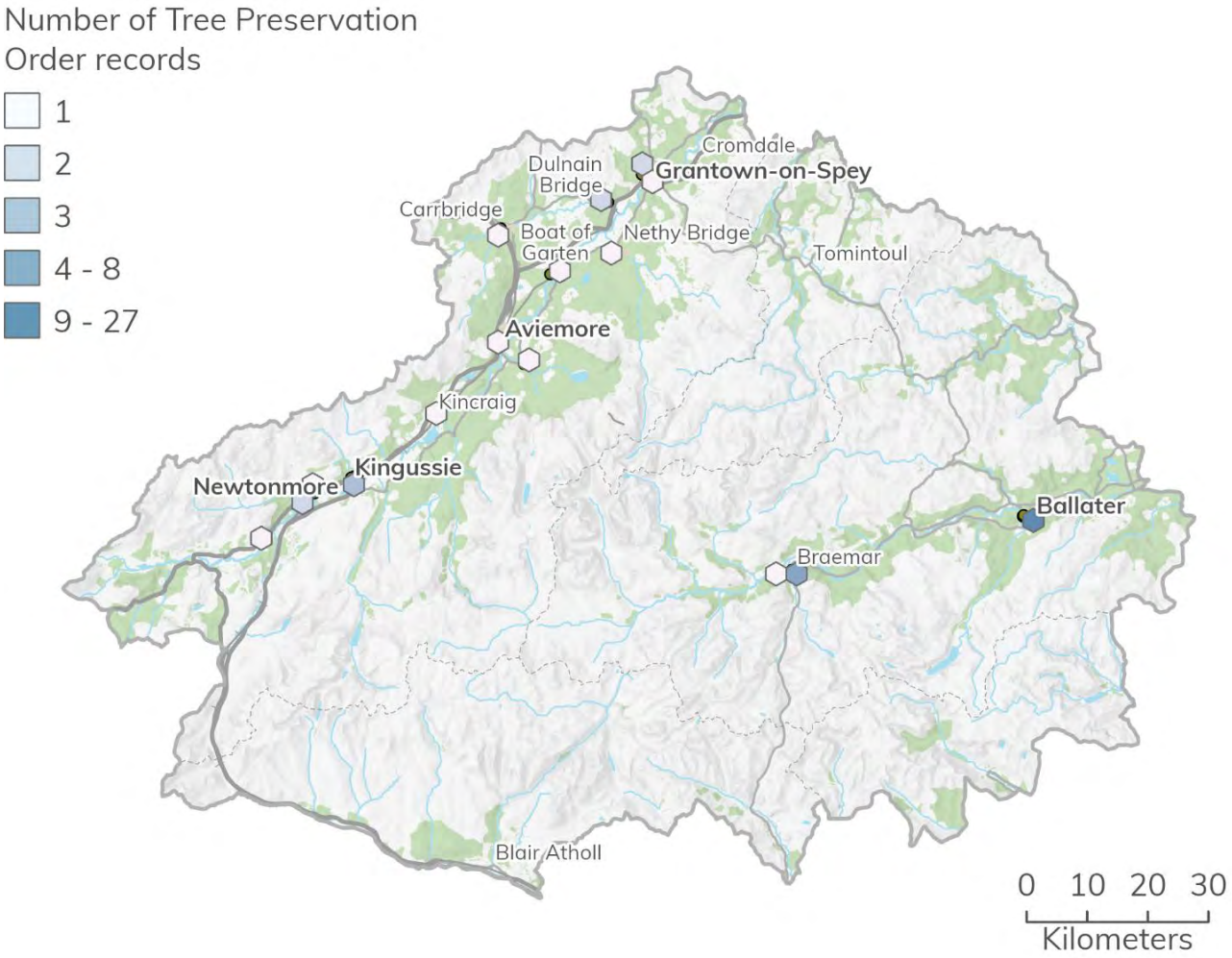


Figure 221 Tree Preservation Order records in the Cairngorms National Park. Mapping of riparian woodlands in the Cairngorms National Park. Contains data © Scottish Government 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The Tree Preservation Order data contained within Figure 221 was extracted from data held by the Improvement Service on 2 December 2024:

- https://data.spatialhub.scot/dataset/tree_preservation_orders-is

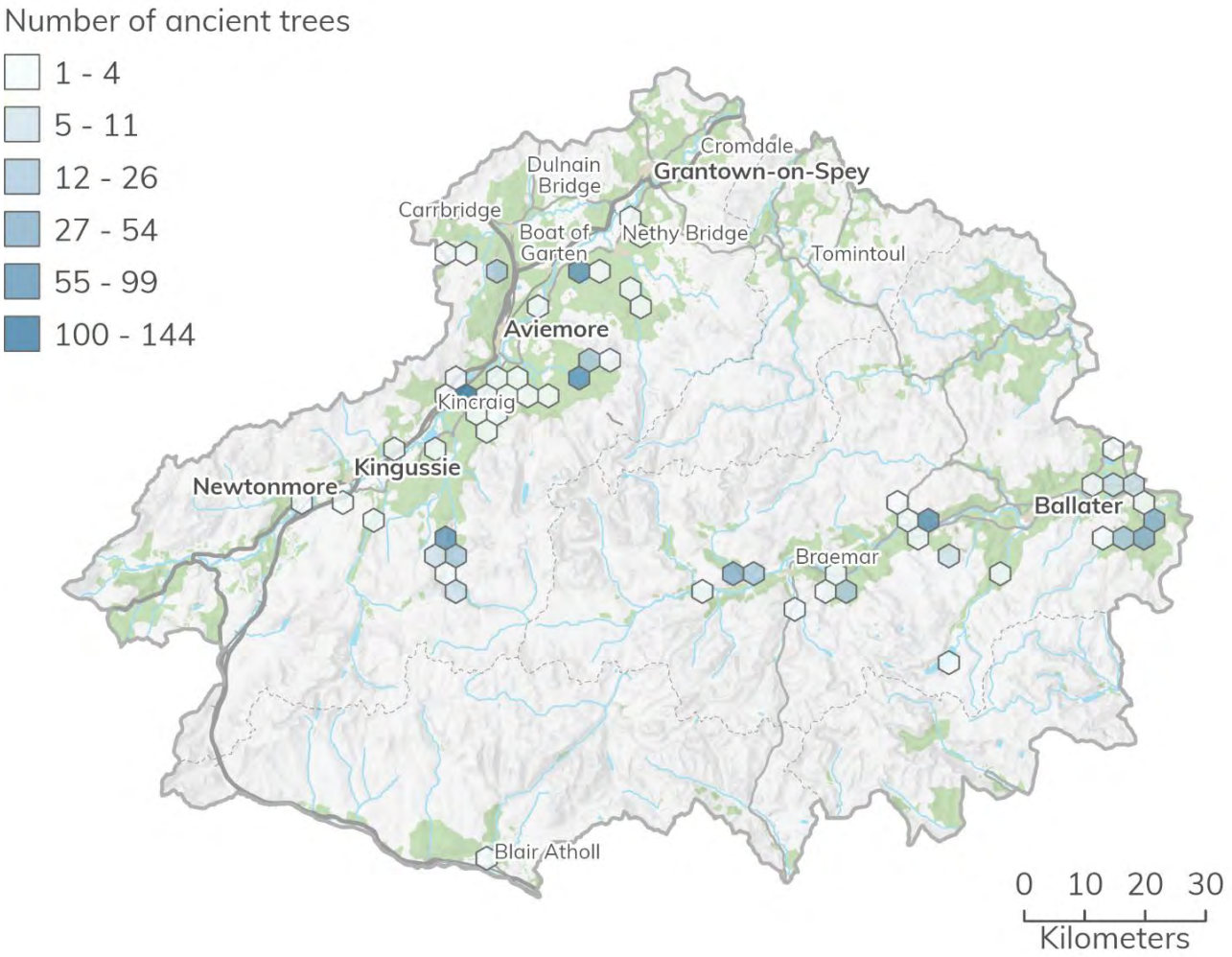


Figure 222 Trees recorded on the Ancient Tree Inventory within the Cairngorms National Park. Contains data © Woodland Trust 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

This data may be supplemented with the Ancient Tree Inventory operated by the Woodland Trust (Figure 222). The inventory hosts information on the location of ancient, veteran and notable trees. There may be overlap between this dataset and the Tree Preservation Order data held by local authorities. However, together they offer a more comprehensive view of the ecologically, historically and culturally important trees and woodlands within the Cairngorms National Park. The data presented in this report was extracted 25 November 2024 when it's most recent update was 7 March 2024.

There are 789 trees on the Inventory within the Cairngorms National Park. The vast majority of these are Scots Pine (634), with other species including Alder, Birch and Juniper. The majority of these were classified as veteran trees (around 74%) while the remaining 26% were classified as ancient trees. Around 97% of the trees were identified as being alive, while 3% were identified as dead.

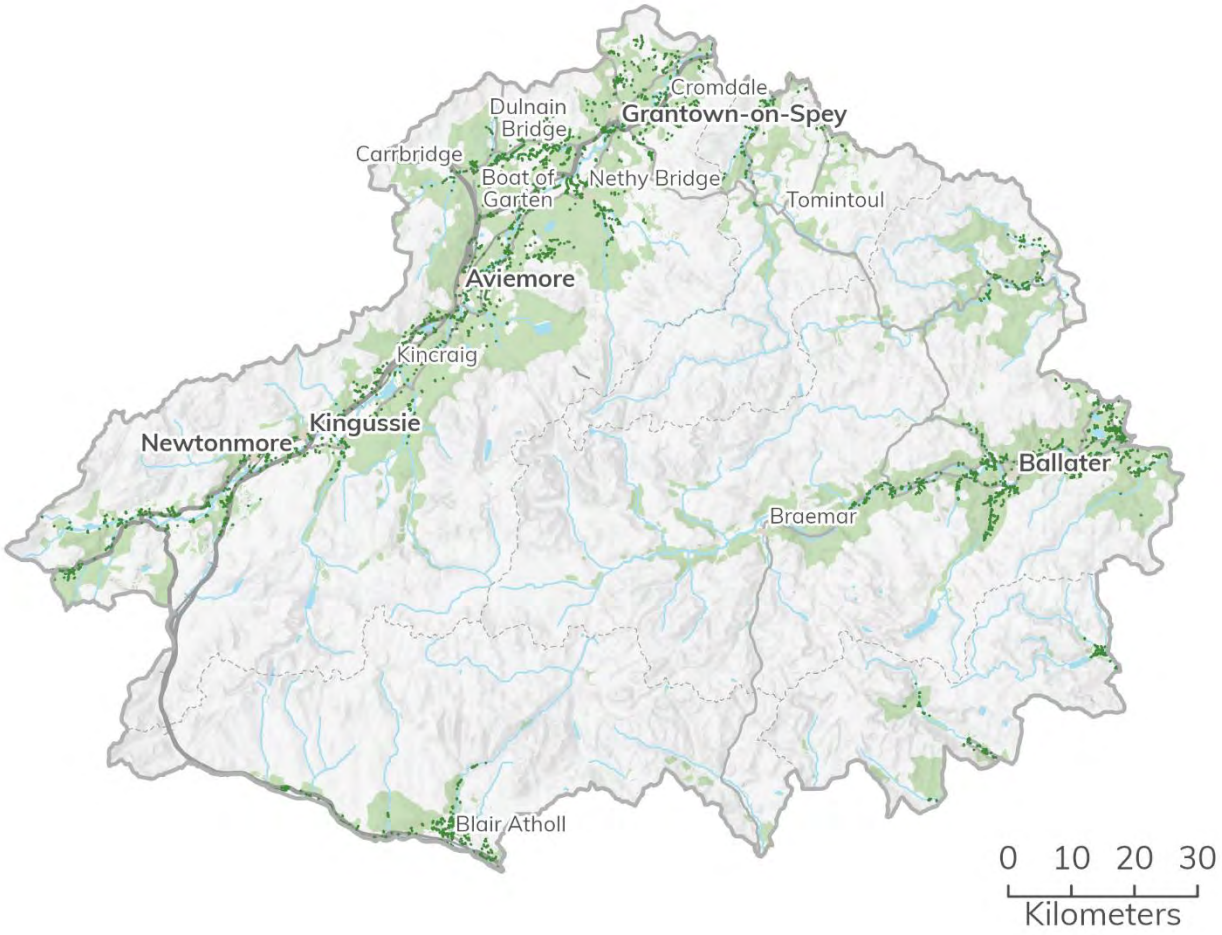


Figure 223 Features held on the Woody Linear Features Framework in the Cairngorms National Park. Contains data © UK Centre for Ecology and Hydrology 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Further information on trees and hedgerows in the National Park is available through the Woody Linear Features Framework dataset supplied by the UK Centre for Ecology and Hydrology (Figure 223). The dataset describes the location and lengths of hedge boundaries and lines of trees (woody linear features). The dataset was derived from existing national datasets and created by a predictive model, which was developed at the Centre for Ecology & Hydrology in 2016. This unique dataset shows hedges / lines of

trees on all land, not just agricultural. These features are Priority Habitats in their own right and are extremely valuable, particularly in intensively managed landscapes. There are around 240km of woody linear features identified on this dataset within the Cairngorms National Park

Woodland expansion

The National Park Partnership Plan 2022 – 2027, supported by the Cairngorms National Park Forest Strategy 2018 provides direction on the future forest management and restoration of woodlands within the National Park, including targets for woodland expansion. The Forest Strategy indicates that there is ecological scope and vast potential for woodland expansion in the Cairngorms National Park (Figure 224).

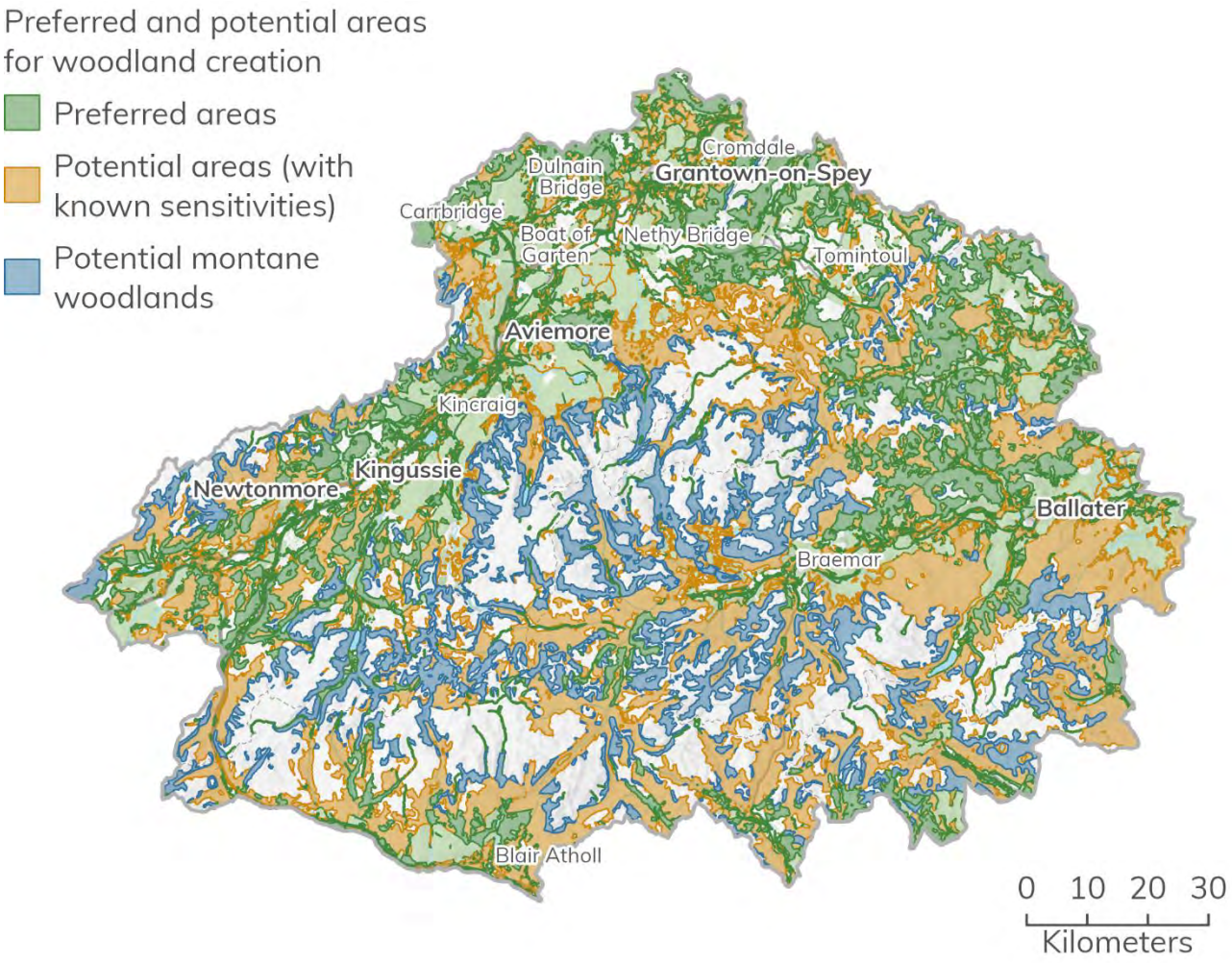


Figure 224 Preferred and potential areas for woodland creation in the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Moorland and peatland habitats

The National Park is home to important upland habitats such as, Northern Atlantic wet heaths, European dry heaths and other compositions of heathland Figure 225. Heathland habitats are generally dominated by dwarf shrubs with other species such as grasses, sedges and herbs. In the National Park, upland heaths are the most widespread habitats and are predominately managed for activities, such as grazing, grouse and red deer hunting. Thirteen of the Special Areas of Conservation found within the National Park boundary have heathland as a designated feature e.g. dry heaths, wet heaths, alpine and subalpine heaths. Seven of these have heathlands which are in unfavourable condition, with factors affecting the condition of the heathland including over / under grazing, burning and forestry operations. Proposed actions set out in the Cairngorms Nature Action Plan (2019-2024) to maintain heathland habitat include reducing the grazing pressure from both domestic and wild animals as well as managing disturbance to soils.

The 2063 vision of the Action Plan for moorland is for:

'Moorlands have structural diversity and link habitats together sympathetically. A natural transition from woodland to montane scrub to upland heath is developing throughout the Cairngorms National Park. The contributions it makes to ecosystem services are widely recognised. Raptor persecution ended decades ago, and a full complement of native raptors lives and breeds across the Cairngorms National Park. Productive grouse moors and high-quality stalking remains a mainstay of life, contributing environmentally, economically and socially'.

The 2063 vision of the Action Plan for moorland for peatlands is for:

'Most of the blanket bog is in favourable condition, retains water and acts as a carbon sink.'

Cairngorms Nature Action Plan 2019 – 2024 Final Report highlights the achievements of the Action Plan associated with moorlands and peatlands (Table 37).

Table 37 Achievement against Cairngorms Nature Action Plan 2019 – 2024 targets for peatland restoration.

Target	Status
Peatland restoration 5,000 hectares of peatland under restoration management	5,400 hectares under restoration

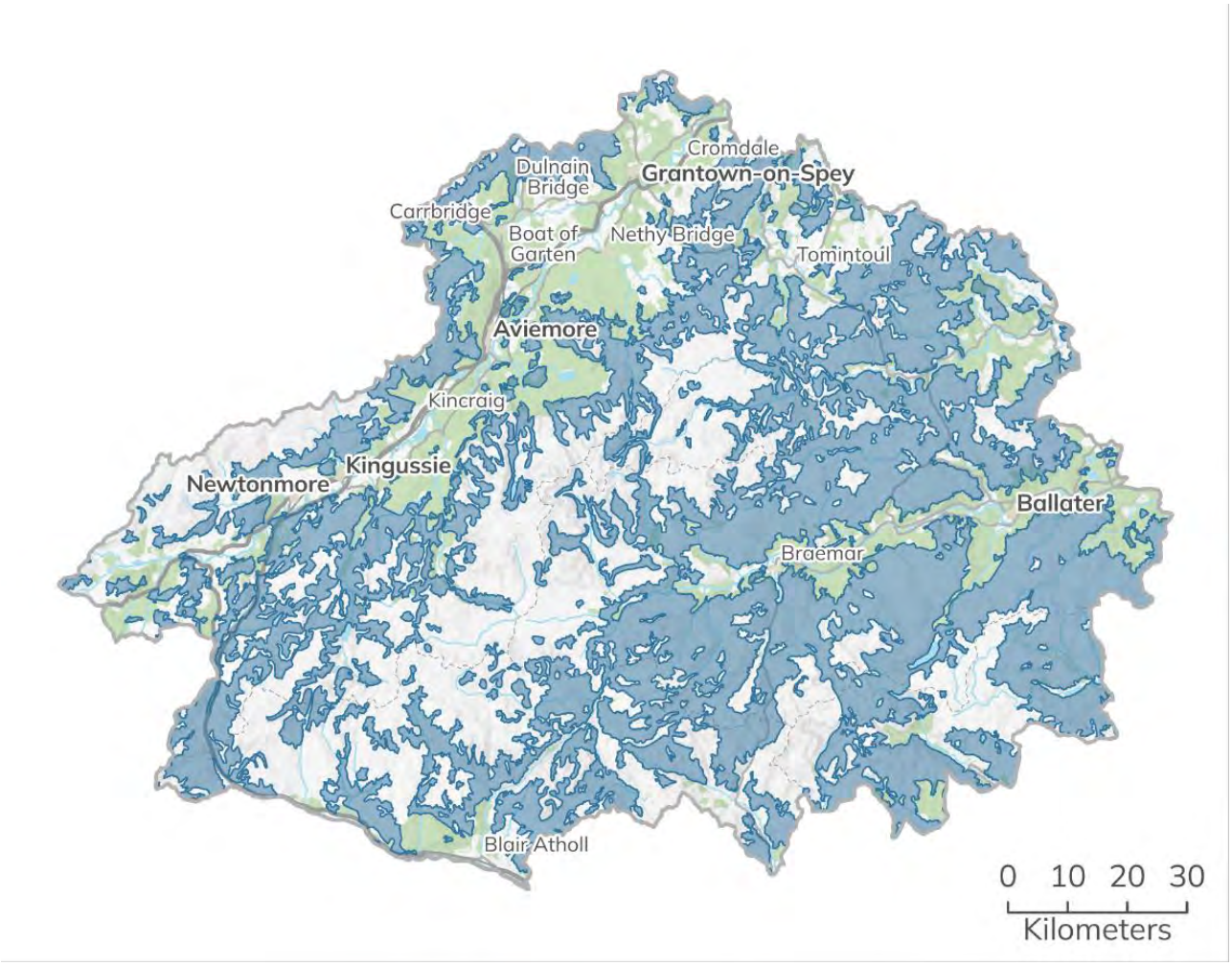


Figure 225 Heathland and Moorland within the Cairngorms National Park. Contains data © European Union, Copernicus Land Monitoring Service 2025, European Environment Agency (EEA). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Blanket bog is the second most extensive habitat within the National Park. They are susceptible to erosion from human activity and impacted upon by grazing animals (e.g. deer and sheep). It is estimated that there are around 90,000 hectareof impacted

peatland in the National Park and 57,000 hectareof this has experienced some form of erosion).

Land management actions for protecting blanket bog within the Cairngorms Nature Action Plan include managing grazing and controlling muirburn. The Park Authority has strong working relationships with the area's landowners, with the aim of helping them work alongside each other in achieving the best results for the National Park as a whole. That way, it hoped that their individual needs and interests can be met along with those of the wider community.

The East Cairngorms Moorland Partnership (Figure 226) is an important example of this work. In this unique partnership the Mar Lodge, Mar, Balmoral, Glenavon and Glenlivet estates are working with the Cairngorms National Park Authority, seeking to demonstrate that it's possible to deliver both public and private interest outcomes by successfully integrating sporting management with other land uses. Working together on an unprecedented scale, the partnership is trialling techniques and exploring new ways of working to carry out species conservation, peatland restoration, woodland expansion and demonstrate more sustainable moorland management. Projects that have been worked on include:

- Wader monitoring (with British Trust of Ornithology) - using nest loggers to get an estimate of productivity in a Cairngorms grouse moor landscape.
- Peatland restoration - using Peatland Action funds, planning major restoration work on all six estates.
- Woodland expansion - using opportunity mapping, seeking to increase the woodland cover over the six estates from the current average of 10%.
- Raptor conservation - auditing the current raptor population with the long-term aim of increasing populations.
- Muirburn mapping - auditing the current 'no burn', 'sensitive burn' and 'regular burn' areas to give a clearer picture of what is happening now and potentially looking to increase the 'no burn' area.
- Mountain hare management - using NatureScot / James Hutton Institute methodology, to get a better picture of hare populations on the six estates and develop management plans based on this information.

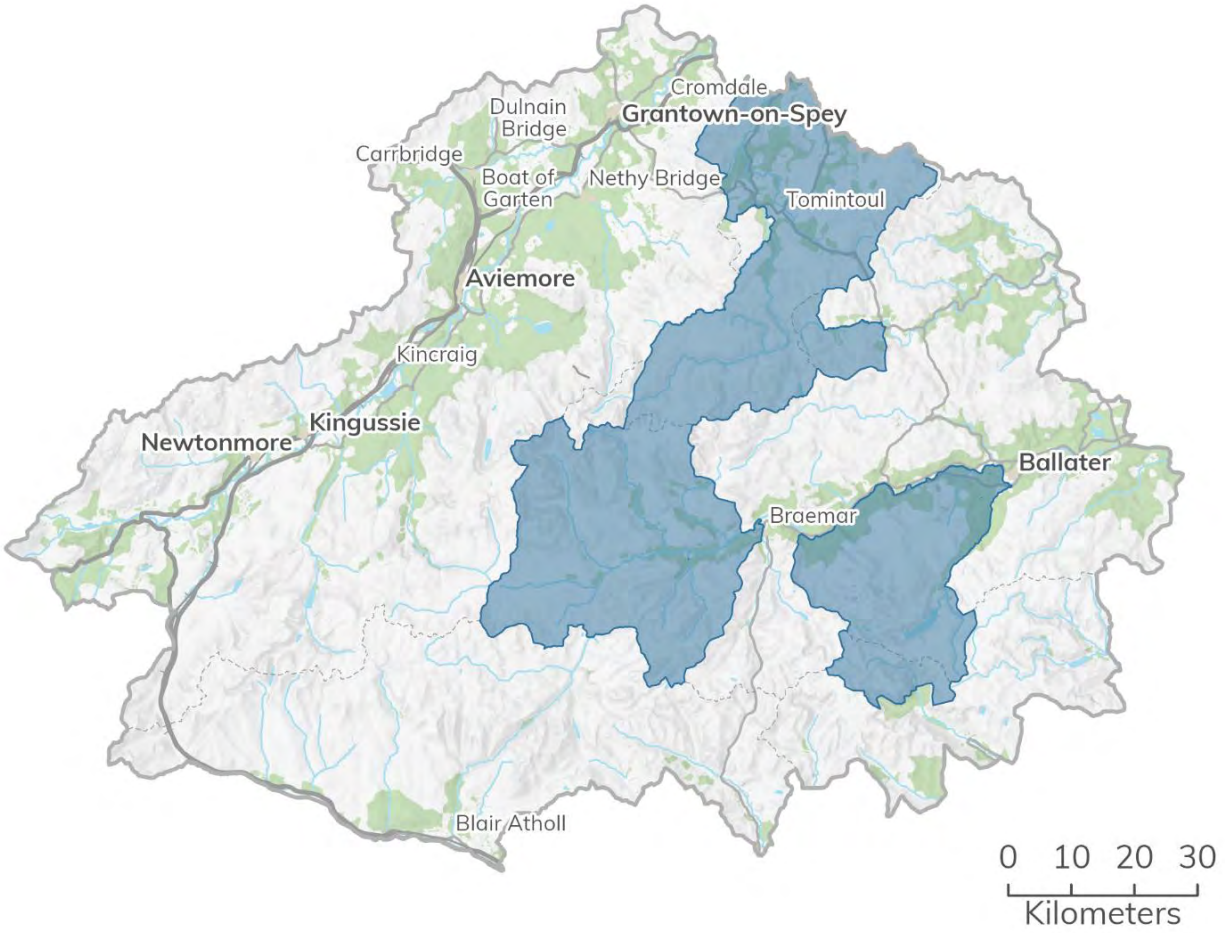


Figure 226 East Cairngorms Moorland Partnership. Contains data © NatureScot, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Development pressures on moorlands and peatlands come from a number of sources, including energy infrastructure, telecommunications masts and the creation of private roads and ways.

Farm and croft land

The Cairngorms National Park is also a cultural landscape. The work of generations of land managers has produced the landscapes and habitats we see today. It is an International Union for Conservation of Nature (IUCN) Category 5 protected landscape, which recognises and seeks to safeguard the integrity of the interaction of people and nature over time, and the aims of the National Park cater for the needs of people as well as wildlife. Managing for biodiversity and the sustainable use of the area's natural resource is part of many land managers' everyday business. Significant areas of the

National Park are managed primarily for agriculture (Figure 227), and farms and crofts are home to many of the National Park's rare and endangered species. The Cairngorms Nature Action Plan 2019 – 2024 seeks to build on this, supporting land farmers and crofters working for wildlife, with a priority nature friendly farming. The 2063 vision of the Action Plan is for:

'A patchwork of productive land uses is good for wildlife. It supports thriving communities and reflects centuries of tradition. Delivering biodiversity benefit is an integral part of high-quality food production and does not impact on profitability. High quality grasslands support a healthy range of nationally and locally important species. Farmland wader populations have recovered and increased throughout the Cairngorms National Park, and the area is nationally recognised as a model of farmland management for conservation on productive land.'

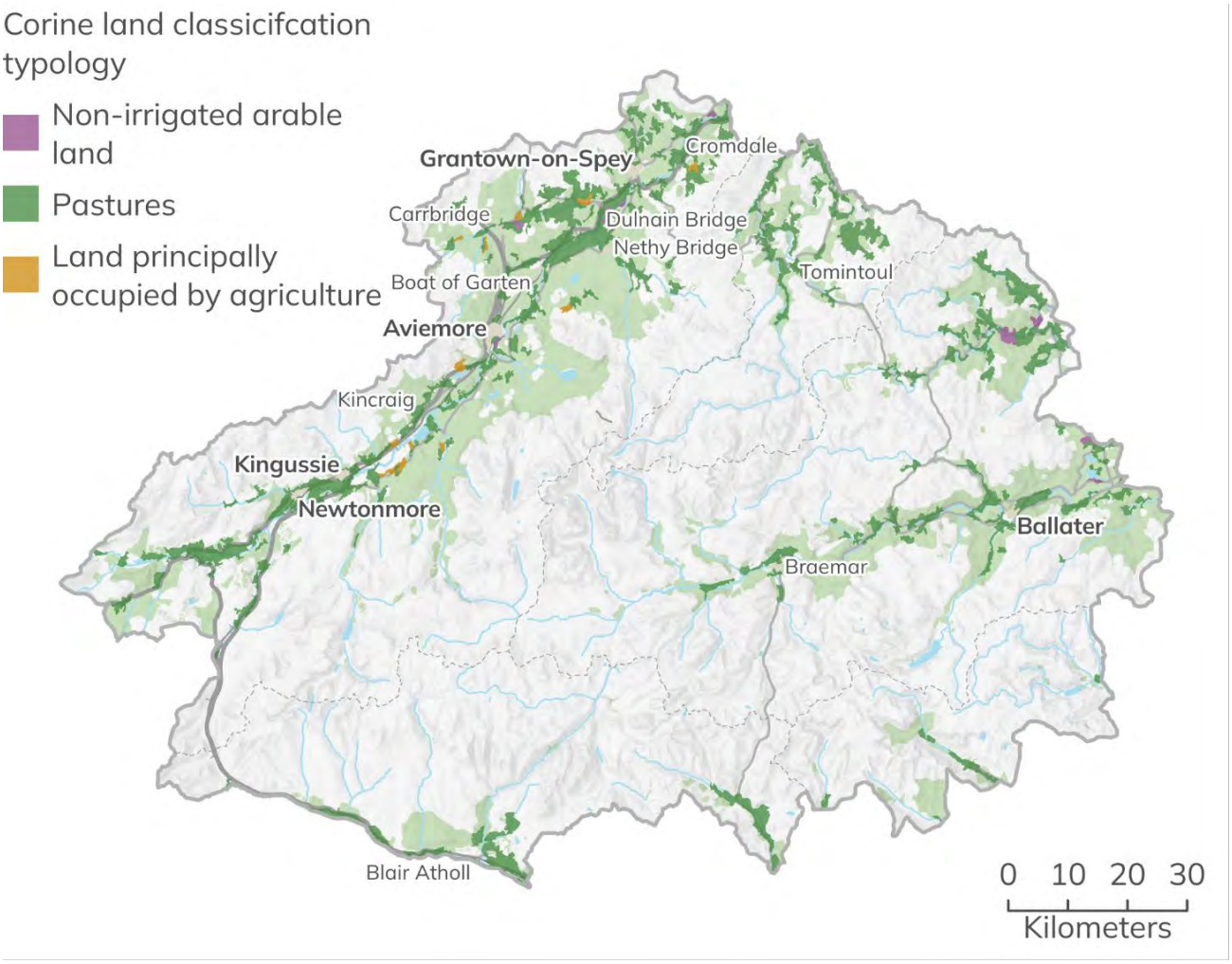


Figure 227 Agricultural land use typologies within the Cairngorms National Park. Contains data © European Union, Copernicus Land Monitoring Service 2025, European Environment Agency (EEA). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Cairngorms Nature Action Plan 2019 – 2024 Final Report highlights the achievements of the Action Plan associated with nature friendly farming (Table 38).

Table 38 Achievement against Cairngorms Nature Action Plan 2019 – 2024 targets for nature friendly farming.

Target	Status
Nature friendly farming 20 farms in woodland and grassland projects	27 farms engaged
Nature friendly farming Increase in wader populations from the 2015 baseline	25% decrease

Farmland wader conservation remains a priority for the Cairngorms Nature Action Plan, despite wader populations not improving since the 2015 census. The Action Plan target to increase wader populations was set following a 16% increase in between 2000 and 2015, but from 2015 to 2021 the population has decreased by 25%. There are multiple factors affecting populations, for example the impacts of climate change and predation. Interactions can be difficult to pick apart and all or some may have contributed to the decline in varying degrees. Nevertheless, concerted efforts continue to counter this, with species including lapwing, redshank, curlew, snipe and oystercatcher all receiving critical, Park-wide support through the Action Plan. Further information on ongoing work in this area is outlined in the Cairngorms Nature Action Plan 2019 – 2024 Final Report:

- https://cairngorms.co.uk/wp-content/uploads/2024/11/Final-Report-_Cairngorms-Nature-Action-Plan-2019-2024.pdf

The British Trust for Ornithology in partnership with the Forestry Commission and the Cairngorm National Park Authority have created Wader Sensitivity and Breeding Wader Sensitivity Map maps, which predict the relative abundance of ten species of breeding wader for each 1km square of England, Scotland and Wales. The species are:

- Curlew
- Lapwing

- Redshank
- Snipe
- Oystercatcher
- Golden Plover
- Dunlin
- Common Sandpiper
- Ringed Plover
- Greenshank.

Predicted relative abundances are categorised into five strata numbered 1 to 5. Predicted abundances are lowest in stratum 1 and highest in stratum 5.

Predictions were derived using statistical models (random forest regression tree) with bird data taken from the British Trust for Ornithology / Scottish Ornithologists Club / Bird Watch Ireland Bird Atlas (which covered the period 2008 – 2011) and a range of environmental data sets, including climate (temperature and precipitation), topography (elevation and slope), habitat, wind farms and roads and predation risk. While overall the predictive models performed well as assessed by correlation with empirical data, it must be emphasised that these are predictions which will not be accurate in all cases.

The research report for the project anticipates that the strata will be used to indicate areas where positive management for breeding waders may be most beneficial, and to inform the planning and assessment procedures for land-use change and developments that could be detrimental to breeding waders, such as the creation of new forests or the expansion of existing forested areas. The Park Authority consider that it could also be used inform strategic development planning.

This Park Authority considers the status of a number of Curlew, which are a Cairngorms Nature Action Plan Priority Species, and have been identified as being potentially vulnerable to development.

The outputs of the modelling can be viewed on the British Trust for Ornithology's wader map tool:

- https://app.bto.org/wader-map/index.jsp

Freshwater and wetland habitats

Many of the rivers and lochs within the National Park are internationally protected for nature conservation, primarily for the species they support – Atlantic salmon, freshwater pearl mussel and lamprey species. The National Park contains part of eight river catchments, with the largest catchment belonging to the River Spey.

The National Park is also home to a mosaic of wetland habitats ranging from fens, bogs, wet woodlands and wet grassland, all of which provide a home to a rich array of wildlife. Wetlands are thought to have once been an extension habitat within the National Park but have suffered a decline, much like the rest of the United Kingdom. Changes in land use, drainage and pollution are all factors affecting freshwater and wetland habitats (Figure 228).

Within the National Park, the most extensive wetland habitat is at Insh Marshes National Nature Reserve (Figure 203), on the River Spey floodplain between Kingussie and Kincraig. Insh Marshes are one of the most important wetlands in Europe, known to support a wide range of breeding waders and invertebrates[85].

Muir of Dunnet National Nature Reserve (Figure 203), near Ballater, is also an important site within the National Park. At the heart of the Reserve are Lochs Davan and Kinnord, with their near pure water and associated bogs and fens providing ideal habitat for a wide mix of species; from rare water beetles to mammals like otter, feeding and breeding on the Reserve. During winter, the lochs are an important roost site, attracting migrating geese and other wildfowl[86].

[85] Insh Marches are protected by multiple designations, including Insh Marshes Special Area of Conservation, River Spey Special Area of Conservation, River Spey - Insh Marshes Special Protection Area, River Spey - Insh Marshes Ramsar site, River Spey - Insh Marshes Site of Special Scientific Interest and Insh Marshes National Nature Reserve.
[86] Muir of Dinnet National Nature Reserve is also protected by multiple designations, namely Muir of Dinnet Special Protection Area, Muir of Dinnet Ramsar site and Muir of Dinnet Site of Special Scientific Interest.

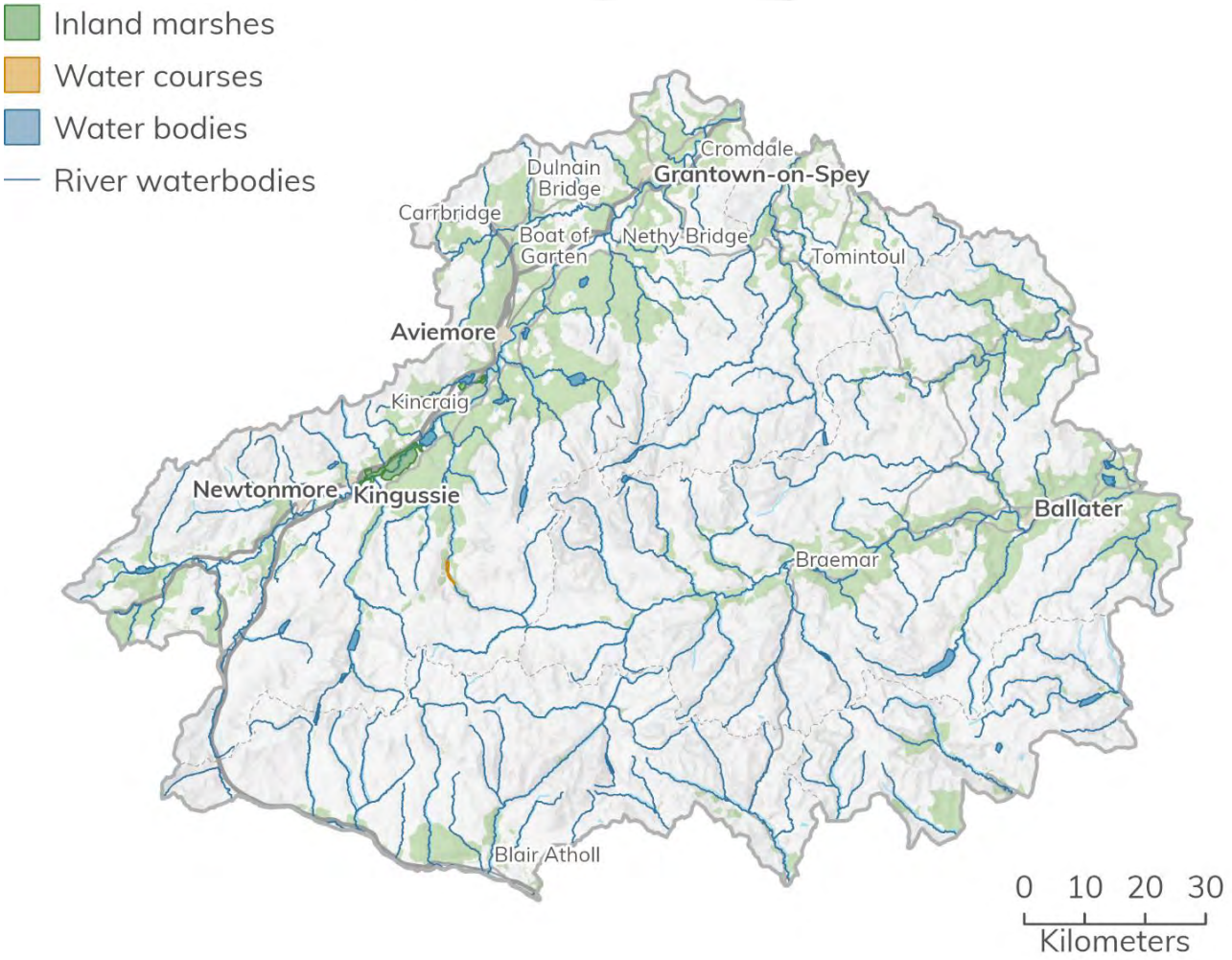


Figure 228 Freshwater and wetland habitats in the Cairngorms National Park. Contains data © Scottish Environment Protection Agency 2025. Contains data © European Union, Copernicus Land Monitoring Service 2023, European Environment Agency (EEA). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The priority in the Cairngorms Nature Action Plan 2019 – 2024 is for freshwater and wetland restoration. The 2063 vision of the Action Plan for freshwater and wetland habitats is for:

'Rivers naturally meander and waters rise and fall seasonally across land grazed by livestock. Large, interconnected wetlands help prevent damaging flood events in the Park and further downstream. Natural processes in river catchments do not affect the productivity of land. The high-water quality status has been maintained or increased.'

Cairngorms Nature Action Plan 2019 – 2024 Final Report highlights the achievements of the Action Plan associated with freshwater and wetland habitats (Table 39).

Table 39 Achievement against Cairngorms Nature Action Plan 2019 – 2024 targets for freshwater restoration.

Target	Status
Freshwater restoration 150 km river and riparian restoration	100 km restored
Freshwater restoration 50 ponds created or restored, including Sustainable drainage (SuDS) ponds	50 ponds created

Figure 217 provides the location of existing riparian woodlands in the National Park. Scottish Environment Protection Agency host a further spatial dataset, concerning riparian vegetation planting opportunities. This data combines the riparian vegetation quality information, with the energy (will the river do the work) information with the aim of identifying, at a catchment scale, areas where riverbanks could be protected from erosion by improved riparian vegetation ideally including riparian woodland. Thus, the opportunity data identifies areas where tree planting will benefit geomorphology through river restoration when morphological pressures were present in a particular section.

This data only considers baseline water bodies (those with catchment greater than 10km^2) and has a raster format resolution of 25m^2. It is therefore useful at local development planning scale for identifying wider areas where tree planting could benefit the water environment.

While the data may be used to provide project-based interventions at a local level, it is too granular to view effectively to provide a National Park overview; therefore a map is not included here. However, a web version can be accessed via Scotland's environment map:

- https://map.environment.gov.scot/sewebmap/?layers=riparianVegetationPlantingOpportunities

Scottish Environment Protection Agency provide information on the ecological status of the 157 waterbodies found within the National Park (Figure 229). Since 2013 there has been an increase in the number of waterbodies achieving good to high status, from around 50% to around 68% in 2023. The reasons for waterbodies failing to reach good

status are generally the presence of a large number of barriers to fish migration and poor morphology[87].

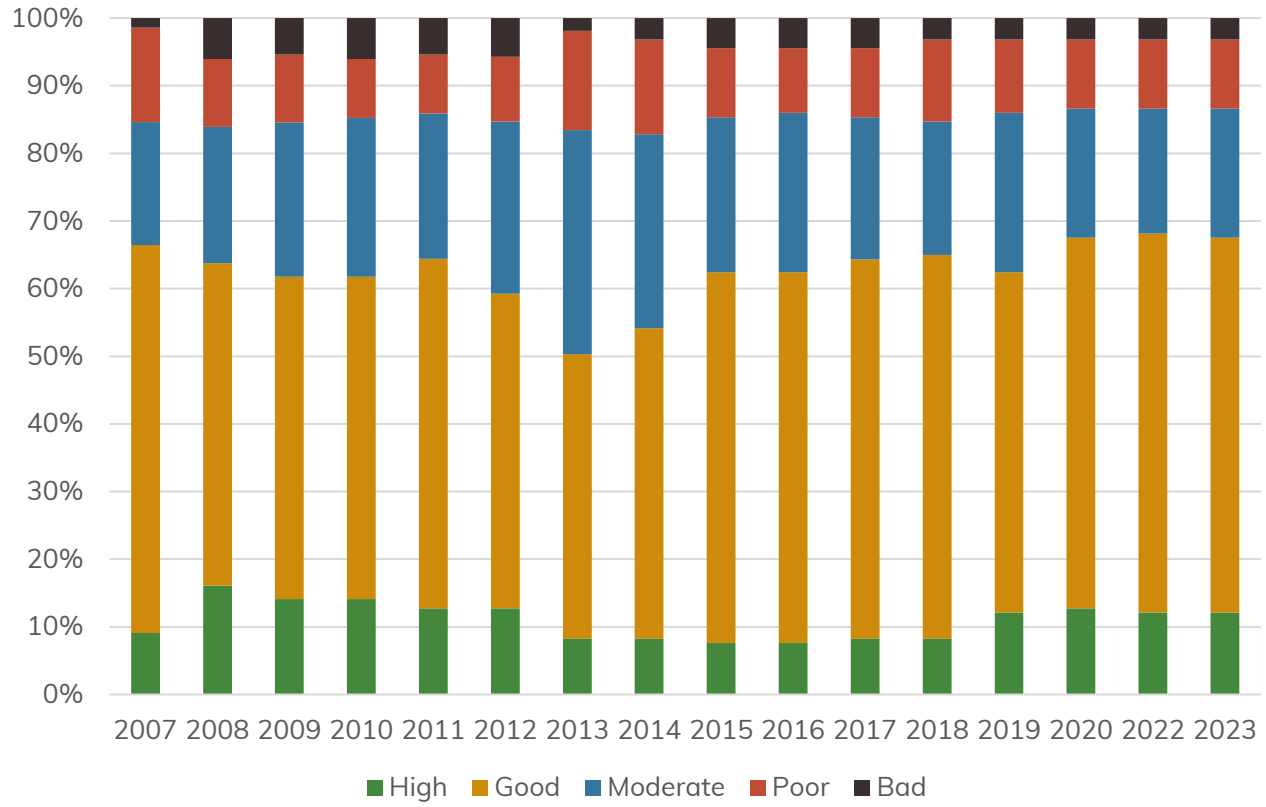


Figure 229 Proportion of waterbodies by overall ecological status in the Cairngorms National Park, 2007 – 2023 (Scottish Environment Protection Agency, 2024).

There are a variety of pressures considered to affect the waterbodies within the National Park and there are a number of River Basin Management Plans which have been produced to set measures to address these pressures. The main catchments within the National Park which management plans have been developed for are the River Spey and the River Dee:

- The River Spey Catchment Plan 2016 identifies barriers to fish migration as the biggest contributor to downgrading of ecological status (classified as poor in 2019 and 2020). Other factors include flow and levels, water quality and unspecified ecological issues which have resulted in poor fish condition. Projects under the River Spey Catchment Plan have included natural flood management within a tributary of the River Spey which sought to re-establish natural processes and enhance habitats.

[87] See https://cairngorms.co.uk/wp-content/uploads/2024/12/Cairngorms-National-Park-waterbody-information.pdf

- The River Dee Catchment Management Plan published in 2007 identified a number of pressures on the natural processes of the catchment, including severe weather events which caused flooding and erosion to the surrounding landscapes along the river. A vast amount of activity has occurred since the adoption of the management plan, to reduce pollution, remove obstructions to fish passage, control invasive species and naturalise channels. The new delivery plan (2022 – 2027) seeks to build on these projects as a step towards restoring a healthy river environment.

Montane habitats

Montane habitats are found in areas above the natural tree level (approximately 600m above sea level). These alpine and sub-alpine areas represent some of the most natural and undisturbed habitats in the United Kingdom.

Approximately 520 km^2 of the Cairngorms National Park is classified as montane habitat by the European nature information system (Figure 230). The National Park is home to a full range of submontane and montane habitats characteristic of the eastern Highlands, from native Scots pine woodland to subalpine and alpine heathland and grassland habitats. The massive summit plateaus and broad watersheds of the area's mountains, with a considerable land mass above 1,000 metres, allow prolonged snow cover in a variety of situations and in turn give rise to a greater range and extent of late snow-influenced vegetation than in any other mountain system in Britain.

The Cairngorms Mountains have the most extensive tracts of sub-alpine and alpine heath in Britain. They support a rich assembly of montane vascular plants, acid-tolerant montane plants, mosses, lichens and liverworts, including alpine and Highland saxifrages, hare's-foot sedge, alpine foxtail and Green shield-moss. They also support breeding populations of ptarmigan, snow bunting, dotterel, and golden eagle.

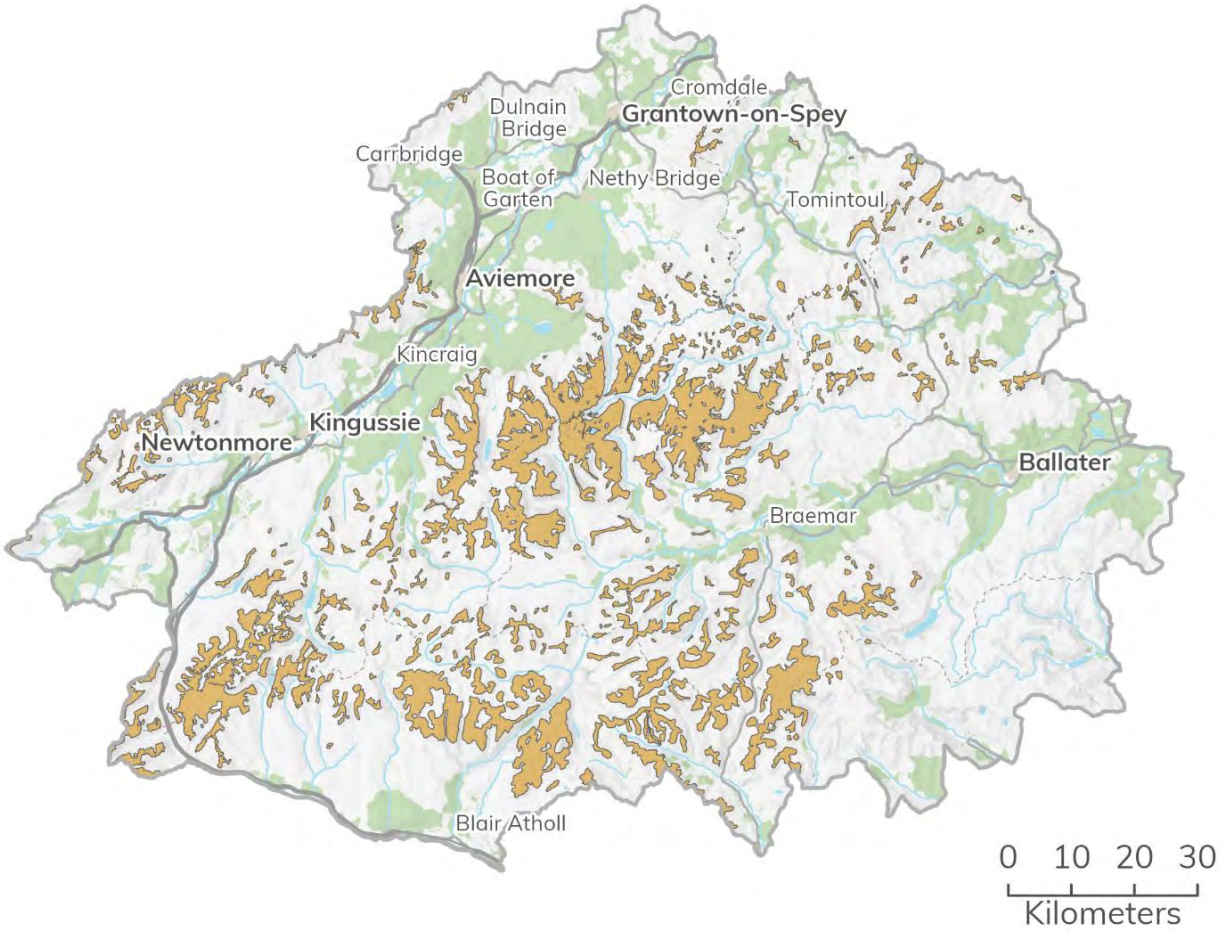


Figure 230 Montane habitats found in the Cairngorms National Park as identified by the European Nature Information Systems (EUNIS). Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Pressures from recreation and disturbance, and climate change are the main threats these habitats in the National Park. There are few pressures for development beyond specific locations, for example those associated with the ski resort at Cairngorm Mountain. The pressure for telecommunications masts may also present issues at certain locations

Priority species

There are around 1,200 species considered to be important for nature conservation within the National Park. By virtue of their size, rarity and / or appeal, some of these species have a much higher public profile than others, including prominent conservation 'flagship' species like the osprey and red squirrel. Yet the bulk of the nationally important species are made up of plants, fungi, lichens, bryophytes and insects. These nationally

important species are mainly associated with woodlands (39% of species), rock (20%) and montane habitats (15%), and most will benefit significantly from the landscape scale conservation priorities. However, there are some priority species with very specific and sometimes urgent management needs that demand focused conservation action. These are set out within the Cairngorms Nature Action Plan 2019 – 2024. Those that are likely be impacted by development are highlighted in this report (Table 40).

Table 40 Screening of Cairngorms Nature Action Plan 2021 – 2024 priory species for consideration in the Strategic Environment Assessment.

Priority species	Potential to be impacted by development?	What are the potential impacts?
Scottish wildcat	Yes	Disturbance from recreation. Breeding between domestic and wildcat.
Mountain hare	No	Development unlikely to result in loss of habitat or population.
Beaver	Yes	Potential flood risk from dams blocking watercourses running through or beside developments. Potential to use and block culverts and similar structures, which may be required as part of a development's access and egress arrangements and / or sustainable drainage systems.
Capercaillie	Yes	Disturbance from recreation. Loss and fragmentation of habitat.
Curlew	Yes	Habitat loss from development.
Raptors	Yes	Dependant on species. Habitat loss, disturbance and wildlife crime could be associated with development, particularly for species that nest in trees. Certain types of infrastructure development, for example power lines and wind farm development, may also have a negative effect on species such as golden eagle and merlin. Note windfarm development is not permitted within the National Park, but single turbines are.
Kentish glory	No	Development not considered likely to cause habitat loss.

Priority species	Potential to be impacted by development?	What are the potential impacts?
Dark bordered beauty	No	Development not considered likely to cause habitat loss.
Pine hoverfly	No	Development not considered likely to cause habitat loss.
Northern silver stiletto fly	No	Development not considered likely to cause habitat loss.
Scabious mining bee	No	Development not considered likely to cause habitat loss.
Shining guest ant	No	Development not considered likely to cause habitat loss.
Northern February red stonefly	Yes	Development may have a negative impact on water quality. Abstraction may impact water levels.
Northern damselfly	Yes	Habitat loss from development.
Wood ants	Yes	Habitat loss from development and disturbance from recreation.
Pinewood mason bee	No	Development not considered likely to cause habitat loss.
Aspen hoverfly	Yes	Development may benefit aspen hoverfly through the planting of aspen in landscape schemes and biodiversity mitigation, compensation and enhancement associated development.
Freshwater pearl mussel	Yes	Development may have a negative impact on water quality. Abstraction may impact water levels, leading to a loss of habitat.
Aspen	Yes	Development may benefit aspen through planting it in landscaping schemes and biodiversity mitigation, compensation and enhancement associated development.
Twinflower	Yes	Habitat loss from development.
One-flowered wintergreen	No	Development not considered likely to cause habitat loss.
Marsh saxifrage	No	Development not considered likely to cause habitat loss.

Priority species	Potential to be impacted by development?	What are the potential impacts?
Waxcaps	Yes	Habitat loss from development.
Alpine blue sow thistle	No	Development not considered likely to cause habitat loss.
Oblong woodsia	No	Development not considered likely to cause habitat loss.
Woolly Willow	No	Development not considered likely to cause habitat loss.
Alectoria ochroleuca	No	Development not considered likely to cause habitat loss.
Hertelidea botryosa	No	Development not considered likely to cause habitat loss.

Species recovery must be integrated with landscape scale conservation. In order to reach that point we must understand the species' needs and the issues we have to address (diagnosis), have a proven set of management practices in place (solution testing and deployment) and then integrate the management needs into day-to-day business (sustainable management).

The journey of recovery for a species is illustrated in the Species Recovery Curve developed by the Royal Society for the Protection of Birds (Figure 231). This sets out a 13-stage action plan for protected species. What each stage means for the priority species varies in detail but overall, it allows a consistent approach for action and reporting. The Cairngorms Nature Action Plan and National Park Partnership Plan use species recovery curve to set targets for each species for the next five years. These targets are for the populations within the National Park and not for the whole country. A summary on the progress towards these targets is provided in this document.

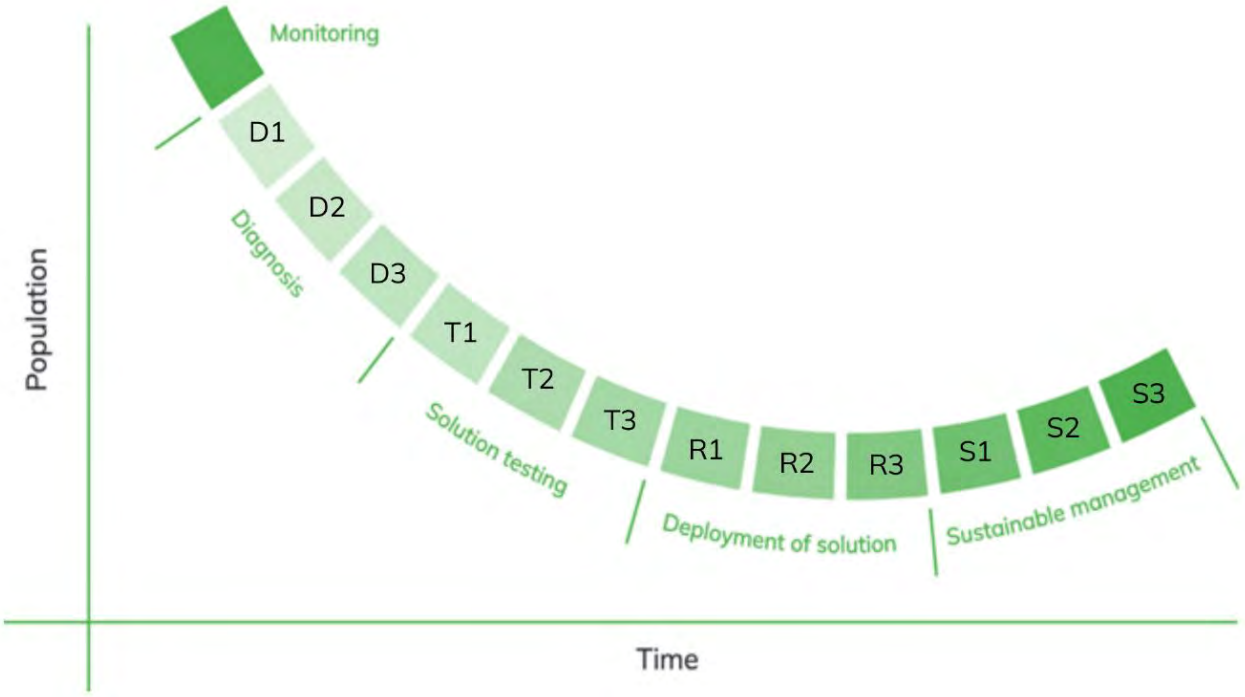


Figure 231 Species recovery curve. The labels D1 – D3, T1 – T3, R1 – R3 and S1 – S3 denote targets for priorities within the Cairngorms Nature Action Plan 2019 – 2024. Definitions for these are provided on page 26 of the Action Plan[88].

Scottish Wildcat

The wildcat is a Cairngorms Nature Action Plan priority species. Recent evidence suggests that there are only 115 to 314 wildcats found in Scotland. Threats to the population include interbreeding with domestic / feral cats resulting in hybrids, habitat loss / fragmentation, disease. Actions proposed by the Cairngorms Nature Action Plan include working with landowners / communities to reduce hybridisation with domestic / feral cats and looking at releasing captive bred wildcats.

[88] See https://cairngorms.co.uk/wp-content/uploads/2019/02/CairngormsNatureAction19_24PlanFinal.pdf

In March 2023 NatureScot approved a licence application from the Saving Wildcats partnership to release wildcats in the Cairngorms National Park. The decision marked the first-ever conservation translocation of wildcats in Britain, with the first in a series of trial releases being planned to help restore Scotland's critically endangered wildcat population.

Later that year, the partnership, led by the Royal Zoological Society of Scotland, released 19 captive bred wildcats into the Cairngorms Connect area, with approximately 40 more being planned for release over the following three years.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with wildcat (Table 41).

Table 41 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for wildcat.

Actions	Target	Progress and overall status
Promote Trap Neuter Vaccinate Release (TNVR), reduce hybridisation, disease and misidentification. Trial captive-bred wildcat releases. 2019 species recovery curve position: T1	Species recovery curve position: R3	All actions underway, including captive bred wildcat releases. Significant progress along recovery curve from T1 to R1 with work ongoing.

Scottish wildcats prefer to live on the woodland edge, in the margins of moorlands and grasslands.

Beaver

Changes by the Scottish Government offering protection allowed beaver to be identified within the Cairngorms Nature Action Plan as a priority species.

On 5 December 2023 NatureScot approved the Park Authority's licence application to translocate Eurasian beavers to the upper Spey catchment in the National Park. The first

beavers were translocated a few weeks later with plans to translocate a maximum of 50 individuals over the next five years.

Extensive work on mapping the suitability of habitats within the upper reaches of the River Spey has been conducted to assess the best possible locations for translocation efforts (Figure 232). These locations are some of the best in Scotland. So far (January 2025), beaver have been released on six sites over two release periods; Rothiemurchus Estate, Inshriach, Wildland Ltd, Forestry and Land Scotland's Loch Morlich and the Royal Society for the Protection of Birds Insh Marshes Reserve. The release sites have been carefully chosen to minimise any potential negative impacts such as flooding from dams affecting transport routes, beavers foraging and damaging habitats within protected sites or damaging important riparian habitats.

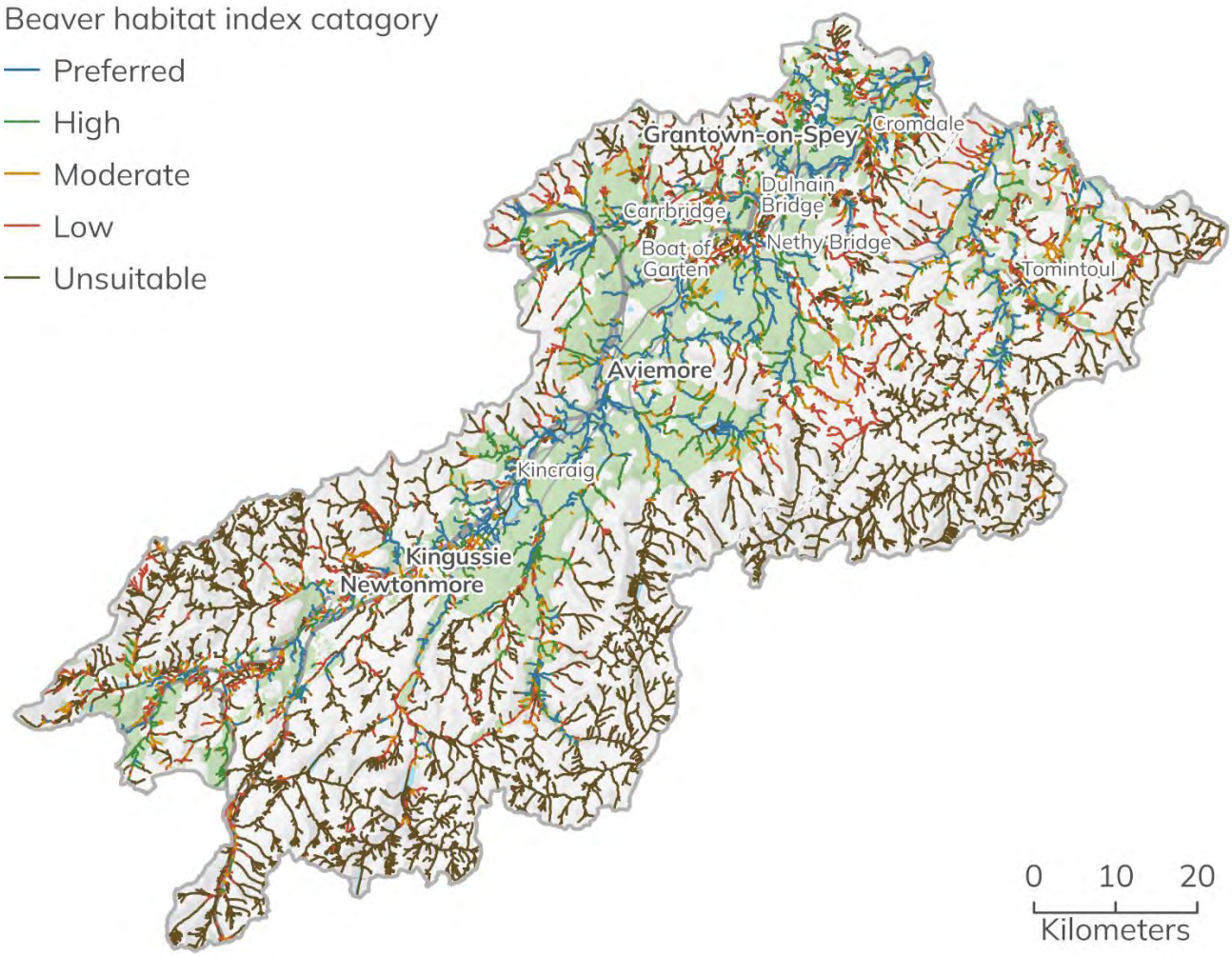


Figure 232 Suitability of habitat for supporting beavers within River Spey catchment. Contains data © Beaver Trust and University of Exeter 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with beaver (Table 42).

Table 42 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for beaver.

Actions	Target	Progress and overall status
Plan proactively for beaver populations in the National Park.	No species recovery curve target.	Reintroduction underway and year 1 complete. Current species recovery curve position R2.

Capercaillie

In the United Kingdom, capercaillie are only found in Scotland. During the 1970's there was thought to be around 20,000 capercaillie in Scotland, however the population as measured in 2021 / 2022 was estimated to be just 532 (Figure 233), According to NatureScot's Review of Capercaillie Conservation and Management 2022, if this trend continues it is likely that Capercaillie will become extinct within two to three decades.

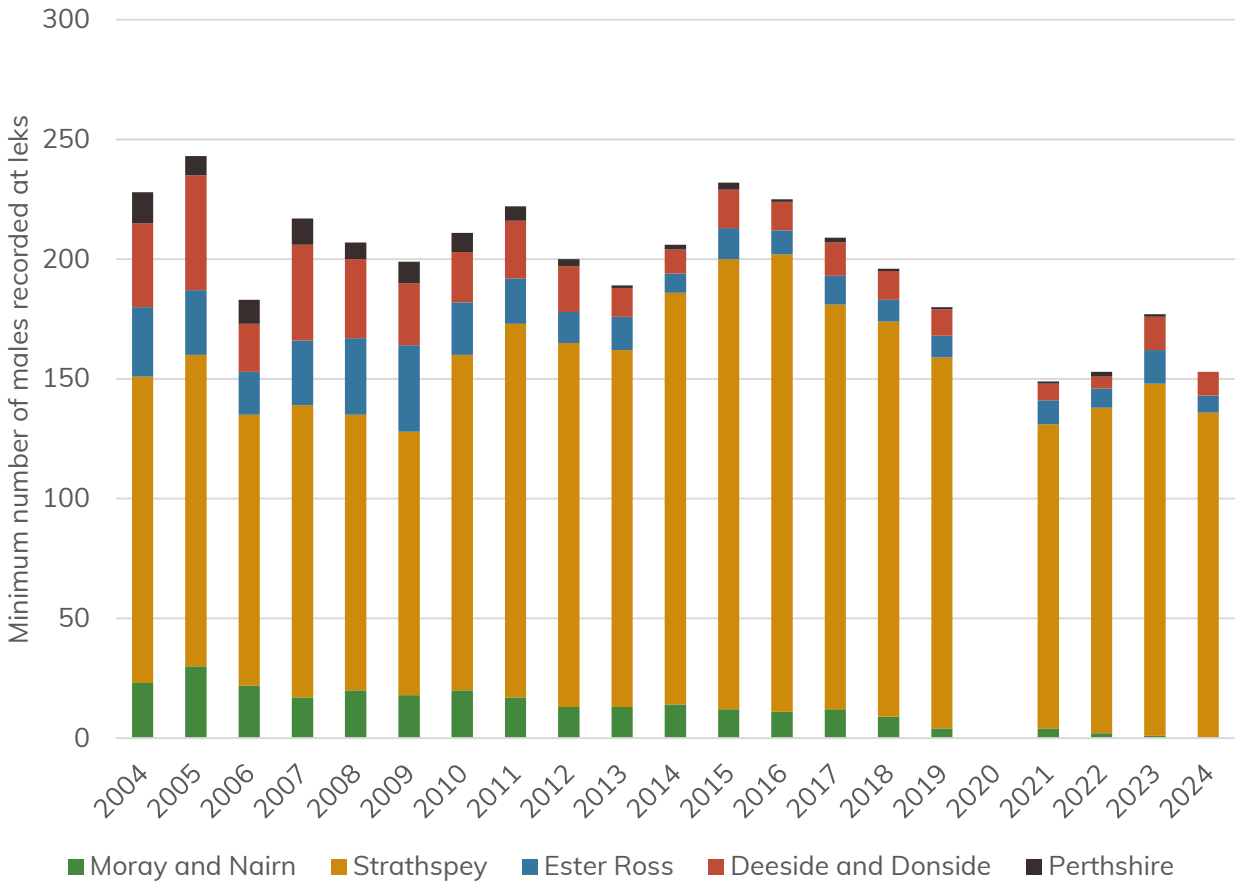


Figure 233 Minimum number of male capercaillie recorded at leks in Scotland 2024 – 2024. No counts were carried out in 2020 (data from RSPB, 2024).

The Cairngorms National Park is thought to hold approximately 85% of that population, with the majority found within Badenoch and Strathspey (423 in 2021 / 2022), mostly in areas protected for nature conservation (Special Protection Areas) but also within non-designated woodlands associated within the protected areas (Figure 234). Capercaillie are found within Deeside (37 in 2021 / 2022) and other areas outwith the National Park boundary but these populations are more fragmented, with lower numbers and poorer breeding success. The Strathspey populations are considered to be crucial to the long-term survival of the species in the United Kingdom.

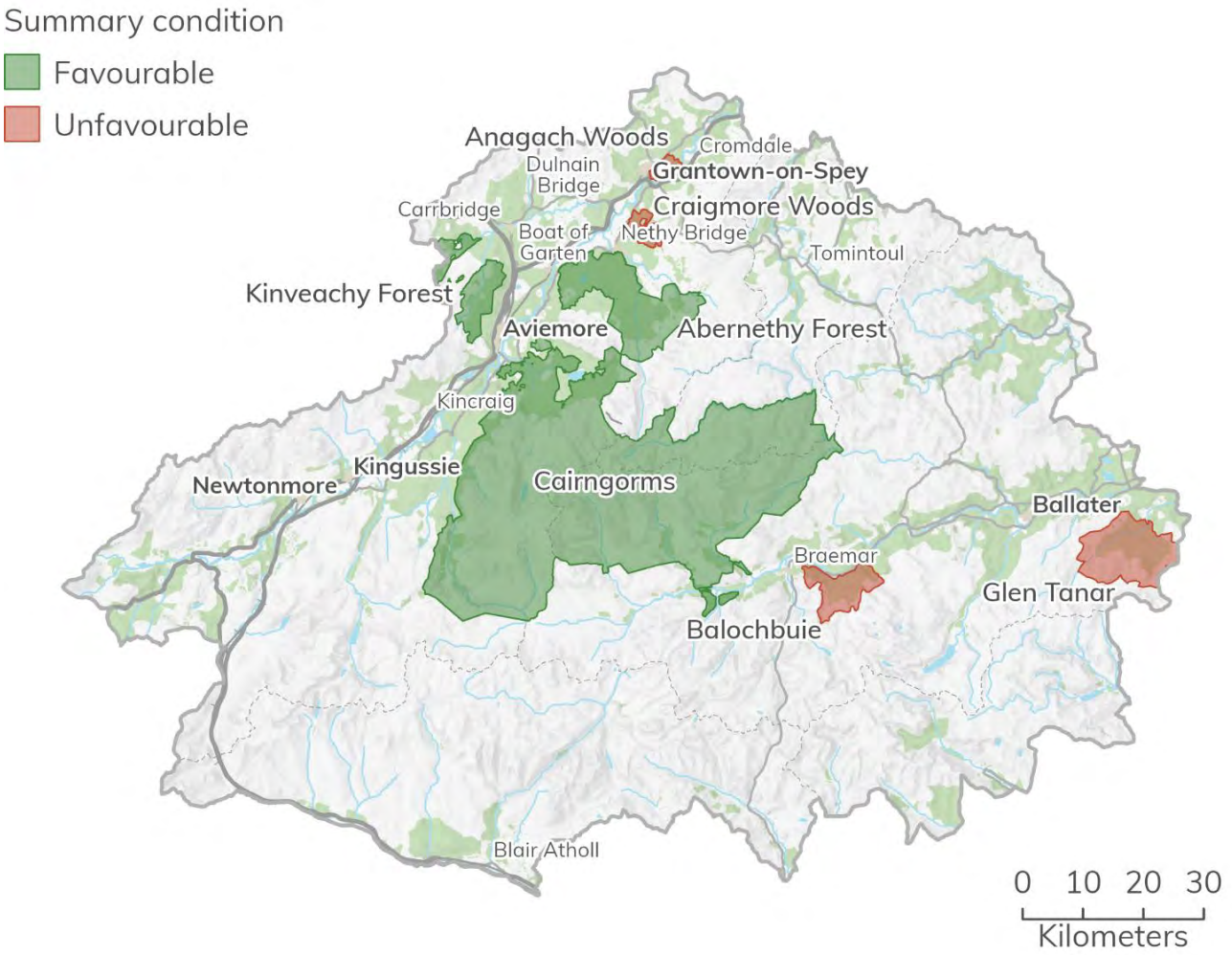


Figure 234 Special Protection Areas that have breeding capercaillie as qualifying features and their condition as of September 2024. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

2024 lek count data indicates that there was a decrease of 15 lekking males in 2024 compared to 2023, with a total of 153 lekking males counted. This was due to an absence of recorded lekking males in Perthshire and Moray / Nairnshire and a decline in lekking males in Strathspey and Easter Ross. In Deeside however, recorded lekking males doubled from 5 to 10 (Figure 233).

Capercaillie numbers have fallen for lots of reasons including lack of habitat, low productivity, predation, collisions with unmarked fences and disturbance. These specific habitat needs make capercaillie particularly vulnerable. Limited and fragmented habitat is a recognised cause of population decline and can lead capercaillie populations to become isolated. This can increase the likelihood of inbreeding and leave the birds more prone to the impacts of predation and human disturbance.

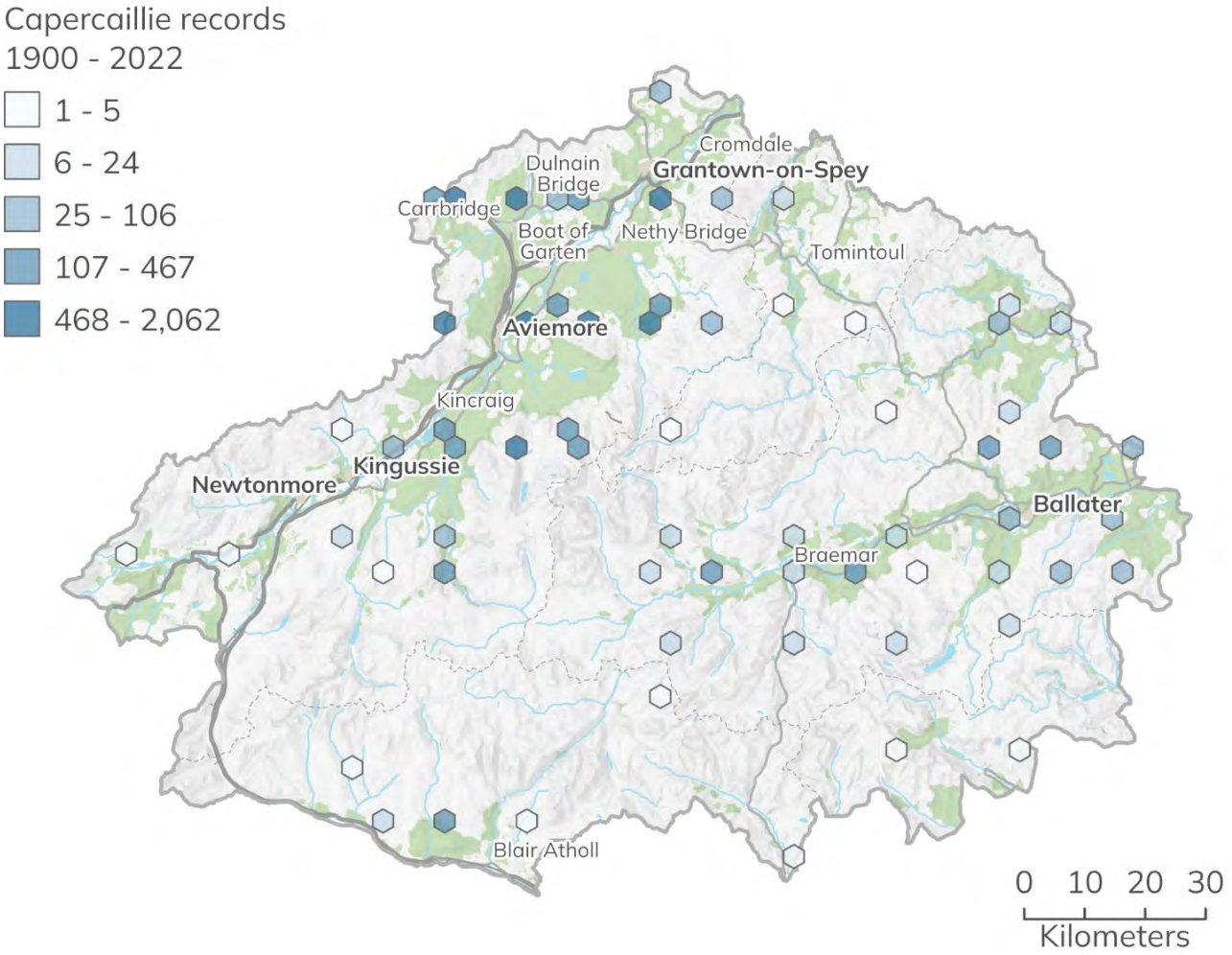


Figure 235 Capercaillie records 1810 – 2020 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Capercaillie are a Scottish biodiversity list species and additionally are a named species within the Cairngorms National Action Plan. Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with capercaillie (Table 43).

Table 43 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for capercaillie.

Actions	Target	Progress and overall status
Coordinate management solutions Deliver National Lottery Heritage Lottery Fund (NLHF) funded Cairngorms Capercaillie Project to reduce impact of recreational disturbance. 2019 species recovery curve position: T1 – T3	Species recovery curve position: R3	National Lottery Heritage Lottery Fund project delivered reducing impact of recreational disturbance at key sites and greater coordination of management. Species recovery curve position progressed from T1 to R1 with deployment of solutions ongoing.

The Cairngorms Capercaillie Project led by the Park Authority, sought to improve the outcome for the remaining population of capercaillie by working with stakeholders and landowners to provide solutions to the current threats to the capercaillie population, for example, habitat loss and fragmentation. The project's work involved five essential actions delivered across the Cairngorms National Park:

- Helping communities to create and deliver their own community-led actions for capercaillie.
- Raising awareness of the plight of capercaillie and how people can help.
- Researching the genetic diversity of capercaillie in the National Park to help inform action.
- Improving and creating more habitat for capercaillie and controlling predators in key areas.
- Strengthening capercaillie monitoring to enable more informed decisions.

The Park Authority and NatureScot have worked with stakeholders to develop a Capercaillie Emergency Plan, which sets out targeted activity for capercaillie conservation. The Emergency Plan was agreed by the National Lottery Heritage Fund to be the Cairngorms Capercaillie Project's Legacy Plan. In June 2024 the Park Authority Board agreed on the scope of activity in the Emergency Plan and a funding strategy for its delivery. The key areas of work scoped into the Emergency Plan are:

- Habitat expansion
- Habitat enhancement

- Reducing impacts of predation
- Fence removal and marking
- Reducing disturbance
- Research and monitoring.

The Capercaillie Emergency Plan was published in September 2024 following consultation with stakeholders.

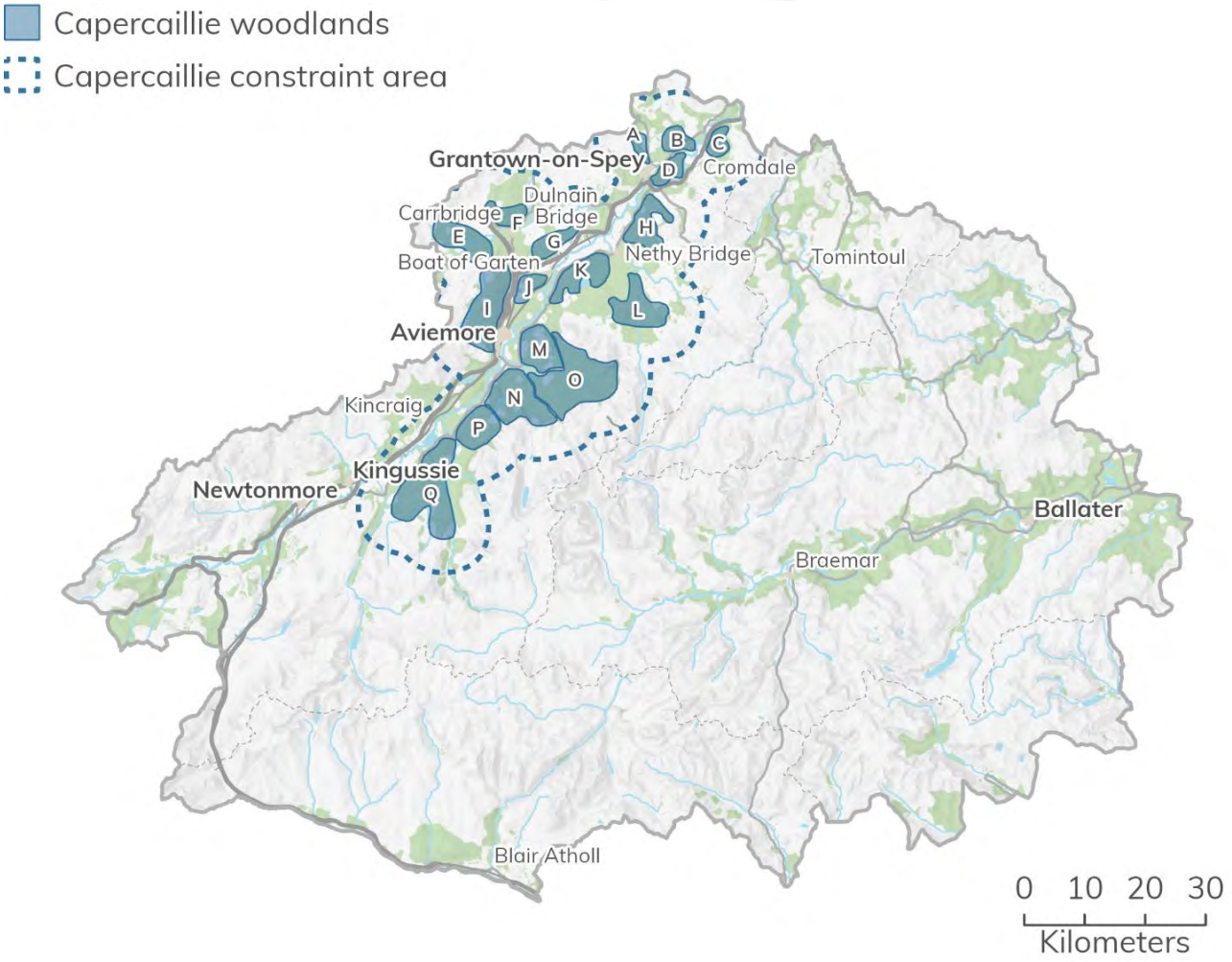


Figure 236 Woodlands associated with capercaillie activity within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The woodlands identified on Figure 236 are:

A – North Grantown
B – Castle Grant & Mid Port
C – Tom an Aird
D – Anagach Woods
E – Slochd
F – North Carr-Bridge
G – Drochan & Drumuillie
H – Craigmore Woods
I – Kinveachy Forest
J – Loch Vaa
K – Garten Woods
L – Forest Lodge
M – North Rothiemurchus
N – South Rothiemurchus
O – Glenmore
P – Inshriach
Q – Uath Lochans area

Curlew

The National Park is one of the most important UK mainland sites for breeding wading birds. Curlew, along with other waders have seen their numbers decline throughout the United Kingdom (Figure 237).

Curlew are a priority species identified by the Cairngorms Nature Action Plan. Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with curlew (Table 44). It shows that while wader populations have been in decline in recent years (Table 38), there has been success around Curlew, which have moved up the Species Recovery Curve.

Table 44 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for curlew.

Actions	Target	Progress and overall status
Assess upland breeding productivity, monitor nests, Create sensitivity maps for curlew sites. 2019 species recovery curve position: D2	Species recovery curve position: T1	Upland surveys and hotspot mapping undertaken to inform ongoing habitat improvement. Exceeded target, progressing from D2 to T2.

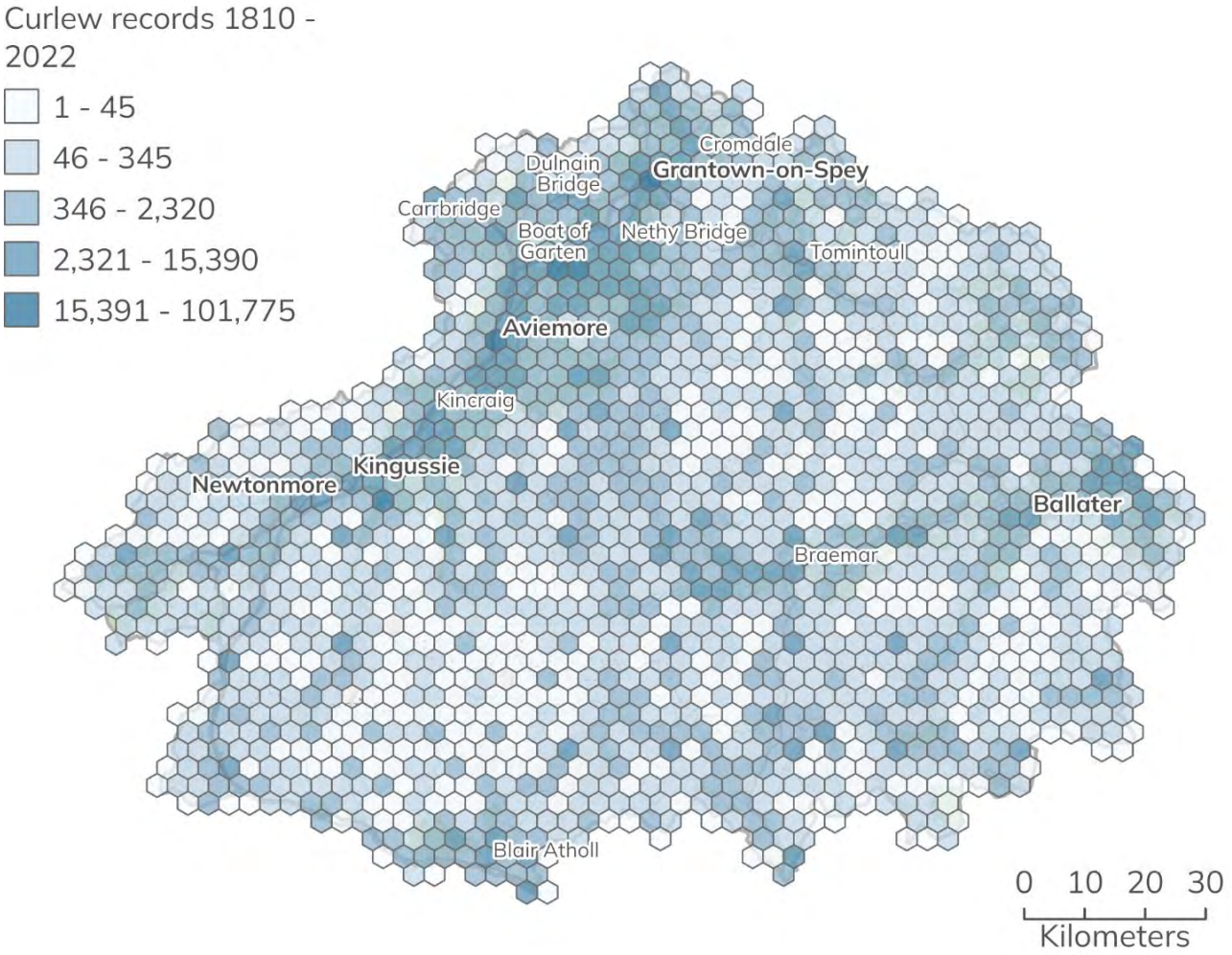


Figure 237 Curlew records 1810 – 2020 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The British Trust for Ornithology's predictive model for curlew abundance shows that there are many 'hot spots' for the species within the National Park. Many of these areas correspond with protected sites, however there are also areas of predicted abundance that lie outside these areas, connecting them via wetland habitats. The east of the National Park has the greatest abundance.

This data was extracted 26 November 2024 when it's most recent update was 22 July 2021.

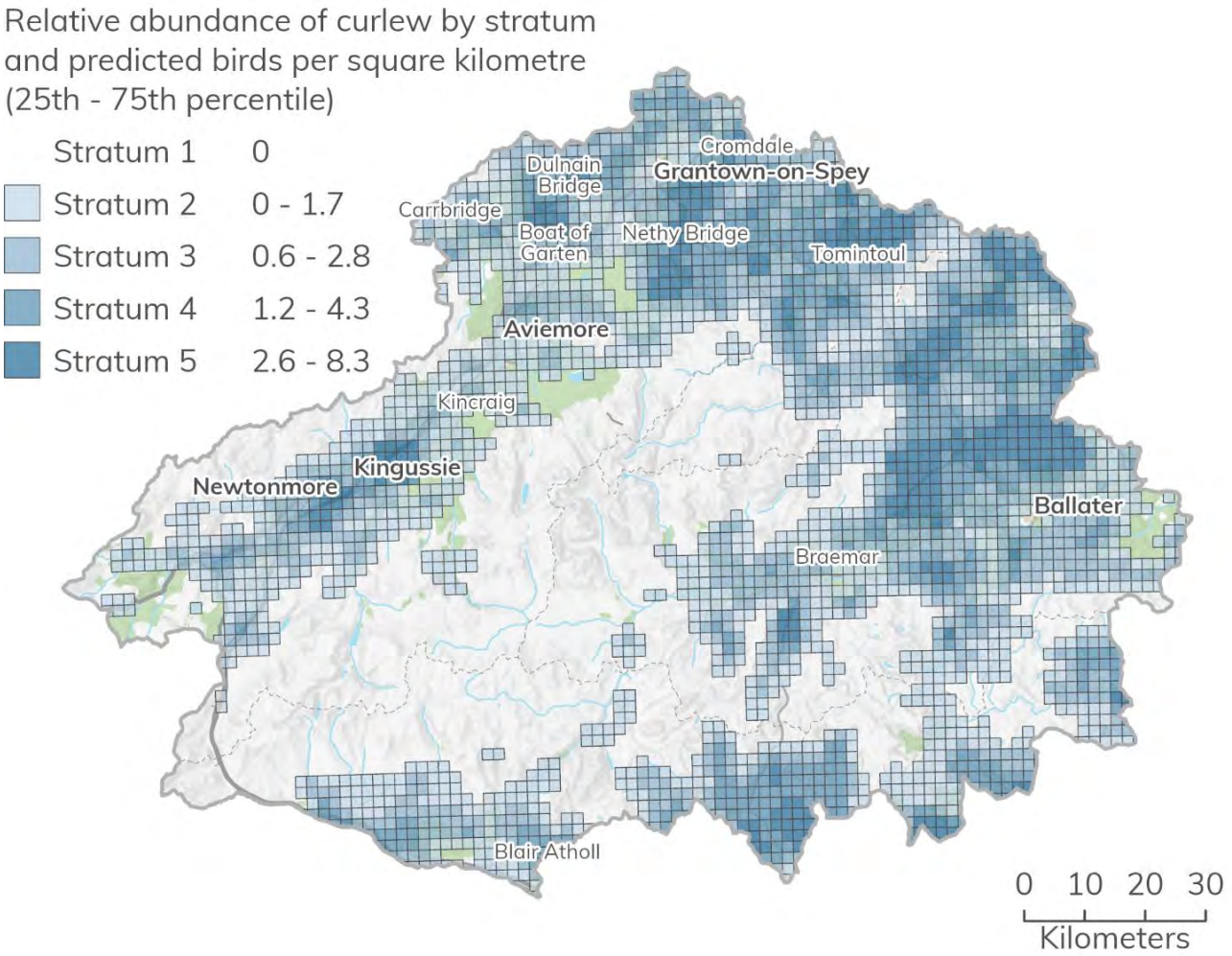


Figure 238 Relative abundance of curlew in the Cairngorms National Park as predicted by British Trust for Ornithology's wader sensitivity mapping. Contains data © British Trust for Ornithology 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Raptors

The National Park is home to a number of important raptor species such as, golden eagle, hen harrier and peregrine. Raptor conservation is perhaps the highest profile of all the priority species and is frequently a contentious and impassioned issue. Land managers in the Cairngorms National Park play a key role in the national debate. Cairngorms Nature partners are committed to increasing home range (re)occupancy and breeding success of golden eagle, hen harrier, merlin and peregrine falcon. These are the three Schedule 1 / Annex 1 species whose status and trends in the National Park are

unfavourable. The Park Authority and its partners are also committed to working with Police Scotland to eliminate illegal persecution of all raptors.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with raptors (Table 45). The bird population data quoted in this paper comes from the Partnership Plan's Monitoring Framework update 2024[89].

Table 45 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for raptors.

Actions	Target	Progress and overall status
Collaboration on population monitoring and positive management, wildlife crime enforcement and wildlife tourism opportunities. 2019 species recovery curve position: T2	Species recovery curve position: R3	Raptor Officer recruited. Work underway to establish baseline populations, identify unoccupied territories, undertake collaborative mapping and monitoring and reduce illegal killing. All species of raptor remain at T2 as work ongoing.

Currently golden eagle are considered to have favourable conservation status and are a green list species under Birds of Conservation Concern 5 and there is thought to be around 39 pairs (data from 2019 – 2021) within the National Park. Threats to golden eagle are thought to be collisions with human disturbance, powerlines, starvation, disease and illegal persecution.

[89] See https://cairngorms.co.uk/resource/docs/boardpapers/13092024/240913Paper2Annex1NPPPAnnualUpdate.pdf

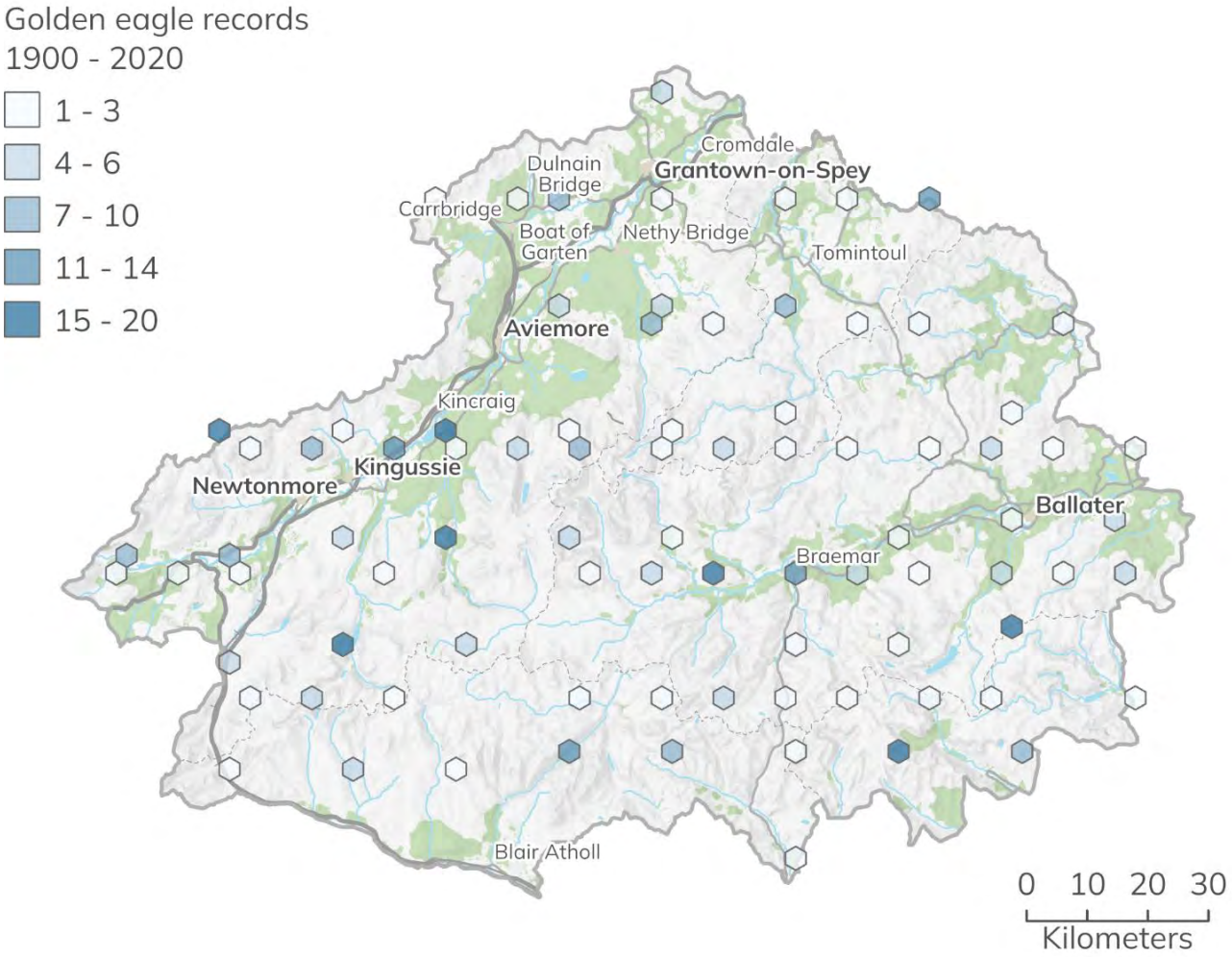


Figure 239 Golden eagle records 1900 – 2020 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Hen harrier are a red list species under Birds of Conservation Concern 5 with approximately 21 breeding pairs (2019 – 2021), within the National Park. Threats to hen harriers include natural mortality, starvation, disease and illegal persecution.

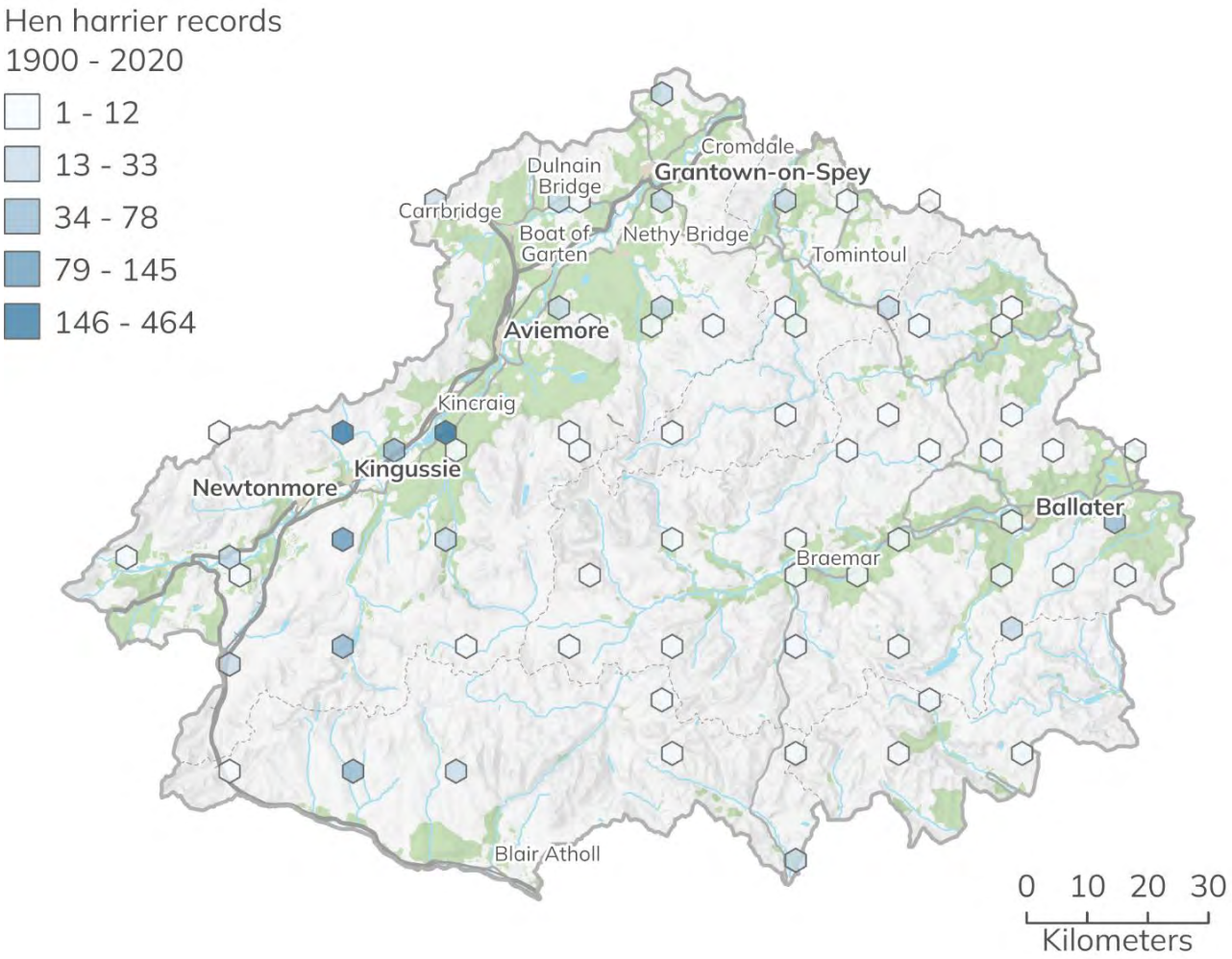


Figure 240 Hen harrier records 1900 – 2020 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Merlin are a red listed species under Birds of Conservation Concern 5. Their population within the National Park is unknown as to date there has not been a comprehensive survey of their numbers. Threats facing merlin include climate change, changes in land use, prey populations, collisions with power man-made objects, pesticides, and illegal persecution.

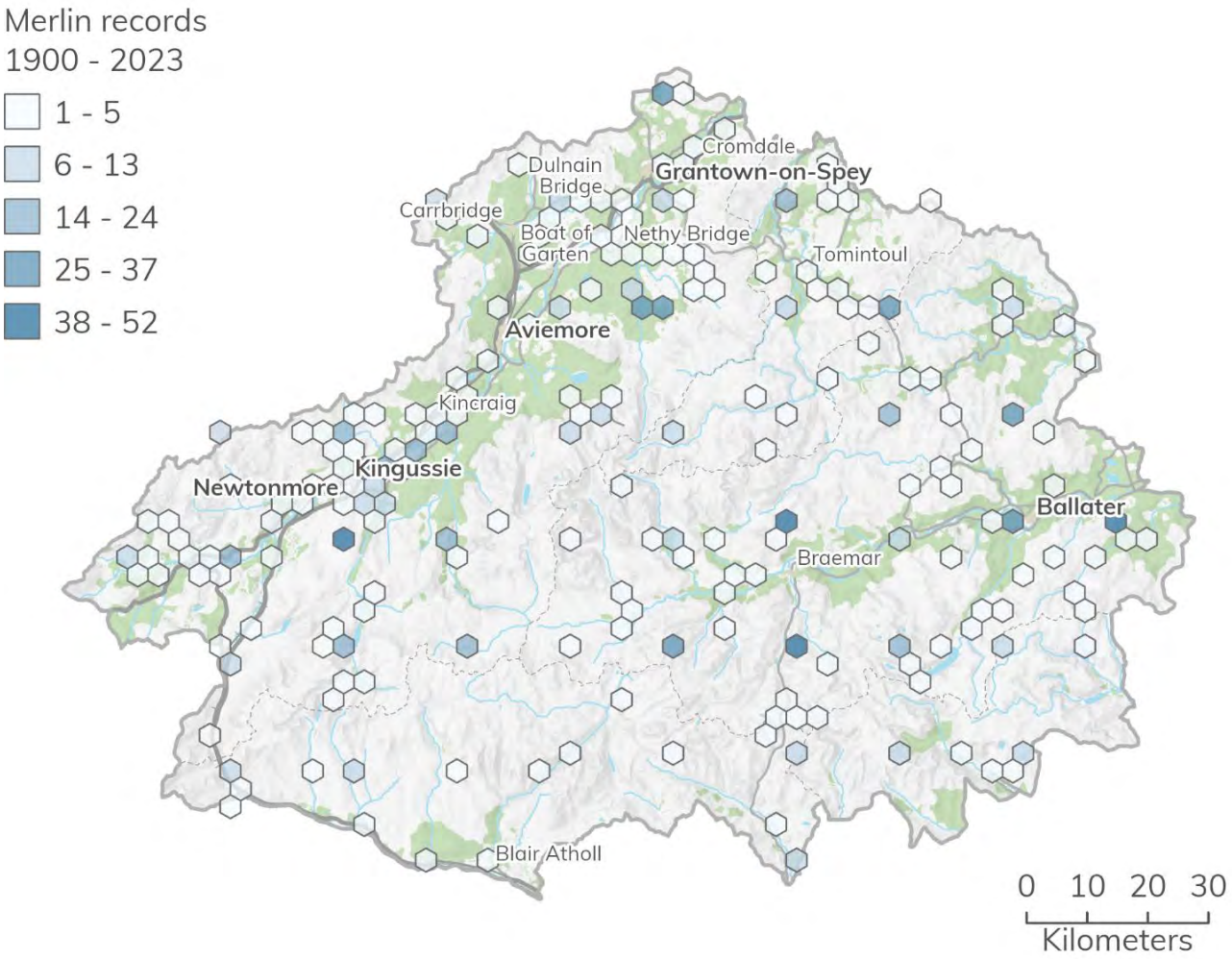


Figure 241 Merlin records 1900 – 2023 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Peregrine falcon are a green listed species under Birds of Conservation Concern 5 and there are thought to be at least 17 breeding pairs within the National Park. Threats facing peregrine include collisions with power lines, starvation, disease and illegal persecution.

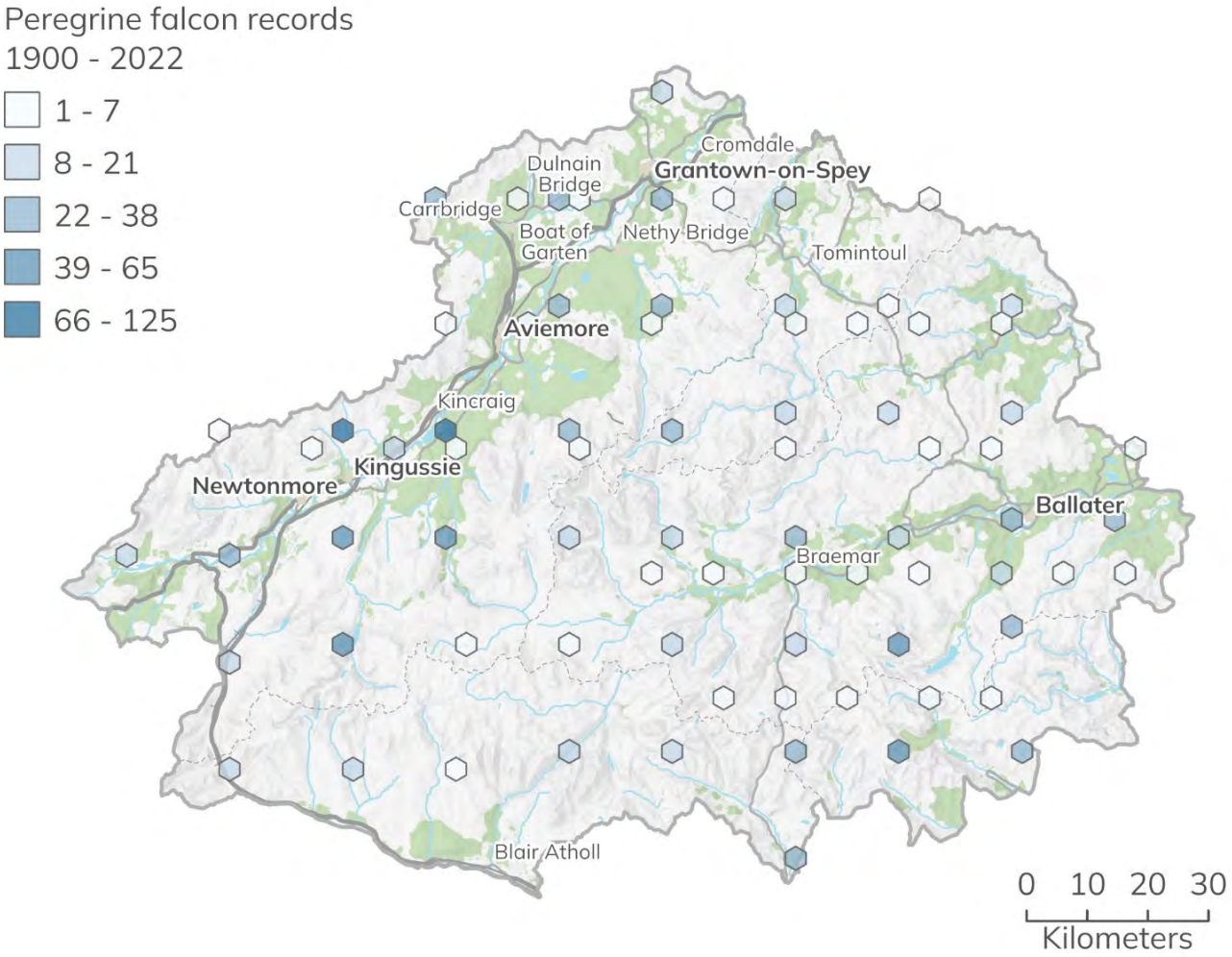


Figure 242 Peregrine falcon records 1900 – 2022 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The relationship between raptors, most of which are Schedule 1 species, and development is dependent on species and development type. Habitat loss, disturbance and wildlife crime could be associated with development, particularly for species that nest in trees.

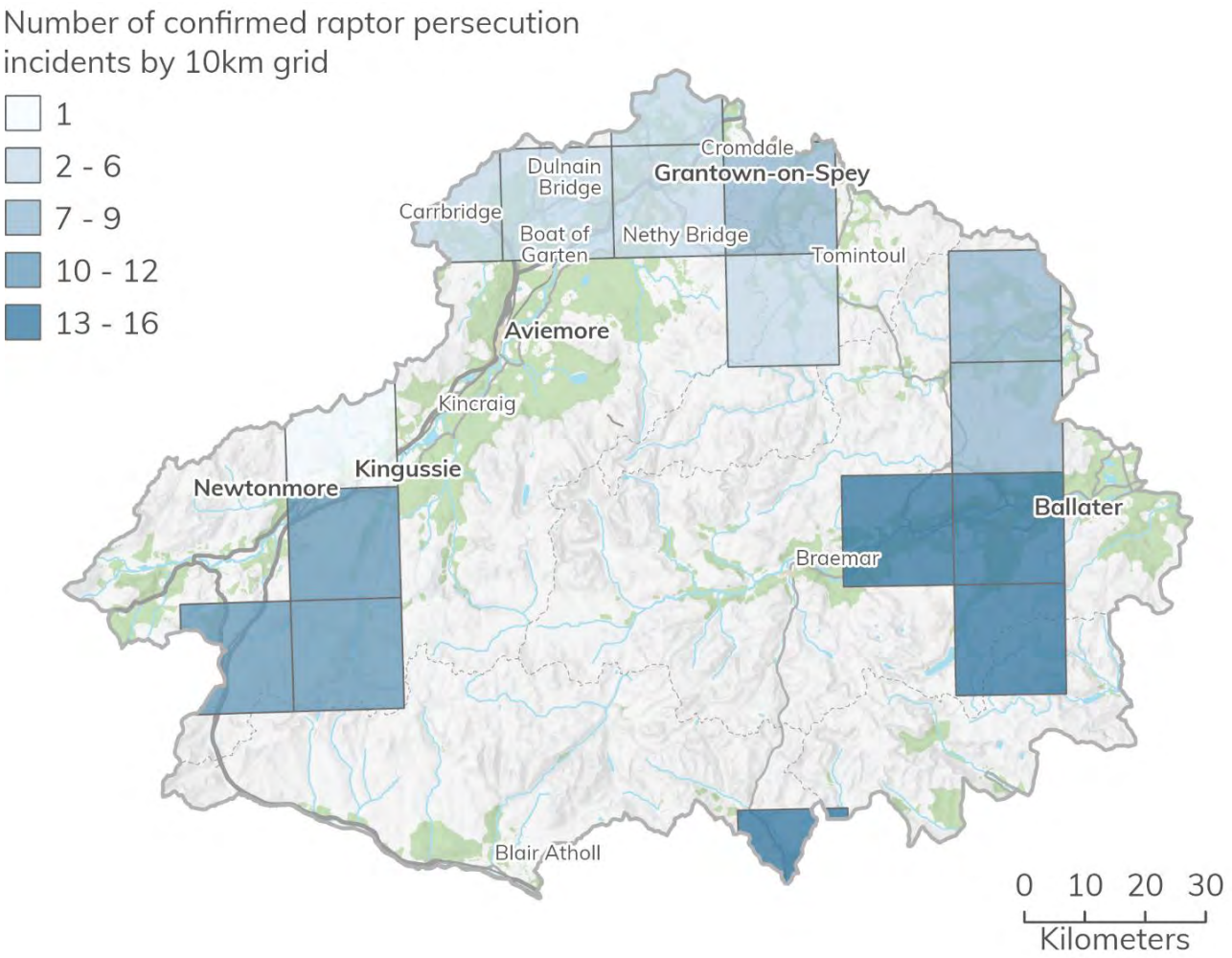


Figure 243 Confirmed raptor persecution incidents known to the Royal Society for the Protection of Birds 2007 – 2023 in 10km grid squares covering the Cairngorms National Park[90]. Contains data © Royal Society for the Protection of Birds 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Certain types of development, for example wind farm development, may also have a negative effect on species such as golden eagle.

Northern February red stonefly

The northern February red stonefly is a freshwater species endemic to Britain, found mainly in Scottish upland streams, including those in the Cairngorms National Park

[90] Information on what is defined as a confirmed raptor persecution incident is available on the Royal Society for the Protection of Birds' datahub. See https://opendata-rspb.opendata.arcgis.com/datasets/RSPB::confirmed-raptor-persecution-incidents-public/about

(Figure 244). This stonefly thrives best in highly oxygenated rivers with a shallow or moderate gradient on open heaths or upland pastures.

The main threat facing the Northern February red stonefly is primarily down to poor water quality, leading to the deterioration of its habitat. The issue of water quality is covered under the freshwater and wetland habitats section of this document (see page 530).

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with Northern damselfly (Table 46).

Table 46 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for Northern February red stonefly.

Actions	Target	Progress and overall status
National Park-wide survey Raise awareness of species' needs with land managers and planning authorities 2019 species recovery curve position: D2	Species recovery curve position: D3	National Park-wide survey undertaken and awareness raising ongoing with land managers and planning authorities. Progressed from D2 to D3.

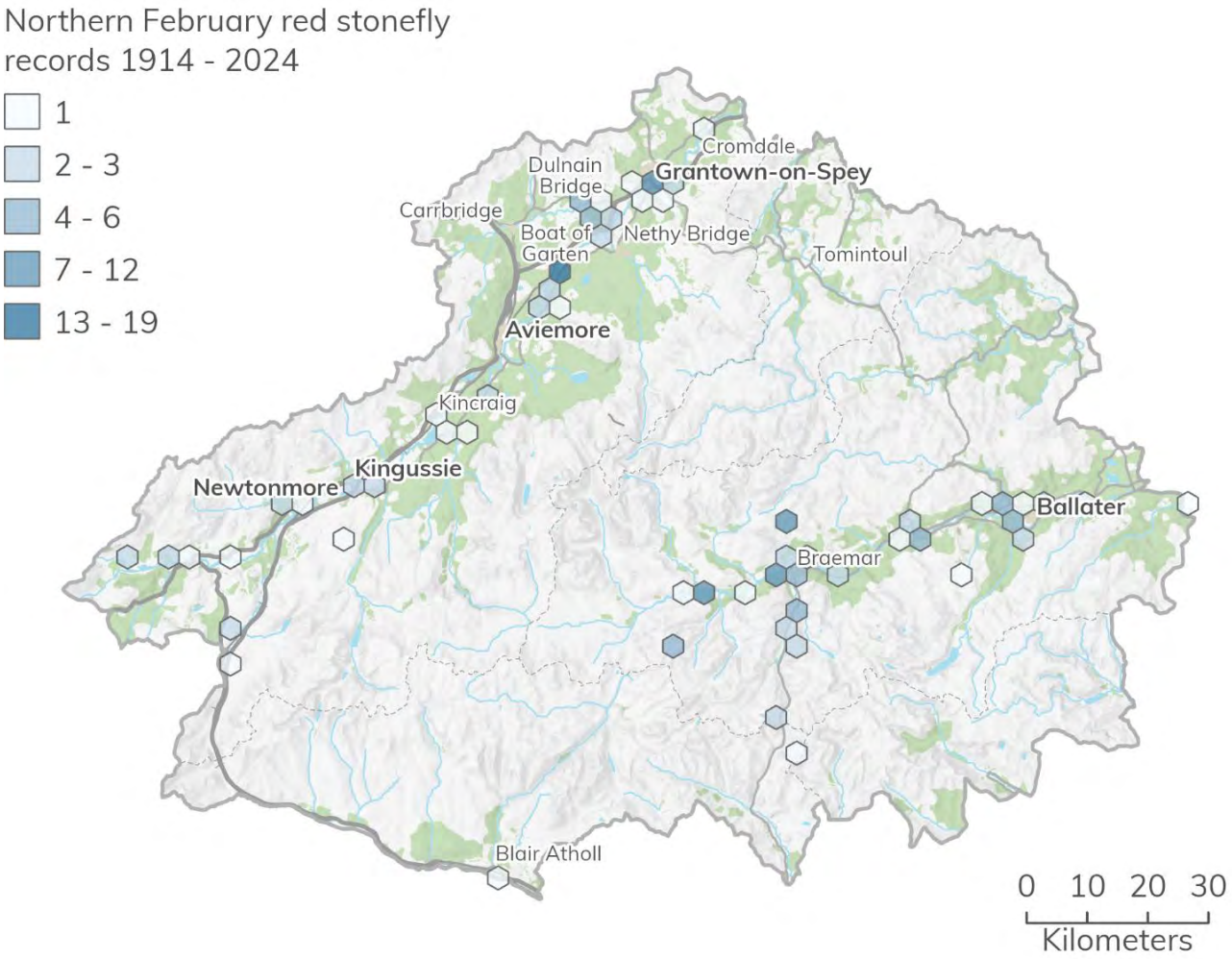


Figure 244 Northern February red stonefly records 1914 – 2024 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Northern damselfly

The northern damselfly is a rare invertebrate which is found within the National Park, it is Scottish Biodiversity List species, and it is listed as endangered in the UK Red Data Book.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with Northern damselfly (Table 47).

Table 47 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for Northern damselfly.

Actions	Target	Progress and overall status
Surveying new and historic sites with volunteer support. Habitat management advice for land managers. 2019 species recovery curve position: D2	Species recovery curve position: T2 – T3	National Park-wide survey undertaken and habitat management and creation ongoing at key sites. Progressed from D2 to T3.

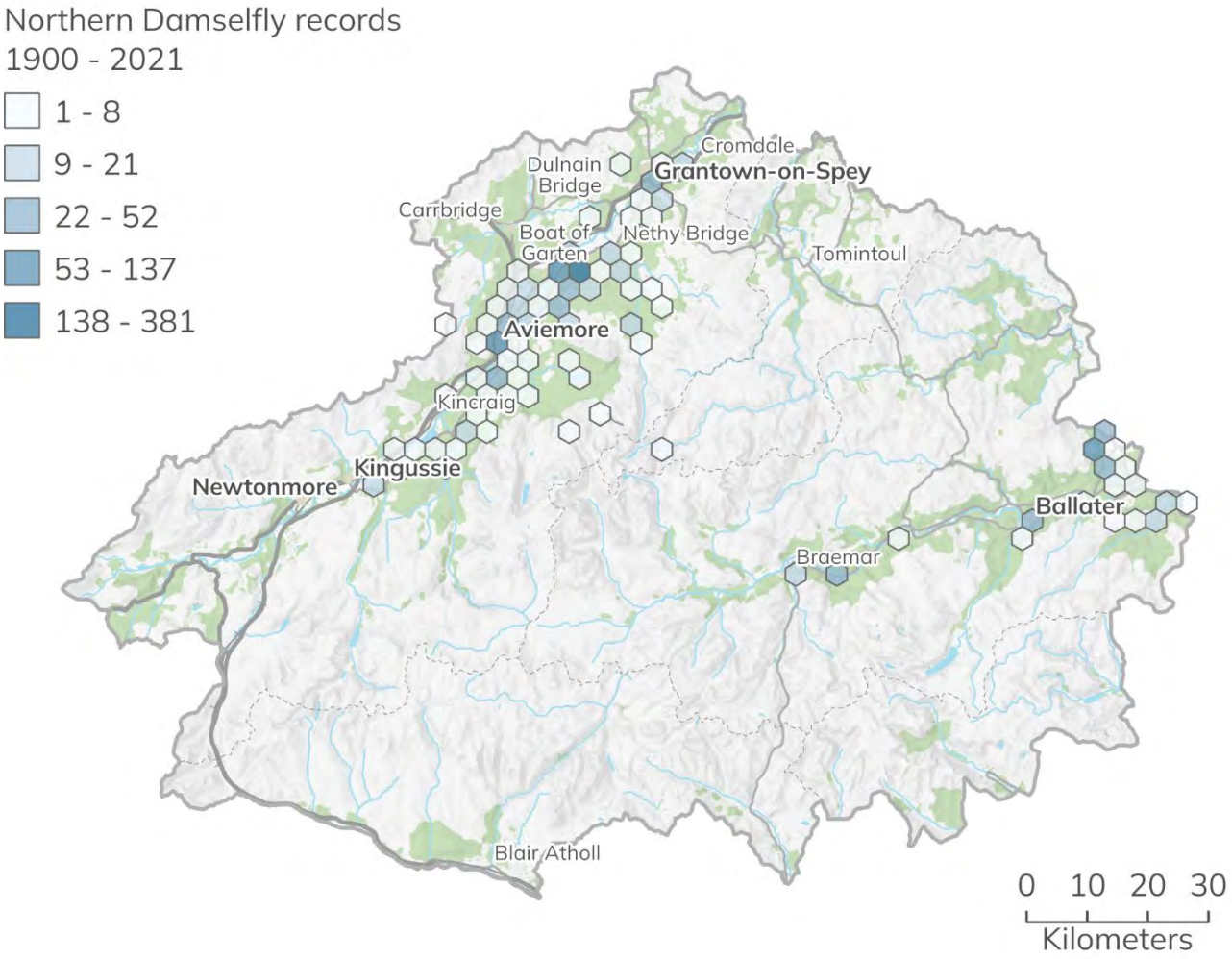


Figure 245 Northern damselfly records 1900 – 2021 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Threats to Northern damselfly include loss or fragmentation of habitats capable of supporting their feeding and breeding.

Wood ants

The Scottish wood ant, hairy wood ant and the narrow-headed ant are all found within the National Park. Both the Scottish wood ant and the hairy wood ant are considered Near Threatened and narrow headed ants are considered endangered. All species of wood ants within the National Park are considered priority species and subject to action to safeguard the populations from the risks of habitat fragmentation, disturbance and development.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with wood ants (Table 48).

Table 48 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for wood ants.

Actions	Target	Progress and overall status
Safeguard existing populations, integrate with wider woodland work. Investigate translocation opportunities. 2019 species recovery curve position: T1	Species recovery curve position: R2	Data collection and translocation feasibility work underway. Progress made from T1 to T3 with work ongoing.

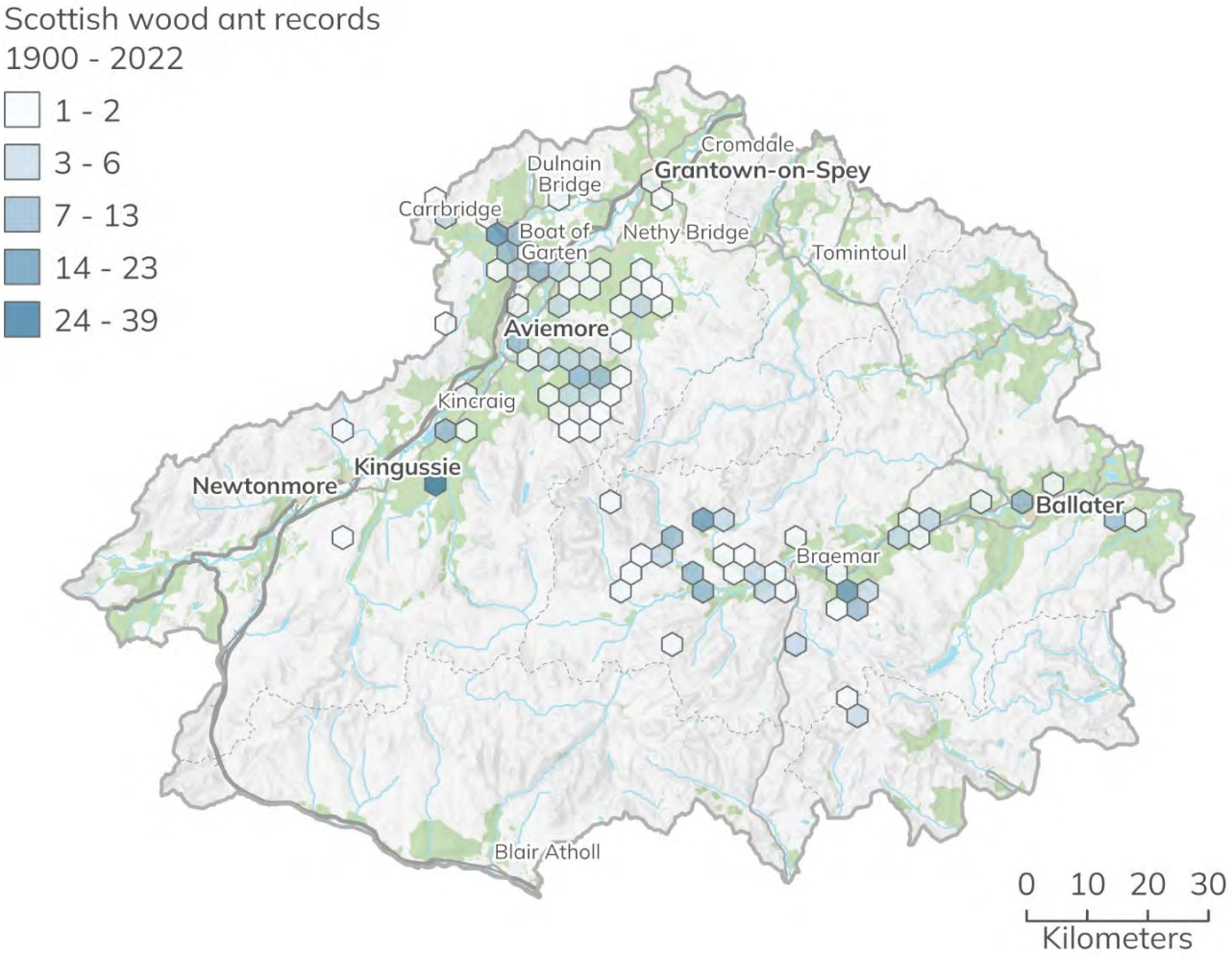


Figure 246 Scottish wood ant records 1900 – 2022 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

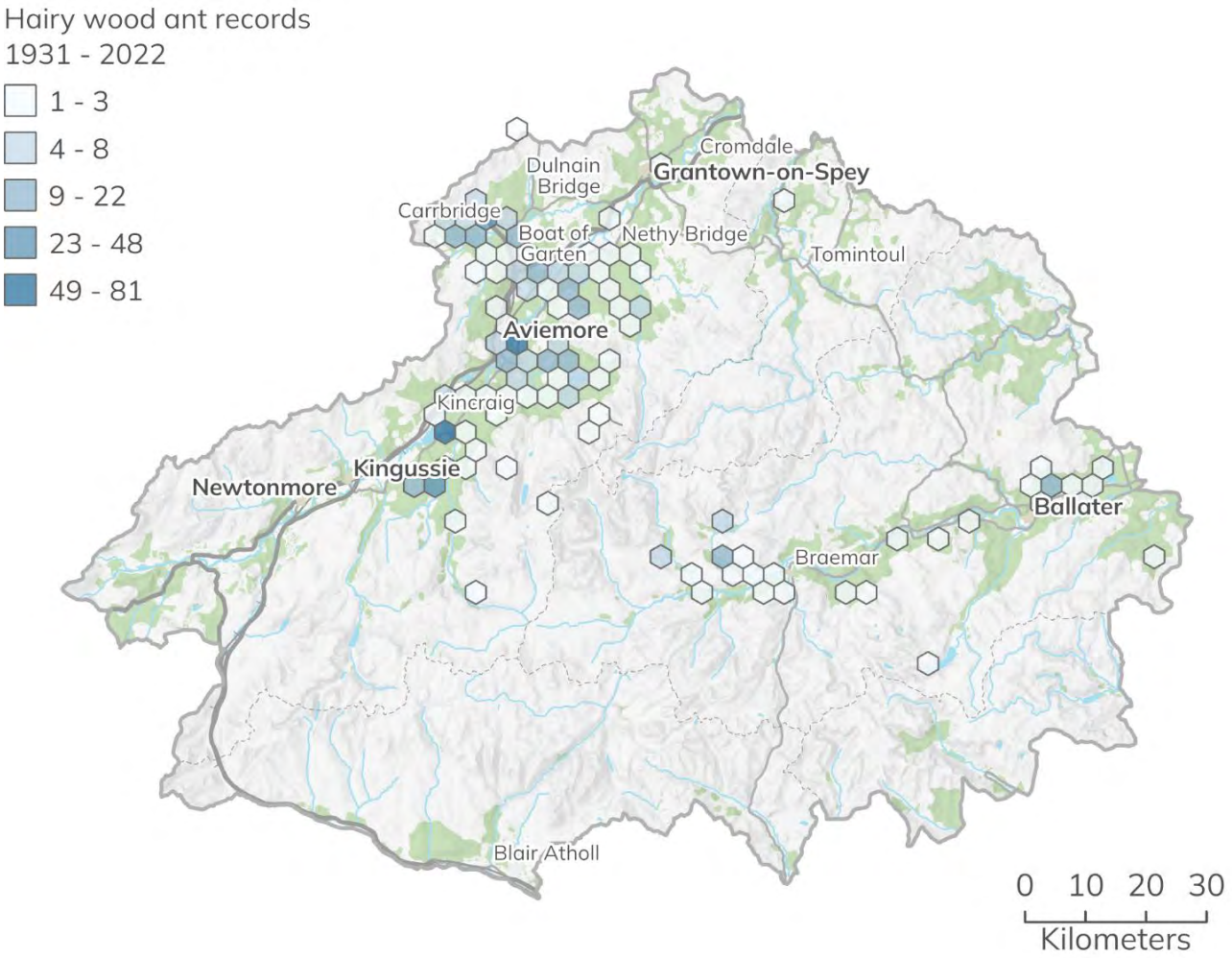


Figure 247 Hairy wood ant records 1931 – 2022 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

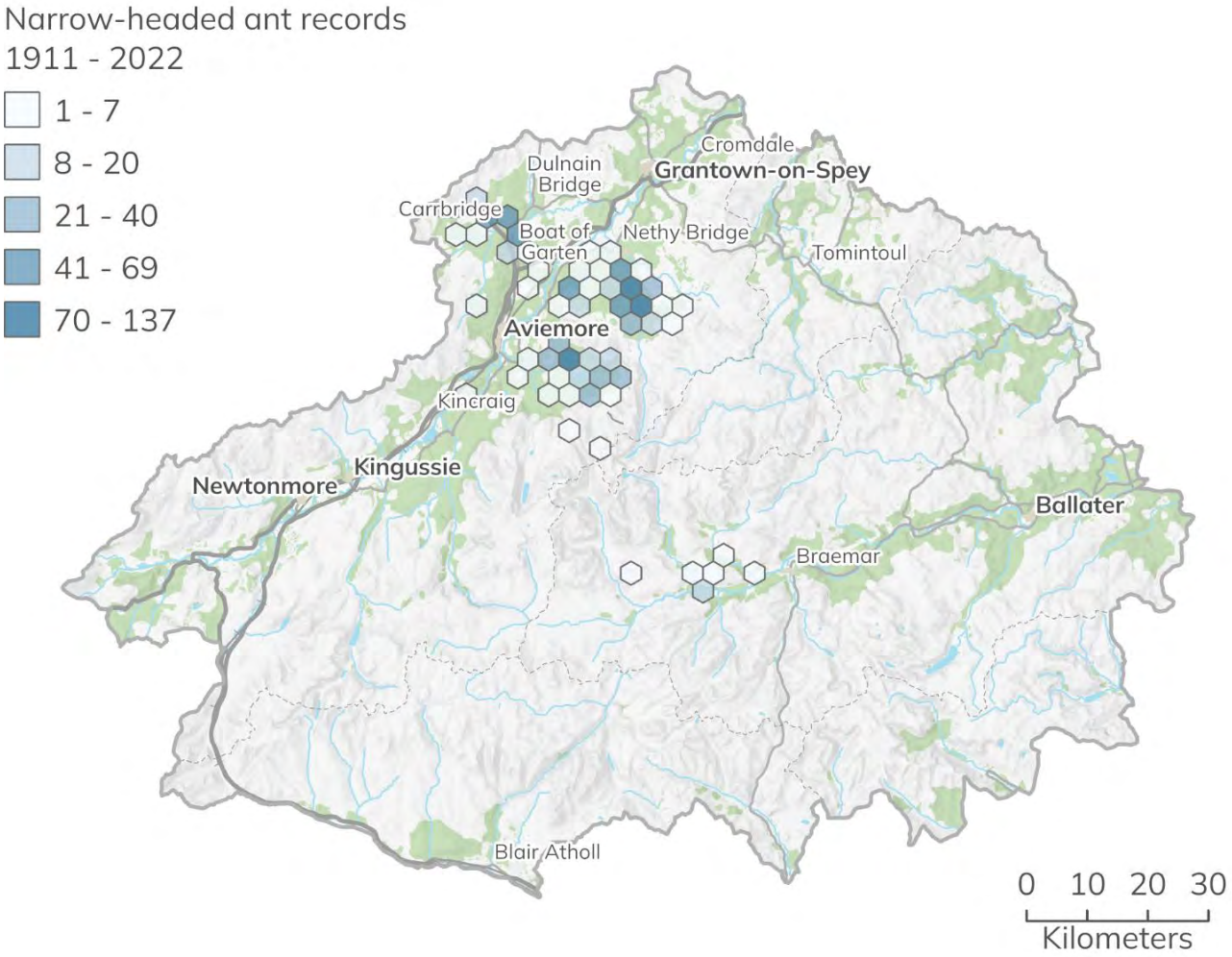


Figure 248 Narrow-headed ant records 1911 – 2022 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Aspen hoverfly

The aspen hoverfly belongs to a large group of insects called Diptera. This group also includes houseflies, mosquitoes and craneflies. Scotland has the entire population of the aspen hoverfly and is only found in a few sites in the Highlands, making it one of Britain's rarest hoverflies. The aspen hoverfly's stronghold is in Badenoch and Strathspey, with populations found along the Strath between Kingussie, Easterness and Grantown on Spey. Insh Marshes National Nature Reserve is notable for its population. There is also a small population at a single site on Deeside near Dinnet. Their breeding habitat is Aspen woodland, including birch or pine woods with an aspen component. See page 568 for information on the distribution of aspen in the Cairngorms National Park.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with aspen hoverfly (Table 49).

Table 49 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for aspen hoverfly.

Actions	Target	Progress and overall status
Sustainable management suitable for population expansion and integrate with wider work for aspen woodland 2019 species recovery curve position: T2	Species recovery curve position: R3	Survey work undertaken, engagement with landowners and integrated into beaver monitoring programme. Progress made from T2 to R1 with work ongoing.

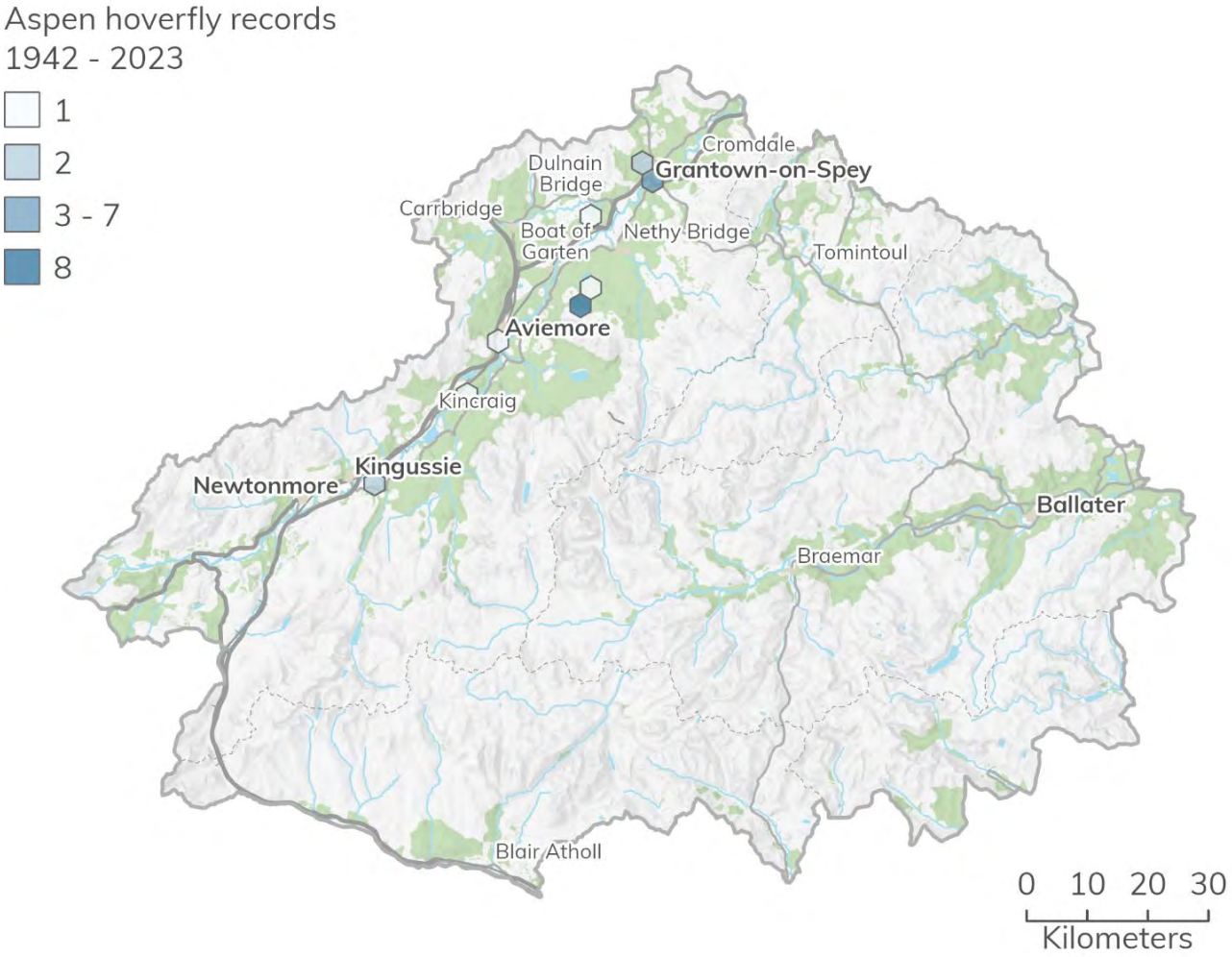


Figure 249 Aspen hoverfly records 1942 – 2023 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Freshwater pearl mussel

Freshwater pearl mussel are classified as critically endangered and approximately 115 watercourses within Scotland have a population. Most of the population is found in rivers located in the Highlands (and Western Isles). Populations are threatened by illegal pearl fishing, poor water quality and habitat damage.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with freshwater pearl mussel (Table 50).

Table 50 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for freshwater pearl mussel.

Actions	Target	Progress and overall status
Improve riparian management. Survey suitable habitat. Support a reintroduction / translocation project. 2019 species recovery curve position: R1	Species recovery curve position: R2	Targeted habitat improvement and extensive survey work undertaken. Survey data informed recovery plan including population reinforcement project. Position remains R1 with work ongoing.

Working closely with the Spey Fisheries Board and the Spey Catchment Partnership, the Park Authority are developing plans to move threatened populations of pearl mussels from the main stem of the River Spey to safer habitats in the upper tributaries of the river. Subject to licencing, it is hoped this work could begin as early as spring 2025.

On the River Dee, innovative techniques such as eDNA monitoring are being used to identify remnant populations and help pinpoint where action is needed. Led by the James Hutton Institute, this work is taking place following a report, commissioned by NatureScot and the Park Authority through the Dee Catchment Partnership, which revealed an approximate 90% reduction in the population of freshwater pearl mussels in the River Dee since 2002. The decline is thought to be caused primarily by the devastating effects of Storm Frank in 2015, where the violence of the storm not only swept much of the population away but also tore up the riverbed, leaving it highly unstable for mussels to anchor on. The current condition of the Dee makes it unsuitable for translocation of the mussels and alternative approaches are being considered.

A feasibility study commissioned by the Park Authority and undertaken by the James Hutton Institute has suggested that conservation breeding could be a suitable step towards reinforcing the mussel population on the Dee. As pearl mussels take five to ten years to reach maturity, this will form part of a long-term Cairngorms freshwater pearl mussel recovery strategy, allowing time to work alongside land managers and the River Dee Trust to undertake extensive habitat restoration to prepare the River Dee for the adult mussels to be reintroduced.

Aspen

Aspen trees are a key component of natural boreal forests and support a number of rare species such as the aspen hoverfly. Aspen is threatened by development and changes in land use and as such has been identified as a priority species within the National Park.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with aspen (Table 51).

Table 51 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for aspen.

Actions	Target	Progress and overall status
Manage and improve conditions of key sites. Improve connectivity. Create new aspen stands and develop a Deeside Aspen Management Plan. 2019 species recovery curve position: R1	Species recovery curve position: R3	Survey work and mapping undertaken to identify extent of aspen woodland. Targeted management at priority sites ongoing. Aspen Officer in post to develop strategic aspen network plan. Progressed from R1 to R3.

The survey and mapping work undertaken for the Cairngorms Nature Action Plan (Figure 250) indicates that while fragmentary, there may be opportunities to improve connectivity between aspen stands.

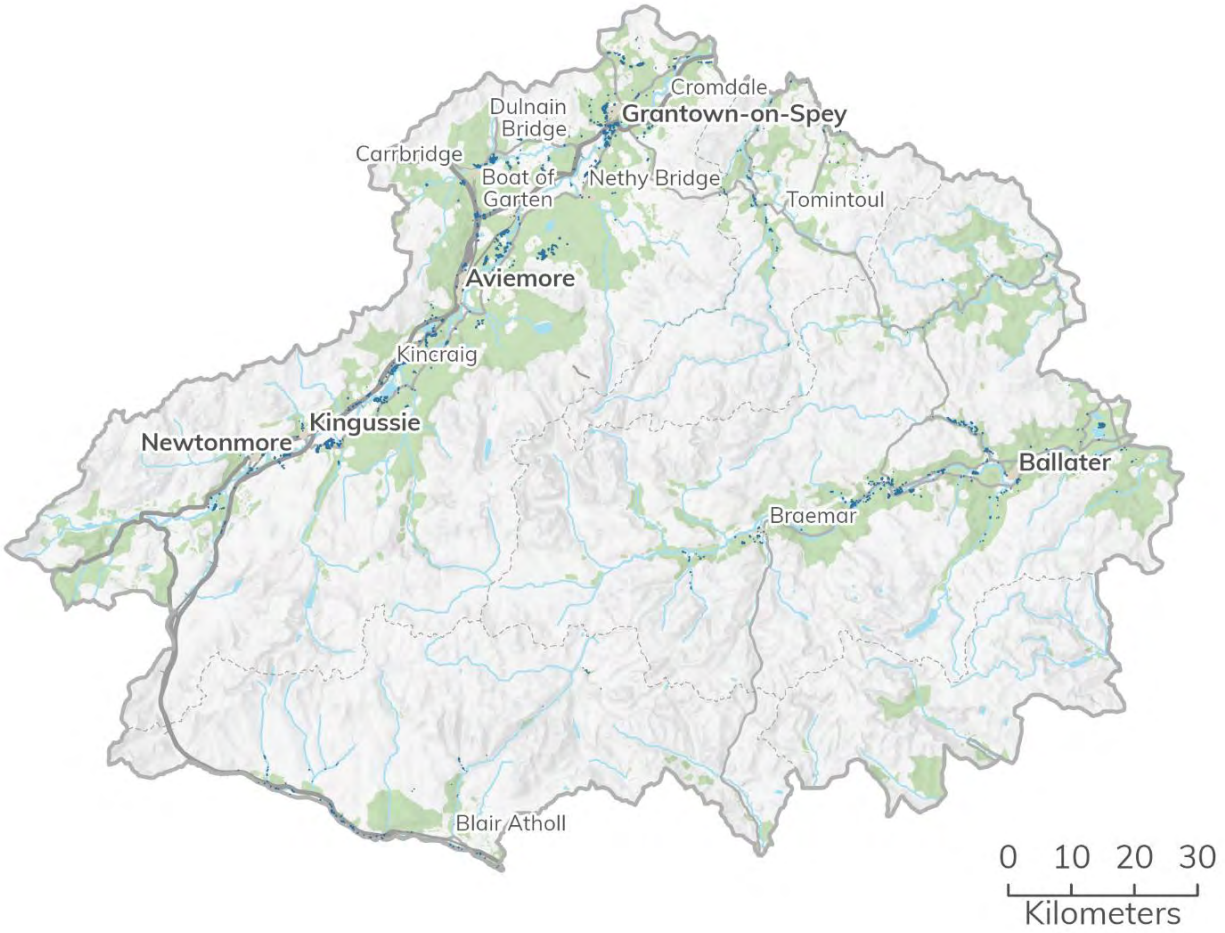


Figure 250 Aspen stands in the Cairngorms National Park identified in survey work published in 2023. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Twinflower

The twinflower's natural habitat is native woodland and is found within the National Park predominantly in its ancient Caledonian forests (Figure 251). Actions proposed by the Cairngorms Nature Action Plan include translocations of the twinflower into sites across the National Park and over 900 cuttings are being planted across the National Park area in 2023.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with twinflower (Table 52).

Table 52 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for twinflower.

Actions	Target	Progress and overall status
Monitor existing populations. Provide advice and support for land managers. Identify translocation sites in the National Park. 2019 species recovery curve position: T2	Species recovery position: T3	The Cairngorms Rare Plants and Wild Connections Project, along with work from many landholders and support from the Scottish Twinflower group enabled delivery of all actions. Target exceeded. Recovery curve position progressed from T2 to R3.

Twinflower are at risk from habitat loss, fragmentation and changes in land use.

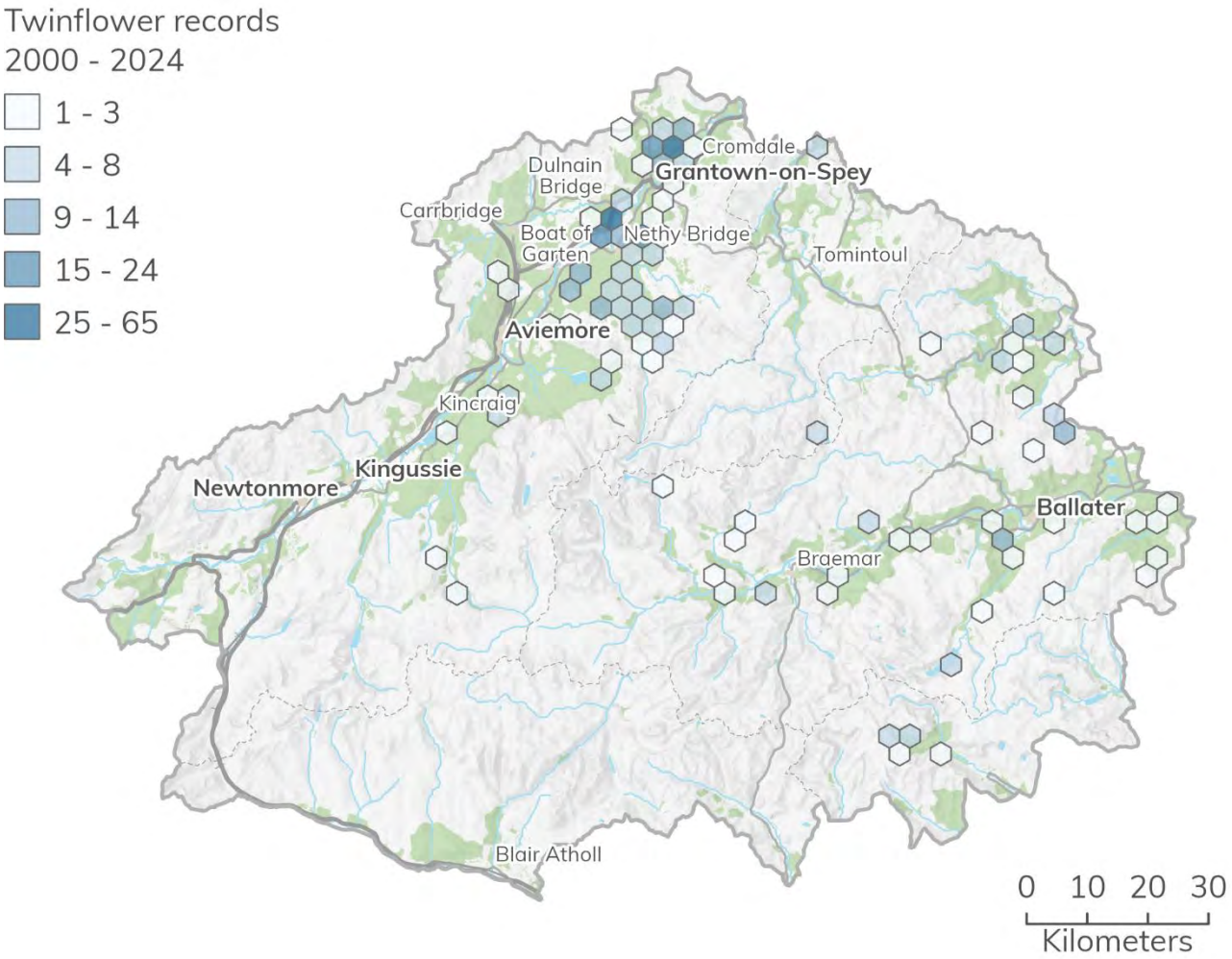


Figure 251 Twinflower records 2000 – 2024 in the Cairngorms National Park. Note many record locations are imprecise and may not relate exactly to the location on the map. Contains data © National Biodiversity Network 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Waxcaps

Waxcaps are found in nutrient poor grasslands and are recognised as being excellent indicators of the conservation value of this habitat. Despite efforts by the Park Authority, Plantlife Scotland, NatureScot and landholders to improve data availability, grassland fungi and waxcap grasslands are under recorded. No comprehensive survey works identifying waxcap grasslands have been undertaken within the National Park boundary but they are identified as a priority species within the Cairngorms Nature Action Plan. Grassland mapping of unimproved grasslands to find species-rich grassland has taken place for Livet / Avon, Deeside and Badenoch and Strathspey and this data could be used to narrow down the search for waxcap grasslands and help understand the main threats to unimproved grasslands in general.

Figure 252 provides information on the records held by the Grassland Fungi Mapping Database for Scotland. This database and mapping tool aims to highlight areas of fungal interest so that areas with high diversity and threatened species can be avoided early on in the planning process. The database contains information on 294 sites in the Cairngorms National Park, according to which Duackbridge by Nethy Bridge is the top site for fairy clubs in Scotland with 11 species and Morrone by Braemar is the top site for grassland Entolomataceae in Scotland with 36 species. The sites have been given a Red / Amber / Green (RAG) score according to the following criteria:

- Red: Any site passing any of the Site of Special Scientific Interest thresholds.
- Amber: Any site not passing any of the Site of Special Scientific Interest thresholds but with more than 11 species of Hygrocybe s.l. or with more than 4 International Union for Conservation of Nature (IUCN) species or with more than 4 indicator species.
- Green: Any other site that has records of grassland fungi.

Detailed information on waxcap sites within the Cairngorms National Park may be found in Waxcap Survey Work 2024: Report to the Cairngorms National Park Authority:

- https://cairngorms.co.uk/wp-content/uploads/2025/03/Report-CNPA-Waxcap-Survey-Work-2024.pdf

Waxcaps are at risk from grazing pressure (too high or too low), fertiliser input, ploughing / re-seeding, changing land use and development as they are predominately found in grasslands, including those in close proximity to settlements.

Cairngorms Nature Action Plan 2019 – 2024 Final Report provides a progress update and overall status of the species recovery associated with waxcaps (Table 53).

Table 53 Achievement against Cairngorms Nature Action Plan 2019 – 2024 actions and targets for waxcaps.

Actions	Target	Progress and overall status
Monitor existing populations. Provide advice and support for land managers. 2019 species recovery curve position: D3	Species recovery curve position: T2	The Cairngorms Wild Plants Project enabled delivery of all relevant actions. Recovery curve position progressed from D3 to T2 with work ongoing.

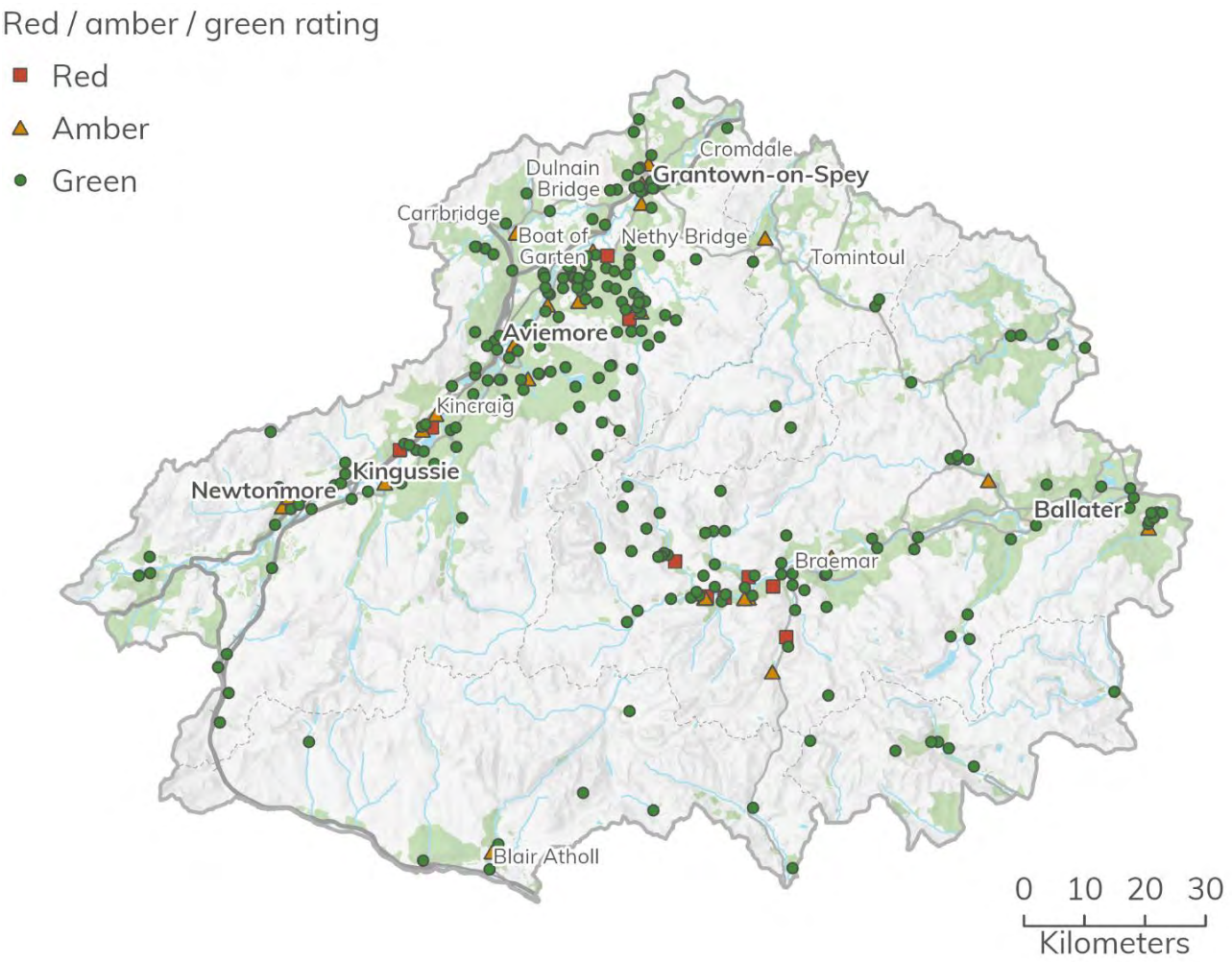


Figure 252 Waxcap sites in the Cairngorms National Park recoded on the Grassland Fungi Mapping Database for Scotland. Contains data © NatureScot 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Biosecurity

The spread and control of invasive non-native species, pathogens and disease affects a wide range environment-based economic activities, including fishing, farming and forestry and is a key issue for conservation of biodiversity.

Non-native species can kill, harbour disease, or compete with native species. A number have been recorded in the National Park, including:

- Japanese knotweed (Fallopia japonica).
- Fiant hogweed (Heracleum mantegiazzanum).
- Himalayan balsam (Impatiens glandulifera).
- American Skunk Cabbage (Lysichiton americanus).
- American Mink (Mustela vison).
- Grey Squirrel (Sciurus carolinensis).
- Rudd (Scardinius erythrophthalmus).
- Roach (Rutilus rutilus).
- Tench (Tinca tinca)
- Golden orfe (Leuciscus idus).
- Bream (Abramis brama).

The Park Authority is a partner in the Scottish Mink Initiative which aims to have river catchments within the Cairngorms (and throughout Scotland) free from mink to enhance water vole and ground nesting bird populations. The Park Authority also supports the Cairngorms non-native fish project to stop the deliberate or accidental release of non-native fish into the Dee or Spey catchments.

Pathogens can cause death or reduce viability of populations which has great implications for habitat connectivity.

Red band needle blight (also known as Dothistroma Needle Blight) is a fungus which causes the premature loss of pine needles. Currently in the National Park planting of Scots Pine next to existing stands is discouraged which could have long term impacts on woodland structure and species composition.

Ash die back or Chalara (Hymenoecyphus fraxineus) is a fungus causing dieback and mortality in Ash trees. In 2023, records show it within the Badenoch and Strathspey area of the National Park (Figure 253).

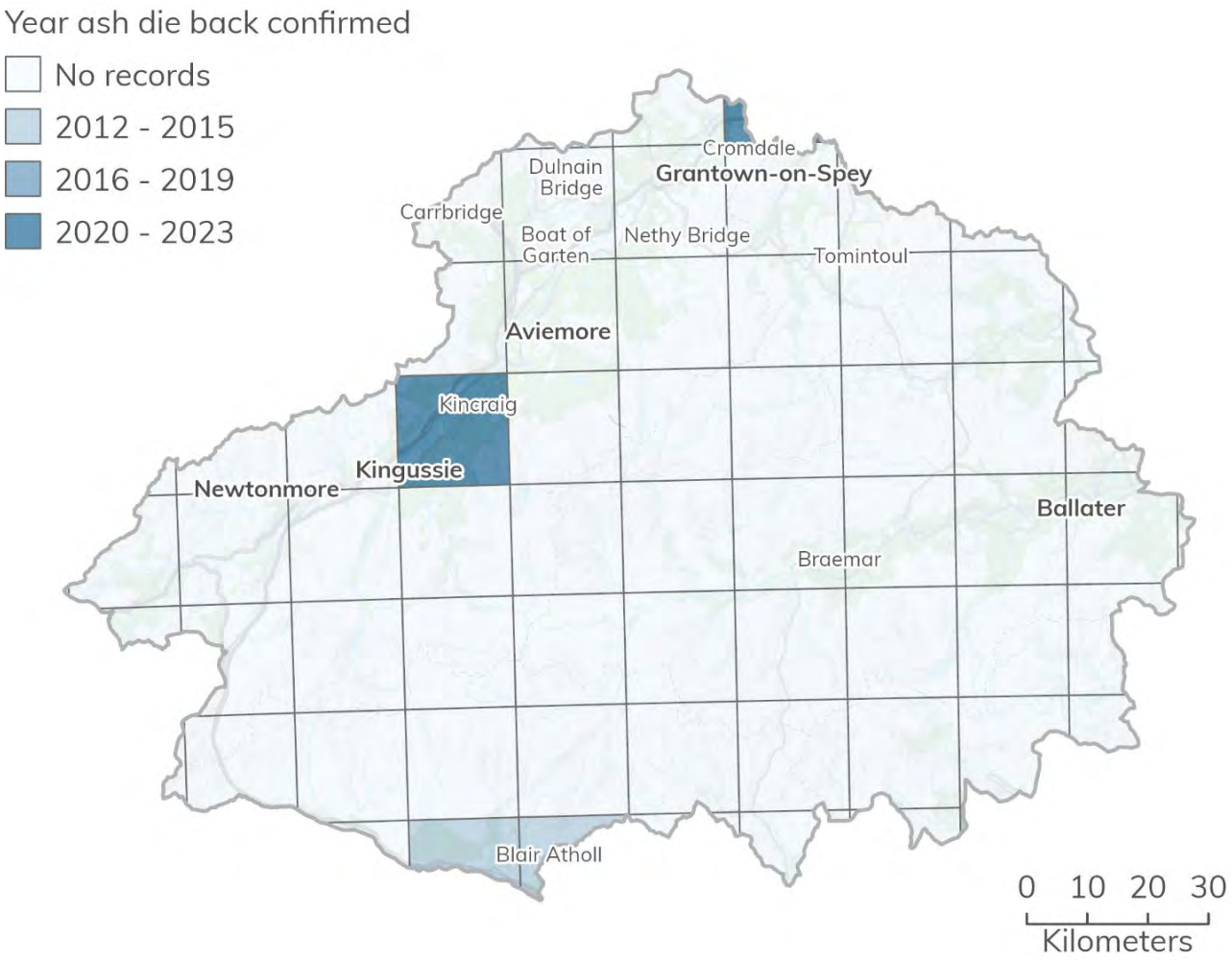


Figure 253 Ash dieback confirmed infection areas by 10km^2 grid. Contains data © Forestry Commission 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Phytophthora ramorum is a fungal disease of Larch, the highest incidence is in the south west of Scotland but it has been recorded on the southern and eastern fringes of the National Park between 2016 and 2022 (Figure 254).

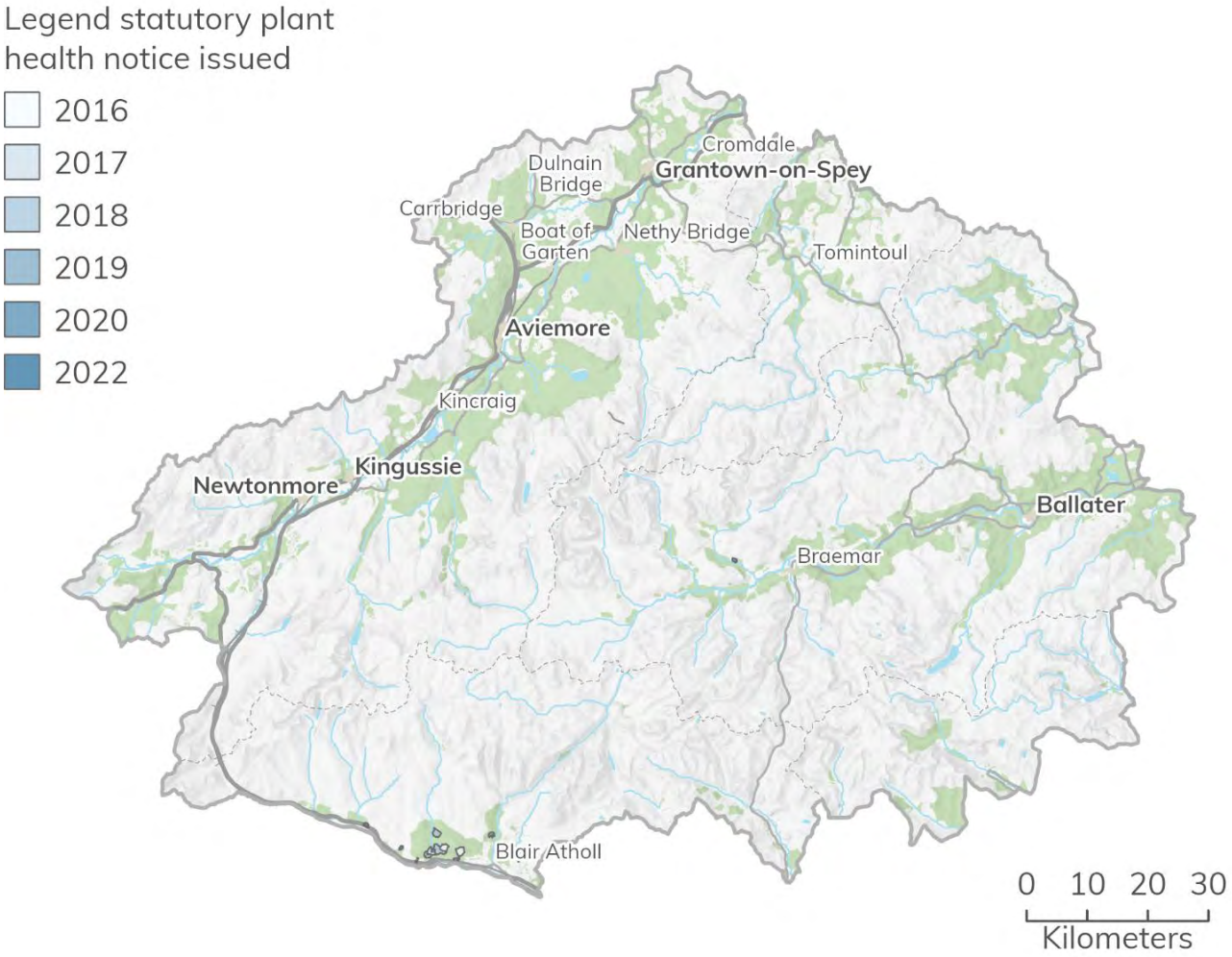


Figure 254 Statutory Plant Health Notices issued to address Phytophthora ramorum. Contains data © Scottish Forestry 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Phytophthora austrocedraeon is a fungus which causes dieback and mortality in Juniper when it attacks the roots and stems, it has been found within the Cairngorms National Park and is thought to be transmitted to new areas through movement of sheep.

The available data allows action to be taken on local problem areas but does not provide a systematic survey of invasive non-native species or the occurrence of pathogens and disease. It is clear however from data collected that problems are increasing. Prevention of spread is essential as control is very costly and requires long-term action.

Nature networks

The National Park Authority is currently developing its approach to nature networks. One of the desired functions of the Cairngorms National Park Nature Network is for it to integrate with the Cairngorms Nature Index. The Cairngorms Nature Index has recently been developed as a method of baselining ecosystem health in the National Park and subsequently measuring trends in its condition over time. The Cairngorms Nature Index works with six broad ecosystem types:

- Woodlands
- Freshwater
- Mires and wetlands
- Managed lowland grasslands
- Managed uplands
- Montane.

The delivery of the nature will include improving already existing networks and the creation of new networks and will carefully link with current National Park's conservation aims. Monitoring of the delivery and success of these Nature Networks will be done through the Cairngorms Nature Index.

This approach to identifying a Cairngorms Nature Network is set out in the following document:

- https://cairngorms.co.uk/wp-content/uploads/2025/06/Identifying-a-Cairngorms-Nature-Network.pdf

The Cairngorms National Park Nature Network is being developed concurrently and in association with the preparation of the next Cairngorms Nature Action Plan. Further engagement on draft Nature Network will take part as part of the consultation on the draft Action Plan in late 2025 / early 2026. The final Action Plan is programmed to be published in April 2026.

Key messages

The Cairngorms National Park is highlighted in National Planning Framework 4 as a national asset of international ecological value, covering less than 2% of UK land it hosts 25% of the country's rare and endangered species. It has a rich diversity of habitats including alpine zones, freshwater rivers, peatlands, pine woods, and aspen groves and offers a strong foundation for large-scale ecosystem restoration.

Increasingly several the National Park's valued species and habitats are under threat from habitat loss, fragmentation, disturbance and unsustainable land management practices. Some important species, such as Capercaillie and Freshwater Pearl Mussel have been under particular pressure and have seen significant drops in their population.

The Cairngorms National Park Authority already has several Plans, Programmes and Strategies in place to help prevent, mitigate and compensate the loss of biodiversity, including the Cairngorms Nature Action Plan, Cairngorms National Park Forest Strategy and Deer Framework for the Cairngorms National Park. It is also in the process (2025) of developing its approach to nature networks. The implementation of the Local Development Plan may therefore result several cumulative, synergistic and in-combination with these. Together they should work towards a cohesive approach addressing issues, linking the needs of people with the natural environment.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 2: Air
- Topic 3: Water
- Topic 5: Material Assets
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

Topic 7: Landscape

Context

> ***"Landscapes [are]... an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity."***
>
> ***European Landscape Convention (2000).***

Landscape is the physical manifestation of space, the tangible elements that give shape and diversity to our surroundings. It is the product of thousands of years of interaction between man and nature, encompassing the environmental and cultural, physical and symbolic. It is also the environment perceived, predominantly visually but additionally through our senses of smell, touch and hearing. Our appreciation of landscape is also affected, by our cultural backgrounds, and by personal and professional interests.

Landscape is important, not just as scenery but because it links culture with nature, and the past with the present. Well-looked after and highly valued landscapes are essential to social well-being and an economically healthy society. Landscapes are valued because of their inherent interest, their contribution to both national identity and local distinctiveness. The protection of high quality and highly valued landscapes therefore is important both for its own sake and for the health, social and economic wellbeing of individuals and communities.

At 4,528 square kilometres, and comprising 6% of Scotland's land area, the Cairngorms National Park is the UK's largest protected landscape.

The Cairngorms are best known as an upland massif of expansive proportions and a sub-arctic environment. There are no other mountains like them in Britain. Massive granite domes with corries and passes scooped out; broad rolling plateau more like Scandinavia than the UK. Nowhere else is consistently higher, colder or wilder. The mountains domination the National Park and have an effect on the way people live and the landscapes they live in.

But the landscape of the Cairngorms National Park is far more than that. It encompasses strath and glen, village and farm, woodland, moorland, river and loch. Landscapes that provide a home and a livelihood, engage the imagination, excite the

mind, challenge our endurance and strength and give us a sense of the past and memories for the future.

Landscapes change daily, seasonally and year by year as the light changes, as crops are harvested, as trees grow, as houses are built, and others fall into ruin and as rocks weather and erode. In the coming years and decades, the landscapes of the National Park will change as we address issues such as climate change, the decline of fossil fuels and changing population dynamics.

Special Landscape Qualities of the Cairngorms National Park

In 2010 work was conducted to identify the Special Landscape Qualities of the Cairngorms National Park landscape, carried out by NatureScot and the Park Authority. The special qualities identified drawn on the distinct landscape and visual character of the National Park, but it is how these qualities are experienced and valued by communities within, and visitors to, the National Park that make them important to our understanding of the National Park's place and identity. While most landscape qualities are appreciated in daylight, dark skies are an important characteristic for many areas of the National Park that contribute to a sense of wildness.

Table 54 provides a summary of the special landscape qualities identified in the Cairngorms National Park. Full details can be found in the Special Landscape Qualities of the Cairngorms National Park via:

- https://www.nature.scot/snh-commissioned-report-375-special-landscape-qualities-cairngorms-national-park.

Table 54 Summary of the special qualities of the Cairngorms National Park

General Qualities	
• Magnificent mountains towering over moorland, forest, and strath • Vastness of space, scale, and height • Strong juxtaposition of contrasting landscapes • A landscape of layers, from inhabited strath to remote, uninhabited upland • 'The harmony of complicated curves' • Landscapes both cultural and natural	
The Mountains and Plateaux	**Trees, Woods and Forests**

• The unifying presence of the central mountains • An imposing massif of strong dramatic character • The unique plateaux of vast scale, distinctive landforms and exposed, boulder strewn high ground • The surrounding hills • The drama of deep corries • Exceptional glacial landforms • Snowscapes	• Dark and venerable pine forest • Light and airy birch woods • Parkland and policy woodlands • Long association with forestry
Moorlands	**Wildlife and Nature**
• Extensive moorland, linking the farmland, woodland and the high tops • A patchwork of muirburn	• Dominance of natural landforms • Extensive tracts of natural vegetation • Association with iconic animals • Wild land • Wildness
Glens and Straths	**Visual and Sensory Qualities**
• Steep glens and high passes • Broad, farmed straths • Renowned rivers • Beautiful lochs	• Layers of receding ridge lines • Grand panoramas and framed views • A landscape of many colours • Dark skies • Attractive and contrasting textures • The dominance of natural sounds
Culture and History	**Recreation**
• Distinctive planned towns • Vernacular stone buildings • Dramatic, historical routes • The wistfulness of abandoned settlements • Focal cultural landmarks of castles, distilleries and bridges	• A landscape of opportunities • Spirituality

• The Royal connection	

National Scenic Areas

The landscapes of the Cairngorms National Park have long been regarded as worthy of protection, with three National Scenic Areas being designated in 1980 / 1981 (Figure 255). Two, namely the Cairngorm Mountains and Deeside and Lochnagar, are located entirely within the National Park boundary. These National Scenic Areas are largely centred on the highest mountain plateau at its core (Figure 255), but also include lower hills and areas of moorland, woodland, and inhabited strath (NatureScot and Cairngorms National Park Authority, 2010). Combined, the two National Scenic Areas cover an area of around 1,072 square kilometres, which equates to just under 25% of the National Park's land area. The third designation is the Loch Tummel National Scenic Area which very slightly overlaps the National Park's boundary at Killiecrankie, near Blair Atholl. The area of this National Scenic Area within the National Park is insignificant when considering its full dimensions.

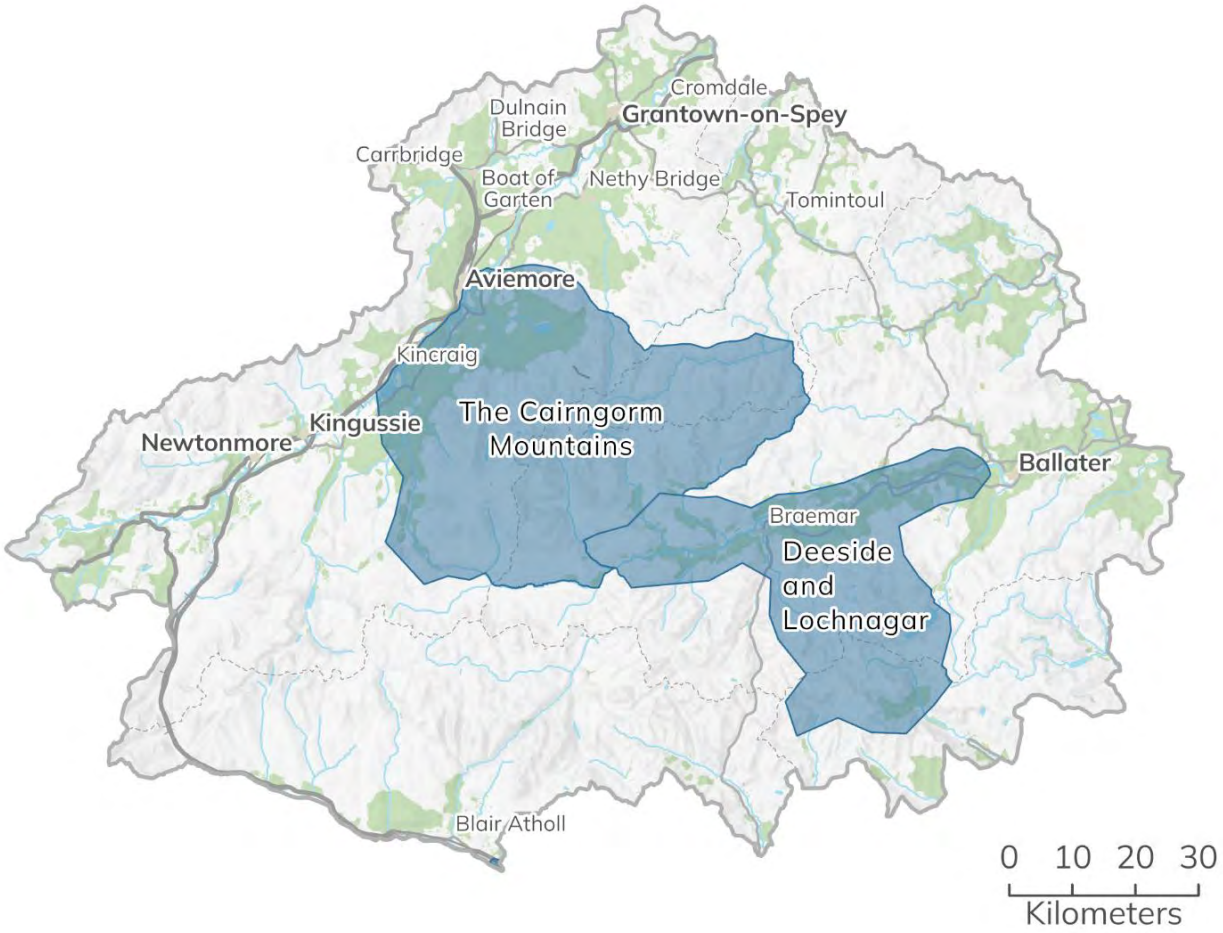


Figure 255 National Scenic Areas within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

National Scenic Areas are designated under Section 263A of the Town and Country Planning (Scotland) Act 1997 and are defined as 'of outstanding scenic value in a national context'. The legislation also states that within a National Scenic Areas 'special attention is to be paid to the desirability of safeguarding or enhancing its character or appearance'.

The original descriptions given in the 1978 report Scotland's Scenic Heritage, which lead to the designation of National Scenic Areas, may be found in the appendices of The Special Landscape Qualities of the Cairngorms National Park (NatureScot and Cairngorms National Park Authority, 2010):

- https://www.nature.scot/naturescot-commissioned-report-375-special-landscape-qualities-cairngorms-national-park.

Cairngorms National Park landscape character assessment

The key characteristics of the whole of the Cairngorms National Park have been identified and described within discrete landscape character areas and can be categorised as belonging to either its Uplands or Glens and Straths (Figure 256). This assessment of landscape character areas provides the building blocks to our understanding of the extent, nature, and variety of character across the National Park, and underpins the identification of the special landscape qualities.

These areas are all different and distinct from each other reflecting local context. However, within each area there is a consistency of character influenced by different factors such as the topography, land use, vegetation patterns, settlement, and the way the landscape is experienced. Within the glens and straths there tends to be more diversity of landscapes in a smaller area, whereas in the uplands the landscape tends to be similar over much larger areas.

The character areas provide a spatial framework for the delivery of the National Park's responsibilities, duties and policies. A description of their key characteristics, the way these are experienced and the key sensitivities of each area, along with a succinct summary of what makes the areas distinctive from elsewhere in the National Park, is provided on the Park Authority's website:

- www.cairngorms.co.uk/landscape-toolkit

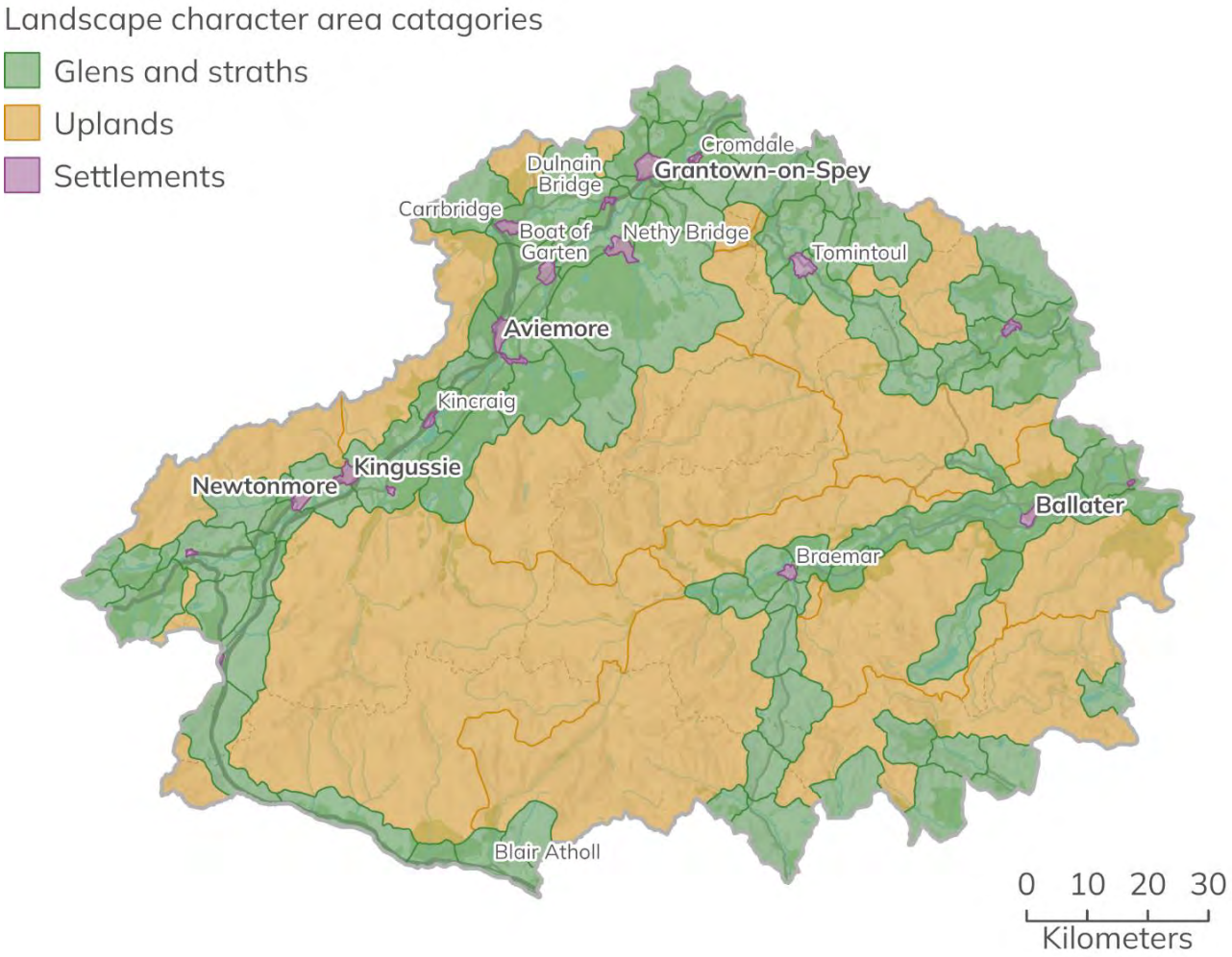


Figure 256 Cairngorms landscape character areas. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Wild land

Based on the work carried out to measure relative wildness, NatureScot published a map of Wild Land Areas, which represent the most extensive areas of high relative wildness in Scotland. This is a national dataset, and the areas defined and adjusted based on ensuring national coverage in the scale and location of Wild Land Areas including some of Scotland's Island landscapes.

Following this methodology, NatureScot's national mapping of relative wildness (covering the Cairngorms National Park) is provided on their website. This includes mapping of the four attributes which combine to give an overall score of relative wildness.

Around 2,100 km^2, or 46%, of the Cairngorms National Park has been identified as 'wild land' as defined by its perceived naturalness, rugged or challenging terrain, remoteness from public mechanised access and lack of built modern artefacts.

Five areas (and their descriptions) have been identified within the National Park (Figure 257) namely:

- Rannoch – Nevis – Mamores – Alder (Wild Land Area 14)
- Cairngorms (Wild Land Area 15)
- Lochnagar – Mount Keen (Wild Land Area 16)
- Braeroy – Glenshirra – Creag Meagaidh (Wild Land Area 19)
- Monadhliath (Wild Land Area 20)

Of these areas Wild Land Area 15 and 16 are almost entirely located within the Cairngorms National Park, while the other three only just overlap its boundary.

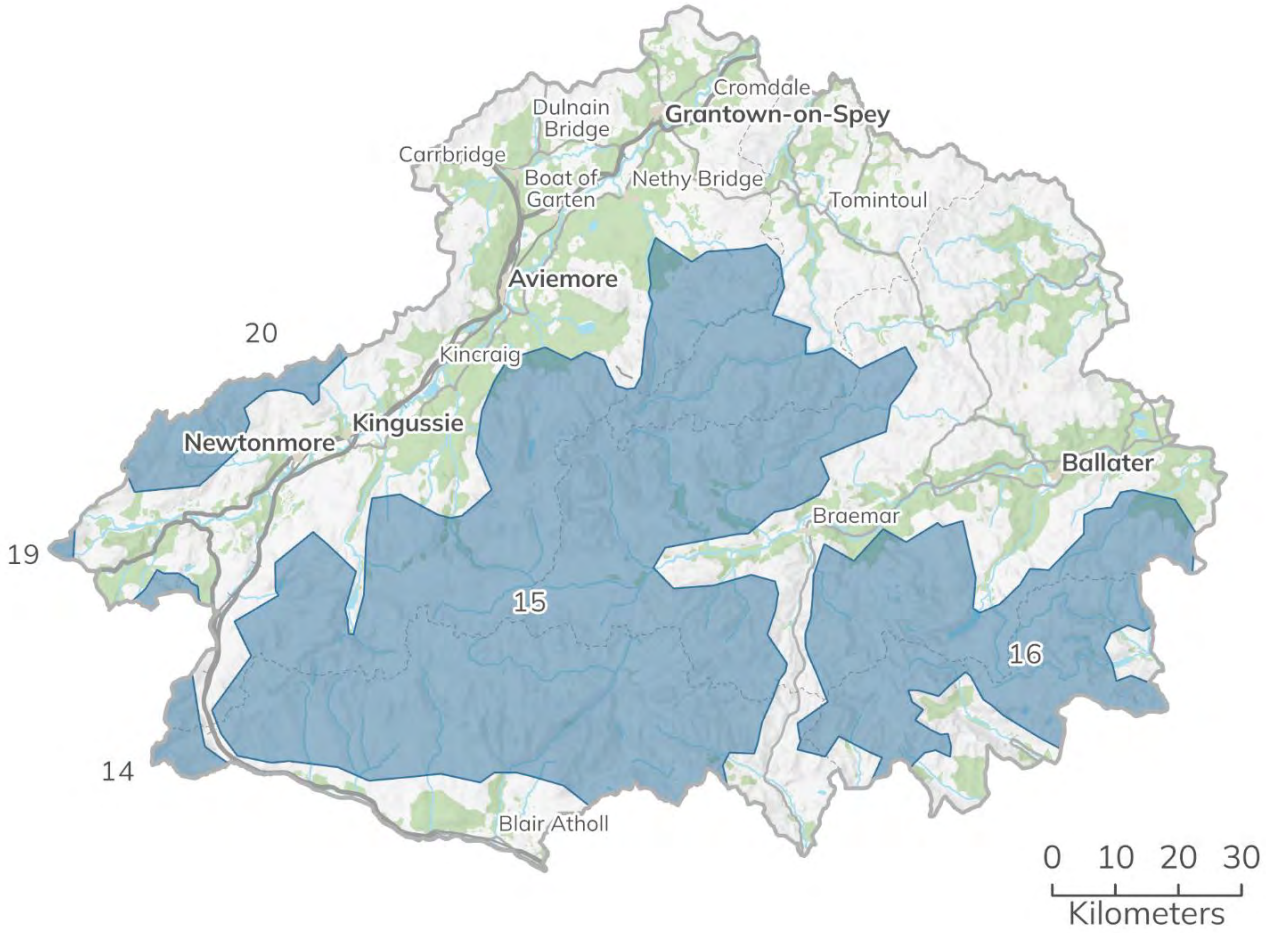


Figure 257 Wild land areas within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

These wild and remote areas have a distinct and special character, which is highly valued and increasingly rare to find. A key component of Scotland's identity, they bring significant economic benefits, attracting visitors and tourists. Many people derive psychological and spiritual benefit from their existence, and they provide increasingly important havens for Scotland's wildlife. The importance of these Wild Land Areas is reflected in the wild land special landscape quality (see Table 54).

Relative wildness

Wildness is a quality experienced by people when visiting places of a certain character and is typically (but not exclusively) associated with a reduction in or lack of built development. Measuring wildness is inherently difficult, as people respond differently according to their personal experience and their expectations of a place. However, work

carried out by NatureScot considered wildness through four physical attributes being present, which they measured and mapped (using the methodology included above). These attributes were:

- The perceived naturalness of the land cover (Figure 258).
- The ruggedness of the terrain which is therefore challenging to cross (Figure 259).
- Remoteness from public roads, ferries or railway stations (Figure 260).
- The visible lack of buildings, roads, pylons and other modern artefacts (Figure 261).

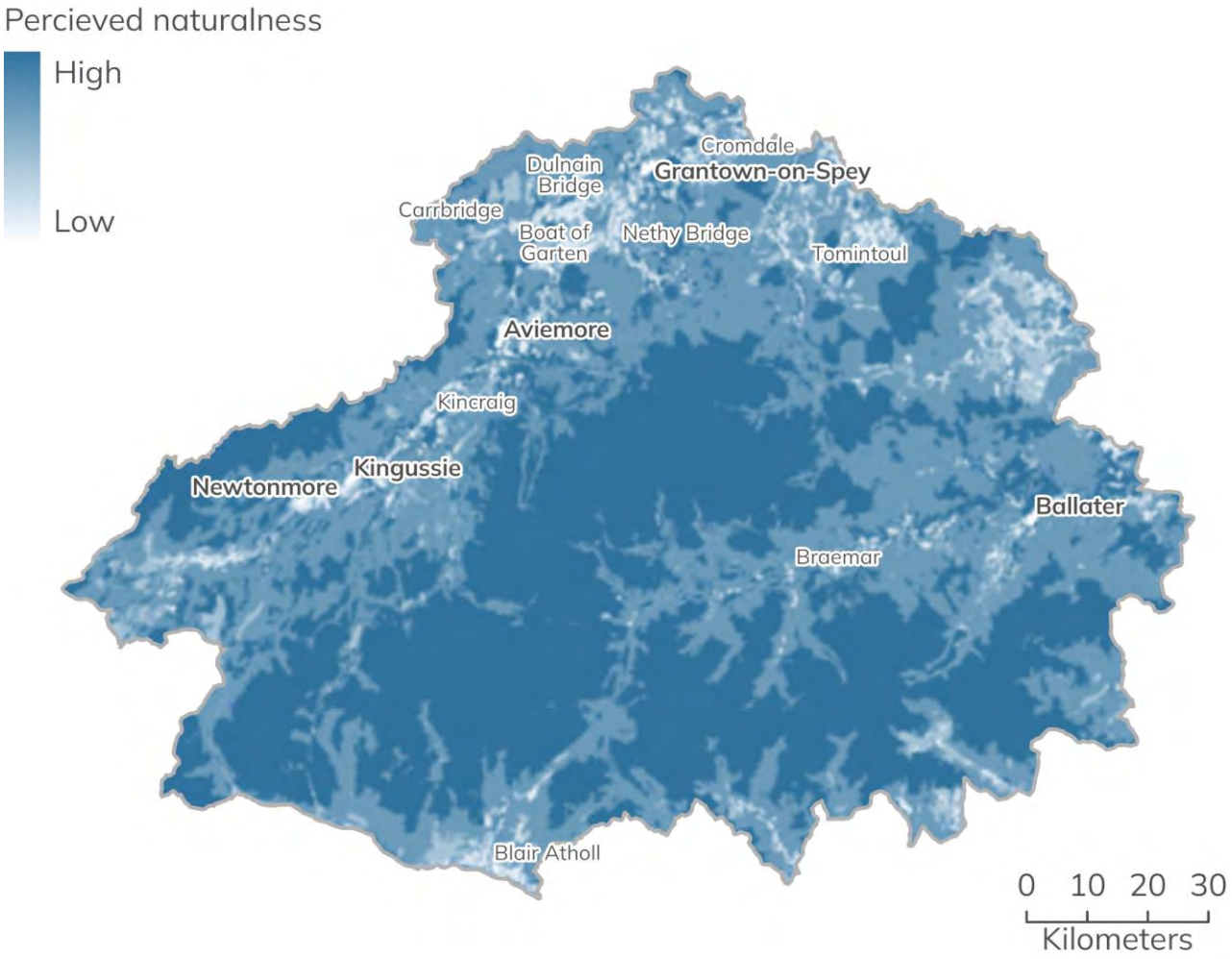


Figure 258 The perceived naturalness of the land cover within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

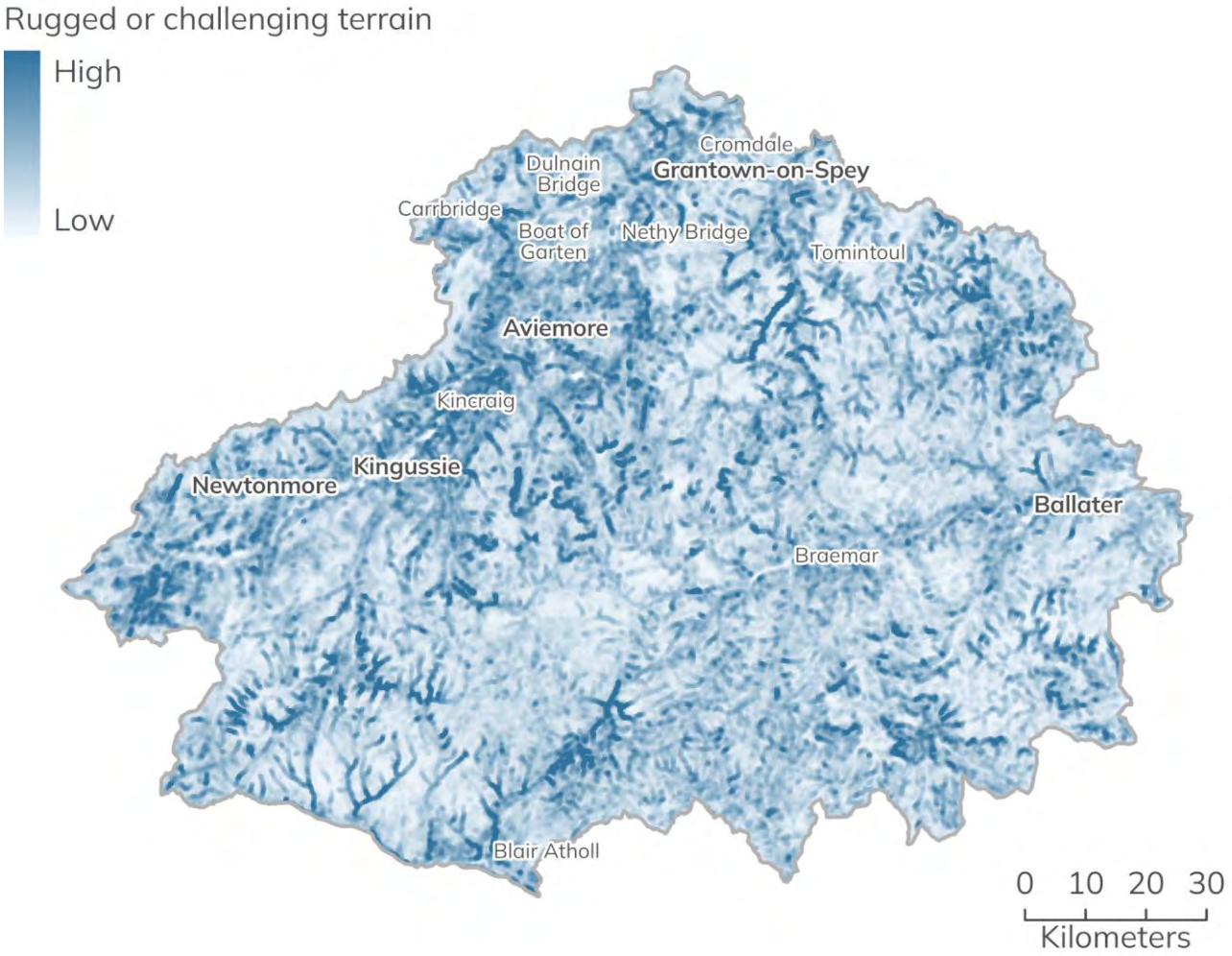


Figure 259 The ruggedness of the terrain within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

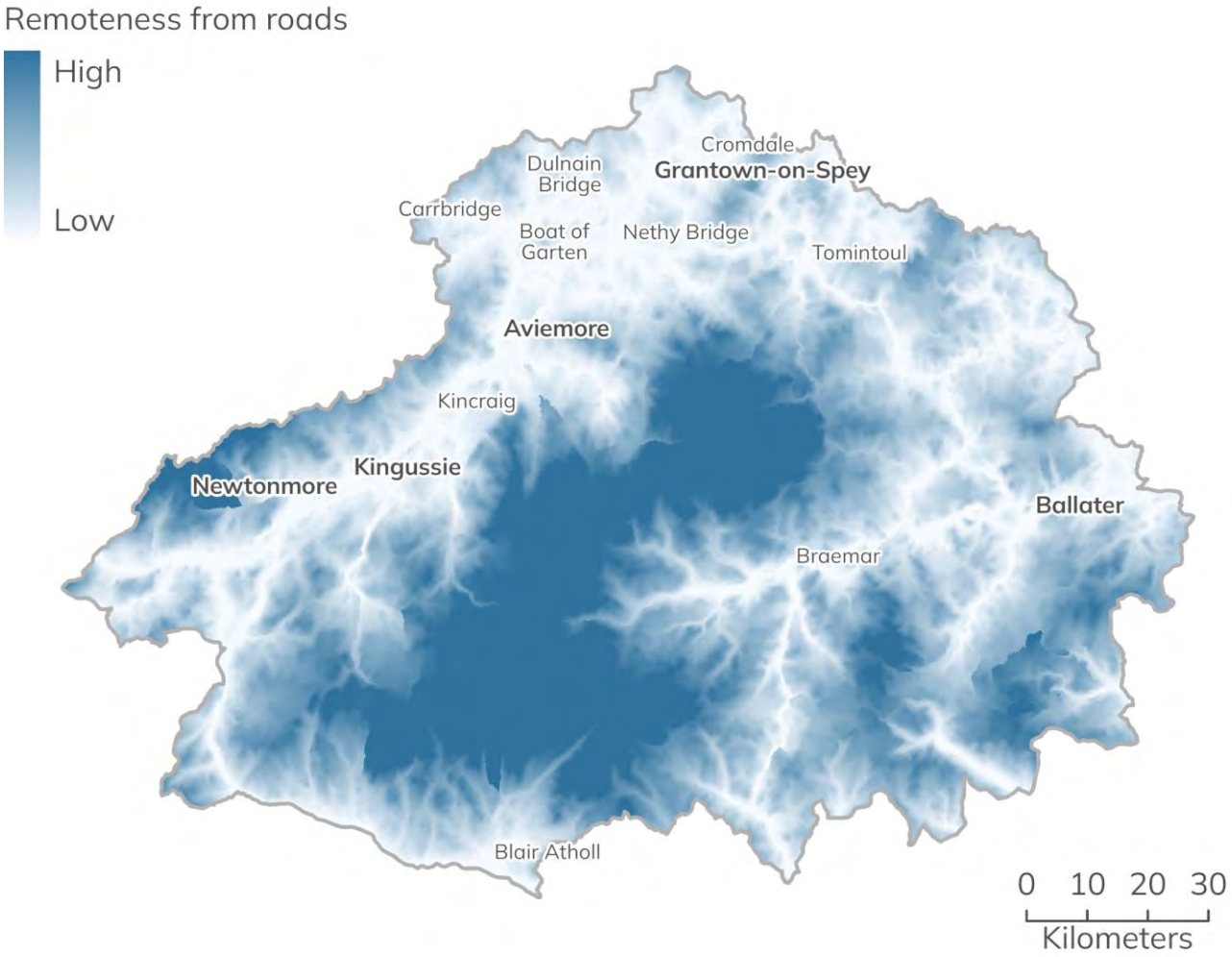


Figure 260 Remoteness of land from public roads, ferries or railway stations within the Cairngorms National Park.

Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

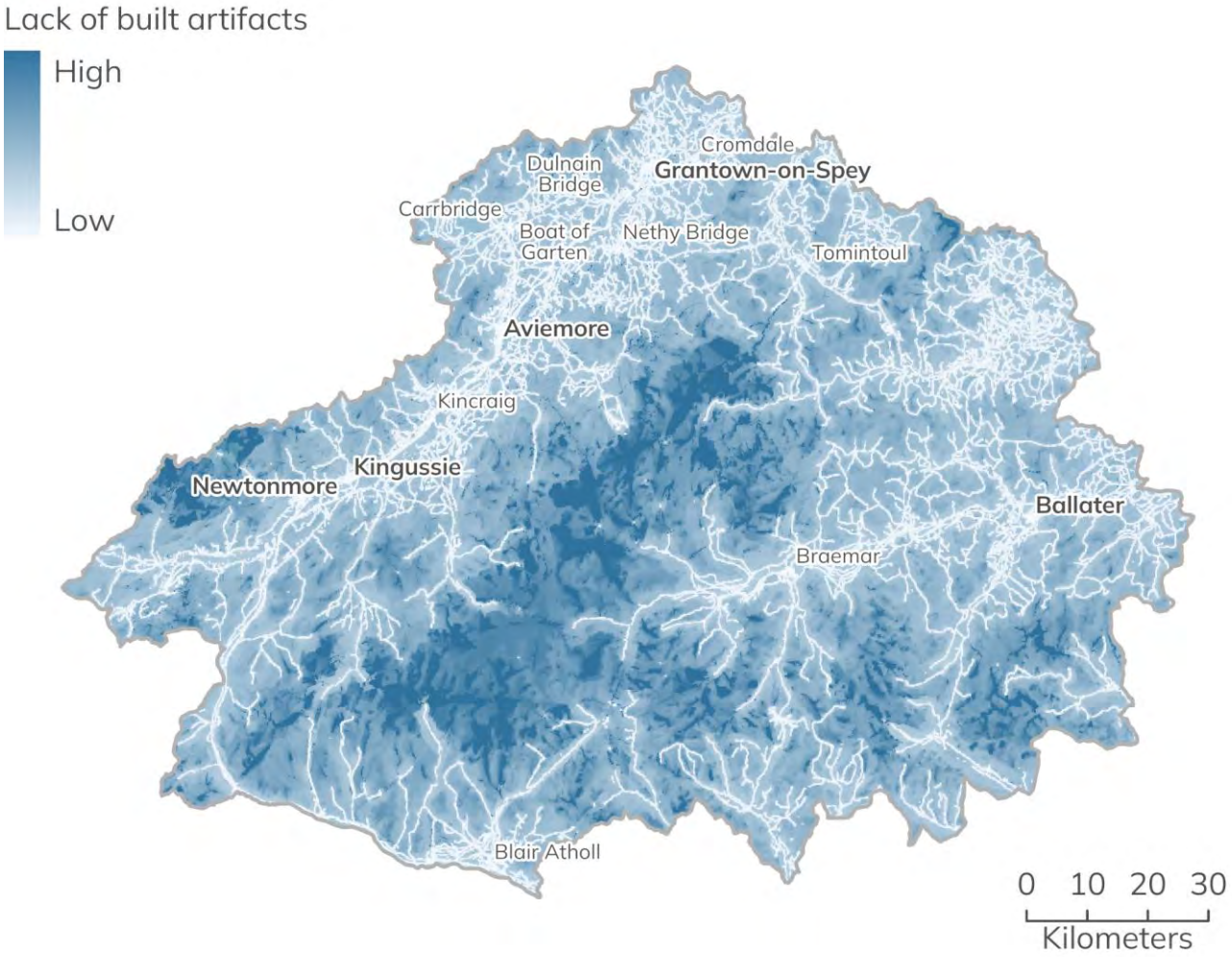


Figure 261 The visible lack of buildings, roads, pylons and other modern artefacts within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

These four attributes were then combined to produce a composite or combined map of relative wildness of the whole of Scotland (Figure 262). This work illustrates that higher relative wildness scores extend beyond the Wild Land Areas, reflecting that the experience of 'wildness' is in many places prevalent as a defined special landscape quality of the National Park.

This mapping work underpins the initial definition of the Wild Land Areas (see page 585).

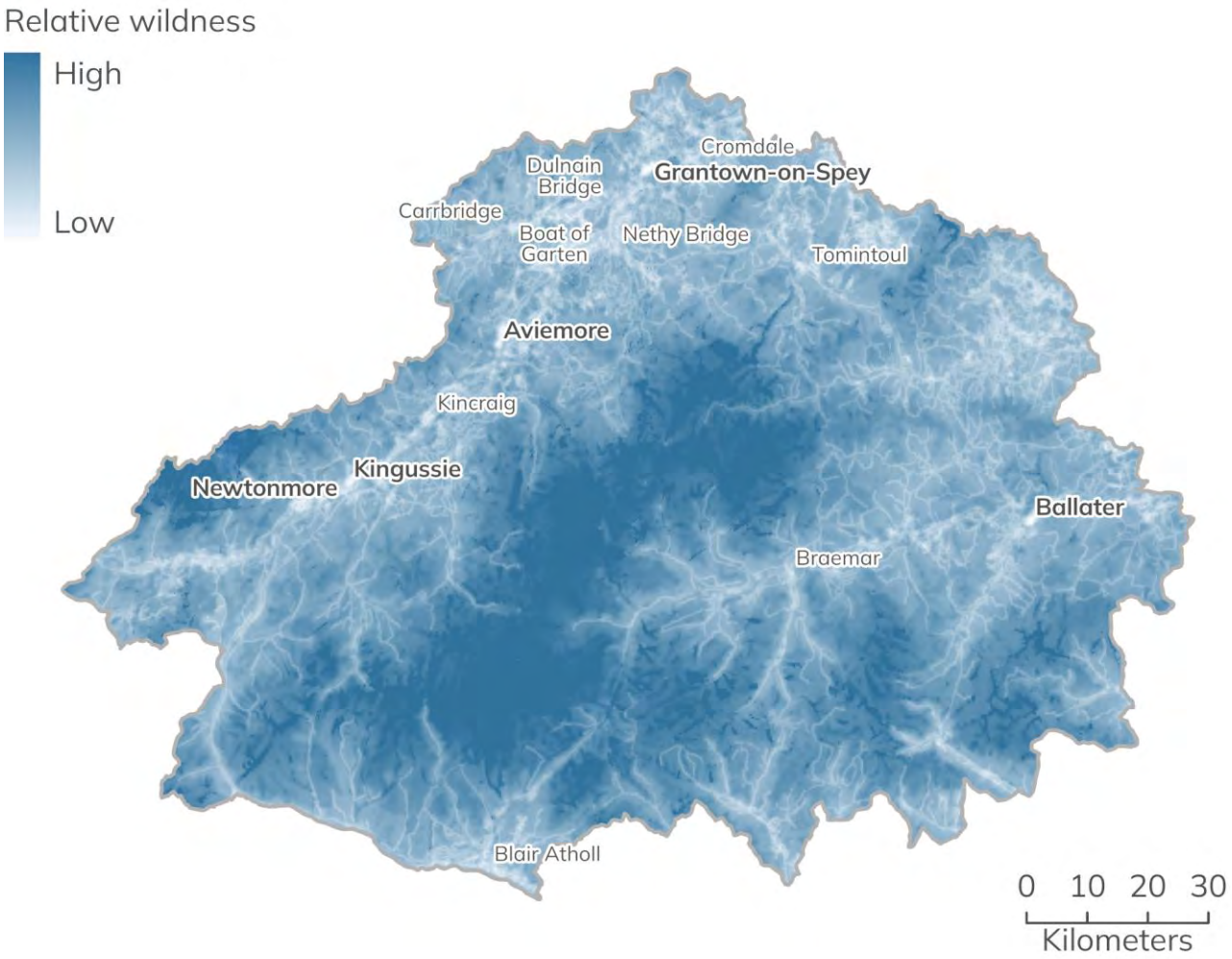


Figure 262 Relative wildness of land within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Dark skies

Tomintoul and Glenlivet Dark Sky Park (Figure 263) is certified as part of the International Dark Sky Places Program by the International Dark-Sky Association. Within the protected landscape of the Cairngorms National Park, the certification encourages the implementation of good outdoor lighting and the provision of dark sky programs for visitors. Status updates are required regularly to ensure commitment to dark sky preservation. In the context of the National Park, the Dark Sky Park certification reinforces the more widespread, but not spatially defined Dark Skies special landscape quality.

Both these criteria reflect the relative low development levels across the National Park and current attention given to the management of artificial lighting. In turn these contribute to the numerous positive benefits of managing light pollution, including but

not limited to well-being and health, reduced energy use, reduced effects on species and habitats, and contributing to the wider, more resilience base for tourism extending beyond the lighter warmer months.

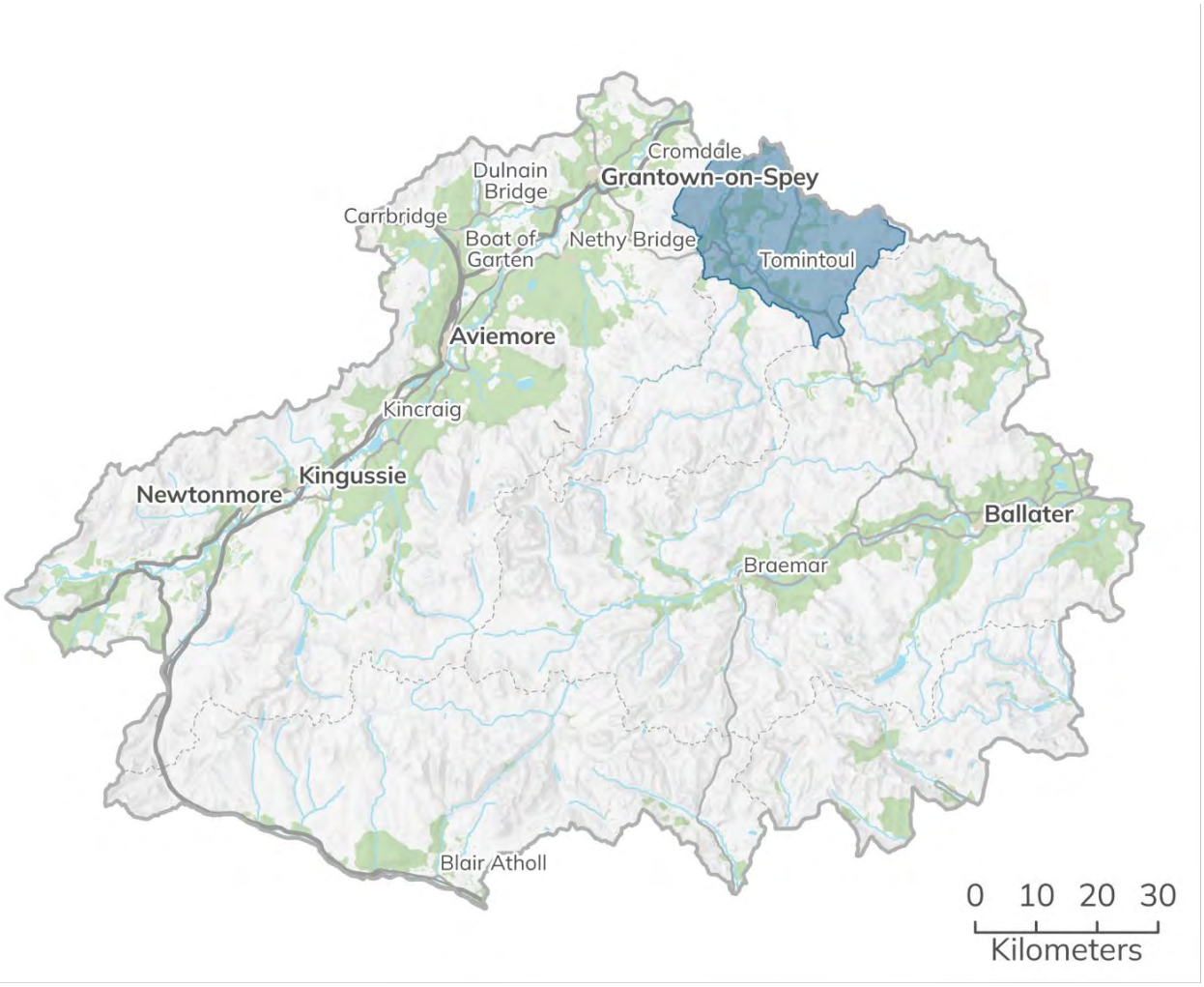


Figure 263 Tomintoul and Glenlivet Dark Sky Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The whole of the National Park has extremely limited extents of artificial lighting. Where artificial lighting is displayed, this is largely confined to along the main straths and river valleys, focussed around settlements and areas of industry, in particular security lighting for whiskey distilleries warehouses.

This evidence links to that of commercial scale renewable wind energy (beyond but potentially affecting the special landscape qualities of the National Park) where innovations in wind turbine technology, entail that turbines over 150m blade tip height require lighting under Civil Aviation Authority guidelines.

Mapping of the Dark Skies Special Landscape Quality forms part of the Cairngorms 2030 Heritage Horizons project to be delivered over the next five years.

Light pollution control

Light pollution describes artificial light that is excessive or has an adverse effect on the environment, including both the landscape and human health.

Guidance to accompany the Statutory Nuisance Provisions of the Public Health etc (Scotland) Act 2008 states that a key control method for minimizing the impact of new or substantially changed lighting schemes is through planning controls. Planning conditions may cover such matters as:

- Hours of illumination.
- Light levels.
- Column heights.
- Specification and colour treatment for lamps and luminaires.
- The need for full horizontal cut-off.
- No distraction to the highway.
- Levels of impact on nearby dwellings.
- Use of demountable columns.
- Retention of screening vegetation.
- Use of planting and bunding to contain lighting effects.
- Erection of demonstration luminaires.
- Review of lighting impacts after installation.

Private roads and ways

Work undertaken by the National Park Authority in 2019 found that there has been a significant increase in the number of upland tracks (both constructed and informal) since the establishment of the National Park in 2003. Constructed tracks are defined in the report as having a formalised surface whereby ex-situ material has been excavated and laid, often requiring machinery in the building process. Constructed tracks typically have characteristics such as drainage ditches, wider running widths and borrow pits. This work excludes the full extent of disturbance from ground excavation either side of the track and as such potential environmental effects are likely to be greater than suggested by the spatial information. Informal tracks considered more historic tracks with a lighter imprint, all-terrain vehicle (ATV) tracks (<2m widths) and driven lines / desire lines / tramlines.

This work indicated that there has been a threefold increase in the number of constructed tracks between 2017 to 2018. For informal tracks this increase is greater going from 29 recorded in 2017 to 170 in 2018. It is anticipated, that whilst there has been some reduction in the number of proposals for new tracks in the National Park, this is not of an extent that suggests a policy on tracks can no longer be supported. Spatial mapping of the tracks is provided within the original Cairngorms Hill Tracks report:

- https://cairngorms.co.uk/wp-content/uploads/2024/04/Mapping-Hill-Tracks-in-the-Cairngorms-National-Park-2019.pdf

Wind energy developments outwith the National Park

National Planning Framework 4 Policy 11 Energy seeks to encourage, promote and facilitate all forms of renewable energy development onshore (and offshore). This includes energy generation, storage, new and replacement transmission, and distribution infrastructure, and emerging low-carbon and zero-emissions technology.

In relation to energy generation from commercial onshore wind, National Parks and National Scenic Areas, development proposals in these designations will not be supported (Policy 11 b).

The main pressure for significant effects on the National Park special landscape qualities is from commercial scale wind energy developments, beyond, but proximal to the Cairngorms National Park. This pressure is predicted to increase over the with the significant weight National Planning Framework 4 Policy 11 places on the contribution of the development proposals to renewable energy generation targets and on greenhouse gas emission reduction targets.

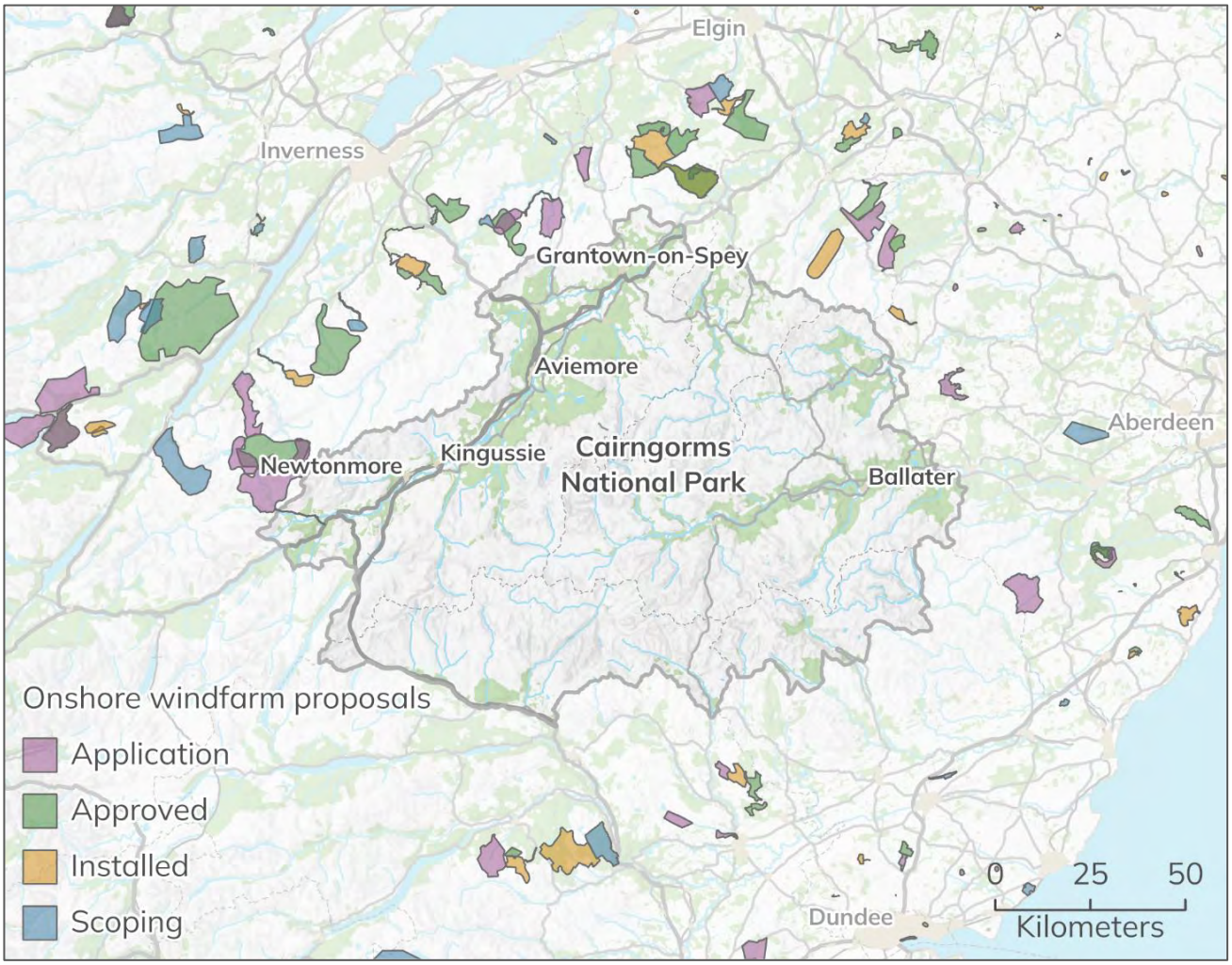


Figure 264 Location and status of commercial scale wind energy development beyond the Cairngorms National Park in 2023. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Digital infrastructure

Good digital connectivity is increasingly seen as a basic service that is required by residents, businesses, students, visitors and the public sector. The current location of telecommunication masts within the National Park is displayed on Figure 265. The National Park have received a number of pre-application and application enquiries for masts and associated infrastructure, including hill tracks, proposed in typically upland and more remote locations. These masts both individually and cumulatively have the potential to introduce significant adverse effects on the National Park's special landscape qualities.

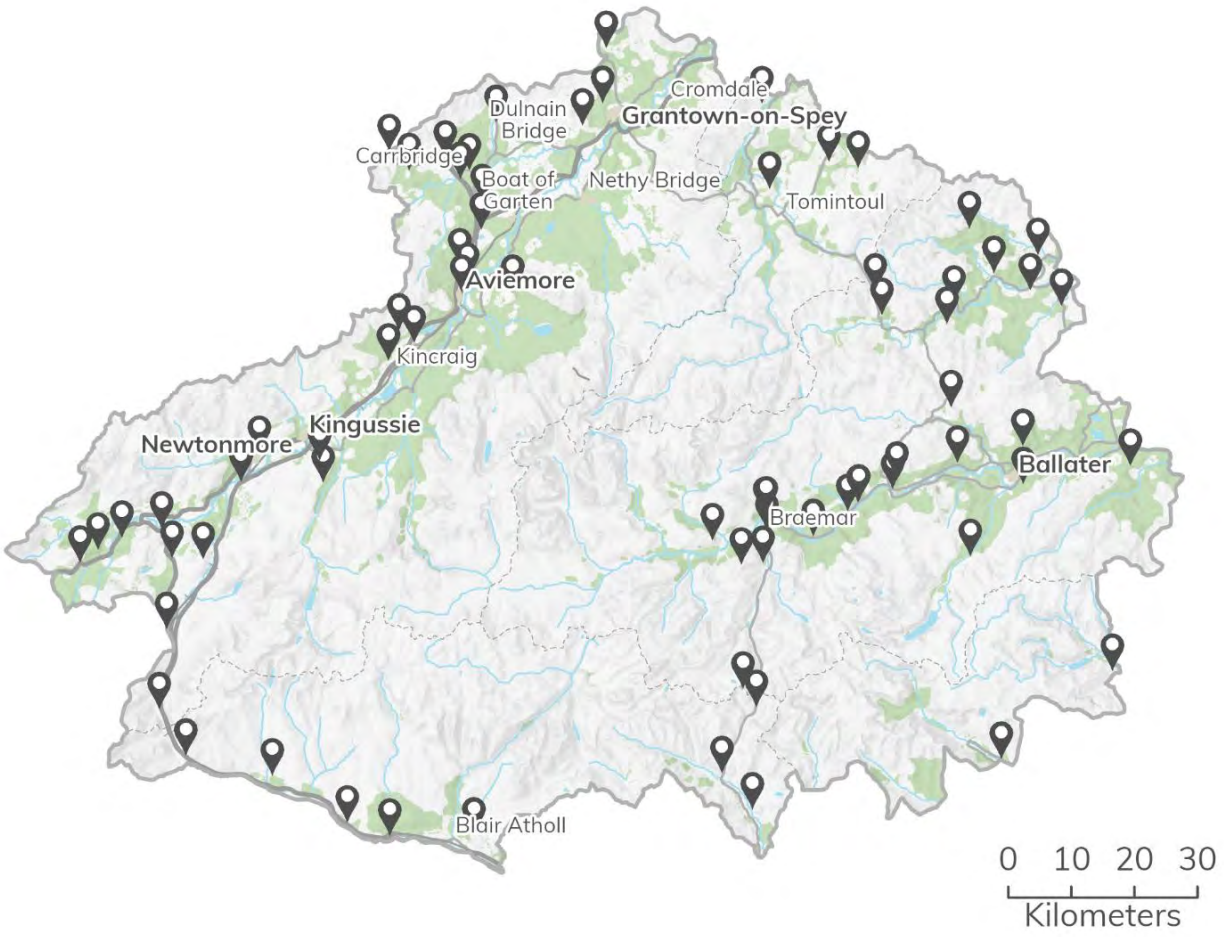


Figure 265 Location of existing telecommunication masts within the Cairngorms National Park. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Key messages

At 4,528 square kilometres, and comprising 6% of Scotland's land area, the Cairngorms National Park is the UK's largest protected landscape. It is without doubt one of the UK's finest environments and possess a range of special qualities, often unique to the area. Furthermore, nearly half of the National Park's land area is classified as being 'wild land'.

Upland tracks have increased significantly since 2003, with both constructed and informal routes impacting the landscape and requiring continued policy attention. Masts proposed in remote areas risk visual impacts on the National Park's special qualities; digital connectivity is needed but must be balanced with landscape protection.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 8: Historic and Cultural Heritage
- Topic 9: Population and Human Health

Topic 8: Historic and cultural heritage

> *'The context or setting in which specific historic features sit and the patterns of past use are part of our historic environment. The historical, artistic, literary, linguistic, and scenic associations of places and landscapes are some of the less tangible elements of the historic environment. These elements make a fundamental contribution to our sense of place and cultural identity.'*
>
> *(Historic Scotland, 2011)*

There is very little remaining evidence across the Cairngorms National Park for settlement pre-dating the 18th or perhaps the 17th century. Indeed, beyond the few castles, towers and churches for which medieval dates can be suggested, evidence for medieval settlement is almost non-existent. It is likely that the pattern of medieval settlement largely followed that of the present day and therefore, much is likely to have been lost due to development and intrusive agricultural practices, such as ploughing (Royal Commission on the Ancient and Historical Monuments of Scotland & Historic Scotland, 2001) (Hall & Price, 2012). This does not mean however that further evidence does not exist, and appropriate measures should be taken to investigate sites prior to the commencement of future land-use changes.

The distribution of prehistoric monuments largely lies in a zone of survival beyond the fringes of the improvement and pre-improvement remains. The episodes of settlement are difficult to differentiate within the National Park, and therefore the term 'Prehistoric' is often used to describe a period starting around 9,000 years ago in the Mesolithic to around AD 1000. Overall, there was a spread of human activity across the area during this period, though evidence suggests that the focus of settlement was in the main Glens and a cycle of expansion and contraction in the uplands as the prevailing climate fluctuated (Royal Commission on the Ancient and Historical Monuments of Scotland & Historic Scotland, 2001).

Owing to the transitory nature of the Mesolithic populations, evidence of occupation during this period is scarce. It is not until the Neolithic, beginning around 4,000 BC, that people began to build the structures, such as chambered cairns and stone circles, that we still see today. Bronze Age burial monuments from after 2000 BC can also be found, and evidence of settlement from this period is more common. From around 1000 BC Bronze age patterns of settlement a burial and ritual monument cease and the primary

evidence for occupation takes the form of settlement and land use. Fortified enclosures such as Dun-da-lamh near Laggan, date from this period (Royal Commission on the Ancient and Historical Monuments of Scotland & Historic Scotland, 2001) (Saville & Wickham-Jones, 2012).

Archaeological evidence from around AD 500 to AD 1000 is rare, although some buildings of a sub rectangular plan, cemeteries, cropmarks and earthworks thought to date from this period have been identified. Other more visible monuments of this period are the sculptured stones, in particular the cross-slabs, which illustrate the establishment of Christianity in the area (Royal Commission on the Ancient and Historical Monuments of Scotland & Historic Scotland, 2001) (Sheridan & Brophy, 2012) (Downes, 2012) (Hunter & Carruthers, 2012). This archaeological evidence is of great cultural significance because it relates to areas or periods for which there are no written records and is therefore of fundamental value in understanding the development of the current landscape. The historic environment makes a special contribution to the landscape of the National Park through the story it tells of past history, through providing a human scale to the dramatic natural environment and through vividly demonstrating the tenacity and strength of the human spirit in the face of difficult circumstances. This evidence of historic land use is consequently an important quality of the landscape of much of the National Park (NatureScot and Cairngorms National Park Authority, 2010).

National Park Special Landscape Qualities

This section has strong links with and is largely directed by the information provided within the preceding Landscape section.

As well as contributing to other special landscape qualities (for example Parkland and Policy Woodland) specific cultural and historic qualities are identified as:

- Distinctive planned towns
- Vernacular stone buildings
- Dramatic, historical routes
- The wistfulness of abandoned settlements
- Focal cultural landmarks of castles, distilleries and bridges
- The Royal connection

National Record of the Historic Environment - CANMORE

The National Record of the Historic Environment is a Scotland-wide online catalogue of archaeological and historical sites spanning a variety of media. It is compiled and managed by Historic Environment Scotland and contains information and collections form all its survey and recording work, as well as from a wide range of other organisations, communities and individuals who make available a proportion of the record digitally via the internet:

- Canmore, the database element (Figure 266)
- Provision of a map index to over 320,000 site locations and a related archive of over 1.3m items.
- PastMap, a map-based search facility that brings together Canmore, Scheduled Ancient Monuments, Listed Buildings and Designed Landscapes and Gardens as well as local Historic Environment Records and Sites and Monuments Records: https://pastmap.org.uk
- HLAMap, a map-based assessment of Scotland's historic landscape.
- AirPhotoFinder, a map-based search facility for finding and displaying aerial photograph coverage.

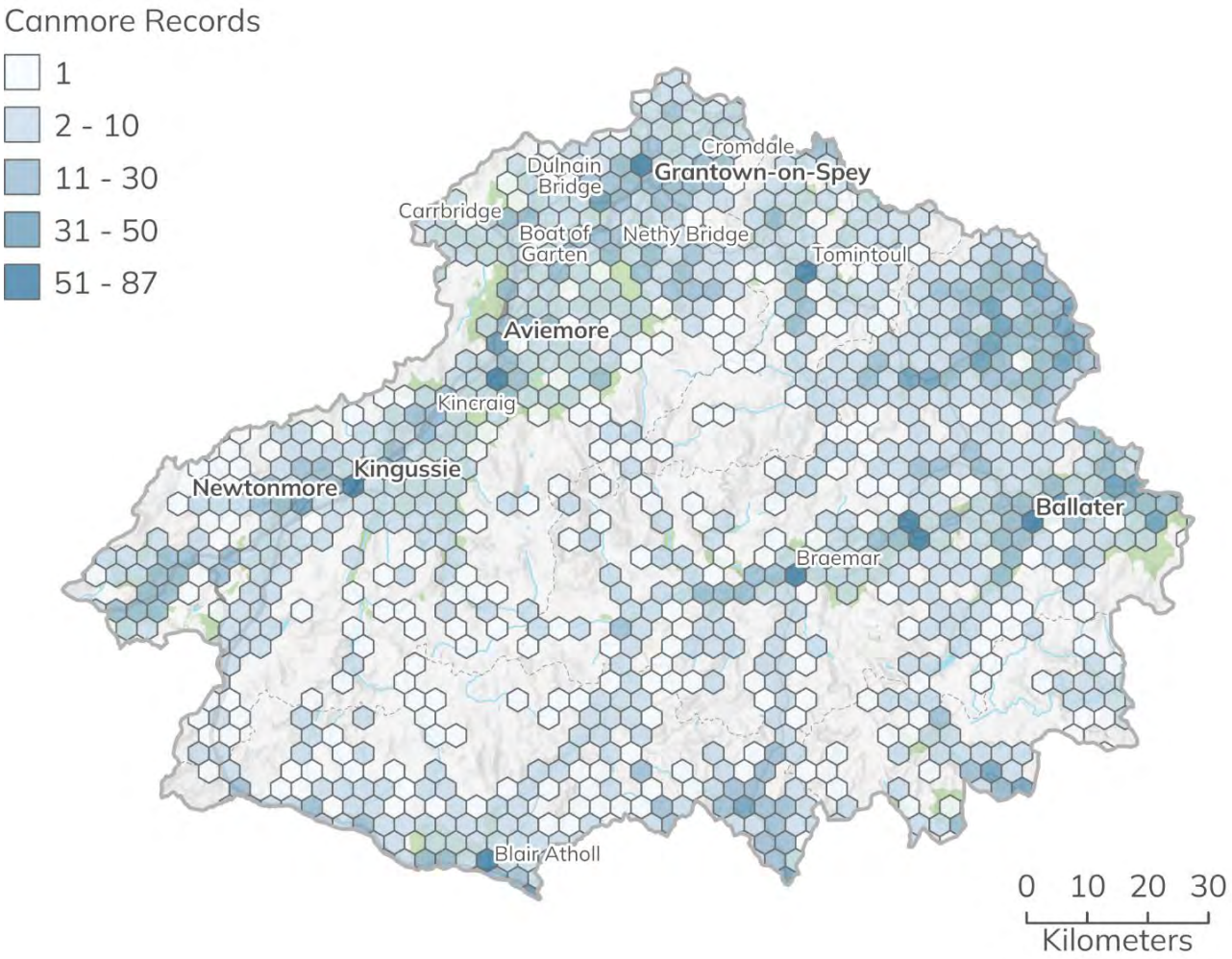


Figure 266 Density of National Record of the Historic Environment records held on the Canmore database. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The National Record of the Historic Environment covers:

- Archaeology – records of excavations, surveys and research into human activity from the Mesolithic era to the present day.
- Architecture – records and images of our monuments and buildings, including their design, construction and evolution.
- Industrial sites – records of industrial buildings and processes and their impact on Scotland's historic environment.
- Maritime – records relating to Scotland's marine historic environment, including shipwrecks.

There are over 6,800 records on the Canmore database within the Cairngorms National Park. Of these, around 2,000 may be characterised as architectural, 5,000 as archaeological and 200 may be categorised as both.

While Canmore data is useful information, it is important to note that Canmore data is not equivalent to Historic Environment Record data. Historic Environment Record data are spatially defined and dynamically curated to be relevant to land use management and historic change over time, while Canmore at its core is a spatial index to the archive holdings of Historic Environment Record in various formats. Therefore, Canmore-derived data should not be used in lieu of Historic Environment Record data for land management or planning purposes due to its fundamental difference from Historic Environment Record data.

Historic Environment Records

Historic Environment Records have been developed to encompass a wide range of information about the historic environment, including all aspects of our surroundings that have been built, formed, or influenced by human activities from earliest to most recent times. The Historic Environment Records covering the National Park are maintained by the following bodies:

- Aberdeenshire Council (covering Aberdeenshire, Angus and Moray local authority areas)
- The Highland Council
- Perth and Kinross Heritage Trust

There are over 15,300 records within the Cairngorms National Park, encompassing both site[91] and event[92] data types (Figure 267).

[91] Known locations and extents of archaeological monuments, features, historic buildings, and findspots, as well as Areas of Archaeological Interest; places known, or likely, to be particularly rich in archaeological features etc.
[92] Archaeological investigations and excavations, historic building surveys, environmental impact assessments etc.

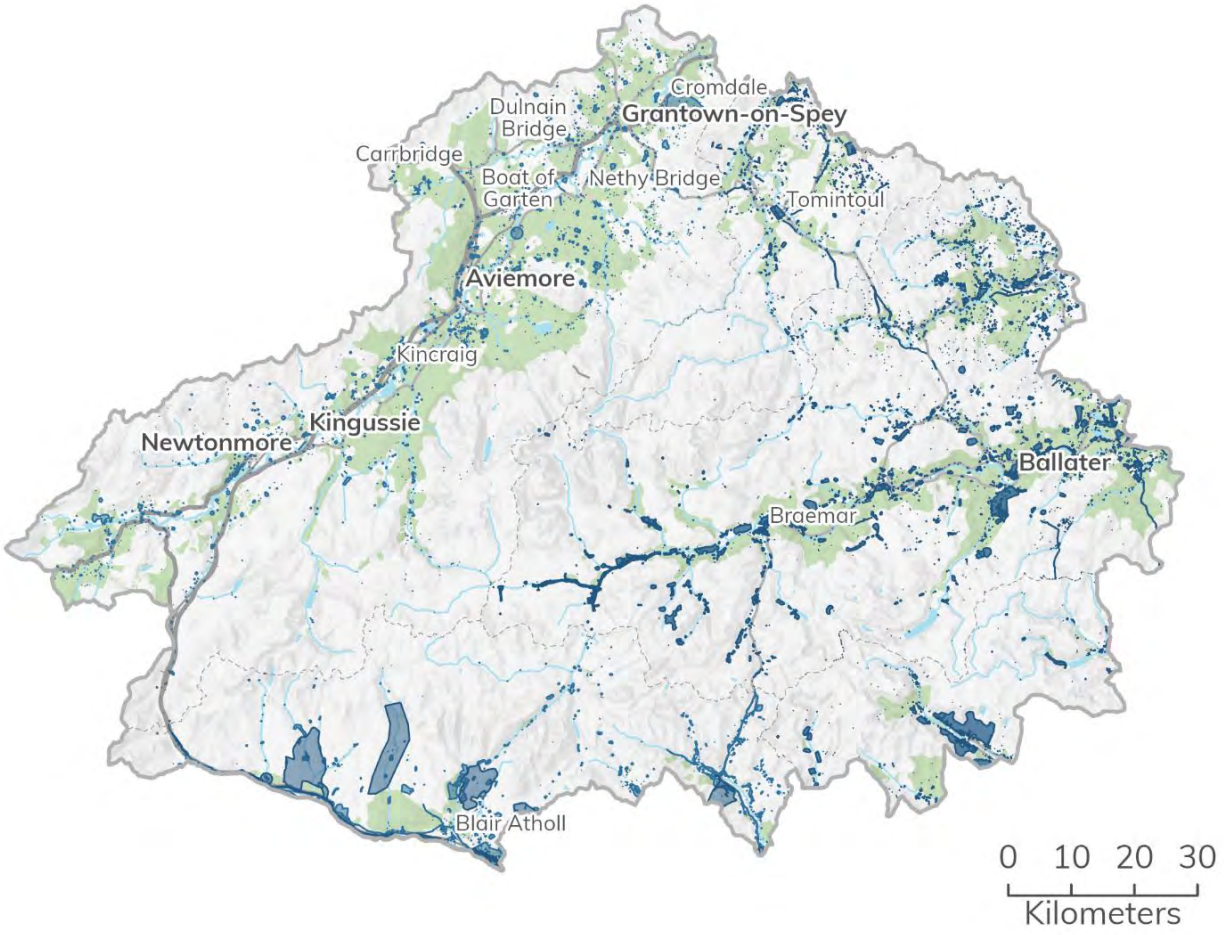


Figure 267 Historic Environment Record sites and events in the Cairngorms National Park as of August 2024. Contains data © Aberdeenshire Council, Highland Council, Perth and Kinross Heritage Trust 2024, Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Historic land-use assessments

Historic Environment Scotland has provided a Scotland-wide view of land-use in modern and past times, called the Historic land use map. The work relevant to the Cairngorms depicts how the landscape has changed over time, enabling an understanding of the elements of the historic environment (Figure 268 and Figure 269).

Within the National Park, as expected layers of historic land-use are focussed along the straths, in particular Strathspey, Deeside, Strathdon and Glenbuchat, and Strath Avon and Glenlivet. Narrow linear mosaics of land-use change also extend up the Angus Glens to the south.

The Assessment reflects that much of the major areas of change along the Strath are associated with more contemporary change from managed and plantation woodland and commercial forestry. Greater historic diversity stems from the planned settlements, designed landscapes, routes and agricultural patters, that are captured in the special landscape qualities and Identity of the straths.

Typically, the extent and range of land uses can be related back to the size (in particular width) of the straths and glens that extend into and across the Cairngorms and the estates that own the land. This creates an intimacy of historic character along these narrow landscapes, that contrast markedly with the extensive open tracts of relatively uniform character of plateau and mountainous uplands. Spanning between these two extremes, typically on the enclosing slopes to the glens and straths are blocks of plantation forestry and woodland, interspersed with irregular pockets of managed woodland.

Most of the smaller narrower dead-end glens (the Angus Glens to the south and tributary glens off the large straths of the rivers Spey, Dee and Don) comprise primarily a mosaic of rectilinear fields and farms on the flatter glen floors and strath, with pockets of rough grazing on the immediate lower slopes. Further pockets of rough grazing extent further up and into the more hidden remote part of the glens.

Where the glens begin to widen out at Glen Garry and the upper heads of Deeside and Donside, this mosaic is interspersed with unenclosed improved pasture and from the 19th century small holdings, adding to the variety and richness of land use.

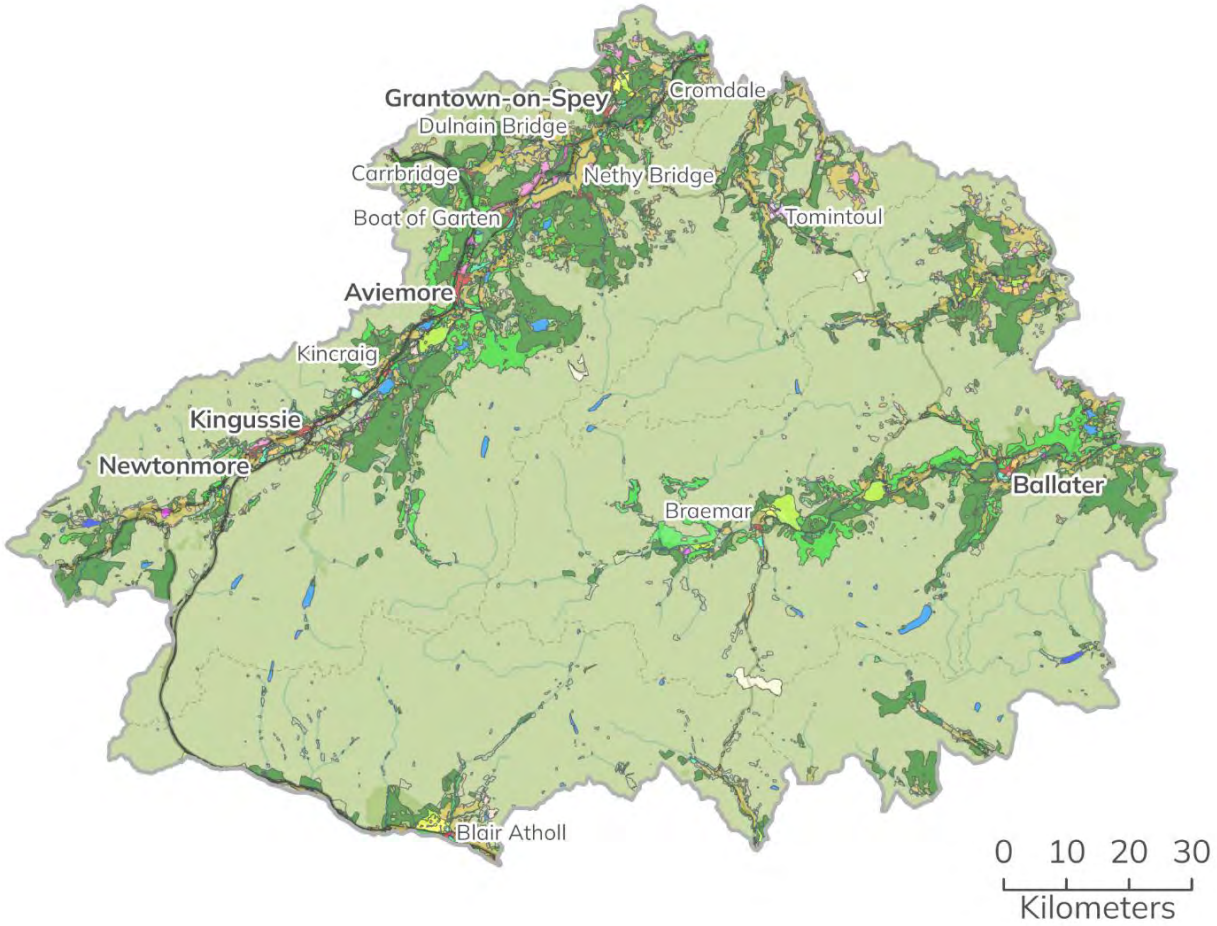


Figure 268 Type of historic land use according to the Historic land-use assessment. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

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Type of historic land use

- Agricultural planned village
- Airfield
- Canal features
- Cemetery
- Commercial peat extraction
- Country park
- Crofting township
- Cultivated former parkland
- Deer lawn
- Designed landscape
- Freshwater area
- Golf course
- Holdings
- Industrial or commercial area
- Industrial planned village
- Industrial-scale farming unit
- Managed woodland
- Medieval town
- Medieval village
- Medieval / post-medieval curvilinear-shaped fields
- Major roads
- Opencast site
- Planned rectilinear fields and farms
- Planned village allotments
- Plantation
- Power generation
- Quarry
- Railway features
- Recreation area
- Rectilinear fields and farms
- Reservoir
- Restored agricultural land
- Rough grazing
- Ski area
- Smallholdings
- Sub-rectangular fields and farms
- Summer huts
- Traditional peat cutting
- Unenclosed improved pasture
- Urban area

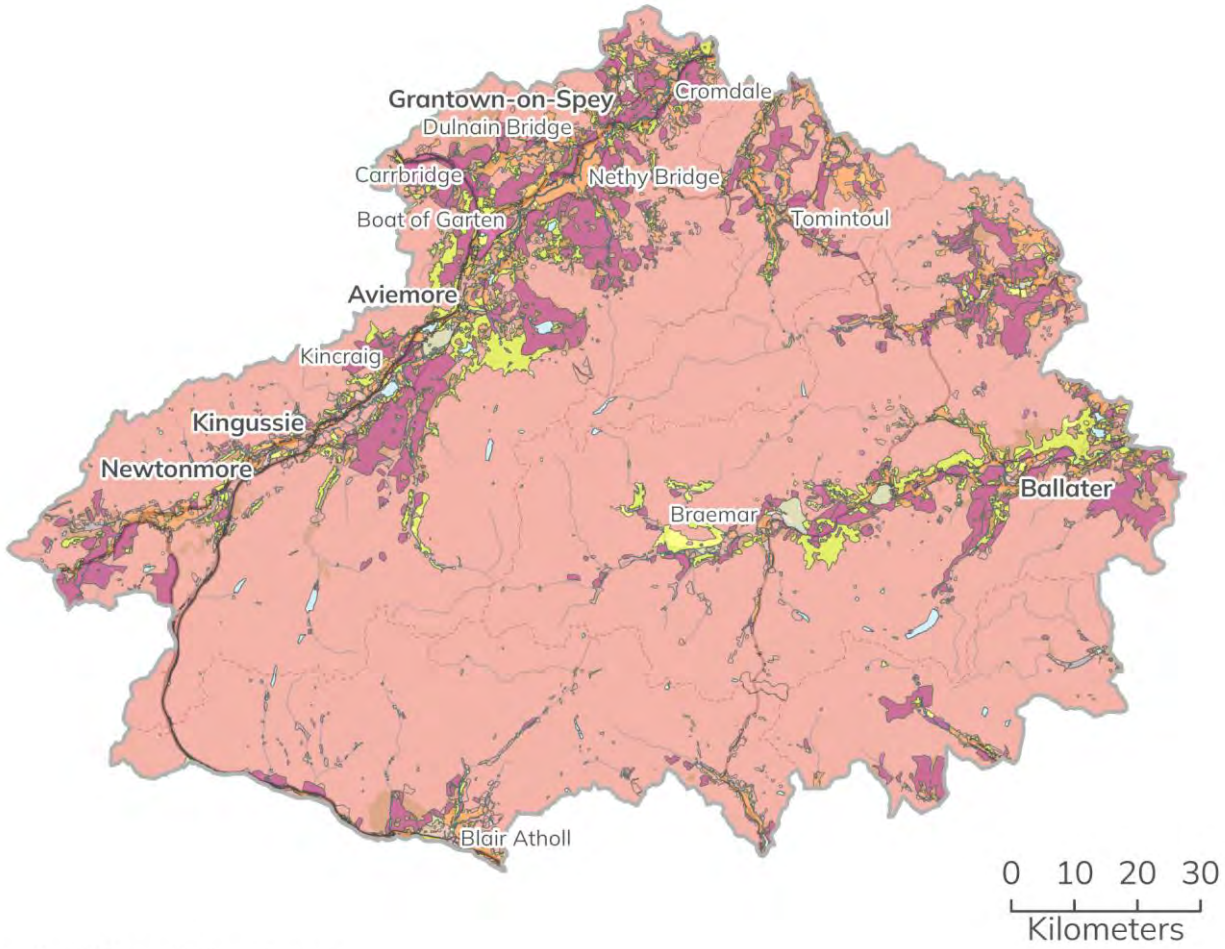


Figure 269 Historic land use period according to the Historic land-use assessment . Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The association of more varied landcover in the larger and wider Strath Spey and Deeside, is interspersed with a wider variety of land use, surrounding the larger settlements. Planned Agricultural Villages established between the late 1700s and early 1800s including Newtonmore and Kingussie in Strath Spey and Ordie and Ballater in Deeside as well as the settlement of Strathdon are surrounded by these various types of pasture and rough grazing as well as having Planned Village Allotments for growing food.

Designed landscapes both larger including those along Deeside and the Doune of Rothiemurchus near Aviemore, and smaller provide important wooded settings to adjacent settlements as well as richness and diversity of landcover and pattern. Whilst not typically associated with the Cairngorms, several small pockets of crofting township land use exist at locations including Newtonmore and Skye of Curr.

Scheduled Monuments

Scheduled Monuments (Figure 270) are nationally important sites, buildings and other features of artificial construction given legal protection under the Ancient Monuments and Archaeological Areas Act 1979. There are 110 scheduled monuments recorded within the National Park covering 6 of the 8 periods recorded. They include chambered burial cairns and associated stone circles of late Neolithic age; examples of Iron Age defensive remain such as the aforementioned Dun-da-lamh hill fort; Pictish remains such as the 8th century Loch Kinnord Cross Slab; military structures such as the 18th century Hanoverian fort of Ruthven; and industrial remains such as the 18th / 19th century ironstone mine-crushing mill at the Well of Lecht.

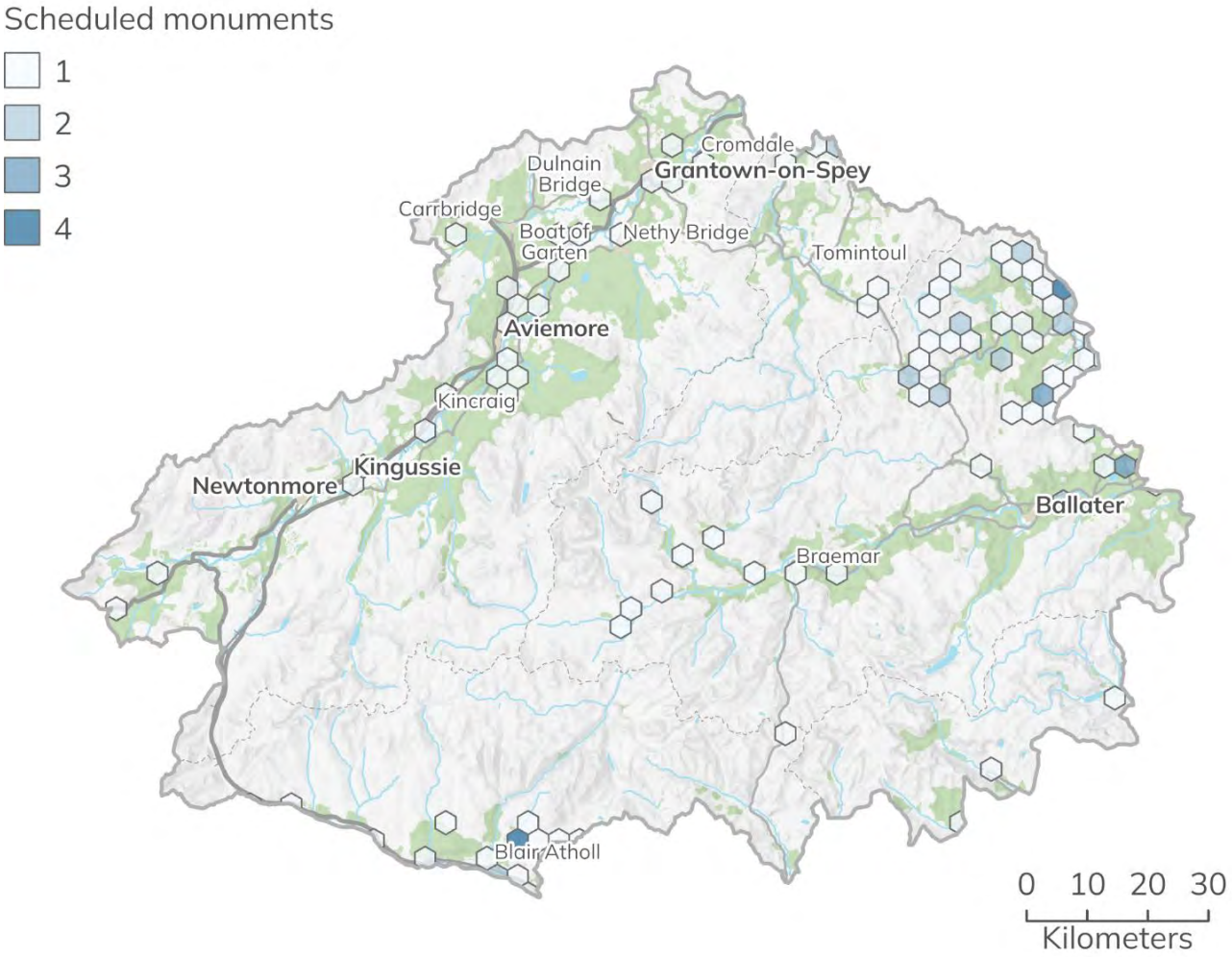


Figure 270 Density of Scheduled Monuments within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Gardens and Designed Landscapes

Designed gardens and landscapes (Figure 271) form a relatively small part of the Cairngorms National Park's landscape, with the majority being country house gardens and policies. Components include woodlands, parklands, meadows, water features, glass houses, pinetums, kitchen gardens, formal gardens, avenues, drives and approaches, architectural features, statuary and vistas.

'The Inventory of Gardens and Designed Landscapes in Scotland', which is maintained by Historic Environment Scotland, lists 10 gardens and designed landscapes within the National Park:

Aberdeenshire

- Balmoral Castle
- Candacraig House
- Glen Tanar
- Invercauld

Highland

- Aultmore
- Castle Grant
- Doune of Rothiemurchus
- Kinara

Perth and Kinross

- Blair Castle
- Falls of Bruar

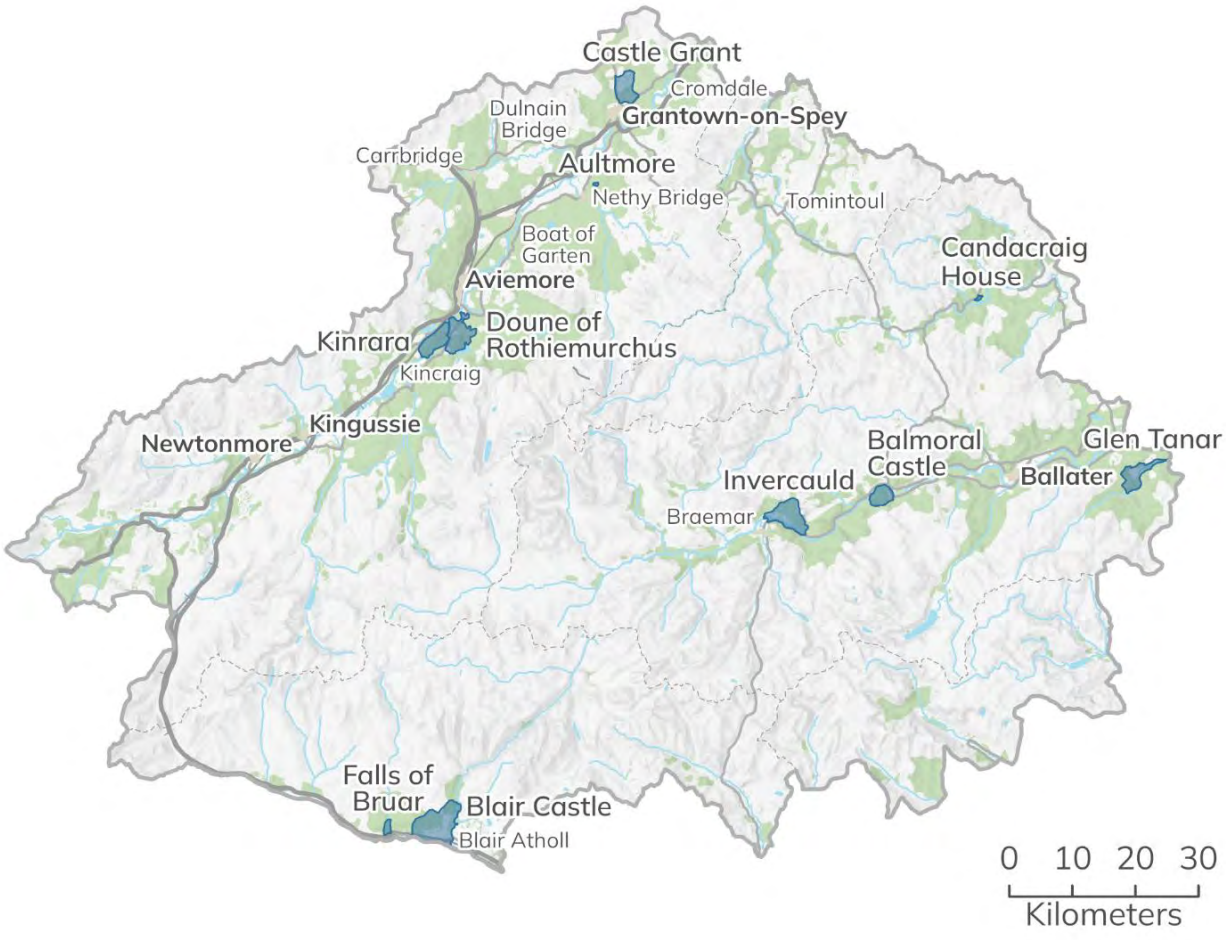


Figure 271 Inventory gardens and designed landscapes within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The inventory is a list of sites that meet the criteria for defining national importance. The effect of proposed development on a garden or designed landscape is a material

consideration in the determination of planning applications (whether the proposed development is within the garden or designed landscape, or outside its boundary but proximal to it).

While the inventory is concerned with historic landscapes of national importance, there are other historic landscapes that are of more local significance. The Cairngorms National Park Historic Designed Landscapes Project (Figure 272) identifies 33 historic and designed landscapes within the National Park and provides information about the history and context of each.

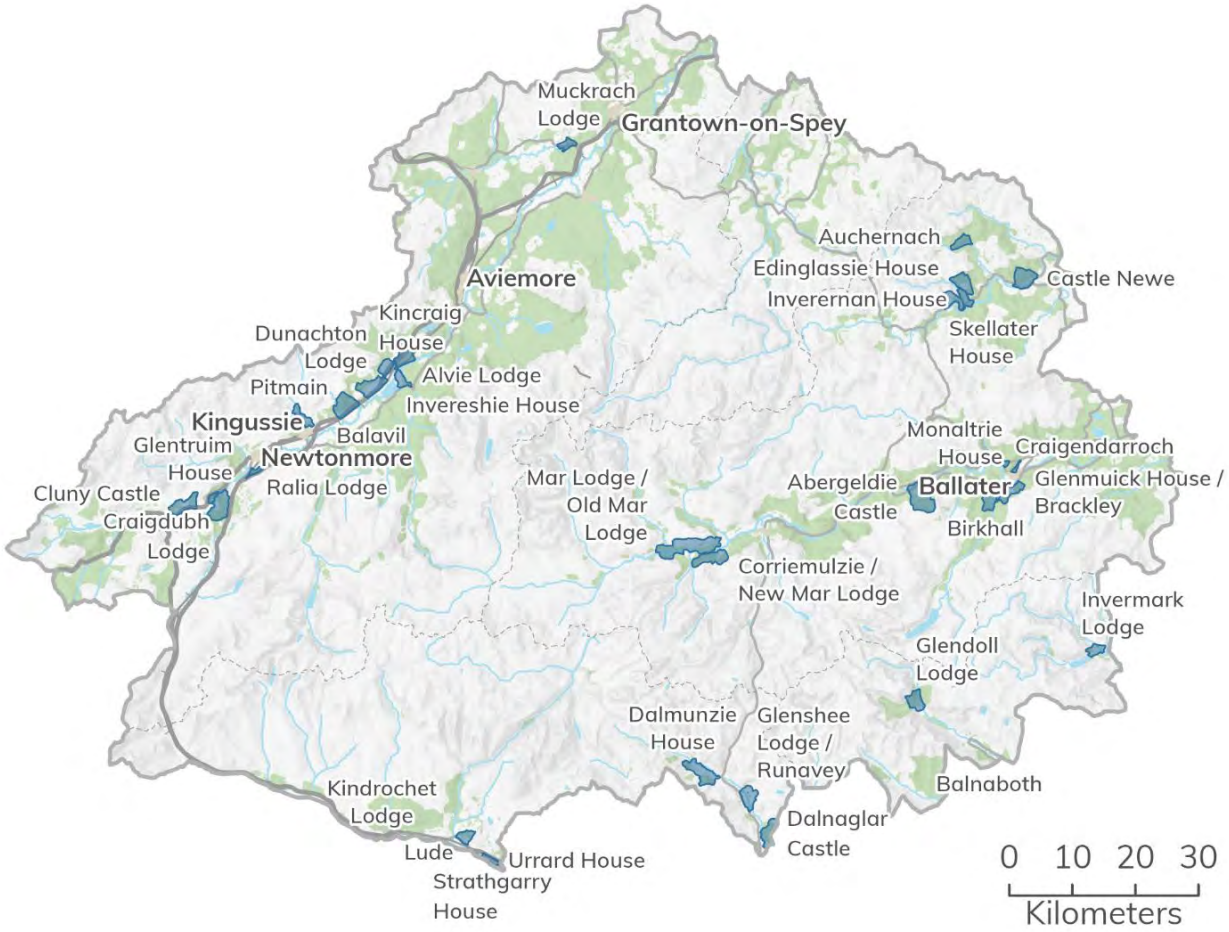


Figure 272 Location of designed Landscape identified through the Cairngorms National Park Historic Designed Landscape Project. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Although not statutory designations and localised in their influence, these designed landscapes can be seen to make a significant contribution to landscape character through their buildings, policy woodlands, parkland, surrounding plantations and fields,

and in turn the rich diversity of the special landscape qualities, especially within the straths and glens. While some are comparatively isolated and stand out in the landscape through their contrast with their mountainous setting, others benefit from their proximity to neighbouring landscapes, as for example at Strathdon and around Kingussie, where they can be seen to have a group value. Although the landscapes can be categorised to some extent by their period, style or other characteristics, each one has a different story to tell, depending on the circumstances of its creation.

Battlefields

Historic battlefields make a distinctive contribution to an area's sense of place and history, both locally and nationally. They are a superb resource for education, helping us understand why significant events in history unfolded as they did and providing a tangible link to some of the key figures of history. The ground on which the battles were fought has enormous potential for attracting tourists, as well as for general recreation, allowing visitors to experience the site of a dramatic historical event for themselves and imagine the past.

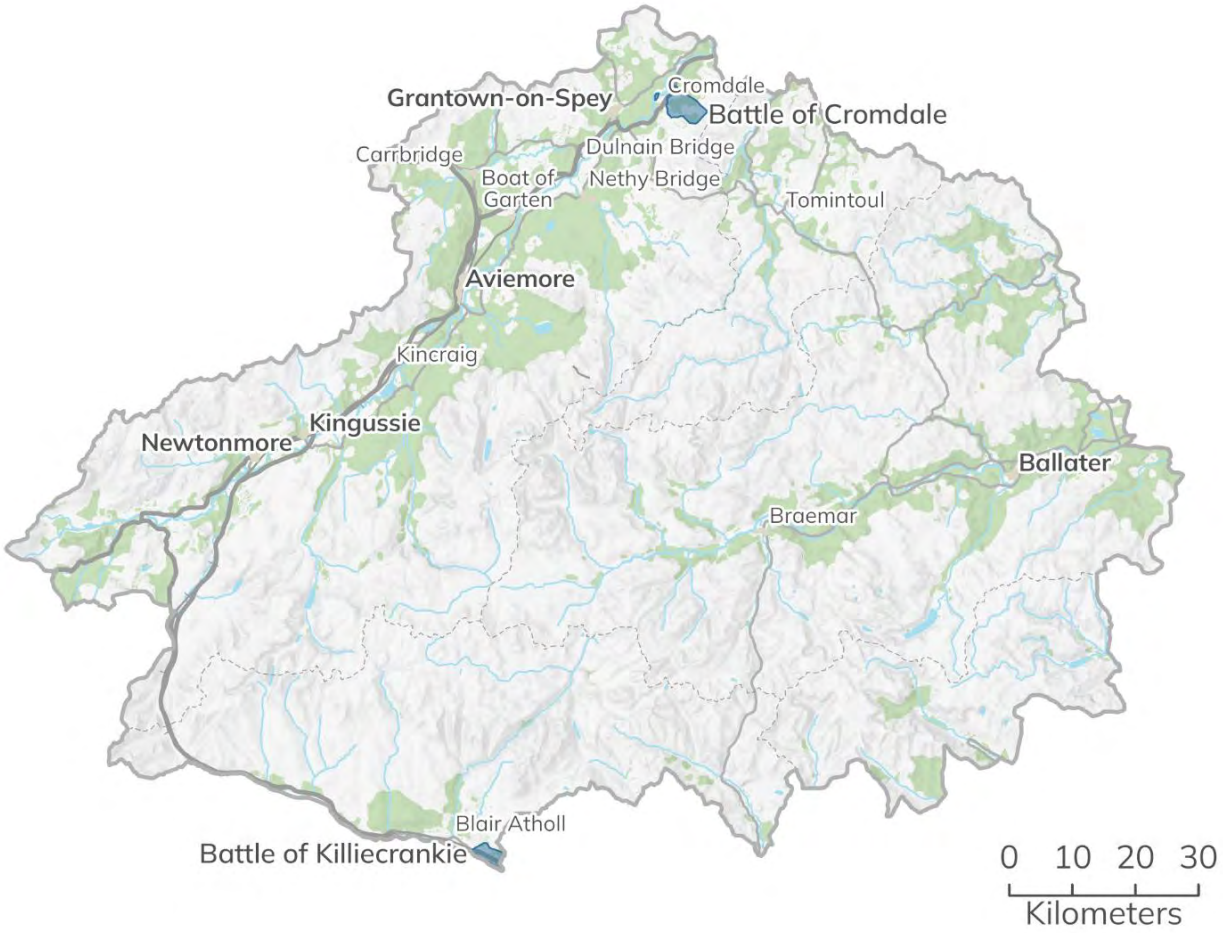


Figure 273 Inventory battlefields within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

There are two battlefields identified on the Inventory of Historic Battlefields within the National Park (Figure 273):

- The site of the battle of Cromdale on 1st May 1690, Highland.
- The site of the battle of Killiecrankie on 27th July 1689 in Perth and Kinross.

It should be noted that not all battlefields within the National Park are listed in the Inventory, with the sites of the Battle of Invernhavon (1370 or 1386) and Battle of Culblean (30th November 1335) being important examples.

The inventory is a list of nationally important battlefields in Scotland that meet the criteria published in Historic Environment Scotland's Designation and Selection Guidance 2019. It provides information on the sites in it to raise awareness of their

significance and assist in their protection and management for the future. It is a major resource for enhancing the understanding, appreciation and enjoyment of battlefields, for promoting education and stimulating further research, and for developing their potential as attractions for visitors. The effect of proposed development on an Inventory Battlefield is a material consideration in the determination of planning applications.

Planned towns and conservation areas

Planned towns are a feature of 18th and 19th century Scotland and the National Park contains 5 of importance: Ballater, Blair Atholl, Tomintoul, Grantown-on-Spey and Kingussie.

Town plans were drawn up and often specified the type of house that the landowner wished to encourage, which create a distinctive architectural style and character to these settlements. Comparatively spacious permanent houses built of local stone with slated roofs, glazed windows and usually comprising a single story with attic. Of particular note the dwellings were all placed within a rational and carefully thought-out street plan, with attention given to outdoor market areas and access. This formal planned structure is in direct contrast to the ad hoc, dark single-storey, single-roof dwellings made from turf or rubble with a thatched roof, that would have been more typical in villages at this time.

Tomintoul, Grantown-on-Spey and Kingussie in particular, were planned as market towns, with a purpose designed wider streetscape, for the surplus food that resulted from the Increasing productive on the surrounding farms.

Parts of Ballater (Figure 276), Grantown on Spey (Figure 275) and Blair Atholl (Figure 279) have been designated as Conservation Areas (Figure 274), which are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. The National Park also has a further two Conservation Areas within its boundary at Braemar (Figure 277) and Inverey (Figure 278). Only Grantown-on-Spey and Blair Atholl have conservation area appraisals and Grantown on Spey conservation area also has a management plan.

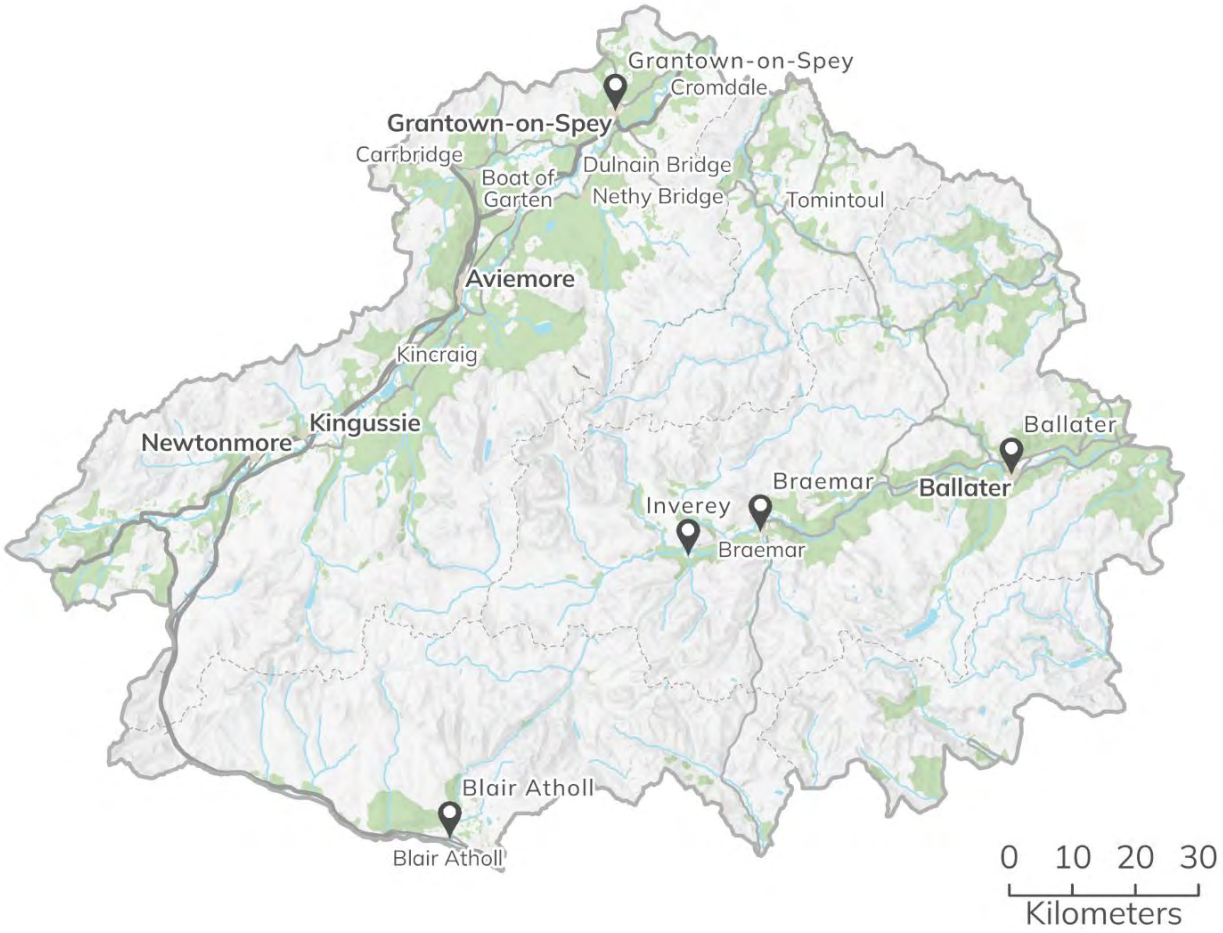


Figure 274 Location of Conservation Areas within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.



Figure 275 Grantown-on-Spey Conservation Area.

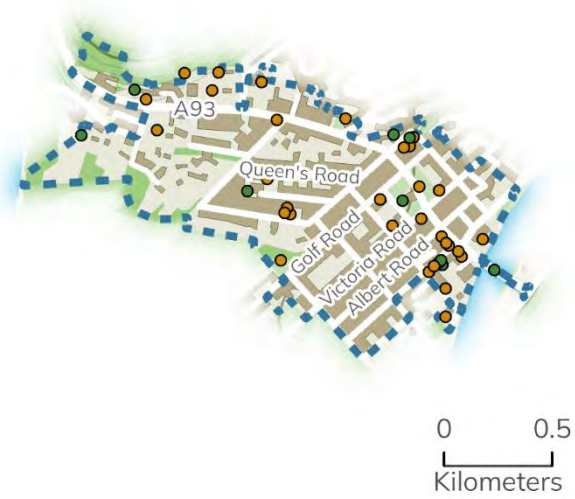


Figure 276 Ballater Conservation Area.

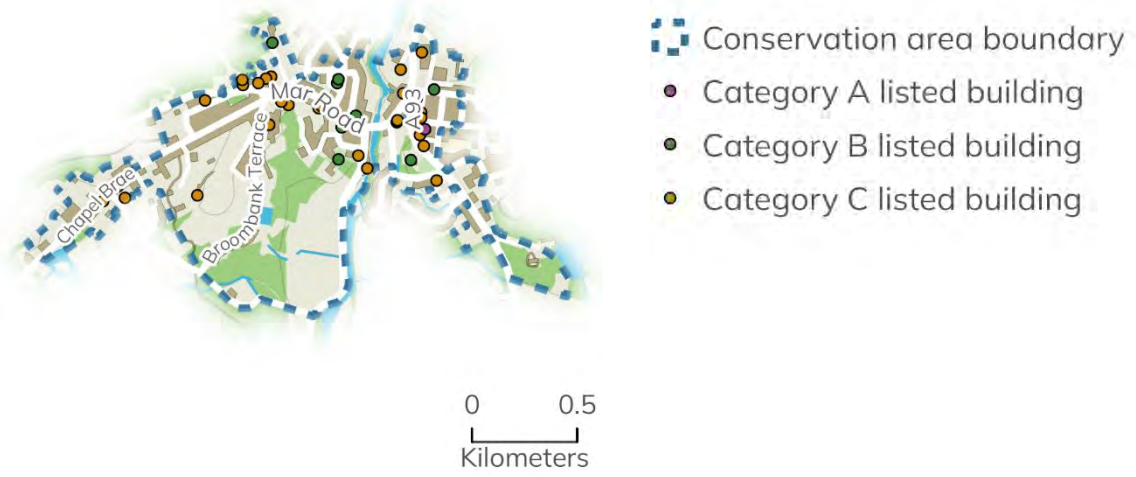


Figure 277 Braemar Conservation Area.

Maps contain data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

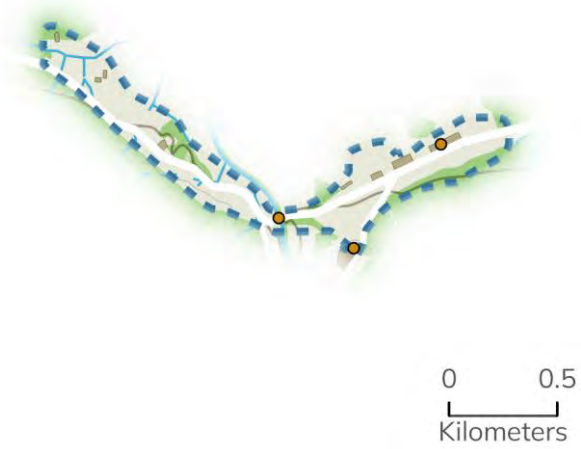


Figure 278 Inverey Conservation Area.



Figure 279 Blair Atholl Conservation Area.

Maps contain data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Listed buildings

Listing buildings and structures recognises their historic importance and this in turn helps ensure that their potential is not only for the study of history but for wider issues such as sustainability, community identity, local distinctiveness and social and economic regeneration.

Listed buildings can include structures from great country houses to modest croft houses, tenements to toll houses, and post boxes to primary schools. They can date from the early medieval period up until the 1980s. They need not necessarily be 'buildings' but could be bridges, railings, mileposts or statues. Whether urban, rural, industrial, public or residential they all contribute to their particular area and to Scotland as a whole. They are integral to Scottish culture and provide a unique record of our economic and social history.

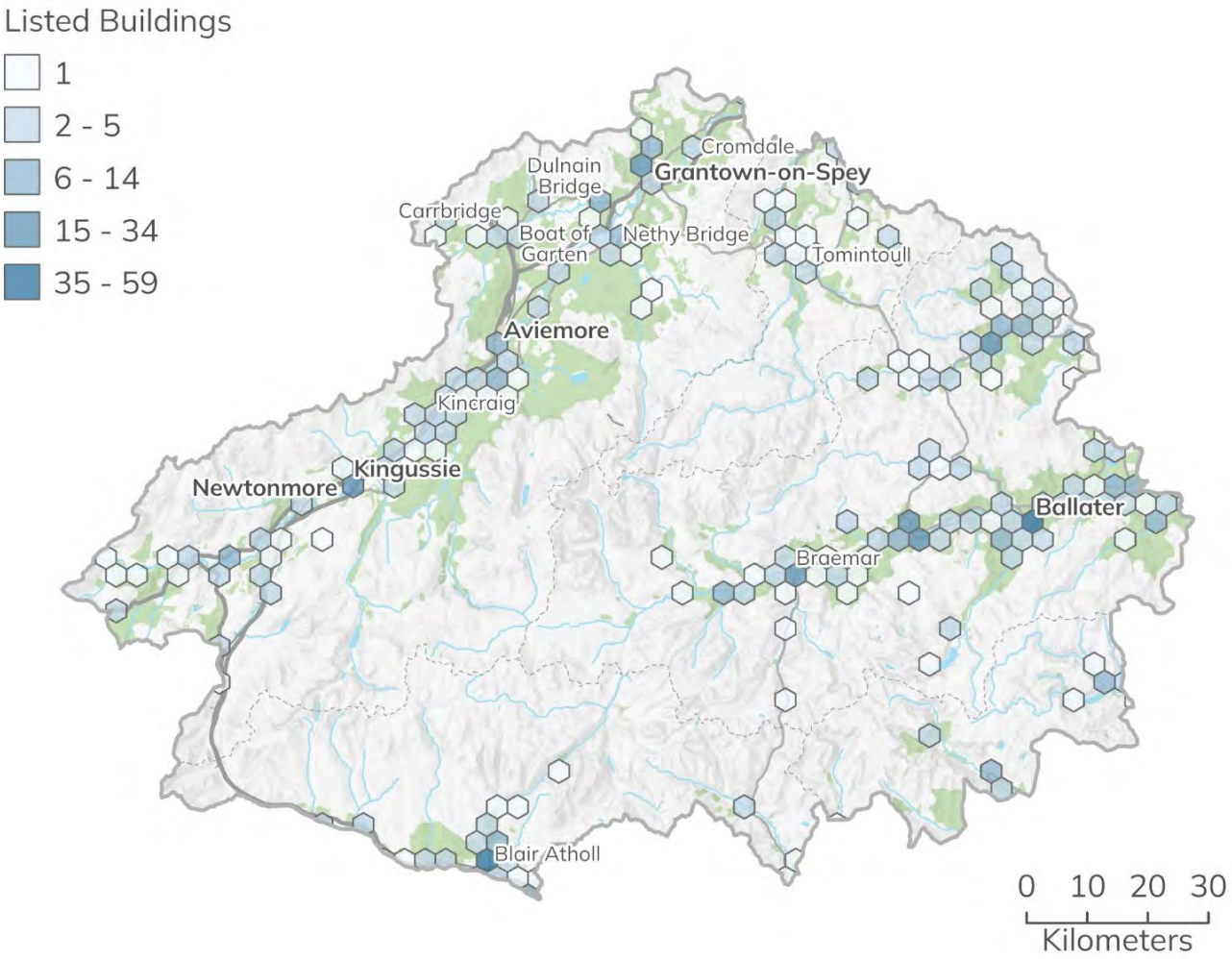


Figure 280 Concentration of Listed Buildings within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The National Park contains 595 buildings or structures of special historic or architectural interest, which are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (Figure 280); 40 of these are within Category A (Figure 281), 258 in Category B and 297 in Category C. The size of the National Park means that it is home to several distinctive building traditions, which were frequently determined by local conditions of geology and land-use. While it is beyond the remit of this document to describe every local characteristic throughout the area, some overarching trends are apparent.

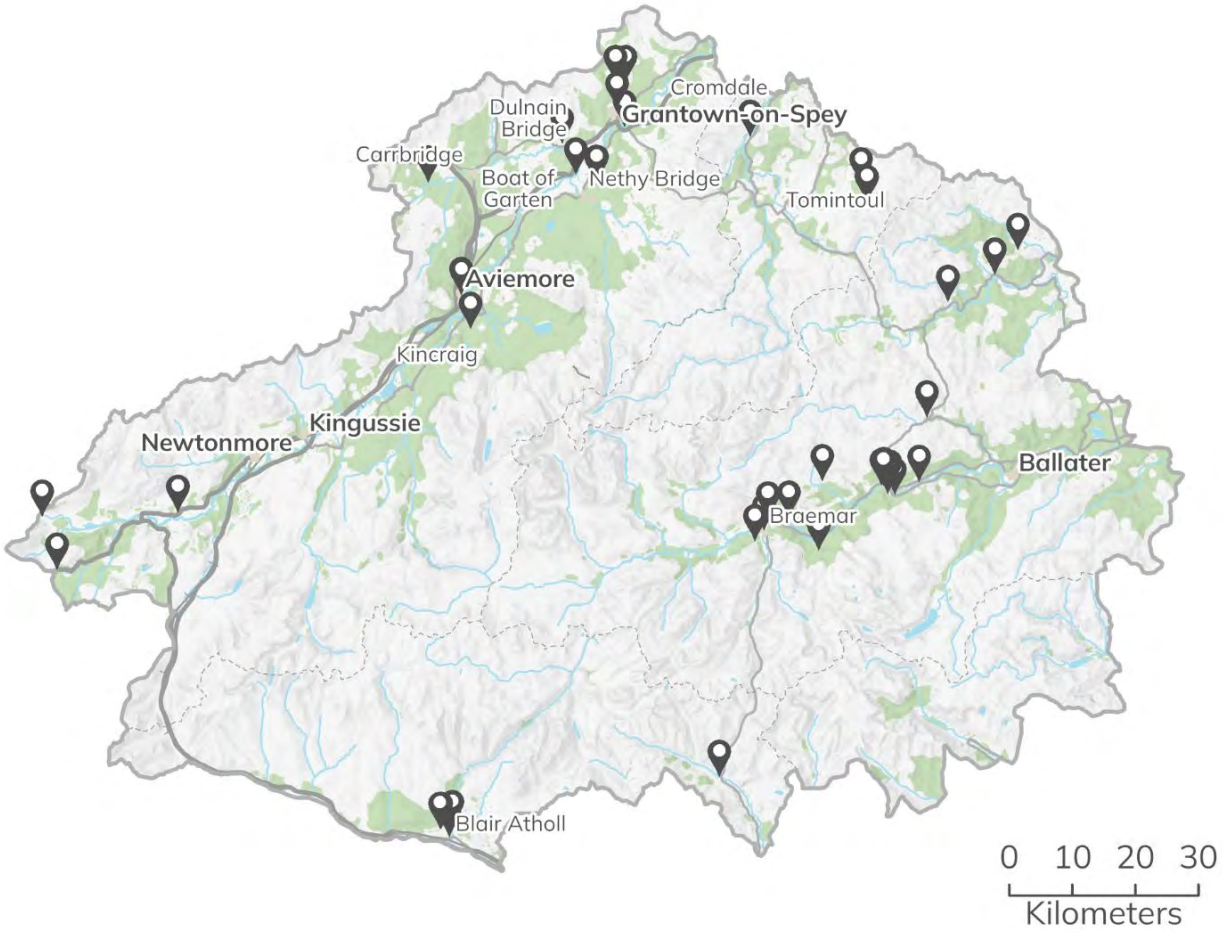


Figure 281 Location of Category A Listed Buildings within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

A large proportion of structures relate to the agricultural revolution that took place during the Improvement of the 18th and 19th centuries. The period saw the establishment of the aforementioned planned towns, the creation of new more compact farmsteads, the enlargement or replacement of churches and the enlargement or replacement of old tower houses with new mansions. Such was the scale of change, that with the exception of a few of the major houses such as Muckrach, Braemar, Corgaff and Abergeldie Castles, few pre-Improvement buildings now survive.

Classical country houses on the Anglo-Dutch model of plain piend roofed boxes are rare within the National Park, although some notable examples exist in the 1753 north block at Castle Grant near Grantown on Spey and the 1790-96 Balavil House near Kingussie.

Until the late 19th century buildings were mostly constructed of locally available materials, such as earth, granite and quartz. Wood was also widely available and many structures, such as Mar Lodge and Ballater Station, were faced in timber. This has however led to issues over their preservation as both have been severely damaged by fires, the former in 1991 and the latter in 2015. Throughout the area, tree-trunks have been used as picturesque supports for porches, overhanging roofs, verandas and balconies. Following the construction of the prefabricated ballroom at Balmoral, corrugated iron also gained in popularity.

The purchase of the Balmoral Estate by Queen Victoria and Prince Albert in 1852, and the subsequent arrival of the railway, had a major impact on the area, particularly in the settlements along the River Dee. Balmoral Castle was rebuilt in the Baronial vernacular in 1856 and its influence spread throughout the area, with neighbouring estates such as Invercauld, where the old house was remodelled, imitating its style. Buildings in Braemar and Ballater also adopted Baronial characteristics, together with hotels, shooting lodges, entrance lodges, banks and police stations.

There is a pressure to adapt certain historic and listed buildings and structures to support their continued use. These include:

- Network Rail are seeking to make their train stations accessible, which would involve the removal of metal lattice footbridges at two listed stations in the National Park, Aviemore (Category A) and Kingussie (Category B).
- The estate review by the Church of Scotland will likely lead to a number of buildings, not all of which will be listed, being disposed of as set out in the emerging presbytery plans. This provides challenges and opportunities for the communities within which they sit.
- The significant number of cases for the conversion of old buildings, not all of which will be listed, to holiday lets, reflecting the significant role of tourism in the National Park's economy.
- The pressures to significantly extend existing old buildings particularly in rural areas in the National Park.
- The need to upgrade and / or retrofit listed buildings with the aim of improving energy efficiency and climate resilience.
- Proposals for the demolition of both listed and unlisted buildings in conservation areas which are of interest or contribute positively to the character of the conservation area. This is contrary to the policy direction from National Planning

Framework 4 on repair and reuse taking priority with demolition seen as a last option.

While these pressures provide challenges, it is recognised that the maintenance, reuse and adaptation of listed buildings, and more broadly the historic environment as whole, can make an important contribution to sustainable development, the reduction and prevention of waste and the reduction of carbon in the transition to net zero.

Properties in care

This dataset presents the collection of monuments within the National Park, brought into care for their long-term preservation and public benefit. The portfolio of monument, which define significant aspects of Scotland's history are managed by Historic Environment Scotland, on behalf of the Scottish Ministers. Within the National Park there are 5 such properties in care (Figure 282), all of which form prominent foci and impart a strong sense of place in the local landscape:

- Glenbuchat Castle, Strathdon
- Corgarff Castle, Upper Strathdon
- Ruthven Barracks, Strathspey
- Old Brig O' Dee, Deeside
- Knock Castle, Ballater, Deeside

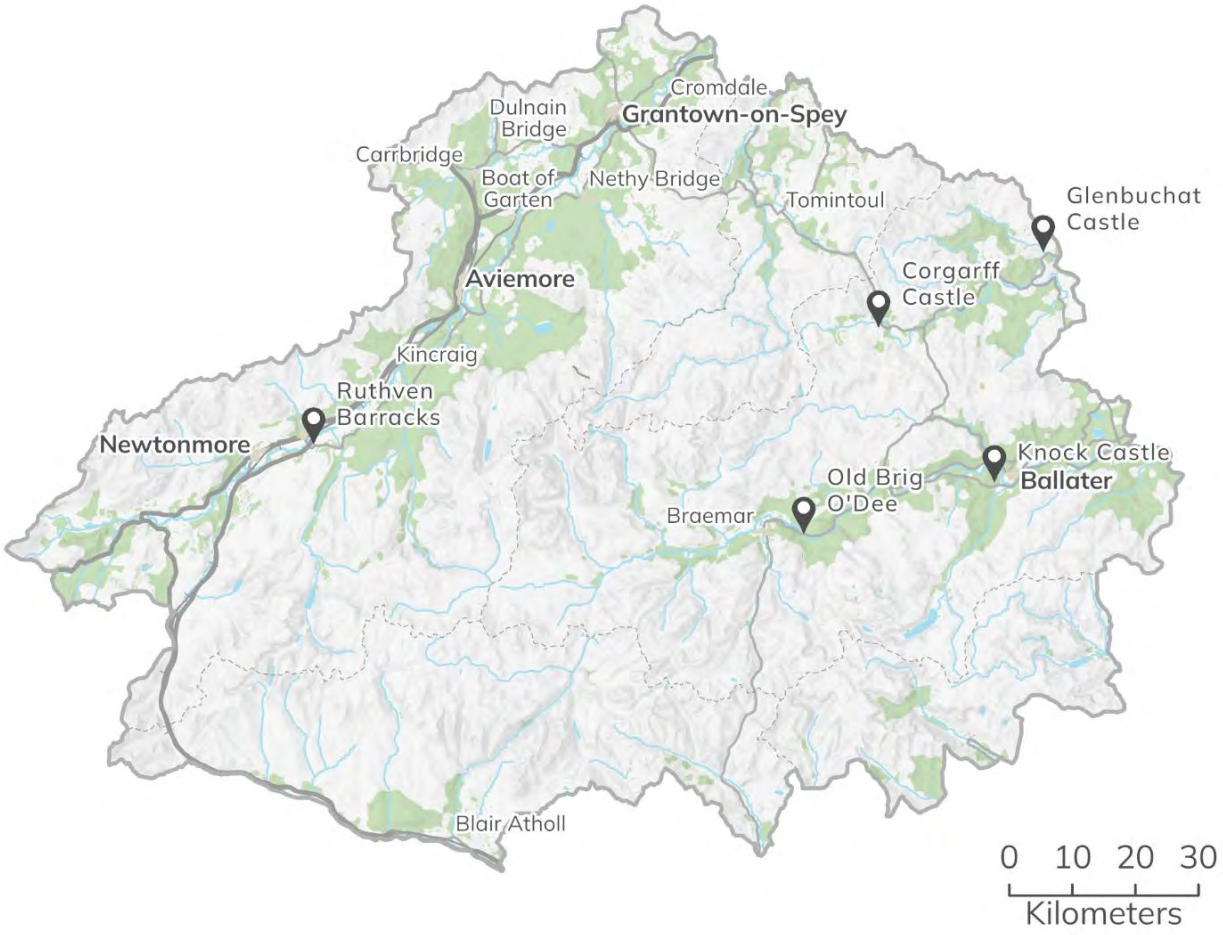


Figure 282 Properties in Care within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Buildings at risk

The Buildings at Risk Register[93] for Scotland highlights properties of architectural or historic merit throughout the country that are at risk or under threat. A building at risk is usually a listed or unlisted building within a conservation area, which meets one or several of the following criteria:

- Vacant with no identified new use,
- Suffering from neglect and/or poor maintenance,
- Suffering from structural problems,
- Fire damaged,

[93] It should be noted that as of September 2024, Historic Environment Scotland has taken the decision to pause the Buildings at Risk Register in order to consider long-term options for its future.

- Unsecured,
- Open to the elements, and
- Threatened with demolition.

To be at risk, a building does not necessarily need to be in poor condition, it may simply be standing empty with no clear future use. Many buildings at risk are in this latter category. From the latest available data, 27 buildings were recorded as being at risk in the Cairngorms National Park (Figure 283, Figure 284 and Figure 285). Of these buildings, 15 are located within Aberdeenshire and the remaining 12 in Highland. The Old School, School Lane, Ballater has been removed from the list as construction is complete on its renovation.

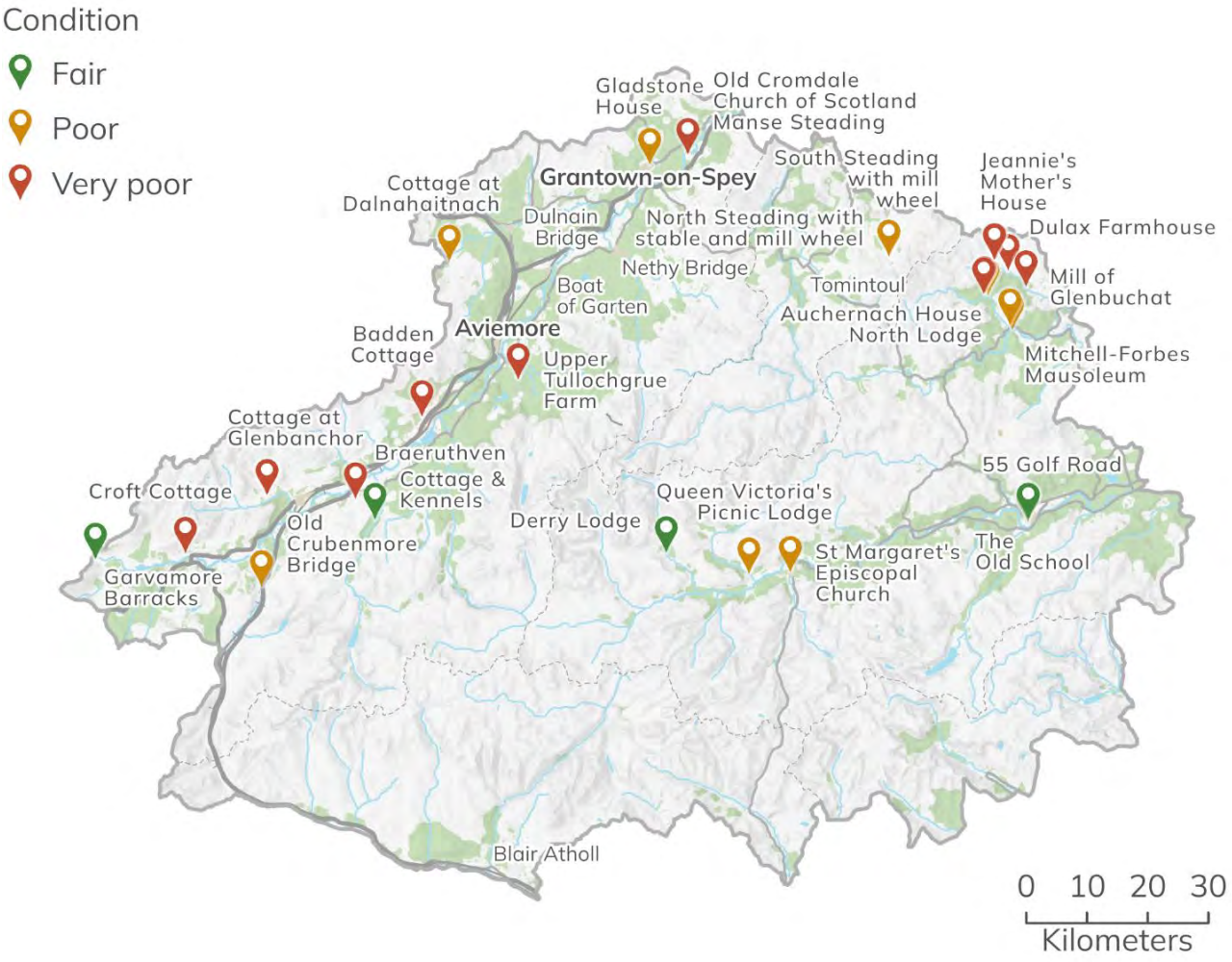


Figure 283 Buildings at Risk within the Cairngorms National Park. Contains data © Historic Environment Scotland 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Two of the buildings on the register are in critical condition, which is the most serious category awarded by the register (Figure 285). Critical status is awarded to buildings that are either threatened with demolition and a real or perceived conservation deficit now makes rescue unlikely or are suffering from an acute structural problem that could lead to full or partial collapse. The status is also awarded to A-listed properties in poor or very poor condition or B-listed properties in very poor condition. However, it should be noted that the Buildings at Risk Register does not include all buildings at risk in the National Park, just those that have been reported to or identified by Historic Environment Scotland. Some buildings that may be of historical merit and would otherwise fall under the register's criteria, but have not been reported or recorded, are not included.

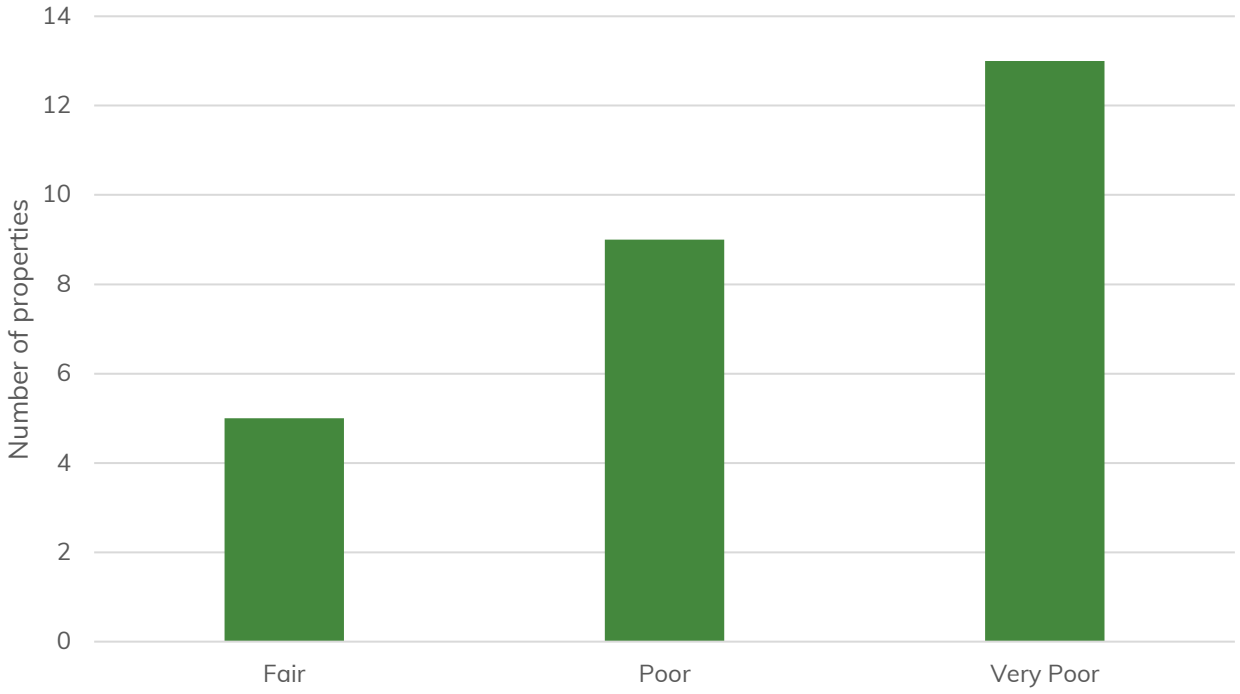


Figure 284 Condition of Buildings at Risk in the Cairngorms National Park in 2023 (Royal Commission on the Ancient and Historical Monuments of Scotland, 2023).

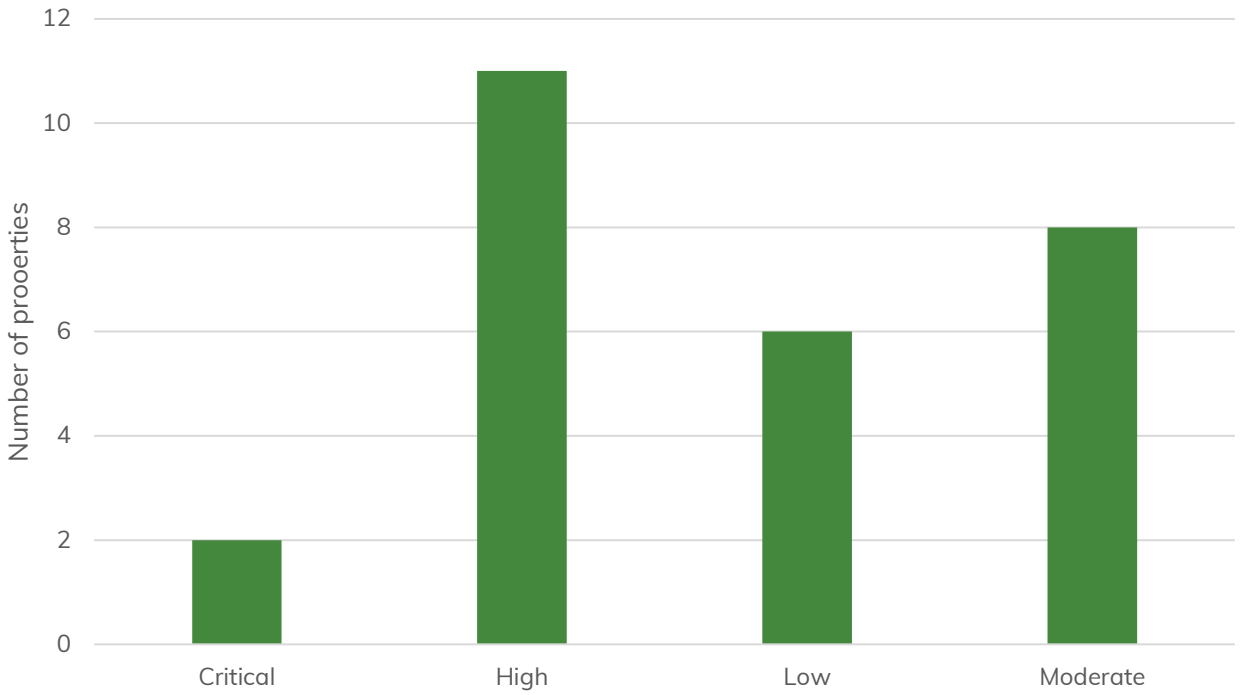


Figure 285 Category of risk of Buildings at Risk in the Cairngorms National Park in 2023 (Royal Commission on the Ancient and Historical Monuments of Scotland, 2023).

Linguistic heritage

Cultural heritage does not simply manifest itself in the physical remains of past actions. Language, be it spoken, or as an elemental feature of the cultural landscape, is fundamental to the maintenance and reproduction of this aspect of cultural heritage and distinctiveness. Language is a driving force in shaping the way we see the world and the way the world sees us.

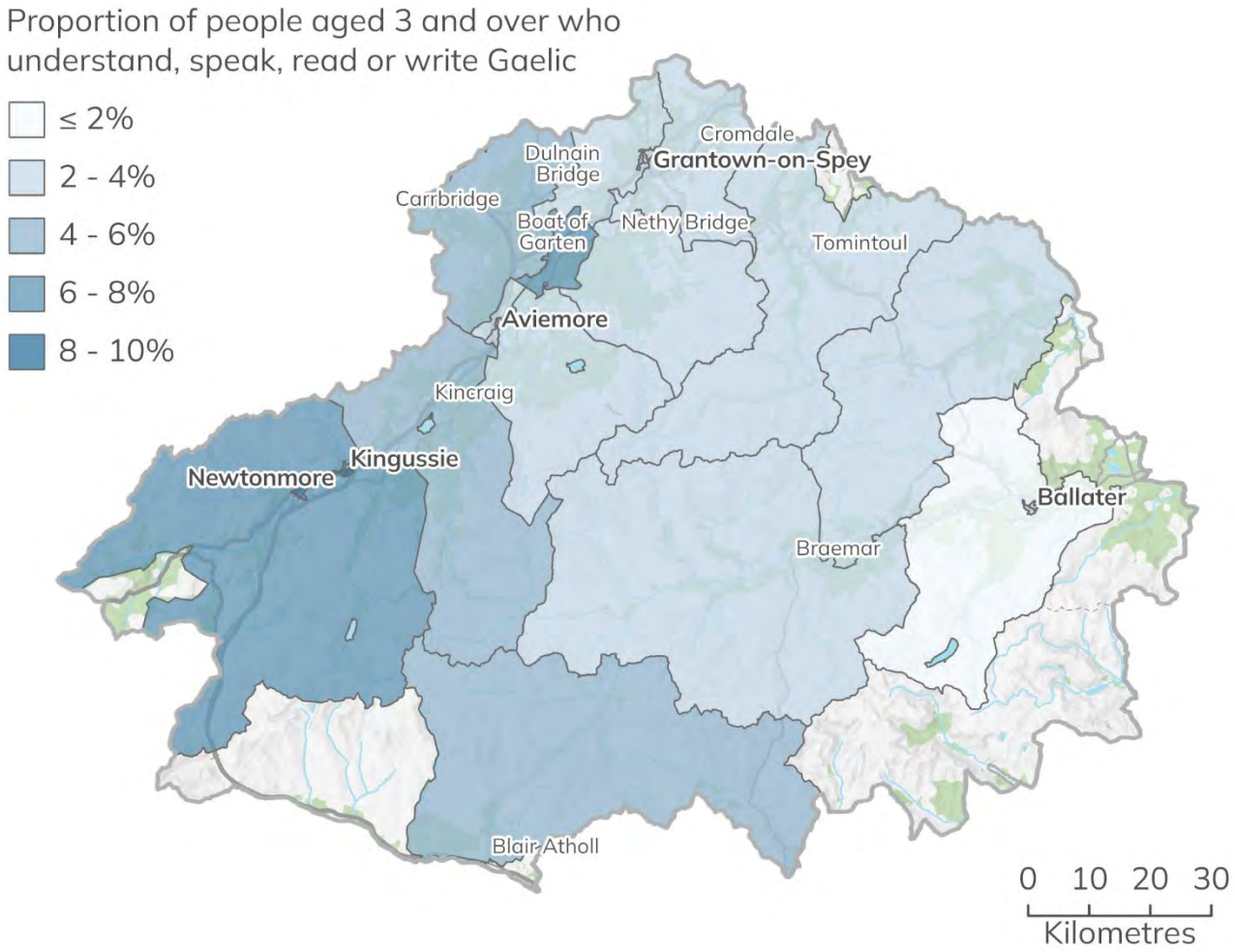


Figure 286 Proportion of people aged 3 and over who understand, speak, read or write Gaelic in Cairngorms National Park in 2022 (Scotland Census 2022). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Scotland's linguistic history is complex with the current situation resulting from hundreds of years of population movement and cultural interaction. Located near the centre of the country and owing to the restrictive nature of its mountainous terrain, the Cairngorms National Park occupies a position where many of these linguistic and cultural differences intersect. Within the National Park two minority languages, both of which have undergone significant language shift towards English, are spoken, namely Scottish Gaelic (Figure 286) and Scots (which includes the prevalence of Doric in the northeast) (Figure 289).

Place-Names of the Cairngorms National Park provides a useful overview and further evidence of the origins of place names and linguistic heritage within the National Park.

- https://cairngorms.co.uk/guide-to-place-names-of-the-cairngorms-published/

According to the 2022 Census around 394 people accounting for approximately 2.3% of people living in the National Park speak Gaelic (Figure 287). This is less people than was recorded in 2011 (404 people, 2.3%), however the overall population recorded in the 2022 Census was lower, 17,182 people in 2022 compared to 18,499 in 2011. Despite the low numbers of speakers, it is a visible and inseparable part of the area's identity, as it continues to dominate the names of places, both built and natural. The Park Authority seeks to support the Gaelic language through its Gaelic Language Plan. As an example of programmes aimed at developing Gaelic language education at Bun-Sgoil Bhaile Ùr an t-Slèibh (Netwonmore Primary School) 40 pupils have enrolled in Gaelic Medium Education in 2022.

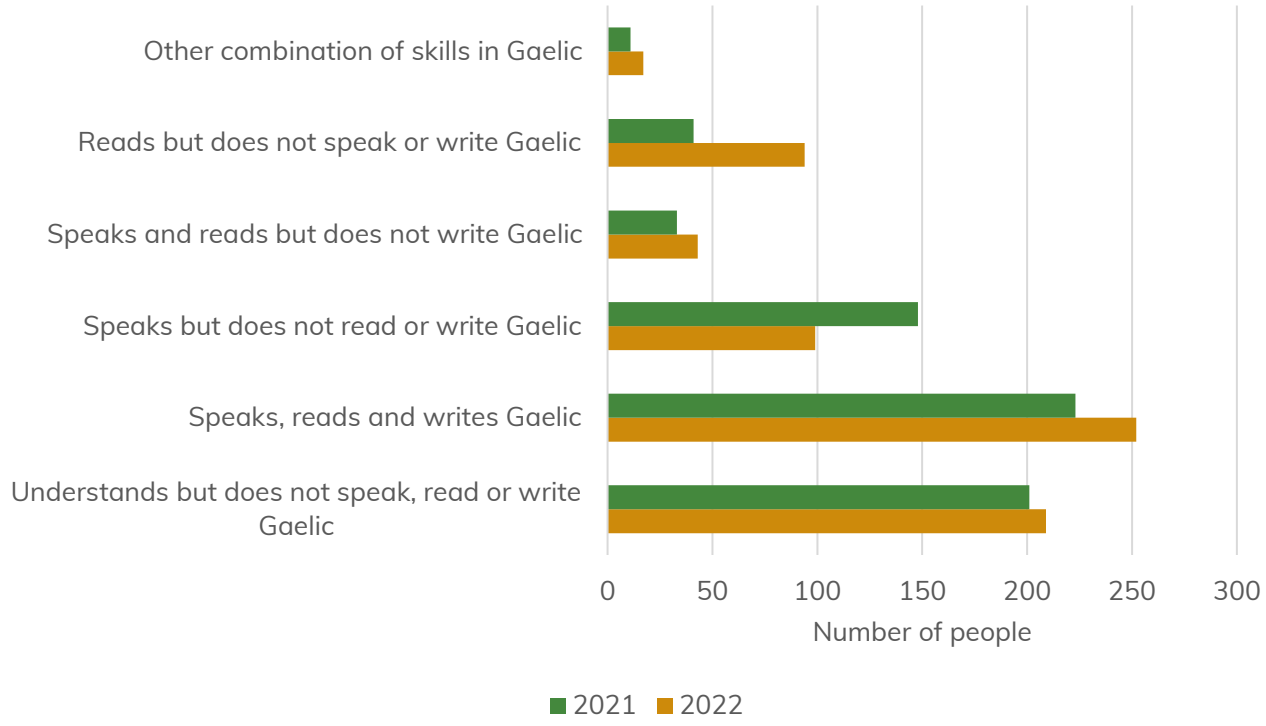


Figure 287 Gaelic language skills for all people aged three and above within the Cairngorms National Park in 2011 and 2022 (Census tables; QS211SC: 2011 and UV208a: 2022).

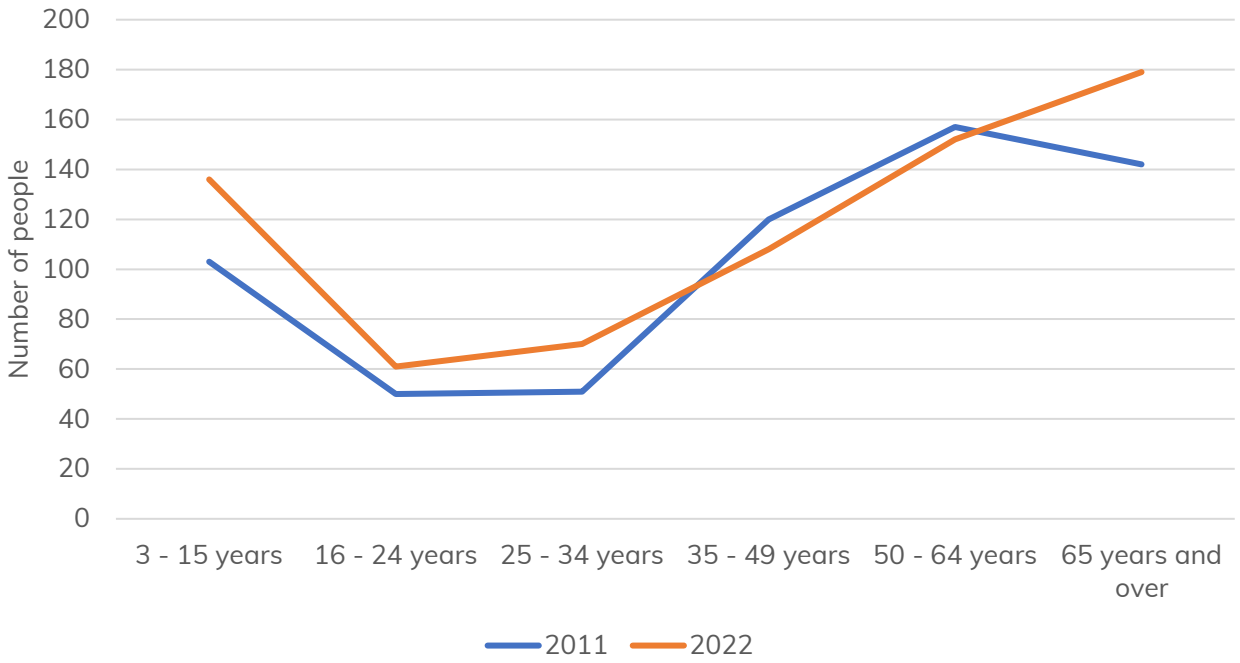


Figure 288 Age profile of the Cairngorms National Park population aged 3 and above who can either understand, speak, read or write Gaelic 2011 and 2022 (Census tables LC2120SCdz: 2011, UV208b)[94]

Figure 288 shows that in 2022 more young people in the Cairngorms National Park under the ages of 34 years could either understand, speak, write or read Gaelic, a positive result in terms of increasing the use of the language. This is more significant given the total number of people over 3 years old recorded in the National Park fell from 18,499 in 2011 to 17,182 in 2022. Overall, the total number of people in the National Park able to either understand, speak, write or read Gaelic increased from 623 (3.4%) in 2011 to 706 (4.1%) in 2022 (Census tables LC2120SCdz: 2011, UV208b)[95] .

There are a number of Gaelic companies and voluntary groups operating in or near to the National Park offering services in Gaelic language and culture (a number of which have been supported and / or part-funded by the Park Authority). Gaelic voluntary groups in the National Park include Sinne (Strathspey and Badenoch Gaelic Group), which provides learning and sharing events for Gaelic learners and fluent speakers and

[94] Note that in 2011 data was not provided at a National Park geography so data zone data has been used as a proxy for the National Park geography – see statistical paper here for more detail on data zones used to represent National Park geography data: https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf
[95] Note that in 2011 data was not provided at a National Park geography so data zone data has been used as a proxy for the National Park geography – see statistical paper here for more detail on data zones used to represent National Park geography data: https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

Gàidhlig anns a' Phàirc, a Gaelic action group. A number of national groups are also active in the National Park, including Fèisean nan Gàidheal, Spòrs Gàidhlig and An Comunn Gàidhealach.

Scots, which takes the form of its Northern / North-eastern dialect, Doric, is also spoken throughout the National Park, but is stronger in the east where the influence of the lowlands is greatest. According to the 2022 Census around 4,148 people accounting for approximately 24.1% of people living in the National Park speak Scots (Figure 290). This is less people than was recorded in 2011 when 5,413 (29.3%) people were recorded as speaking Scots in the National Park.

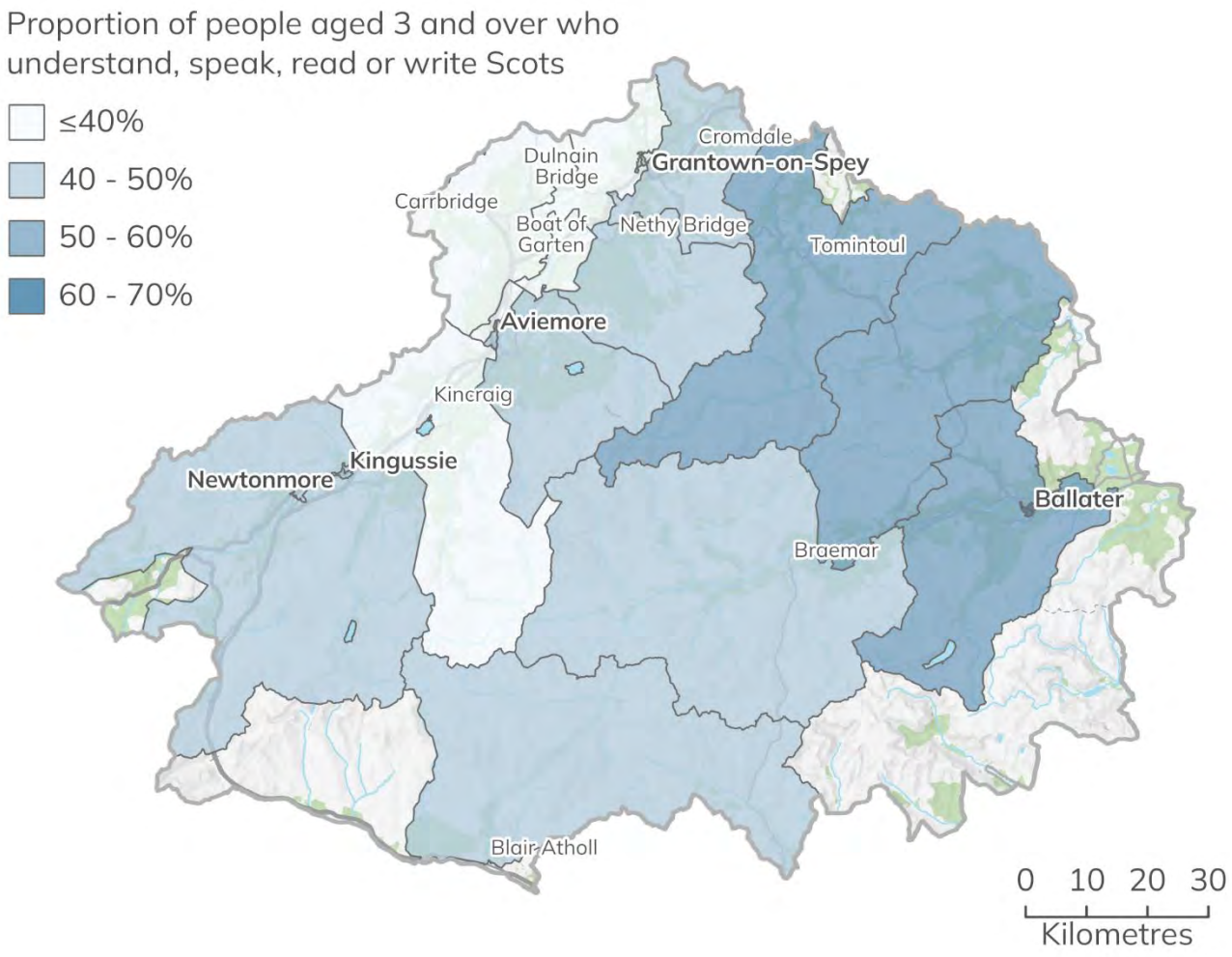


Figure 289 Proportion of people aged 3 and over who understand, speak, read or write Scots in Cairngorms National Park in 2022 (Scotland Census 2022). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

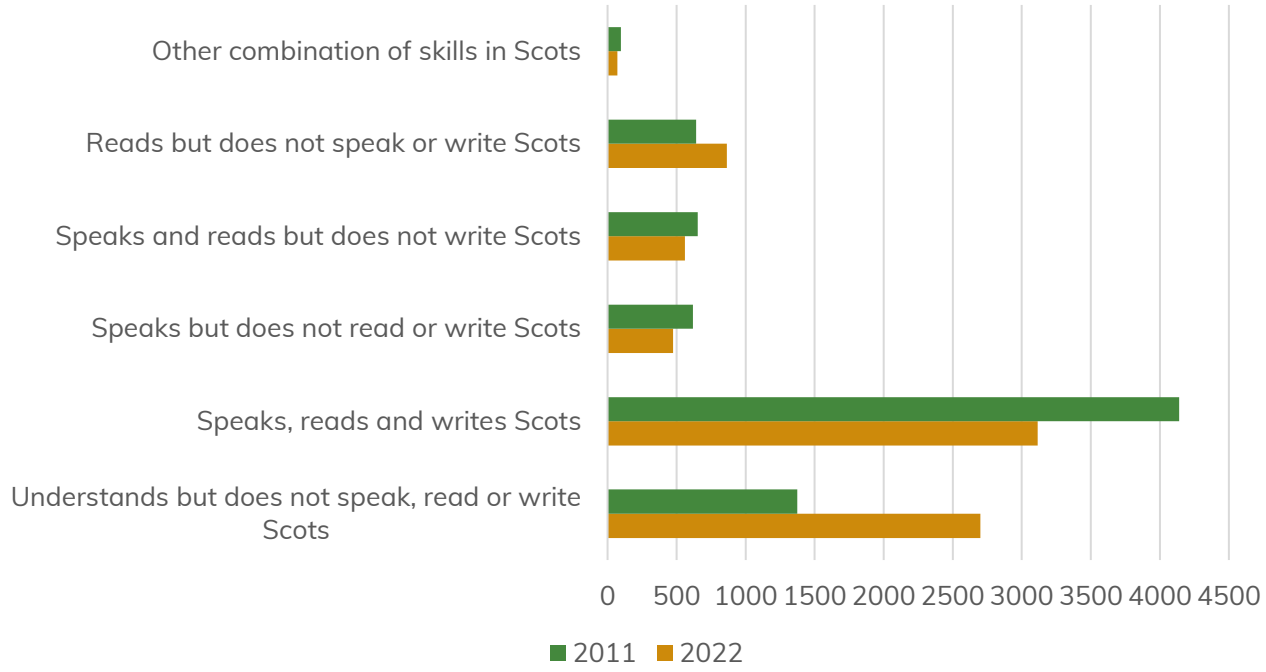


Figure 290 Scots language skills for all people aged three and above within the Cairngorms National Park in 2011 and 2022 (Census tables; QS212SC: 2011 and UV209: 2022).

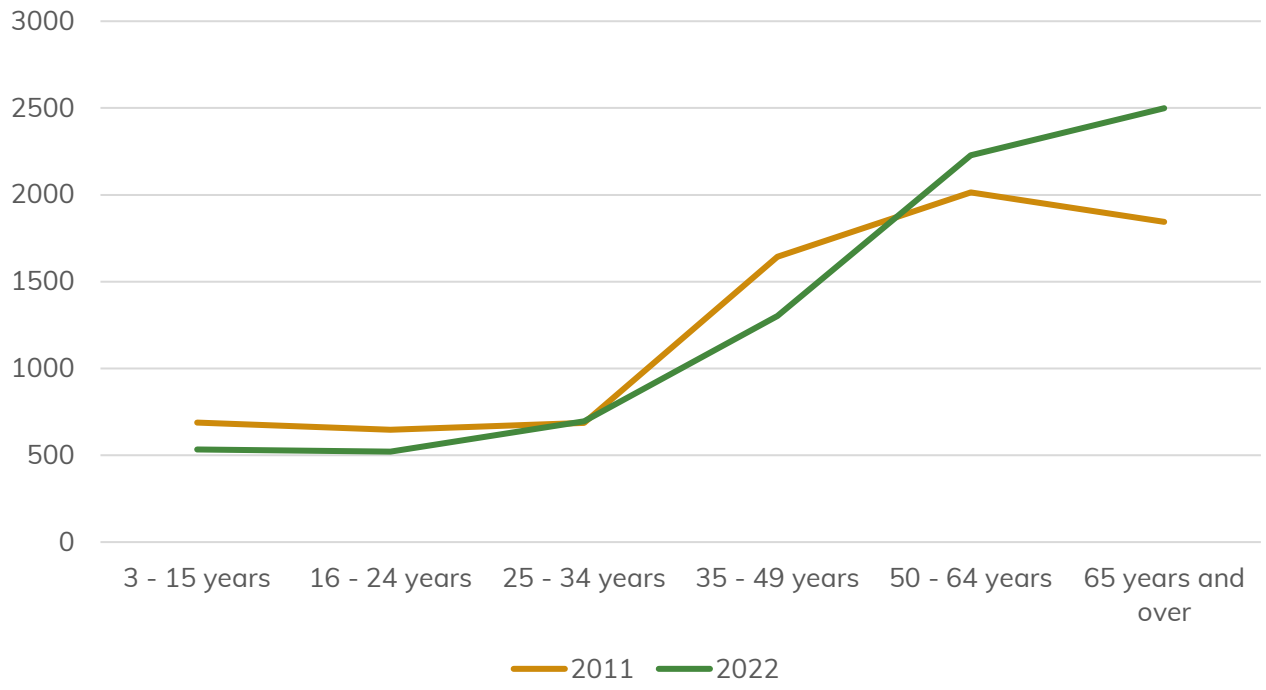


Figure 291 Age profile of the Cairngorms National Park population aged 3 and above who can understand, speak, read or write Scots 2011 and 2022 (Census tables LC2121SC: 2011, UV209b: 2022).

The total number of people in the national Park that can either understand, speak read or write Scots has also increased from 7,525 people in 2011 to 7,779 people in 2022 (Figure 291) (Census tables LC2121SC: 2011, UV209b: 2022).

Despite having a greater number of Scots speakers than Gaelic, an analysis of the Scots language skills remains difficult. Research carried out prior to the census suggested that people's interpretation of what is meant by 'Scots' varies considerably. As such it is therefore likely that the census statistics reflect an overly broad definition of the language. This includes Doric, which is the popular name for Mid Northern Scots or Northeast Scots and refers to the Scots language as spoken in the northeast of Scotland. There is an extensive body of literature, mostly poetry, ballads, and songs, written in Doric.

Key messages

The cultural heritage of the Cairngorms National Park is also rich, being home to thousands of historic structures, buildings and archaeological remains. There are numerous areas protected by some form of historic designation, including Listed Buildings, Scheduled Monuments, Designated Landscapes and Gardens and Battlefield Inventory Sites.

One of the Cairngorms National Park's aims is to 'to conserve and enhance the natural and cultural heritage of the area' and therefore the Local Development Plan will have to carefully consider its potential effects on these assets.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 3: Water
- Topic 4: Soil
- Topic 5: Material Assets
- Topic 6: Biodiversity, Fauna and Flora
- Topic 7: Landscape
- Topic 9: Population and Human Health

Topic 9: Population and human health

The Cairngorms National Park is the largest National Park in the UK covering 6% of Scotland, home to 17,531 people (2022 Census) many of whom work in the growing tourism sector that attracts about 2.15 million visitors each year. To ensure that we adhere to the National Parks vision of maintaining "*an outstanding National Park, enjoyed and valued by everyone, where nature and people thrive together*" it is necessary to maintain the most up-to-date information about the social-economic position of the park to inform future policies and strategies that support the delivery of the four aims set out in the National Parks (Scotland) Act 2000 in particular the fourth aim "*to promote sustainable economic and social development of the area's communities*".

Population

According to Scotland's Census, the estimated population of the Cairngorms National Park in 2022 was around 17,500 people. This is lower than the estimate in 2011, which was around 19,000 (Figure 292). However, there are several important caveats to consider when comparing these datasets, namely:

- The fact that the National Park is a non-standard geography.
- Issues with the communal establishment usual population estimate in the 2011 census.

Information on these issues is presented within this supporting document (see page 16):

- https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

The outcome of these issues is that while we may identify changes between censuses, there is uncertainty about the exact extent of those changes. Some comparisons may not be possible at all.

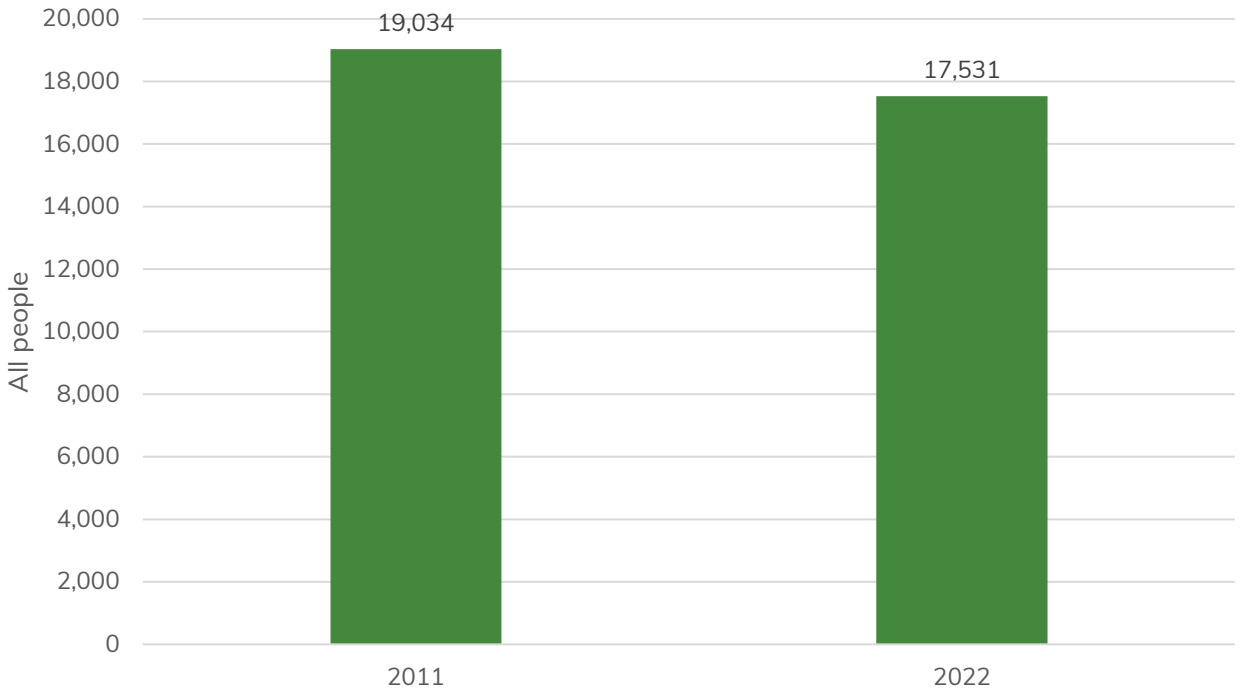


Figure 292

Mid-year estimates population trends

National Records Scotland (NRS) provide annual mid-year estimates based on the Census data for data zones representing the National Park geography. Examining this data allows for annual analysis of the changing population in the National Park. The mid-year estimate for the population of the Cairngorms National Park in 2022[96] was 17,207 people. This is lower than the estimate in 2011, which was 18,443, but higher than the 2001 estimate of 16,346 persons (Figure 293). This is based on 2011 data zones. However, there are several important caveats to consider when comparing these datasets, namely:

- The fact that the National Park is a non-standard geography.
- Issues with the communal establishment usual population estimate in the 2011 census.

Information on these issues is presented within this supporting document (see page 16):

- https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

The outcome of these issues is that while we may identify changes between censuses,

[96] Rebased small area population estimate for mid-2022 (2011 data zones)

there is uncertainty about the exact extent of those changes. Some comparisons may not be possible at all.

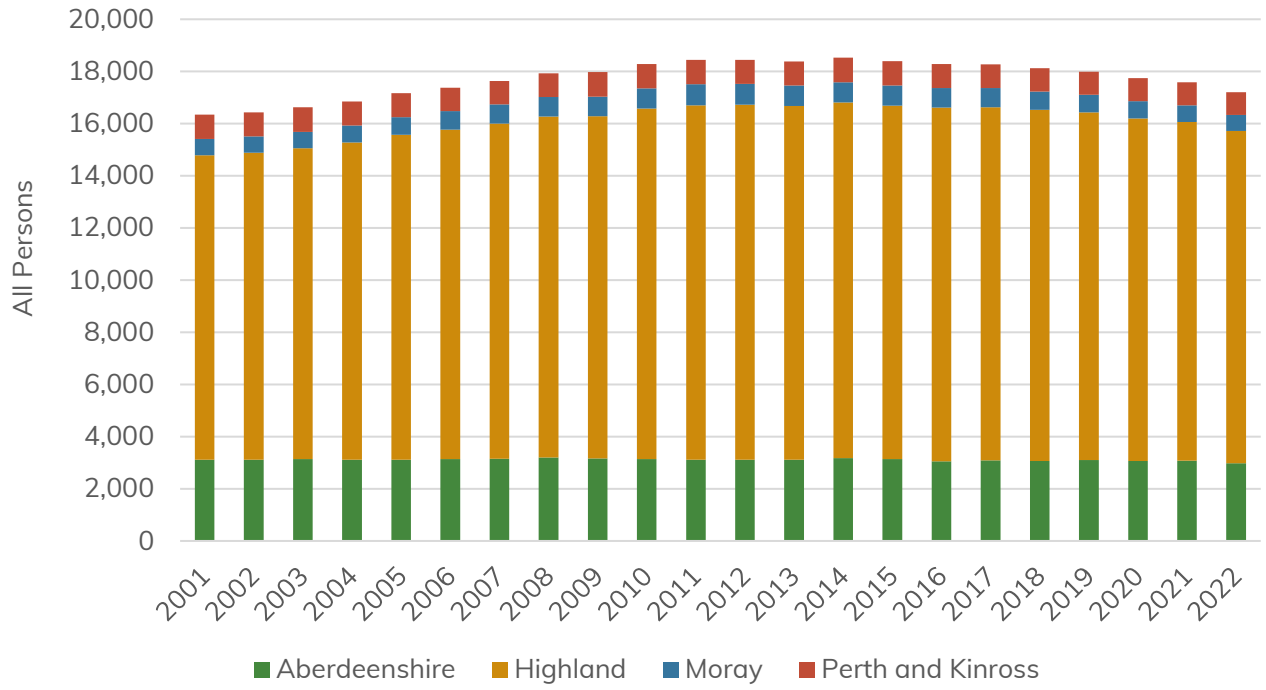


Figure 293 Small area population estimates for the Cairngorms National Park, by constituent local authority area 2001 to 2022, according to Scotland's Census, 2011 and 2022 (National Records Scotland population estimates 2001 – 2011 and rebased population estimates 2011 - 2022).

The National Park's population is unusual in that it is small and dispersed and is in clusters around the edge of the Cairngorms land mass within the council areas of Highland, Aberdeenshire, Angus, Moray and Perth and Kinross. Around 74% (12,729 people in 2022) of the population lives in the Badenoch and Strathspey ward within Highland Council.

The Cairngorms National Park population has grown by 5.27% since 2001 (to 2022), which is lower than for Scotland as a whole (7.56% for the same period). In addition, growth peaked at 13.37% in 2014, since which the estimated population has reduced.

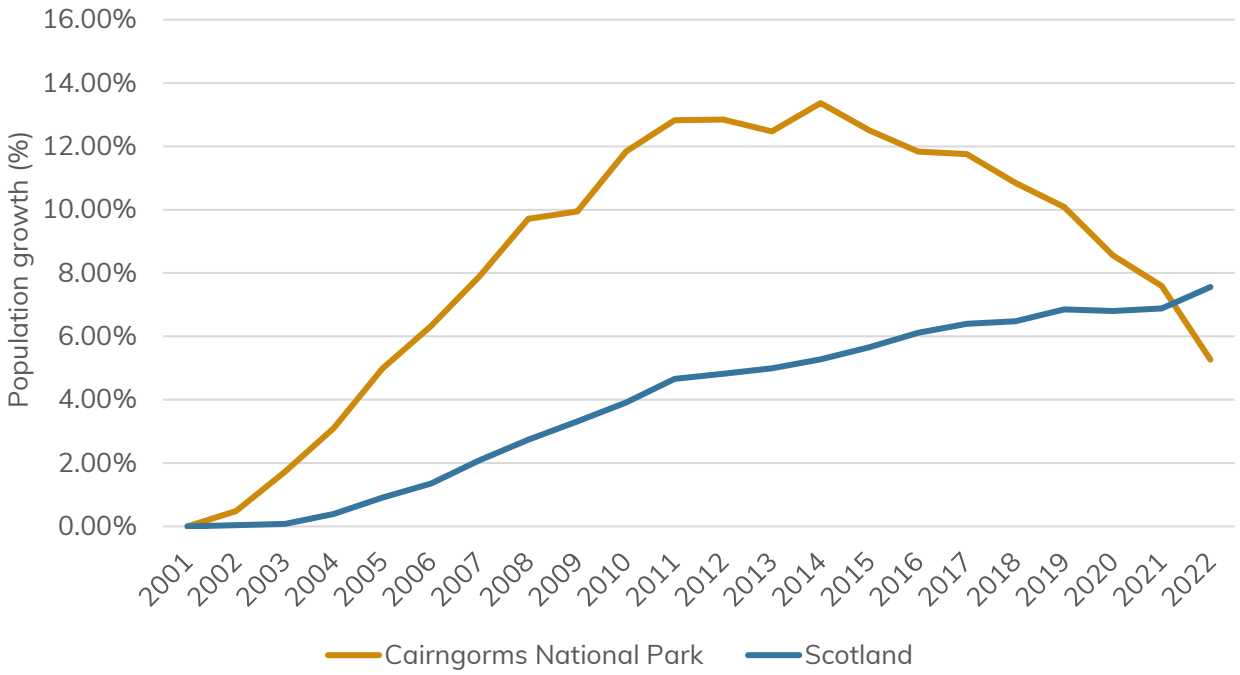


Figure 294 Comparison of population growth (%) in the National Park and Scotland, using the mid-year estimates between 2001 - 2022, from the 2001 baseline figure, with 2011 – 2022 estimate rebased in 2025 (statistics.gov.scot).

This population change has not been even across all local authority areas within the National Park. The Aberdeenshire, Angus, Moray and Perth and Kinross parts of the National Park have reduced slightly (by -4.05%, -2.84% and -5.59% respectively), while the Highland area has seen an estimated increase of 9.06% (1,057 people) between 2001 and 2022. This is also where the greatest housing pressures are and where most future development is likely to be located.

The components of this population change can be calculated for the years 2002-2019 (Table 55 and Figure 295). This shows that deaths have exceeded births every year of this period and that the National Park's population growth is driven by migration. Over this period, the population grew by around 10% but would have fallen by around 5.4% had no migration taken place.

Table 55 Components of population change in the Cairngorms National Park between 2001 – 2019 (statistics.scot.gov – 2025 rebased estimates 2011 - 2022).

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Births	138	129	125	131	146	145	151	175	161	147	152
Deaths	195	184	208	217	185	217	181	228	177	181	202
Natural change (births - deaths)	-57	-55	-83	-86	-39	-72	-30	-53	-16	-34	-50
Mid-year estimates	16,346	16,426	16,628	16,853	17,161	17,381	17,638	17,933	17,971	18,280	18,443
Gross annual population change		80	202	225	308	220	257	295	38	309	163
Net-migration		135	285	311	347	292	287	348	54	343	213

	2012	2013	2014	2015	2016	2017	2018	2019	Change 2001 - 2019	Total 2011 - 2019
Births	152	151	137	134	141	137	118	125	2,557	1,247
Deaths	171	214	175	182	184	205	152	185	3,448	1,670
Natural change (births - deaths)	-19	-63	-38	-48	-43	-68	-34	-60	-891	-423
Mid-year estimates	18,446	18,384	18,531	18,390	18,281	18,267	18,118	17,995		
Gross annual population change	3	-62	147	-141	-109	-14	-149	-123	1,649	-285
Net-migration	22	1	185	-93	-66	54	-115	-63	2,540	138

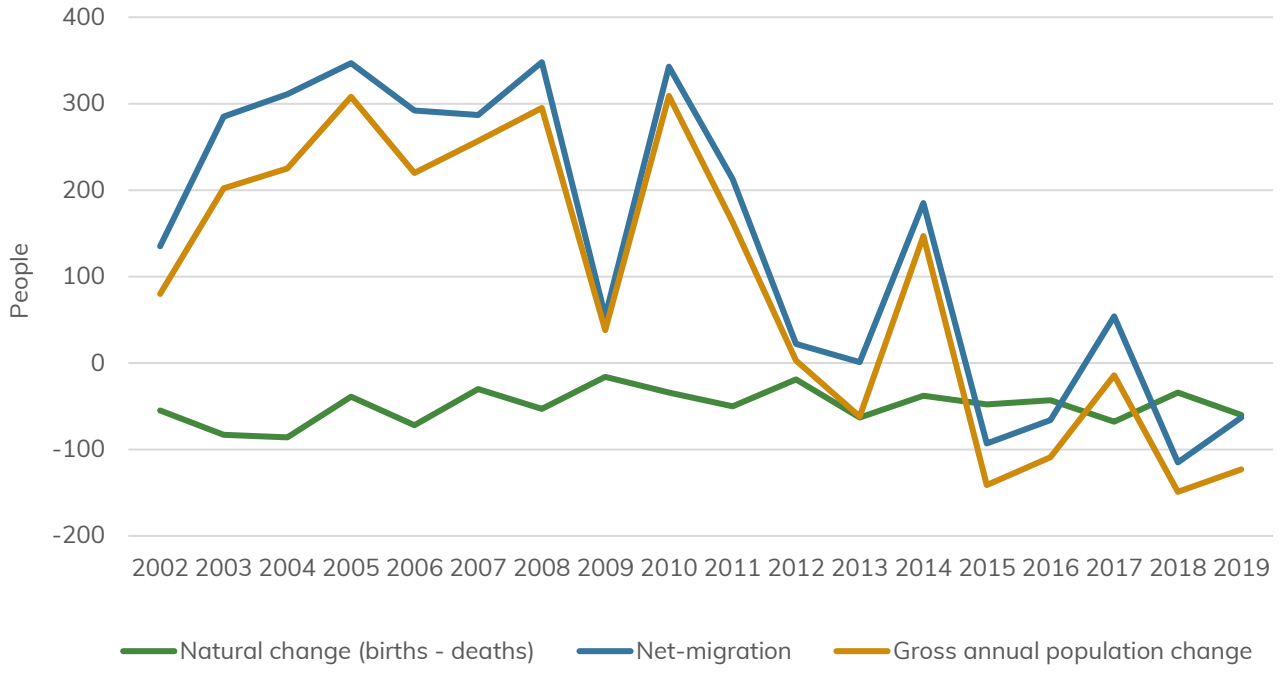


Figure 295 Gross annual population change and its constituent components in the Cairngorms National Park from 2002 - 2019 (statistics.gov.scot).

Life expectancy

Average life expectancy is one of those key indicators that tells is how well a place is doing, be it economically, politically or environmentally.

Overall Scotland has the lowest average life expectancy of all the UK countries, with most council areas experiencing a decrease in recent years. Life expectancy in Scotland also varies by rurality, with people living in rural areas generally living longer and spending more years in good health than those in urban areas. For males in 2019 – 2021 there was a 4-year gap in life expectancy between the most rural and most urban areas, and for females there was a three-year gap.

The estimate of average life expectancy in the Cairngorms National Park is based on data from the 2020 Scottish Index of Multiple Deprivation (SIMD) and is derived from the decile of overall deprivation in which each data zone covering the National Park falls within. Based on this method, the life expectancy, for males in the National Park is 79.4 and females is 82.7 years. This is higher than the Scottish averages, where in 2019 - 21, life expectancy for males was 76.6 years and for females 80.8 years.

Population projections

Population projections for the National Park are produced by National Records of Scotland, with the most recent being 2018 based projections (Figure 296). National Records of Scotland prepare a range of projections, based on past trends. The projections use three different levels of migration, known as 'low migration', 'principal' and 'high migration'. The principal projection for the Cairngorms National Park is that between 2018 and 2043, the population will grow from 19,045[97] to 19,961, an increase of 4.8% over 25 years. The high migration projection is that the population will increase to 20,381 (an increase of 7%).

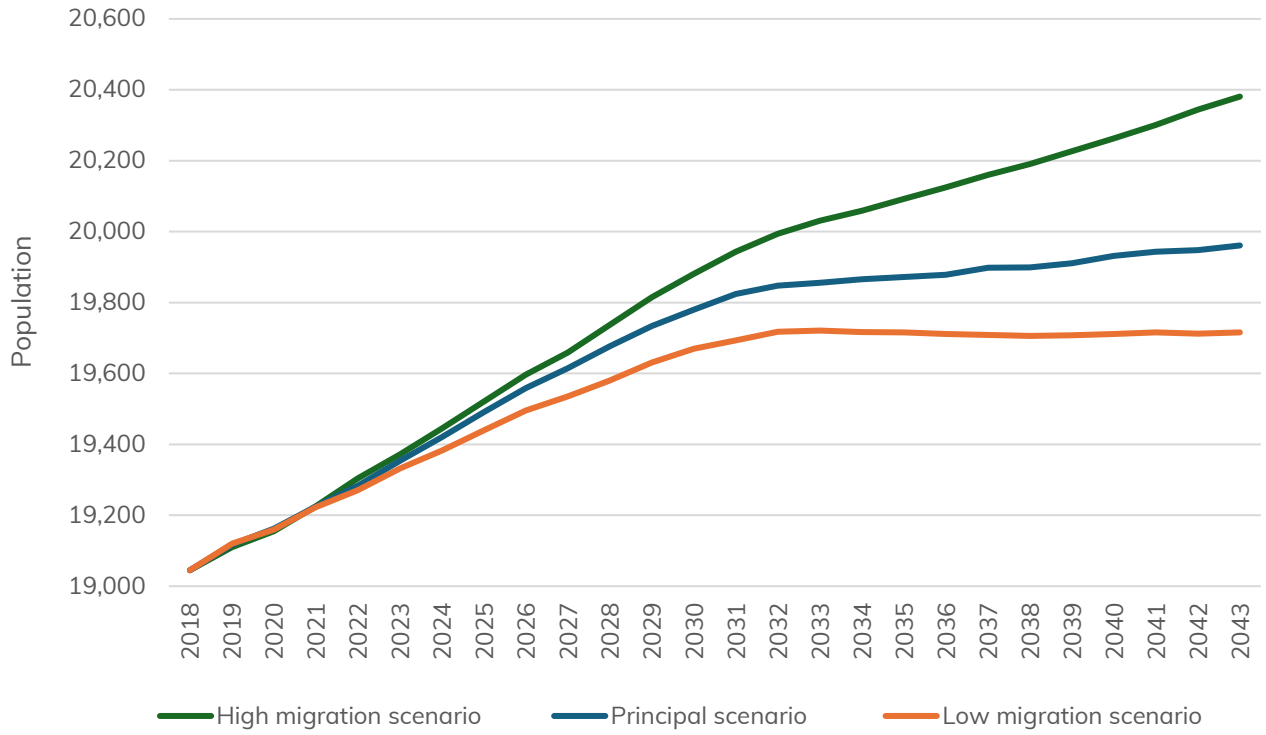


Figure 296 Population projections –projected population growth in the Cairngorms National Park from 2018-2043 under the low migration, principal and high migration projection scenarios (statistics.gov.scot).

This projection contrasts with the 2016 based projection, which projected a decrease of around 4% between 2016 and 2041. This highlights the limitations of population projections, especially in an area such the Cairngorms National Park, which has a small population.

[97] The reason that the NRS' population estimate for 2018 is higher than the 2021 mid-year estimate quoted above is due to differences in the way small population areas are aggregated. See footnote 2 and the background paper on the statistical areas used in the analysis of the Cairngorms National Park for details.

Within the anticipated 10-year period of the new Local Development Plan (2027 – 2037), the 2018-based principal scenario population projection forecasts a population increase of 283 people (from 19,615 to 19,898).

A projection is a calculation showing what happens if assumptions are made. The population projections are trend-based. They are not policy-based forecasts of what the government expects to happen. Many social and economic factors influence population change, including policies adopted by both central and local government. The relationships between the various factors are complex and largely unknown.

Within the Cairngorms National Park, migration assumptions are more critical than the fertility and mortality assumptions.

The National Records of Scotland data also give an indication of how the age structure of the population is likely to change (Figure 297). According to the principal migration scenario:

- The number of children aged under 16 years is projected to decrease by 19.7% from 2,828 in 2018 to 2,272 in 2043. In comparison, across Scotland, the number of children under 16 years is projected to decrease by 10.5%. The decrease in the Cairngorms National Park between 2027 and 2037 is projected to be 93 children (4%).
- The number of people of working age is projected to decrease from 11,588 in 2018 to 10,916 in 2043, representing a 5.8% reduction. The number of people of working age in Scotland is expected to decrease by 3.8%. The decrease in the Cairngorms National Park between 2027 and 2037 is projected to be 533 working age people (5%). and
- The population of people of pensionable age is projected to rise by 46.3% from 4,629 in 2018 to 6,773 in 2043. Across Scotland, the population of pensionable age in the is expected to rise by 35.5%. The increase in the Cairngorms National Park between 2027 and 2037 is projected to be 909 people of pensionable age (16%).



Figure 297 Comparison of the estimated percentage change in population, by age group cohort, in the Cairngorms National Park and Scotland between 2018 and 2043 (statistics.gov.scot).

Figure 6 and figure 7 show the estimated population profile by age and gender in the Cairngorms National Park in 2018 and 2043. Under this estimate, 34% of the population of the Cairngorms National Park would be over-65 in 2043, and 12% over 80 (an increase of 123%).

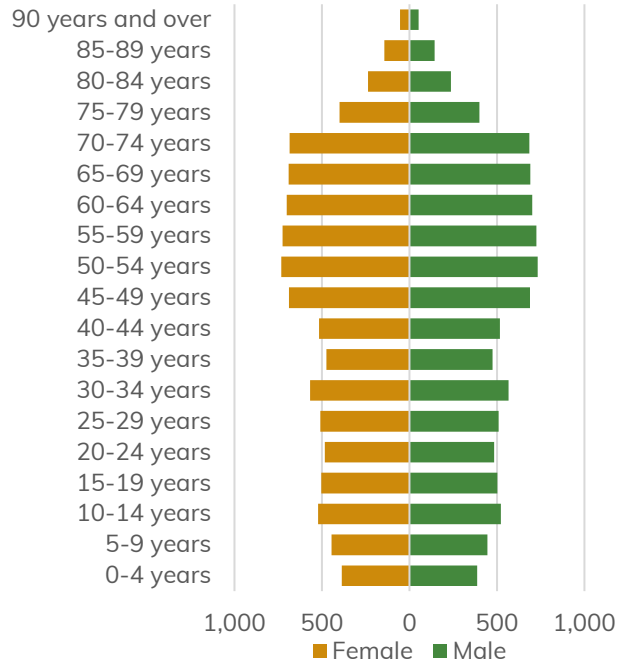


Figure 298 2018 estimated population profile by age and gender in the Cairngorms National Park (statistics.gov.scot).

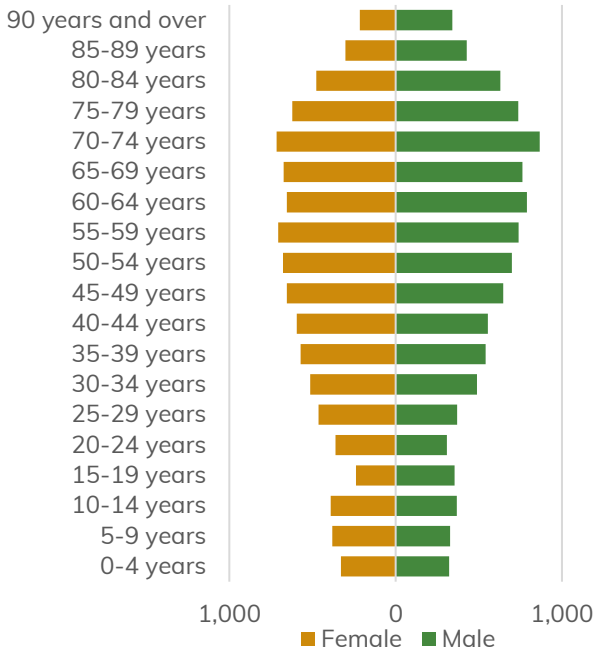


Figure 299 2043 estimated population profile by age and gender in the Cairngorms National Park (statistics.gov.scot).

Health and Wellbeing

Wellbeing

There is limited information available for the Cairngorms National Park area on aspects of individual wellbeing with most information being at Local Authority or National level. However, the Scottish Index of Multiple Deprivation is an official tool developed and used by the Scottish Government, which collects multiple indicators for data zone areas. The data has a particular focus on deprivation, with rankings provided for an overall indicator plus seven separate 'domains'. However, the associated data also provides some indicators of personal and economic wellbeing for the National Park.

Individual wellbeing

The Scottish Household Survey has surveyed individual wellbeing (SWEMWBS Score[98]) at a local authority level and other surveys indicate subjective (self-assessed) wellbeing at a regional level. However, there is no data available to show individual wellbeing statistics for the Cairngorms National Park area. One method to analyse the wellbeing at a National Park level is the prevalence of people on prescribed medication for mental

[98] Short version of the Warwick–Edinburgh Mental Wellbeing Scale.

health concerns. The Scottish Index of Multiple Deprivation data utilises Prescribing Information System (PIS) data from NHS Scotland to indicate the proportion of the population prescribed medication for common mental health issues and this can be aggregated for the National Park data zones.

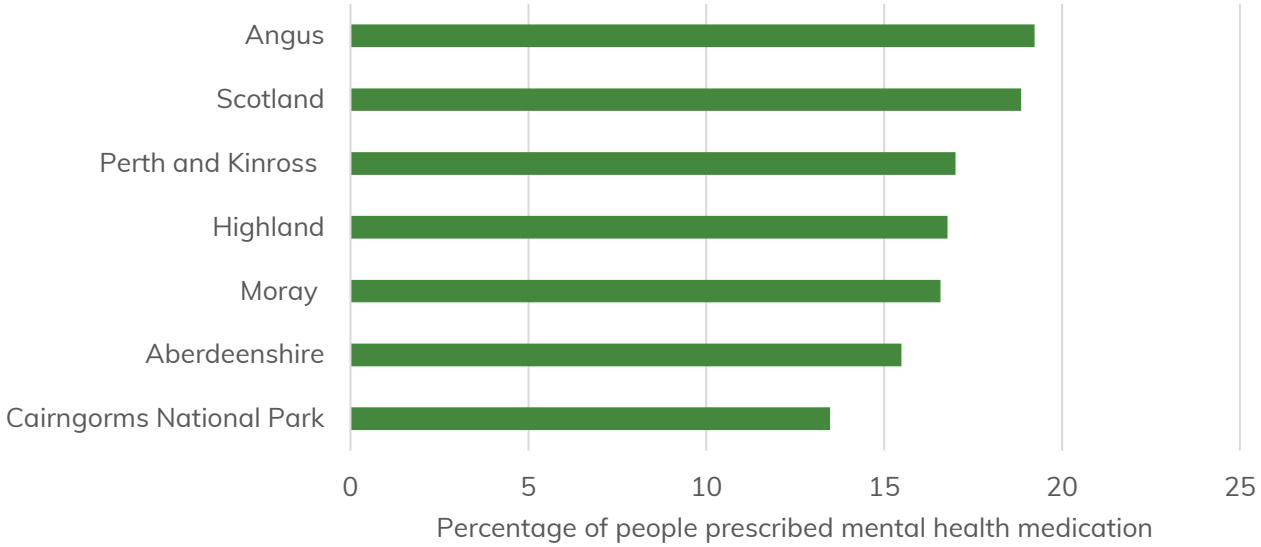


Figure 300 Proportion of population prescribed mental health medication against data zone Scottish Index of Multiple Deprivation (2020) figures for the Cairngorms National Park, Local Authorities and Scotland (Source: SIMD, 2020 with medication data derived from NHS Scotland).

The data from the Scottish Index of Multiple Deprivation, health domain sub-indicator (which utilises data from NHS Scotland on the percentage of the population prescribed mental health medication for depression, anxiety and psychosis) Cairngorms National Park shows the National Park has on average the lowest percentage of the population (13.5%) being prescribed mental health medication compared to the five local authorities that overlap the national park boundary, which can be used as a proxy to indicating a high level of wellbeing in the area (Figure 300).

Looking at the data zone level data the proportion of people prescribed mental health medication for depression, anxiety and psychosis ranges from 10% to 19% (Figure 301). The areas with the highest proportion of people prescribed mental health medication include an area in the East Cairngorms (S01006790) which covers part of Ballater at 19% and in Badenoch and Strathspey North (S01010546) which covers part of Grantown-on-Spey at 18%.

Care should be taken interpreting this data as prescription rates may be affected by factors such as cultural attitudes to mental health and medication, whilst the percentage of people recorded as being prescribed such mental health medication varies by only a modest amount between the lowest and highest. The population of the Cairngorms National Park was also relatively small at approximately 18,600 (2020 figure used in data comparison) people meaning the small population size increases the potential for misleading variations.

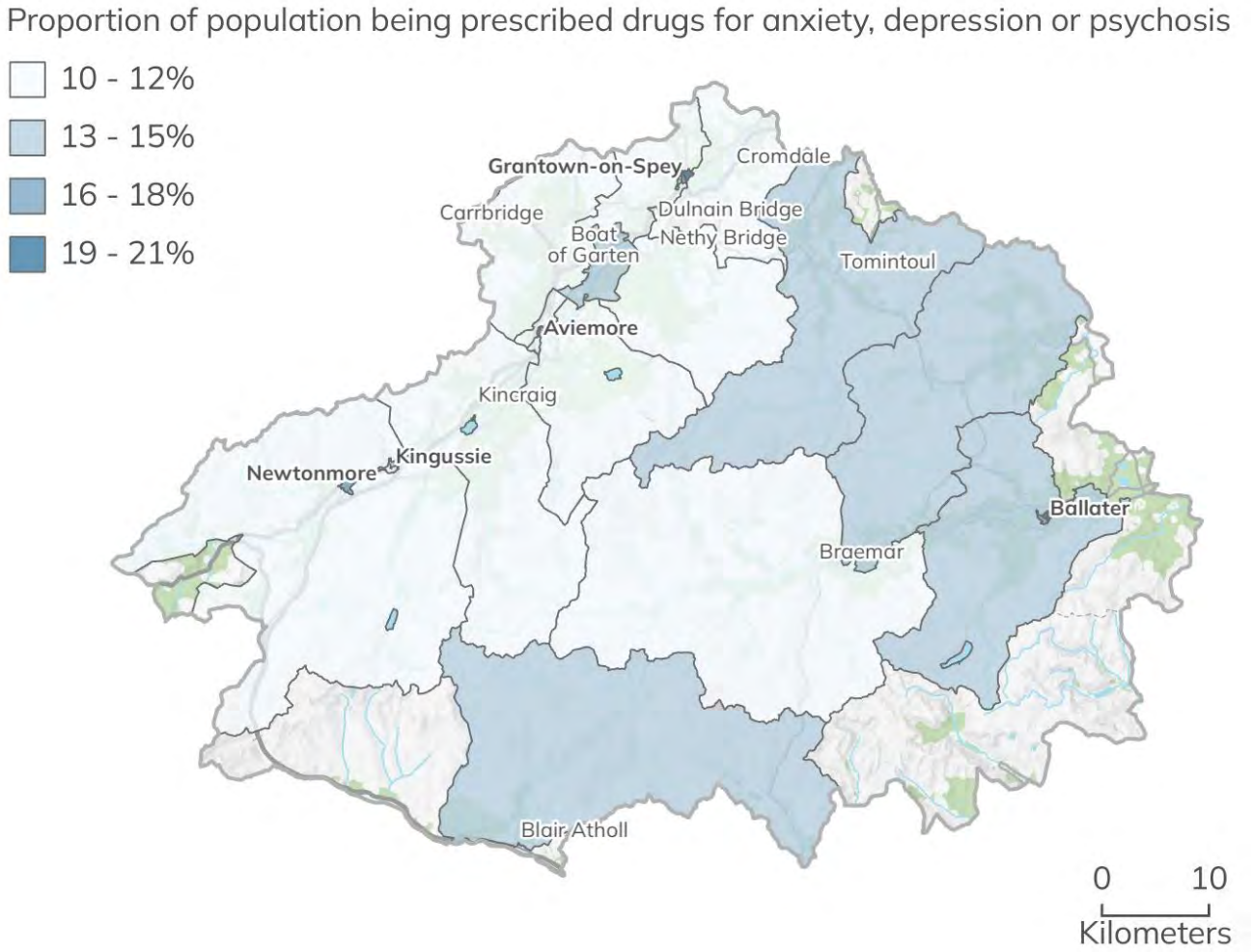


Figure 301 Proportion of population being prescribed drugs for anxiety, depression or psychosis, 2017-18 (2020 weighting to overall health domain = 0.13). Contains Scottish Index of Multiple Deprivation data. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Wellbeing in rural Scotland

Research into Subjective Wellbeing (Self-assessed wellbeing) frequently finds that people in rural areas report higher levels of wellbeing than people in urban areas.

Evidence in England supports this claim (Health and wellbeing in rural areas, 2017[99]) stating 'that overall health outcomes are more favourable in rural areas' Although research specific to Scotland is limited, one analysis[100] using the British Household Panel Survey for the UK found that people in 'remote' rural areas of Scotland (under their classification this would apply to the whole of the Cairngorms National Park), do report higher levels of life satisfaction after allowing, as far as possible, for other variables such as income. In a paper examining how people view their locality in Scotland (Rural Scotland: Key facts 2021[101]), a higher proportion of residents in rural areas define their neighbourhoods as a 'very good' place to live. Higher proportions of people volunteer and feel they are part of the immediate communities.

As might be expected, a major factor found to explain the higher rural wellbeing is closer social connections. In smaller settlements people are more likely to know their neighbours and the people they meet on the street, supporting greater levels of trust and expectations of support when needed. It should be added that it is hard to disprove the possibility that rural areas may be a self-selecting sample for example, more people who are dissatisfied with their life may leave rural areas in comparison with urban areas.

Effects of commuting distance on wellbeing

Research indicates that substantial time spent commuting (60 – 90 minutes per day) is associated with reduced wellbeing (Office of National Statistics[102]). Census data suggests that both working close to home and travelling longer distances to work are both more prevalent in the Cairngorms National Park than nationally, as might be expected in a rural area (Figure 302).

[99] https://www.local.gov.uk/sites/default/files/documents/1.39_Health%20in%20rural%20areas_WEB.pdf
[100] https://www.sciencedirect.com/science/article/abs/pii/S074301671630002X?via%3Dihub
[101] https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2021/02/rural-scotland-key-facts-2021/documents/rural-scotland-key-facts-2021-summary/rural-scotland-key-facts-2021-summary/govscot%3Adocument/rural-scotland-key-facts-2021-summary.pdf?inline-true#:~:text=This%20is%20a%20summary%20of%20the%20Rural%20Scotland,included%20in%20the%20publication%20report%20data%20for%202019.
[102] Office for National Statistics. Commuting and personal well-being. Available online at: http://webarchive.nationalarchives.gov. uk/20160105160709/http://www.ons.gov.uk/ons/dcp171766_351954.pdf

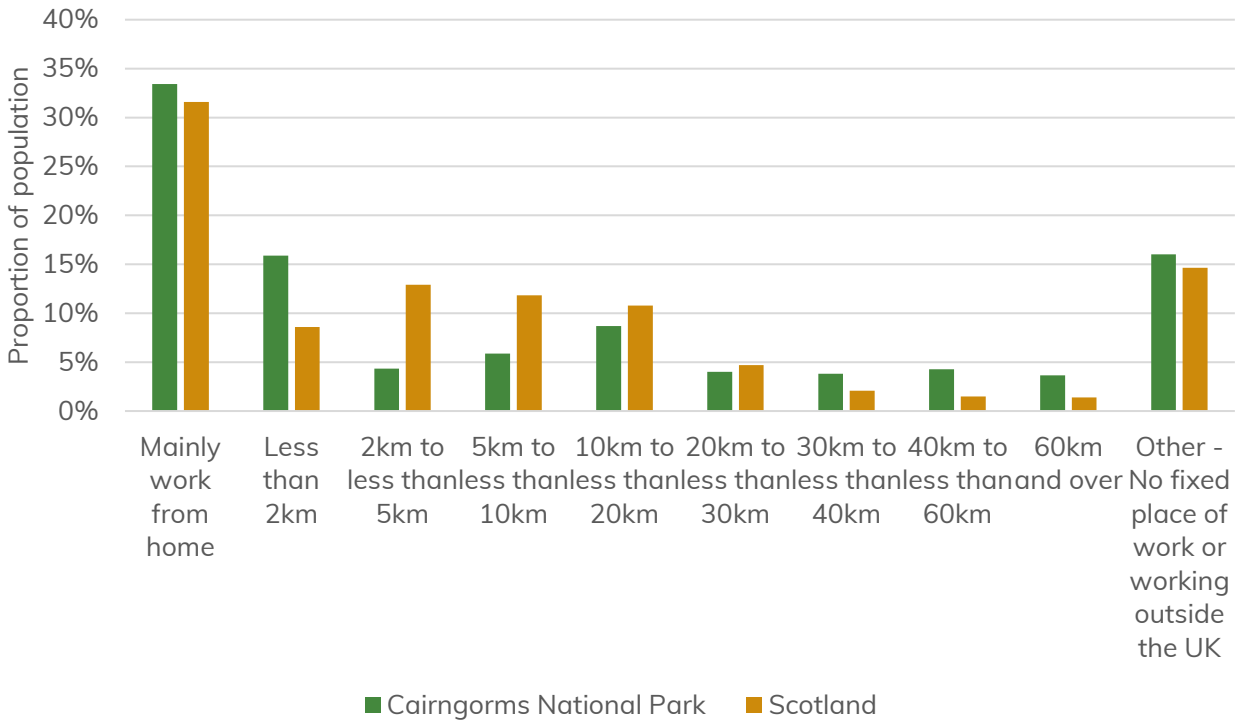


Figure 302 Comparison of distance travelled to work by people living in the Cairngorms National Park and Scotland in 2022 (Census table UV703).

Between 2011 and 2022 there has been a significant increase in the proportion of the population who mainly work from home. The only journey times to see an increase in the number and proportion of commuters were those between 20km to less than 30km. All other distances saw a decrease (Figure 303).

Scotland, overall, represents the fourth highest average commute time of anywhere in the UK (60 minutes), with the highest being London and second and third representing the areas directly adjacent to the capital (Royal Society for Public Health[103]).

[103] Royal Society for Public Health. Health in a Hurray: The impact of rush hour commuting on our health and wellbeing. Available online at: https://www.rsph.org.uk/ourwork/policy/wellbeing/commuter-health.html

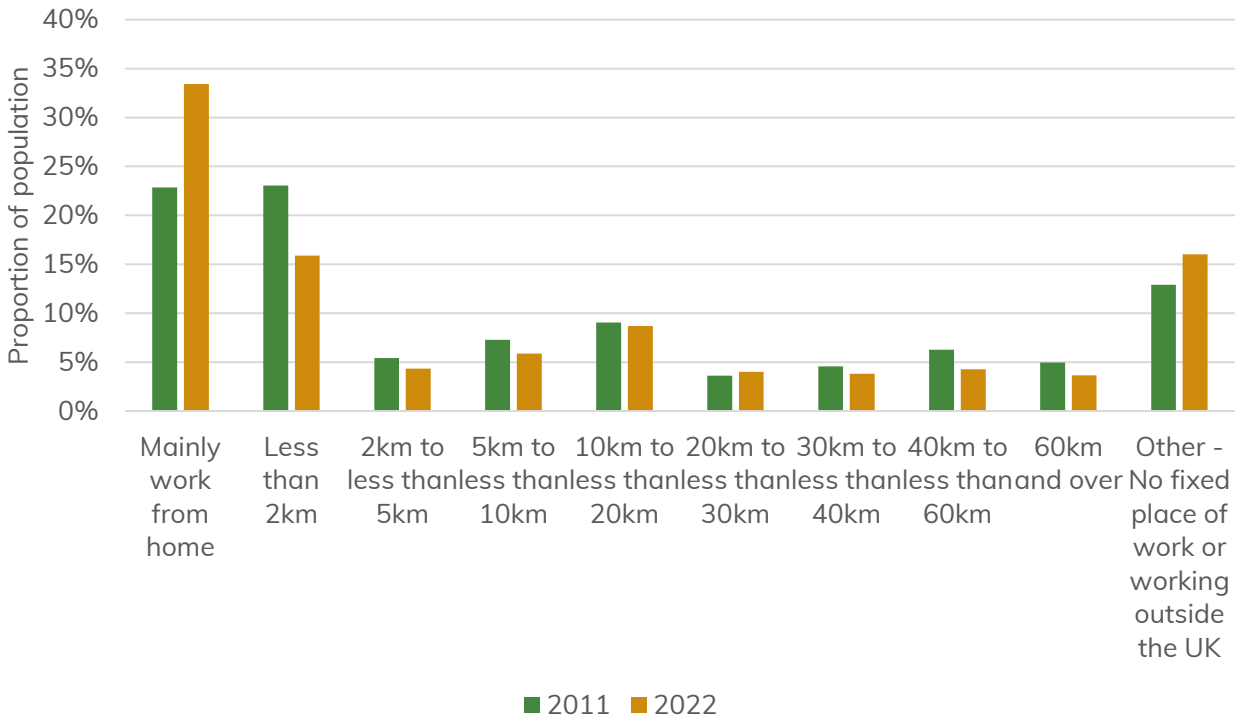


Figure 303 Comparison between distance travelled to work by people living in the Cairngorms National Park between 2011 and 2022 (Census tables QS703SC and UV703).

Noise pollution

Scottish Government are responsible for legislation on the control of statutory noise nuisance, with local authorities responsible for controlling and dealing with complaints about noise. Noise counts as a statutory nuisance if it either:

- Unreasonably and substantially interferes with the user or enjoyment of a home or other premises.
- Injures health or is likely to injure health.

Statutory provisions for noise pollution include The Public Health etc. (Scotland) Act 2008 updated the provisions of the 1990 Act by introducing new nuisances of light and insects, as well as other changes including how the Act is enforced.

Noise maps (Figure 304 and Figure 305) have been produced to show a geographical representation of noise levels across the entirety of Scotland for 2021, showing areas where people are exposed to high levels of environmental noise.

The Environmental Noise Directive requires, on a five yearly cycle, the Scottish Government to produce strategic noise maps. The Directive was transposed into

Scottish legislation under the Environmental Noise (Scotland) Regulations 2006 and amended by the Environmental Noise (Scotland) Amendment Regulations 2018 following the United Kingdom's exit from the European Union.

The three main objectives Scottish Government through 'Scotland's noise', part of 'Scotland's environment' are delivering are:

1. To determine the noise exposure of the population through noise mapping.
2. To make information available on environmental noise to the public.
3. To establish action plans based on the mapping results, to reduce levels where necessary, and to preserve environmental noise quality where it is good.

More information on how the noise maps have been produced is available here:

- https://noise.environment.gov.scot/summary.html

The data indicates that there are no noise sources attributed to industrial noise within the Cairngorms National Park. Noise from rail use occurs along the Highland Mainline, which goes from Perth to Inverness and runs through the settlements of Blair Atholl, Dalwhinnie, Newtonmore, Kingussie, Kincraig, Aviemore and Carrbridge (Figure 304). Figure 304 and Figure 305 are extracts from Scotland's noise mapping resource detailing noise pollution caused by rail and road traffic in and around the National Park area.

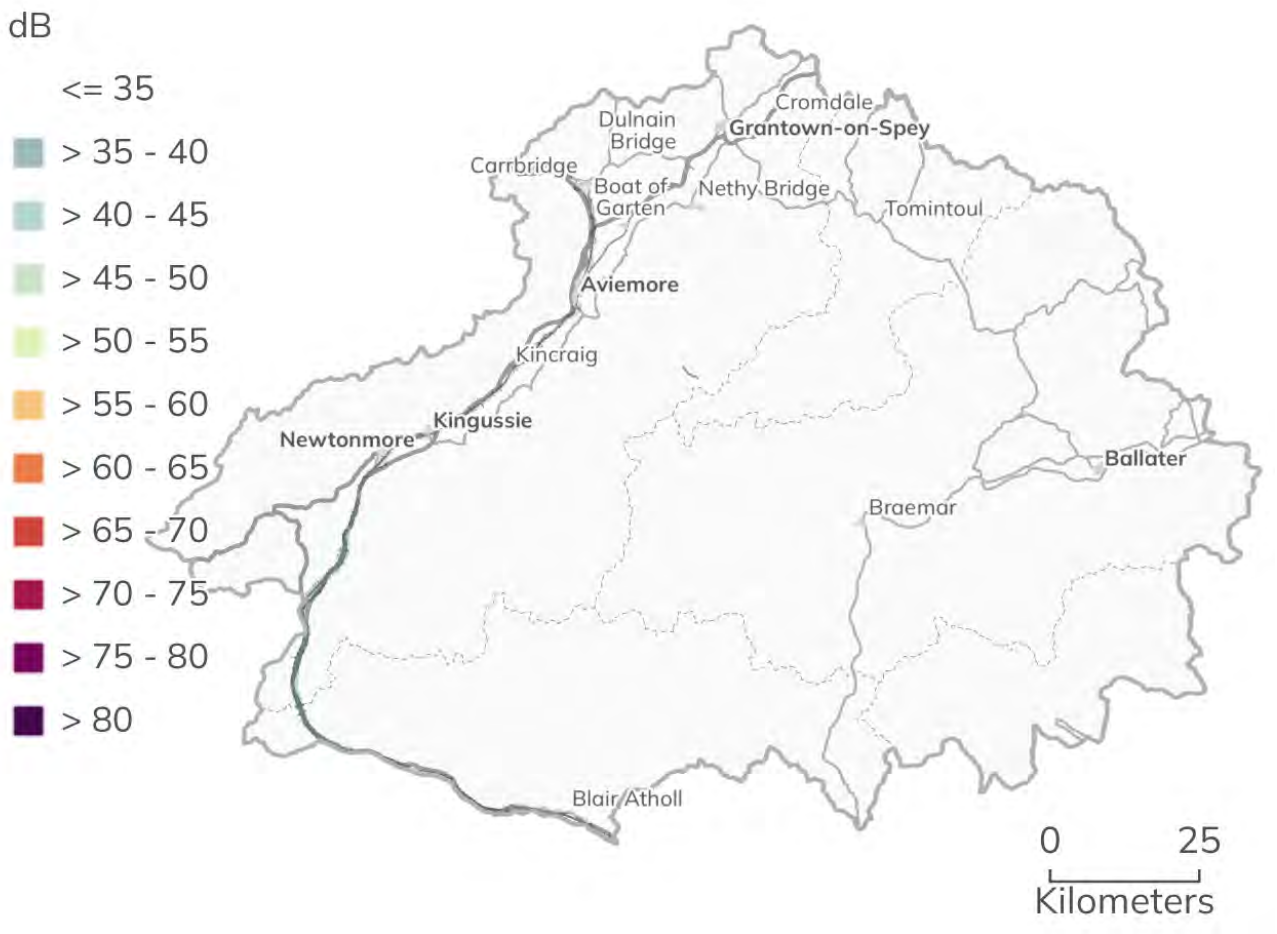


Figure 304 Map showing the day-evening-night level (Lden) noise indicator for overall annoyance based upon annual average A-weighted long-term sound over 24 hours, with a 5 dB(A) penalty for evening noise (19:00-23:00) and a 10 dB(A) penalty for night-time noise (23:00-07:00) attributed to rail use. Scotland's noise, 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

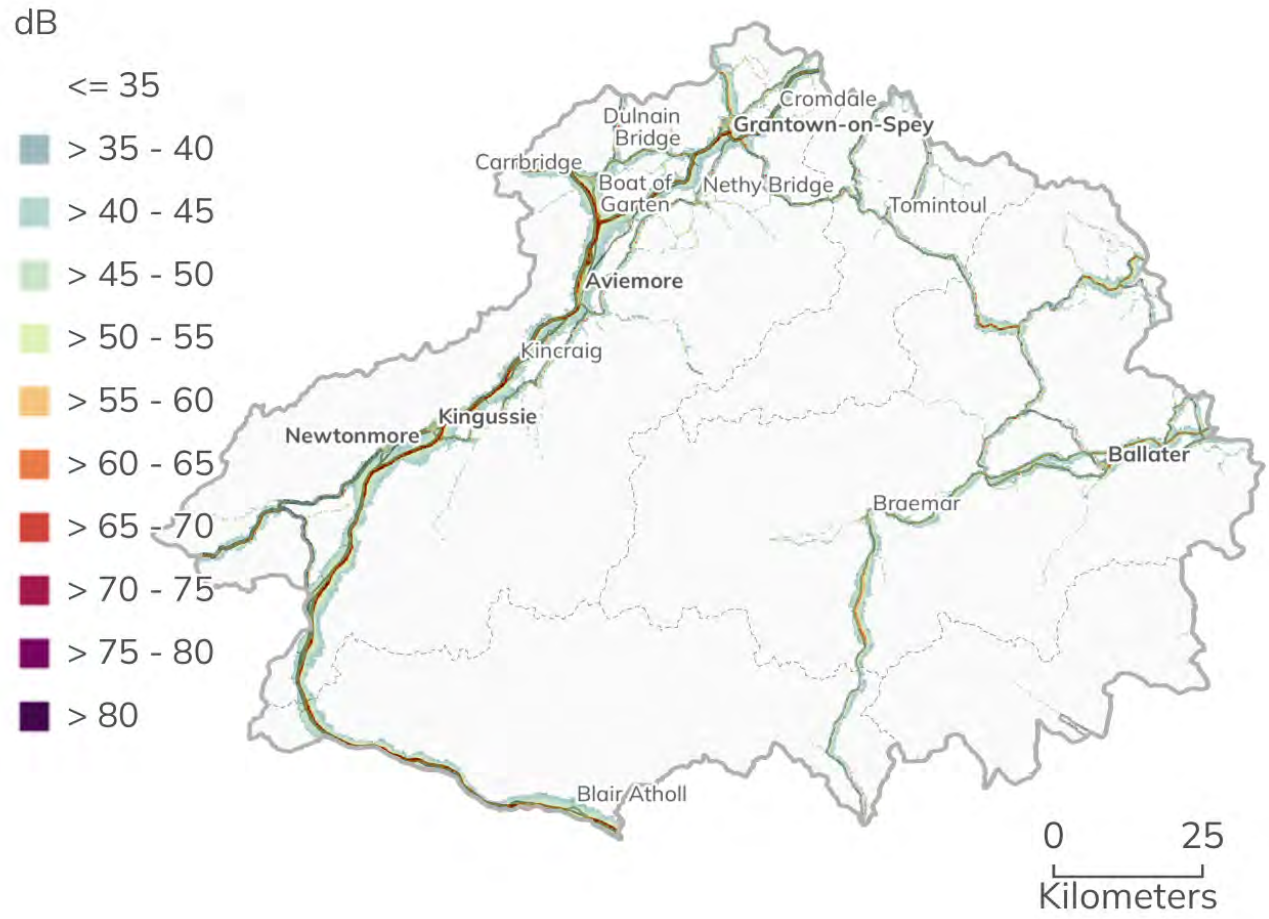


Figure 305 Map showing the day-evening-night level (Lden) noise indicator for overall annoyance based upon annual average A-weighted long-term sound over 24 hours, with a 5 dB(A) penalty for evening noise (19:00-23:00) and a 10 dB(A) penalty for night-time noise (23:00-07:00) attributed to road use. Scotland's noise, 2024. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Figure 305 Shows that the majority of noise pollution within the Cairngorms National Park from road use is attributed to the A9, A93 and the A95.

Transport related noise pollution

Placed in context, transportation noise is the biggest source of environmental noise in Scotland. The Scottish Noise Action Plans are a requirement of European Parliament and Council Directive for Assessment and Management of Environmental Noise 2002/49/EC. This Transportation Noise Action Plan (2019 – 2023), produced by Transport Scotland, was one of a series of eight Scottish Noise Action Plans implemented across Scotland. The noise mapping process identified sections across a

number of transport corridors that fall within the Round Three Transportation Action Planning Process, which included sections of the A9 within the National Park.

Transport Scotland have informed the Park Authority (December 2024) that they are in the process of completing a Closure and Next Steps report and preparing the next Transportation Noise Action Plan for 2024 to 2028.

Deprivation

The Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's standard approach to identify areas of multiple deprivation in Scotland. It can help improve understanding about the outcomes and circumstances of people living in the most deprived areas in Scotland.

The index is a relative measure of deprivation across 6,976 small areas (called data zones). If an area is identified as 'deprived', this can relate to people having a low income, but it can also mean fewer resources or opportunities. The index looks at the extent to which an area is deprived across seven domains: income, employment, education, health, access to services, crime and housing.

Scottish Index of Multiple Deprivation ranks data zones from most deprived (ranked 1) to least deprived (ranked 6,976). People using SIMD will often focus on the data zones below a certain rank, for example, the 5%, 10%, 15% or 20% most deprived data zones in Scotland.

The index is an area-based measure of relative deprivation: not every person in a highly deprived area will themselves be experiencing high levels of deprivation.

Data zones in rural areas tend to cover a large land area and reflect a more mixed picture of people experiencing different levels of deprivation. This means that Scottish Index of Multiple Deprivation is less helpful at identifying the smaller pockets of deprivation found in more rural areas, compared to the larger pockets found in urban areas. The index's domain indicators can still be useful in rural areas if analysed separately from urban data zones or combined with other data.

Care should be taken in interpreting the Scottish Index of Multiple Deprivation rankings in the National Park as they measure the overall deprivation of data zones. These may contain smaller geographic areas or households experiencing significant deprivation or affluence which may to some extent be overlooked in assessing the overall score and

ranking for the data zone. Disclosure control methods can also complicate analysis for some the index's indicators because cell values may be suppressed leading to data zones having empty cells.

The overall ranking suggests that all data zones within the Cairngorms National Park are approximately middle-ranking or above (Table 57). Rankings have been coloured according to the quintile[104] they fall within (Table 56).

[104] Quintiles split the datazones into 5 groups, each containing 20% of Scotland's datazones.

Table 56 Key for colours used to categorise Scottish Index of Multiple Deprivation ranks for data zones covering the Cairngorms National Park as set out in Table 57.

Colour	Quintile (20%)	Rank		Category
		From	To	
Dark red	1	1	1,395	Most deprived
Red	2	1,396	2,790	
Ochre	3	2,791	4,185	
Green	4	4,186	5,580	
Dark green	5	5,581	6,976	Least deprived

Table 57 2020 Scottish Index of Multiple Deprivation (SIMD) Rankings for Cairngorms National Park data zones, colour coded by quintile rankings– red being the lowest, followed by pink, white, light blue and dark blue being the highest.

Data zone name	Overall Rank	Domains						
		Income	Employment	Health	Education	Access to Amenities	Crime	Housing [105]
Aviemore Centre East	3377	2744.5	3372	3879	2256	4982	5232	2359.5
Area west and north of Grantown	3447	4142	4705	5797	1813	338	5414	3482
Blair Atholl (part) & Areas to North and East	3503	4452	4633	5333	4247	28	6489	3156
Area including Strathdon and Cock Bridge	3509	4251	3932	6269	4192	100	5333	4152
Tomintoul and Surrounding Areas	3960	4344	4950	6155	3219	269	5562	5038

[105] Housing domain based on overcrowding and absence of central heating in house, not availability or affordability.

Data zone name	Overall Rank	Domains						
		Income	Employment	Health	Education	Access to Amenities	Crime	Housing [105]
Area South & West of Kingussie	4065	4114.5	6329	6195	4180	166	2893	3367
Newtonmore	4170	3844	4369	3861	3406	2150	6438	3349
Aviemore North and High Burnside	4278	3781	4326.5	5128	3840	2072	4155	2700
Area surrounding Ballater	4447	5998	5116	6551	5235	73	4852	3370
Kingussie North Central and North	4525	4007	3542	4557	3930	5431	5047	2771
Boat of Garten and Area to Eeast	4608	4739	5755	5554	3794	480	6777	3216
Grantown West	4654	3915	4670	4890	3426	3432	4607	4184.5

Data zone name	Overall Rank	Domains						
		Income	Employment	Health	Education	Access to Amenities	Crime	Housing [105]
Area South East and North West of Kincraig	4697	5601	5839	6663	4723	266	2561	3136
Carrbridge and Surrounding Areas	4756	4957	5296	6093	4524	712	3574	3417
Area North East and South East of Grantown	4767	5691	5983	6502	3923	245	4988	3989
Nethy Bridge and Surrounding Areas	4784	5119	5677	6443	5346	292	6494	1576.5
Ballater North Central and North East	4871	4439	3611	5148	3881	6322	5542	2500.5
Aviemore Centre South and West	4873	4727	4919.5	5567	2943	4852	2054	2133
Kingussie South Central and West	4885	3902.5	4114.5	4997	4855	6182	2777	4502

Data zone name	Overall Rank	Domains						
		Income	Employment	Health	Education	Access to Amenities	Crime	Housing [105]
Aviemore Eeast, Glenmore and surrounding areas	4917	5513	5217	6327	4740	644	4115.5	2603
Grantown North and Central	4936	4002	4897	3878	3756	6419	4269	4423.5
Grantown South and Central	5482	4441.5	5277.5	4306	5104	5639	6048	2240
Braemar and Surrounding Areas	5949	5376.5	6481	6775	5061	1637	5410	5323
Ballater South Central and Sourth West	6040	4794	5637	5611	5134	6206	5309	3731

The only data zone domain rankings that fall within the 'most deprived' category are for access to amenities – while this is an issue particularly for households with limited access to a car and with regards to carbon emissions, larger average distances to amenities can be expected for a predominantly rural area. It should also be noted that 10% of this ranking is weighted against access to superfast broadband (an additional indicator added to the 2020 Scottish Index of Multiple Deprivation).

As the scores are ranks, they do not indicate the degree of difference between data zones. For example, while in the data zone for 'Aviemore Centre East' it is recorded that 13% of households are classed as income deprived (Highest value in the National Park) it may at first appear alarming when some other data zones, nationally, have scores of 1%. However, it should be noted that this is much less significant than in a substantial number of inner-city data zones which have over 40% of households classed as income deprived.

Scottish Index Multiple of Deprivation health domain

In terms of the health domain rankings for the Cairngorms National Park (Figure 306), none of the areas fall within the lowest two quintiles (Table 57). The Healthcare domain score is derived from the following seven indicators:

- Standardised mortality ratio. Data sourced from the National Records of Scotland, 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.06) (Figure 307).
- Hospital stays related to alcohol use: standardised ratio[106] (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.08) (Figure 308).
- Hospital stays related to drug use: standardised ratio (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.07) (Figure 309).
- Comparative illness factor: standardised ratio DWP[107], Aug 2017 (2020 weighting to overall domain = 0.46) (Figure 310).
- Emergency stays in hospital: standardised ratio (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.19) (Figure 311)

[106] Five of the seven indicators in the health domain are indirectly standardised ratios. The aim of standardisation is to provide a summary 'adjusted' rate to take into account underlying differences (for example age, sex, deprivation) of a study population relative to a 'reference' population. Indirect age-sex standardisation is based on a comparison of observed to expected numbers of events or cases, achieved by applying age-specific rates from a 'standard population' to the population of interest. For example, if the study population is within a data zone of residence, then the standard population might be taken as Scotland. For more information on direct and indirect standardisation techniques please refer to the NHS guidance - https://www.scotpho.org.uk/media/1400/phi-standardisation-guidance-v21.docx.
[107] Data from the Department of Works and Pensions.

- Proportion of population being prescribed drugs for anxiety, depression or psychosis (2020 weighting to overall domain = 0.13) (Figure 301).
- Proportion of live singleton births of low-birth-weight (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.01) (Figure 306).

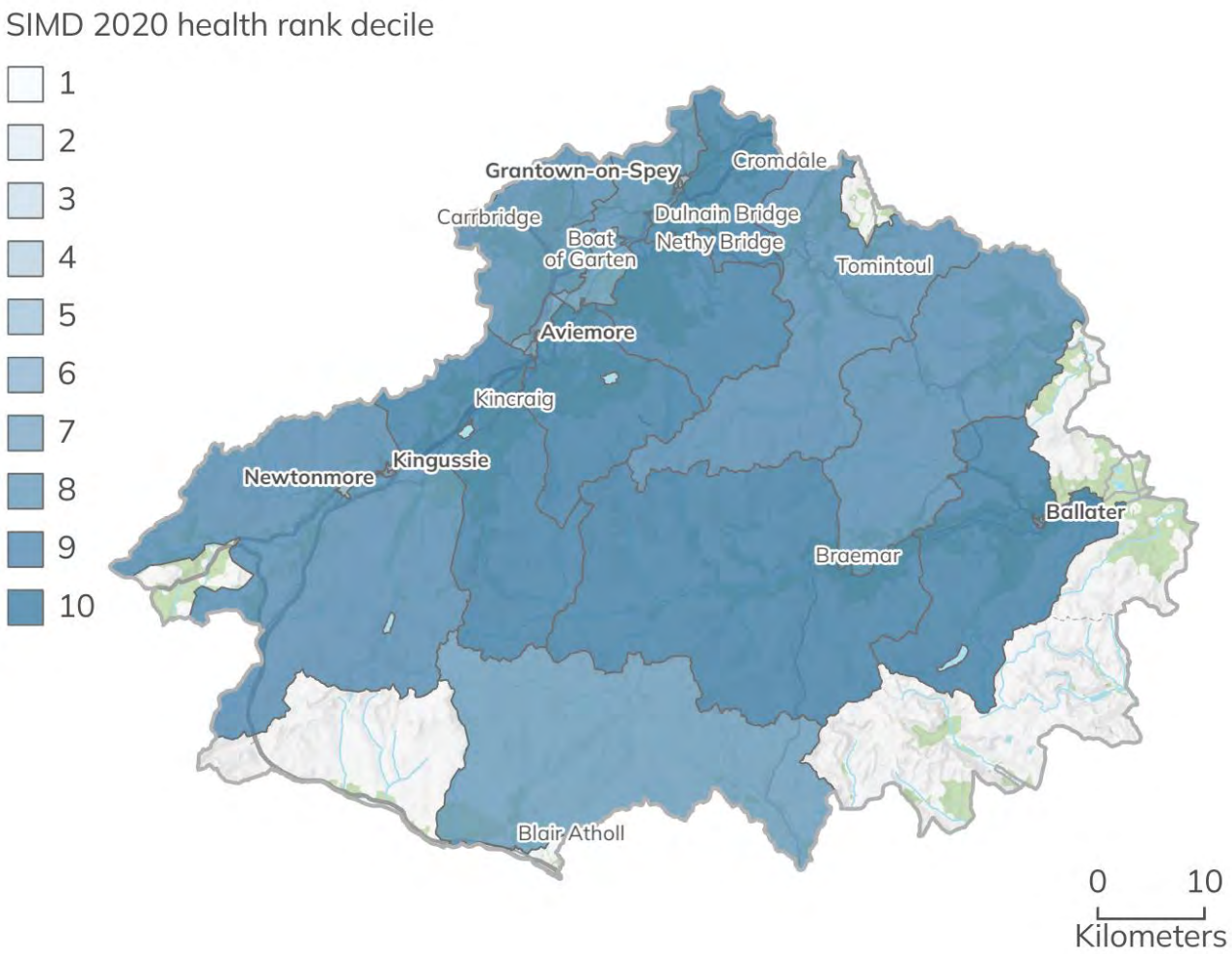


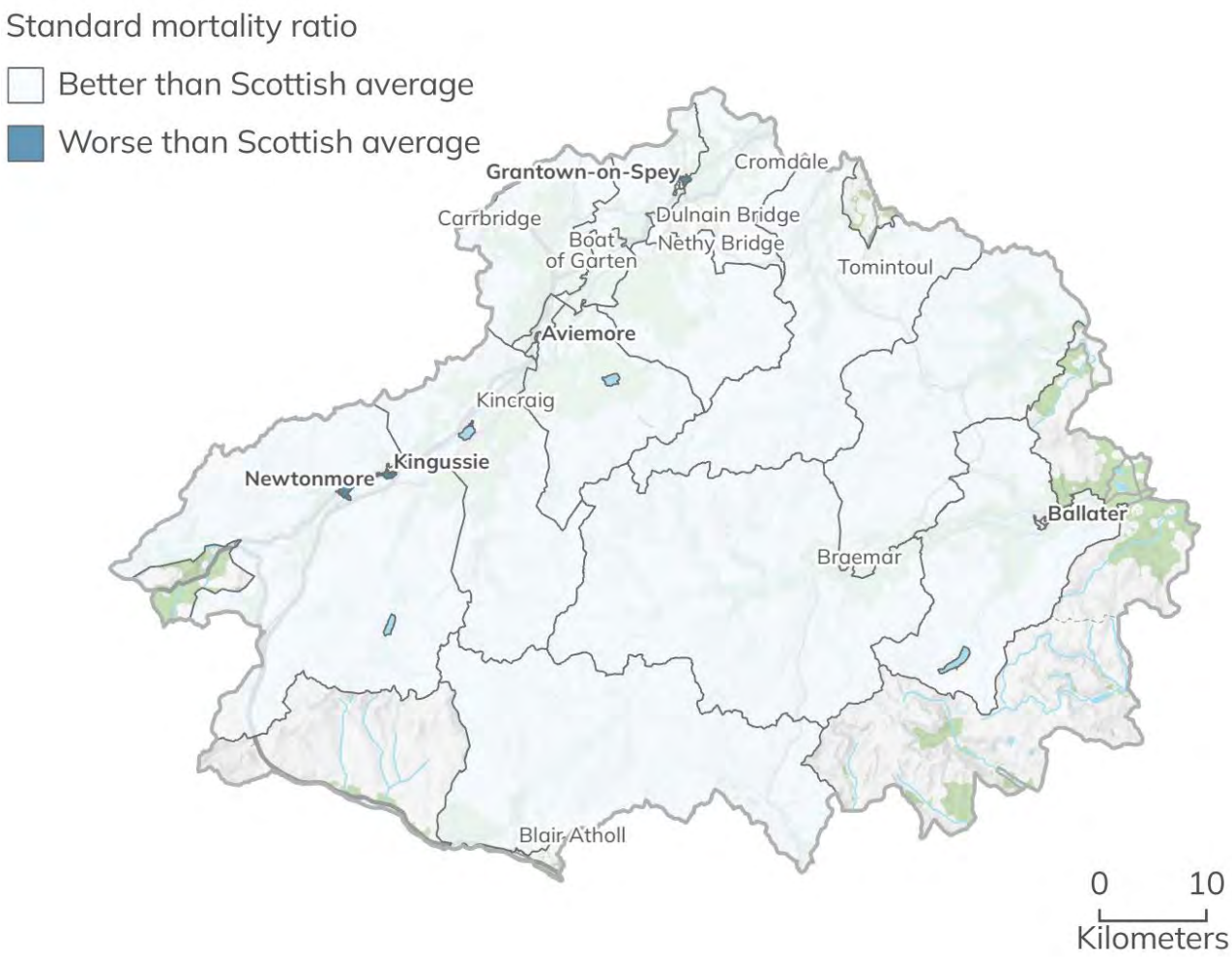
Figure 306 2020 Scottish Index of Multiple Deprivation (SIMD) Health domain rankings for the Cairngorms National Park data zones. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Indirectly standardised ratios have limitations for drawing comparisons. In comparing one data zone between different index releases, if it had a ratio of 100 in 2016 and 110 in 2020, you could say that the figure for that data zone has got worse relative to Scotland. However, you cannot say whether the data zone has actually worsened – only that it has worsened relative to Scotland. In comparing two data zones for the same release (e.g. SIMD 2020), if one data zone had a ratio of 110 and another a ratio of 115, you could say that the figures for both data zones are worse than the Scottish average

(100). However, for statistical reasons, you cannot say that the data zone with the ratio of 115 is worse than the one with the ratio of 110.

Standardised mortality ratio

Standardised mortality ratio is an indicator that provides the indirectly age-sex standardised ratio for deaths of all ages registered from all causes. Data is standardised by five-year age band and sex. It is calculated using the National Records of Scotland mid-year population estimates and mortality information. For each data zone, the sum of observed all-cause deaths by sex and five-year age band was divided by the corresponding sum of expected deaths. For further details, please see methodology section (2.3) of the index's 2006 technical report[108].



[108] https://www.gov.scot/publications/scottish-index-multiple-deprivation-2006-technical-report/

Figure 307 Standardised mortality ratio, mortality per 100,000 people. Data sourced from the National Records of Scotland, 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.06). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Figure 307 shows that in the National Park in terms of the standardised mortality ratio, mortality per 100,000 people, only three areas are worse than the national average. They are the data zones covering Newtonmore (S01010531), part of Kingussie (S01010533) and part of Grantown-on-Spey (S01010546).

Hospital stays related to alcohol use

In terms of hospital stays related to alcohol use per 100,000 people, Figure 308 shows that only two data zones in the National Park are worse than the national average, they are areas in Grantown-on-Spey (S01010545) and part of Ballater (S01006790).

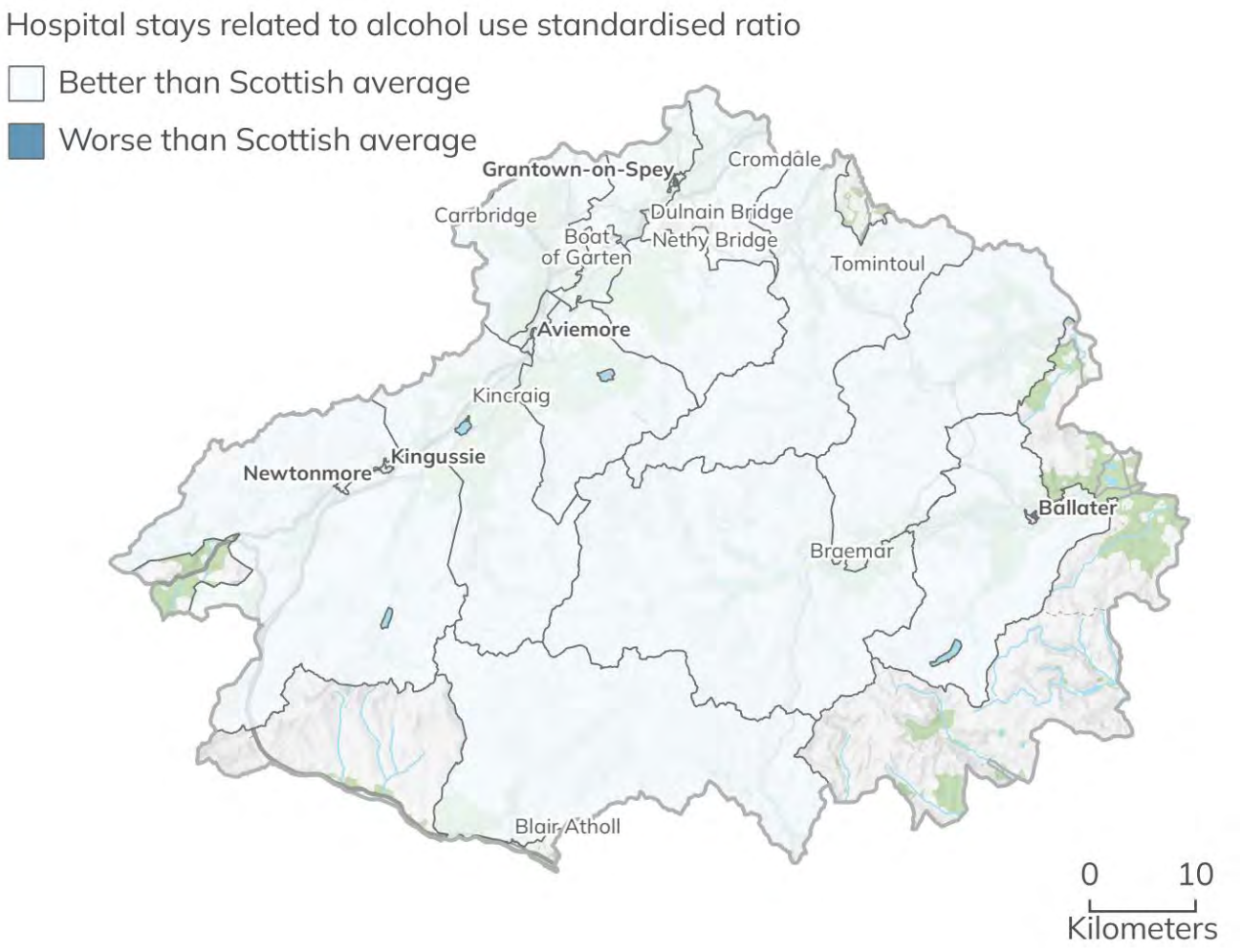


Figure 308 Hospital stays related to alcohol use per 100,000 people: standardised ratio ISD, 2014 – 2015 to 2017– 2018 (2020 weighting to overall domain = 0.08).). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Hospital stays related to drug use

In terms of hospital stays related to drug use, all the areas / data zones in the Cairngorms National Park are better than the Scottish average (**Error! Reference source not found.**).



Figure 309 Hospital stays related to drug use per 100,000 people: standardised ratio (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.07). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Comparative illness factor

In relation to the comparative illness factor: standardised ratio DWP, the only area in the National Park worse than the Scottish average is a data zone in Aviemore (S01010536) (Figure 310).

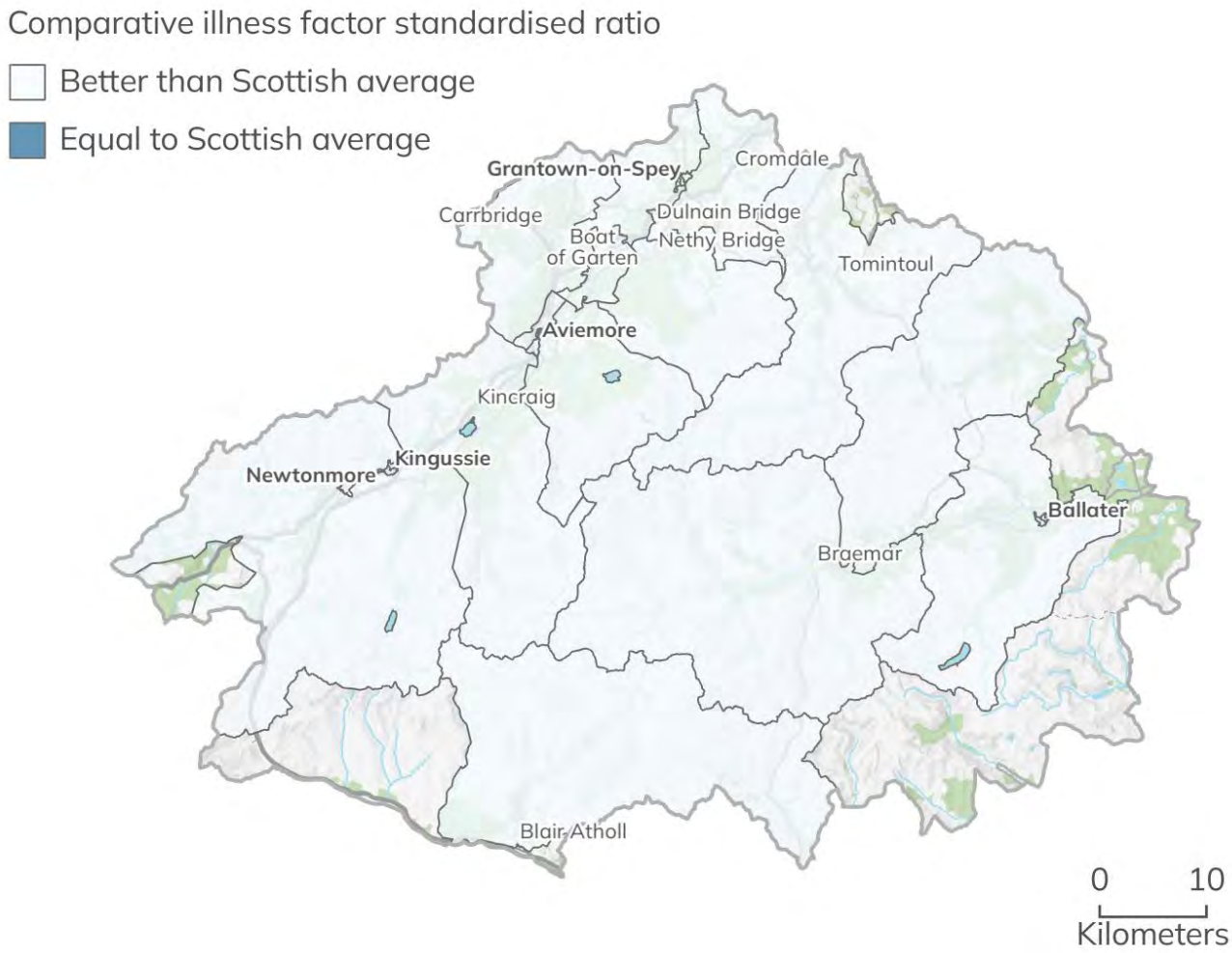


Figure 310 Comparative illness factor: standardised ratio (per 100,000 people) DWP, Aug 2017 (2020 weighting to overall domain = 0.46). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Emergency stays in hospital

In relation to emergency stays in hospital all areas in the Cairngorms National Park are better than the Scottish average (Figure 311).



Figure 311 Emergency stays in hospital: standardised ratio (Information Services Division), 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.19). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Proportion of live singleton births of low birth weight

Nationally, in 2020, 7.5% of live singleton births in the most deprived areas were recorded as low birthweight, this compared to 4.2% in the least deprived areas[109]. Figure 312 shows the proportion of live singleton births of low birth wight in the Cairngorms National Park, broken down by data zone. The areas with over 4% of live singleton births recorded as low birthweight included part of Grantown-on-Spey (S01010544), part of Ballater (S01006789), part of Kingussie (S010105330, Nethy Bridge and surrounding area (S01010544) and the Perth and Kinross area of the National Park.

[109] Long-term monitoring of health inequalities: March 2022 report, Scottish Government

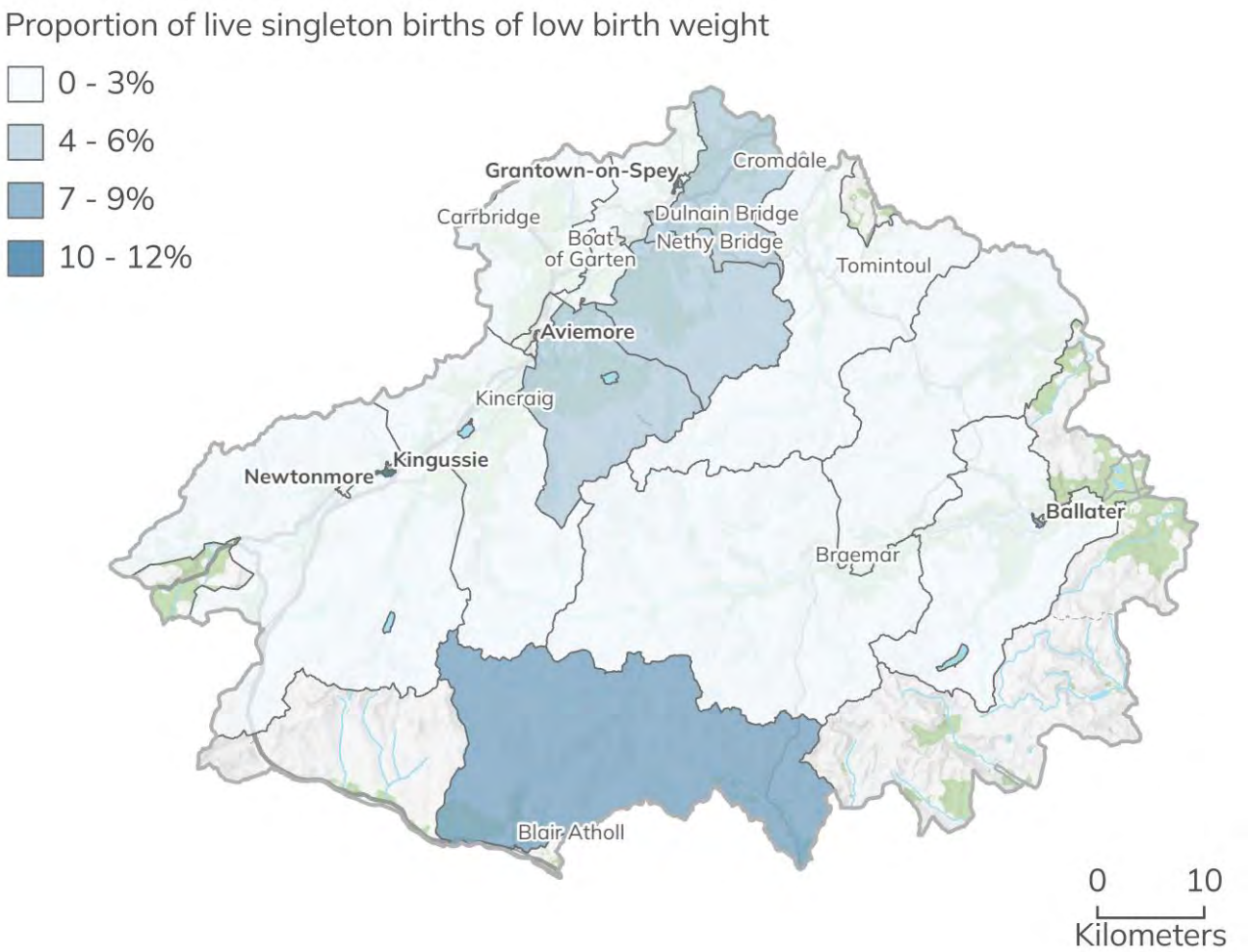


Figure 312 Proportion of live singleton births of low-birthweight (Information Services Division, 2014 – 2015 to 2017 – 2018 (2020 weighting to overall domain = 0.01). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Access to health care

Limited public transport options can hinder access to healthcare, especially for those without private vehicles. Two indicators are particularly relevant to the subject of health and wellbeing, namely the drive times to a GP and public transport journey times to a GP.

For the majority of people (79.8%) in the Cairngorms National Park the drive time (by private vehicle) to access GP services is less than 10 minutes (Figure 313 and Figure 314). This increases to up to approximately 13 minutes for a further 15% (2,850 people) of the population of the National Park. Only one data zone, covering Blair Atholl, Strathardle and Glenshee (comprising of around 900 people), has average drive times just over 15 minutes, recorded at 16.6 minutes (Figure 314).

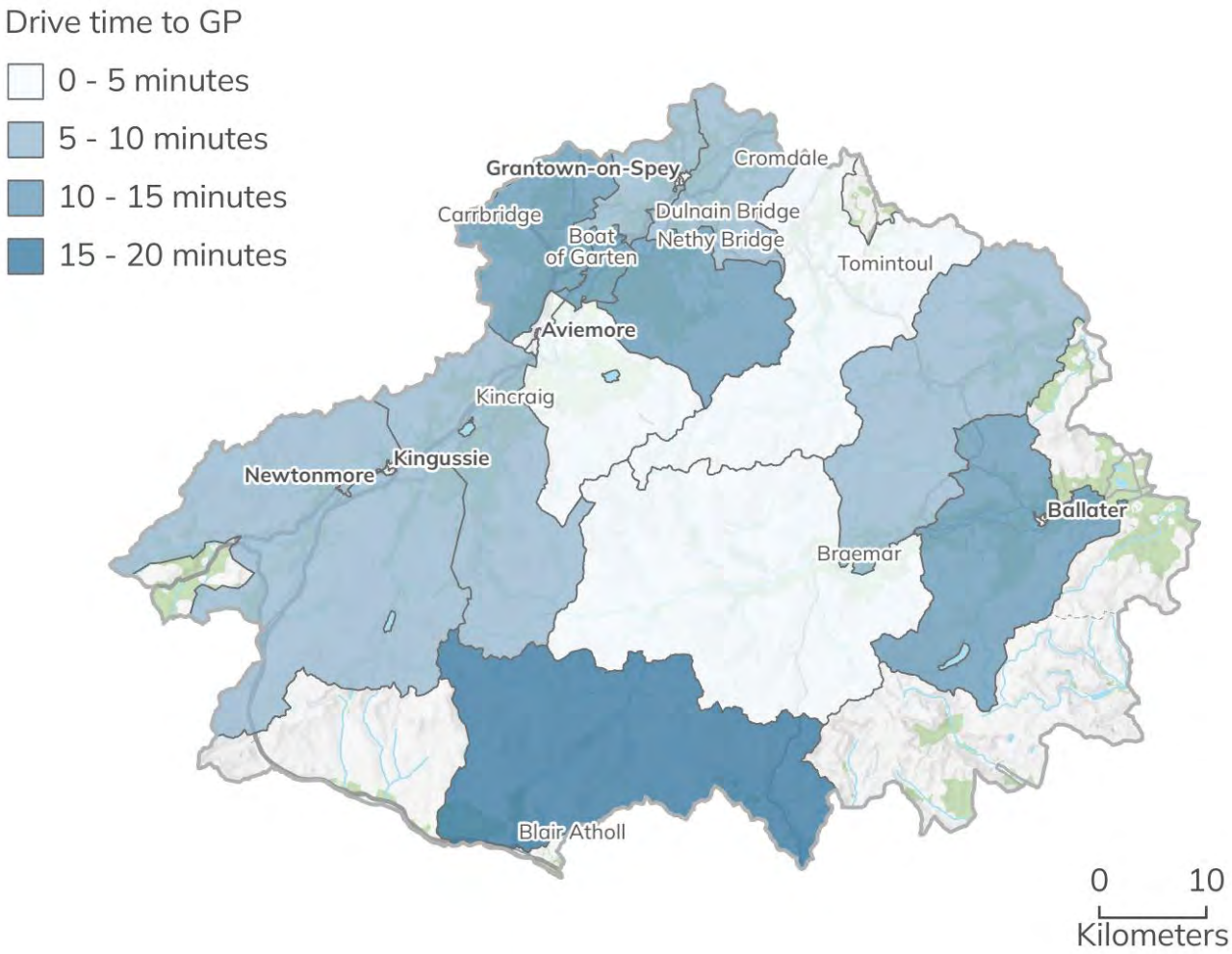


Figure 313 Average drive times to a GP surgery (SIMD 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

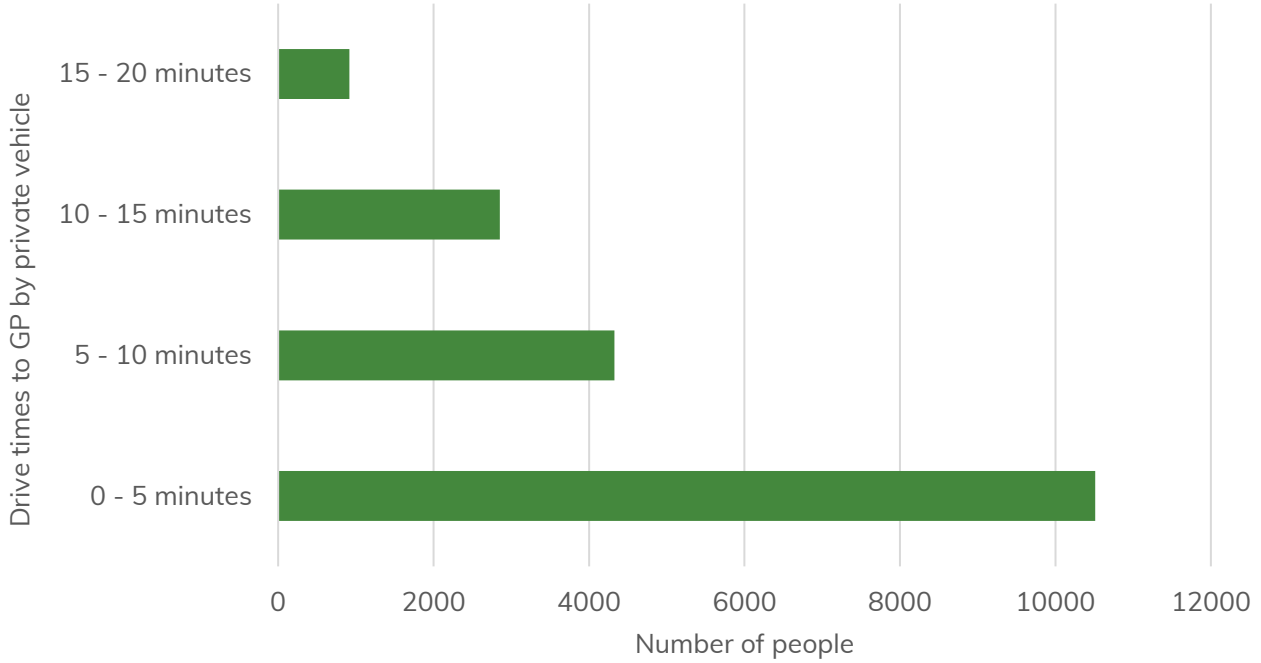


Figure 314 Population distribution by average drive time (minutes) to a GP surgery (SIMD, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

Figure 315 and Figure 316 show the journey times to access GP services using public transport. For around 11,600 people (62.5%) in the National Park this would be between 5 and 15 minutes. For around 6,000 people (32.6%) this increases to between 15 and 29 minutes. The area with the longest journey time by public transport mirrors the longest drive time by private vehicle, is experienced by people living in the area covering Blair Atholl, Strathardle and Glenshee (representing around 900 people) where journey times are recorded reported at an average of 36.1 minutes.

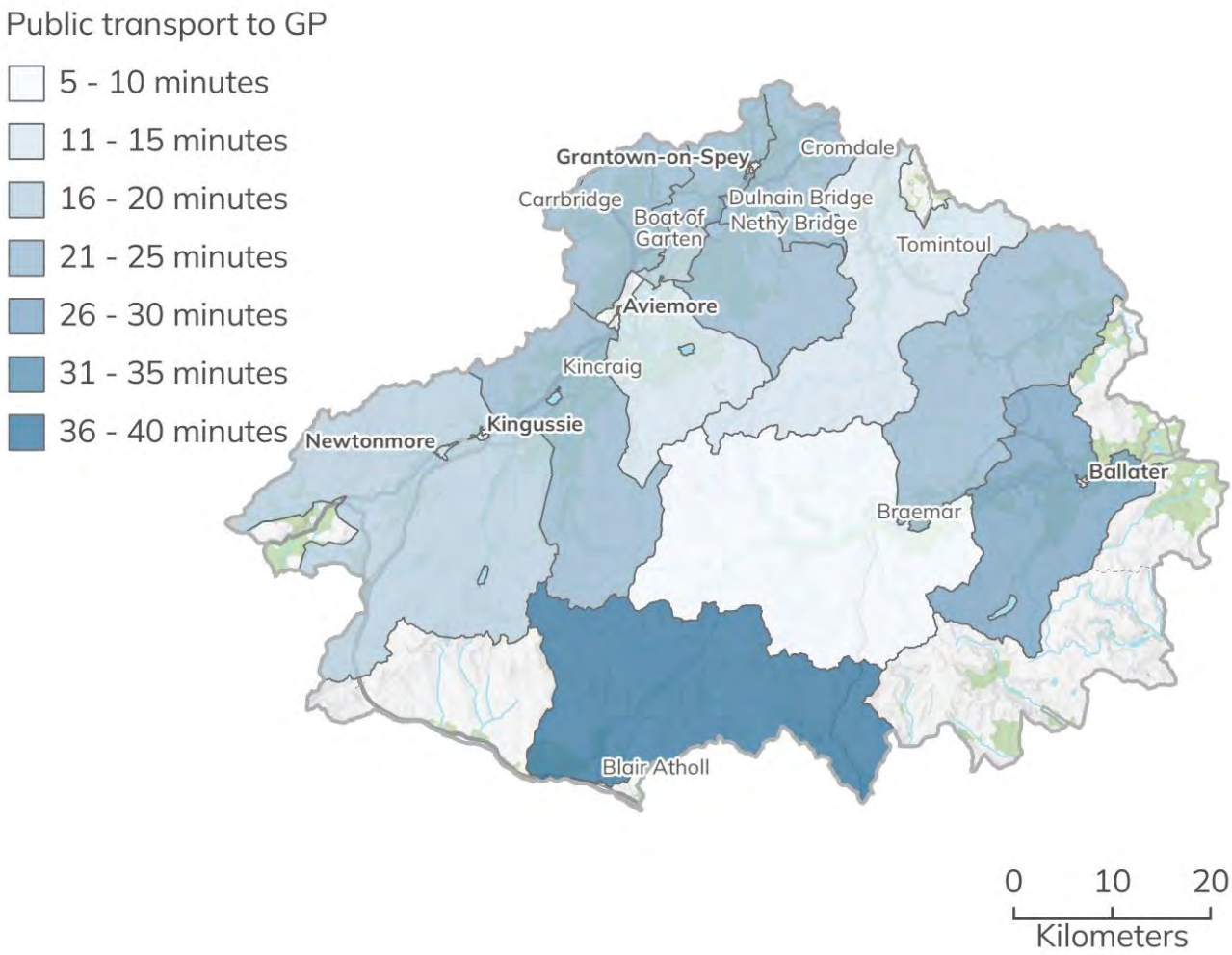


Figure 315 Average travel times to a GP surgery by public transport (SIMD 2020). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

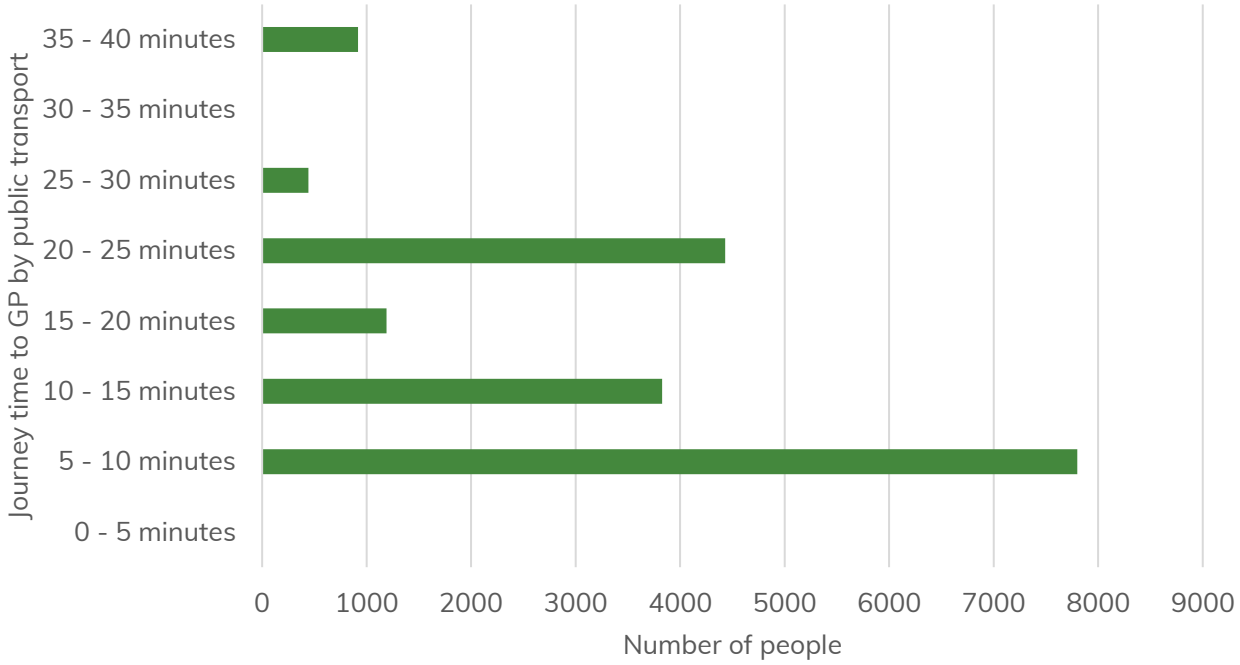


Figure 316 Population distribution by average journey time by public transport (minutes) to a GP surgery (SIMD, 2020). To maintain consistency with SIMD data, population data is based on 2020 mid-year estimates.

Crime

The commonly held conception of the rural idyll (Bell, 2006[110]) would seem to be supported by the Police Scotland data showing the relatively low levels of crime in the Cairngorms National Park compared with the five adjoining local authorities. The crime rate is also considerably below the Scottish average and currently declining at a rate comparable to National figures. The fact that there may be less crime should not support the misconception that it is not an issue for the local populace (Yarwood, 2001[111]). It cannot be assumed that the perceived safety by the community is higher due to over-all lower rates of crime (Ceccato, 2015[112]).

Crime rate figures are not available for geography of the Cairngorms National Park; therefore, the Scottish Index of Multiple Deprivation data has been presented here to represent the crime data for the National Park. In comparing the earlier years of Scottish

[110] Bell, D. (2006), Variations on the Rural Idyll, in P. Cloke, T. Marsden and P. Mooney (eds), Handbook of Rural Studies (London: Sage), 149–160
[111] Yarwood, R. (2001) Crime and policing in the British countryside: Some agendas for contemporary geographical research. Sociologia Ruralis, 41 (2).
[112] Ceccato, V.A. Rural Crime and Community Safety (2016) Routledge ISBN 978113806591

Index of Multiple Deprivation data with newer years the 2001 data zones were used to calculate total reported crime figures (Figure 319 and Figure 320).

A comparison between the data zones in the Cairngorms National Park, the bounding local authorities and Scotland has been provided in Figure 318. The figures are calculated using the population and number of crimes data of the induvial data zone values in the respective areas in the Scottish Index of Multiple Deprivation data (figures have been rounded up to provide whole numbers, relating to the nature of the data). The Cairngorms National Park has the lowest rates of crimes per 10,000 people (118 per 10,000 people) when compared to the other local authorities that traverse the National Park. It is significantly lower than the Scottish Index of Multiple Deprivation average calculated value for Scotland.

Factors often associated with this low level of crime (and prevalent in the Cairngorms National Park) include:

- Lower levels of deprivation (De Courson and Nettle, 2021[113]).
- Small towns and villages located in rural areas generally tend to experience lower crime rates (Deller, S and Deller, M, 2010[114], Donnermeyer, J, 2007[115], Marsham, B and Johnson, S, 2005[116]).

Data for individual data zones within the Cairngorms National Park it needs to be noted that due to the volatility of this small area data it is difficult to draw meaningful analysis (Figure 317). However it can be noted that the only data zone above the Scottish Average crime rates (in both 2016 and 2020) was the data zone including Aviemore (which had a crime rate of 321 per 10,000 people, in the 2020 Scottish Index of Multiple Deprivation data) town centre – this is an area that also suffers from income and educational deprivation and is the lowest scoring overall data zone for the National Park on the Scottish Index of Multiple Deprivation scale. Aviemore is also a popular tourist destination, with a large influx of seasonal visitors which may affect the increased crime rates recorded in the 2020 Scottish Index of Multiple Deprivation figures.

[113] De Courson, B., Nettle, D. Why do inequality and deprivation produce high crime and low trust? Sci Rep 11, 1937 (2021). https://doi.org/10.1038/s41598-020-80897-8.
[114] Deller S, Deller, M. 2010 .Rural Crime and Social Capital. Growth and change: A journal of Urban and Regional Policy. Vol 41, Issue 2.
[115] Donnermeyer, J . 2007. Rural Crime: Roots and Restoration. The Ohio State University. Available online at: https://www.researchgate.net/publication/228981592_Rural_Crime_Roots_and_Restoration.
[116] Marsham, and Johnson, S (2005). Rural Evidence Research Centre: Crime in Rural Areas: A review of the Literature for the Rural Evidence Research Centre. Jill Dando Institute of Crime Science, University College London.

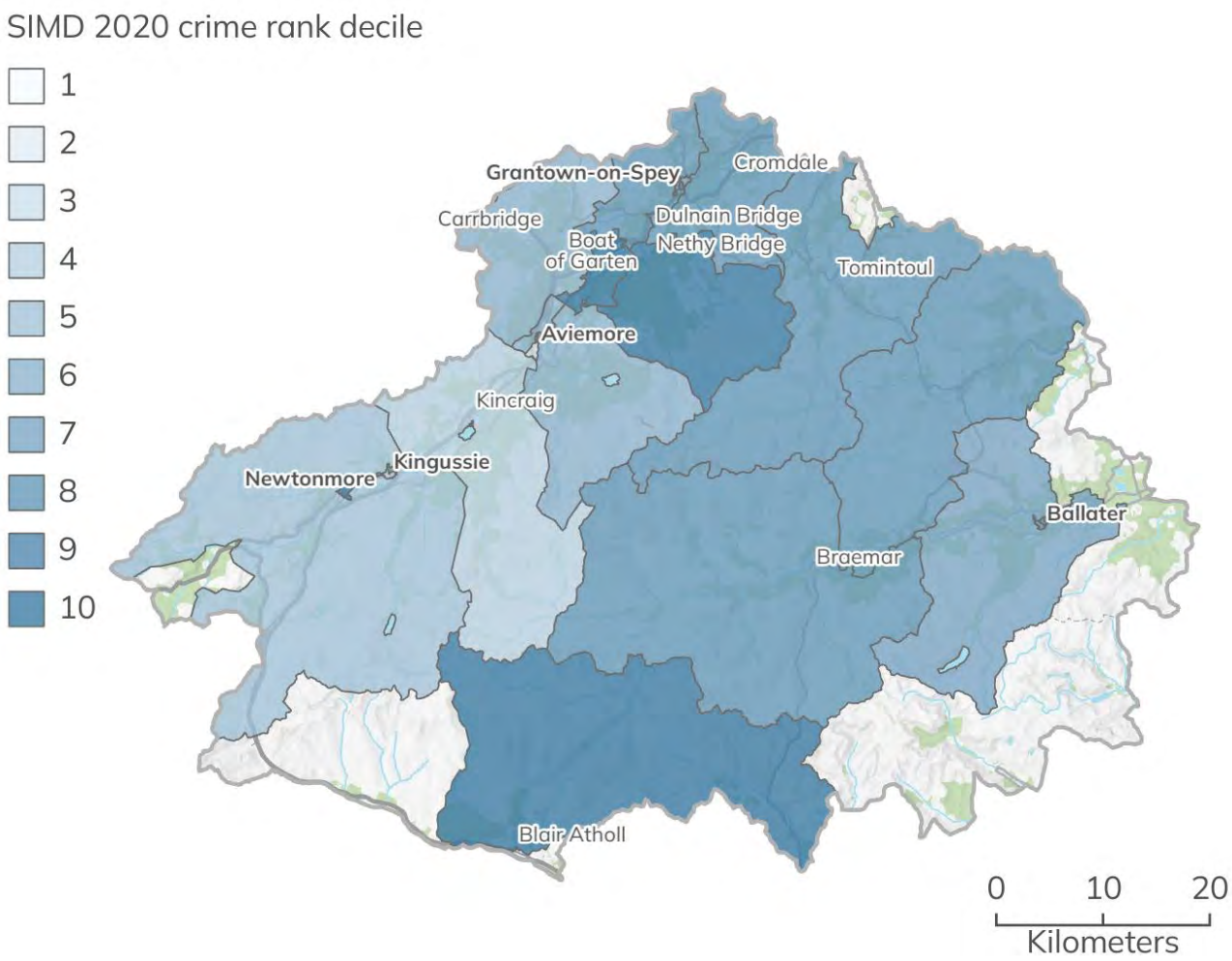


Figure 317 2020 Scottish Index of Multiple Deprivation (SIMD) Crime domain rankings for the Cairngorms National Park data zones. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

In terms of the number of reported crimes (selected sample for Scottish Index of Multiple Deprivation data purposes) the data for the Cairngorms National Park is slightly at odds with the national (Scottish) declining trend (Figure 319 and Figure 320). In 2009 reported crimes increased then decrease the following year but recorded a higher level than before the increase. The only external factor that could be used to explain this was the national economic downturn in 2008 / 2009 coinciding with these results.

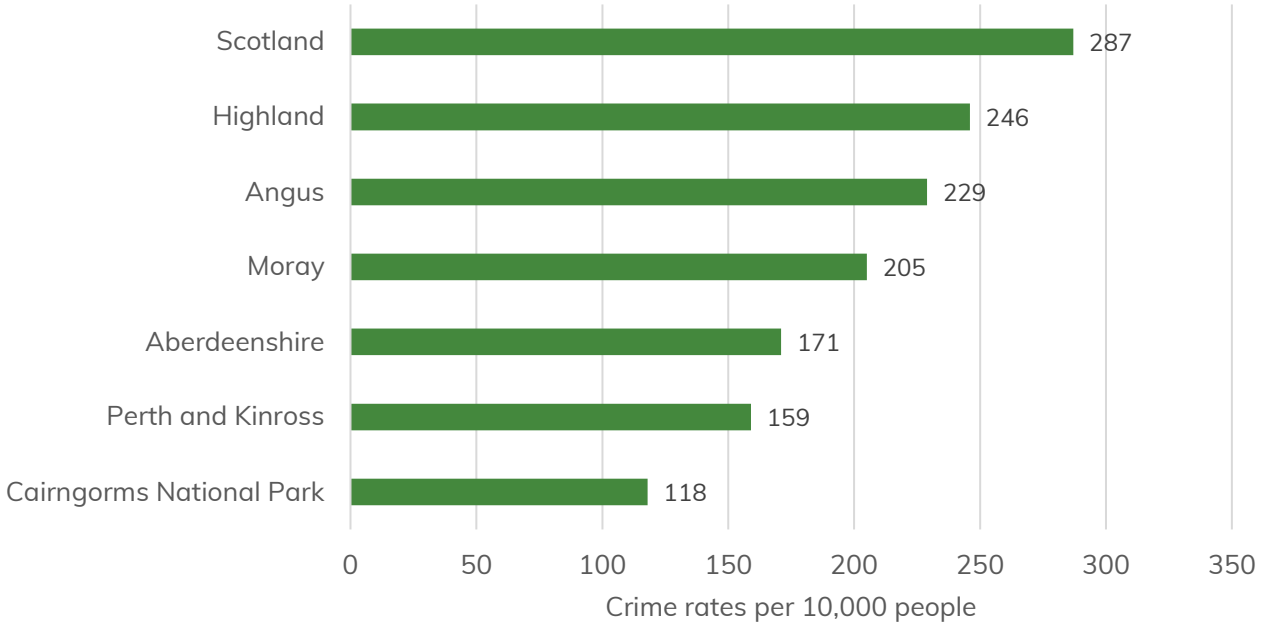


Figure 318 Recorded crime rates (selected categories[117]) per 10,000 people in the Cairngorms National Park, Scotland and Local Authorities covering the National Park. Calculated using the Scottish Index of Multiple Deprivation 2020 data which draws on data from Police Scotland.

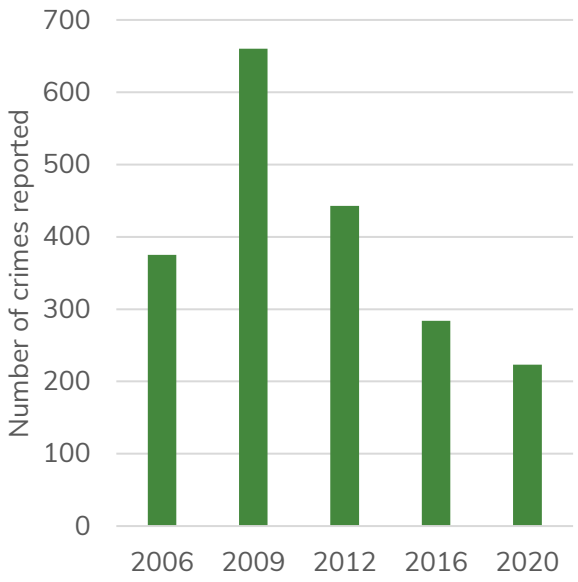


Figure 319 Number of reported crimes in the Cairngorms National Park. Scottish Index of Multiple Deprivation, 2006 – 2020.

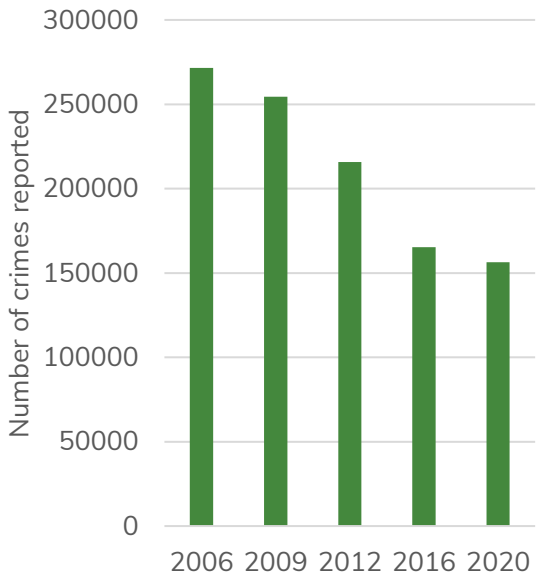


Figure 320 Number of reported crimes in Scotland. Scottish Index of Multiple Deprivation, 2006 – 2020.

[117] Recorded crime rate of selected crimes of violence, sexual offences, domestic housebreaking, vandalism, drug offences and common assault - sum of each SIMD crime per 10,000 population. Data source Police Scotland for 2017 – 2018.

While crime rates within the National Park are low and appear to be falling, methods to help reduce crime in the built environment, such as those promoted by the police's official Secured by Design initiative, may be implemented through the design of developments.

Working age population

Population estimates

In 2022 the population of the National Park was estimated by the Scottish Census to be 17,531 people (Census table UV102b). The working age population (16 years to 64 years) of the National Park was estimated to be 10,256, equating to approximately 59% of the population (Figure 321). This is below the level, which was 63.6%. The working age population comprised of 5,087 (49.6%) males and 5,173 females (50.4%).

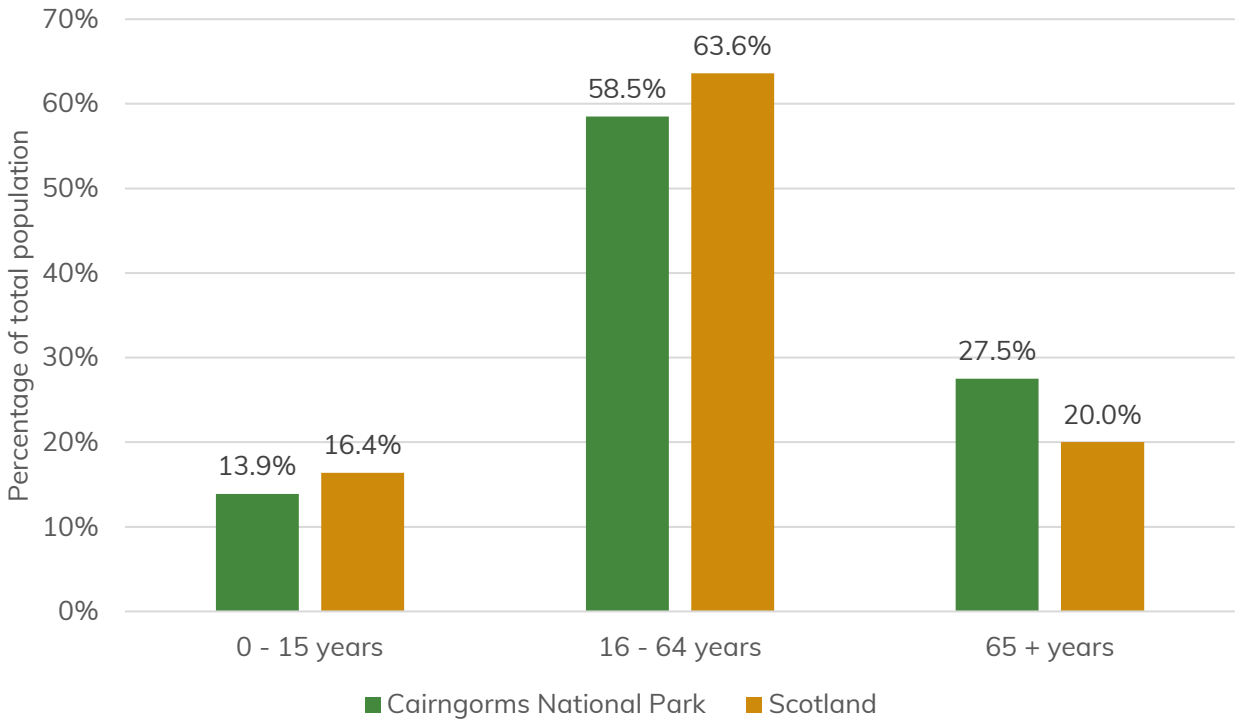


Figure 321 Proportion of the population by age group in Scotland compared to the Cairngorms National Park in 2022 (2022 Census tables UV102a and UV101b).

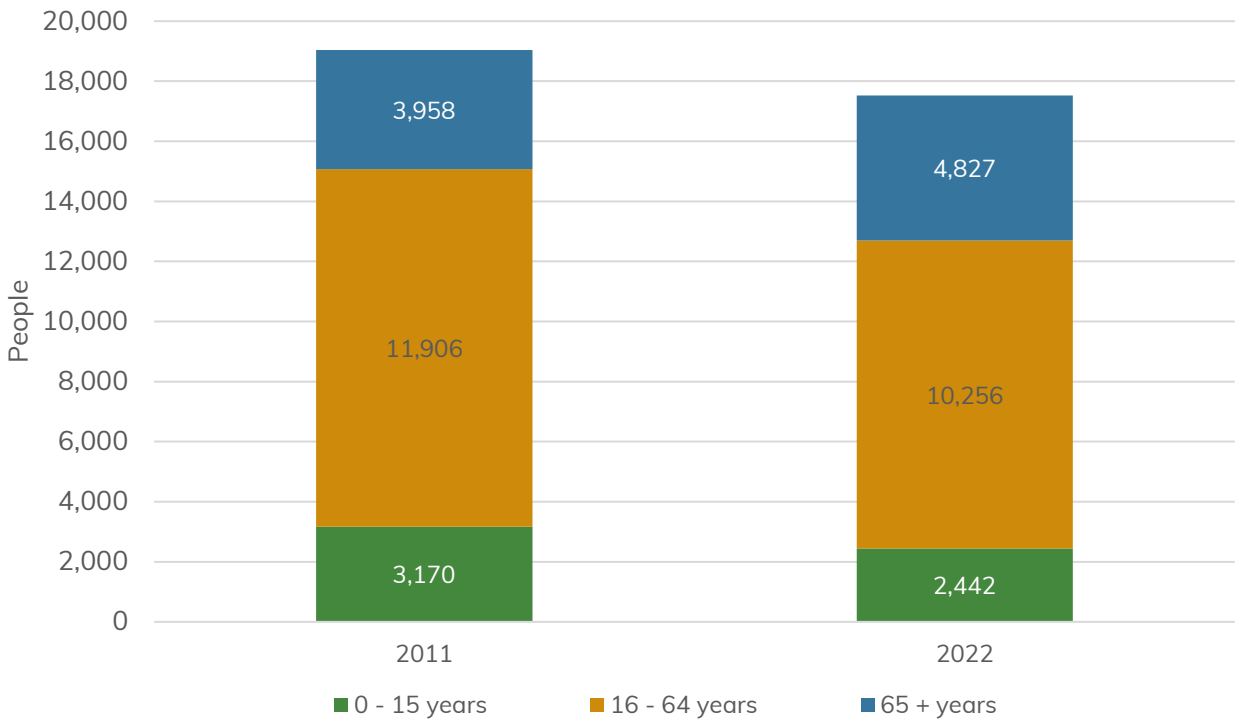


Figure 322 Comparison by age groups between 2011 and 2022 in the Cairngorms National Park (2022 Census table UV101b and 2011 Census table LC1117SC).

2011 and 2022 census data (tables LC1117SC and UV102b) indicates that there has been a decrease in the overall population in the Cairngorms National Park from 19,034 in 2011 to 17,531 people in 2022 (Figure 322). The working age (16 to 64 years) population has also decreased from 11,906 people in 2011 to 10,256 people in 2022 (Figure 322). The population of those of pensionable age (65 years and older) increased from 3,958 in 2011 to 4,827 in 2022 (Figure 322). However, there are several important caveats to consider when comparing these datasets, namely:

- The fact that the National Park is a non-standard geography.
- Issues with communal establishment usual population estimate in the 2011 census.

Information on these issues is presented within this supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

The outcome of these issues is that while we may identify changes between censuses, there is uncertainty about the exact extent of those changes. Some comparisons may not be possible at all.

Working age population projections

The number of people of working age is projected to decrease from 11,588 in 2018 to 10,916 in 2043, representing a 5.8% reduction, greater than the decrease projected for Scotland, which is 3.8% (Figure 323).

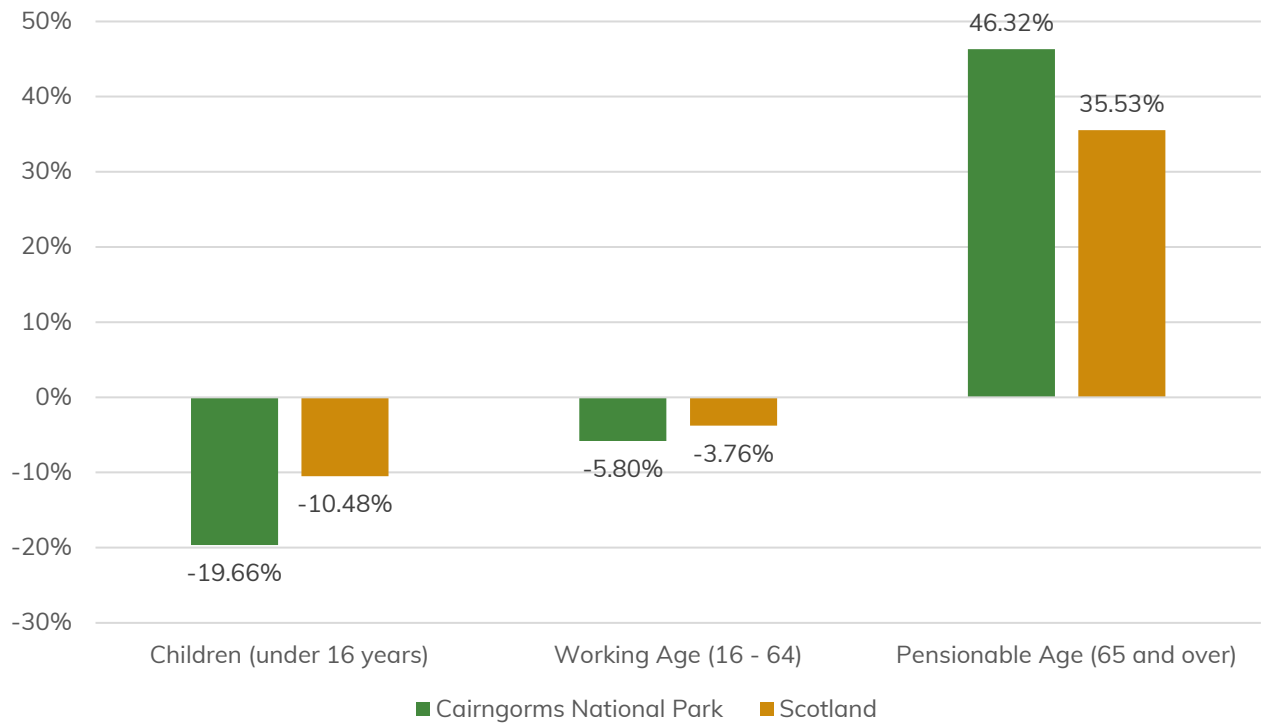


Figure 323 Principle projected population change in the Cairngorms National Park and Scotland 2018 – 2043 (National Records Scotland, 2018).

Skills and education

Educational attainment of the working age population

According to the 2022 Census the Cairngorms National Park's population has a higher proportion of working age residents with educational attainment at degree level or above when compared to the five adjoining local authorities and national figures (Figure 324).

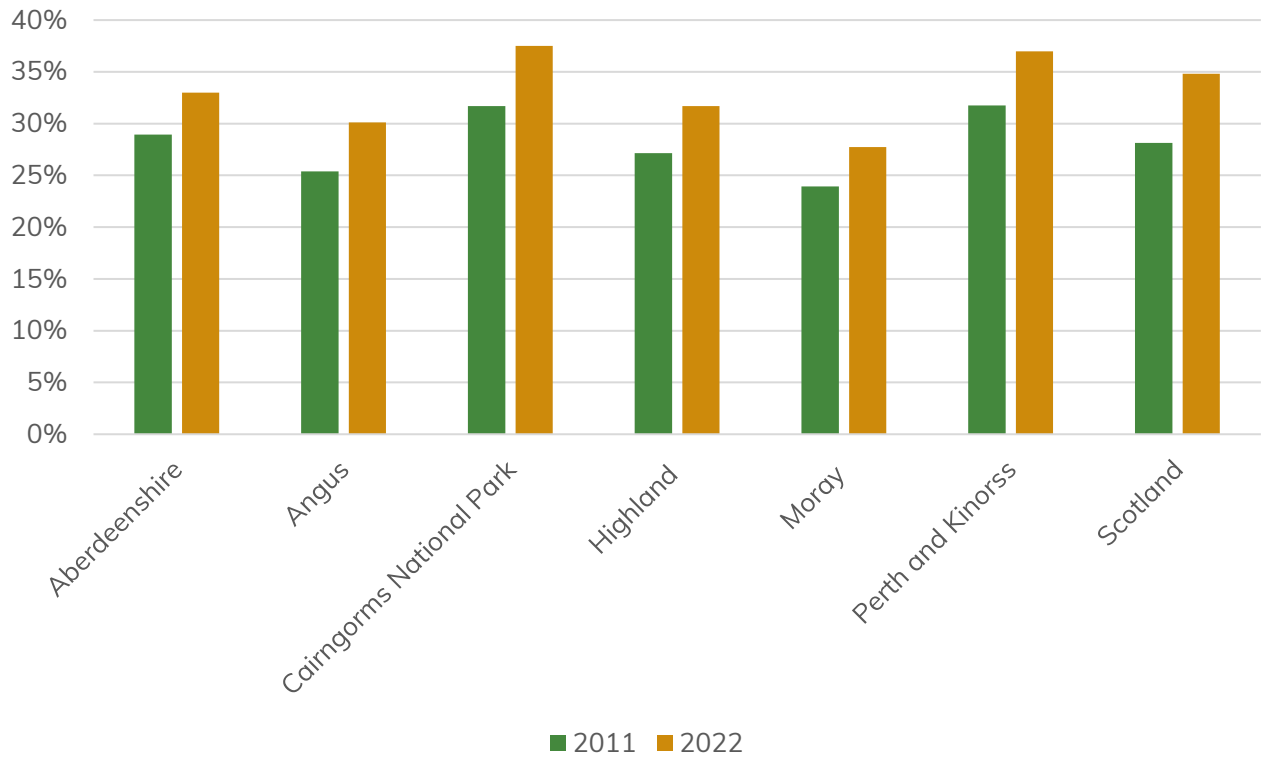


Figure 324 Proportion of adults (working age – 16 to 64 years) with degree level or above educational attainment in the Cairngorms National Park, Scotland and the five adjoining local authorities. Census 2022 table UV501b and Census 2011 table LC5102SC.

The proportion of working age people (aged 16 to 64 years) in the Cairngorms National Park with degree level or above educational attainment increased from 31.7% in 2011 to 37.5% in 2022 (Figure 324). This is higher than the national average of 34.8% people in Scotland reported having degree or higher educational attainment in 2022. Although across all the local authorities and in Scotland the proportion of people with degree or higher educational attainment increased between 2011 and 2022, the proportion of people in the Cairngorms National Park was highest in both census years (Figure 324).

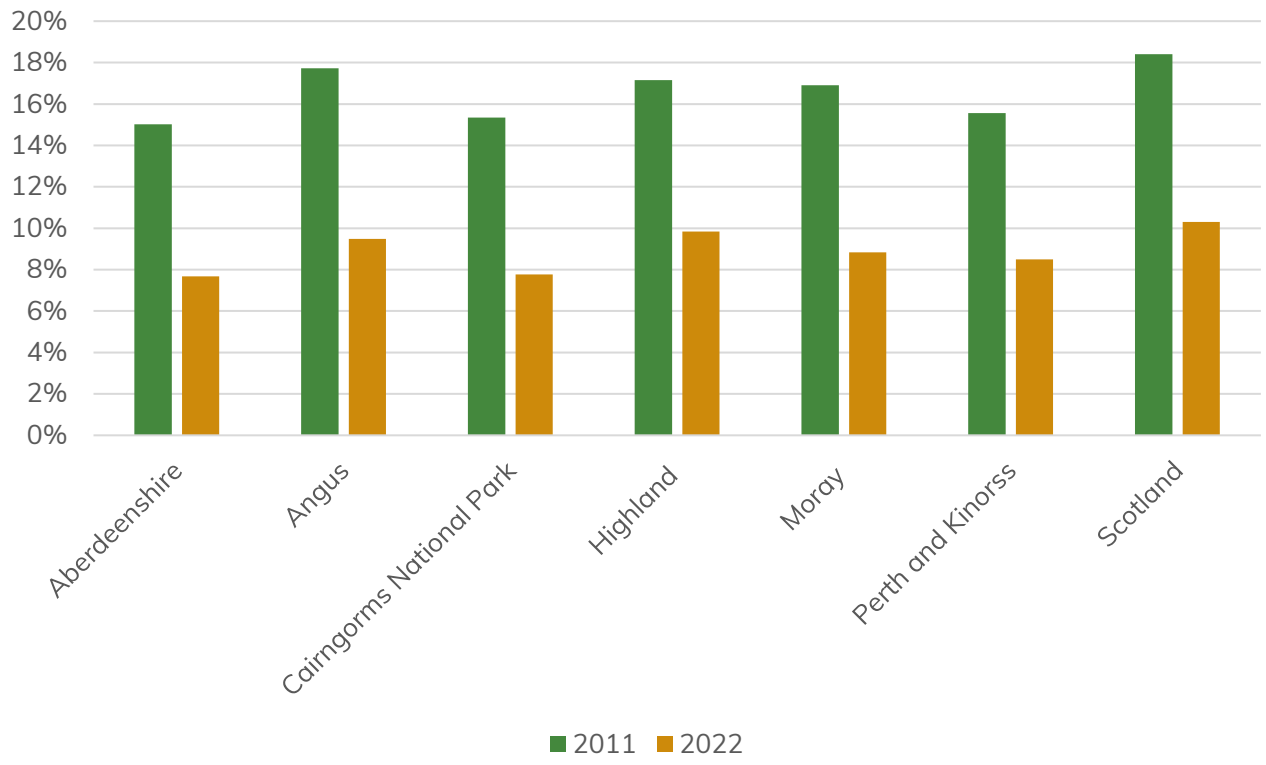


Figure 325 Proportion of adults (working age - 16 to 64 years) with no qualifications in the Cairngorms National Park, Scotland and five adjoining local authorities. Census 2022 table UV501b and Census 2011 table LC5102SC.

In 2022, the proportion of working age adults (16-64 years) with no qualifications (Figure 325) was lower in the Cairngorms National Park (7.8%) than the Scottish average (10.3%). It is roughly equal to Aberdeenshire (7.7%), but lower than Highland (9.8%), Angus (9.5%), Moray (8.8%).

The proportion of working age adults with no qualifications significantly reduced from 2011 to 2022 from 15.4% to 7.8%, representing similar reductions seen in all local authorities and nationally.

Educational attainment of school leavers

The score is a weighted average of the highest level of qualification achieved by school leavers, for all leavers within a data zone, over three academic years[118]. The score is based on the Scottish Credit and Qualifications Framework (SCQF) level of qualifications gained by leavers in National Qualifications and Skills for Work. These statistics are

[118] A 3-year rolling average dataset, starting with the 3-year period 2011 / 2012 – 2013 / 2014. It is updated on an annual basis. Data shown is the most recent data available as of March 2025.

affected by the COVID-19 pandemic with no data recorded for the period 2019 / 2020 – 2021 / 2022.

Data on publicly funded education indicates that school leavers within the Cairngorms National Park have above national and regional average educational scores[119] although the differences between local authorities are relatively modest (Figure 326). The relatively high average attainment for the people in the National Park may, in part be attributed to a lack of areas with severe deprivation.

The average attainment of school leavers has been steadily increasing since 2011 / 2012 – 2013 / 2014, rising from 5.6 to 5.7 in the most recent reported period (Figure 327). This increasing trend is also seen in the national figures, however the attainment of school leavers in the Cairngorms National Park has consistently been above the national average (Figure 327).

[119] Using the Scottish Credits and Qualifications Framework for school leavers, the score is calculated by identifying the best level of qualification each pupil leaves school with. The score is calculated by multiplying the highest qualification level achieved by each pupil by a corresponding factor. Level 3 qualifications are multiplied by three, level 4 by four, level 5 by five, level 6 by six and level 7 by seven. This indicator looks at the highest qualification attained by each pupil, not the number of qualifications attained. For example, one pupil who leaves school with four level 3 qualifications will score three, whilst a pupil leaving school with one level 5 qualification will score five. The total score is then divided by the total number of school leavers in each geographical area. Data are based on an average of three years and include all school leavers in secondary schools and special schools. Data from independent schools are not included. This is because there is a lack of data zone level information, and independent schools may choose to sit GCSEs or other English qualifications for which we have no information. We do not hold Scottish candidate numbers of independent school pupils. The number of pupils on the roll is taken from the September pupil census for the relevant year, which was carried out 43 through ScotXed project. The year shown relates to the academic year: http://www.gov.scot/Topics/Statistics/ScotXed. (Scottish Index Multiple Deprivation 2020 technical notes).

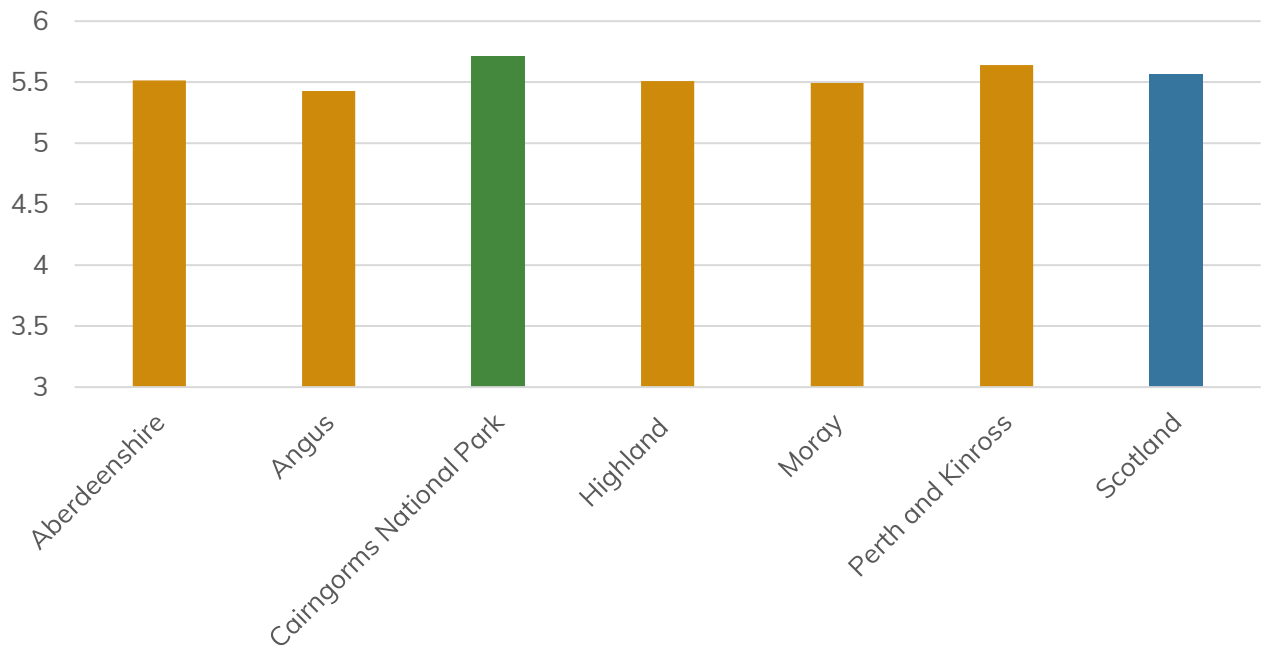


Figure 326 Educational attainment scores for people living in the Cairngorms National Park (data zone data) compared to the average figures from the local authorities and Scotland based on the intermediate data zone data for 2020 / 2021 – 2022 / 2023. Data from Statistics.gov Scotland. March 2025.

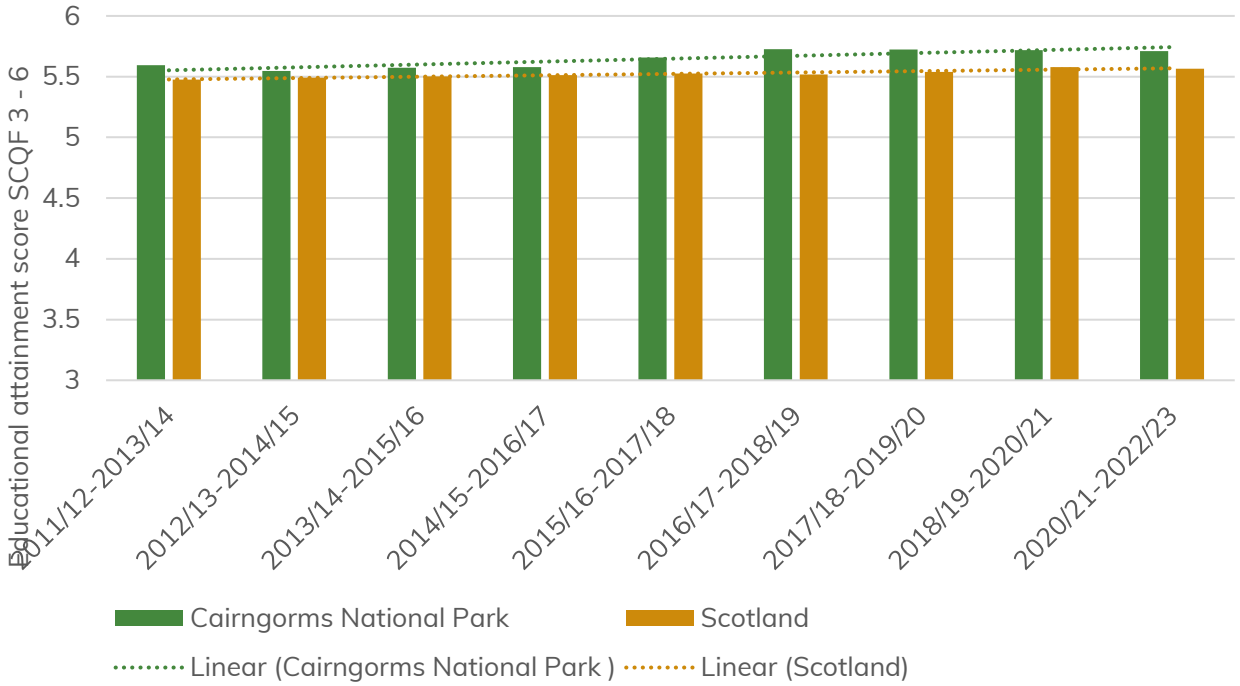


Figure 327 Educational attainment scores for people living in the Cairngorms National Park (data zones) compared to the average figures from Scotland (based on the intermediate data zone data) from 2011 / 2012 – 2013 / 2014 to 2020 / 2021 – 2022 / 2023. Note no data was reported for 2019 / 2020 – 2021 / 2022. Data from Statistics.gov Scotland, March 2025.

While the Cairngorms National Park is above the Scottish average for attainment, it is below average in terms of the proportion of 17 – 21 year olds attending UK universities (Figure 328) based on the most recent available data (SIMD[120] 2020). Geographical location is likely to be a factor in this. These figures are based on young people's location prior to starting university and have been adjusted to allow for areas with large student populations, however issues with survey methodology also cannot be entirely ruled out.

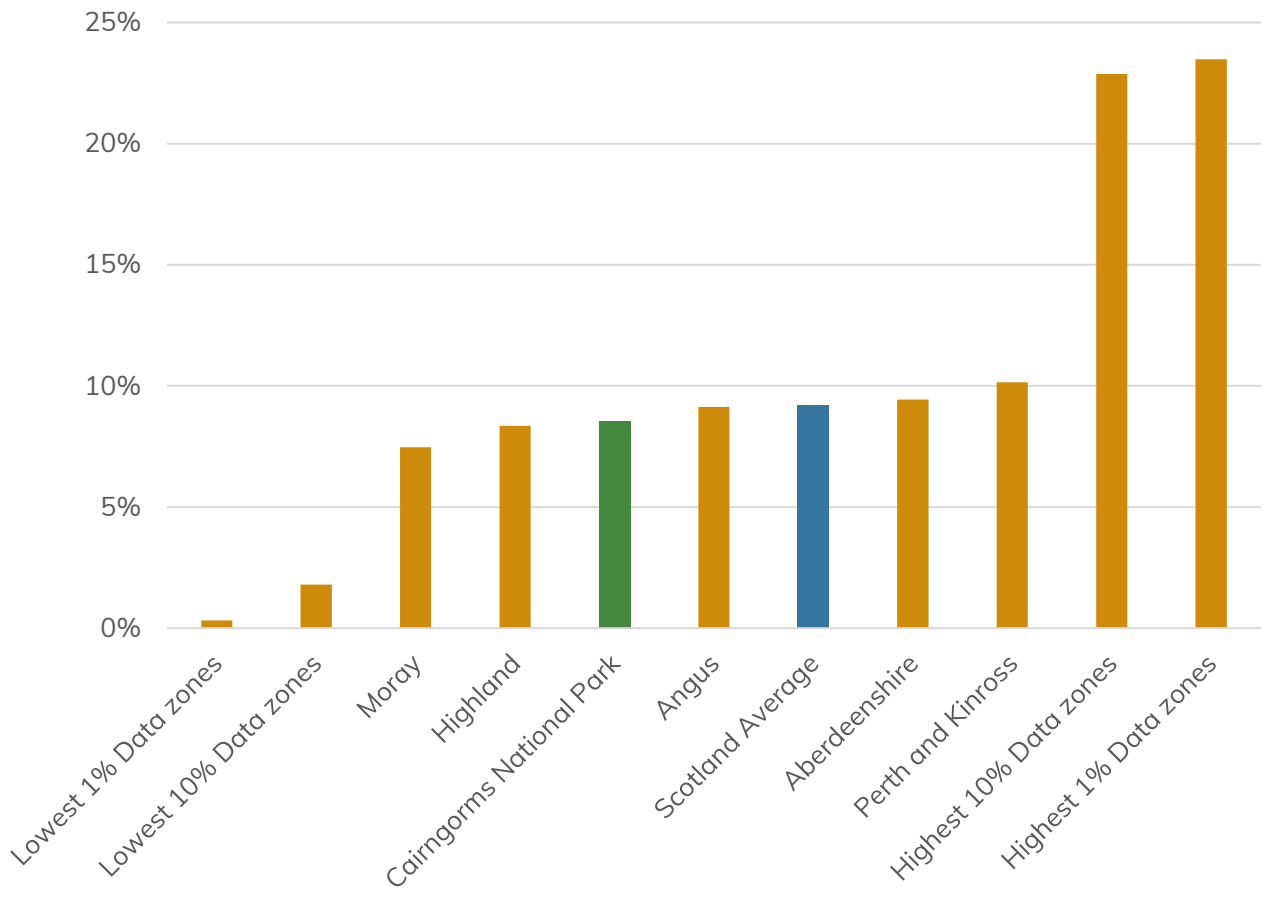


Figure 328 Proportion of 17-21yr olds starting a first degree at UK University 2015 / 2016 – 2017 / 2018 (Source: Scottish Index Multiple Deprivation 2020[121]). Data zone percentages are derived from the sum of all Scottish Data zones.

[120] Scottish Index of Multiple Deprivation.
[121] See https://www.gov.scot/publications/scottish-index-of-multiple-deprivation-2020v2-indicator-data/

Economic activity

Rates of employment and unemployment for working age adults can provide a proxy indicator of economic and individual wellbeing within the Cairngorms National Park, with numerous studies indicating that unemployment reduces subjective wellbeing, Gedikli, C.et al, 2022[122]). 'While unemployment reduces wellbeing, poor wellbeing also leads to unemployment, indicating that individuals can become trapped in a cycle of unemployment and poor wellbeing' (Gedikli, C.et al, 2022) There is a debate to be had about whether being in a poorly characterised job is better or worse than not being employed at all. Some research suggest that wellbeing is still considerably better for those in poor quality employment over those in an unemployed position (Leach LS et al, 2010). However, there is also research suggesting that employment characterised by a number of factors including poor conditions, low remuneration, stress and uncertainty can be as negative for wellbeing as unemployment (Broom DH et al, 1993).

The data on employment and unemployment rates in the Cairngorms National Park has been drawn from Census 2022 and compared with previous Census data (2011). The data looks at the proportions of people who identified as being in a particular role or employment type, presenting a snapshot of the economic activity when the census' where completed. It should be noted that one person may have had two positions, for example, being a full-time student and also be employed in a part-time position.

Economically active population

For consistency and to allow comparison with earlier statistics, when discussing those who are economically active in the Cairngorms National Park and nationally, the figures include those who are economically active and full-time students. The statistics for 2022 are based on the population of the National Park or Scotland who are over 16 years of age.

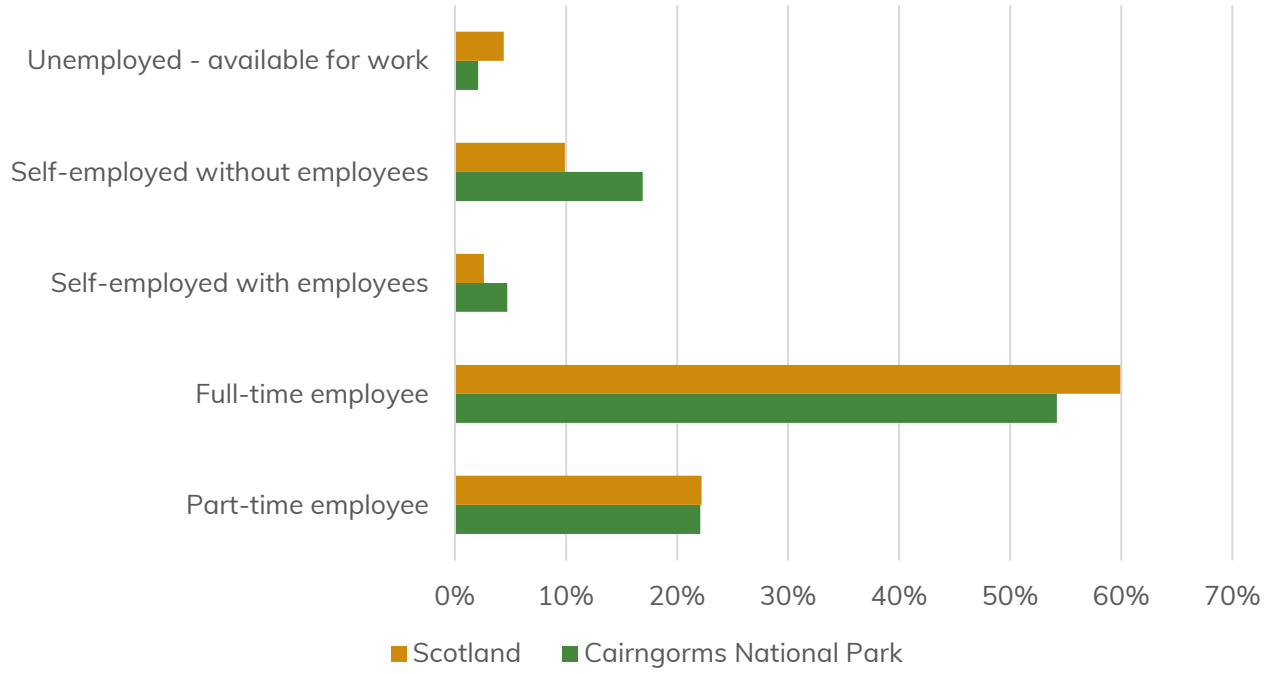
In 2022, 61.6% of the population of the National Park over the age of 16 years (including full-time students) were reported as economically active (Census table UV601). This is slightly above the national proportion of 60.9%. In 2022 of those that were recorded as economically active (including full-time students) 97.9% of them were in employment (as an employee or self-employed) which is above the national average of 95.7% (Census table UV601).

[122] Gedikli, C. et al. (2022) 'The relationship between unemployment and wellbeing: an updated meta-analysis of longitudinal evidence', European Journal of Work and Organizational Psychology, 32(1), pp. 128–144. doi: 10.1080/1359432X.2022.2106855.

In terms of number of people, in 2022, there were 9,293 economically active people (including full-time students) in the Cairngorms National Park. Of these 7,091 were employed (2,056 were part-time employees and 5,032 were full-time employees). A total of 2,010 people were self-employed and 194 people were unemployed but available to work (Census table UV601).

Looking solely at the economically active population aged 16 years and over in 2022, in the Cairngorms National Park 54.2% were full-time employees, slightly lower than the national average of 59.9% (Figure 329). The proportion of the economically active population who are part-time employees, is roughly equal in the National Park (22.1%) and Scotland (22.2%). There is a higher proportion of economically active people in self-employed positions (with or without employees) in the Cairngorms National Park (21.6%) compared to national average figures (12.5%).

This higher proportion of self-employed working practices can be considered a typical characteristic of a rural economy and more commonly recorded in affluent rural areas (Williams, C.C., 2011[123]), reflecting the high proportion of independent and smaller businesses that are present in the National Park. In terms of the proportion of people who are economically active but unemployed and available for work this is far lower in the Cairngorms National Park at 2.1%, compared to 4.4% nationally.



[123] Williams, C.C. (2011), 'Entrepreneurship, the informal economy and rural communities', Journal of Enterprising Communities: People and Places in the Global Economy, Vol. 5 No. 2, pp. 145-157. https://doi.org/10.1108/17506201111131578

Figure 329 Proportional economic activity of the economically active population only aged 16 years and over (including full-time students) in the Cairngorms National Park and Scotland in 2022. Census table UV601

The datasets providing a detailed breakdown of economic activity from the 2022 and 2011 censuses are not directly comparable. The 2022 Census data on economic activity provides data on the population 16 years and over (Census table UV601). This is not directly comparable to the data collected in the 2011 census which gives a detailed breakdown of economic activity for only 16 to 74 years (Census tables KS601SC and QS601SC).

To compare the position from 2011 and 2022, the data on economic activity by age (Census table LC6107SC) has been used to allow a comparison with the population 16 years and over. This does however limit the categories that can be compared between the census years.

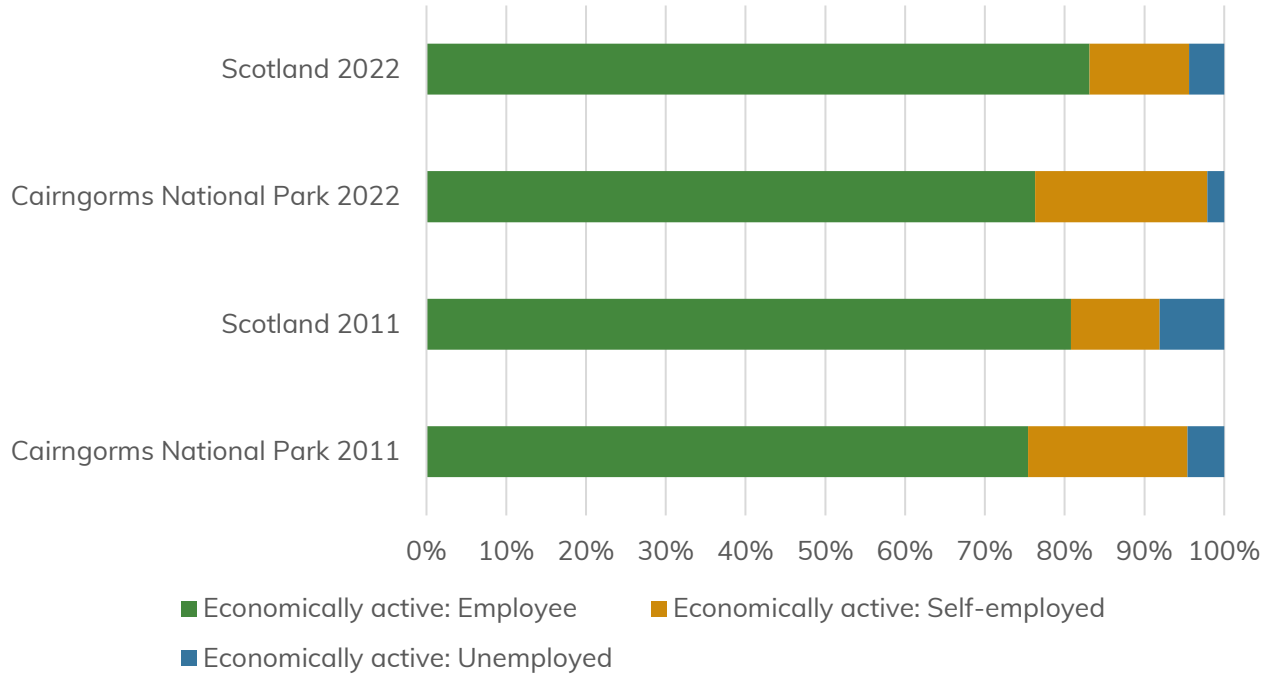


Figure 330 Economic activity of the economically active population only aged 16 years and over (including full-time students) in the Cairngorms National Park and Scotland in 2011 and 2022. Census table UV601 and Census table LC6107SC.

Figure 330 shows a comparison between the proportions of employed, self-employed and unemployed economically active people in the Cairngorms National Park and Scotland in 2011 and 2022. The proportion of economically active employed people has slightly increased from 75.4% in 2011 to 76.3% in 2022. This is lower than the

proportional increase seen nationally, which increased from 80.8% in 2011 to 83.2% in 2022. The proportion of economically active people that are self-employed in the Cairngorms National Park has also slightly increased from 20.0% in 2011 to 21.6% in 2022. Again, this reflects the national trends, where the proportion of economically self-employed people increased from 11.1% in 2011 to 12.5% in 2022.

Figure 331 shows the proportion of the population (including full-time students) that are economically active in the Cairngorms National Park by data zone[124]. The areas with the lowest proportion of economically active people relative to the population, 16 years and over, are in parts of Ballater in Aberdeenshire (data zones S01006789 and S01006790) in parts of Grantown-on-Spey, and in Badenoch and Strathspey (data zone S01010546). In Ballater the data zones East Cairngorms 01 and 02 have only 52.9% and 49.3% respectively of the population were economically active. In the data zone covering part of Grantown-on-Spey (Badenoch and Strathspey North- 05) 52.6% of the population were reported as being economically active in 2022.

In contrasts the area with the highest proportion of economically active people in the population of those 16 years and above is in parts of Aviemore, in Badenoch and Strathspey Central (data zone S01010538). In this area 74.8% of the population are economically active.

[124] For more information on data zones in the Cairngorms National Park please refer to the Statistical areas used in the analysis of the Cairngorms National Park paper which can be accessed here: https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

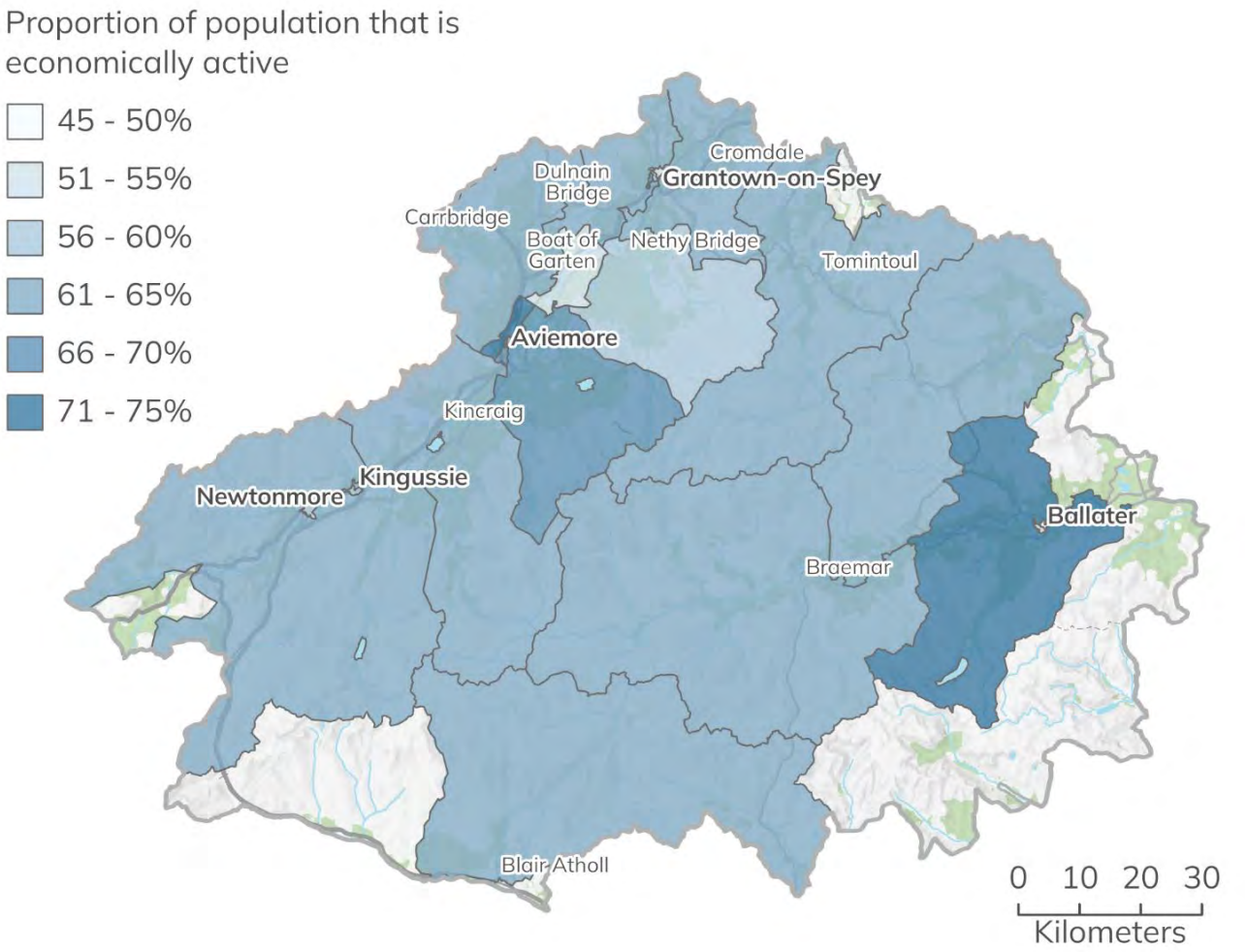


Figure 331 Proportion of the population aged 16 years and over (including full-time students that are economically active) in the Cairngorms National Park. (Census table UV601). Contains data © Scotland's Census. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Other areas with higher proportions of people 16 years and over that are economically active included the area around Ballater, data zone for East Cairngorms-04 (S0100792) which had 70.5% of the population being reported as economically active. It should be noted that this data zone only contains 369 people.

Figure 330 also shows that the proportion of people economically active but unemployed reduced in the Cairngorms National Park from 4.6% in 2011 to 2.1% in 2022. Although this also reflects the falling national proportion of economically active people who are unemployed (from 8.1% in 2011 to 4.4% in 2022), the reduction in the National Park is greater proportionally than nationally.

Within the National Park, Figure 332 shows the proportion of the population aged 16 years and over (including full-time students) that are economically active but unemployed by data zone area[125] in 2022.

The areas of the National Park that that have the highest proportions of the economically active population over the age of 16 years who are unemployed include parts of Grantown-on-Spey in Badenoch and Strathspey - 04 (data zone S01010545) which has 2.6% unemployed. In the area covering Braemar and surrounding in East Cairngorms -05 (data zone S01006793) the proportion of working age people aged 16 years and over who are economically active and unemployed is also 2.6%. The data zone covering northwest Aviemore, Badenoch and Strathspey central – 03 (data zone S01010538) has the third highest proportion of economically active people aged 16 years and over who are unemployed, recorded as 2.1% in 2022.

In terms of the areas with the lowest proportion of people over 16 years who are economically active but unemployed in 2022, the data zone covering Boat of Garten and Mains of Garten, Badenoch and Strathspey – 05 (data zone S01010540) was the lowest at 0.2%. In the areas covering Carrbridge the proportion of people over 16 years who are economically active but unemployed in 2022 was 0.4%. and surrounding, Badenoch and Strathspey Central – 06 (data zone S01010541) The third lowest area in terms of the proportion of people over 16 years who are economically active but unemployed was in parts of Aviemore east of Grampian Road, in Badenoch and Strathspey Central – 01 (data zone S01010536) were it was reported as 0.5%.

Despite the range of values for the proportion of people over 16 years who are economically active but unemployed in 2022 across the data zones covering the Cairngorms National Park, none of the individual areas were above the national average figures.

[125] For more information on data zones in the Cairngorms National Park please refer to the Statistical areas used in the analysis of the Cairngorms National Park paper which can be accessed here: https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

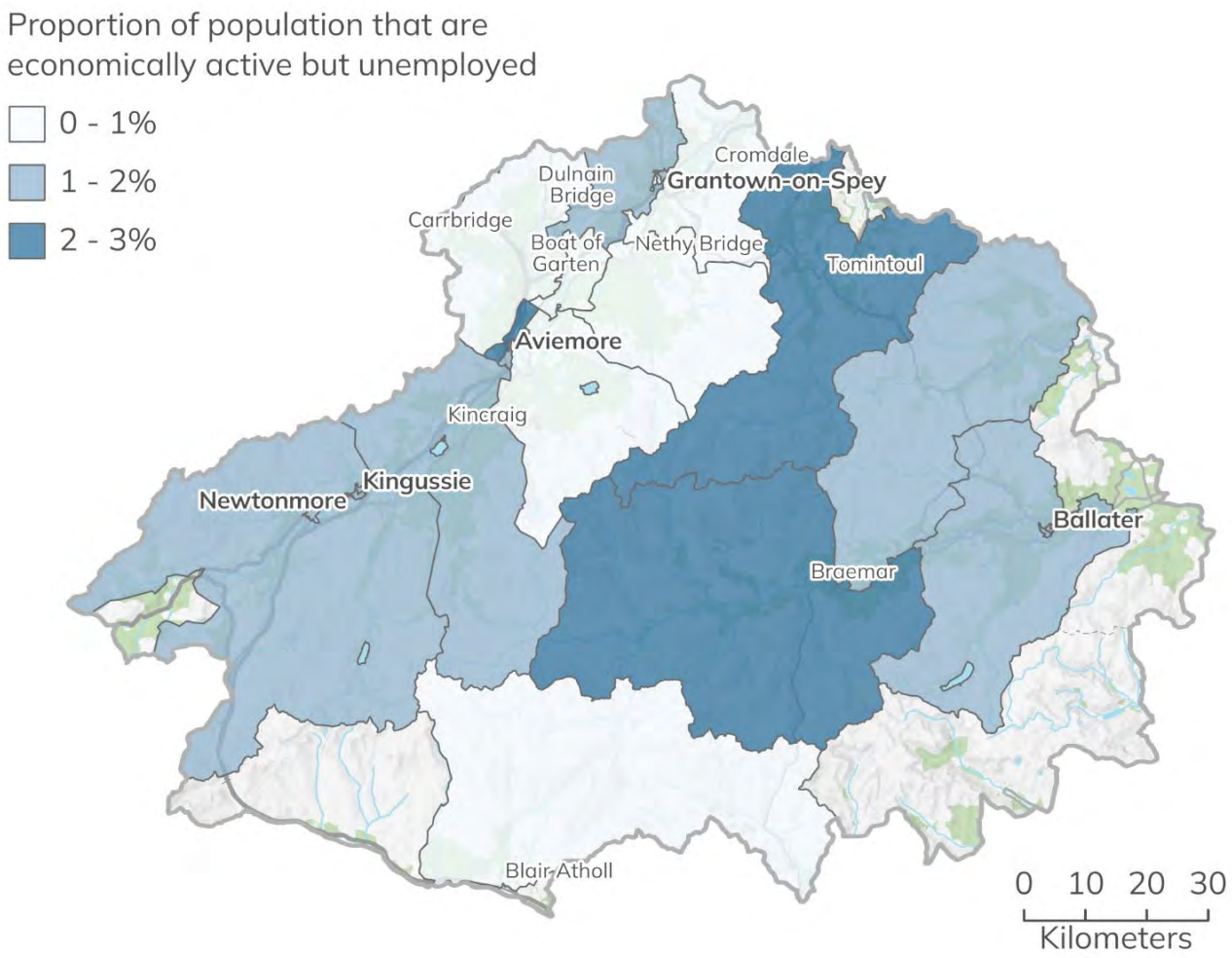


Figure 332 Proportion of the population aged 16 years and over (including full-time students) that are economically active but unemployed in the Cairngorms National Park by data zone. (Census table UV601). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Hours worked

Of those who are working, which includes self-employed and employed people, Scotland's Census estimated the number of hours worked of all people aged 16 years and over in the week before the census in 2022 (Figure 333). The largest difference between number of hours worked in the National Park and Scotland is in the 31 to 48 hours bracket. In the National Park 54.6% of people aged 16 and over worked 31 to 48 hours per week was proportionally lower than the national average of 61.5%. More people proportionally are working longer hours in the National Park (16.0%) compared to the Scottish average (10.0%) (Figure 333). The proportion of people working part time (less than 30 hours) in the National Park (29.4%) and in Scotland (28.5%) is similar (Figure 333).

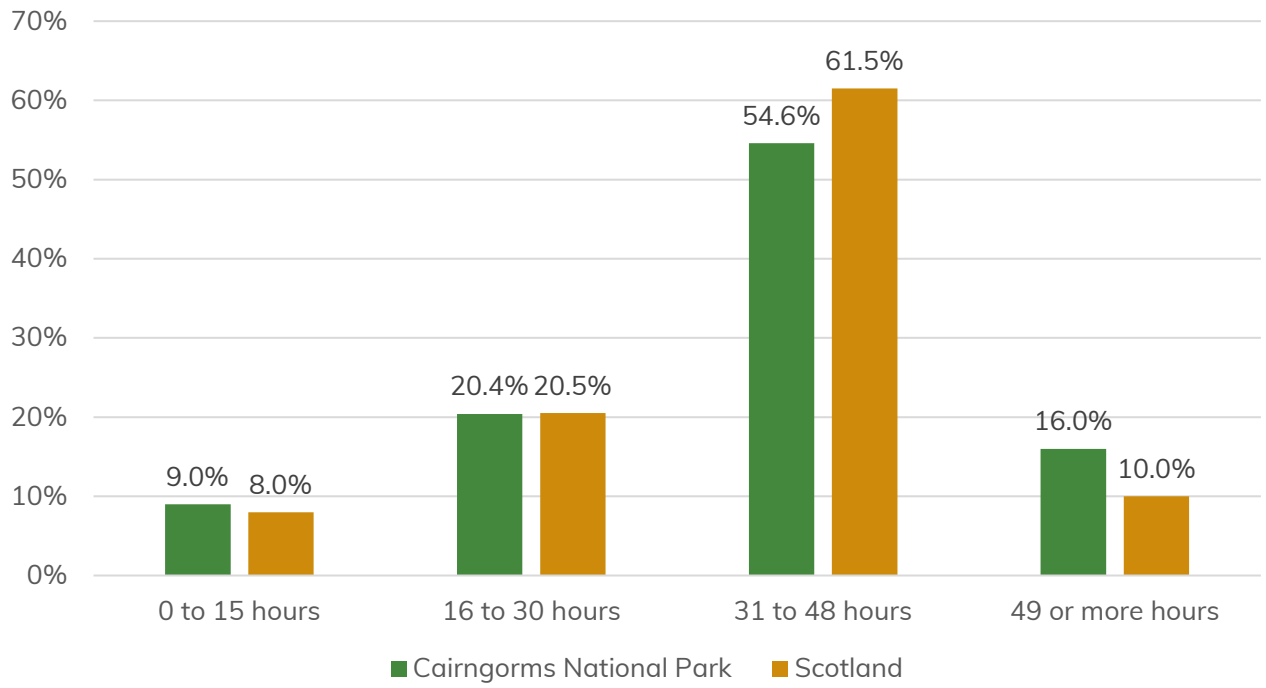


Figure 333 Hours worked of all people aged 16 years and over in the week before the census in the Cairngorms National Park and Scotland in 2022. Census 2022 table UV604.

In 2022, terms of the number of people, 819 people in the Cairngorms National Park were working 0 to 15 hours, 1,859 people were working 16 to 30 hours, 4,966 people were working 31 to 48 hours and 1,458 people were working 49 hours or more.

The data on hours worked can be broken down further by age as this data was also collected in the 2022 Census. In the National Park (Figure 334).

Of those working part time 0 to 15 hours per week the highest proportion (31.1%) were in the age range of 50 to 64 years (255 people). The smallest proportion of people (10.6%) working 0 to 15 hours were people in the 25 to 35 years age range (87 people) (Figure 334).

Of those working part time 16 to 30 hours per week the largest proportion of people (38.9%) were also in the age range of 50 – 64 years (722 people). The smallest proportion (7.7%) of people working 16 to 30 hours was in the 16 to 24 years age range (143 people) (Figure 334).

Of those working full time 31 to 48 hours per week, the largest proportion (34.1%) of people where in the 50 to 64 years age bracket (1,794 people). The smallest proportion (5.1%) of those working 31 to 48 hours were in the 65 years and over age range (255 people) (Figure 334).

Of those working 49 hours or more the largest proportion of people (39.9%) where in the 50 to 64 years age range (580 people). The smallest proportion of people (5%) working 49 hours and above were in the 16 to 24 years age range (73 people) (Figure 334).

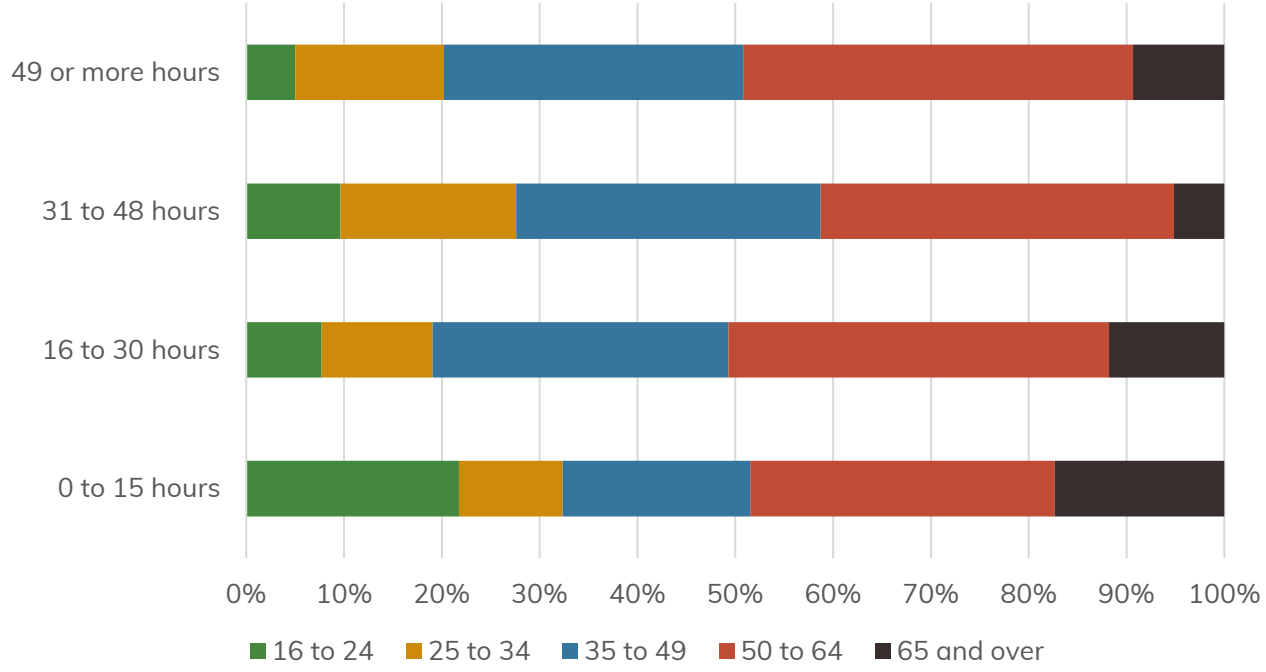


Figure 334 Hours worked by age of all people aged 16 years and over in employment the week before the census in the Cairngorms National Park 2022. Census 2022, table UV604b

The distribution of the hours worked by different age groups does differ somewhat from the National averages for Scotland (Figure 334 and Figure 335). One significant difference is the proportion of people working 0 to 15 hours who are aged 16 to 24 years. Nationally this is 34.6% whereas in the National Park it was 21.7%. This may in part be due to the low number of students residing in the National Park at the time of the Census due to the absence higher education facilities in the National Park.

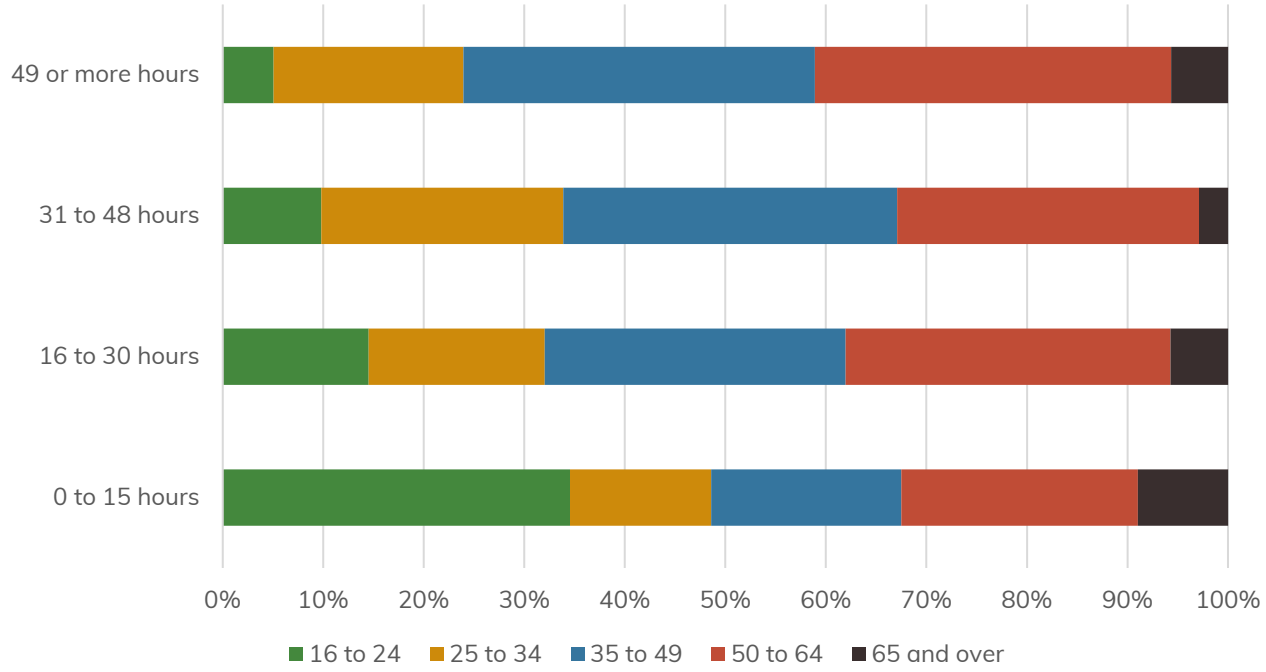


Figure 335 Hours worked by age of all people aged 16 years and over in employment the week before the census in the Cairngorms National Park 2022. Census 2022, table UV604b

Employment estimates and projections

The most accurate employment estimates for the National Park are derived from the 2022 Scottish Census. Information is available according to a number of outputs, namely:

- Industry (Table UV605) (see page 691)
- Occupation (Table UV606) (see page 694)
- National Statistics Socio-economic Classification (Table UV607) (see page 698)

Employment forecasts for the Cairngorms National Park have been prepared by Oxford Economics (2022) and provide an indication of the direction of change in employment in key sectors in the National Park.

Employment estimates by industry

This census output provides estimates according to the industry in which a person works. It relates to their main job and is derived from the main activity of their employer or business.

As previously mentioned there have been changes to the way data is presented between the 2011 and 2022 Census years. The data on the type of industry people

work in is now presented for all people aged 16 years and over whereas in previous years this was presented for people aged 16 to 74 years only. Therefore, the data collected in 2011 and 2022 is not directly comparable at this time. Further releases of National Park geography data may include a breakdown of industry by age, as has been provided in previous years, at which point a comparison may be available.

The proportion of employees in different industrial sectors differs significantly from the national average (Figure 336) as may be expected in a rural economy with an additional strong focus on tourism. The largest proportion of people aged 16 years and over employed in the National Park are employed in the accommodation and food service activities sector, employing 14.4% (1,306 people). This is a significantly higher proportion than those employed in this sector across Scotland as a whole (6.9%) reflecting the strength of the tourism sector in the National Park. Compared to Scotland, there is also a higher proportion of people employed in the agriculture, forestry and fishing sector, where in the National Park 4.6% (417 people) of 16+ population work in this sector, compared to just 1.6% nationally. Other notable differences, where a higher proportion of people work in a given sector include:

- Arts entertainment and recreation which employs 4.9% (447 people) of the 16+ population in the National Park, compared to 2.7% nationally.
- Administrative and service support activities, which employs 6.1% (553 people) of the 16+ population in the National Park, compared to 4.7% nationally.
- Construction – in the National Park this accounts for 8.4% (773 people), compared to 7.3% nationally.

Sectors in the National Park that employ lower proportions of the 16+ population than Scotland (Figure 336) include:

- Human health and social work activities, which employs 11.3% (1,306 people) of the +16 population in the National Park, compared to 14.6% nationally. This is still the second largest sector in terms of employment within the National Park.
- Public administration and defence; compulsory social security, which employs 5.8% (531 people) of the +16 population in the National Park, compared to 9.1% nationally.
- Financial and insurance activities, which employs 1.1% (104 people) in the National Park, compared to 4.3% nationally.

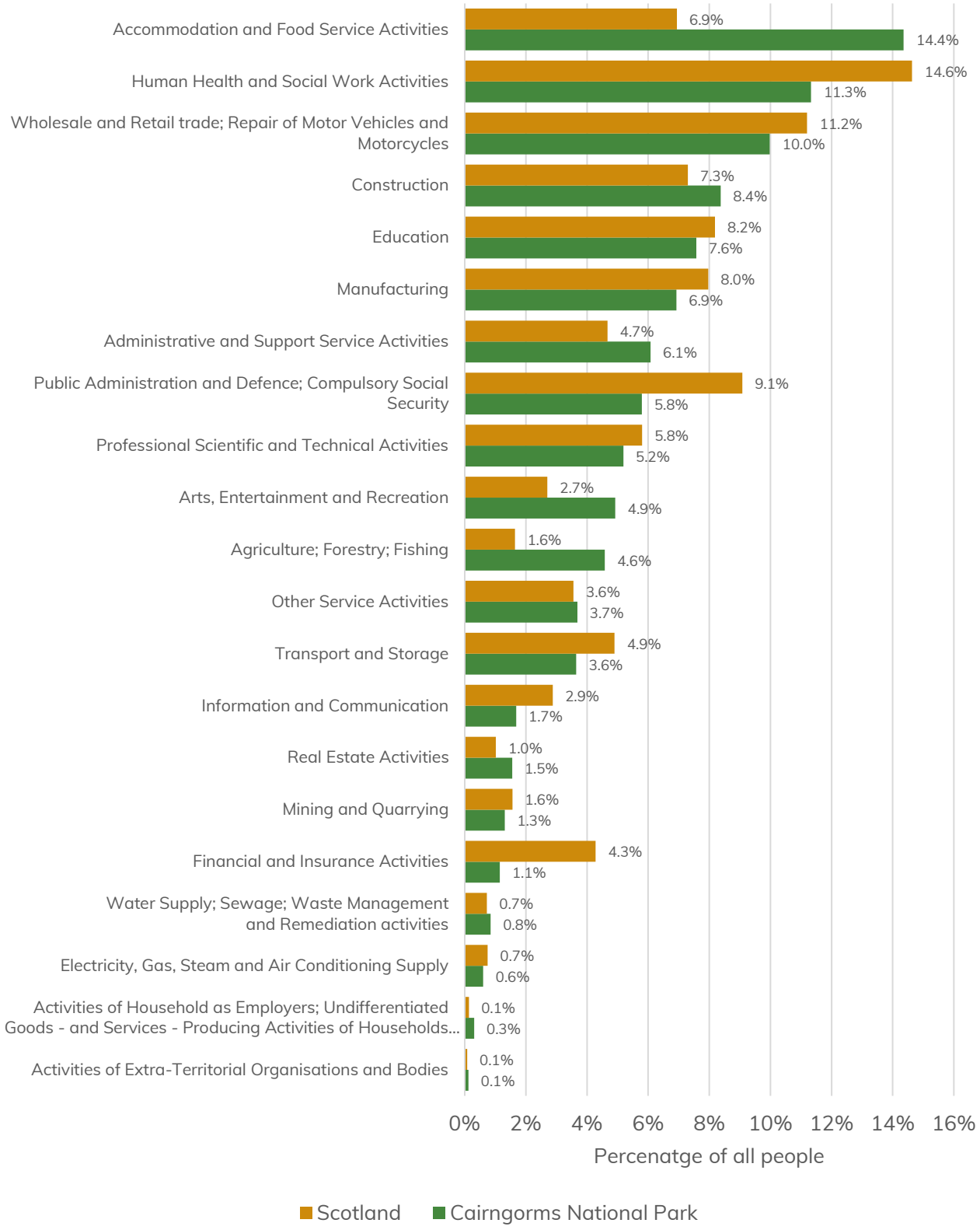


Figure 336 Proportion of all people by industry sector aged years 16 and over in employment the week before the census in the Cairngorms National Park and Scotland in 2022 (Source: Census 2022 table UV605).

In terms of numbers of people employed in each sector (Figure 338) the largest sector was accommodation and food services which employed 1,306 people in 2022. The human health and social work activities employed 1,031 people, and wholesale and retail trade; repair of motor vehicles and motorcycles employed 908 people. Sectors employing less than 100 people included:

- Activities of extra-territorial organisations and bodies (11 people).
- Activities of household as employers; undifferentiated goods and services producing activities of households for own use (28 people).
- Electricity, gas, steam and air conditioning supply (55 people).
- Water supply; sewage; waste management and remediation activities (77 people).

Employment estimates by occupation

This census output provides estimates according to the occupation held by a person. It relates to their main job and is derived from either their job title or details of the activities involved in their job. It is a useful counterpart to the industry data (see page 691), which does not reflect the actual occupations of those working within those sectors.

Figure 337 shows the proportions of the occupations of all people over 16 years in the National Park and in Scotland in 2022. In terms of proportional representation, the highest proportional occupation in the National Park were skilled trade occupations at 17.1% (1,553 people), professional occupations at 15.6% (1,422) and elementary occupations at 12.7% (1,158 people).

The biggest differences between the National Park and Scotland (Figure 337) include:

- Skilled trade occupations, which account for 17.1% (1,553 people) of the 16+ population in the National Park, compared to 11.3% nationally.
- Professional occupations, which account for 15.6% (1,422 people) of the 16+ population in the National Park, compared to 20.7% nationally.
- Managers, directors and senior officials, which account for 11.3% (1,031 people) of the 16+ population in the National Park, compared 7.8% nationally.

The occupation accounting for the lowest number of people in the National Park is sales and customer service positions with 552 people, accounting for 6.1% of the 16+ population.

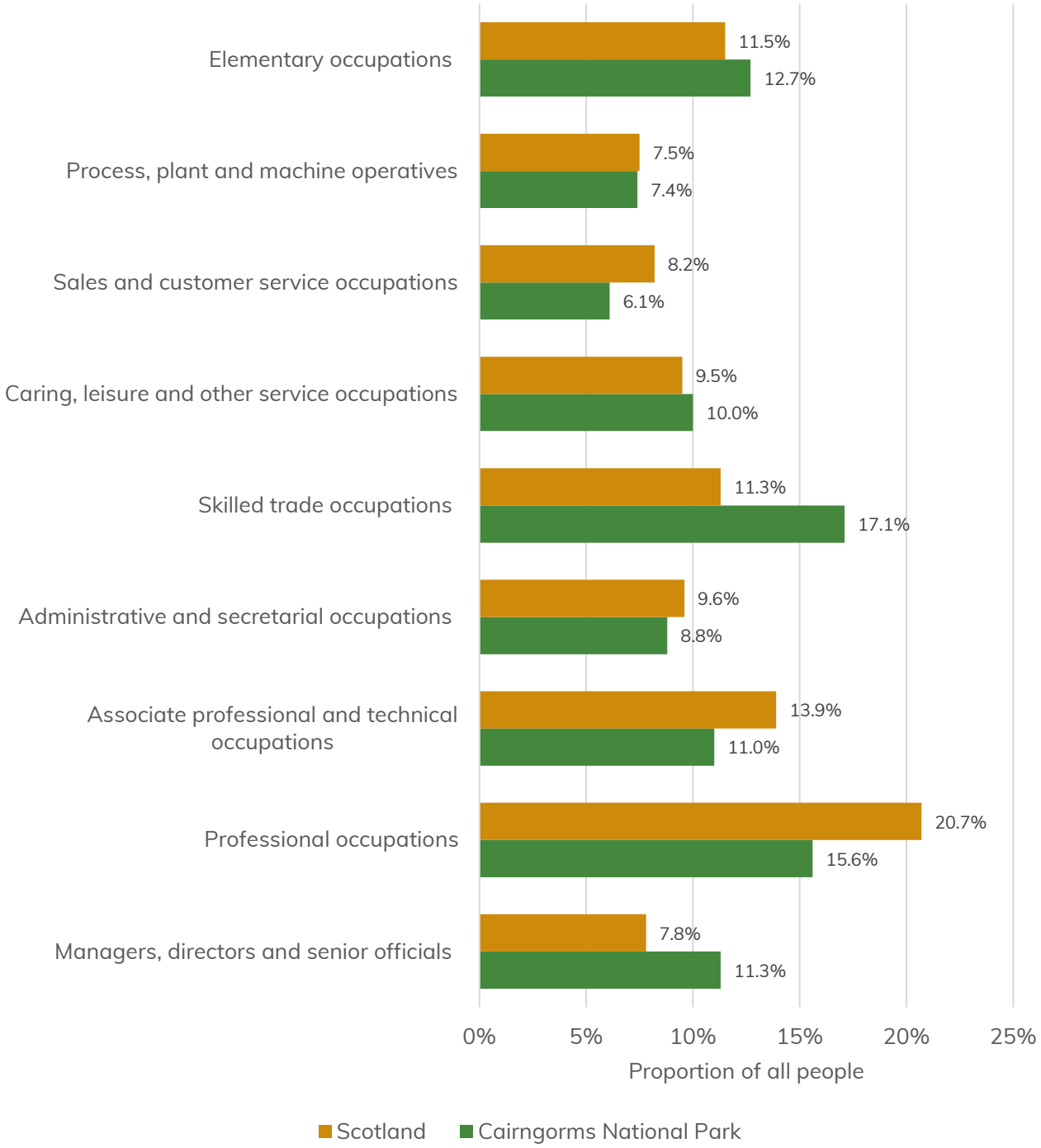


Figure 337 Proportions of occupations of all people aged 16 years and over in employment the week before the census in the Cairngorms National Park (Source: Census 2022 table UV606).

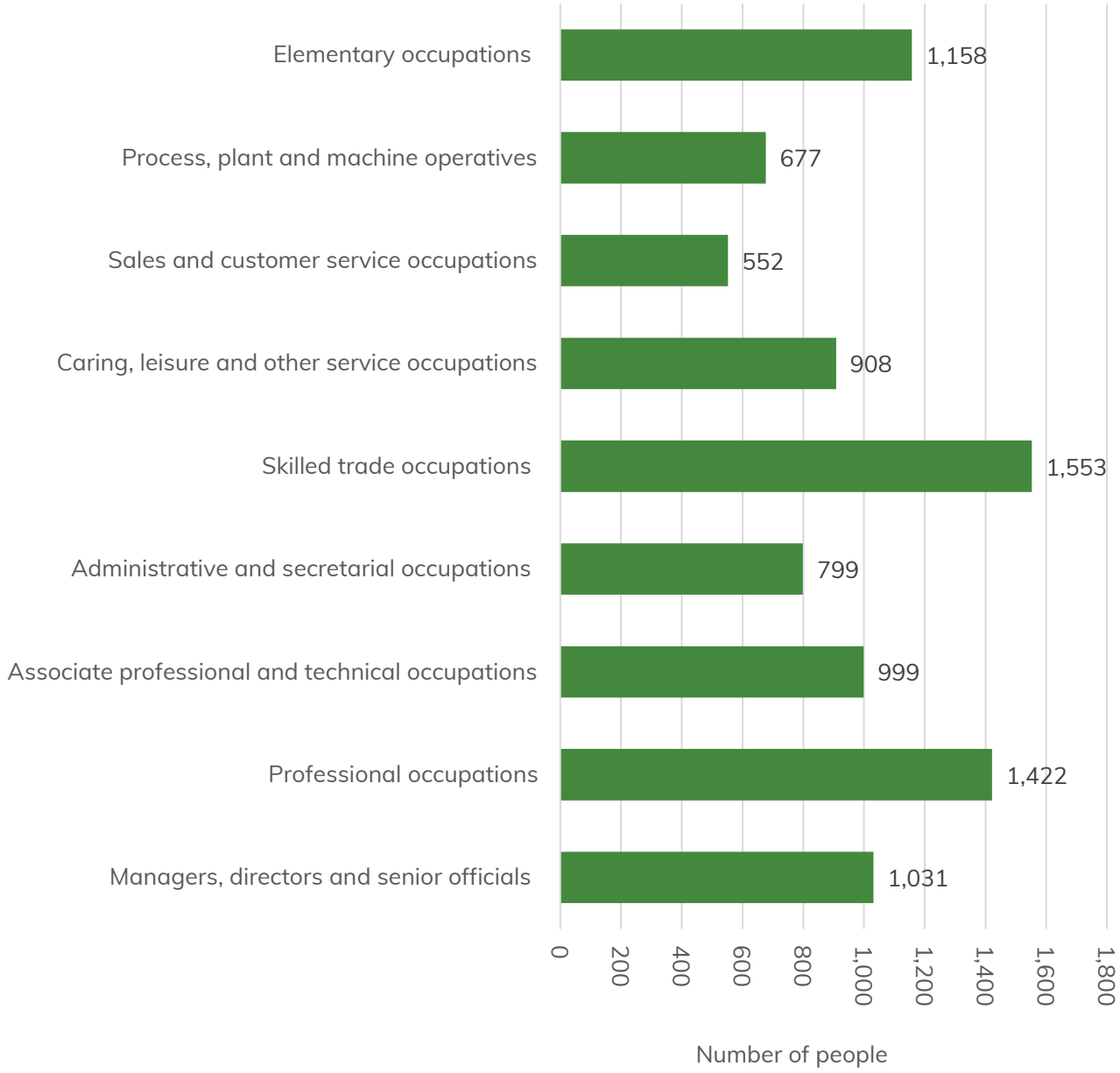


Figure 338 Number of people aged 16 years and over in employment the week before the census in the Cairngorms National Park in each occupation. (Source: Census 2022 table UV606).

Figure 338 shows a high level break down of the occupations of people in the Cairngorms National Park, however these can be broken down further into subcategories as shown in Figure 339. The largest subcategory of occupations in the National Park are elementary administration and service occupations, accounting for 878 people in 2022. Administrative occupations accounted for 615 people and other managers and proprietors accounted for 537 people.

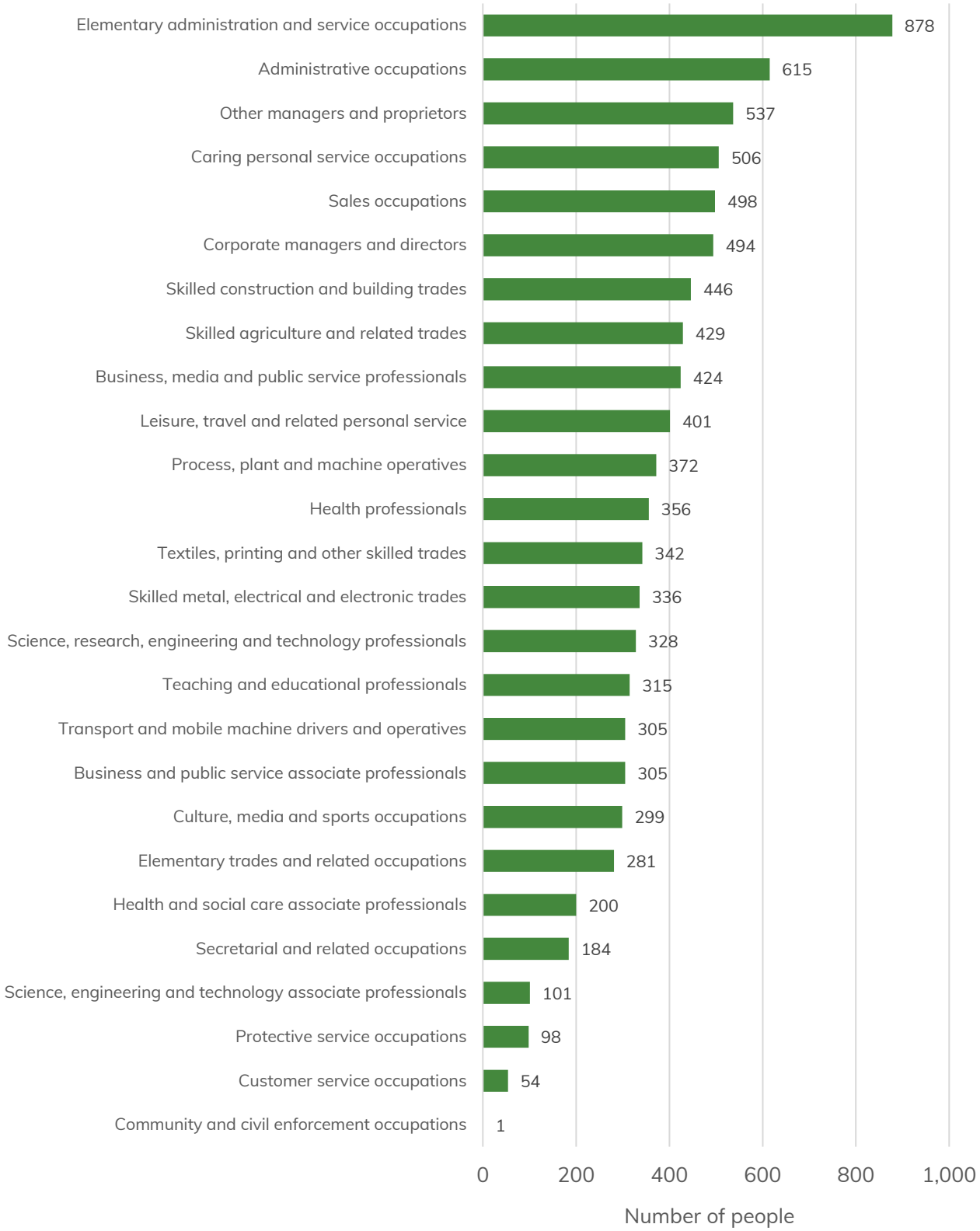


Figure 339 Number of people aged 16 years and over in employment the week before the census in the Cairngorms National Park in each sub-level occupation. (Source: census 2022 table UV606).

National Statistics Socio-economic classification (NS-SEC)

The National Statistics Socio-economic classification has been constructed to measure the employment relations and conditions of occupations. Conceptually, these are central to showing the structure of socio-economic positions in modern societies and helping to explain variations in social behaviour and other social phenomena The National Statistics Socio-economic classification was developed from a sociological classification that has been widely used in pure and applied research, known as the Goldthorpe Schema (see Goldthorpe 1980 / 1987, 1997, 2007; Erikson and Goldthorpe 1992). More information on the methodology and use of National Statistics Socio-economic classification data can be found here:

- https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticssocioeconomicclassificationnssecrebasedonsoc2010

Figure 340 shows the National Statistics Socio-economic classification of the population aged 16 years and over in the Cairngorms National Park and Scotland in 2022. The largest three classifications in the Cairngorms National Park, in 2022, proportionally were lower professional and higher technical occupation (14.4%), routine (12.9%) and semi-routine (11.9%) occupations.

In 2022 there was a smaller proportion of people long-term unemployed in the National Park (0.4%) compared to the national average (0.8%). Similarly, there are also a far lower proportion of people in the National Prak who have never worked at 3.5% compared to 6.0% nationally.

Other significant differences include:

- Own account workers – 11.4% of the population of the National Park aged 16 years and over compared to 6.0% nationally.
- Employers in small establishments – 3.8% of the population of the National Park aged 16 years and over, compared to 2.0% nationally.
- Full-time students – 3.4% of the population of the National Park aged 16 years and over, compared to 8.5% nationally.

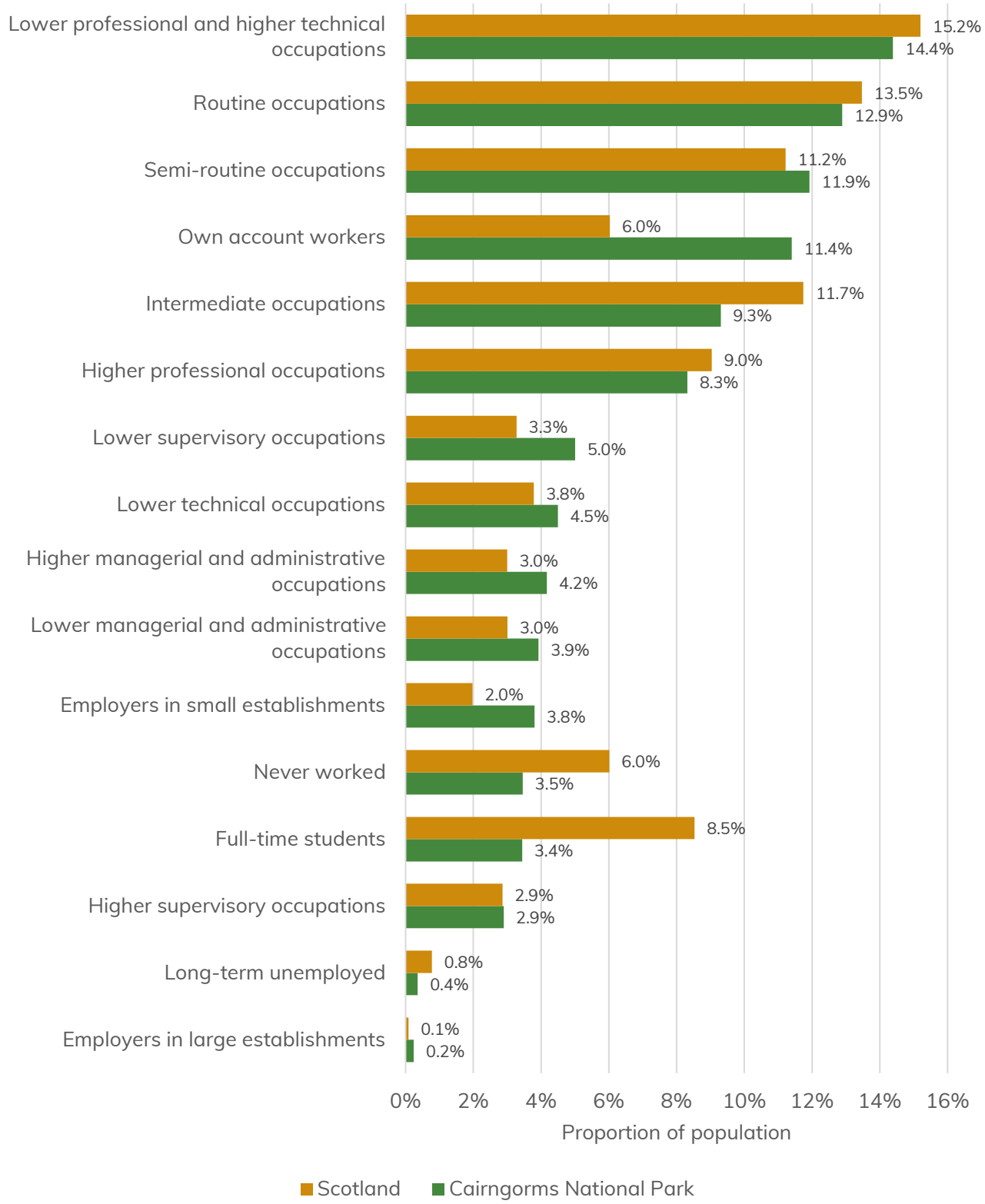


Figure 340 National Statistics Socio-economic classification (NS-SEC) of the population aged 16 years and over in the Cairngorms National Park and Scotland in 2022 (Source: Census 2022 table UV607).

Employment projections

Forecasts prepared for the Cairngorms National Park by Oxford Economics (2022) provide an indication of the direction of change in employment in key sectors in the National Park. The projections are from 2015 to 2032, and data is provided reporting on the med-term (2022 – 2025) and long-term change (2025 – 2032). It should be noted that the forecasts were produced before the Census data was released and as such are now established to not reflect the true position in 2022.

In the med-term (2022 – 2025) it is forecast that the largest growth sectors will be in the accommodation and food services and arts, entertainment and recreation increasing 7.3% and 7.0% respectively (equating to an estimated growth in around 200 overall positions, split between the two sectors). Over the longer term (2025 – 2032) growth in the accommodation sector is projected to slow to 4%, while the Arts, entertainment and recreation is expected to increase to 9.6% proportionally. Both of these sectors are integral to the Cairngorms National Park as a tourist destination.

The transportation and storage sector is projected to grow proportionally in the medium term by 4.7% but over the longer term is predicted to contract by 2.3%. Similarly, the wholesale and retail trade; repair of motor vehicles and motorcycles is projected to grow in the medium term but shrink over the longer term.

Significant proportional decreases are predicted for the mining and quarrying and manufacturing sectors in the medium term, increasing in the longer-term forecasts. However, it should be noted that due to the current low numbers of people employed in these sectors it is difficult to quantify the effect in terms of numbers of jobs in the Cairngorms National Park lost.

Employment projections by occupation

Mid-term projections 2022 – 2025

Figure 341 shows the percentage change in the proportion of occupations of people working in the National Park in the mid-term 2022 – 2025. The largest increase by occupation in the mid-term is forecast to be in the culture, media and sports occupations which are expected to increase by 9.4%. Other significant changes (with over 5% increases) include managers / and proprietors in agricultural services (+5.4%), textiles, printing and other skilled trades (+5.5%) and transport, mobile machine drivers and operatives (+5.6%).

In terms of absolute change in the number of people working in each occupation elementary occupations: specifically (clerical and service-related occupations) are forecast to increase by around 100 people, and managers, directors and senior officials are forecast to expand by around 100 people. In the mid-term the following sectors are forecast to decrease; protective service occupations (-4.5%), secretarial and related occupations (-0.9%) and teaching and research professionals (-0.8%).

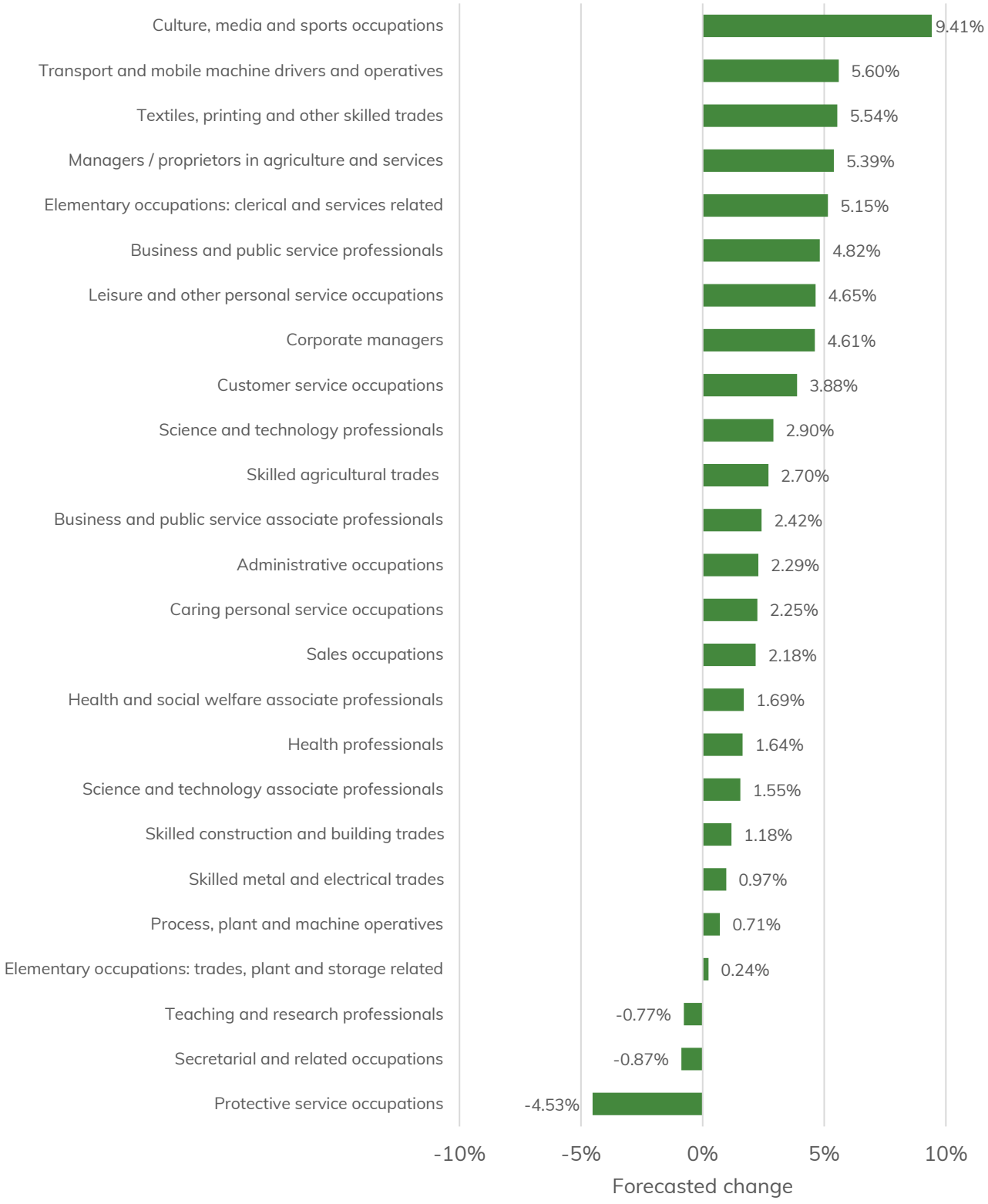


Figure 341 Forecast proportional change in the occupation of the people working in the Cairngorms National Park in the mid-term 2022 – 2025 (Source: Oxford Economics, 2022).

Long-term projections 2025 – 2032

Figure 342 shows the forecast percentage change in the proportion of occupations of people working in the National Park in the long-term 2025 – 2032. The largest change forecast in the long-term is expected to be seen in the culture, media, and sports occupations with a forecast increase in this occupation category of 15.5%. Other significant increases (above 5%) include caring personal service occupations (+5.7%), corporate managers (+5.4%) and health professionals (+5.1%).

Decreases are forecast for the protective service occupations (-8.5%) and secretarial and related occupations (-7.1%), with an absolute change in both occupations forecast to be zero people due to the low numbers of people already working in these occupations. Other occupations forecast to retract include:

- Teaching and research professionals (-1.3%).
- Science and Technology Associate professionals (-0.6%).
- Skilled metal and electrical trades (-2.4%).
- Sales occupations (-2.7%).
- Process, plant, and machine operatives (-1.7%).
- Elementary occupations, trades, plant, and storage related- (-2.3%).

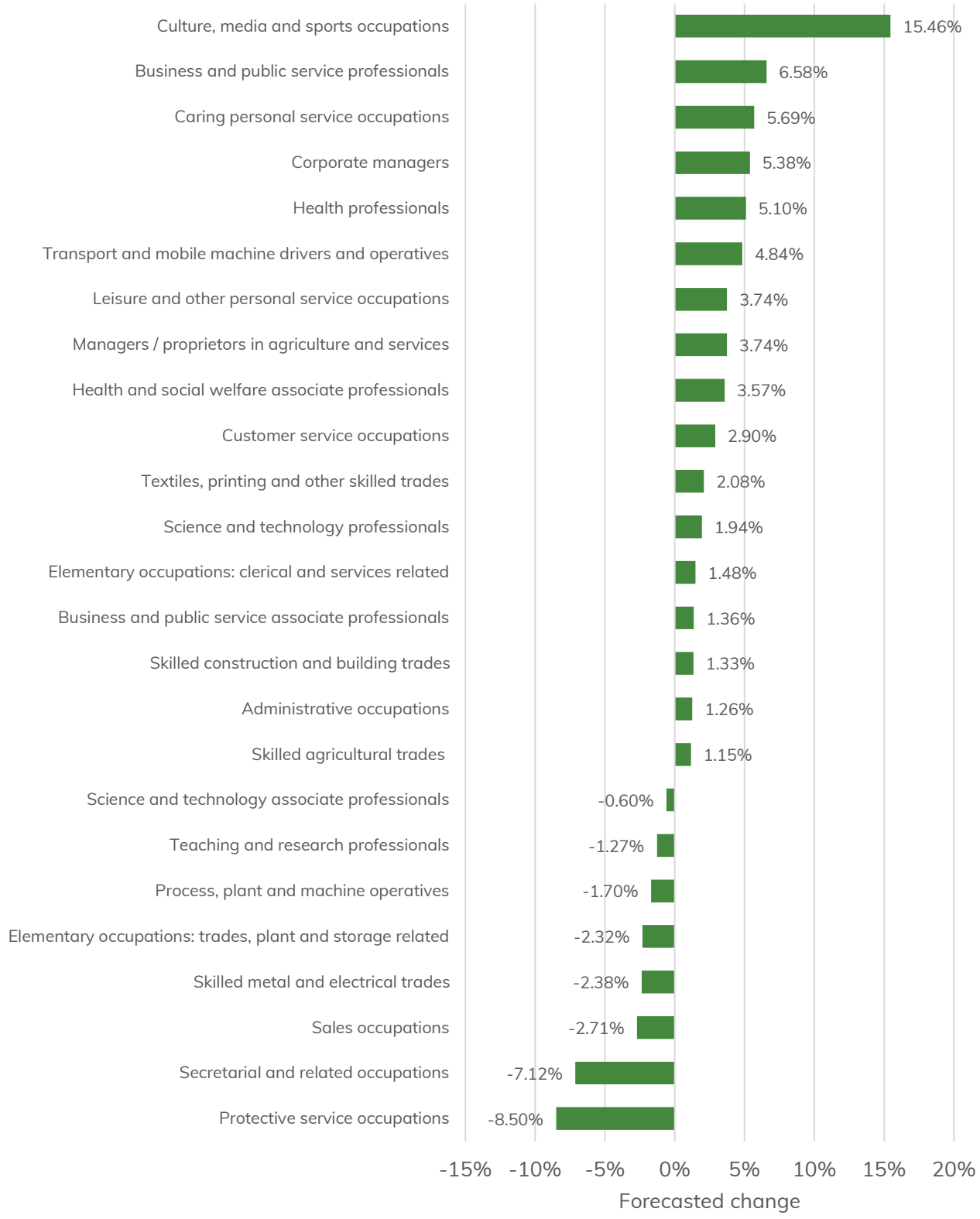


Figure 342 Forecast proportional change in the occupation of the people working in the Cairngorms National Park in the long-term 2025 – 2032 (Source: Oxford Economics, 2022).

In terms of absolute change in terms of people, it is forecast that the associate professional and technical occupations will increase by around 100 people. The data does not provide figures for the absolute change in terms of people in other occupations, due to the low numbers of people employed.

Total labour market requirements

The employment data provided by Oxford Economics also provides forecasts of total market requirement in the mid-term (2022 – 2025) and long-term (2025 – 2030) for the Cairngorms National Park. This is based on the current and forecast need created by the various estimated sectoral expansions or retractions in conjunction with estimates for people exiting the labour market. The latter can happen for a number of reasons, including but not limited to, retirement, out migration or a change in domestic situations. This leads to the replacement requirement. It is worth noting that all figures quoted for numbers of people are limited figures rounded to the nearest 100, which makes interpreting the data for minor category occupations difficult due to the low numbers of people in them.

Forecast 2022 – 2025

In the mid-term (2022 – 2025), it is forecasted that approximately 1,200 people will be required to fulfil the total requirement of occupations in the Cairngorms National Park. This is calculated be around 900 people required to fill existing or forthcoming vacant positions (replacement requirement) and a further 200 to fill positions as a result of market expansion. A limited number of the sectors in the National Park are forecast to require additional labour. The largest increase will be in elementary occupations (specifically clerical and service-related occupations) which is forecast to require an additional 300 people (Figure 343).

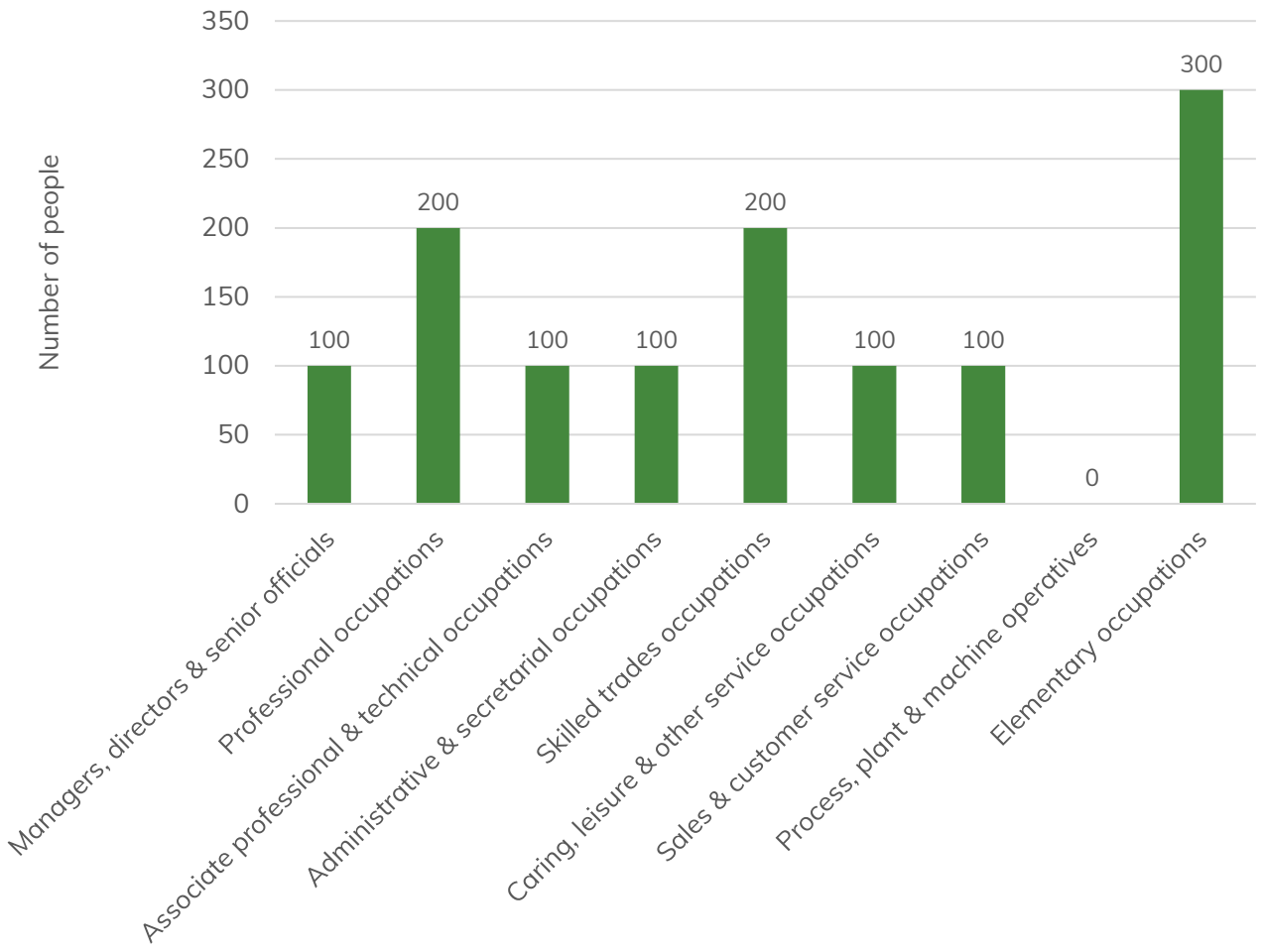


Figure 343 Total requirement of people by occupation (major categories) for the period 2022-2025 in the Cairngorms National Park (Oxford Economics, 2022).

In the mid-term the requirement by expansion is expected to be around 300 people, with around 100 people required in manager, director and senior official positions, and 100 in elementary occupations. The demand generated by replacement shows significant increase in the absolute change by people required to fill elementary positions (+300 people). Around 200 people will be required to by replacement for professional occupations, and around 100 people will be required in the following occupations: managers, directors, and senior officials, associate professional and technical occupations, administrative and secretarial occupations, skill trades, caring, leisure and other services and sales and customer service occupations. No requirement by replacement is forecast to be required in the process, plant, and machine operatives' occupations.

Forecast 2025 – 2032

In the long-term (2025 – 2032), it is forecasted that approximately 2,500 people will be required to fulfil the total requirement of occupations in the Cairngorms National Park (Figure 344). This is calculated by 2,300 people required to fill existing or forthcoming vacant positions (replacement requirement) and a further 200 to fill positions as a result of market expansion. Over the long-term a larger range of sectors in the National Park are forecast to require additional labour. The largest increase remains the elementary occupations which is forecast to require an additional 600. Figure 345 shows the total replacement by occupation for the mid-term in the National Park.

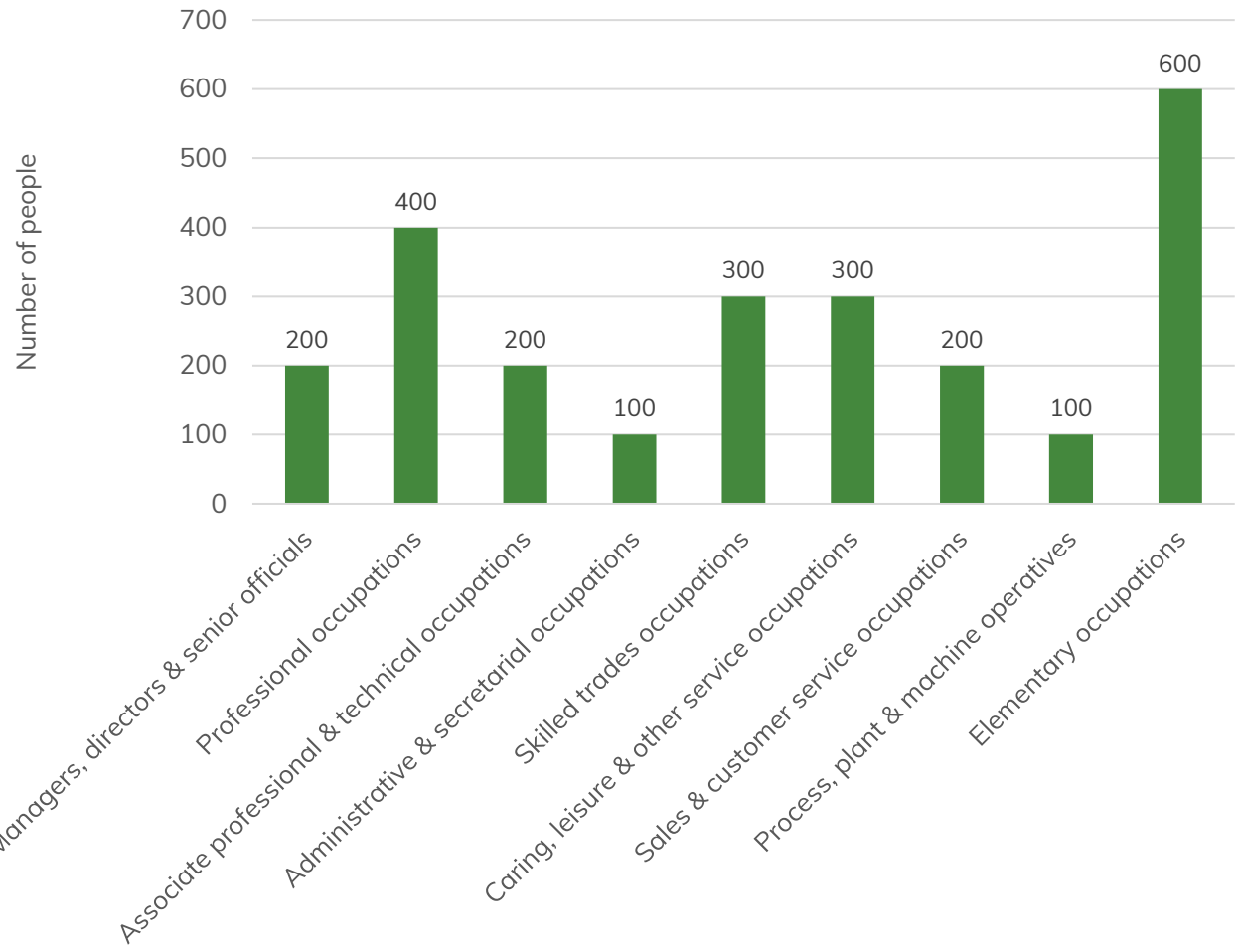


Figure 344 Total requirement of people by occupation (major categories) for the period 2025-2032 In the Cairngorms National Park (Oxford Economics, 2022).

In the long-term the expansion demand in the Cairngorms National Park will be mainly in the associate professional and technical occupations which will require an additional 100 people. It is not possible to identify where the remaining expansion will be required due to the low numbers of people required in each occupation.

In terms of replacement by demand, in the long-term all the major categorised occupations will require additional people. Elementary occupations will require an additional 600 people, and professional occupations will require an additional 400 people).

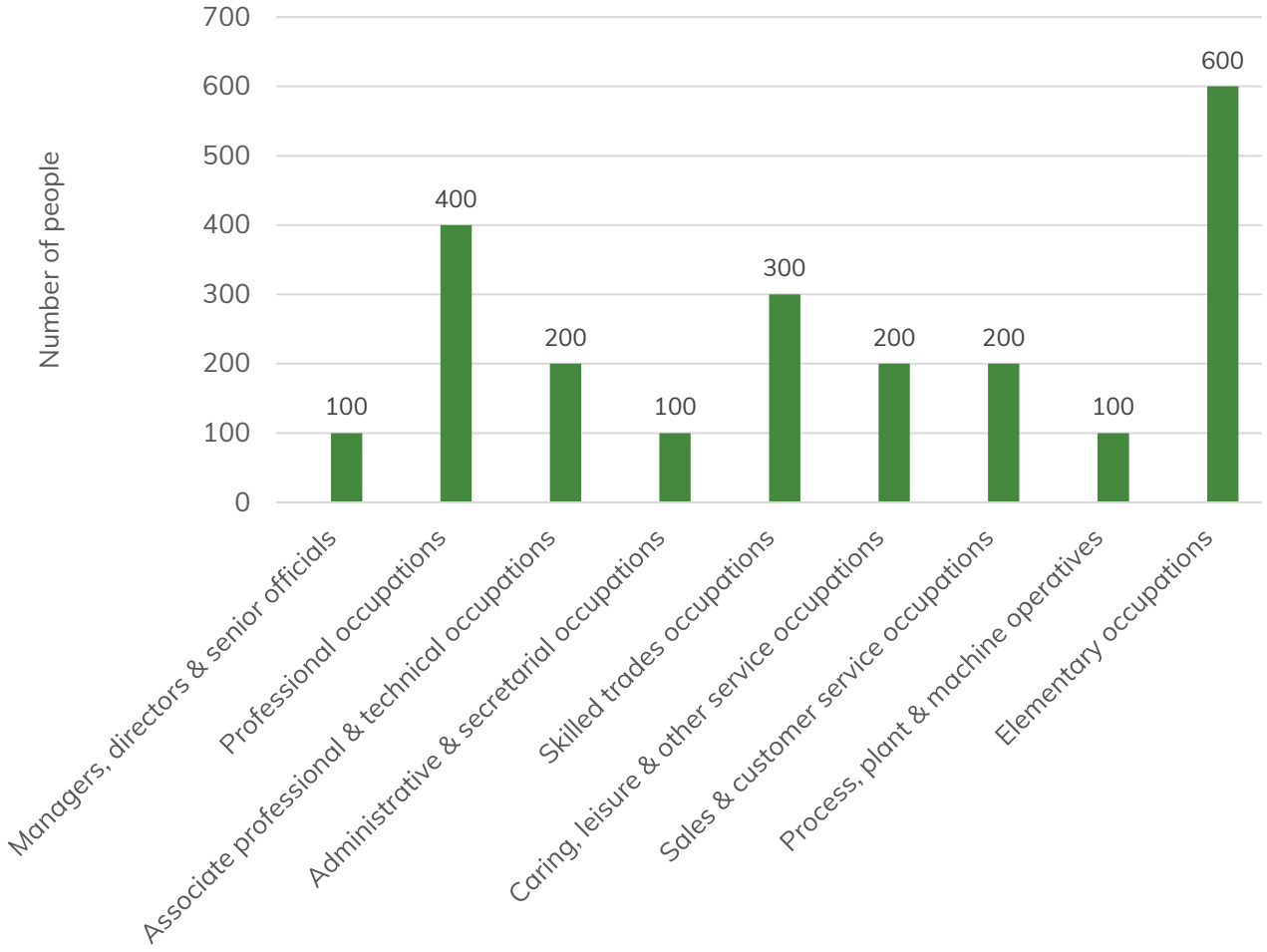


Figure 345 The forecast replacement demand (major categories) by occupation in the Cairngorms National Park for the period 2025-2032 (Oxford Economics, 2022).

When discussing the forecasted replacement demand in the Cairngorms National Park in the long-term it is useful to look at the minor (sub) categories for more clarity on the specific occupations that will be required (Figure 346). At this level the data reports that around 600 of the elementary occupations required will be clerical and service-related occupations. Teaching and research professionals, textiles, printing and other skilled trades, and sales occupations will all require around 200 additional people.

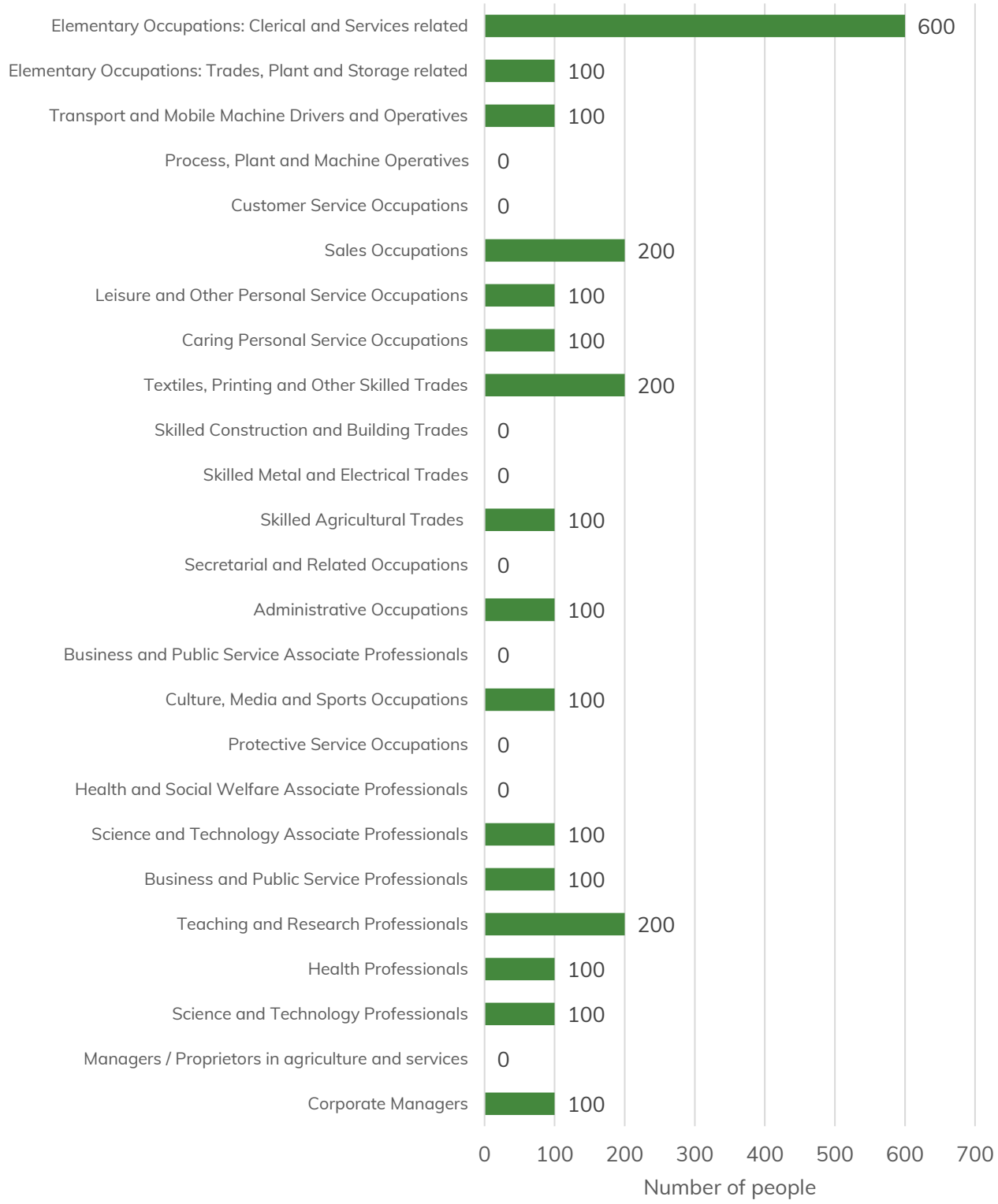


Figure 346 The forecast replacement demand (subcategories) by occupation in the Cairngorms National Park for the period 2025-2032 (Oxford Economics, 2022).

Economically inactive population

In 2022, 38.4% of the population of the National Park over the age of 16 years were estimated to be economically inactive (Census table UV601). This is slightly below the national proportion of 39.1%. Of those, 76.3% were recorded as being retired, which is significantly above the national average figure of 59.6% (Census table UV601 and Figure 347).

In 2022, there was a lower proportion of the economically inactive population in the Cairngorms National Park who were students (5.1%), compared to the national average (12.4%) (Figure 347). This may in part be explained by the absence of higher education institutions in the National Park and may also be due to the students being at their term time addresses during the Census and not being recorded as usual residents in the National Park.

In 2022, the proportion of the economically inactive population o who were recorded as long-term sick, or disabled was also significantly lower in the Cairngorms National Park (6.9%) compared to the national average (13.3%) (Figure 347). The proportion of the economically inactive population who were recorded as looking after home / family was also lower in the National Park (6.7%) compared to the national average (8.8%) (Figure 347).

In terms of the number of people, in 2022 in the Cairngorms National Park there was estimated to be 297 students and 4,420 retired people who were economically inactive (Census table UV601).

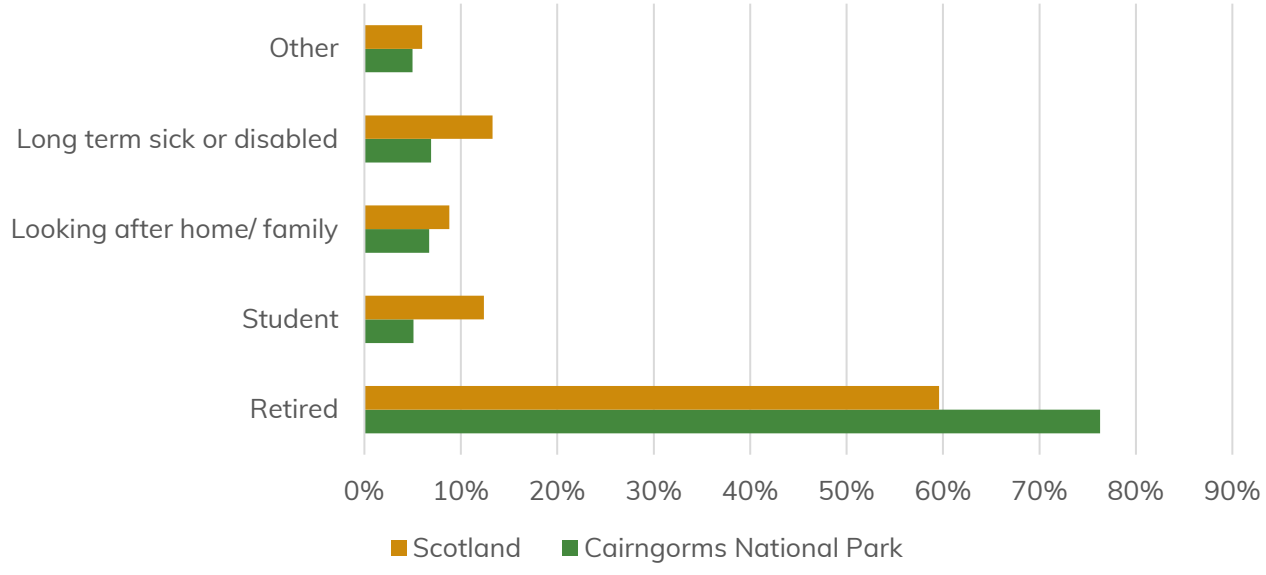


Figure 347 Proportional activity of the economically inactive population only aged 16 years and over (including full-time students) in the Cairngorms National Park and Scotland in 2022. (Census table UV601.)

Figure 348 shows a comparison between the proportions of retired, students and other economically inactive people in the Cairngorms National Park and Scotland in 2011 and 2022. The proportion of economically inactive retired people has slightly increased from 75.1% in 2011 to 76.3% in 2022. This does not reflect national trends, where the proportion of people who were recorded as retired in 2022 decreased from 59.9% in 2011 to 59.6% in 2022.

The proportion of the economically inactive population in the Cairngorms National Park who were students has decreased from 6.2% in 2011 to 5.1% in 2022 (Figure 348). A decrease is also noted in the national figures for the proportion of the economically inactive population who were students nationally falling from 13.5% in 2011 to 12.4% in 2022 (Figure 348).

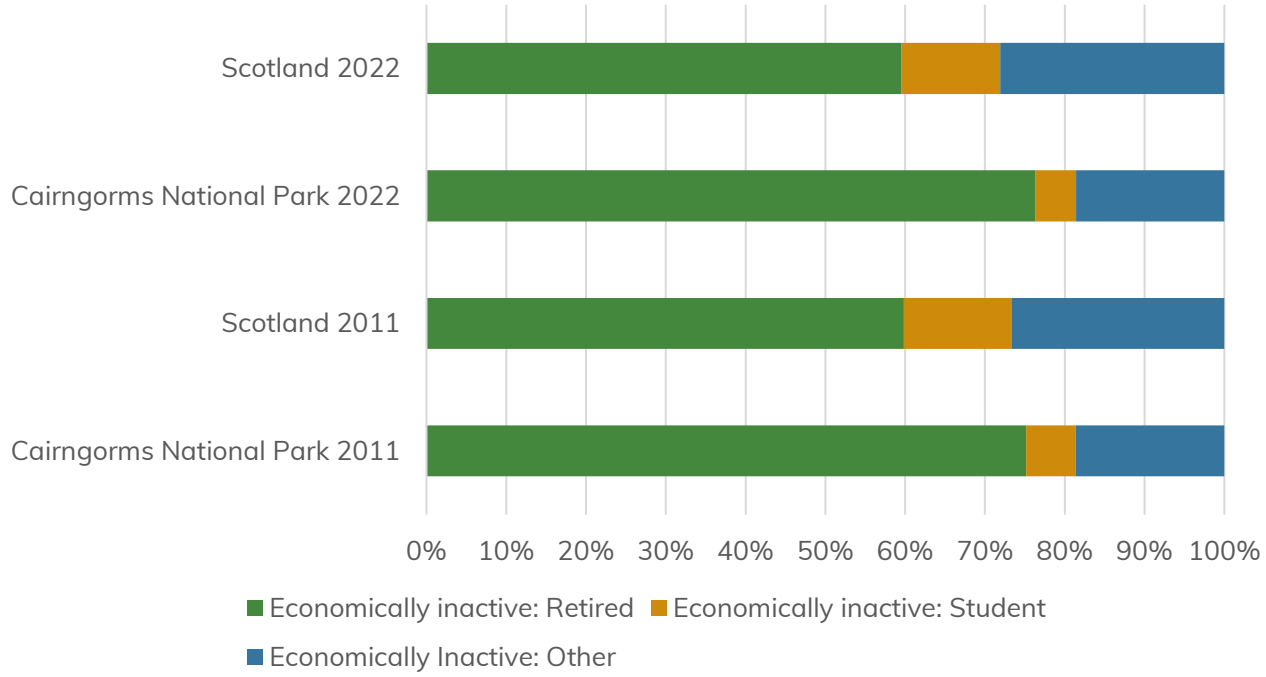


Figure 348 Activity of the economically inactive population only aged 16 years and in the Cairngorms National Park and Scotland in 2011 and 2022. (Census table UV601 and Census table LC6107SC.)

Economic productivity

Gross Value Added (GVA) is an economic productivity metric that provides a monetary value for the goods and services produced in an area. As with Gross Domestic Product

(GDP), its contribution to wellbeing is contested, however it does provide one indicator of economic vitality. In 2022, a report by Oxford Economics (the most recent available data as of April 2025) offers an insight into the annual (forecast) Gross Value Added figures for the Cairngorms National Park, in addition to a breakdown of the annual sectorial contribution.

Figure 349 shows the total forecast for the Gross Value Added figures of all sectors in the Cairngorms National Park from 2015 to 2032 (based on the sum of the value of goods produced by each sector). In 2025 the Gross Value Added of the National Park was forecast to be worth £426.14m which represents a 2.25% decrease from the 2015 value of £435.94m. This may, in part, be attributed to the effects and slow recovery from the COVID-19 Pandemic which caused the Gross Value Added in the National Park to fall to its lowest recorded forecast level during the 2015 – 2023 period (£358.75m in 2020).



Figure 349 Total forecast Gross Value Added for the Cairngorms National Park 2015 – 2032 (based on 2019 prices) (Oxford Economics, 2022).

Looking forward, the forecast from Oxford Economics provides an indication of how the total Gross Value Added in the Cairngorms National Park might perform over both the mid-term (2022 – 2025) and longer term (2025 – 2032). In the mid-term the Gross Value Added for the National Park is forecast to grow by 4.1% representing an additional £16.92m in terms of absolute change. Over the long-term, between 2025-2032 the

Gross Value Added is expected to grow by 9.7% representing an increase in the Gross Value Added of £41.25m in terms of absolute change.

Data has also been provided showing the sectorial contribution to the Gross Value Added for industries present in the Cairngorms National Park (Figure 350). The largest contributing industry in 2025 is forecast to be real estate activities which contributing approximately 21.3% (£90.98m) of the total Gross Value Added. Other significant contributions are from accommodation and food service activities; 14.8% (£63.24m) and wholesale and retail trade; repair of motor vehicles; 11.4% (£48.46m).

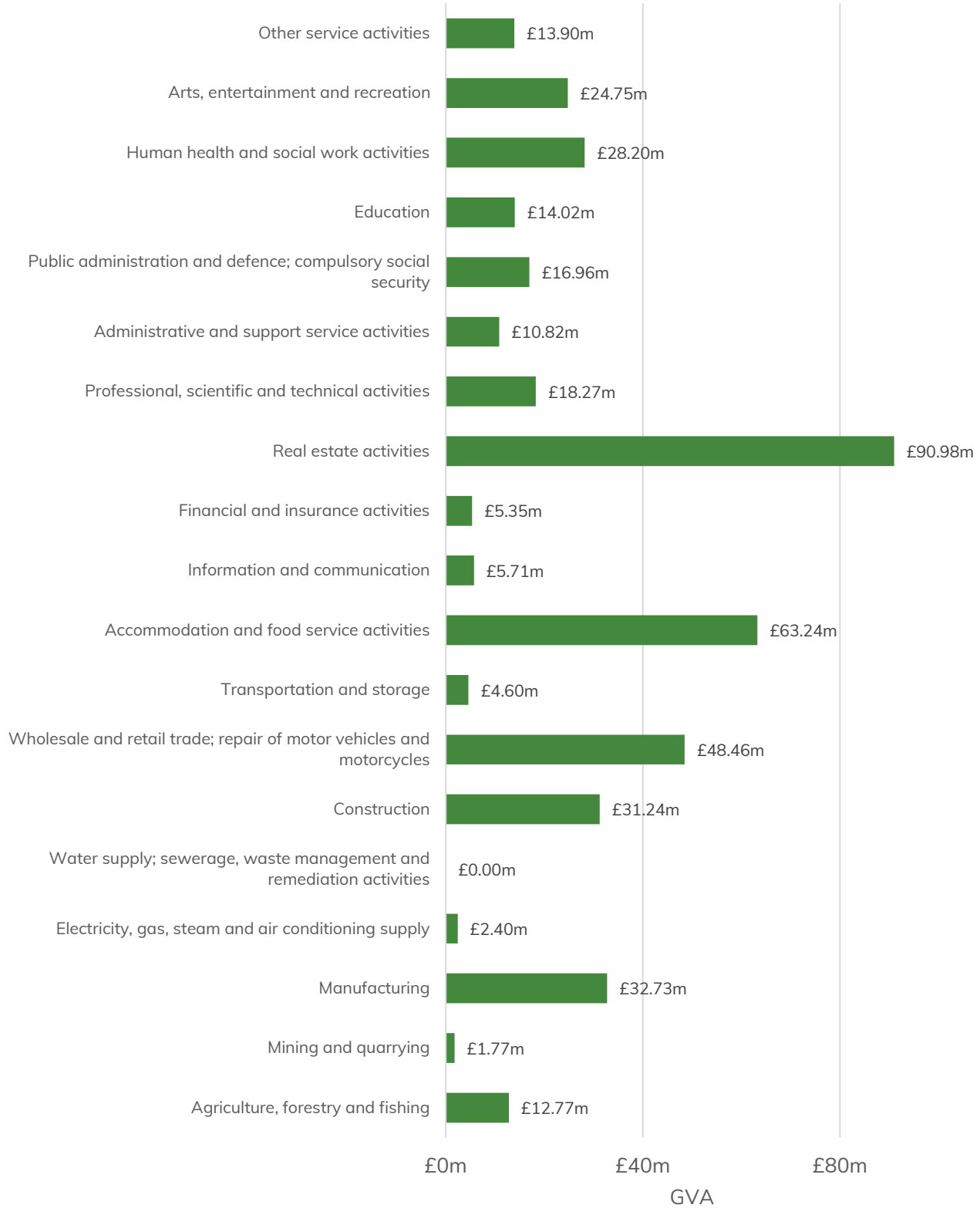


Figure 350 Sectorial forecast contribution to the total Gross Value Added by industry in the Cairngorms National Park in 2025 (Oxford Economics, 2022).

Although Figure 350 gives a useful snapshot of the current forecasted Gross Value Added make-up in terms of industry contribution in 2025. Oxford Economics have provided forecast data from 2015 to 2032 which offers an insight into the longer-term trends within the various sectors in terms of growth or decline in the Gross Value Added figures. The data also provides forecasts for the performance of Gross Value Added by sector in the mid-term (2022 – 2025) and long-term (2025 – 2032) both of which will be looked at in this paper.

Mid-term change 2022 – 2025

Figure 351 shows the mid-term change forecasts for the Gross Added Value of different industries in the Cairngorms National Park. This shows that from 2022 to 2025 the largest sectors that were forecasted to grow were other service activities (+9.1%), professional, scientific and technical services (+7.6%) and information and communication (+7.4%).

Looking at the absolute change (Figure 352) in terms of financial impact of forecasted sectorial growth the largest contributors in the mid-term are real estate activities (+£4.06m, representing a 4.7% increase), accommodation and food service activities (+ £3.03m representing a 5.0% increase) and construction (+£2.0m representing a 6.8% increase). The net increase in the mid-term in terms of combined Gross Added Value was forecasted to be £16.92m.

The largest proportional decrease in sectors in terms of the Gross Value Added is forecast to be mining and quarrying (-7.7% representing a loss of £150k between 2022 and 2025). The only other sector forecast to decline proportionally overt the mid-term in terms of the Gross Value Added is administrative and support service activities (-0.5% representing a loss of £80k).

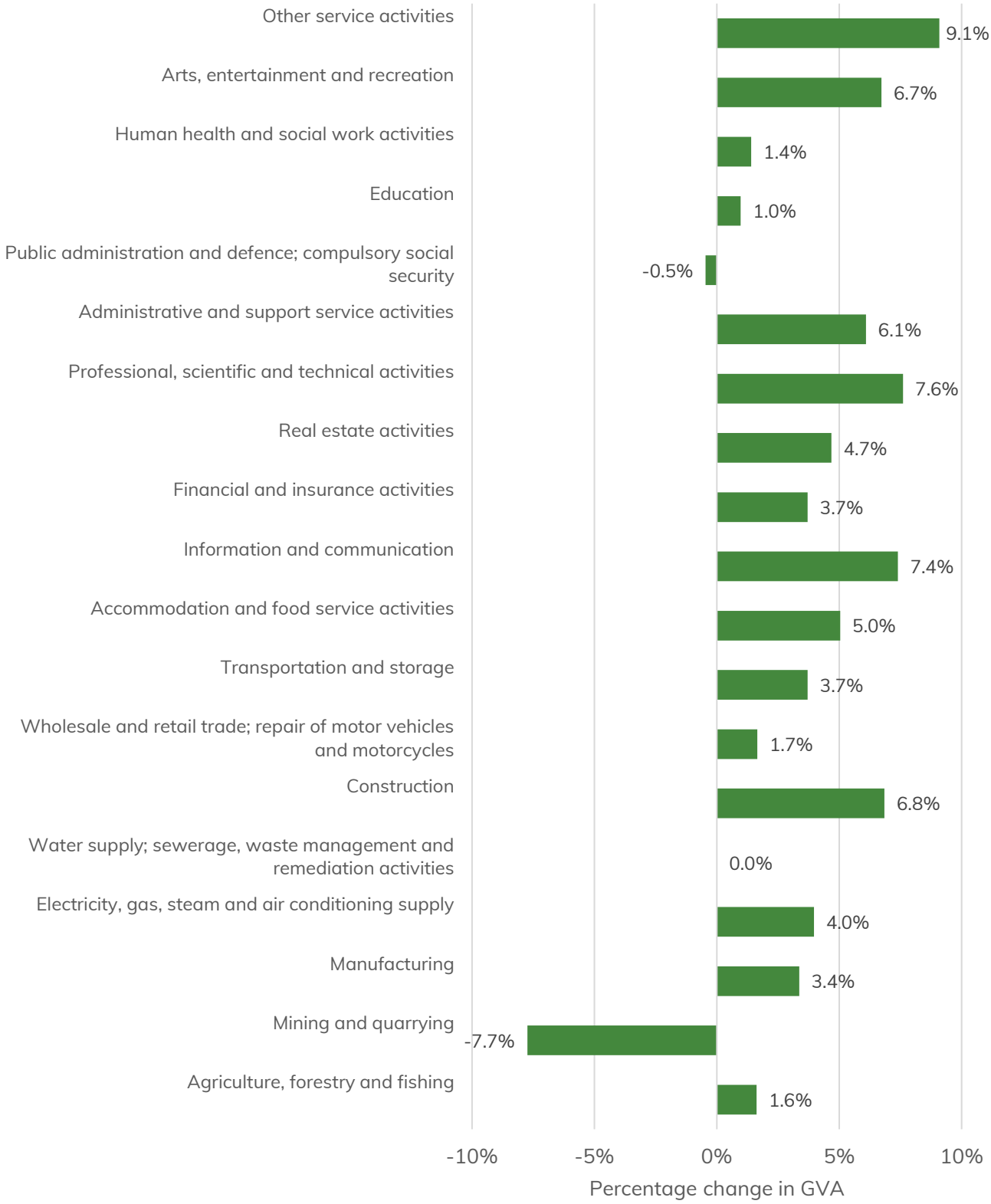


Figure 351 Forecasted change (%) in the Gross Added Value by industry mid-term 2022 – 2025 in the Cairngorms National Park (Oxford Economics 2022).

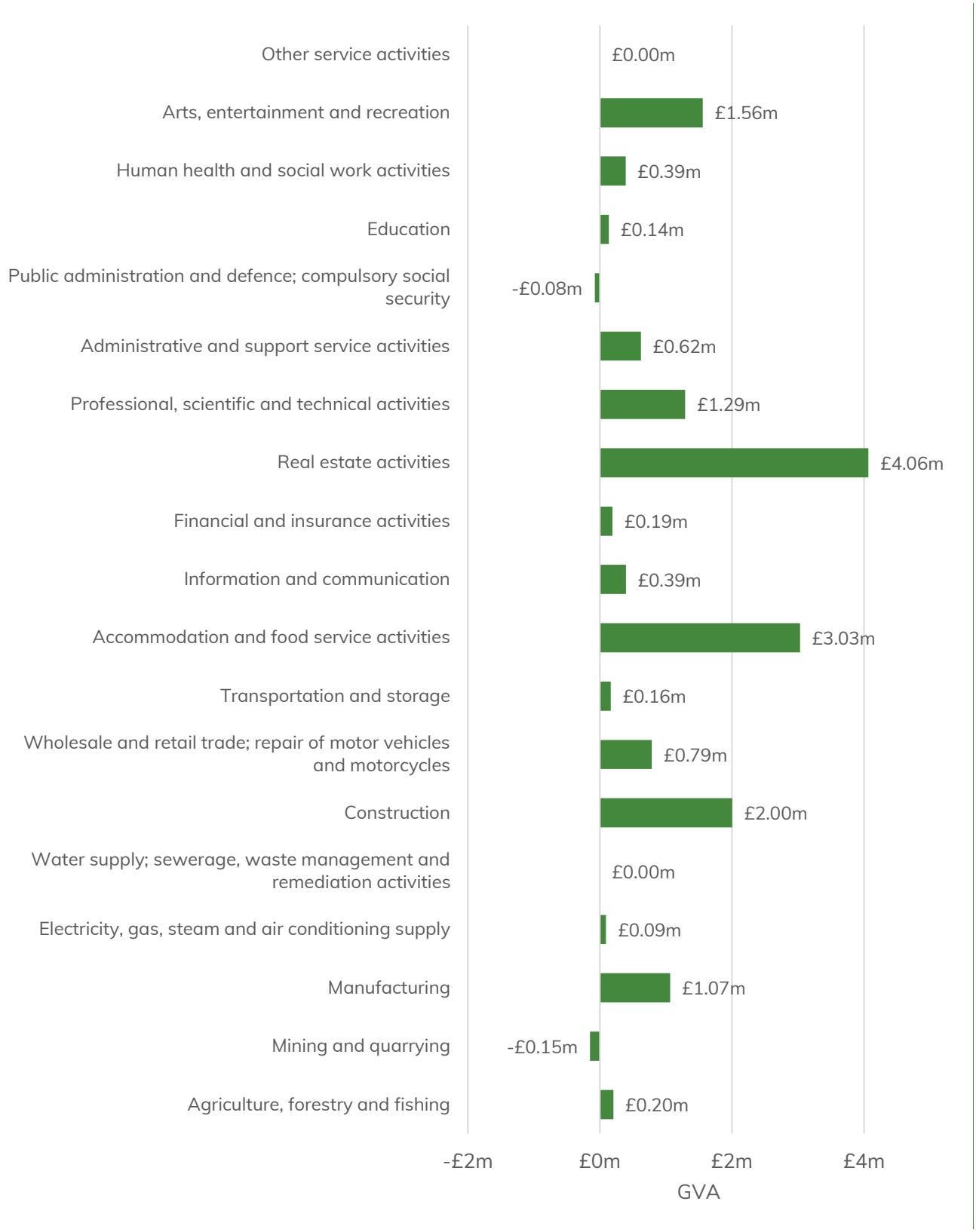


Figure 352 Forecasted absolute change (£) in the Gross Added Value by industry mid-term 2022 – 2025 in the Cairngorms National Park (Oxford Economics 2022).

Long-term change 2025 – 2032

In the longer term, proportionally the largest forecasted increase in the Gross Value Added is expected to be in the information and communication sector which is forecast to increase by 19.4% (Figure 353), however due to the low starting Gross Value Added value this only represents an increase of £1.11m between 2025 – 2032 (Figure 354).

In terms of forecasted absolute change (Figure 354), real estate activities will have the largest impact on increasing the Gross Value Added in the Cairngorms National Park between 2025 - 2032, a growth in Gross Value Added of £13.30m. Over the long-term, accommodation and food services activities Gross Value Added is forecasted to increase by £7.51m increasing 11.9% for the period (Figure 353 and Figure 354).

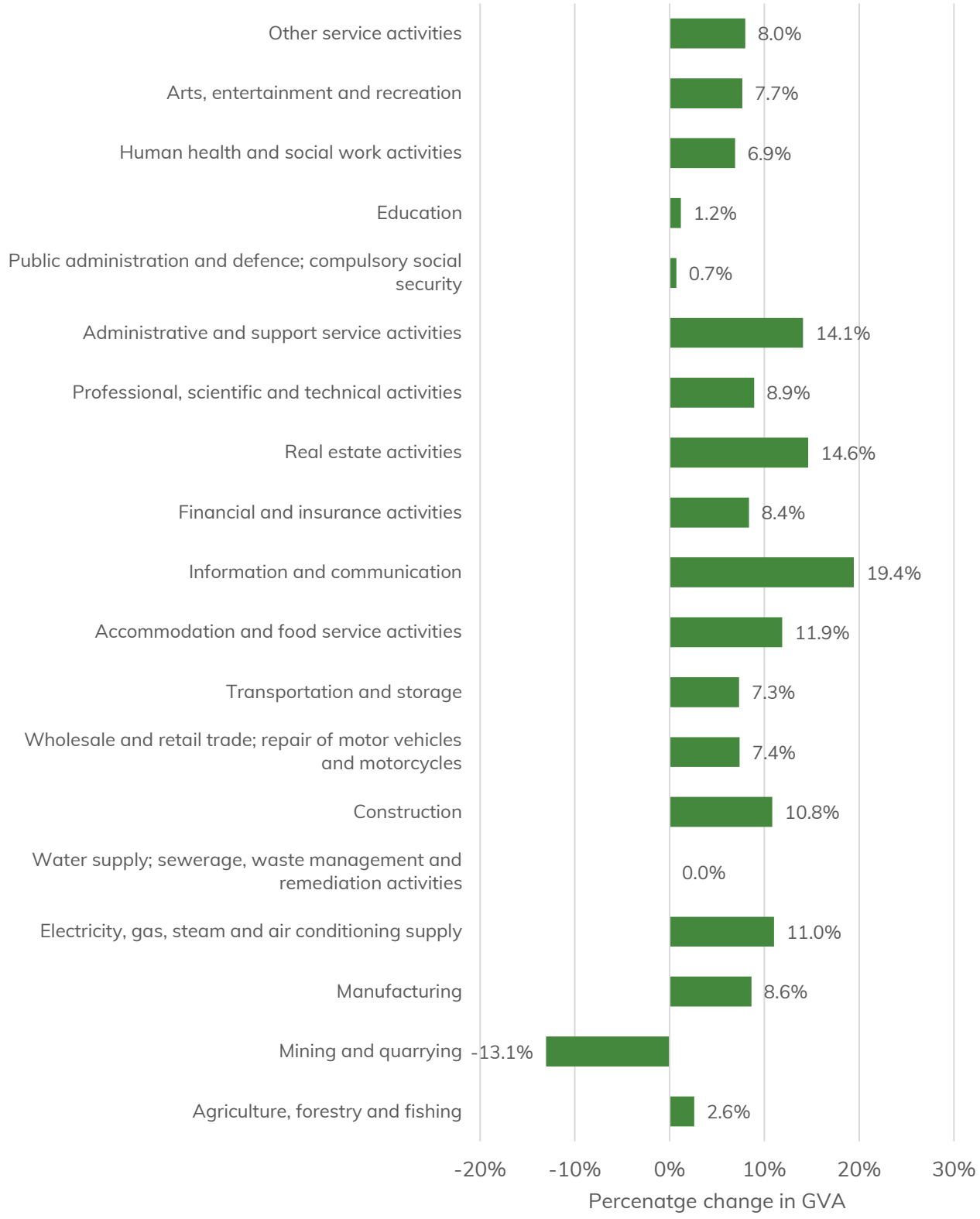


Figure 353 Forecasted change (%) in the Gross Added Value by industry long-term 2025 – 2032 in the Cairngorms National Park (Oxford Economics 2022).

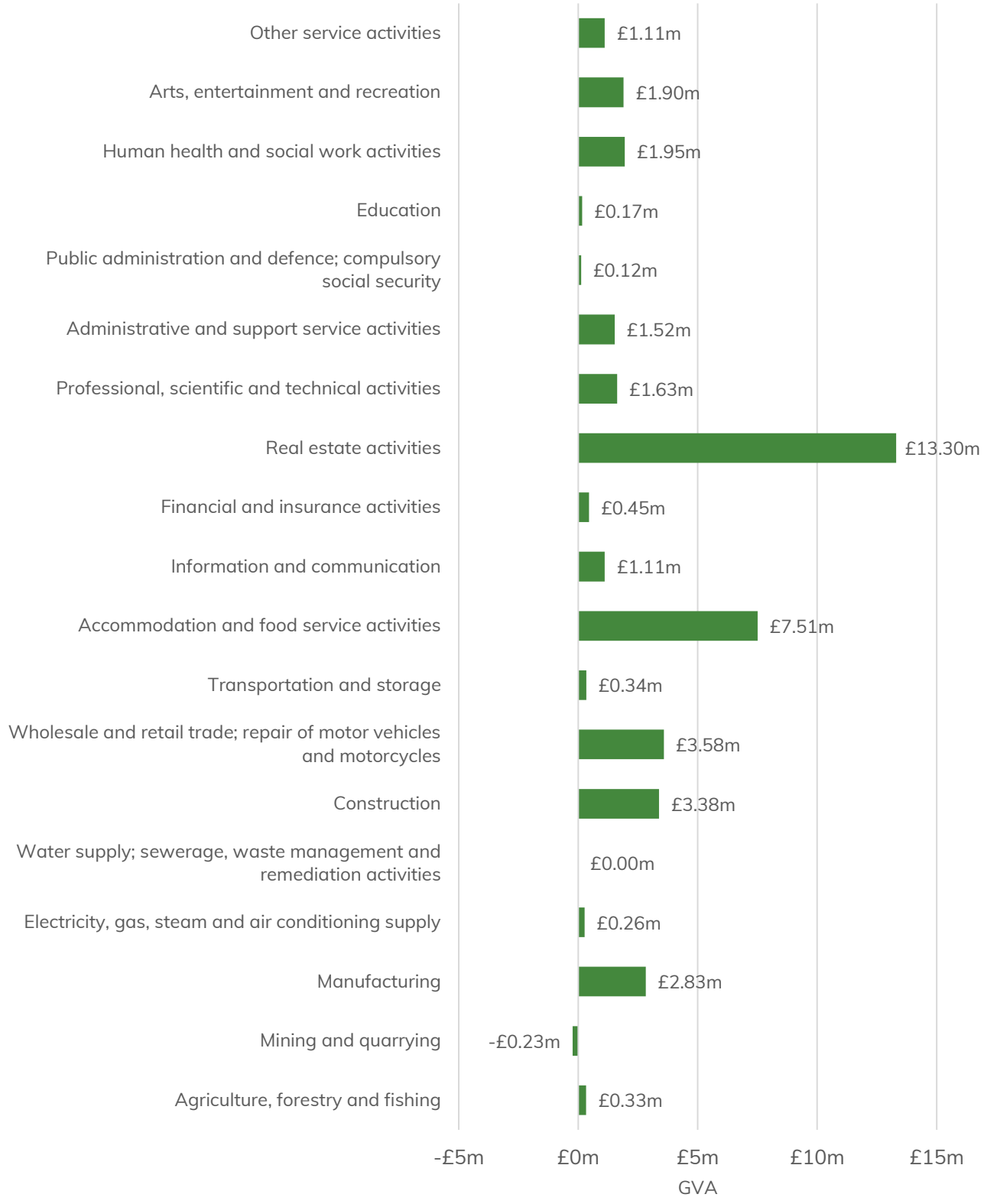


Figure 354 Forecasted absolute change (£) in the Gross Added Value by industry long-term 2025 – 2032 in the Cairngorms National Park (Oxford Economics 2022).

The largest five sectors in terms of forecasted contribution to the Gross Value Added in the Cairngorms National Park are real estate, accommodation and food service activities, wholesale and retail trade; repair of motor vehicle and motorcycles, manufacturing and human health and social work activities (Figure 355).

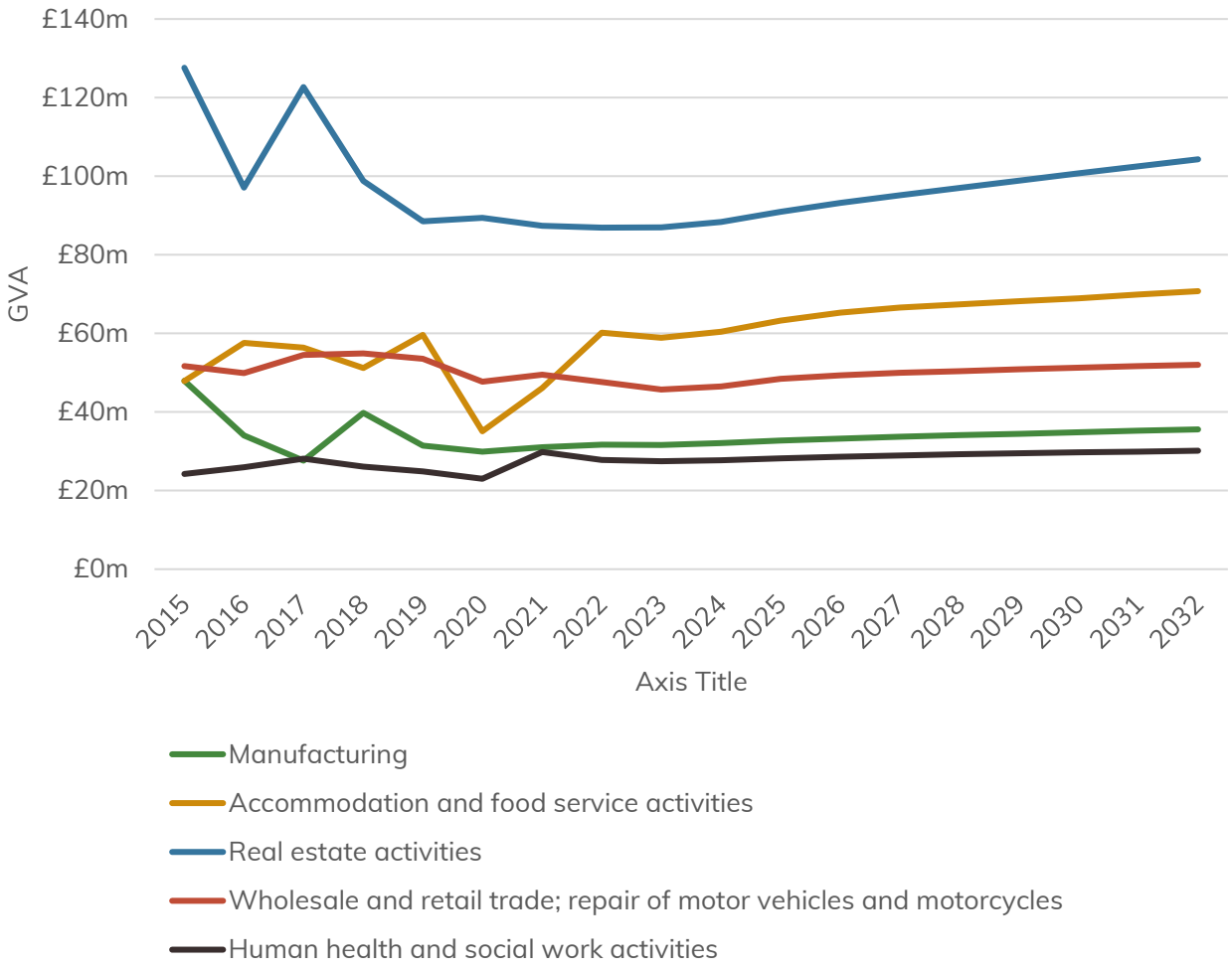


Figure 355 Forecasted Gross Value Added by sector for the five largest industries in the Cairngorms National Park 2015-2032 (Oxford Economics, 2022).

Income and income deprivation

Previous economic reports have indicated that the Cairngorms National Park has an above average proportion of relatively low-paid jobs, in part due to the dominance of the tourism sector and that sector's proportion of relatively low-skilled and low-paid

positions (See 2010 Economic and Social Health of the Cairngorms National Park, 2010[126])

There is very limited current income-related-data available for the exact geography of the Cairngorms National Park. The following pages present Scottish Index of Multiple Deprivation data on receipt-of-income related benefits and 'synthetic' modelled gross household income data from the Centre for Housing Market Analysis (CHMA). It should be noted that the Centre for Housing Market Analysis modelled income data is produced for the purposes of assessing housing need and demand - the data is noted as being for research only, does not represent Official Statistics or National Statistics and has specified limitations with regards to use for assessing actual income levels.

Established in 2019, the Poverty and Inequality commission is a non-departmental advisory public body organisation that supplies informs the Scottish Government regarding inequality and poverty in the country.

Poverty in Scotland is a key driver of inequality and affects a large proportion of society. Across Scotland (2020 – 2023) it is estimated 24% of children, 21% of working age adults and 15% of pensioners are currently living in poverty, while 60% of the working age adults and 65% of the children in poverty come from homes where at least one adult is in employment. Therefore, while equivalent statistics do not exist for the Cairngorms National Park's geography, it should be noted that the relatively low levels of unemployment recoded here do not therefore preclude the existence of poverty in the area.

Poverty also disproportionally affects those living with a disabled person, as 24% of those with a disabled member in the household live in poverty127. It also disproportionally affects young adults with the youngest households in Scotland more likely to be in poverty. In 2020 - 2023 39% of households where the head of the household was aged between 16 and 24 years were in poverty, higher than older households.

The implications of financial inequality are broad and far reaching; for example, it has been proven that a child in a family in the highest 20% of earners will be approximately 13 months ahead in their vocabulary, when starting school, compared with children in

[126]https://www.cairngorms.co.uk/resource/docs/publications/14092010/CNPA.Paper.1635.The%20Economic%20and%20Social%20Health%20of%20the%20Cairngorms%20National%20Park%202010pp1-30,%20Sections%201-4.pdf
[127] https://povertyinequality.scot/poverty-scotland/

families in the bottom 20% of earners128. Therefore, the long-term impacts of inequality on life opportunities are outcomes are a key driver in the Scottish Governments emphasis on inclusive growth, while the government also hosts the Scottish Centre for Regional Inclusive Growth.

One indicator of the measure of income in the Cairngorms National Park is provided by examining the Scottish Index of Multiple Deprivation data. Scottish Index of Multiple Deprivation data relating to income deprivation is derived from the numbers of people in receipt of a range of income related benefits – further information on the methodology used is available in the Scottish Index of Multiple Deprivation technical notes[129]

When comparing the Cairngorms National Park as a whole to the adjacent local authorities (Figure 356), it would appear that the National Park is outperforming 4 out of the 5 (and only marginally worse that Aberdeenshire) and in fact substantially outperforms the national average.

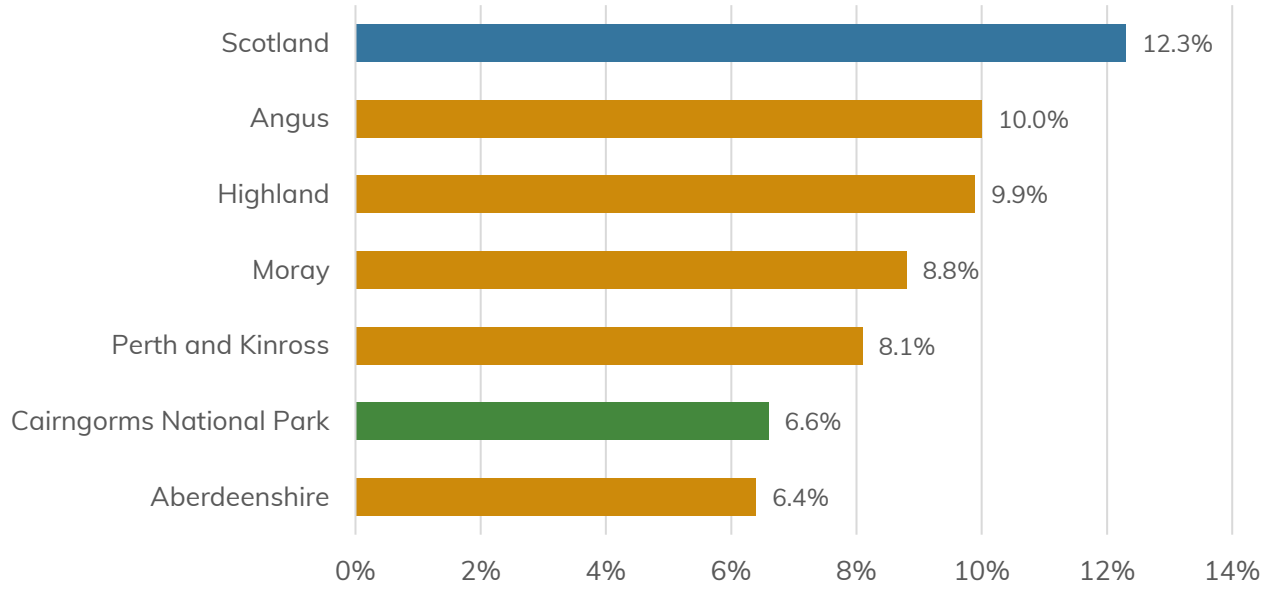


Figure 356 Scottish Index of Multiple Deprivation (2020) Income deprivation rates (based on receipt of income related benefits) as proportion of the total population. (Scottish Index of Multiple Deprivation [130], 2020)

[128] TACKLING INEQUALITIES IN THE EARLY YEARS: KEY MESSAGES FROM 10 YEARS OF THE GROWING UP IN SCOTLAND STUDY: available to view here: https://www.gov.scot/publications/tackling-inequalities-early-years-key-messages-10-years-growing-up-scotland-study/

[129] https://www.gov.scot/publications/simd-2020-technical-notes/
[130] https://simd.scot/#/simd2020/

Although the data on income deprivation rates at a local authority level is encouraging, when the individual data zones are examined, it is clear the initial data does not provide a uniform reflection accounting fairly for the differing situations across the Cairngorms National Park. There is a significant difference between 'the area surrounding Ballater' to the most income deprived area in Aviemore (Figure 357). Just over half of the data zones (13 of 24) do in fact perform better than the National Park average which is 46% lower than the national Scottish average (Figure 357).

Overall, the data (Figure 357) shows the average proportion of people receiving the income related benefits is significantly below the Scottish average – however it can be seen that one data zone is slightly above the Scottish average, while the data indicates that 1,215 people within the Cairngorms National Park are receiving at least one of the range of income related benefits.

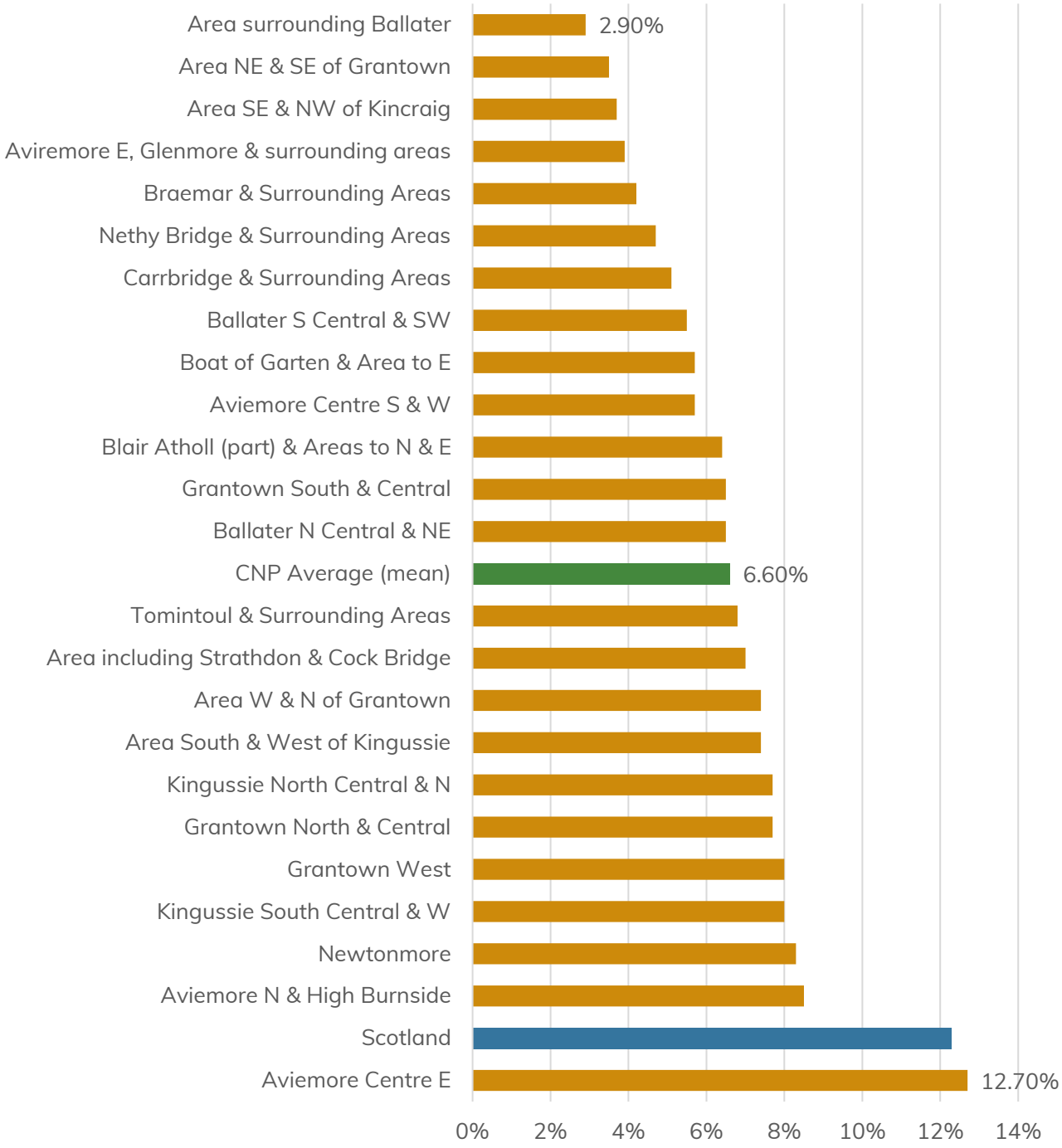


Figure 357: Income deprivation based on receipt of income related benefits (Scottish Index of Multiple Deprivation 2020; further information on the methodology used available in Scottish Index of Multiple Deprivation technical notes[131])

[131] https://www.gov.scot/publications/simd-2020-technical-notes/

Another indicator of the health of people's income in the Cairngorms National Park can be obtained by studying the data provided by the Scottish Governments Centre for Housing Market Analysis (CHMA). The Centre for Housing Market Analysis in association with Heriot Watt University produces estimates for Gross Household Incomes by data zone. Although this does provide some indication of income levels in the National Park it should be noted that the estimates alone cannot be used to give an accurate picture of wealth or poverty in an area due to the other variable deductions from income a household will experience (for example, housing costs and / or home heating and transport as a percentage of disposable income). Low-income data is used to calculate the percentage of an area's population that are experiencing relative low income[132] (Households whose income falls under 60% of the median gross income).

The Cairngorms National Park has relatively low levels of poverty in terms of households experiencing low income reported at 12.4% compared with 17.5% nationally. Out the five local authorities within the National Parks boundary, only Aberdeenshire has a lower proportion of low-income households than the National Park average (Figure 358).

[132] Not to be confused with Absolute low income which is a comparison to the median of the 2010/11 year allowing for comparisons over time.

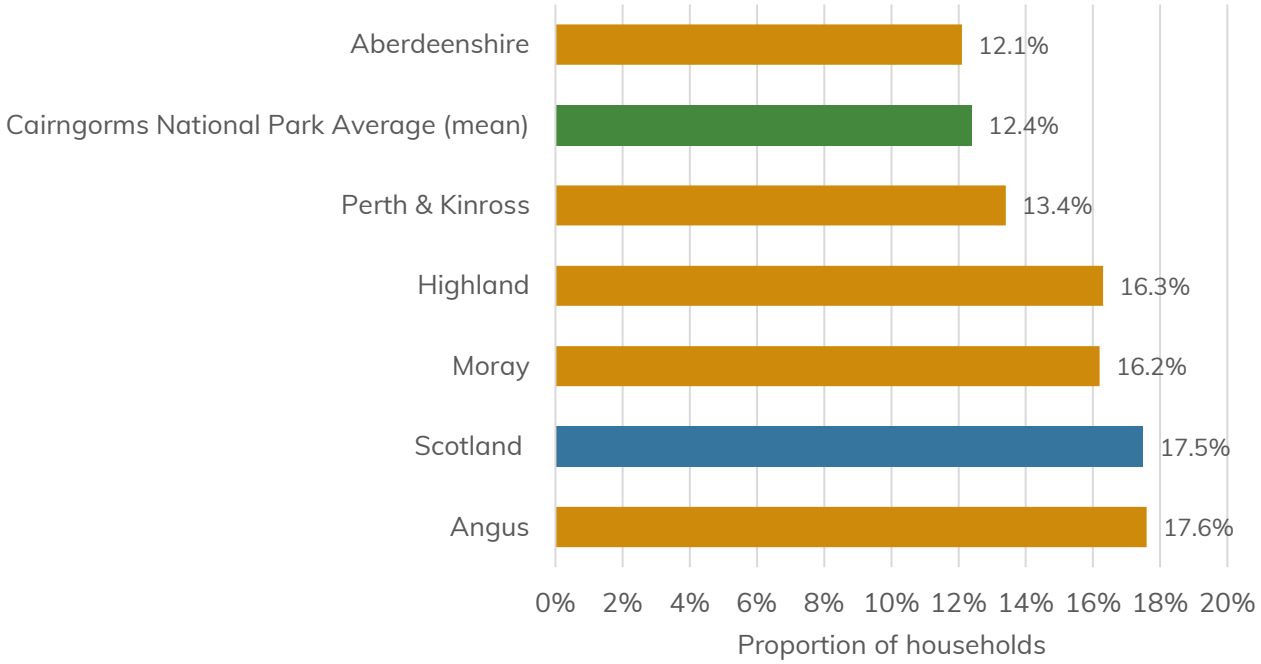


Figure 358 Proportion of households with under 60% of the median gross income (Centre for Housing Market Analysis [133], 2018).

Along with the Scottish Index of Multiple Deprivation data presented (Figure 359) for income related benefits and the data for income estimates (Figure 360) it suggests that the Cairngorms National Park is significantly above the national average with regards to incomes.

[133] Based on Local Level Household Income Estimates (LLHIE), weekly (£), banded income for 2018. The Local Level Household Income Estimates are synthetic income modelling research for the year 2018 & exclude housing costs and adjustments for taxation[133] (Data from Heriot Watt University In association with David Simmonds Consultancy)

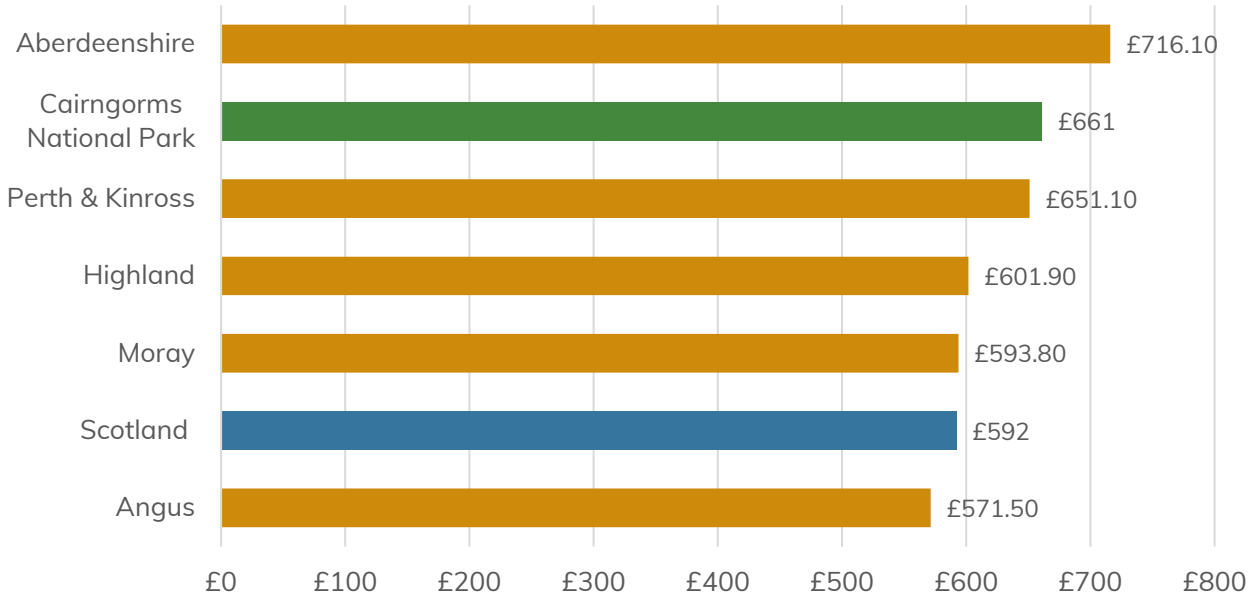


Figure 359 Gross Median weekly household income estimates (Centre for Housing Market Analysis [134], 2018).

[134] Based on Local Level Household Income Estimates (LLHIE), weekly (£), banded income for 2018. The Local Level Household Income Estimates are synthetic income modelling research for the year 2018 & exclude housing costs & adjustments for taxation (Data from Heriot Watt University In association with David Simmonds Consultancy)

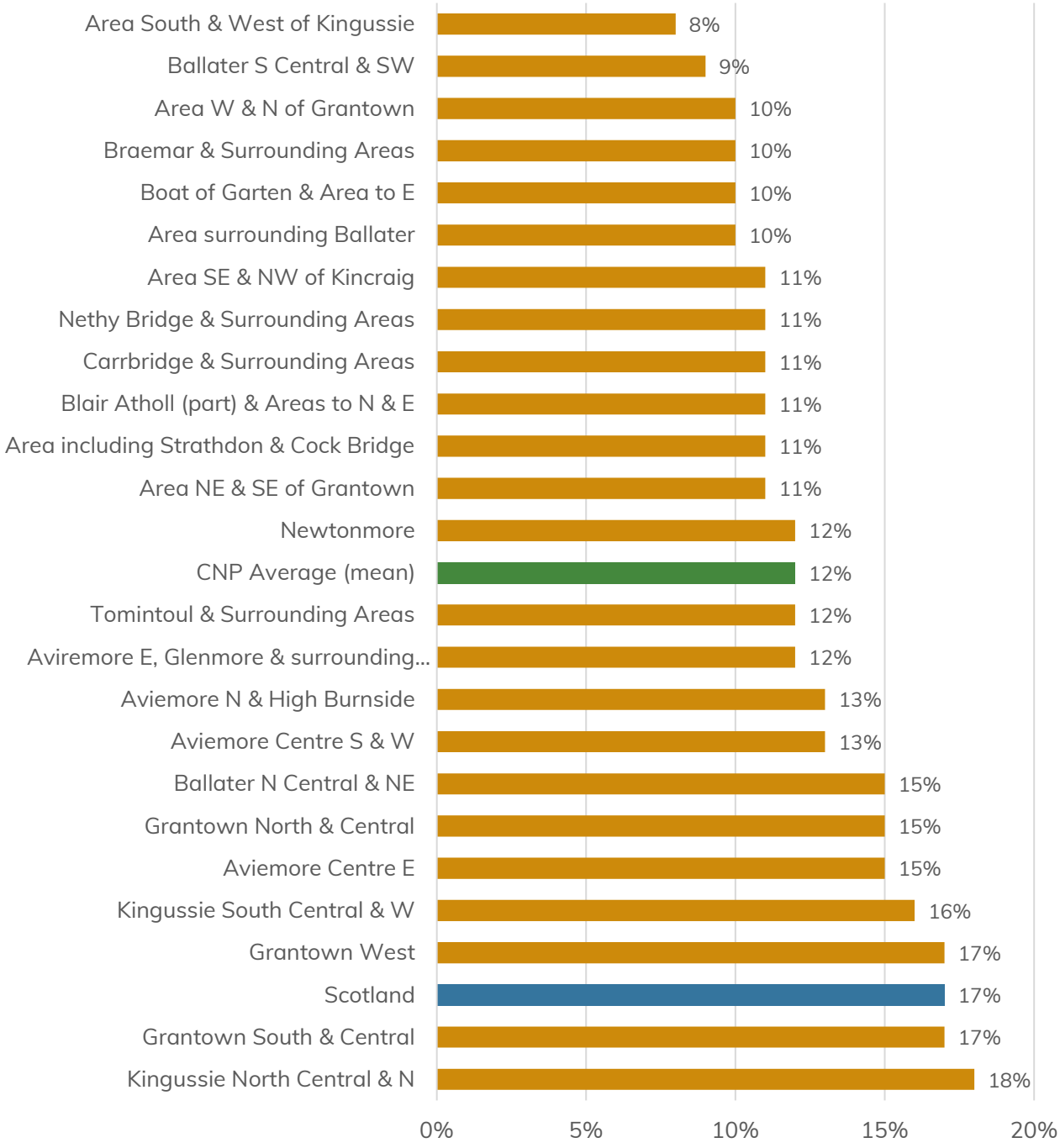


Figure 360: Proportion of households under 60% of the median income (Centre for Housing Market Analysis [135], 2018)

[135] Based on Local Level Household Income Estimates (LLHIE), weekly (£), banded income for 2018. The Local Level Household Income Estimates are synthetic income modelling research for the year 2018 and exclude housing costs and adjustments for taxation. Note these estimates are for use in housing affordability analyses. They are research only and they do not represent Official Statistics or National Statistics.

Child poverty

Child poverty is another key indicator that can be used to diagnose the degree of an area's relative wealth or poverty. Research has shown that the lack of money (or being classed as low income) is likely to have the strongest impact on children's cognitive, social-behavioural, educational attainment and health outcomes, independent of other contributing factors such as parents' education (Cooper and Stewart, 2017).

Child poverty is the estimate for the percentage of children living in a household with below 60% of the median income[136]. A limitation of this data as an indicator of poverty in a given area is that it looks at the income levels on a 'before housing cost' (BHC) basis. Therefore, in different parts of the Cairngorms National Park, housing costs may vary depending on the available housing stock available to the households when they require it. So, although we can, and will, compare the levels of child poverty in the National Park with the Local Authorities we do expect this to give the complete picture of wealth or poverty in the National Park.

[136] Income is defined as Gross Personal Income from benefits/tax credits, from employment and self-employment, and from occupational pensions.

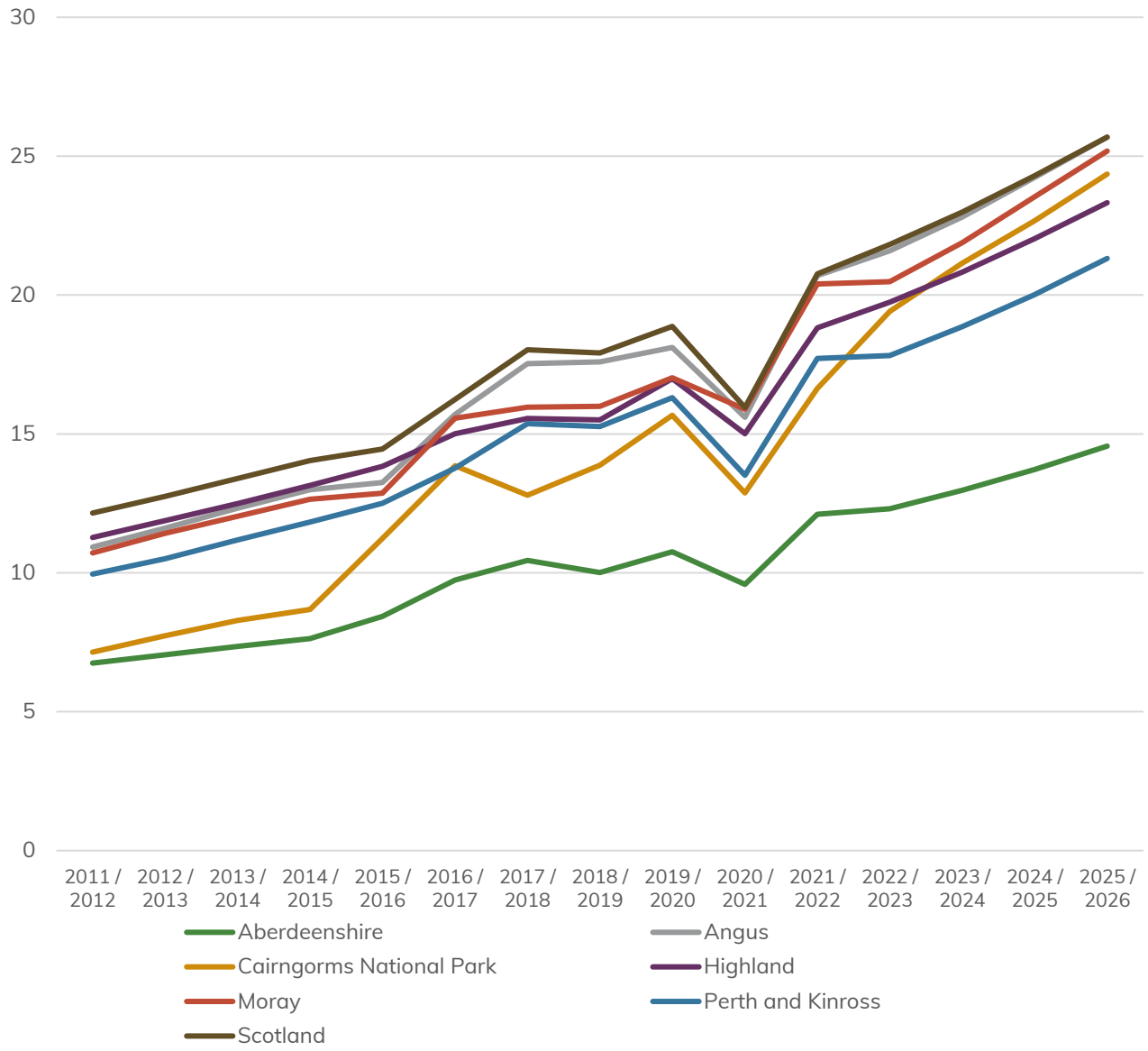


Figure 361 Percentage of children in (relative) poverty in the Cairngorms National Park and adjoining five local authorities from 2011 / 2012 to 2022 / 2023 and projected from 2023 / 2024 to 2025 / 2026 (Data accessed via CPOP website[137]). Due to data availability the Cairngorms National Park figures are for Badenoch and Strathspey and Deeside only (excluding Moray and Perth & Kinross) – however the included area covers over 90% of the National Park population.

The Cairngorms National Park, although consistently below the averages for Scotland, does not stand out in comparison with the other Local Authorities in terms of being a place of particularity low child poverty levels (Figure 361). In fact, Aberdeenshire is noticeably lower than the National Park and the other four Local Authorities adjoining the National Park. In 2014 / 2015 the National Park performed well in terms of low child

[137] https://scotland.shinyapps.io/is-community-planning-outcomes-profile/

poverty rates more akin to Aberdeenshire than the other four local authorities. Since 2015 / 2016, the rates of child poverty in the National Park have been significantly above those in Aberdeenshire and are projected to exceed those found in Perth and Kinross and Highland.

As the Cairngorms National Park has a relatively low unemployment rate, it appears likely that a substantial amount of the poverty indicated is likely to be in families with at least one adult in employment. The child poverty data shown is, in accordance with other reported studies, indicating that a substantial number of jobs within the National Park provide a relatively poor income for employees.

As effects of child poverty are numerous and long reaching, often negatively affecting the long-term health, social and economic outcomes throughout the children's life and into adulthood (Case A, Fertig A and Paxson C, 2005, Gregg P, Harkness S and Machin S, 1999) the increase in levels in recent years will have an as yet unregistered, negative social and economic effect on the Cairngorms National Park's future. The educational outcomes of children raised in low-income families compared with those from more affluent backgrounds is a key factor leading to inequalities[138] and should not be overlooked. Therefore, given the aforementioned statements, attention should be paid to the rising numbers of children categorised as being in child poverty in the National Park.

General health

The census collects data on the general health of the population at a national park geography. In 2022, the Census reported (Census table UV302) that 82.4% of the National Parks population (14,452 people) were in good or very good health which is above the national average of 78.8% (Figure 362, Figure 363). The proportion of the National Parks population in bad or very bad health in 2022 was 4.5% (795 people) lower than the national average of 6.9%.

Looking at the comparison between the 2011 and 2022 Census data for the health of the population in the National Park (Figure 363) the percentage of people in good or very good health has decreased from 87% to 82%. It is worth noting that the biggest change between the two years has been in those with 'very good health' which in 2011 was recorded as 56% compared to 50.0% in 2022. In terms of 'bad' or 'very bad health' there has been little change between 2011 and 2022, a fall of 0.5% across the period. Those in 'fair health' in the National Park rose from 10% in 2011 to 13.3% in 2022.

[138] http://www.healthscotland.scot/media/2186/child-poverty-impact-inequalities-2018.pdf

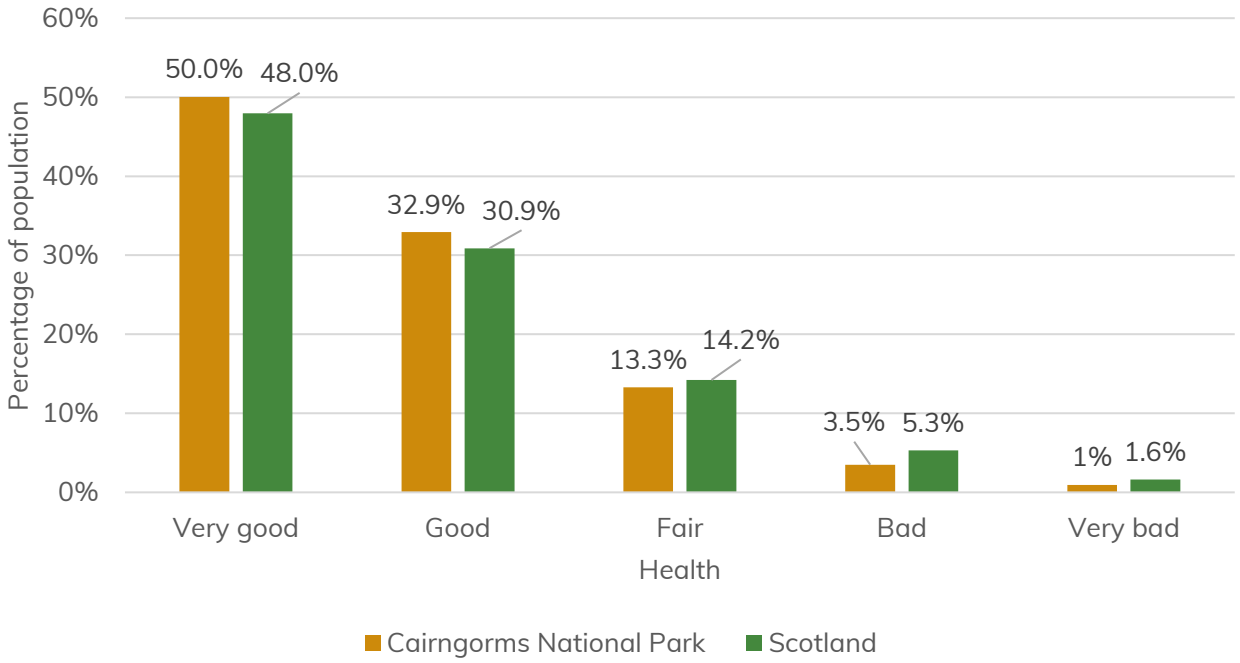


Figure 362 Percentage of the Cairngorms National Park and Scotland's population by classification of general heath. Census 2022 (table UV302).

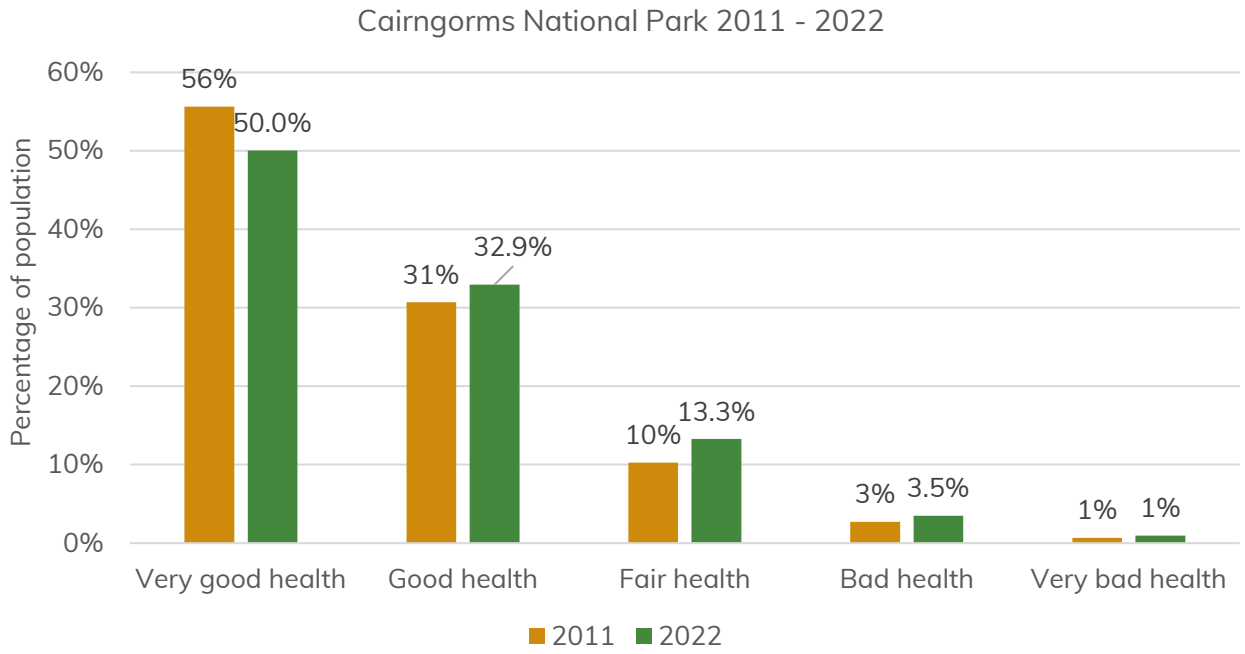


Figure 363 Comparison of population health between 2011 and 2022 Census data collected for the Cairngorms National Park. Census 2011 and 2022 (tables QS303SC and UV302).

General health by age

The general health of the population can be further broken down by age group in the Cairngorms National Park with data provided by the 2022 Census. As one would expect the percentage of people by age group in 'very good / good health' decreases with age (Figure 364). What is perhaps of more interest in this case is the percentage of the population at different ages that are in 'bad' or 'very bad health', suggesting the need for additional support. Those over 65 years of age in 'bad' or 'very bad health' was 8.5% of the population for that age group. This is significantly lower than the national average of people 65 years and over suffering 'bad' or 'very bad health' which is 15.0% of that age group.

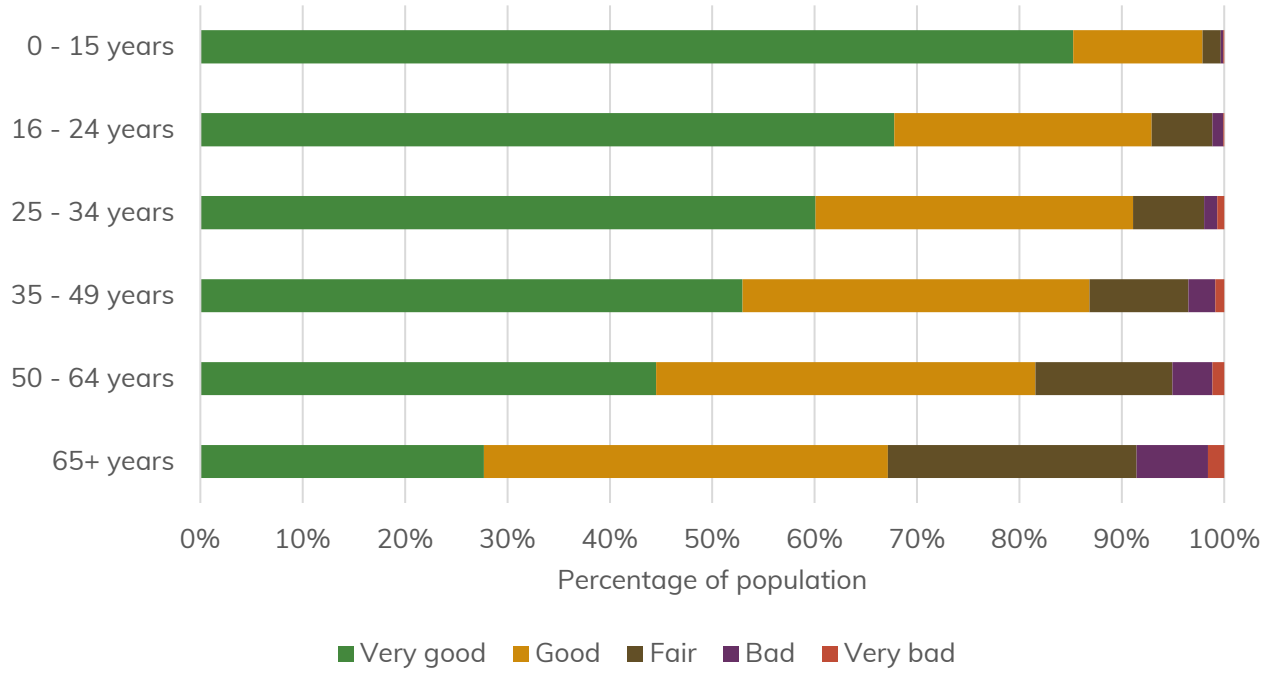


Figure 364 General health by age in the Cairngorms National Park, Census 2022 (table UV302b).

In relation to children in the National Park (under 16 years old) only 0.32% of that age group we identified as being in 'bad' or 'very bad health'. In Scotland, the average figure is 0.56% of children being in 'bad' or 'very bad health', meaning on balance the children in the National Park are healthier than the national average.

Looking at the people of working age (16 – 64 years) in the National Park 3.65% are of 'bad' or 'very bad health', lower than the national average for this age group of 6.05%. Again, showing the health of the working age population being higher than the national average.

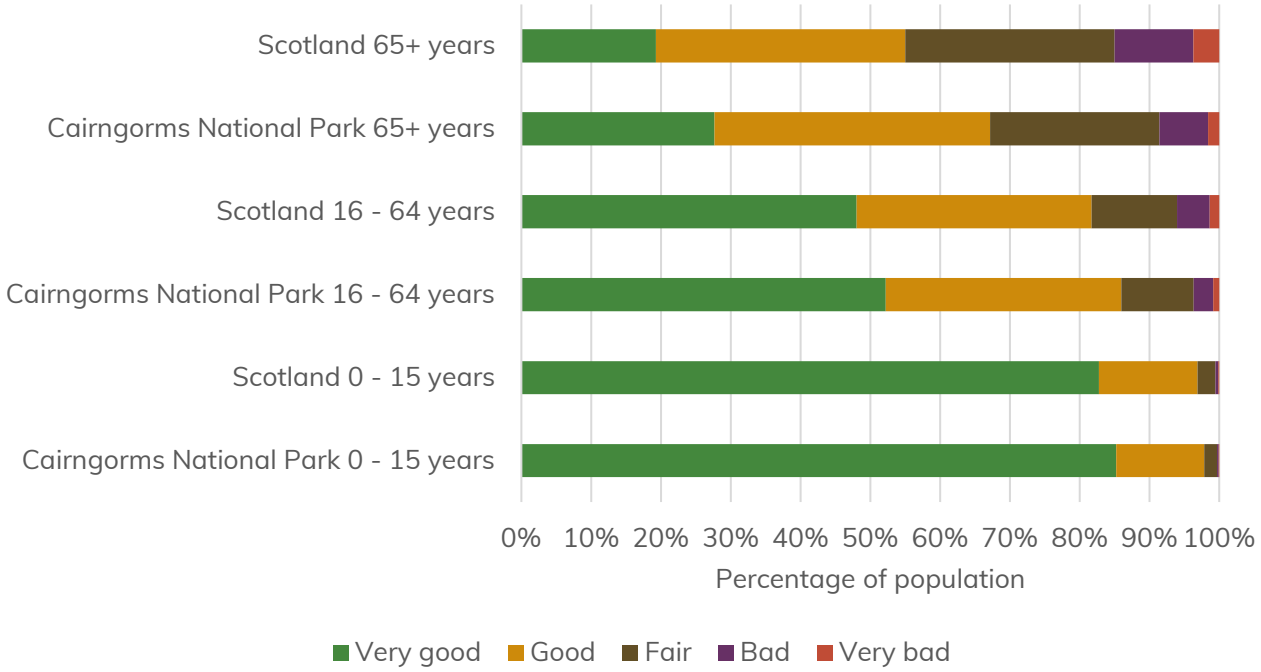


Figure 365 General health by age grouped into children (0 – 15 years) working age (16 – 64 years) and pensionable age (65+ years) in the Cairngorms National Park and Scotland in 2022. Census 2022 table UV302b.

When comparing the 2011 Census data with the 2022 data for the Cairngorms National Park there was only a marginal change in the general health of the children aged 0 – 15 years. The percentage of people reporting being in 'very good health' in 2022 compared to 2011 decreased in both the working age (16 – 64 years) and those of pensionable age (65+ years) age groups (Figure 365).

In terms of the residents in the Cairngorms National Park of pensionable age in 'bad' or 'very bad health' this has increased significantly between 2011 and 2022, from 7.3% to 15.0% of the population. This may in part be accounted improvements to health care and subsequent extensions of life expectancy of the people in this age group.

In terms of the working age population, those in 'bad' or 'very bad health' in the Cairngorms National Park has also increased from 2.9% in 2011 to 3.6% in 2022.

The changes in general health by age broadly follow the national figures with the exception of the population 65 years and over (Figure 366). Nationally the percentage of the people of pensionable age in 'very good health' increased from 17.2% in 2011 to 19.3% in 2022. This is in contrast to the residents of the same age in the National Park where the percentage of the population in 'very good health' decreased from 25.0% in

2011 to 19.3% in 2022. Combining the data for people nationally in 'good' or 'very good health' across Scotland saw only a marginal increase from 54.4% in 2011 to 55.0% in 2022 (Figure 367).

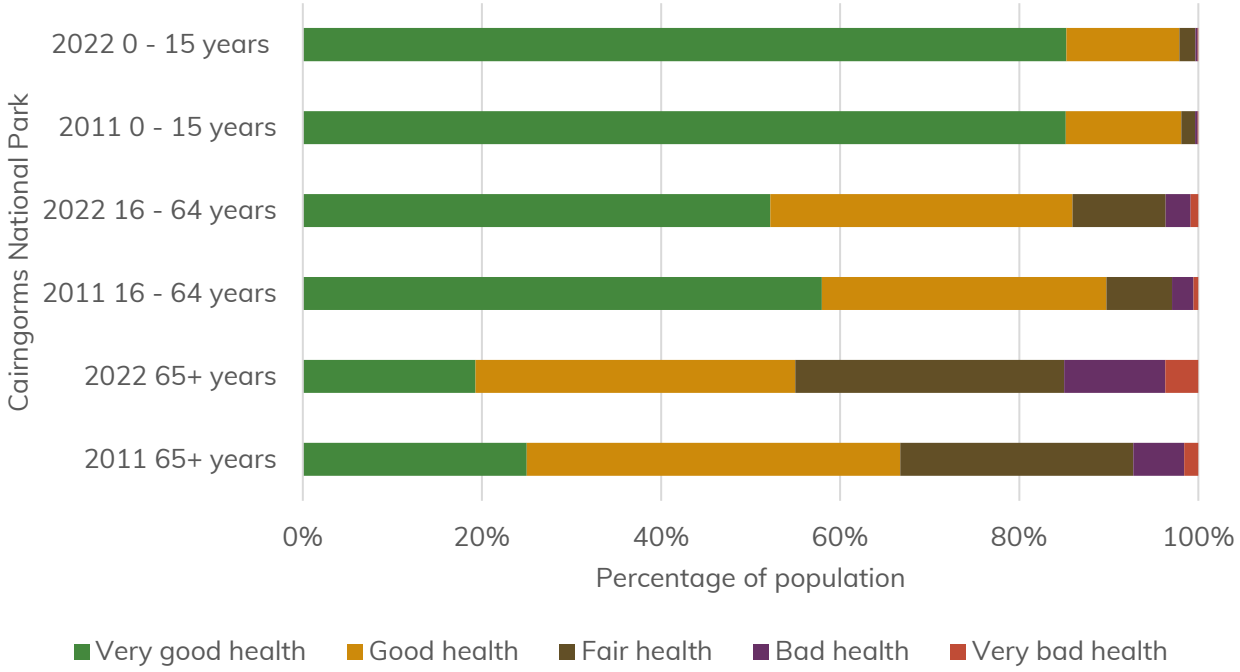


Figure 366 General health by age grouped into children (0 – 15 years) working age (16 – 64 years) and pensionable age (65+ years) in the Cairngorms National Park in 2011 and 2022. Census 2022 tables UV302b and LC3102SC.

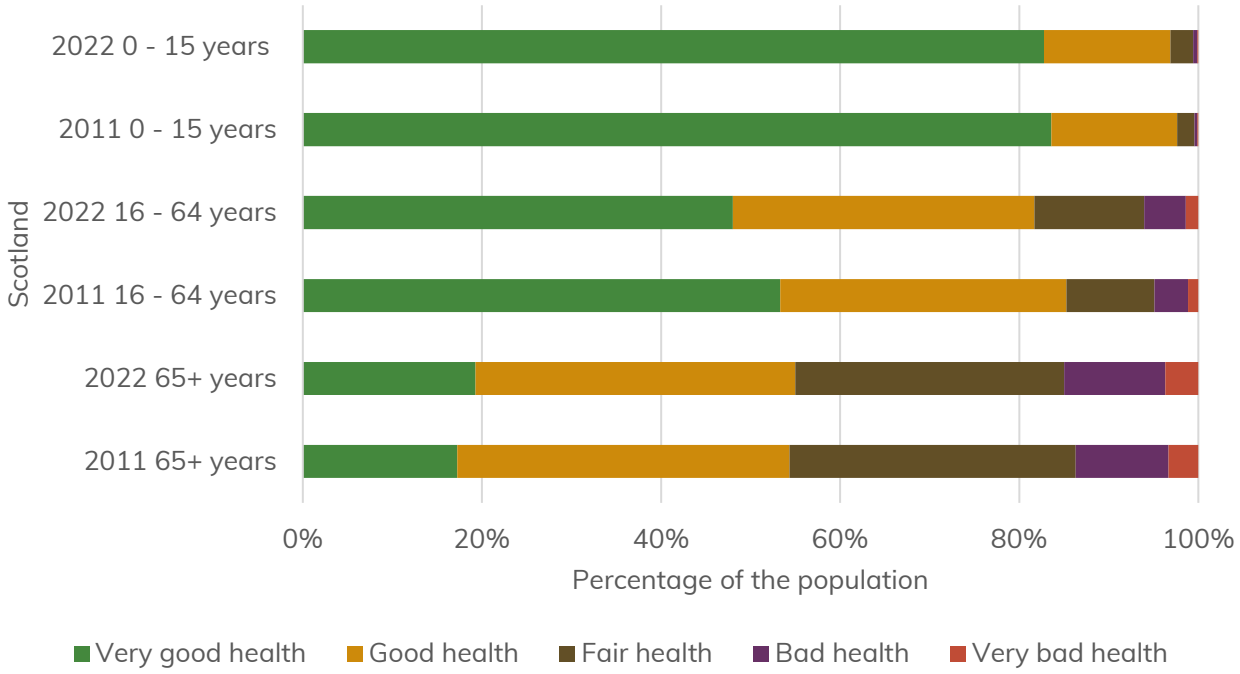


Figure 367 General health by age grouped into Children (0 – 15 years) working age (16 – 64 years) and pensionable age (65+ years) in Scotland in 2011 and 2022. Census 2022 tables UV302b and LC3102SC.

Long-term health problem or disability

The Census also provided health by disability in relation to the limitations on day-to-day activities experienced by residents (Figure 368). In the National Park there is a lower incidence of residents (7.9% of the population) health problems or disability having a very limiting effect on their day-to-day activities, than nationally (10.7% of the population). The data from the 2022 Census can also be compared to the comparable data from the 2011 Census.

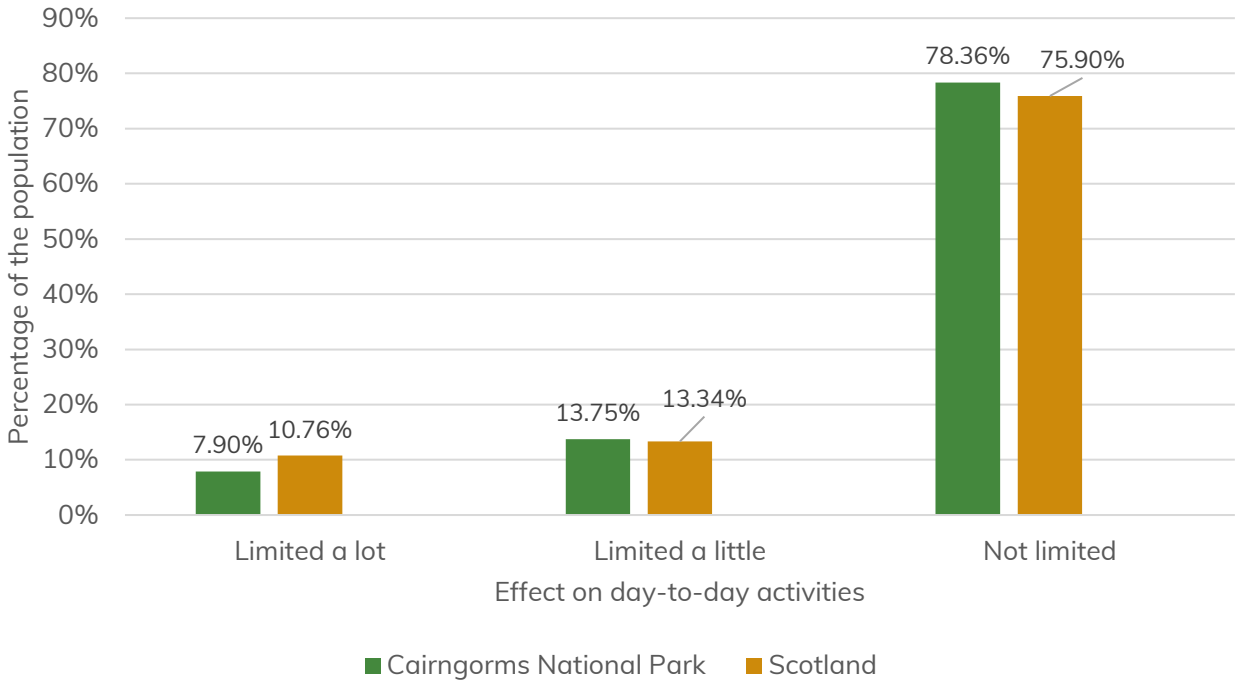


Figure 368 Resident population health problems or disability in relation to its effect on day-to-day activities in the Cairngorms National Park and Scotland. (Census table UV303)

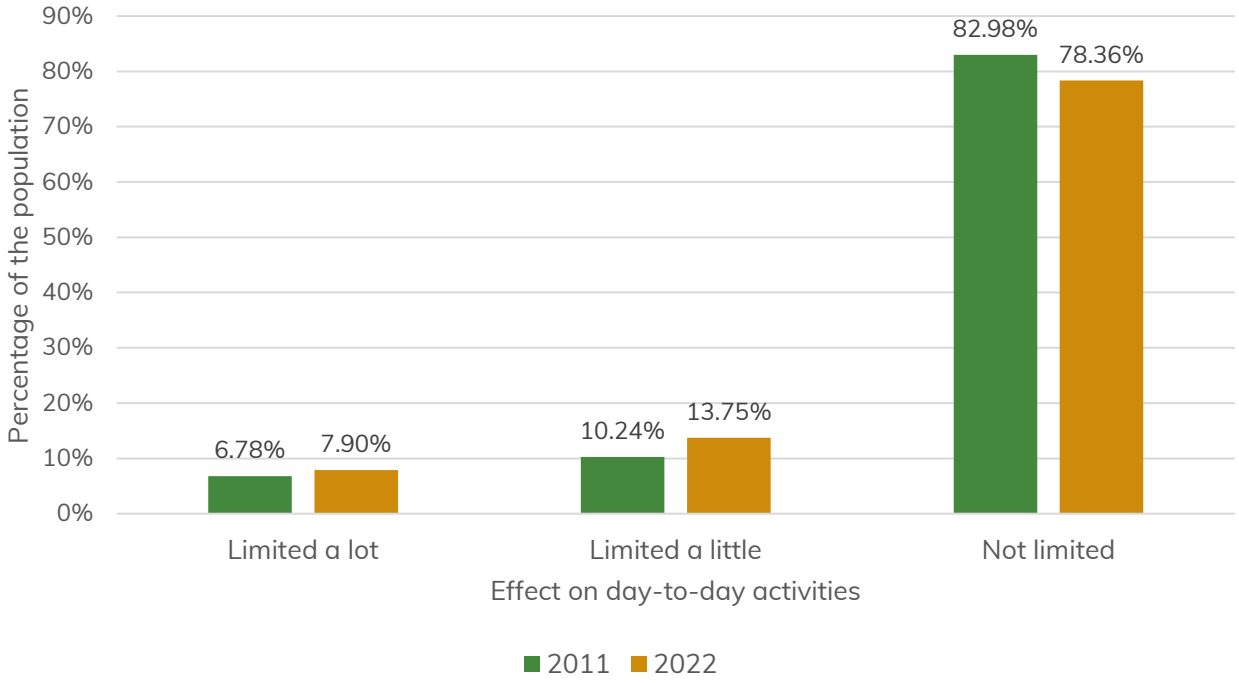


Figure 369 Resident population health problems or disability in relation to its effect on day-to-day activities in the Cairngorms National Park in 2022 compared to 2011. (Census table UV303 and QS303SC)

The percentage of the population of the Cairngorms National Park not limited by health problems or disability in their day-to-day activities is lower in 2022 (78.4% of the population) compared to 2011 (83.0% of the population) (Figure 369). A higher percentage of the population are limited by health problems or disability (both a little or / and a lot) in their day-today activities in 2022 compared to 2011.

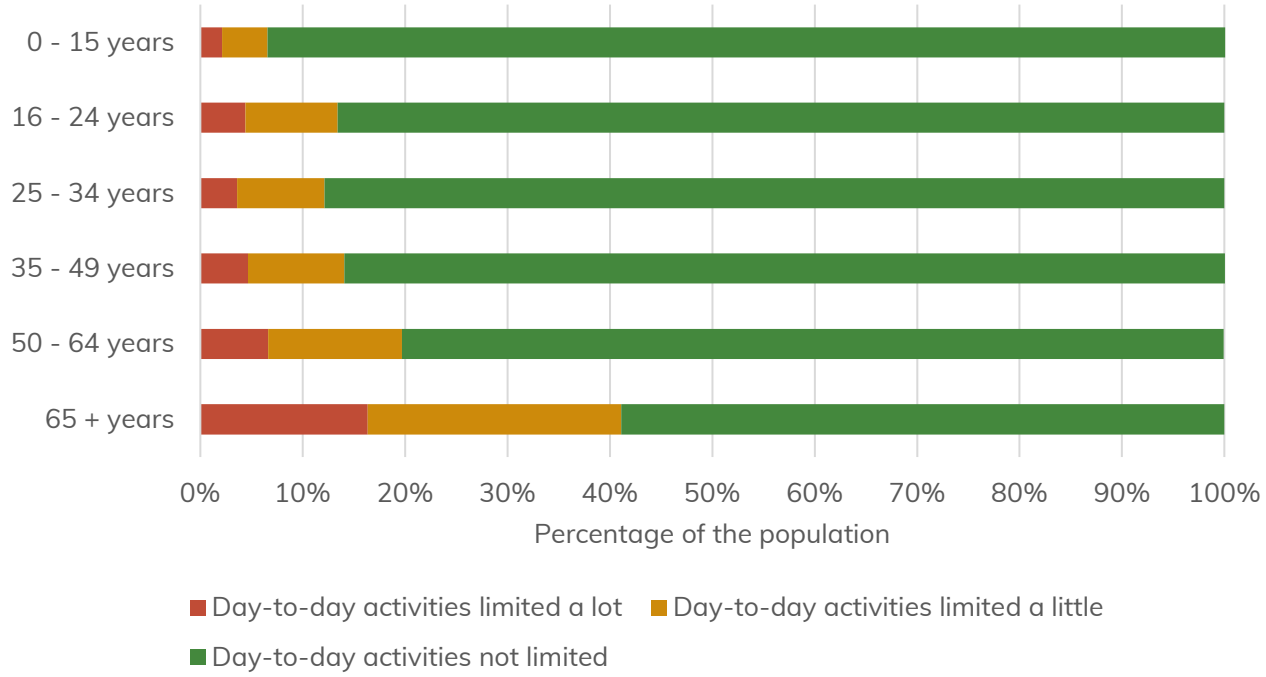


Figure 370 Resident population health in relation to health problems or disability's effect on day-to-day activities in the Cairngorms National Park in 2022 by age. (Census table UV303b).

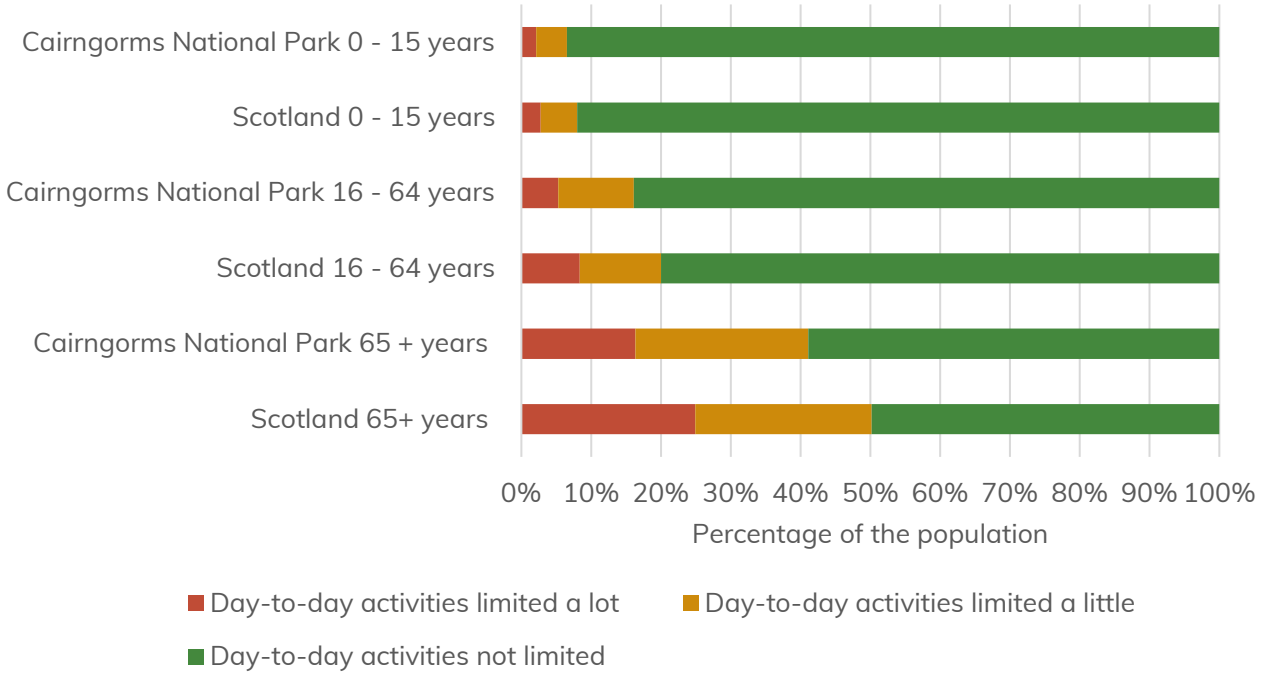


Figure 371 Resident population health in relation to health problems or disability's effect on day-to-day activities in the Cairngorms National Park and Scotland in 2022 by age group. (Census table UV303b)

The data can be grouped into three categories for children (0 – 15 years), working age population (16 – 64 years) and those of pensionable age (65 + years) (Figure 370). Comparing the data for the Cairngorms National Park and Scotland in this way the percentage of those at pensionable age in the National Park whose day-to-day activities are limited a lot (16.3%) is far lower than the national average (24.9%) in 2022. Similarly, the percentage of those of working age whose day-to-day activities are limited a lot is lower in the National Park (5.3%) compared to the national average (8.4%). Looking at the data these is far less disparity in the percentages for children (Figure 371).

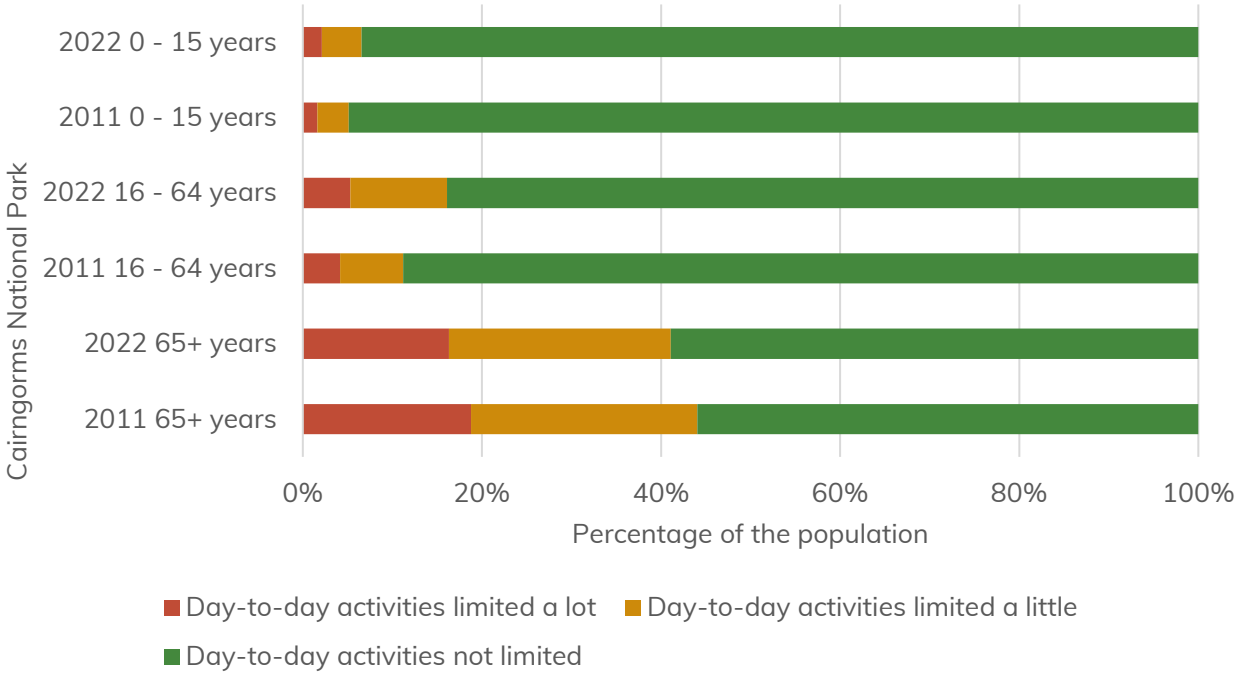


Figure 372 Resident population health in relation to health problems or disability's effect on day-to-day activities in the Cairngorms National Park in 2011 and 2022 by age group. (Census table UV303b and LC3101SC).

Figure 372 looks at the change between the 2011 Census data and the 2022 Census data for the grouped ages compared in **Error! Reference source not found.** in the Cairngorms National Park. The data shows us that the negative effects of ill health on children and working age residents has increased between 2011 and 2022. In children the effects of health on limiting day-to-day activities a lot or a little has increased from 5.1% of the population in 2011 to 6.6% of the population in 2022. In the working age population, the negative effects of ill health affecting day-to-day activities a little or a lot has increased from 11.2% of the population to 16.1% of the population. In terms of those of pensionable age in the National Park there has been a decrease in the effects of ill health in terms of limiting day-today activities a little or a lot from 44.1% of the population in 2022 down to 41.1% of the population in 2011. This decrease in the residents of pensionable age may in part be explained by improvements and access to healthcare and amenities.

It is worth noting the trends mentioned above experienced in the Cairngorms National Park broadly follow those seen nationally across Scotland between 2011 and 2022 (Figure 373).

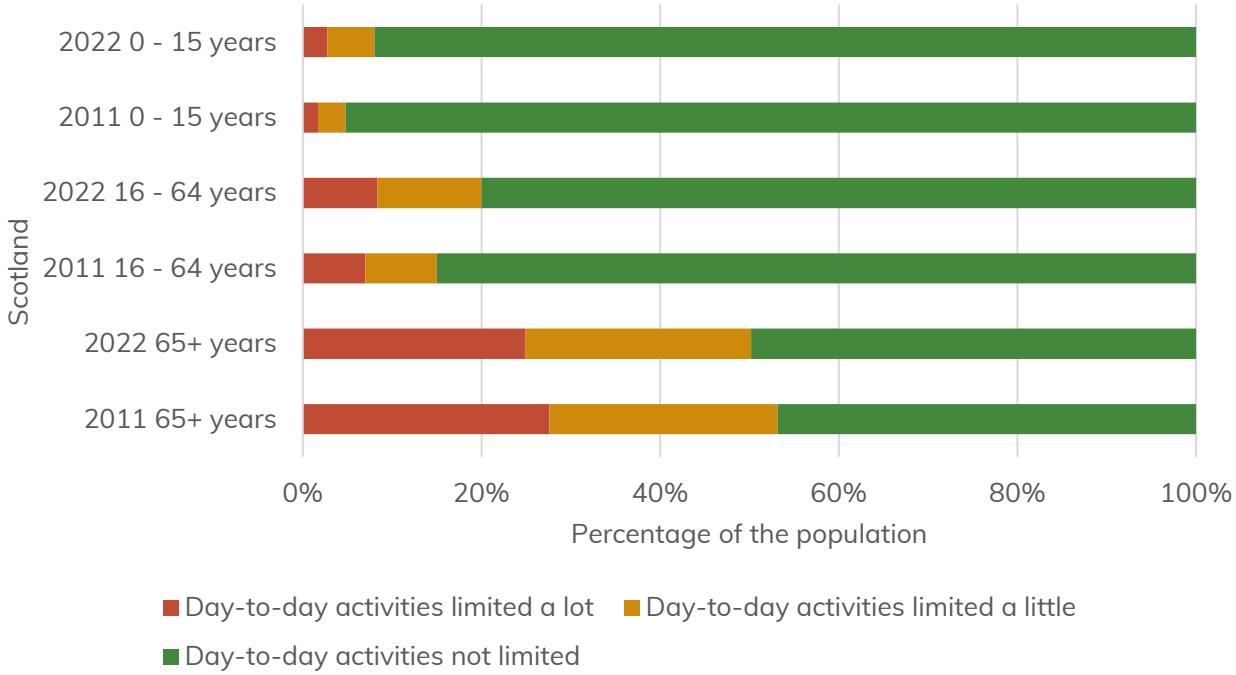


Figure 373 Resident population health in relation to ill health's effect on day-to-day activities in Scotland in 2011 and 2022 by age group. (Census table UV303b and LC3101SC).

Provision of unpaid care

The census provides data on the provision of unpaid care which is particularly important to the age group of residents of pensionable age who are most greatly affected by disability of illness affecting their day-to-day activities. The figures for the Cairngorms National Park and Scotland are broadly similar with the divergences above 1% (Figure 374).

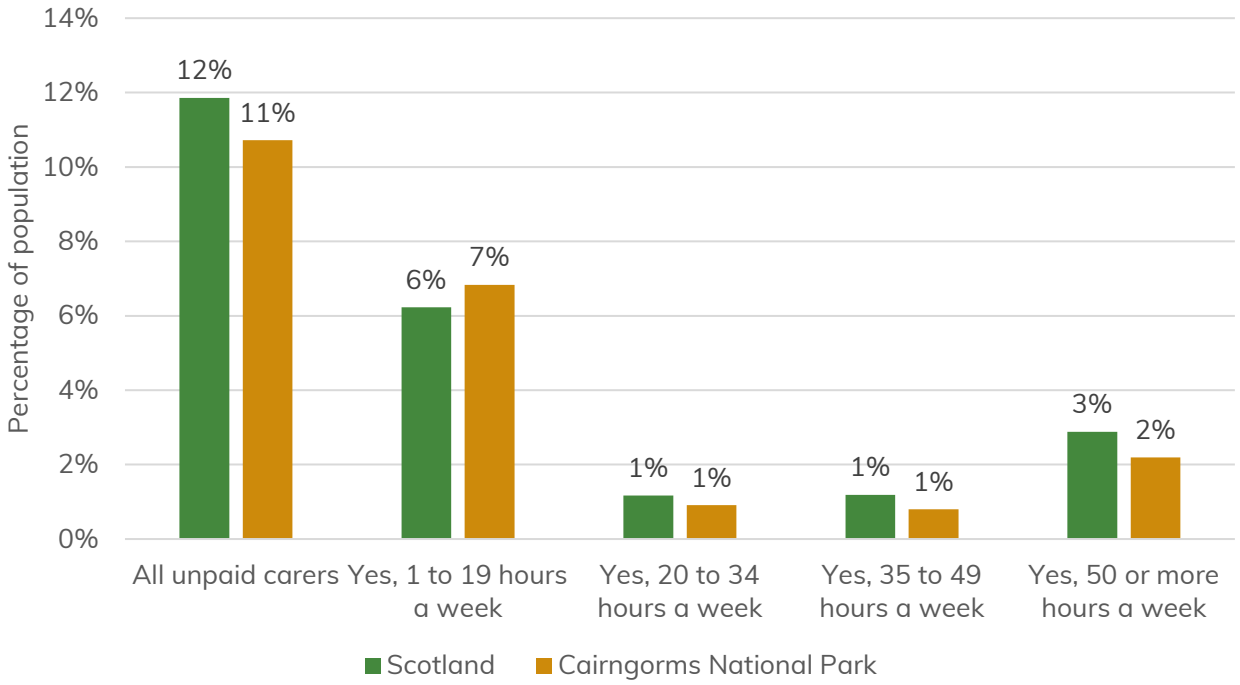


Figure 374 Provision of unpaid care in the Cairngorms National Park and Scotland based on residents over the age of 3 years. Census table UV301.

Sex

In 2022 the population of the Cairngorms National Park according to the Census was 17,531 people (Census table UV102b). This was comprised of 50.8% female (8,908) and 49.5% male (8,623), a more balanced distribution when compared to national figures for Scotland of 51.4% female and 48.6% male (Census table UV102a).

The employment rate for men in Scotland has consistently been above the employment rate for women in Scotland (from 2004 / 2005 to 2023 / 2024), however the gap has narrowed in recent years. The employment rate for women in Scotland has typically been increasing over time, from 68.0% in October 2004 to September 2005, to 71.9% in October 2023 to September 2024 (Scotland's Labour Market Insights: February 2025[139])

Differences in social grade between men and woman is useful in assessing potential inequalities between men and woman in the Cairngorms National Park. According to the most recently available Census data (2011) more women (5,773) are employed in the National Park than men (5,628). Table 58 shows that more women occupy both Higher and intermediate managerial / administrative / professional positions and

[139] Available here: https://www.gov.scot/publications/scotlands-labour-market-insights-february-2025/pages/people-in-work/

Supervisory, clerical, junior managerial / administrative and professional positions. There are a higher number of men in skilled manual worker positions, but far lower in the lowest pay grade / or unemployed positions.

Table 58 Gender based Social Grade Employment in the Cairngorms National Park. Census 2011.

	Higher and intermediate managerial/ administrative/ and professional	Supervisory, clerical, junior managerial/ administrative/ professional	Skilled manual workers	Semi-skilled and unskilled manual workers; on state benefit, unemployed, lowest grade workers	Total
Male	1057	1437	1977	1157	5628
Female	1082	1663	1722	1306	5773

Cultural and ethnic identities

In 2022, according to the Census, of the 17,531 people recorded as living in the Cairngorms National Park 17,208 people (98.2%) identified as white[140] (Census table UV201). Other ethnic groupings identified in the Census include Mixed or multiple ethnic group (130 people), Asian, Asian Scottish or Asian British[141] (116 people), African[142] (28 people), Caribbean or Black[143] (10 people), Other ethnic groups[144] (39 people).

Language, as well as playing an important role in the creation and maintenance of cultural and ethnic identities, may also present issues relating to accessibility where individuals lack skills in the dominant code. In 2022, in the Cairngorms National Park English was the main language spoken by 96.9% of the population over the age of three

[140] This includes; White Scottish (12,328 people), Other White British (3,885 people), White Irish (139 people), White Gypsy / Traveller (people), White Polish (235 people) and Other White (615 people). Census table UV201.
[141] This includes: Asian, Asian Scottish or Asian British: Pakistani, Pakistani Scottish or Pakistani British (7 people), Asian, Asian Scottish or Asian British: Indian, Indian Scottish or Indian British (31 people), Asian, Asian Scottish or Asian British: Bangladeshi, Bangladeshi Scottish or Bangladeshi British (5 people), Asian, Asian Scottish or Asian British: Chinese, Chinese Scottish or Chinese British (20 people) and Asian, Asian Scottish or Asian British: Other Asian (52 people). Census table UV201.

[142] This includes: African: African, African Scottish or African British and African: Other African (26 people). Census table UV201.
[143] This includes: Caribbean or Black: Caribbean, Caribbean Scottish or Caribbean British (4 people), Caribbean or Black: Black, Black Scottish or Black British (1 person) and Caribbean or Black: Other Caribbean or Black (5 people). Census table UV201.
[144] This includes: Other ethnic groups: Arab, Arab Scottish or Arab British (11 people) and Other ethnic group (28 people). Census table UV201.

years (Table 59). 482 people reported using a language other than Scots, Gaelic or sign language as their main language.

Table 59 Main language spoken by population of the Cairngorms National Park in 2022. Census table UV212b.

	English	Scots	Gaelic	Sign Language	Other language	Total
All people aged 3 and over	16,648	41	12	4	482	17,182
3 - 15	2,037	0	2	0	52	2,093
16 - 24	1,198	2	1	1	29	1,123
25 - 34	1,493	0	0	0	90	1,583
35 - 49	2,816	5	2	1	213	3,037
50 - 64	4,322	15	5	0	68	4,408
65 and over	4,782	20	1	1	30	4,831

Spoken language is one aspect of language ability. In 2022, in the Cairngorms National Park for people over the age of three years, there were a total of 164 people that didn't speak and understand English and only 10 people who have no skills in English at all (Table 60). 31 people reported as being able to understand spoken English only with no reading or writing skills (Table 60) and 72 people stated they have limited English skills (2022 Census table UV210).

Table 60 English language skills of the population of the Cairngorms National Park by age in 2022. Census 2022 table UV201b.

	Understands spoken English only	Speaks, reads and writes English	Speaks but does not read or write English	Speaks and reads but does not write English	Other combination of skills in English	No Skills in English	Total
All people aged 3 and over	31	16,335	519	161	123	10	17,182

3 – 15	12	1,624	390	24	37	3	2,093
16 – 24	5	1,187	21	12	8	0	1,230
25 – 34	1	1,550	14	7	10	1	1,583
35 – 49	3	2,931	36	42	4	4	3,037
50 – 64	6	4,310	36	36	20	0	4,408
65 and over	5	4,730	22	42	26	3	4,831

Sexual orientation

No data on sexual orientation is currently available for the geographical area of the National Park (July 2025). This section will be updated once the data from the 2022 Scotland Census is released.

There is no quantitative data relating to gender reassignment, but it is recognised that transgender people live in, work in and visit the National Park and therefore need to be represented in the assessment.

At a Scotland level the Life in Scotland Report 2022 provides information on what life is like for lesbian, gay, bisexual, transgender and intersex (LGBTI) young people in Scotland. A key finding of the report is that there has been a reduction overall in the percentage of participants rating Scotland a good place to be LGBTI over the last five years, form 81% in 2017 to 65% in 2022. This proportion was lower for those living in rural areas, with only 28% of respondents believing that rural areas were a good place for LGBTI young people to live (Figure 375).

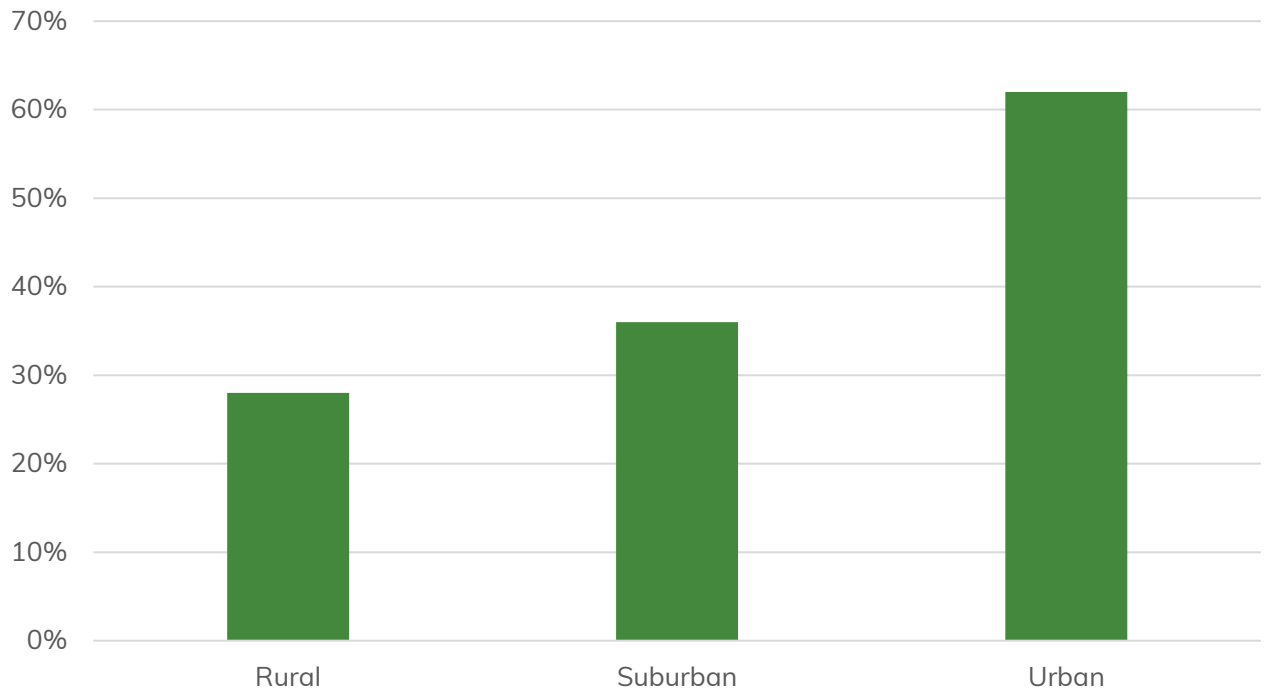


Figure 375 Proportion of participants in LGBT Youth Scotland survey who think their local area is a good place for LGBTI young people to live (LGBT Youth Scotland, 2022).

Just 38% of the participants felt that there are enough places where they can safely socialise and be open about their sexual orientation or gender identity. This is slightly lower than that found in 2017 when 43% of the participants felt there were enough places to safely socialise for them. The figure was lower for those living in rural areas, with 33% of respondents feeling that there were enough places to safely socialise for them (Figure 376). 72% of respondents felt that visible displays of allyship (flags / certificates of training / inclusivity statements) in public spaces made them feel safe and / or included.

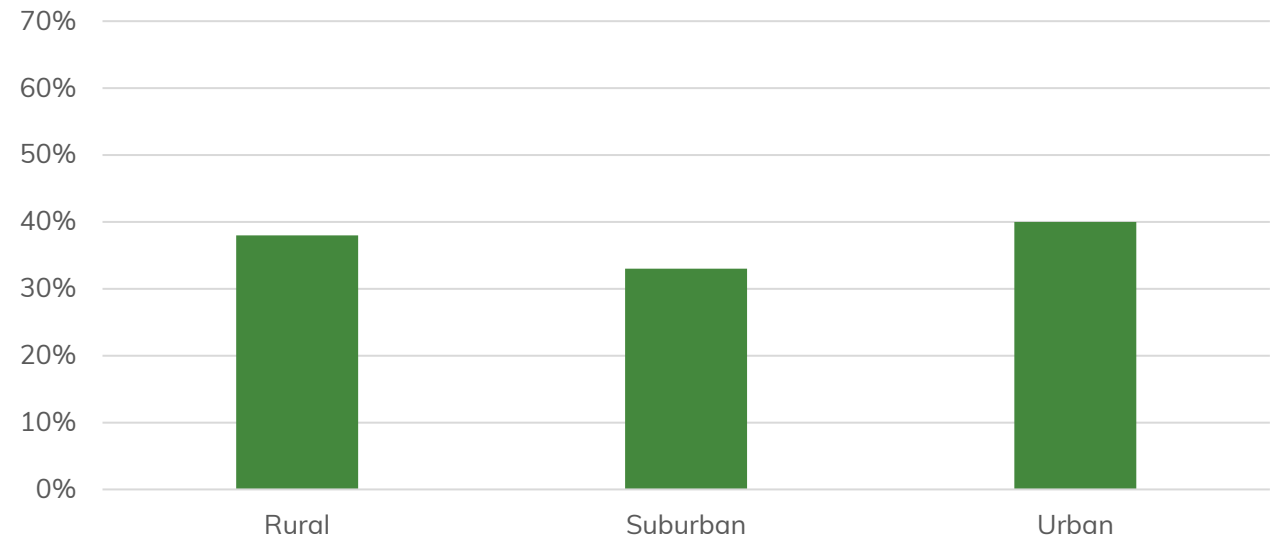


Figure 376 Proportion of participants in LGBT Youth Scotland survey who feel there are enough places to safely socialise and be open about their sexual orientation / gender identity in their local area (LGBT Youth Scotland, 2022).

The vast majority of participants believe that homophobia, biphobia and transphobia are a problem, both across Scotland as a whole (88% believing it to be a big or a bit of a problem), and in their local area (80% believing it to be a big or a bit of a problem). Those living in rural areas were twice as likely to identify homophobia as a big problem where they live compared to urban-based participants - 27% and 13% respectively (Figure 377).

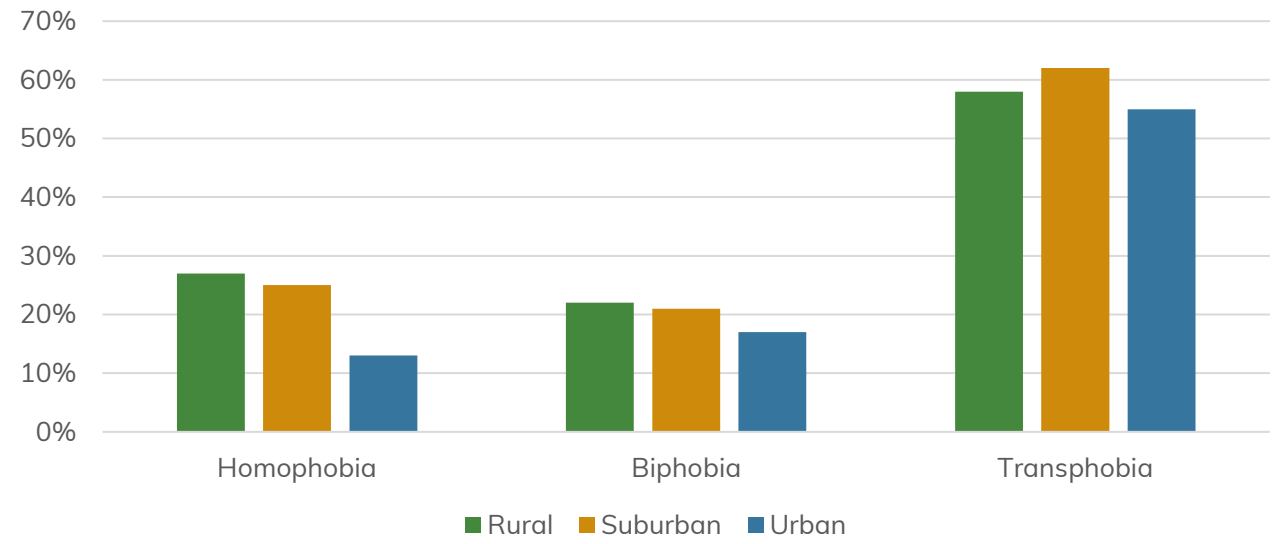


Figure 377 proportion of rural / suburban / urban participants In LGBT Youth Scotland survey who think homophobia / biphobia / transphobia is a big problem in their local area (LGBT Youth Scotland, 2022).

A key message is that 69% of participants believe that transphobia is a big problem in Scotland, up from 49% in 2017. This was lower at a local level and while transphobia was considered a big problem by most of those living in rural areas (58%), it was not significantly different to those in suburban (62%) or urban (55%) areas.

38% of the participants reported having experienced a hate crime or hate incident in the past year. This is similar to 2017 when it was 35%. There was, however, a stark difference between the experience of transgender and cisgender participants, with 49% of transgender participants experiencing a hate crime / incident, as compared to 26% of cisgender participants.

The experience of LGBTI people at a National Park level is harder to measure, however qualitative data from a few limited sources can offer some insight.

In February 2023 the Park Authority carried out a public campaign to celebrate LGBT+ History Month which featured LGBTI voices and experiences from across the National Park. Three blogs were posted on the Park Authority website containing interviews with a number of LGBTI people who live, work or visit the National Park. These covered a range of themes and while generally positive, highlighted feelings of isolation and otherness and concerns about safety and inclusion. The following quotes have been extracted to illustrate this:

"When Jen and I moved here in 2018 it felt like we've moved away from every other queer person in Scotland. We found ourselves being gawked at when we held hands, being referred to as "friends" and being the only queer people in any social gathering we found ourselves attending."

"Having clubs and social gatherings that are LGBT friendly is good, but we felt that, especially in rural locations, that an LGBT community-specific offering was really needed – a place for people to feel safe, welcome and be themselves."

The public response to the campaign was overwhelmingly positive.

Another source is Queering the Map, a digital storymapping platform where users anonymously pin their experiences, memories and histories to an online global map, and each pin contains a unique micro-story of 'queerness'. These are stories of the meaningful and mundane experiences of LGBTI life, which as well as highlighting spaces where people have experienced trauma and discrimination, also reveal times of joy, discovery, love, friendship and community.

Figure 378 displays the pins added to Queering the Map in the Cairngorms National Park as of 1 June 2023. Pins added within 5km of the boundary have also been included as it is recognised that the boundary is not necessarily a strong determining factor in people's perception of place at a local level. Relative to more populous areas of the UK, the density of pins is low and therefore the data offers only a limited insight into the breadth of experiences of those living in or vising the area. However, further pins may be added in the future and taken together with other sources it helps build a picture that over time should become increasingly representative.

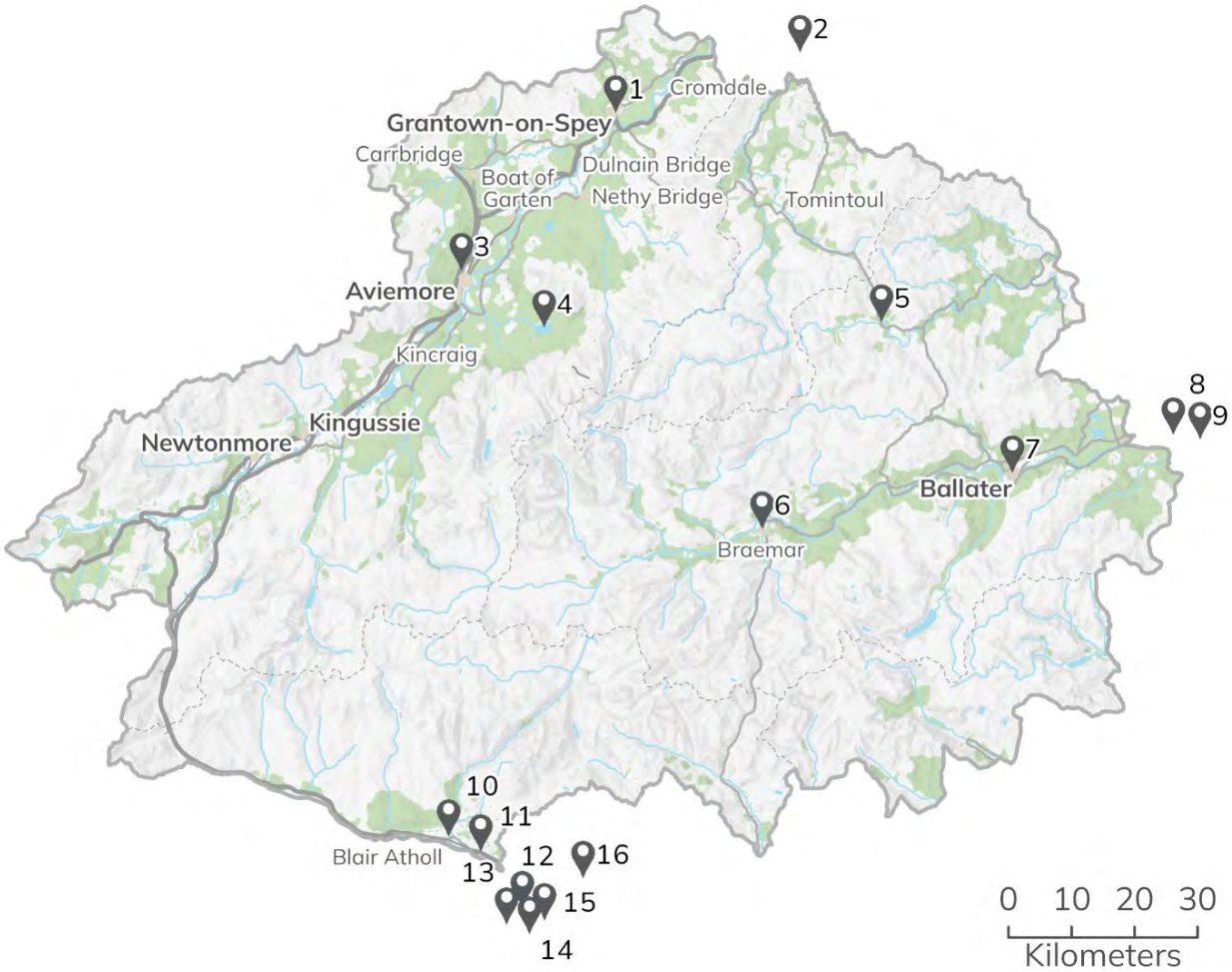


Figure 378 Pins added to Queering the Map in and withing 5km of the Cairngorms National Park as of 1 June 2023 (www.queeringthemap.com). Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

The numbered text below corresponds with the pins labelled on Figure 378. The text has not been edited in anyway and represents exactly what was added to Queering the Map.

1. The first partner who actually acknowledged that I was bi despite being in a hetero relationship lived here. It was so nice not to have my queer identity erased by being with someone of the opposite sex
2. People here are more accepting than you think
3. All four of us in a room playing spin the bottle. I kissed a girl I'd wanted to kiss for ages. She was so soft.
4. I've never felt so safe to be myself with a partner as I did here with you – you are so incredibly loveable and lovely.
5. drove over this bridge with my gf, wonderful experience
6. Met some cute boys in a bar here and was to scared to tell them about myself. But we had a lovely evening.
7. Here was where I heard "girls" by girl in red for the first time in August 2018. I've been a fan ever since.
8. I never 'came out' as such to my friends as bi, but i slowly brought it into conversation until those who mattered knew. Felt good to be myself around them
9. I came out as trans to my high school, and felt a sense of purpose for the first time. I was educating myself and everyone around me (students and teachers), and I felt myself growing into who I was meant to be.
10. Romantic walk with my fiancé to Witch's rock
11. I came out to my Dad in my Grandpa's kitchen- it could have gone worse, it could have gone better.
12. I was 14 when I realised I was bi on my guide camp here and it kept me up all night with this new euphoria
13. Where we first met- we were introduced to each other by my sister.
14. We fell in love and then she left.
15. I was paddling in the burn here at guide camp when I realised I was well and truly bi, and I was lying awake all night in my sleeping bag in the scout hall
16. I fell in love with a girl made from sunshine.

Sources:

https://www.nrscotland.gov.uk/registration/gender-recognition
https://www.lgbtyouth.org.uk/national-programmes/life-in-scotland/
https://cairngorms.co.uk/voices/lgbt-history-month-finding-belonging-in-the-national-park/
https://cairngorms.co.uk/voices/lgbt-history-month-somewhere-for-us/
https://cairngorms.co.uk/voices/lgbt-history-month-paddling-with-pride/
https://www.queeringthemap.com/

Marriage and civil partnership

In 2022, in the Cairngorms National Park of all the people 16 years and older (15,089 people), 4,418 people (29.3%) were recorded as never married and never registered in a civil partnership (Table 61). This is a lower proportion than the figure for Scotland which was 38.1%. In terms of married or being in a civil partnership, 7,814 people responded as being so, accounting for 51.8% of the National Park, higher than the Scottish average of 44.0%.

Table 61 Marital status of population of the Cairngorms National Park 16 years and over in 2022 and proportions of categories for the National Park and Scotland. Census table UV104.

	Never married and never registered in a civil partnership	Married or in a civil partnership	Separated, but still legally married or still in a civil partnership	Divorced or civil partnership dissolved	Widowed or surviving civil partnership partner	Total
Cairngorms National Park	4,418	7,814	347	1,348	1,162	15,089
Cairngorms National Park (%)	29.3%	51.8%	2.3%	8.9%	7.7%	
Scotland (%)	38.1%	44.0%	2.4%	8.4%	8.4%	

Pregnancy, maternity and paternity

The birth rate in the Cairngorms National Park is 6.7 births per 1000 residents, compared to 9.1 births per 1000 people across Scotland (Scottish Government, 2019).

No data is available at a National Park level surrounding maternity and paternity uptake in the workplace.

Religion and belief

In the Cairngorms National Park, in 2022, 4,378 people (25.0%) reported they belonged to the Church of Scotland, 1,030 people (5.9%) reported belonging to the Roman Catholic Church and 1,123 people (6.4%) identified as 'other' Christians. Of the minority religions present (totalling 1.2%), 63 people identified as Buddhists, 14 as Hindu, 12 as

Jewish, 10 as Muslim, 1 as Sikh, 82 as Pagan and 37 people as another religion (not listed).

9,542 people (54.4%) reported they had no religion and 1,209 people (6.9%) were recorded as no religion stated.

Housing

Market context

Lower quartile and median house prices

Between 1993 and 2023, the median price of a dwelling in Scotland rose from £46,000 to £185,000, an increase of around 300%. In the same period, the median house price of a property in the Cairngorms National Park increased by around 370% from £56,250 to £265,500.

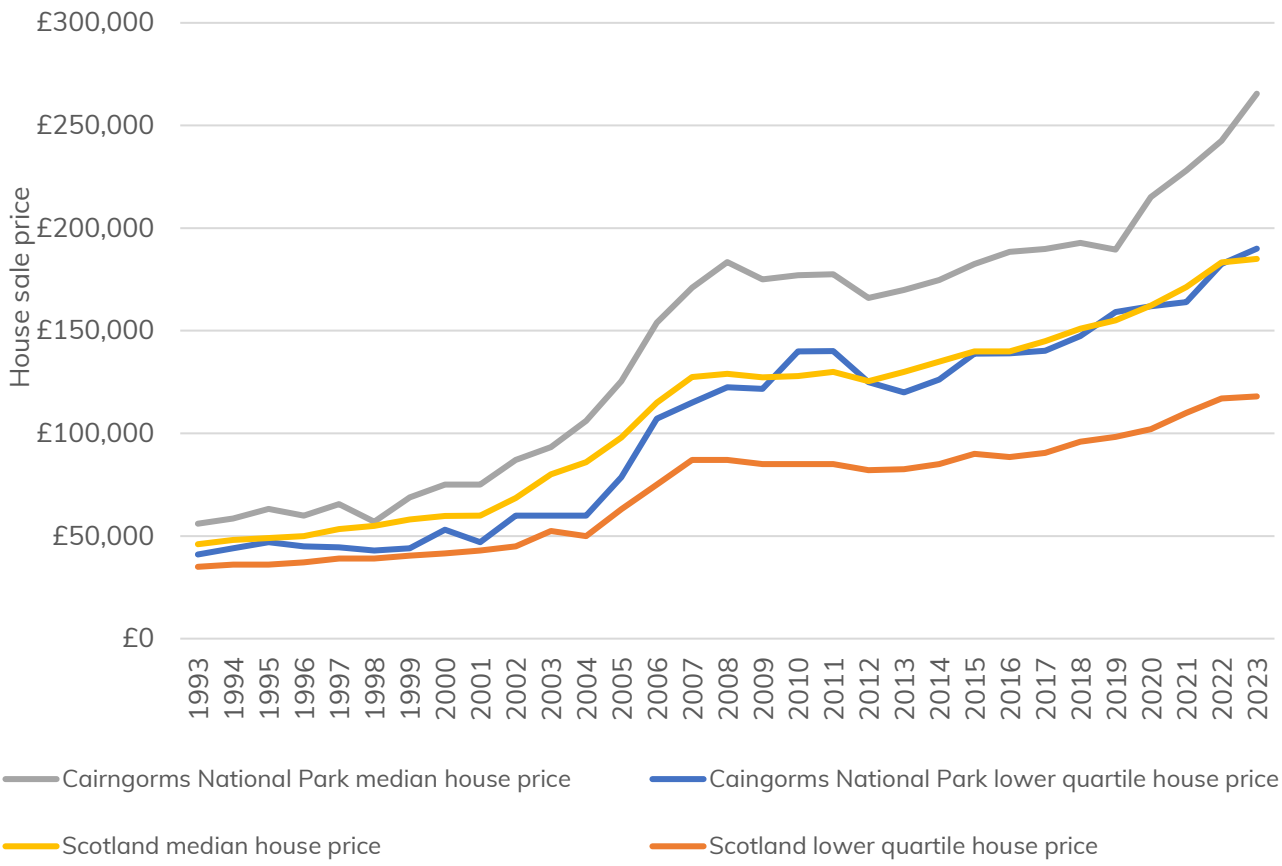


Figure 379 Median and lower quartile house prices for both the Cairngorms National Park and Scotland between 1993 and 2023 (statistics.gov.scot).

Figure 379 shows this increase diagrammatically, with median house prices in the National Park and Scotland increasing at a broadly similar rate between 1993 and 2004 and 2009 and 2019, but greater growth in the Cairngorms National Park between 2005 and 2008 and between 2020 and 2023. The 2020 – 2023 growth is likely caused by pandemic driven counter urbanisation (the movement of people from urban to rural areas) and mirrors the trend seen across the United Kingdom for price rises in rural and coastal areas of high amenity value[145].

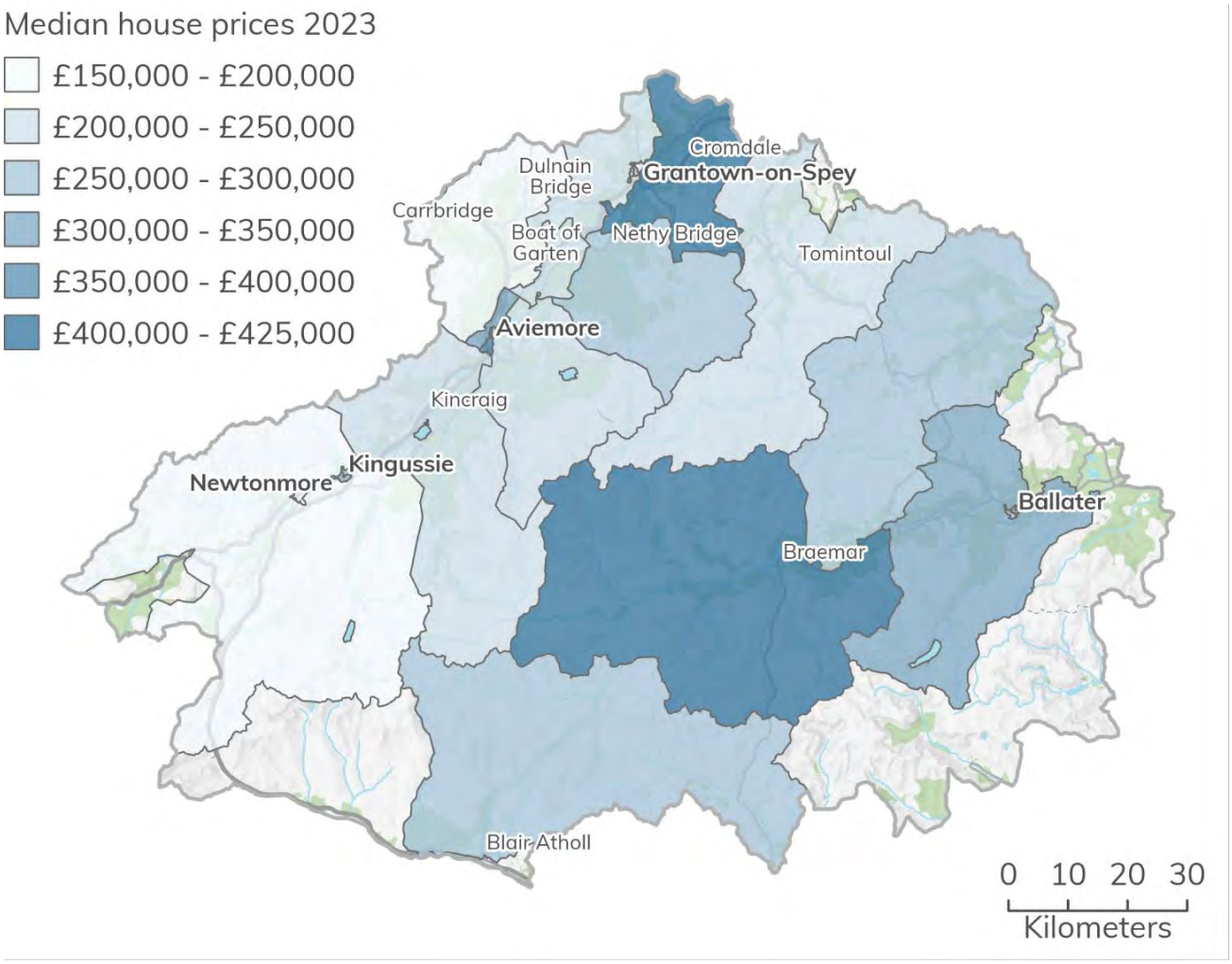


Figure 380 Median house prices by 2011 data zone in the Cairngorms National Park 2023. Contains data © statistics.gov.scot, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Lower quartile house prices in Scotland rose from £35,000 in 1993 to £118,000 in 2024. This is an increase of around 235%, lower than the median house price rise across

[145] Rural planning in the 2020s: technical report 2 – Analysis of rural housing market change, Royal Town Planning Institute (June 2022).

Scotland, indicating a broader spread of house prices. In the Cairngorms National Park however, the increase has been significantly greater, and similar to the growth in the median house price. The lower quartile house price has increased by around 360% from £41,000 in 1993 to £190,000 in 2023 (Figure 381).

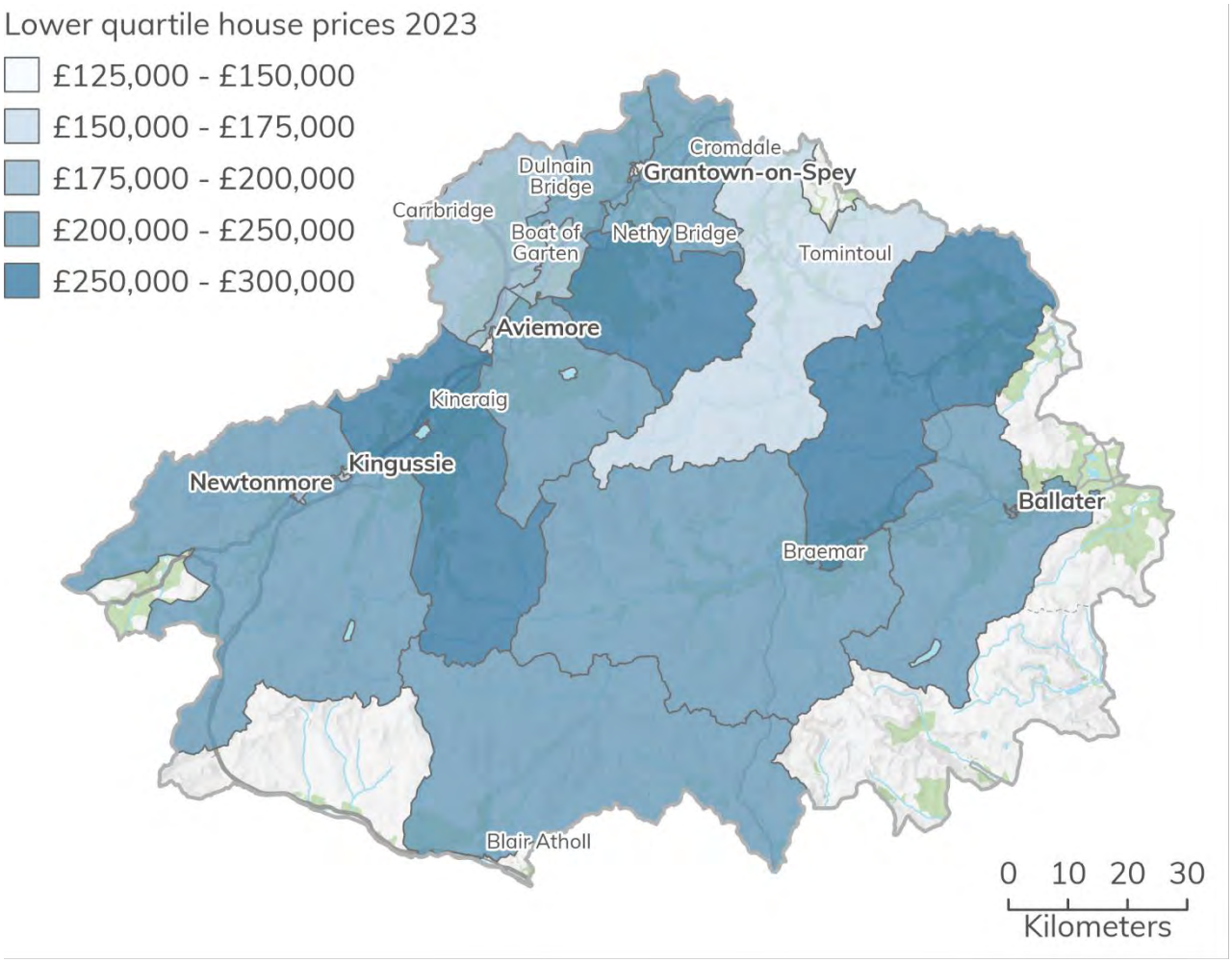


Figure 381 Lower quartile house prices by 2011 data zone in the Cairngorms National Park 2023. Contains data © statistics.gov.scot, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Table 62 and Table 63 tabulate the growth in both the lower quartile and median house prices in the Cairngorms National Park and Scotland as a whole.

Table 62 Comparison of Cairngorm National Park and Scotland annual lower quartile house prices between 1993 and 2023 (statistics.gov.scot).

Year	Cairngorms National Park lower quartile house price	Growth in Cairngorm National Park lower quartile house price since 1993	Scotland lower quartile house price	Growth in Scotland lower quartile house price since 1993	Percentage difference between Cairngorm National Park and Scotland lower quartile house price
1993	£41,000		£35,000		17%
1994	£44,000	7.3%	£36,000	2.9%	22%
1995	£47,000	14.6%	£36,000	2.9%	31%
1996	£44,999	9.8%	£37,100	6.0%	21%
1997	£44,500	8.5%	£39,000	11.4%	14%
1998	£43,000	4.9%	£39,000	11.4%	10%
1999	£44,000	7.3%	£40,500	15.7%	9%
2000	£53,000	29.3%	£41,500	18.6%	28%
2001	£47,000	14.6%	£43,000	22.9%	9%
2002	£60,000	46.3%	£45,000	28.6%	33%
2003	£60,000	46.3%	£52,500	50.0%	14%
2004	£60,000	46.3%	£50,000	42.9%	20%
2005	£78,650	91.8%	£63,000	80.0%	25%
2006	£107,138	161.3%	£75,000	114.3%	43%
2007	£115,000	180.5%	£87,000	148.6%	32%
2008	£122,500	198.8%	£87,121	148.9%	41%
2009	£121,750	197.0%	£85,000	142.9%	43%
2010	£140,000	241.5%	£85,000	142.9%	65%
2011	£140,125	241.8%	£85,000	142.9%	65%
2012	£125,000	204.9%	£82,000	134.3%	52%
2013	£120,000	192.7%	£82,500	135.7%	45%
2014	£126,199	207.8%	£85,000	142.9%	48%
2015	£138,813	238.6%	£90,000	157.1%	54%
2016	£139,000	239.0%	£88,500	152.9%	57%
2017	£140,313	242.2%	£90,500	158.6%	55%
2018	£147,375	259.5%	£96,000	174.3%	54%
2019	£159,188	288.3%	£98,249	180.7%	62%
2020	£161,915	294.9%	£102,000	191.4%	59%
2021	£164,000	300.0%	£110,000	214.3%	49%
2022	£182,500	345.1%	£117,000	234.3%	56%
2023	£190,000	363.4%	£118,000	237.1%	61%

Table 63 Comparison of Cairngorm National Park and Scotland annual median house prices between 1993 and 2023 (statistics.gov.scot).

Year	Cairngorms National Park median house price	Growth in Cairngorm National Park median house price since 1993	Scotland median house price	Growth in Scotland median house price since 1993	Percentage difference between Cairngorm National Park median and Scotland median house price
1993	£56,250		£46,000		22%
1994	£58,540	4.1%	£48,000	4.3%	22%
1995	£61,625	9.6%	£49,000	6.5%	26%
1996	£60,000	6.7%	£50,000	8.7%	20%
1997	£65,725	16.8%	£53,400	16.1%	23%
1998	£57,500	2.2%	£55,000	19.6%	5%
1999	£70,438	25.2%	£58,000	26.1%	21%
2000	£73,500	30.7%	£59,750	29.9%	23%
2001	£75,000	33.3%	£60,000	30.4%	25%
2002	£90,816	61.5%	£68,500	48.9%	33%
2003	£94,125	67.3%	£80,053	74.0%	18%
2004	£106,125	88.7%	£86,000	87.0%	23%
2005	£125,500	123.1%	£98,000	113.0%	28%
2006	£154,000	173.8%	£115,000	150.0%	34%
2007	£171,000	204.0%	£127,450	177.1%	34%
2008	£183,500	226.2%	£129,000	180.4%	42%
2009	£175,000	211.1%	£127,233	176.6%	38%
2010	£177,000	214.7%	£128,000	178.3%	38%
2011	£177,500	215.6%	£129,995	182.6%	37%
2012	£166,000	195.1%	£125,500	172.8%	32%
2013	£169,950	202.1%	£130,000	182.6%	31%
2014	£174,750	210.7%	£135,000	193.5%	29%
2015	£182,500	224.4%	£140,000	204.3%	30%
2016	£188,500	235.1%	£140,000	204.3%	35%
2017	£189,875	237.6%	£145,000	215.2%	31%
2018	£192,750	242.7%	£151,000	228.3%	28%
2019	£189,563	237.0%	£155,000	237.0%	22%
2020	£215,083	282.4%	£162,261	252.7%	33%
2021	£228,000	305.3%	£171,225	272.2%	33%
2022	£242,500	331.1%	£183,300	298.5%	32%
2023	£265,500	372.0%	£185,000	302.2%	44%

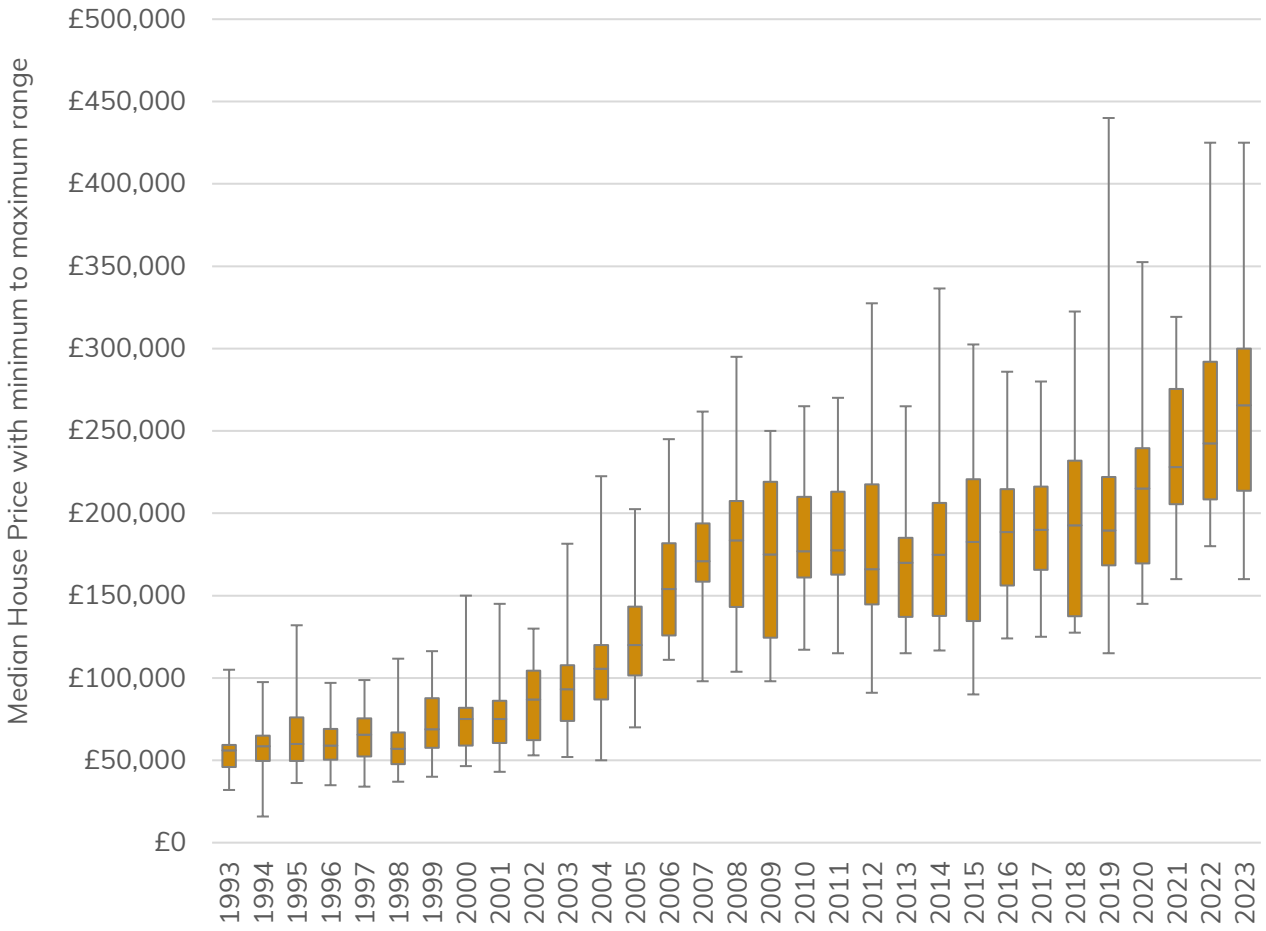


Figure 382 illustrates the range of median house prices across the Cairngorms National Park data zones for each year over the last 31 years. It shows that there is considerable variation in house prices within the National Park, and that the variation in house prices has widened.

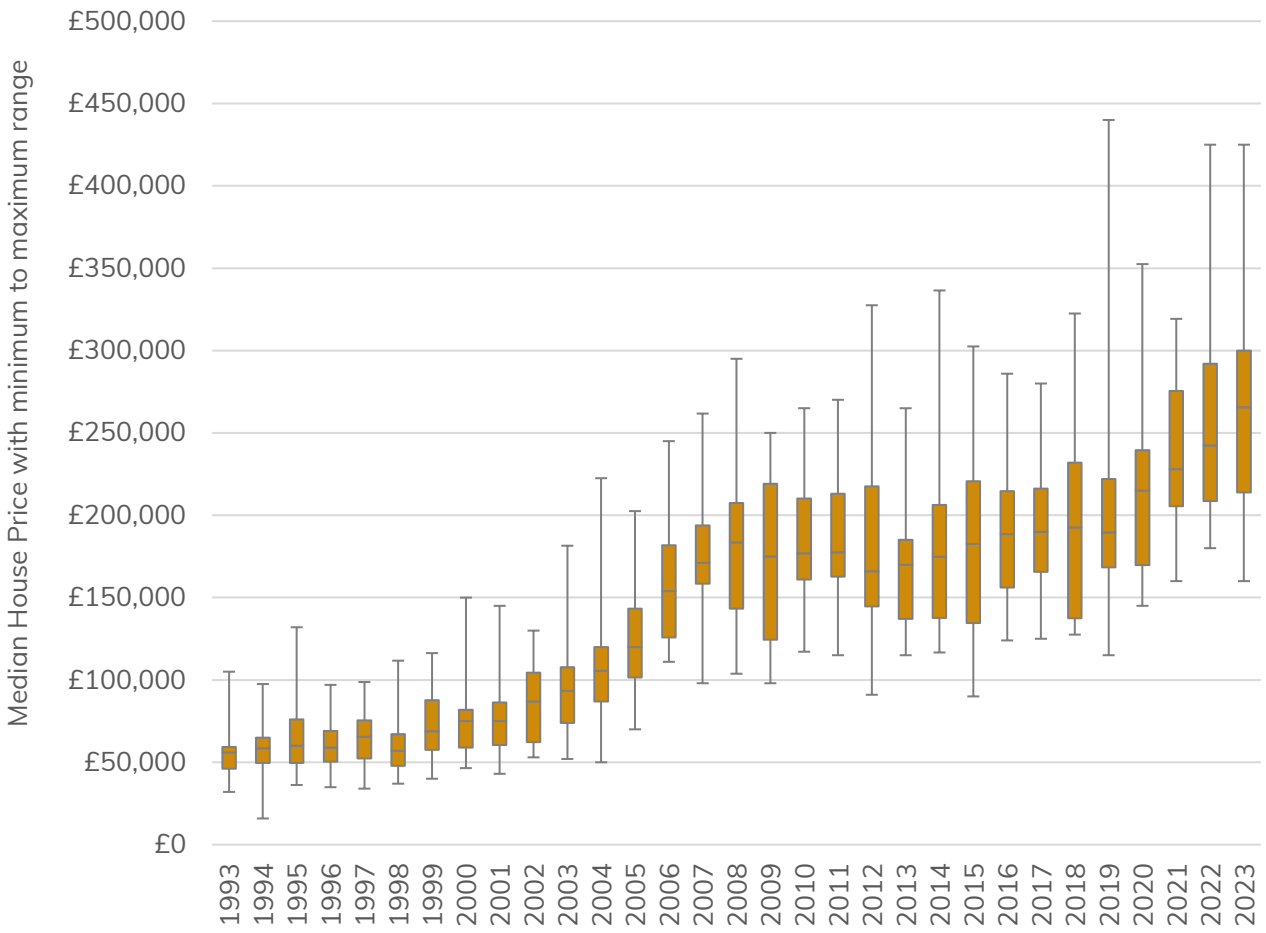


Figure 382 Box plots of median house prices within the Cairngorms National Park 1993 – 2023 (Statistics.gov.uk).

House price / income

Higher house prices are significantly impacting on affordability in the National Park. Figure 383 shows that the increase in the median house price has been far greater than the increase in the median gross household income. The 2021 median house price to median gross income ratio is nearly six times in the National Park compared to the Scottish equivalent ratio of 4.2.

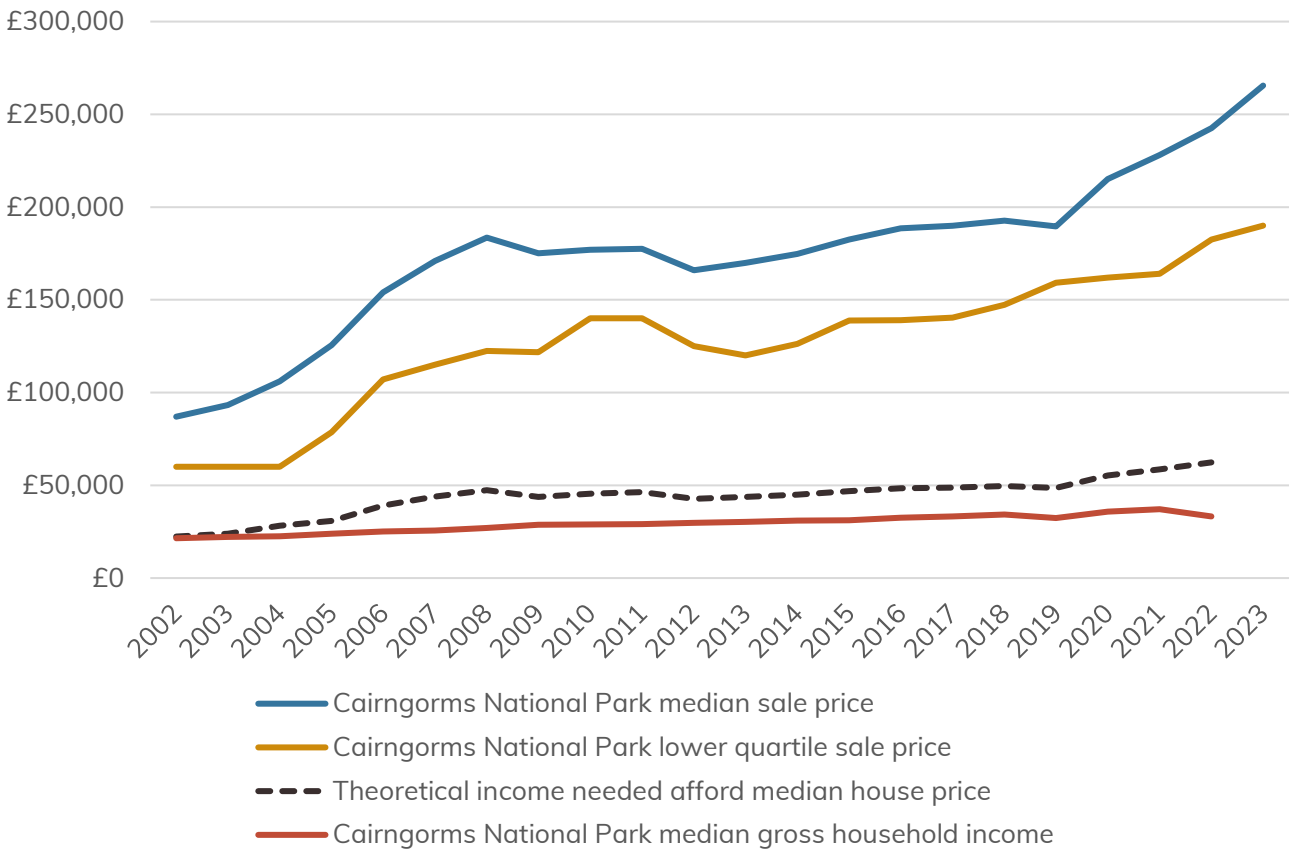


Figure 383 Median house price to median income in the Cairngorms National Park from 2002 to 2022 (statistics.gov.scot / Nomis).

In 2002, a theoretical annual income of £22,371 was needed to purchase a property at this level (based on standard lending calculations) but in 2023 this had increased to £62,357. However, the actual median gross income in 2022 was £33,295[146] meaning there was a £29,062 shortfall in the income required to be able to purchase a home.

This illustrates one of the greatest housing challenges in the National Park – affordability. The significant disparity between median household incomes and the

[146] The median gross income is based on the median incomes for each local authority area and the number of data zones within the National Park. While not specific to the National Park, they are the closest indication of what household incomes are. The Highland Council's Housing Needs and Demand Assessment does include median income estimates for Badenoch and Strathspey, which in 2018 was £34,320. This was an increase of 10% from 2014 (£31,200), which was the highest increase across the Highland region. Aberdeenshire Council's Housing Need and Demand Assessment also estimates the annual household income as £34,320 (with a lower quartile figure of £20,800 based on 2018 figures) for the part of Aberdeenshire within the National Park.

income needed to be able to afford a median priced house means that it is increasingly difficult for people employed within the National Park to purchase a home here.

Housing stock

Number of houses

The number of dwellings in the National Park is estimated to have grown from 9,722 to 10,542 between 2008 and 2023 (an increase of around 10.5%). These numbers are derived from the 'household estimates' dataset which is based on Council Tax data collected for 2011 data zones (statistics.gov.scot). This dataset also contains information on the number of these dwellings which are occupied (which is considered to indicate the number of households), which are used as second homes, or are vacant. This is explored in this section.

Type of houses

Figure 384 illustrates the proportions of different dwelling types for all tenures that make up the housing stock in the National Park compared to Scotland as a whole. This is derived from the 'dwellings by type' dataset, which is based on a different Council Tax data source – the valuation list. Data for 2018 onwards is not currently available.

It highlights that detached homes account for a far greater proportion of dwellings in the National Park (52%) than in Scotland as a whole (21%). This may partly indicate why property in the Cairngorms National Park is more expensive than Scotland as a whole. There are similar proportions of semi-detached homes in the National Park (23%) and Scotland as a whole, however 7% fewer terraced housing and 27% fewer flats in the National Park compared to Scotland (20% and 38% respectively).

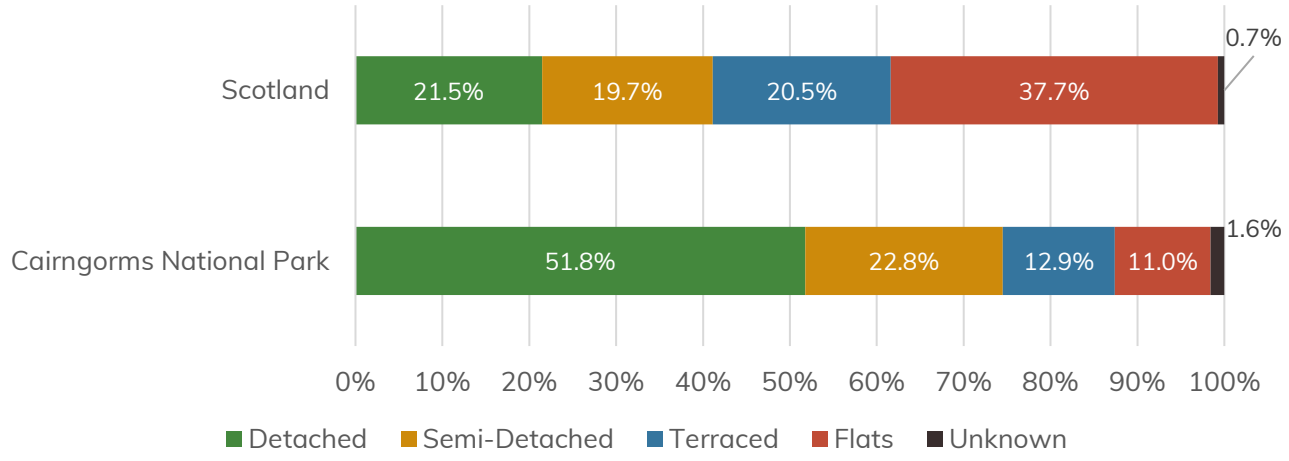


Figure 384 Proportion of house types within Scotland and the National Park (2017) (statistics.gov.scot).

While the next section on new builds explores this in more detail, Figure 385 shows the extent to which each of the different housing types have changed between 2006 and 2017.

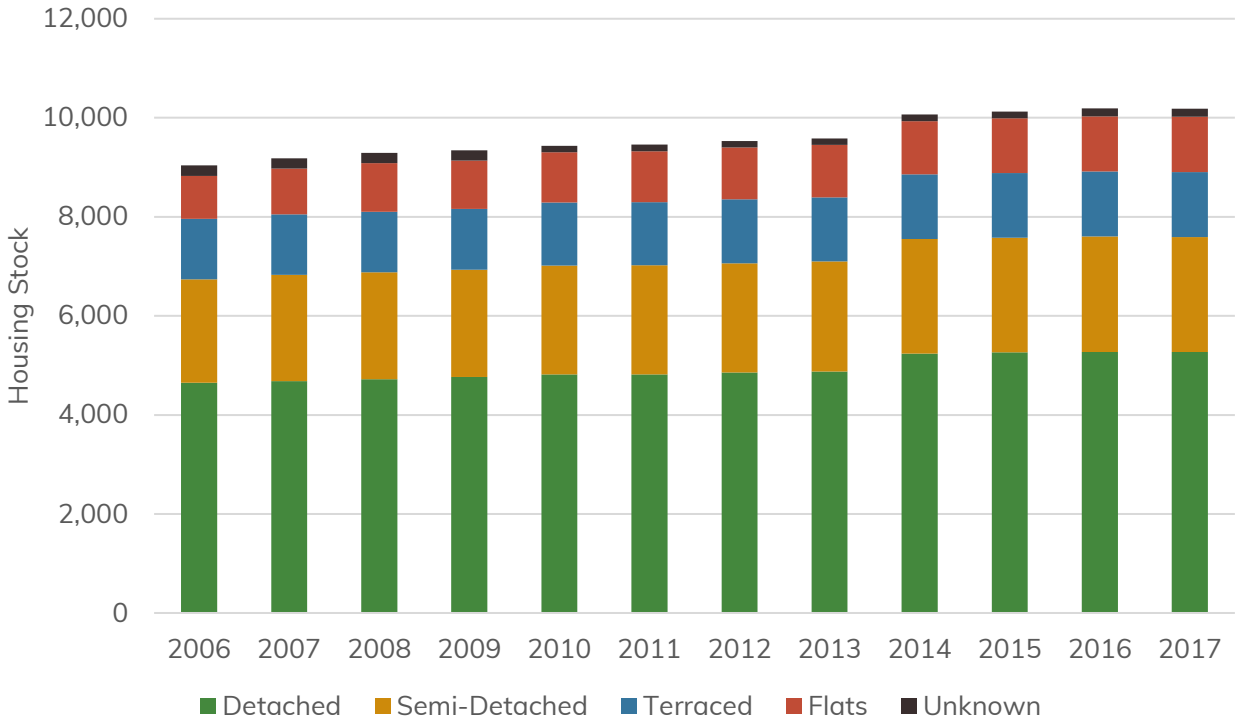


Figure 385 Total number of different house types in the Cairngorms National Park between 2006 and 2017 (statistics.gov.scot).

Based on this data, the number of detached homes increased from 4,650 to 5,272 (an increase of 13.4%). Semi-detached and terraced homes (accounting for 2,087 and 1,225 homes respectively in 2006) saw a slightly lower increase of 11% and 7% over the same period. While flats form the smallest proportion of house type, they saw the greatest increase from 867 in 2006 to 1,110 in 2017 – an increase of nearly 30%.

The 'unknown' housing types have decreased by 21% although in real terms this is a relatively small 'loss' of 45 homes across this National Park. This could be attributed to a number of reasons such as a change of use or a property being re-assigned into one of the other categories. However, due to the tiny contribution that this makes to the overall housing numbers, it is not considered significant.

While this data positively shows that there has been a considerable increase in the number of flats, it is evident that detached homes continue to increase and form the most significant housing type in the National Park.

The annual data derived from council tax can be supplemented and supported by Census data, which provides information on house type for occupied households in 2022 (Figure 386). Census data does not consider all properties, just those that house usual residents at the time the Census was taken, therefore the two datasets do not exactly match. Nevertheless, it demonstrates that little has changed in this aspect of the National Park's housing stock since the 2017, which represents the latest available council tax data.

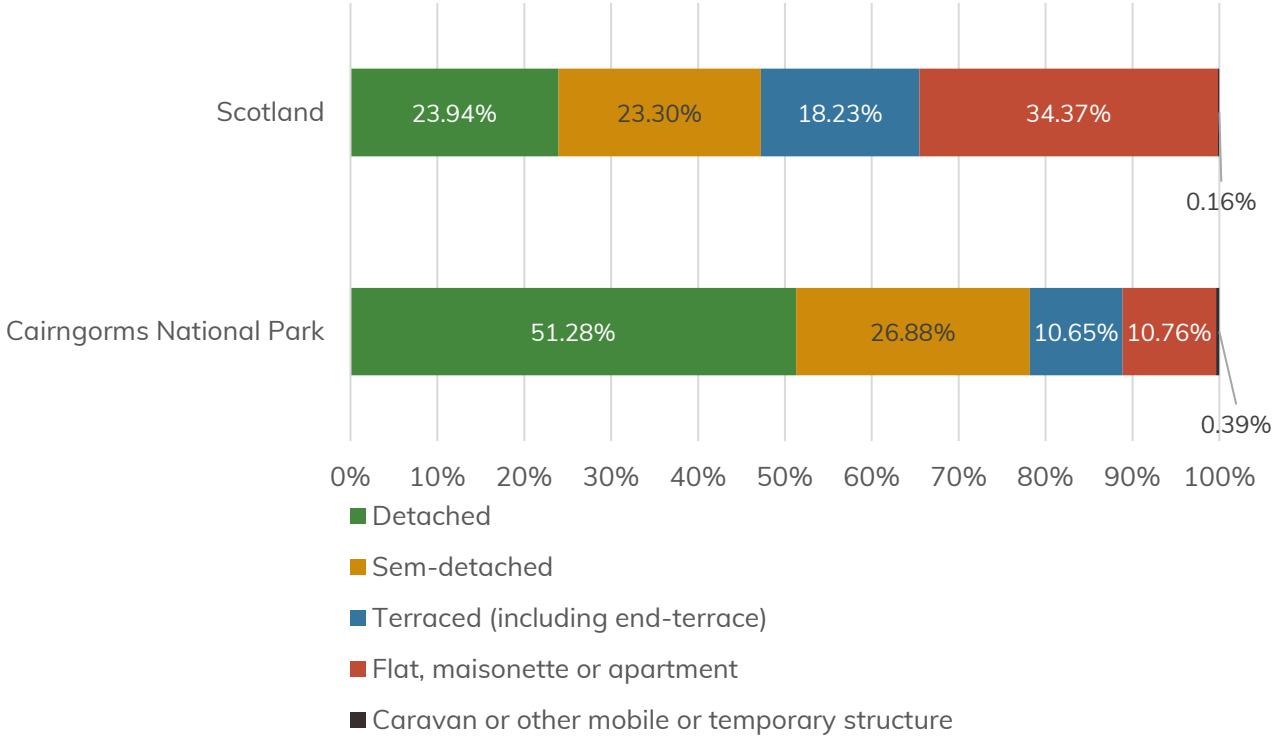


Figure 386 Proportion of house types by occupied households within Scotland and the National Park in 2022 (Census table UV402).

Council Tax data can also provide an indication of affordability since bands are based on the value of property. Properties are put into one of eight bands (A-H), based on their value in April 1991, with band A being the least lowest value homes, and band H the highest.

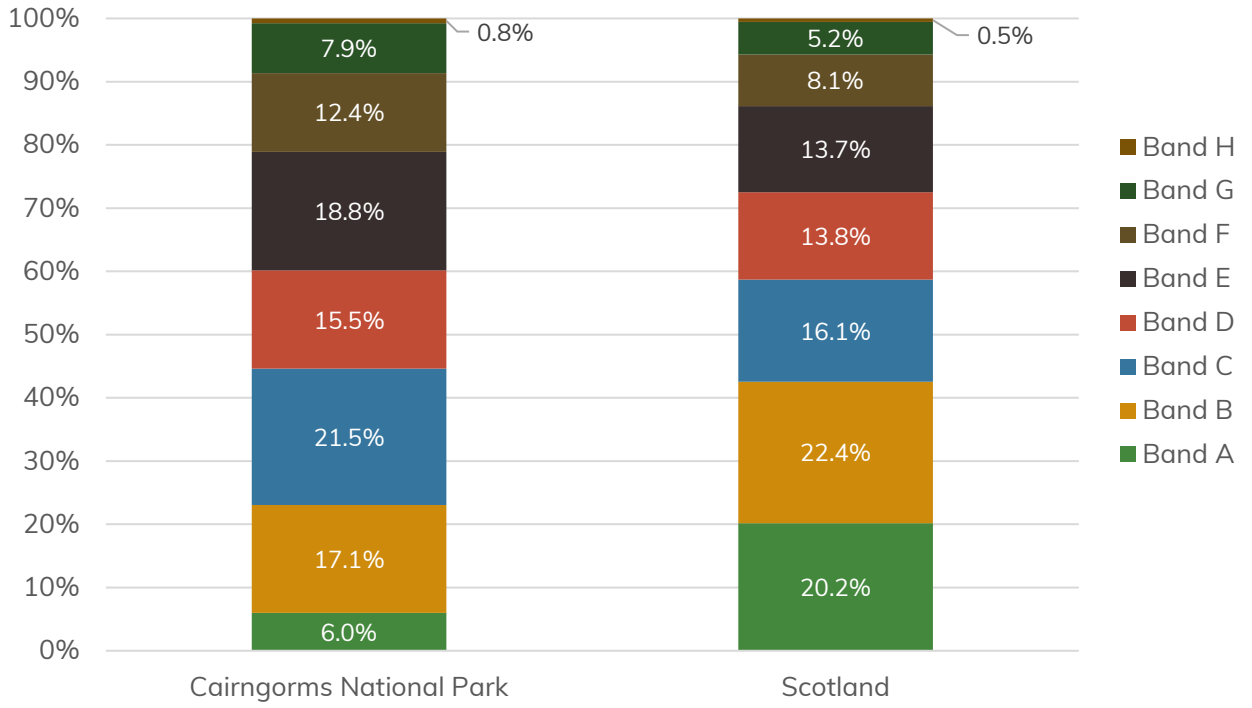


Figure 387 Proportion (%) of each council tax band in the National Park and Scotland as a whole (2023) (nrscotland.gov.uk).

Figure 387 illustrates that, based on 2023 data, there is a lower proportion of properties within bands A and B, significantly so in the case of band A (6% compared to 20.2% for Scotland as a whole). However, from band C upwards, the National Park has a greater proportion of each band in comparison to Scotland as a whole. In addition, it should be noted that there are spatial variations meaning that this trend is further skewed in certain parts of the National Park.

And finally, the number of rooms that a house has also provides useful data that indicates the types of homes in the National Park. This is the number of habitable rooms (usually bedrooms and living rooms) collated by the National Records of Scotland from the Assessors' Portal.

Figure 388 shows that the National Park has proportionately fewer homes with one to four rooms than Scotland as a whole and more properties with five rooms or more. However, while the figures between the National Park and Scotland do not appear on the graph to be significantly different, there are 30% fewer one-room homes, 19% fewer two-room and 37% fewer three-room homes. In addition, there are just 3% fewer four room homes and over double the proportion of homes with nine and ten rooms than that of Scotland as a whole.

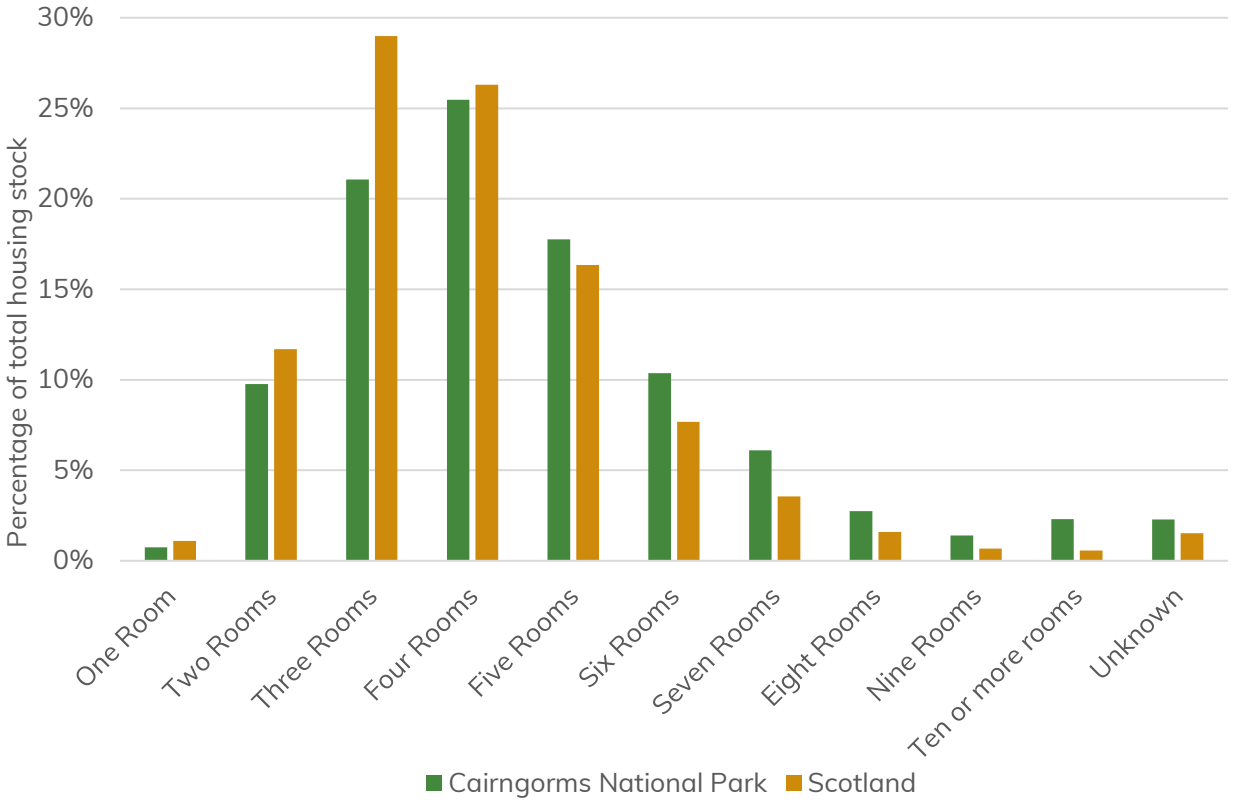


Figure 388 Percentage of housing stock with one to ten or more rooms per house in the National Park and Scotland as a whole (2017) (median number of rooms, statistics.gov.scot).

In addition to the National Records Scotland data, Scotland's Census 2022 provides information on the number of bedrooms of occupied households (Figure 389). This shows that the National Park has a smaller proportion of one to two bedroom properties and a higher proportion of three to five of more bedroom properties than Scotland as a whole.

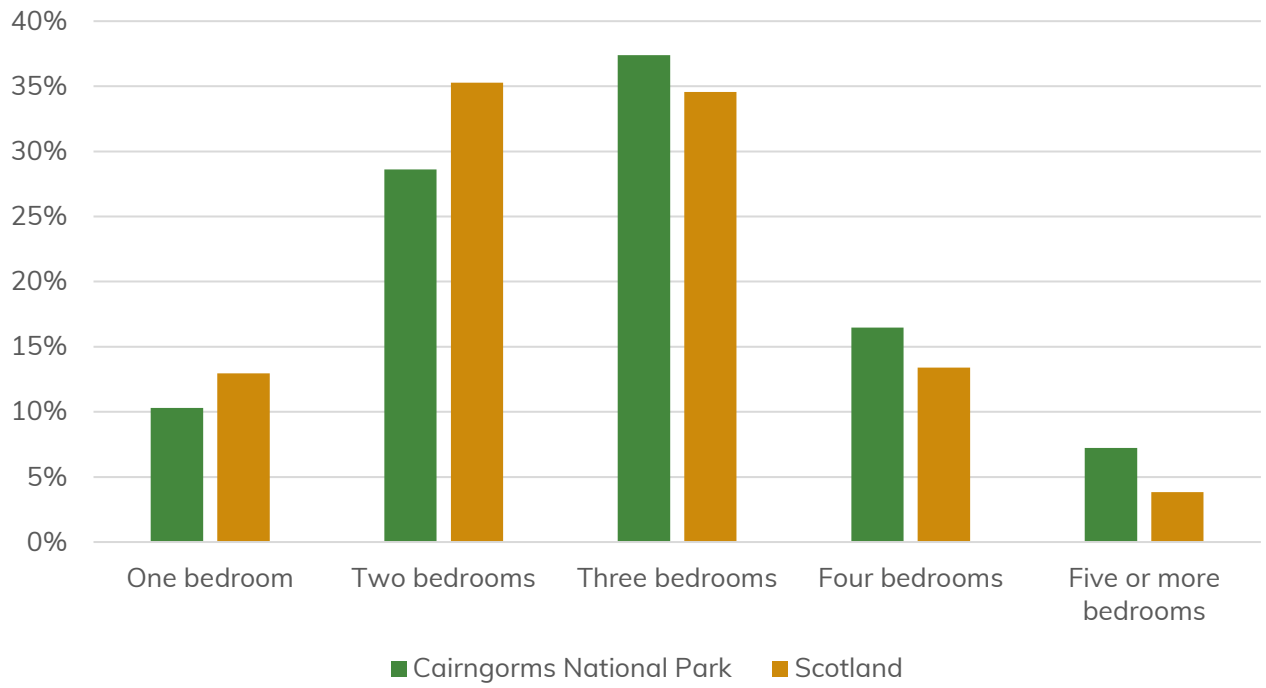


Figure 389 Percentage of households with one to five or more bedrooms per house in the National Park and Scotland as a whole in 2022 (Census Table UV408).

Numbers of rooms (Figure 388 and Figure 389), council tax bands (Figure 387) and house type data (Figure 385 and Figure 386) all illustrate that the National Park has a greater number of larger and ultimately more expensive homes compared to Scotland as a whole. This therefore not only means that housing in the National Park is more expensive, but also that there are fewer smaller homes available. It is also likely to be one of the driving factors for the high rate of house price growth since 2020 as, according to research by the Lloyds Banking Group[147], nationally the average price for bigger homes grew at nearly twice the rate than smaller properties over the pandemic period.

[147] See https://www.lloydsbankinggroup.com/media/press-releases/2023/halifax-2023/three-years-on-how-the-pandemic-reshaped-the-uk-housing-market.html

Housing tenure

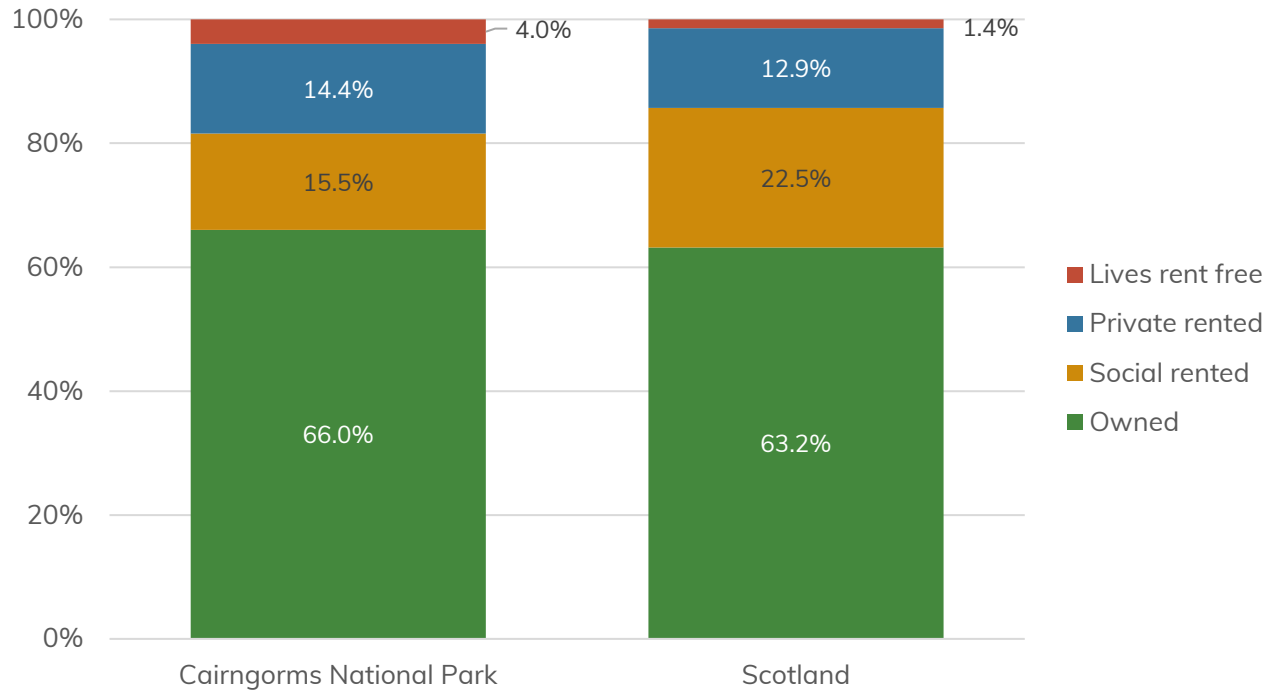


Figure 390 illustrates the different housing tenures that made up the housing stock in the National Park according to the 2022 census. Table 64 sets out the proportions of each tenure type, in each of the constituent authorities. Owner occupation is the dominant tenure, and this is relatively consistent with Scotland as a whole (where owner occupation made up 62% in 2011 and 63% in 2022).

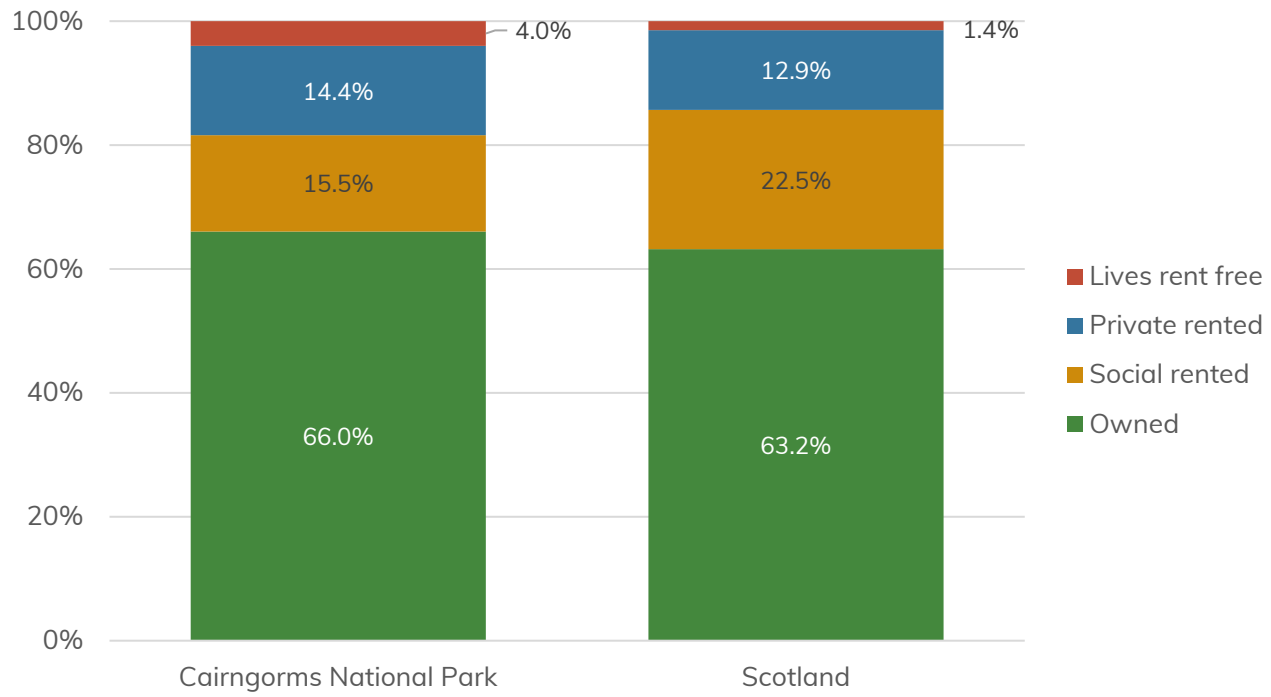


Figure 390 Household tenure of all occupied stock in the National Park and Scotland in 2022 (Census Table UV404).

The owned category may be broken down into ownership type (Figure 391). This demonstrates that the National Park has a higher rate of outright ownership than the Scottish average. Shared equity and shared ownership are affordable housing models. In 2022 there were 27 households (0.52%) occupying shared ownership homes and 67 (1.2%) occupying shared equity homes. While these numbers are low, they exceed the national average, which are 0.4% and 0.95% respectively.

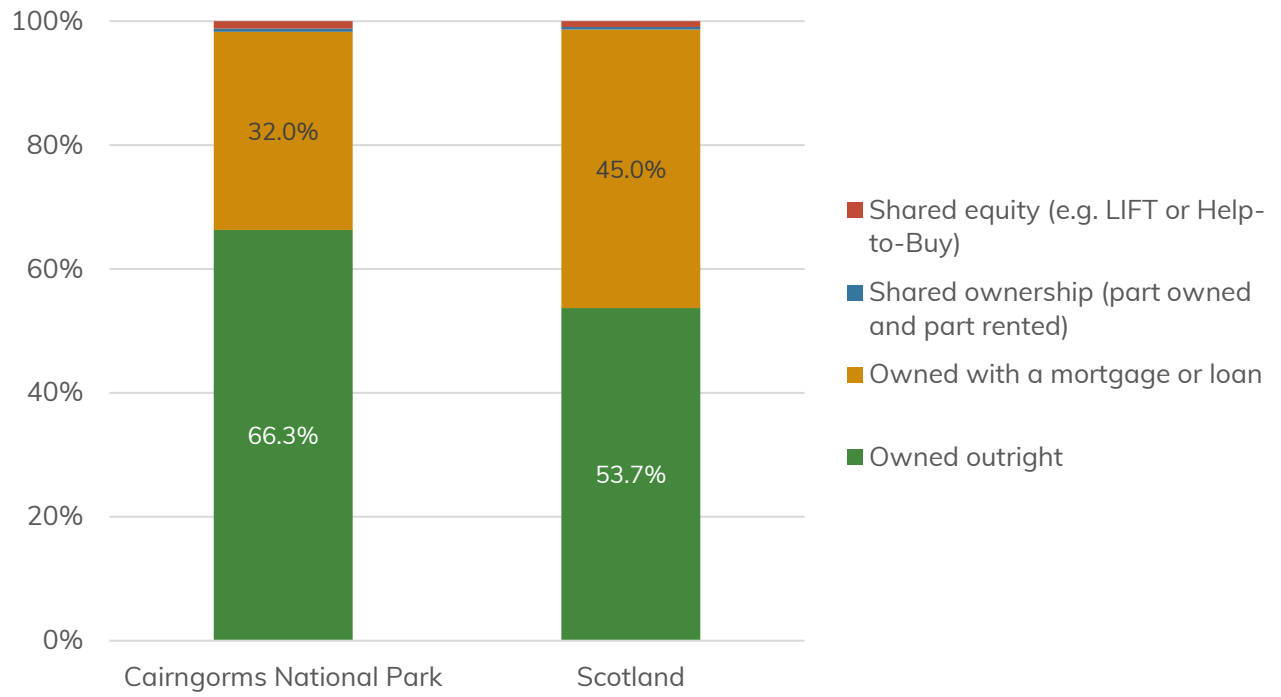


Figure 391 Household tenure of owner-occupied stock in the National Park and Scotland in 2022 (Census Table UV404).

Social rent is the next biggest tenure and accounted for around 16% of households (around the same as 2001 and 2011). It remains high despite 1,069 council houses within the National Park being sold through Right to Buy schemes between 1980 and 2005 (www.statistics.gov.uk). While the Right to Buy scheme has now been abolished in Scotland, social housing stock levels in the National Park remain lower (15.5%) in comparison to Scotland as whole (22.5%).

Living rent free is considerably higher in the National Park (4%) in comparison to Scotland as a whole (1.4%). This is likely a reflection of having a high proportion of households renting from an employer representing estate workers and seasonal workers in the tourism sector, where accommodation is often included with the job.

Private rented housing also formed a considerable proportion of housing tenure in the National Park at 14.4%. This percentage is similar to the proportional size of the private rented sector across Scotland at 12.9%. According to statistics published by the Scottish Government in November 2023 – 'Private Sector Rent Statistics, Scotland 2010 to 2023' the private rented sector across Scotland grew from 5% of all households in 1999 to 15% in 2016, before settling at its 2022 level.

Despite this, since 2010, the average rent of a two-bedroom property in Scotland has risen by an estimated 52%, above the cumulative increase of the UK Consumer Price Index of 46%[148] However, growth has been highest in the central belt, with the broad market areas of Greater Glasgow, Lothian, East Dunbartonshire, Forth Valley, Fife and Dundee and Angus being the only areas with two-bedroom property rents rising at more than the UK Consumer Price Index.

The availability of private rented stock in the Cairngorms National Park is scarce. A search on 31 July 2024, produced no rental properties on 'Right Move', a three-bedroom semi-detached house (£895) in Grantown-on-Spey (listed on 30 July 2024) and detached three-bedroom bungalow (£700) close to Strathdon on 'Zoopla' (listed on 28 July 2024). and two on Highland Property Services' website (a two-bedroom bungalow two miles from Boat-of-Garten for £950/month and a three-bedroom terraced house in Grantown-on-Spey for £925).

Table 64 Housing tenure of all stock in the Cairngorms National Park, in each constituent local authority area, and in Scotland as a whole (Census 2022, Table UV404)

Geographic area	Owned	Social rented	Private rented	Living rent free
Cairngorms National Park	60.0%	15.6%	14.4%	4.0%
Aberdeenshire	73.9%	15.4%	9.1%	1.6%
Angus	67.1%	19.3%	11.8%	1.8%
Highland	67.8%	19.5%	10.7%	2.1%
Moray	67.0%	19.2%	11.9%	1.9%
Perth & Kinross	67.8%	16.4%	13.7%	2.1%
Scotland	63.2%	22.5%	12.9%	1.4%

Second homes, empty homes and short-term lets

Like many rural areas, ineffective stock, which includes second homes and vacant homes, is likely to be compounding the issues of affordability in the National Park, particularly following the COVID-19 pandemic. Evidence published by the Royal Town Planning Institute in 2022 highlights that rural areas experienced high annual price growth between 2020 and 2021 in both 'near-countryside' areas influenced by larger centres and 'less-accessible countryside', such as National Parks.

It suggests that in these important rural amenity areas, the changes in the market are rooted in three lifestyle changes. Firstly, increased demand for second homes; secondly

[148] Cumulative increase from the year to end September 2010 to the year to end September 2023.

the conversion of existing second homes to first-use homes; and thirdly permanent lifestyle relocation. House prices also increased due to the demand for holiday lets responding to the growing staycation market and greater demand for family homes in rural amenity areas. Growth rates of around 20% were seen in English coastal areas, Welsh rural authorities and Argyll and Bute (encompassing many island communities).

It is possible that rural authorities will need to rethink patterns of housing supply – whether they continue with plans to expand key service centres and restrict growth in smaller settlements or 'smear growth' more evenly across settlement hierarchies enabling more villages to expand.

It is also worth noting that the impacts of the pandemic are still uncertain, and it is not known whether counter-urbanism will continue, increasing the pressure of rural areas, or whether 'pandemic buyers' will return to urban or suburban lives. In either case, pressure on the stock of rural homes, especially in amenity and coastal areas is likely to remain strong, with a key challenge for local authorities being how to protect houses for local occupation and expand the stock of affordable homes.

Ineffective stock

Figure 392 shows that there is a very high proportion of second homes (10.5% of all dwellings) in the National Park, when compared to its constituent local authorities and to Scotland as a whole. The figure is also significantly higher than the figure for all Scottish remote rural areas (rural / urban classification), which is 6.5%[149]. Together with the fact that 6% of homes are vacant[150], over 16% of all housing stock in the Cairngorms National Park is ineffective (based on 2023 data).

By contrast, the proportion of ineffective dwellings in the National Park's constituent local authorities is considerably lower and in Scotland as a whole, where second homes account for just 0.9%, with a further 3.3% being vacant (totalling 4.2%).

[149] Rural and Islands Housing: Action Plan (2023)

[150] This includes dwellings exempt from paying council tax because they are unoccupied and dwellings which are recorded on council tax systems as being long-term empty properties.

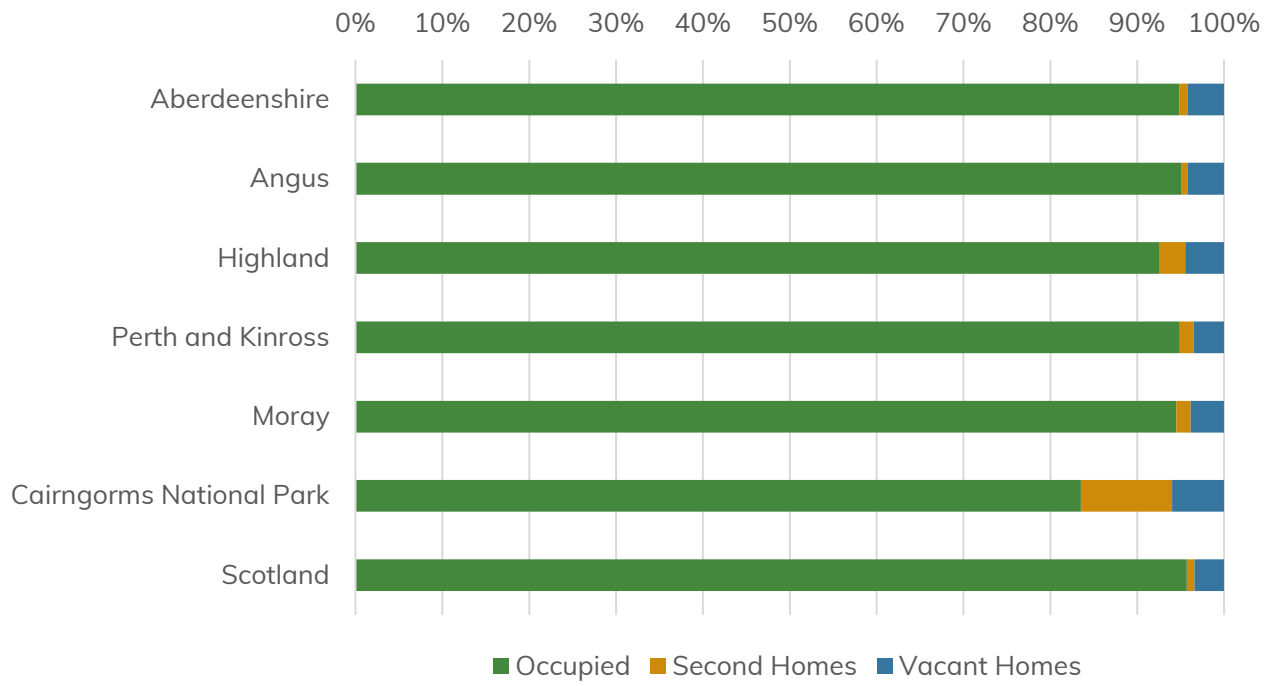


Figure 392 Percentages of effective and ineffective housing stock in the National Park, in Scotland, and in each constituent local authority area, based on 2023 data (statistics.gov.scot).

The historical data is informative. While between 2008 and 2023 the number of dwellings in the National Park grew from 9,722 to 10,542, an increase of around 10.5%, the number of occupied dwellings only grew by 8.5%, from 8,114 to 8,805. This is due to an increase in vacant dwellings, rather than second homes. As set out in Table 65 and Figure 393, between 2008 and 2023, the number of vacant dwellings increased from 359 to 632, while the number of second homes fell, from 1,245 to 1,105.

Table 65 Household estimates of the total dwelling stock and the number of occupied homes and ineffective stock (second and vacant) homes) in the Cairngorms National Park 2008-2023 (statistics.gov.uk).

Category	2008	2009	2010	2011	2012	2013	2014	2015
Total dwellings	9,722	9,789	9,888	9,932	9,985	10,055	10,094	10,188
Occupied	8,114	8,142	8,207	8,242	8,283	8,362	8,510	8,486
Second homes	1,245	1,270	1,266	1,263	1,267	1,241	1,192	1,210
Vacant	359	377	409	423	435	451	393	491
Ineffective stock	1,604	1,647	1,675	1,686	1,702	1,692	1,585	1,701

Category	2016	2017	2018	2019	2020	2021	2022	2023
Total dwellings	10,117	10,196	10,255	10,247	10,673	10,283	10,358	10,542

Category	2008	2009	2010	2011	2012	2013	2014	2015
Occupied	8,455	8,567	8,654	8,621	8,642	8,643	8,683	8,805
Second homes	1,187	1,205	1,176	1,158	1,138	1,118	1,100	1,105
Vacant	474	422	421	469	493	522	575	632
Ineffective stock	1,661	1,627	1,597	1,627	1,631	1,640	1,675	1,737

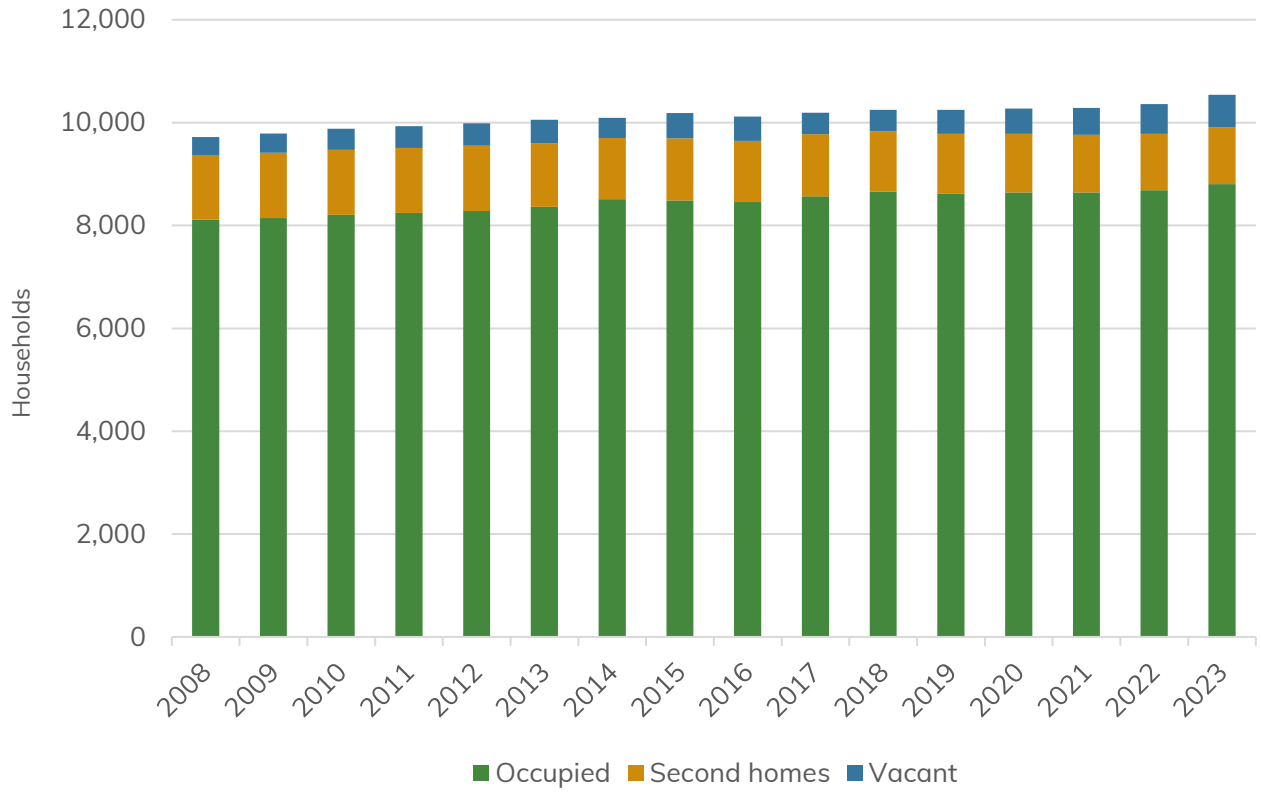


Figure 393 Household estimates of total dwelling stock in the Cairngorms National Park coloured to show the proportion of effective (occupied) and ineffective (second homes and vacant dwellings) housing stock for each year from 2008 to 2023 (statistics.gov.uk)

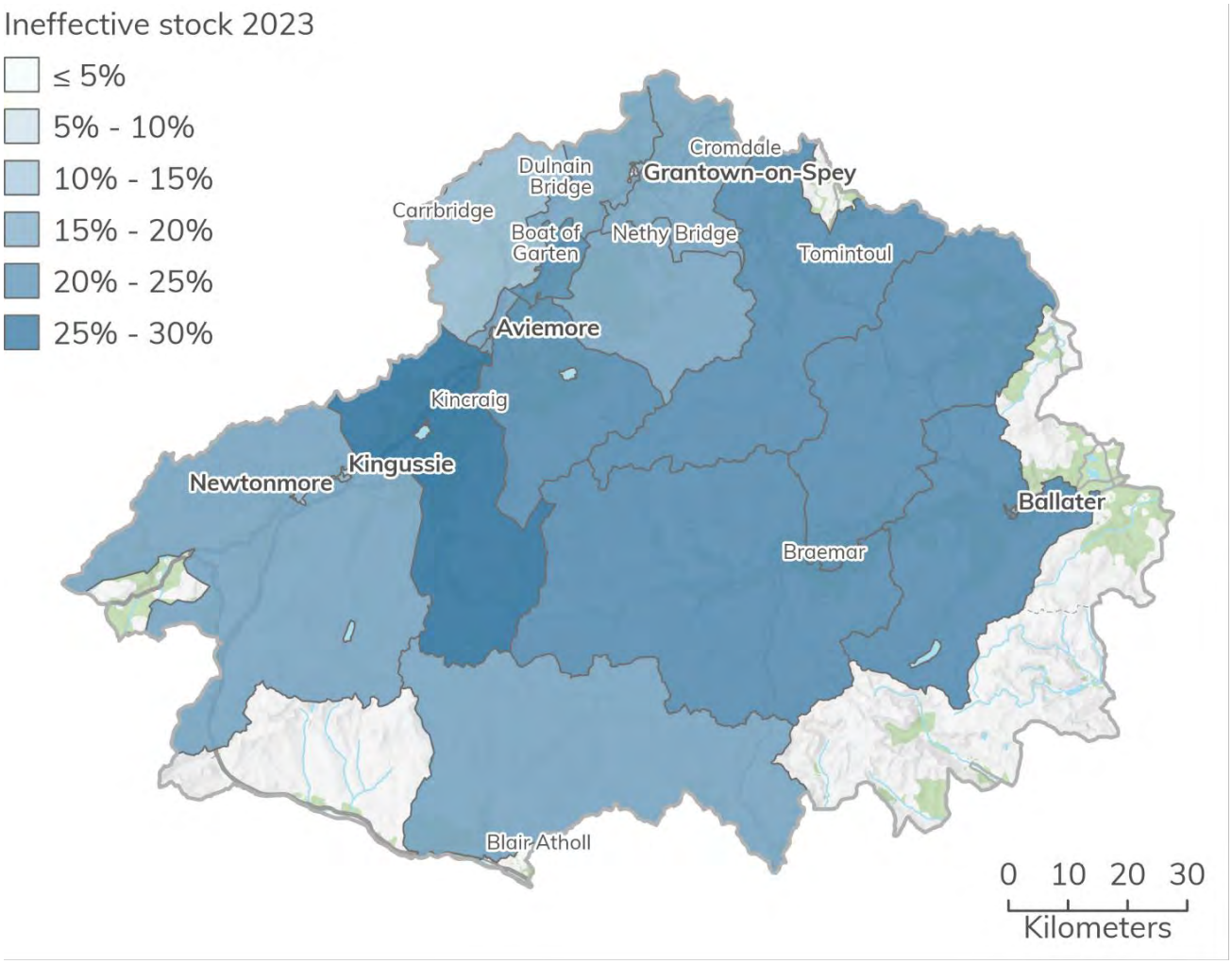


Figure 394 Proportion if ineffective stock by 2011 data zone in the Cairngorms National Park in 2023. Contains data © statistics.gov.scot, 2025. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Short-term letting

In addition to second homes, properties are also used as short-term holiday lets. Since October 2022, all hosts of short-term let properties must hold a short-term let licence and be registered. Each local authority must publish a public register. There are four types of licence. Home sharing and home letting concern the use of the host or operator's only or principal home whereas secondary letting makes use of a separate premises.

The public registers indicate that there are 1,075 registered short-term holiday let properties in the Cairngorms. 806 of these are in Highland, 204 in Aberdeenshire, 40 in Perth and Kinross, 22 in Moray and 3 in Angus. This data is shown graphically in Figure 395.

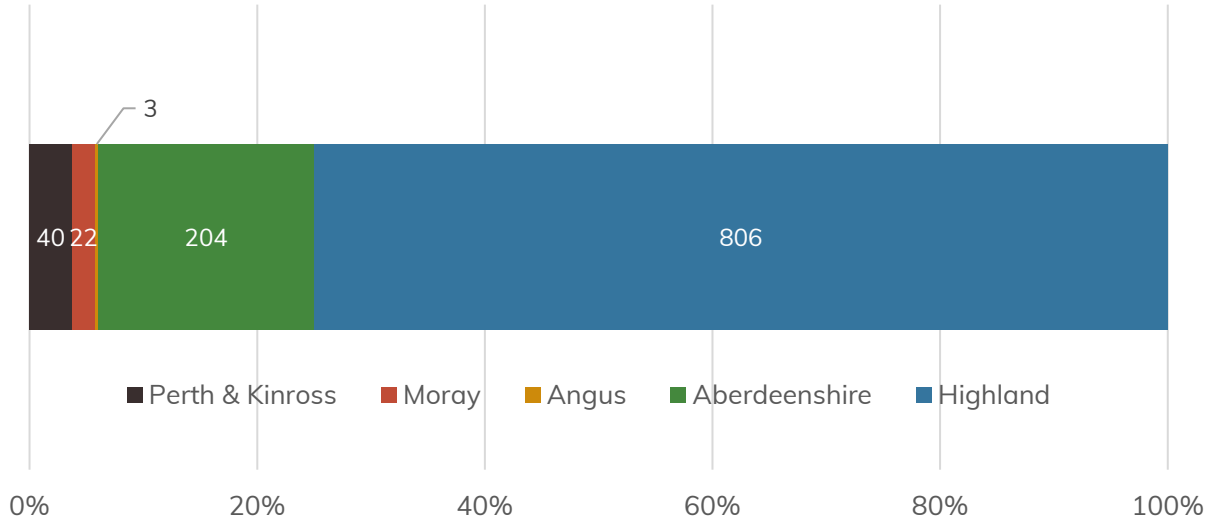


Figure 395 Number of publicly registered short-term holiday lets in the Cairngorms National Park, by local authority (licensing authority public registers, July 2024).

87% of short-term holiday lets in the Cairngorms National Park are registered as secondary lettings. This means that they are not primary residencies and are not part of the housing stock. In total, there are 942 properties registered as secondary lettings.

This data indicates that the number of short-term lets in the Cairngorms National Park, which are not also primary dwellings, is roughly equivalent to 9%[151] of the total housing stock. Note that these properties are not part of the housing stock. However, this indicates that in addition to 10.5% of the housing stock being second homes, there are roughly an equivalent number of properties outwith the housing stock used for holiday purposes.

[151] It is not clear from the public register data whether the short-term let properties are purpose-built for this use or are former dwellings, however only 97 (around 10%) are recorded as being 'unconventional dwellings', which are less likely to be suitable for residential use.

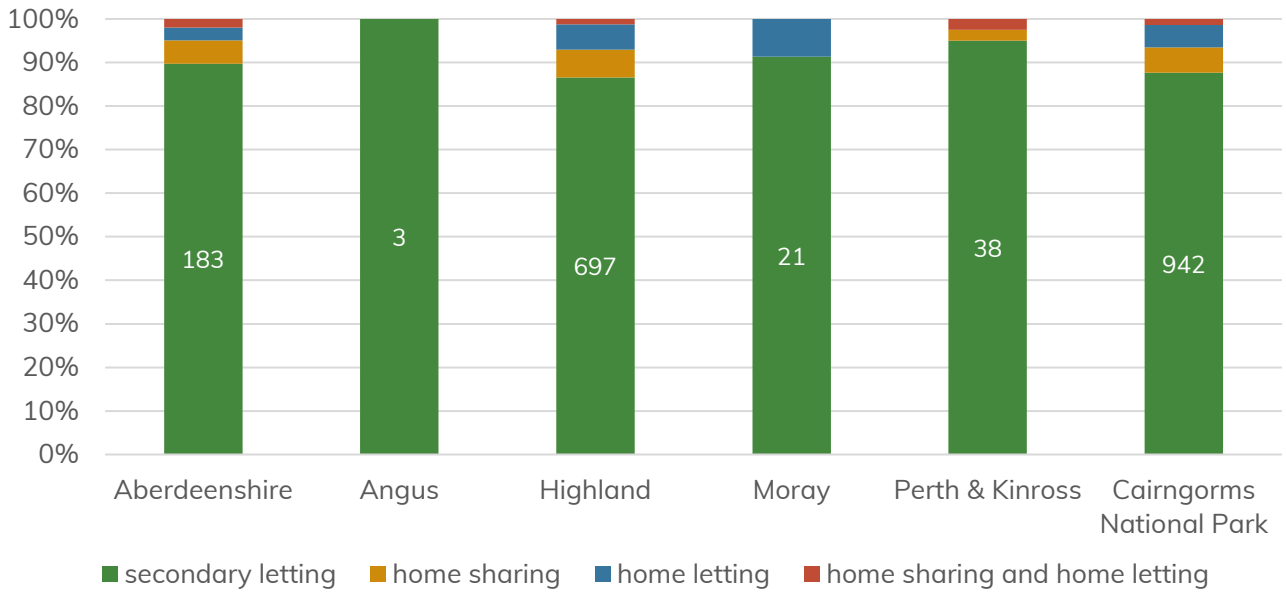


Figure 396 shows that the proportions are similar for each constituent authority.

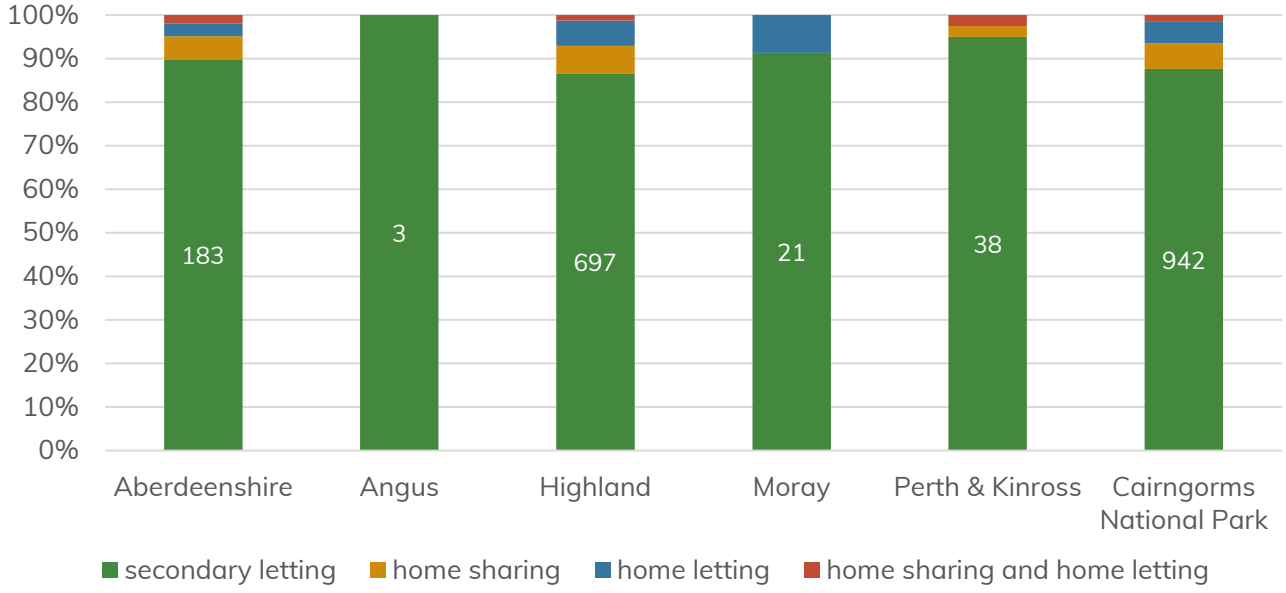


Figure 396 Proportion of secondary and principal home short-term holiday lettings for the Cairngorms National Park and for each licensing authority (licensing authority public registers, July 2024).

62% of registered short-term holiday lets are detached dwellings and a further 17% semi-detached. Figure 397 shows that these proportions are similar for each constituent authority.

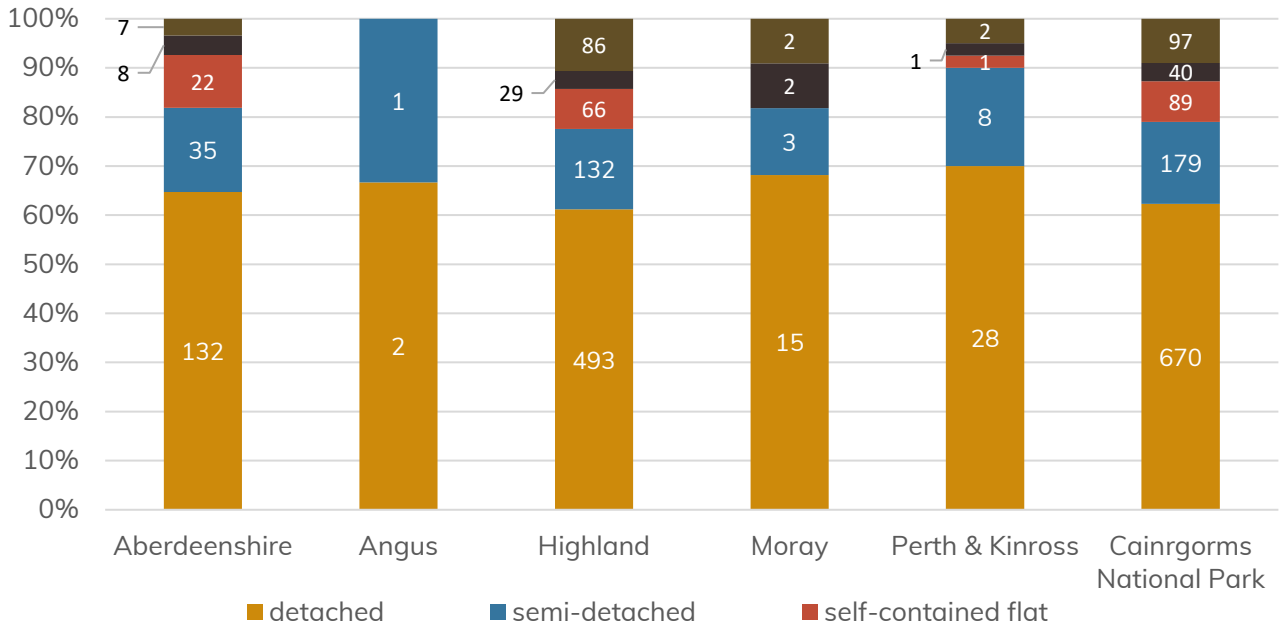


Figure 397 Number and proportion of short-term holiday lets in each dwelling type for each licensing authority (licensing authority public registers, July 2024).

The Cairngorms Business Barometer (Quarter 1 2024), provides some insight into short-term lets from the business community with a lack of housing for the local population due to a high number of holiday homes noted.

In addition to requiring short-term lets to be licenced, the legislation (Section 26B of the Town & Control Planning (Scotland) Act 1997 as amended) also enables local authorities to designate a 'Short Term Let Control Area' across all or part of its region to alleviate pressures in some areas and ensure homes can be utilised to meet local housing needs.

On 4 March 2024, the Highland Council designated a short-term let control area for the Badenoch and Strathspey area (Ward 20), the majority of which lies within the National Park. Highland Council's was that the number of short-term let properties in Badenoch and Strathspey 'is unduly restricting house supply for full time residents and increasing local house prices, all to the detriment of our local communities' (The Highland Council, Badenoch and Strathspey Short-term Let Control Area – Statement of Reasons).

This means that planning permission is required to change the use of a dwelling to a short-term let in Badenoch and Strathspey. Planning applications for short-term lets are assessed against relevant planning policies to determine whether they are acceptable.

Highland Council has introduced a 'non-statutory short-term lets within a control area planning policy'. It supports the use of an existing dwellinghouse as a short-term let where it falls into one of the following categories:

1. It is a long-term empty dwellinghouse that will be brought back into active use. Supporting evidence will be required to be submitted to demonstrate this.
2. The dwellinghouse is located above a commercial unit within a City, Town or Village centre.
3. The dwellinghouse has no fewer than four bedrooms, as it existed at the date of the establishment of the Control Area or, if constructed after the designation of the Control Area, as originally built.

New housing

Completions

Between 2000 and 2008 the average completion rate in the Cairngorms National Park was just under 130 dwellings per year. However, the number fell sharply during the 2007 – 2008 financial crisis which resulted in an average annual completion rate of around 70 new dwellings between 2007 and 2021. The COVID-19 pandemic caused a greater dip in 2021, however 2022 marked a noticeable upturn, with 131 housing completions, and this rate was maintained in 2023, with 130 housing completions.

Figure 398 illustrates completion levels within each local authority area of the National Park as well as the total figure for the National Park.

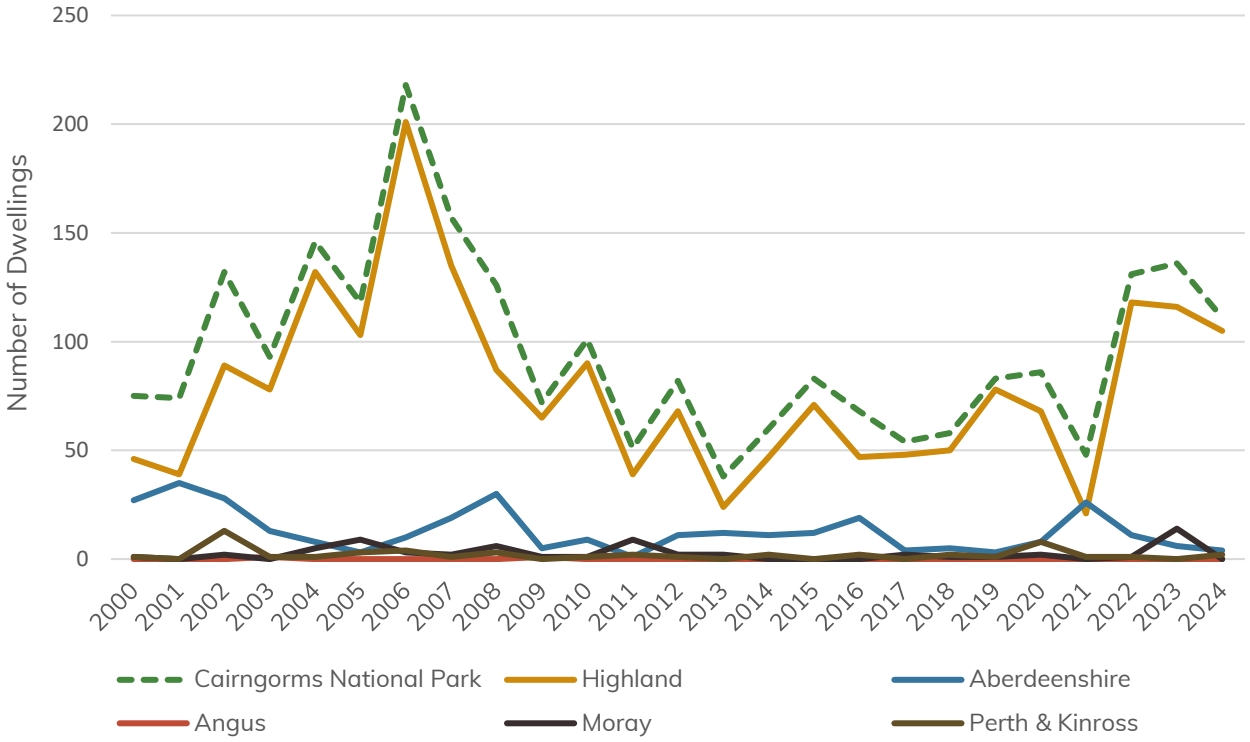


Figure 398 Housing completions in the Cairngorms National Park and for each constituent local authority area between 2000 and 2023 (local authorities).

Table 66 Housing Completions in Cairngorms National Park by constituent authority 2019 – 2023 (constituent authorities).

Year	Cairngorms National Park	Highland	Aberdeenshire	Angus	Moray	Perth and Kinross
2019	83	78	3	0	1	1
2020	86	68	8	0	2	8
2021	48	21	26	0	0	1
2022	131	117	11	0	1	1
2023	136	116	6	0	14	0
2024	111	105	4	Not available [152]	Not available [153]	2

The vast majority of new houses are built in Badenoch and Speyside, the part of the Cairngorms National Park within Highland Council. In the four years 2020 – 2023 (Table 67), 323 new houses were completed in Badenoch and Strathspey, 73 of which have been secured as affordable houses. This is 23% of the total number of houses built.

[152] Data not available at time of writing (July 2025)
[153] Data not available at time of writing (July 2025)

Table 67 Housing completions in Badenoch and Strathspey in 2020 – 2023 (Highland Council).

Tenure type	2020	2021	2022	2023	Total	% of total
Market	49	21	89	91	250	77%
Affordable	19	0	29	25	73	23%
Total	68	21	118	116	323	100%

Housing deprivation

The relationship between the availability of good quality housing and the health and well-being of people has been well recognised for some time now (Howden-Chapman et al, 2023[154])

For example, children who are brought up in disadvantaged neighbourhoods, in poor quality housing or insecure accommodation are more likely to be exposed to avoidable health risks such as damp, cold, accidents, community safety concerns, inadequate pre-school and early-years provision, poor schools, and a lack of safe play areas (Shelter 2006[155] and 2011[156]). Similarly, growing older in poor quality, unaffordable or inappropriate housing has a negative impact on quality of life the maintenance of independence in retirement (National Centre for Social Research, 2024[157], The Housing and Ageing Alliance, 2013). Research carried out in England, showed an average life expectancy gap of seven years between the richest and poorest areas of the country. People living in poorer areas and households with the lowest incomes spend a greater proportion of their lives (an additional 17 years on average) coping with the impact of long-term illness and associated disability (Marmot, 2010[158]).

[154] Review of the Impact of Housing Quality on Inequalities in Health and Well-being, 2023, published online at https://www.annualreviews.org/content/journals/10.1146/annurev-publhealth-071521-111836
[155] Chance of a lifetime – the impact of bad housing on children's lives. Published in 2026 online at : https://england.shelter.org.uk/professional_resources/policy_and_research/policy_library/chance_of_a_lifetime_-_the_impact_of_bad_housing_on_childrens_lives
[156] The facts: bad housing and homelessness for children and young people in Scotland 2011. Available online at: https://scotland.shelter.org.uk/professional_resources/policy_library/the_facts_bad_housing_and_homelessness_for_children_and_young_people_in_scotland_2011
[157] How poor- quality housing is harming millions of older adults, 2024. Available online at: https://natcen.ac.uk/publications/how-poor-quality-housing-harming-millions-older-adults#:~:text=Millions%20of%20older%20adults%20in%20the%20UK%20live,conditions%2C%20financial%20strain%2C%20and%20reduced%20quality%20of%20life.
[158] Marmot, M. (2010). Fair society, healthy lives: The Marmot review. London: University College

The Scottish Index of Multiple Deprivation 2020 housing domain uses 2011 Census data, and is constructed by summing housing two indicators, namely the persons in a household that are overcrowded and the persons in households without central heating.

Although there is a chance of some overlap between indicators, this has been accepted as reflecting that people living in a household with both of these attributes are more deprived than those with only one.

The persons in a household that are overcrowded indicator provides a measure of material living standards and gives the proportion of household population that live in overcrowded housing based on the occupancy rating. This compares the actual number of rooms in the house to the number of rooms which are required by the household, based on the relationships between them and their ages. Overcrowding is defined to mean households with an occupancy rating of -1 or less. This means that there is at least one room too few in the household.

The persons in a household without central heating indicator provides a measure of material living standards and gives the proportion of household population that live in a house that is centrally heated. A household's accommodation is described as 'with central heating' if it has central heating in some or all rooms (whether used or not). Central heating includes gas, oil or solid fuel central heating, storage heaters, and solar heating.

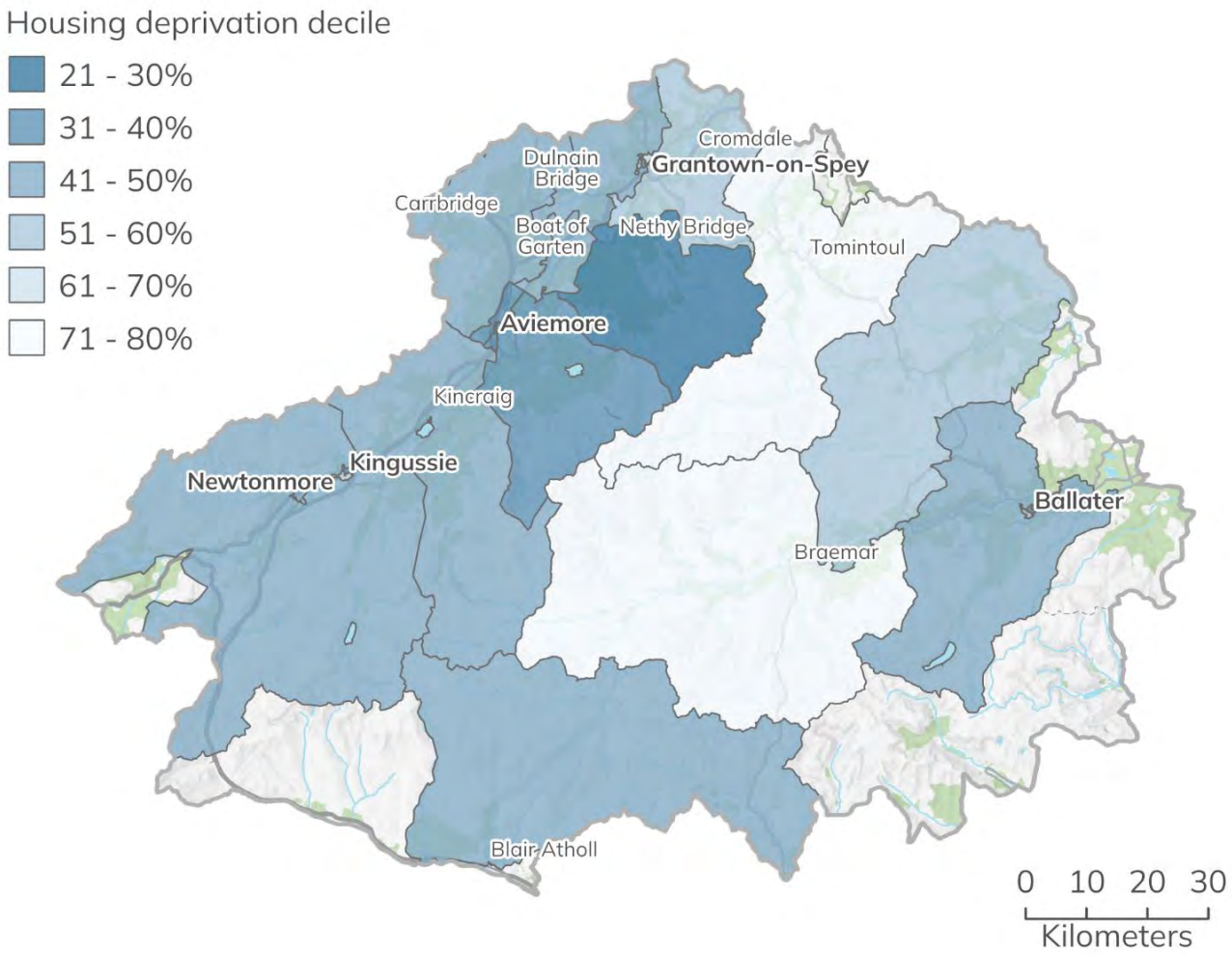


Figure 399 Housing deprivation decile of the Cairngorms National Park data zones from the Scottish Index of Multiple Deprivation (SIMD) data, 2020. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

There are not a high levels of housing related deprivation within the Cairngorms National Park, with no data zones falling within the 30% most deprived (Figure 399). There are however areas of the National Park where certain indicators of housing deprivation exceed the national average.

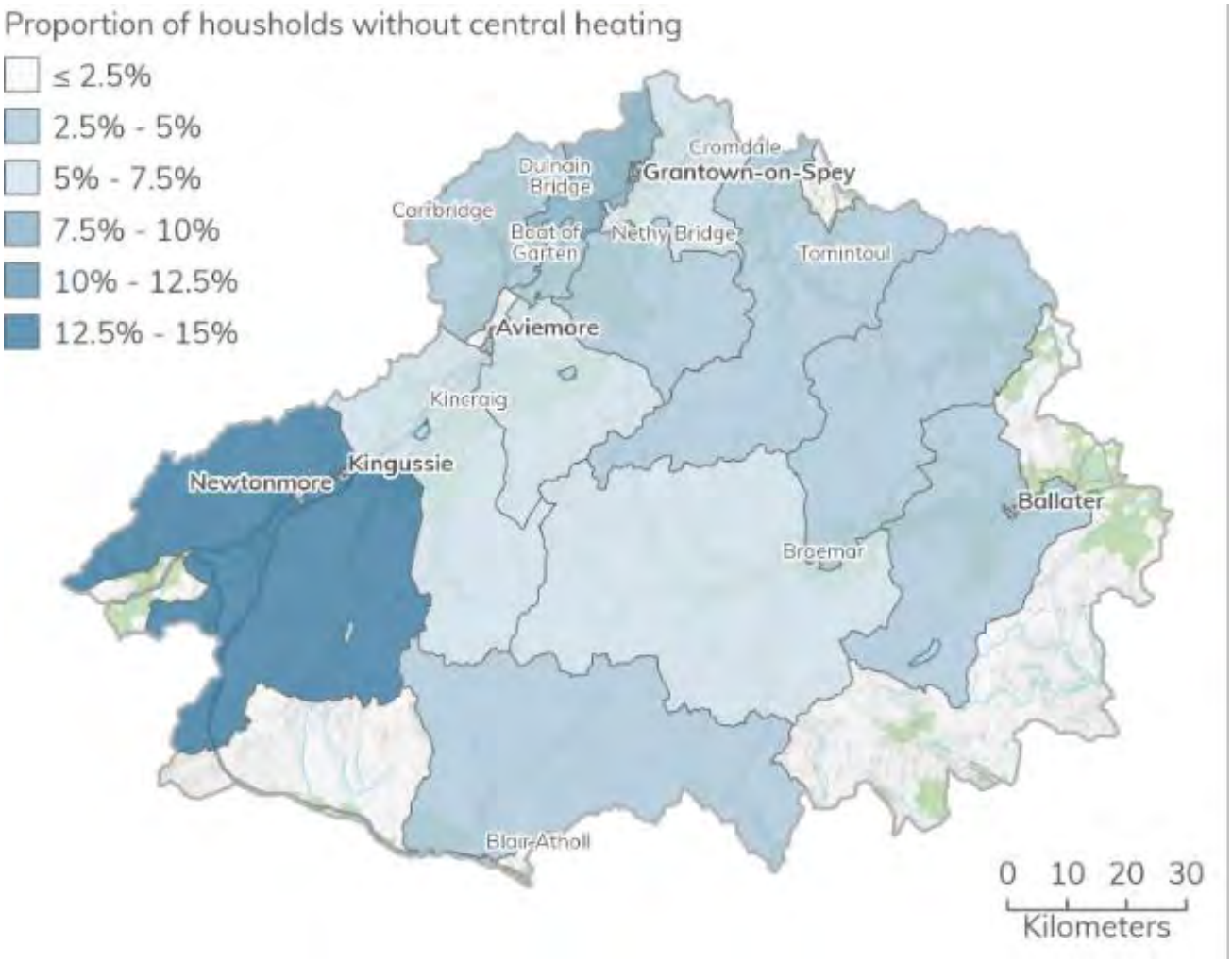


Figure 400 Proportion of household population without central heating data from the Scottish Index of Multiple Deprivation, 2020. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

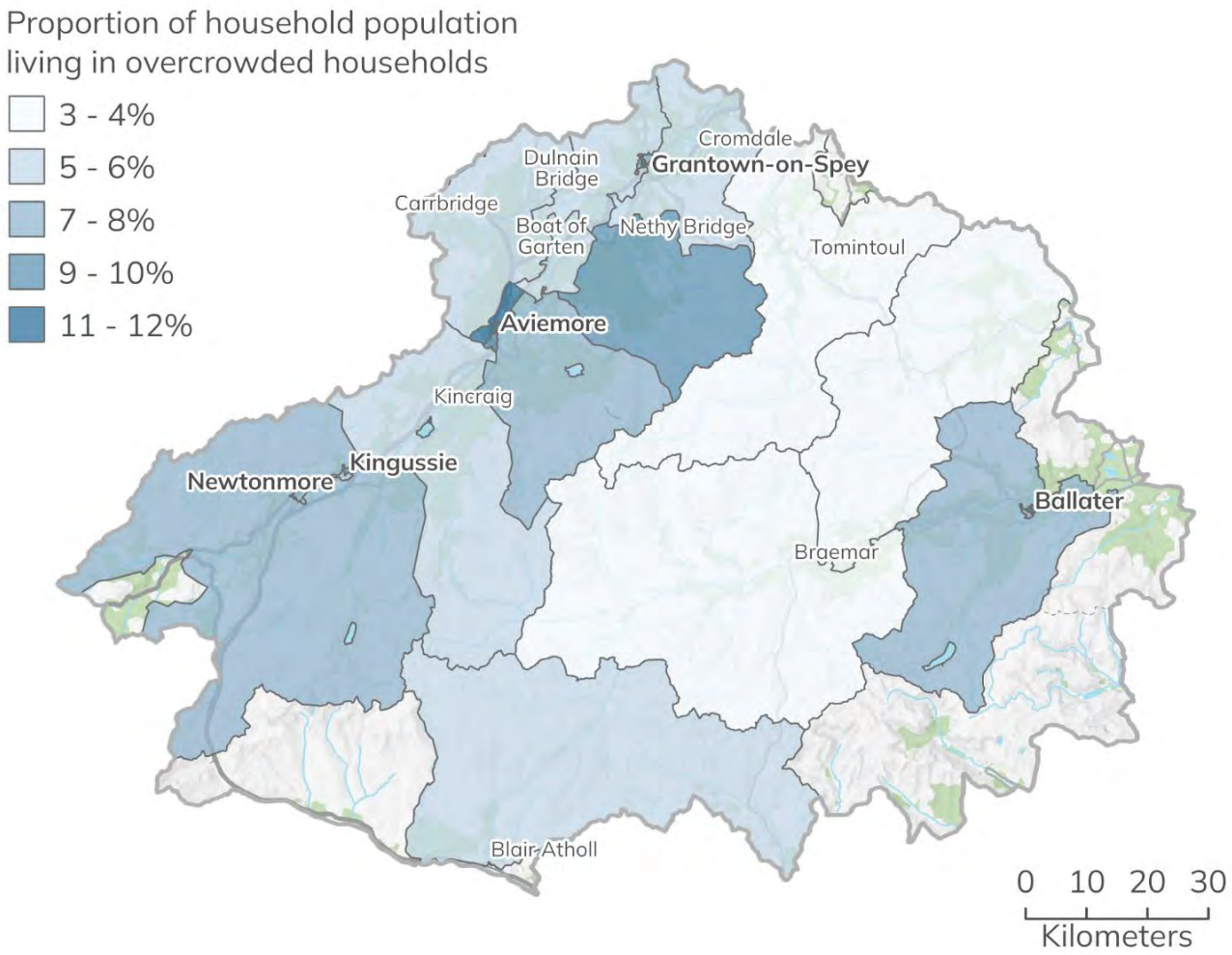


Figure 401 Proportion of household population living in overcrowded households, data from the Scottish Index of Multiple Deprivation (SIMD), 2020. Cairngorms National Park Authority © Crown copyright and database rights 2025 Ordnance Survey AC0000821810.

Many areas of the Cairngorms National Park have relatively high proportions of the household population living in homes with no central heating, equating to around 4.3%

across the whole area (Scotland 2.3%) (

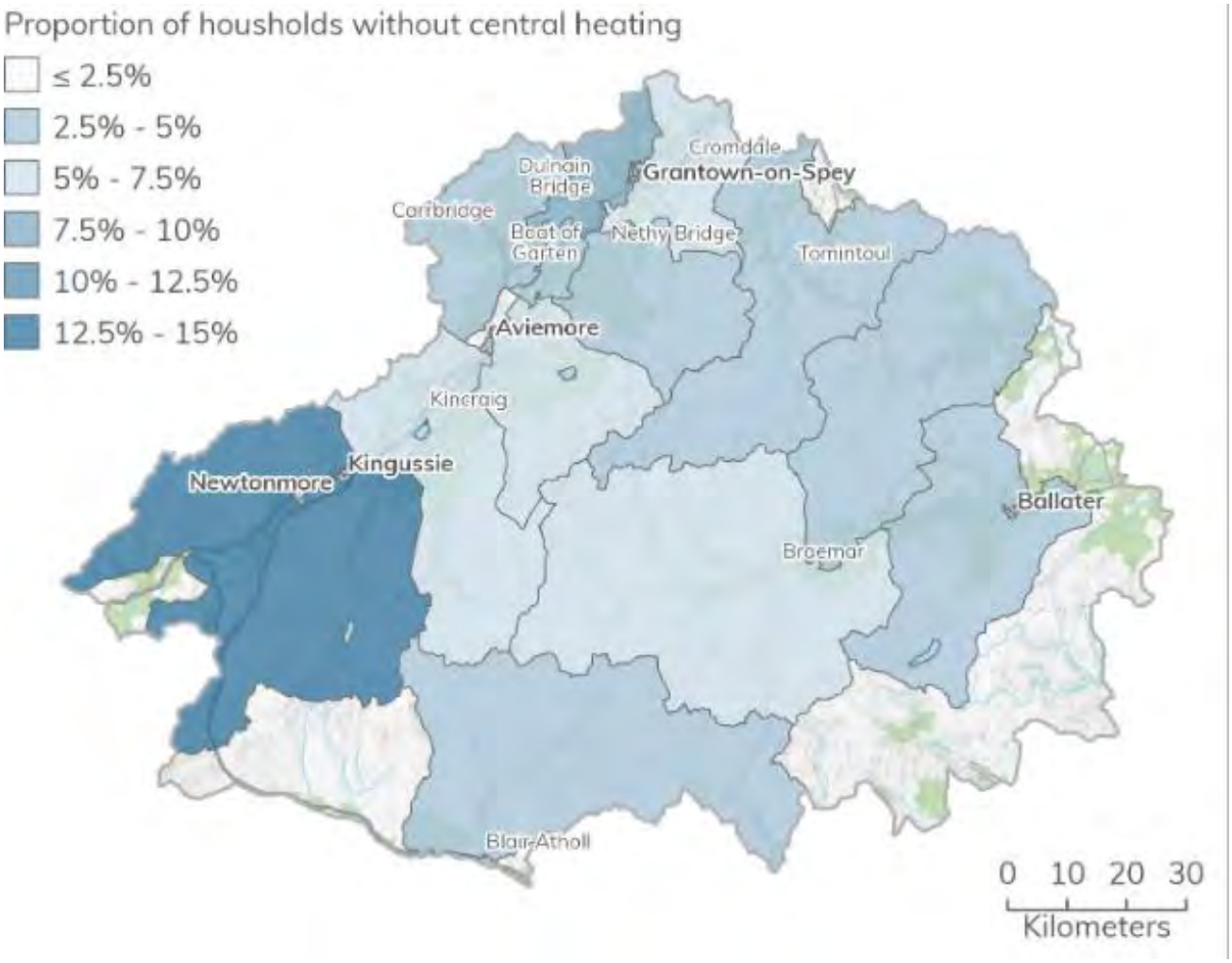


Figure 400).

Levels of household overcrowding are relatively low within the National Park (Figure 401), with the vast majority of data zones falling below the Scottish average of around 13.9%.

Overcrowding statistics may be skewed by the fact that compared to the Scottish average, there is higher proportion of large dwellings within the National Park and a lower proportion of small ones (Figure 388)This may therefore mask significant instances of overcrowding suffered by those unable to afford larger properties.

A significant barrier in reducing household deprivation is the availability of enough new housing to replace existing poor-quality stock while also meeting projected growth in households. In addition to this the affordability of suitable housing is another barrier to addressing housing deprivation in the National Park. As stated earlier in this section the

2021 median house price to median gross income ratio is nearly six times in the National Park compared to the Scottish equivalent ratio of 4.2, making it increasingly more difficult for first time buyers to purchase a suitable property (Figure 383).

Outdoor recreation

Standardised measures of deprivation aside, there are many factors that can have an influence on a population's health, and it is probable that the high-quality environment described in this report is a contributory factor. Another factor is likely to be the ability of the population to easily access this environment for leisure and recreational purposes.

Significantly, the Cairngorms National Park is a world-renowned area where both residents and visitors can enjoy a wide range of outdoor recreation opportunities. People are able to explore the area on foot, in a wheelchair, on horse-back, on a bicycle or even in a boat or canoe, as long as they do so in a responsible manner, with respect for other people and for the environment, and in accordance with the Scottish Outdoor Access Code.

Visitor economy

The Cairngorms National Park Authority receives an annual report generated using STEAM[159] to report on tourism specific economic impact modelling. STEAM data from 2020 and 2021 was affected directly by the COVID-19 Pandemic lockdowns and indirectly by resulting changes in visitor behaviour post lockdown. As a result, the figures for those years are likely to underestimate actual visitor numbers.

In 2023, the Cairngorms National Park received approximately 2.1m visitors, representing a 24.2% increase from 2022. This represents a third year of growth following the decline recorded in 2020 due to the COVID-19 Pandemic. In 2021 visitor numbers increased 90.6% from the low numbers recorded in 2020 (which was a decrease on the 2019 figures of -73.0%). In 2022 they continued to increase from 1.1m in 2021 to 1.7m in 2022 (representing an increase of 62.7%).

Pre-pandemic, in 2019, the Cairngorms National Park received 2.067m visitors which has now been surpassed by the 2023 visitor number figures (Figure 402).

[159] Owned and operated by Global Tourism Solutions (UK) Ltd.

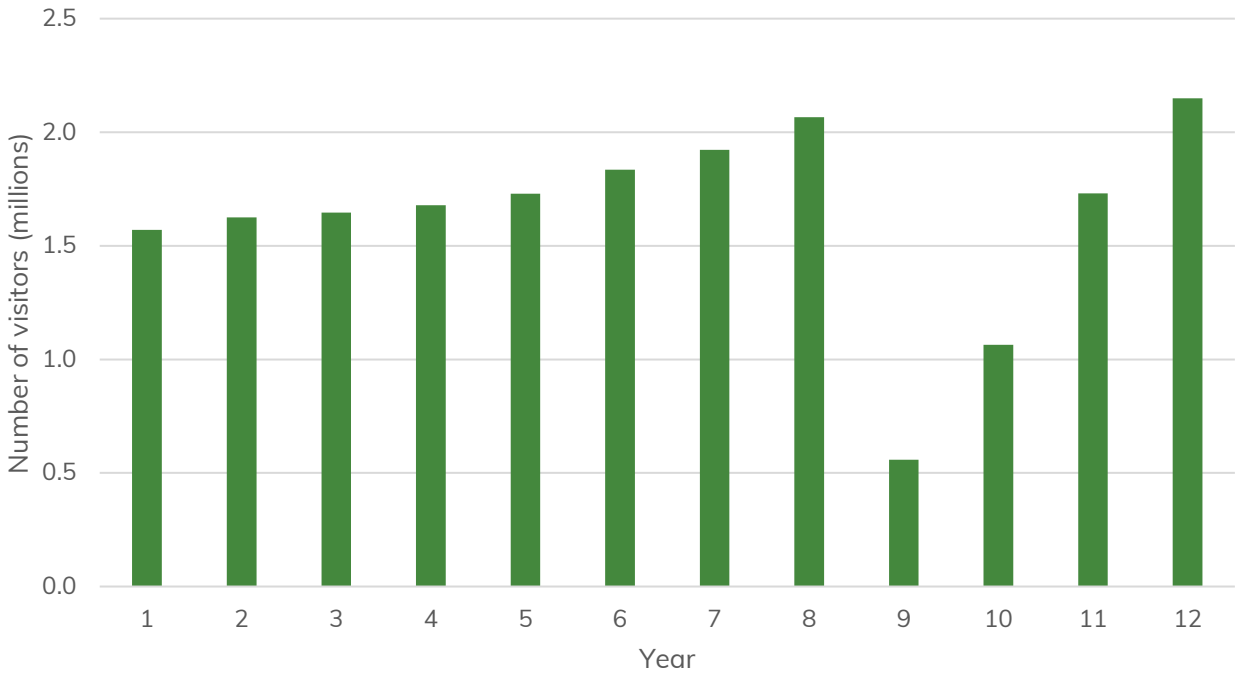


Figure 402 Annual visitor numbers (millions / year) to the Cairngorms National Park 2012 - 2023 (Cairngorms National Park 2023 STEAM report, 2024).

Between 2012 and 2023 the total average annual growth in visitor numbers was 3.3%%, however this has not been uniformly seen in all months or seasons across the year. During this period the highest increase in visitor numbers has been during November and December which have seen reported visitor numbers increase by 74.7% and 85.2% respectively.

Between 2022 and 2023 the Cairngorms National Park has witnessed an increase in visitor numbers in 32.8% in quarter one, 23.8% in quarter two, 23.3% in quarter three and 19.8% in quarter four. These figures differ significantly from the previous years post Covid, which may signal growth rates and visitor numbers are reflecting the stability and trajectory seen before the Pandemic.

The Cairngorms National Park experiences seasonal variations in visitor numbers affecting the monthly number of people employed in this sector throughout the year.

Figure 403 shows the monthly visitor numbers from January 2018 to December 2023. In 2023 August received the most visitors with approximately 304,000 visitors. The least busy month in 2023 was January with approximately 101,000 visitors. The largest percentage increase in monthly visitor numbers during this period has been in January

when in 2018 there were approximately 70,000 visitors, which in January 2023 increased to approximately 101,000 visitors representing a 44.3% increase. September saw the second largest increase in monthly visitor numbers from 2018 to 2023 with an increase of 30.8% from approximately 182,000 to 238,000 visitors.

July and October saw relatively little change in terms of visitor numbers, with percentage changes of -2.4% and 5.4% respectively. The largest reported decrease from 2018 to 2023 was in May when numbers fell from 228,000 visitors in 2018 to 212,000 in 2023 (representing a 7.0% decrease). It is worth noting that pre-pandemic in 2019 in June there were 232,000 visitors. This may indicate a changing pattern in domestic vacation patterns or that behaviour has not fully returned to re-pandemic patterns, which subsequent years data should be able to show.

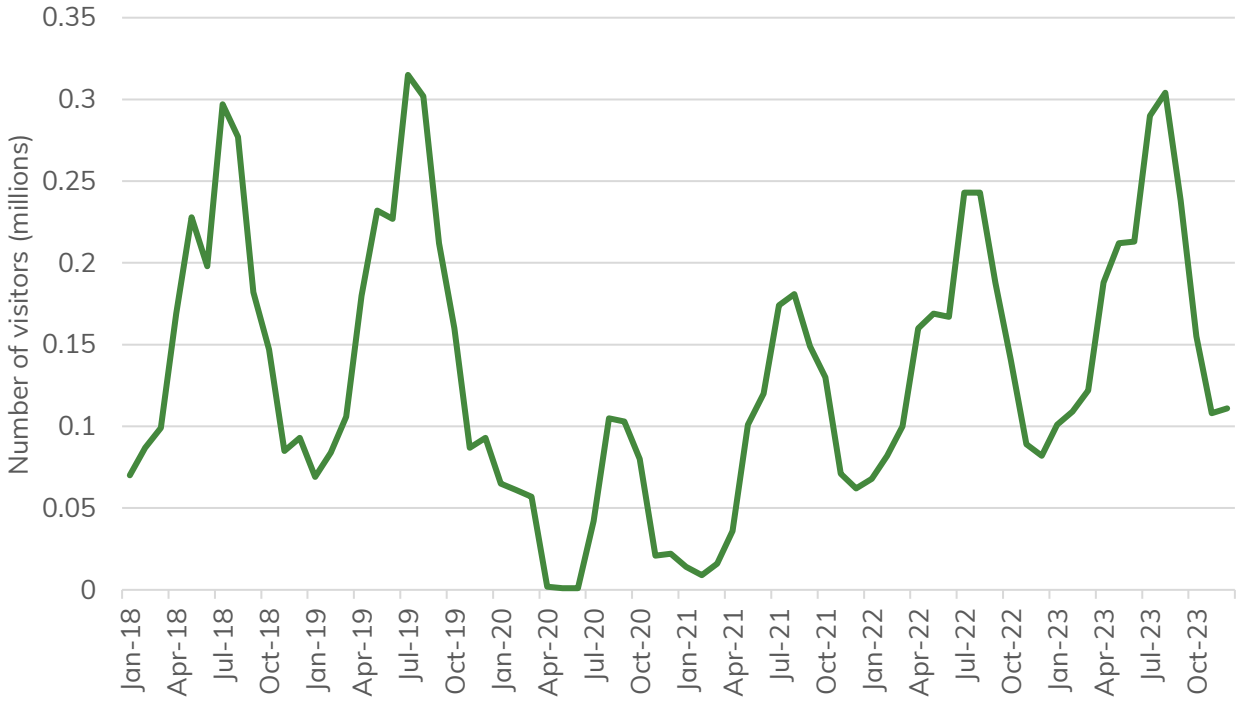


Figure 403 Monthly visitor numbers, January 2018 – December 2023 (Cairngorms National Park 2023 STEAM report, 2024).

Economic impact of tourism

In 2023 the economic impact of tourism in the Cairngorms National Park was reported at £419.33m (Figure 404) representing an increase of 18.7% from 2022 (£353.38m) and 35.9% higher than the pre-pandemic figures for 2019 (£308.54m). This represents a strong recovery in terms of economic impact since the COVID-19 Pandemic.

The COVID-19 Pandemic had significant negative effects (-65.4%) on the economic impact of tourism in the Cairngorms National Park in 2020 (Figure 404 and Figure 405)

with a reduction of £201.94m compared to the previous year. In 2019 the economic impact of tourism in the Cairngorms National Park was reported to be £308.54m. There was strong economic growth up to 2019, with an average increase of +7.5% annually from 2009 to 2019 representing an increase of +74.7% change for the period. In 2019 the highest growth was reported at +14.2% over twice the annual average and over 2% higher than in 2018 (+12.1% increase).

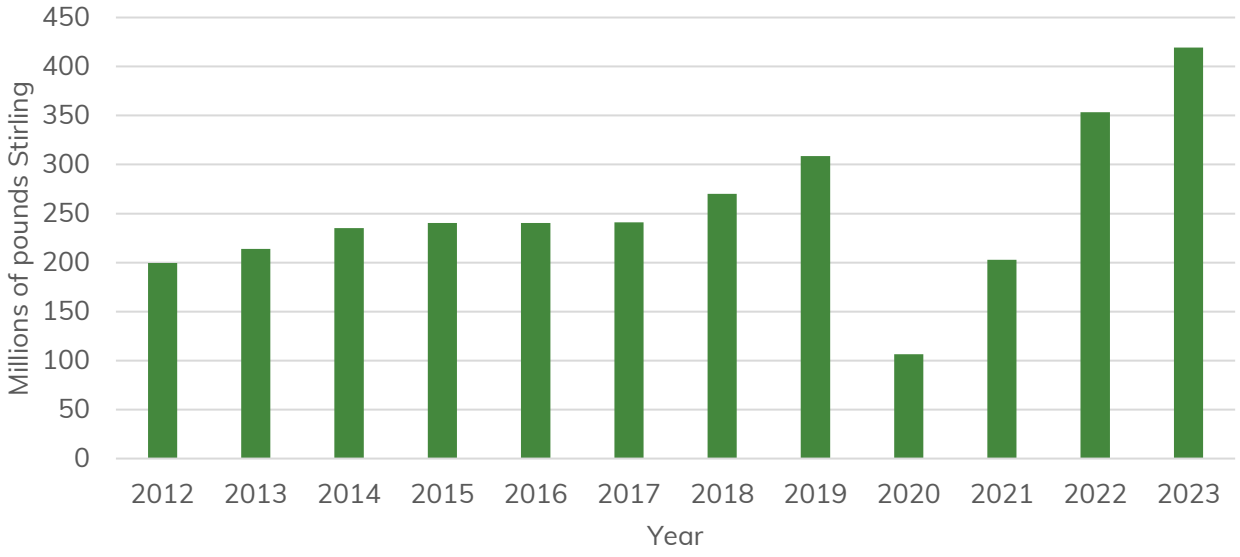


Figure 404 Annual economic impact from tourism 2012 – 2023 (£M) (Cairngorms National Park 2023 STEAM report, 2024).

Very little growth (approximately 0.04% increase) was recorded in 2016 in terms of economic impact of tourism in the National Park which reflects figures for the International Domestic Overnight Visitor spend for Scotland, from data published in the Tourism Report[160] produced by Scottish Government in 2018. It reported a marked reduction in the overnight visitor spend by domestic visitors in 2016.

[160] https://www.gov.scot/publications/tourism-scotland-economic-contribution-sector/pages/3/

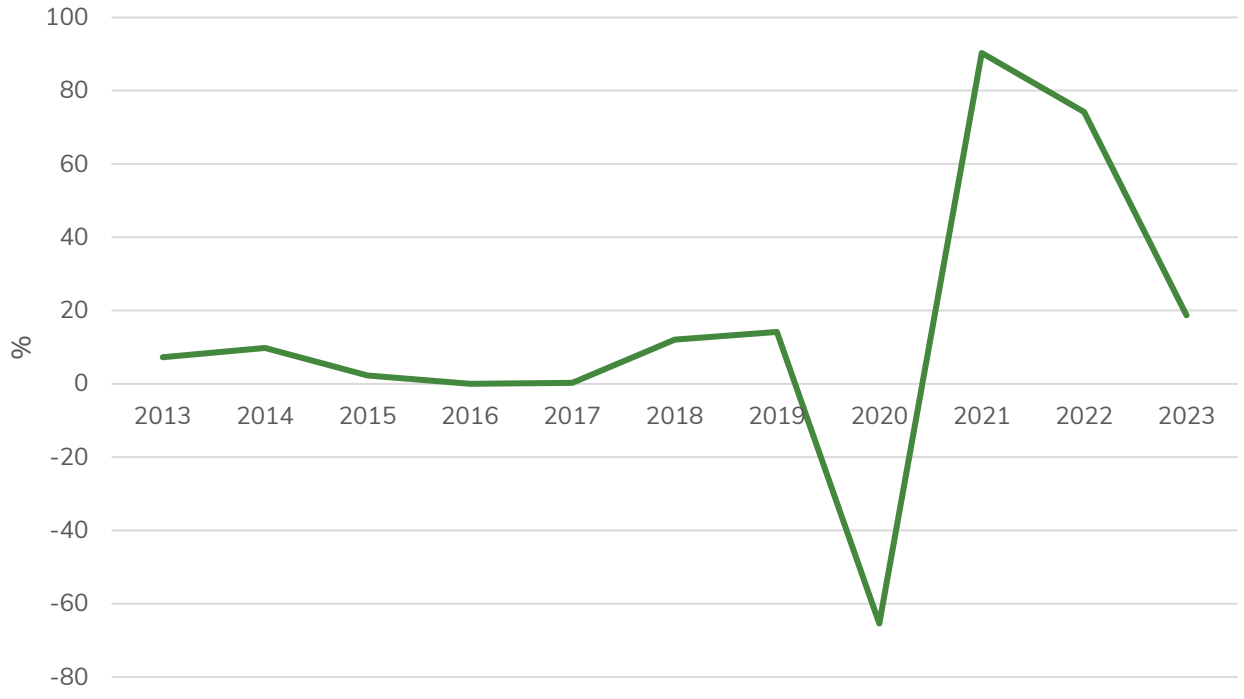


Figure 405 Annual percentage change in economic impact 2013 – 2023 (Cairngorms National Park 2023 STEAM report, 2024).

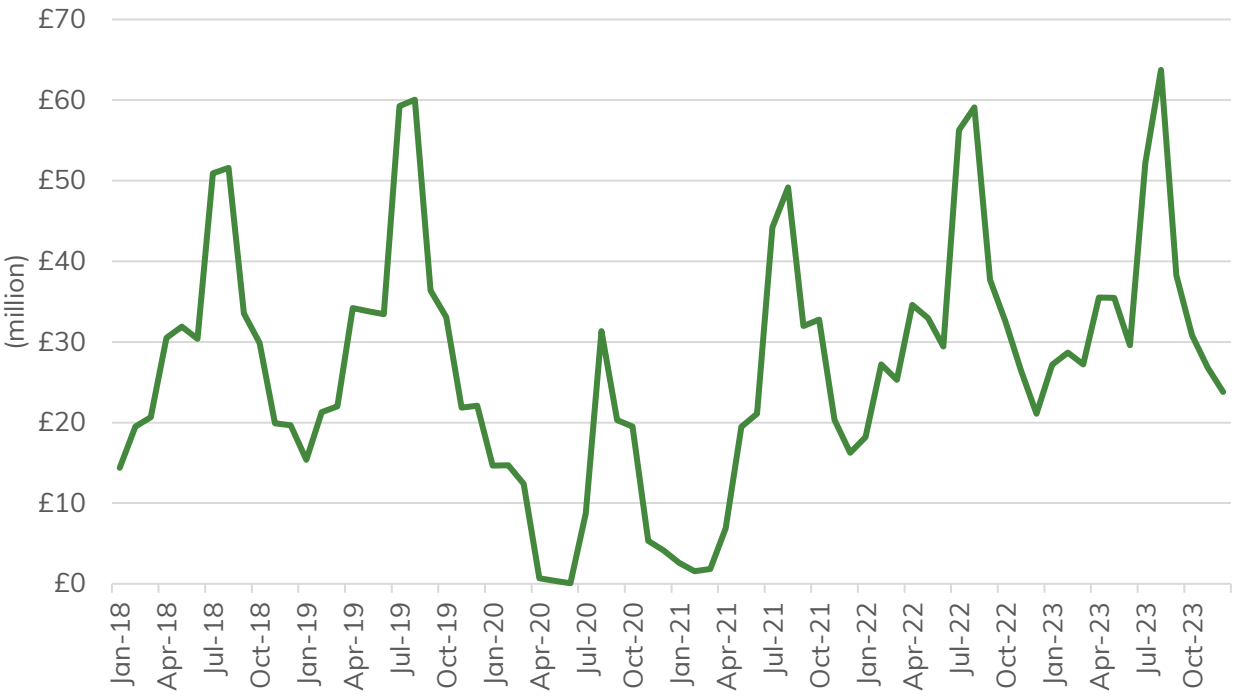


Figure 406 Monthly economic impact from tourism 2018 – 2023 (£M) Cairngorms National Park STEAM Report, 2023).

Monthly economic impact data reflects the seasonality of the tourism industry in Scotland reflecting the patterns seen in the monthly visitor numbers (Figure 403).

Figure 406 shows the changes in monthly economic impact of tourism in the National Park from January 2018 to December 2023. The largest percentage increase in monthly economic impact during this period has been in January when in 2018 when economic impact accounted for £14.39m which in January 2023 increased to £27.19m representing an 89.0% increase. February saw the second largest increase in monthly economic impact from 2018 to 2023 with an increase of 47.0% from £19.51m to £28.67m. July and October say relatively little change with increases of 2.5% and 3.2% respectively from 2018 to 2023. The only month there was a reported decrease from 2018 to 2023 was in June when economic impact from tourism fell from £30.38m in 2018 to £29.61m in 2023 (-2.5%). It is worth noting that pre-pandemic in 2019 in June the monthly economic impact was £33.46m.

As the fluctuation for monthly economic impact reflect monthly visitor numbers this may indicate a changing pattern in domestic vacation patterns or that behaviour has not fully returned to re-pandemic patterns, which subsequent years data should be able to show.

The COVID-19 Pandemic had an effect on the monthly economic impact trends experienced prior to 2020. There was some limited recovery during the summer of 2020 coinciding with the lifting of the COVID-19 restrictions, however the peak visitor numbers seen in August produced an economic impact of only £24.27m approximately half of the £48.43m recorded in the previous year for the same month.

Between 2022 and 2023 the largest growth in terms of monthly economic impact was in January which saw a 69.5% increase from £16.04m to £27.19m. The smallest average monthly change between 2022 and 2023 was in July which increased 5.2% from £49.63m to £52.20m. This is only slightly lower than the average monthly increase for this month from 2012 to 2023 which was reported at 6.7%.

Over the longer period from 2012 to 2023 the highest average monthly change was reported in the month of January (18.8%) followed by November (17.8%). Again, using this data, the reported growth in April of 10.7% and in December of 15.5% supports the assertion that visitor spend is increasing during the school holiday periods outside the main summer break.

Economic impact of tourism: Indexed to 2022 prices to reflect inflation

In 2023 the total indexed (to 2023 inflation figures) economic impact of tourism between 2012 and 2023 was estimated to have contributed approximately £3.9 billion to the Cairngorms National Park economy (Figure 407). There was strong growth, in the two

years preceding the COVID-19 Pandemic, with an 11.3% increased from 2018 to 2019. As previously mentioned, the COVID-19 Pandemic had a significant negative impact on the economic impact from tourism in the National Park.

In 2017 a significant contraction of 2.3% in economic impact was recorded despite visitor numbers increasing (Figure 402). This reflects the reduced growth seen in the unindexed figures earlier mentioned in this section (Figure 404).

In 2020 the indexed value of economic impact reduced by 66.4%, presumably wholly due to the effects of the COVID-19 Pandemic. In 2021 and 2022, there was reported growth of 87.8% and 61.5% respectively. Economic impact increased modestly from 2022 to 2023 by only 4.6% perhaps representing signs of recovery in terms of the economy post COVID-19. Note the indexed figures report a more modest economic recovery when compared to those non-indexed figures mentioned earlier (Figure 405).

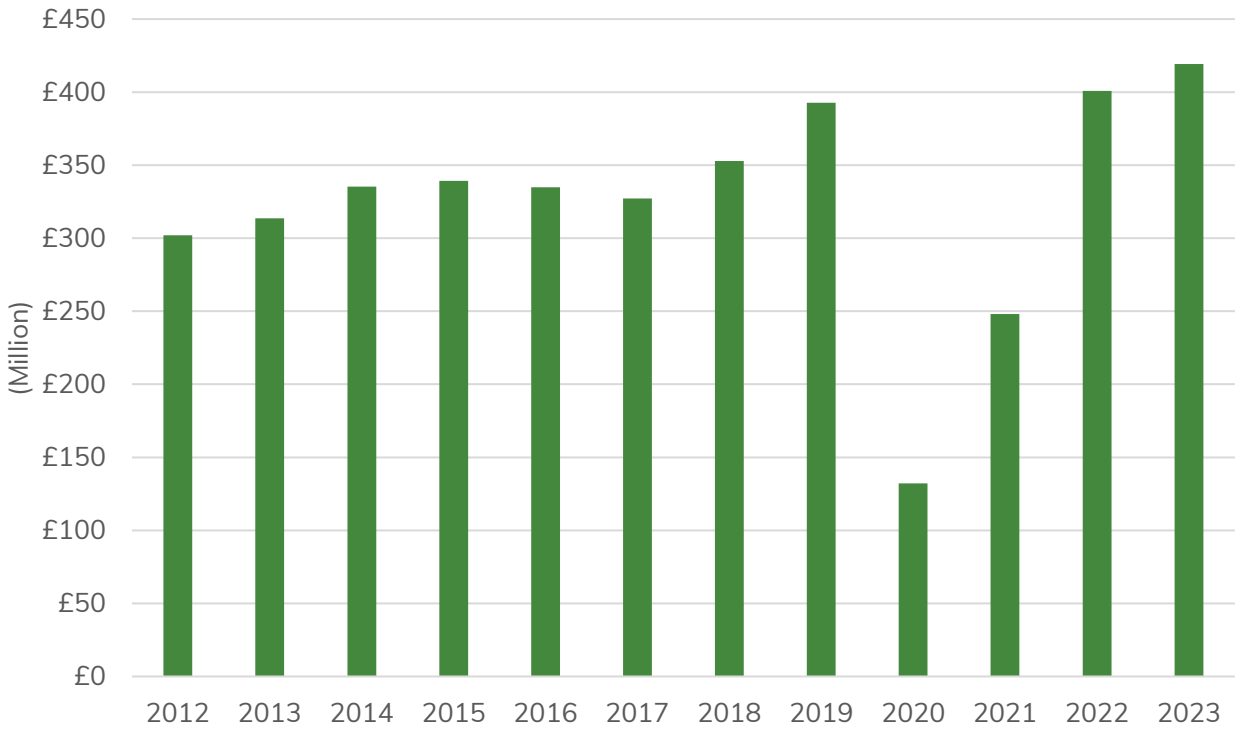


Figure 407 Annual economic impact from tourism (£M) indexed to 2023 inflation prices for the years 2012 – 2023 (Cairngorms National Park STEAM Report, 2023).

Sectorial distribution of economic impact

The data for the proportional sectorial contributions to the overall economic impact to the economy of the Cairngorms National Park (Figure 408) shows that, pre-pandemic in 2019, accommodation accounted for 26.5% of the total economic impact (not including related VAT) and indirect expenditure attributing 19.2%. Transport and the food and

drink sectors contributed 13.6% and 13.8% respectively. The sectorial distribution was relatively stable from 2013 to 2019.

During the COVID-19 Pandemic (2020) there was a drop in the proportional contribution from VAT and shopping. In terms of economic figures (Figure 409), the impact from accommodation dropped from £103.97M in 2019 to £41.33M in 2020. Across all sectors there was a decrease in economic impact in 2020, with the largest reductions seen in the contribution of VAT to the economy. All other sectors reduced within the range of -60.3% (accommodation) to -69.1% (shopping).

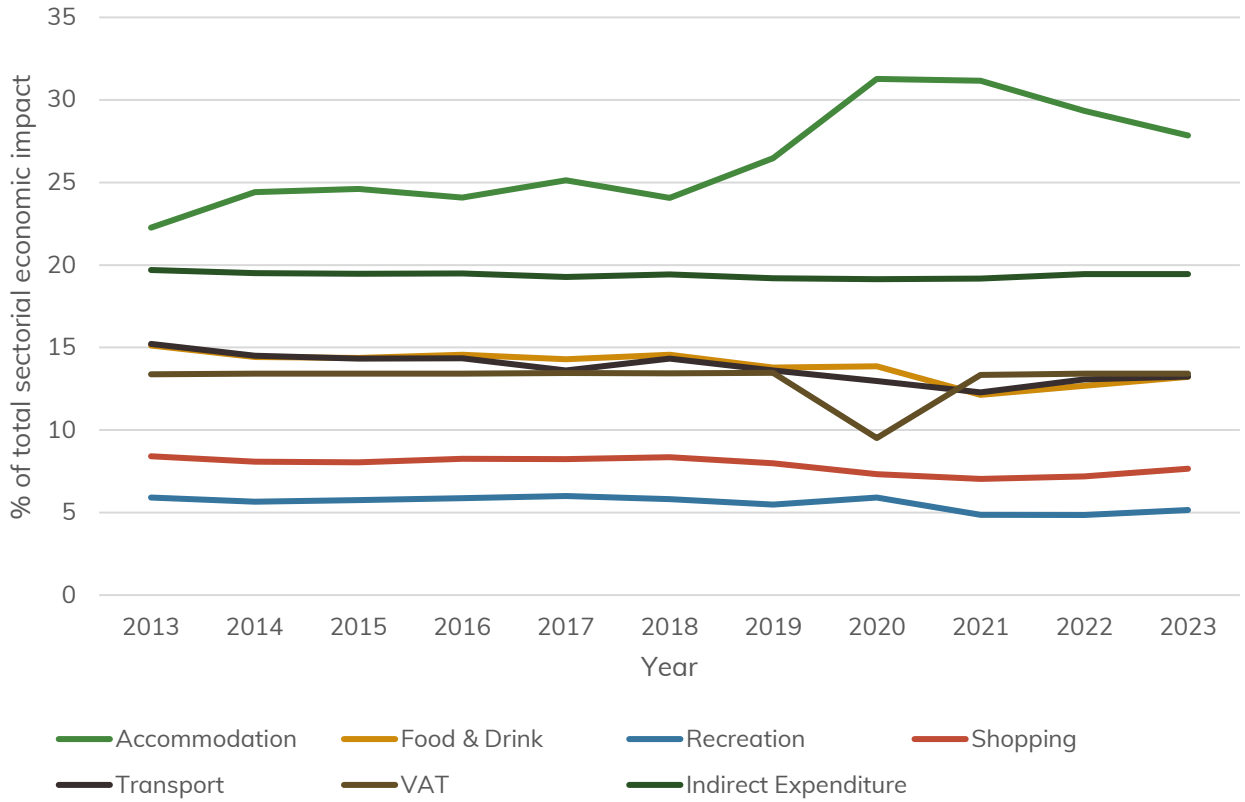


Figure 408 Annual proportional sectorial impact to the total economic impact of tourism in the Cairngorms National Park 2013 – 2023 (Cairngorms National Park 2023 STEAM Report, 2024). Figures used have been indexed to 2023 inflation figures.

In 2023, accommodation was the biggest contributor (27.8%, £116.74m), followed by indirect expenditure (19.4%, £81.56m). Similar figures were reported for Food and Drink (£55.48m), Transport (55.53m) and VAT (56.30m), which were proportionally representative for 13.2%, 13.2% and 13.4% respectively.

Recreation remained the lowest contributor (£21.65m equating to 7.6% proportionally) which may reflect the seasonality of this sectors activities; being mainly summer or winter-based activities with little cross-over.

In 2023 the economic impact from the accommodation sector has surpassed the figures from 2019 increasing by 23.3% (from £103.97m in 2019 to 116.75m in 2023). During the period from 2013 to 2019 accommodation classed economic impact increased proportionally until 2020, followed by a small reduction in 2021 and continues to fall in 2023 perhaps signalling a return to the relative stability seen before the COVID-19 Pandemic. The second largest changes seen during 2020 (during the COVID-19 Pandemic) where seen in the amount and proportions of VAT contributions to overall economic impact from tourism. In 2019 VAT contributed £52.90m (13.5%) which reduced to 12.58m (9.5%) in 2020, however in 2023 has returned to 13.4% which is equal (+ / - 0.1%) to the proportionality of VAT contribution to the economy in the period leading up the Pandemic.

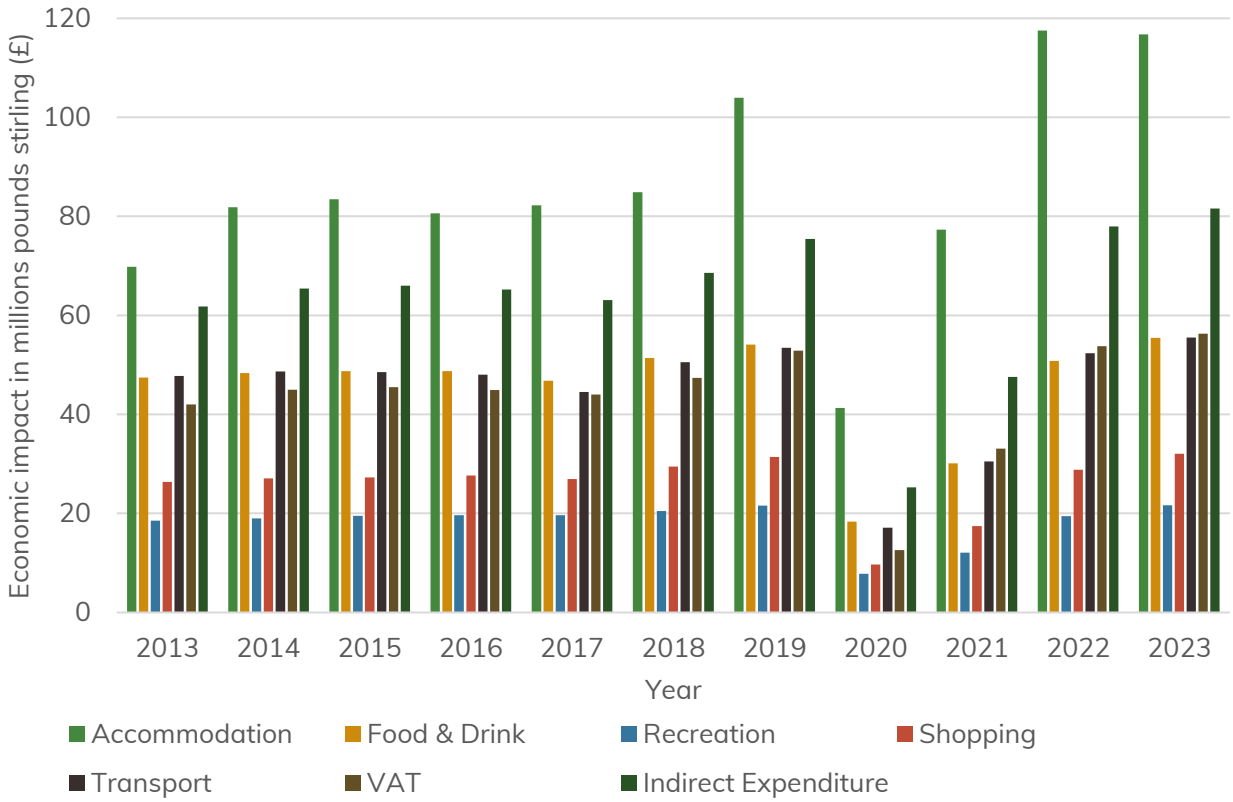


Figure 409 Annual sectorial contribution (£M) to overall economic impact (indexed to 2023 inflation figures) of tourism in the Cairngorms National Park 2013 – 2023 (Cairngorms National Park 2023 STEAM Report, 2024)

Sectorial tourism employment

There was an overall upward trend in the numbers of people employed in the Cairngorms National Park up until 2019, with a significant reduction of 2,905 full-time equivalent (FTE) positions in 2020 due to the COVID-19 Pandemic (Figure 410). Between 2013 and 2019 the numbers of people employed in tourism related positions in the National Park had increased by 14.1% (+735 full-time equivalent positions).

The decreases in employment figures for 2017 and then also in 2018 reflect the falling economic impact (seen in the indexed data, and a reduced growth rate in unindexed data) attributed to this sector in 2016 and 2017. As market confidence decreased after the fall in economic impact in 2016, it is possible businesses reduced staffing levels in anticipation of a lower expectancy of visitors in the following year.

Between 2020 and 2021 the total number of people employed either directly or indirectly in tourism increased from 3,037 to 3,877 (a 27.7% increase) representing a recovery in the tourism market and lifting of restrictions imposed by the COVID-19 Pandemic.

In 2023 the overall number of people employed in the tourism sector were reported at 5,454 people (full time equivalents) are still 488 people less than the figures seen in 2019 (5,942 people). It is uncertain yet if the numbers of people employed in the tourism industry will return or surpass the numbers employed before the COVID-19 Pandemic in 2024.

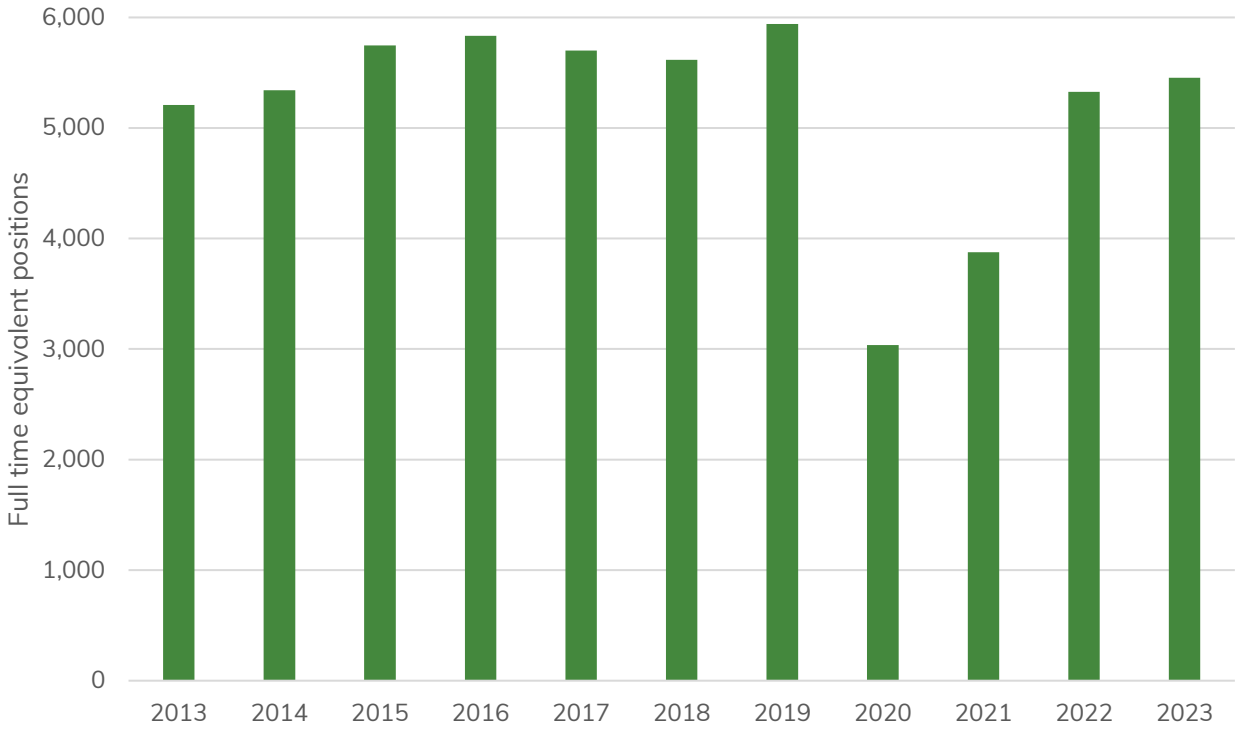


Figure 410 Total annual tourism employment in the Cairngorms National Park 2013 – 2023 (Cairngorms National Park 2023 STEAM Report, 2024).

The profile of the proportions of people working in each sector contributing to the tourism sector changed significantly during 2020, coinciding with the COVID-19 Pandemic (Figure 411). The most pronounced changes were in accommodation which between 2013 and 2019 had ranged between 46.6% and 52.0%, in 2020 this increased to 64.7%. The largest reduction in proportional employment was seen in the transport sector which reduced from 11.6% to 7.3% potentially reflecting the imposed travel restrictions (Figure 411).

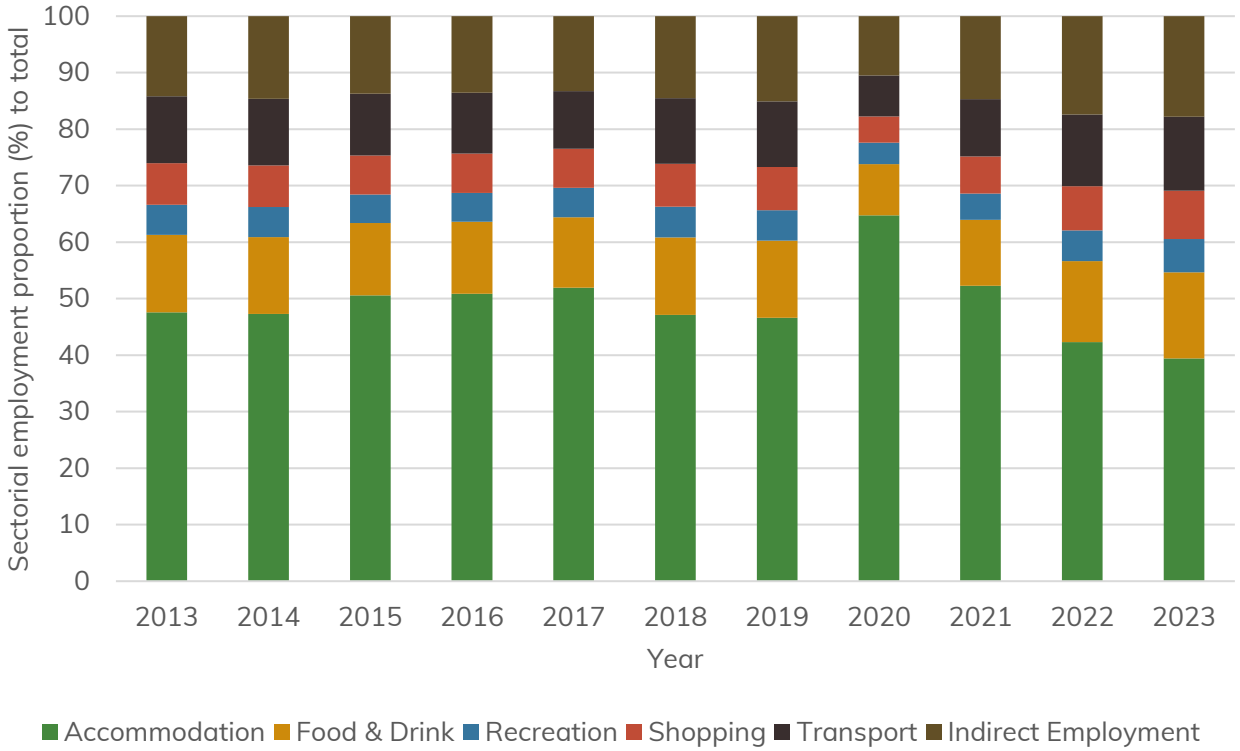


Figure 411 Proportion of employment by sector in tourism in the Cairngorms National Park from 2013 to 2023 (Cairngorms National Park 2023 STEAM Report, 2024).

In the period from 2021 to 2023 the proportion of people working in the accommodation sector has fallen from 52% in 2021 to 39% in 2023 reflecting the increases in the proportion of people in all the other sectors increasing. The figures for the proportion of people employed in the accommodation sector has not returned to the number seen in 2019 when 49% of all employment was in the accommodation sector. In terms of the number of people in 2023, 2,149 people were employed in the accommodation sector 620 people less than in in 2019 before the Pandemic.

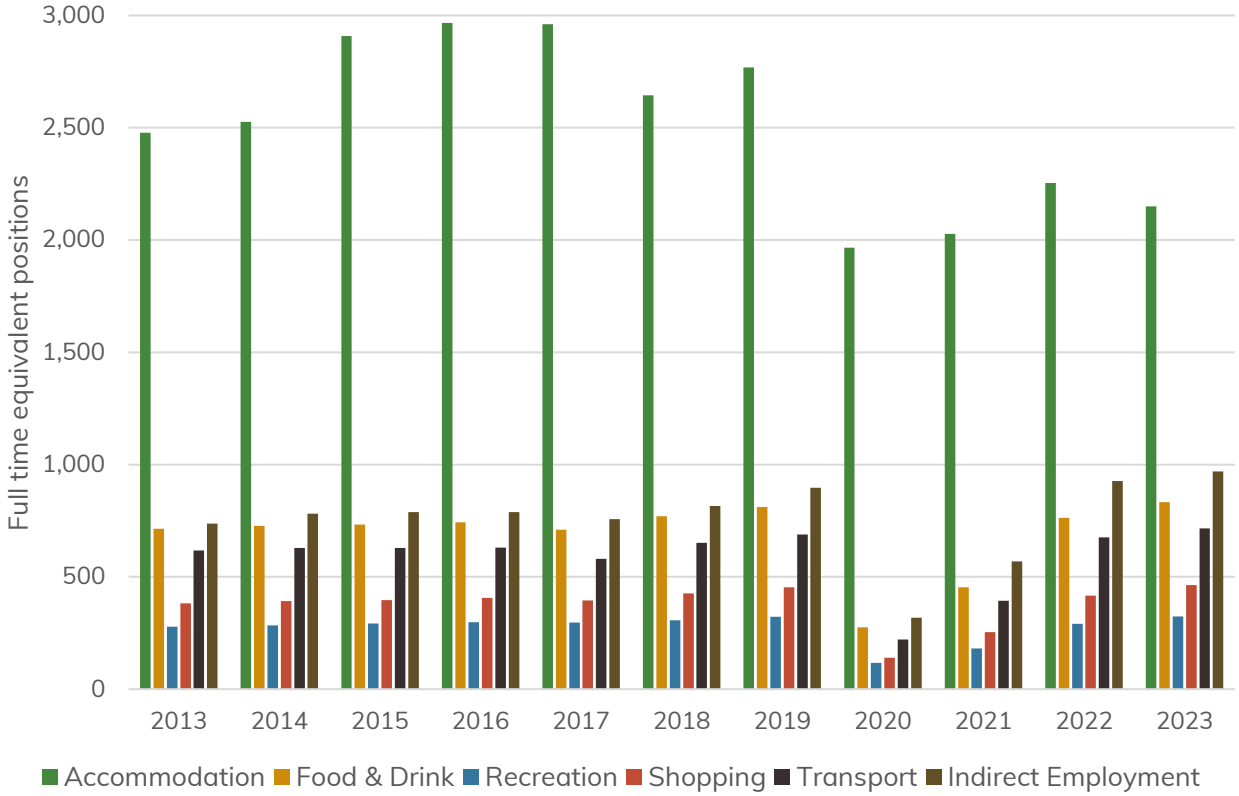


Figure 412 Number of people employed (full-time equivalents) by sector by year in tourism sector of the Cairngorms National Park 2013 – 2023 (Cairngorms National Park 2023 STEAM report, 2024).

In terms of numbers, there has been a slight increase (+ 20 people) in the numbers of people employed in the Food and drink sector from 2019 to 2023. One extra person employed in recreation from 2019 to 2023, 10 extra people in Shopping, and 27 additional people employed in transport. The number of people employed in indirect tourism employment has significantly increased between 2019 and 2023 from 897 people to 970 people (an increase of 73 people).

Seasonal employment

The Cairngorms National Park experiences seasonal variations in visitor numbers affecting the monthly number of people employed in this sector throughout the year. The monthly figures for the number of people employed in tourism in the National Park (Figure 413) correlates to the changes to monthly visitor numbers (Figure 403).

Looking at the percentage change from 2022 to 2023 there was reduction in staff on the months of July (-7.3%) and October (-5.2%) (Figure 413) with a significant increase in the number of staff in January (+49.5%)

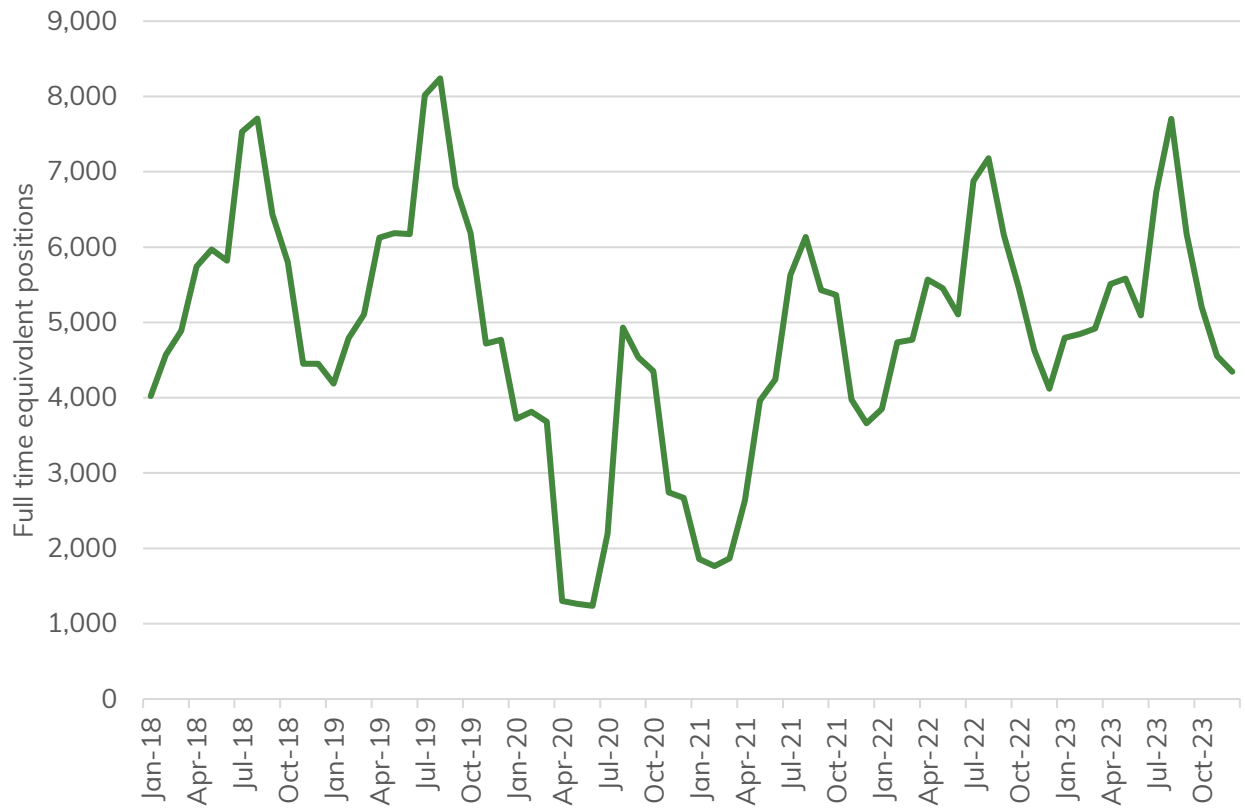


Figure 413 Monthly tourism employment (full-time equivalents) in the Cairngorms National Park 2018 – 2023. (Cairngorms National Park 2023 STEAM report, 2024).

Over the longer period from 2012 to 2023 the largest increase in monthly tourism employment has been in quarter four, which saw an increase of 13.2%, with the highest monthly increases seen in January (27.2%). There were also significant increases in this period in the number of people employed in November (19.3%) and December (15.9%) signalling an increase in demand during the winter period. This is also reflected in the average annual changes for November (+1.8%), December (+1.4%) and January (+2.5%) for the period. During the period (2012 – 2023) there was reduction in the number of people employed in the months of June recorded as a decrease of -1.2% and marginally decreases in March, -01% and July -0.2% (Figure 413).

Accommodation and food services

Gross Value Added (GVA)

Estimates of current and forecasted Gross Value Added are available by industry for different sectors in the Cairngorms National Park from 2015 to 2032. Data for the Gross Value Added generated by accommodation and food services activities for the National Park (Figure 414) gives an indication of the sector's contribution to the total estimated and forecasted Gross Value Added figure for the National Park. In 2023, the Gross Value

Added from accommodation and food services activities was estimated to be £58.89m. This represents 14.5% of the total Gross Value Added from all sectors in 2023 for the National Park.

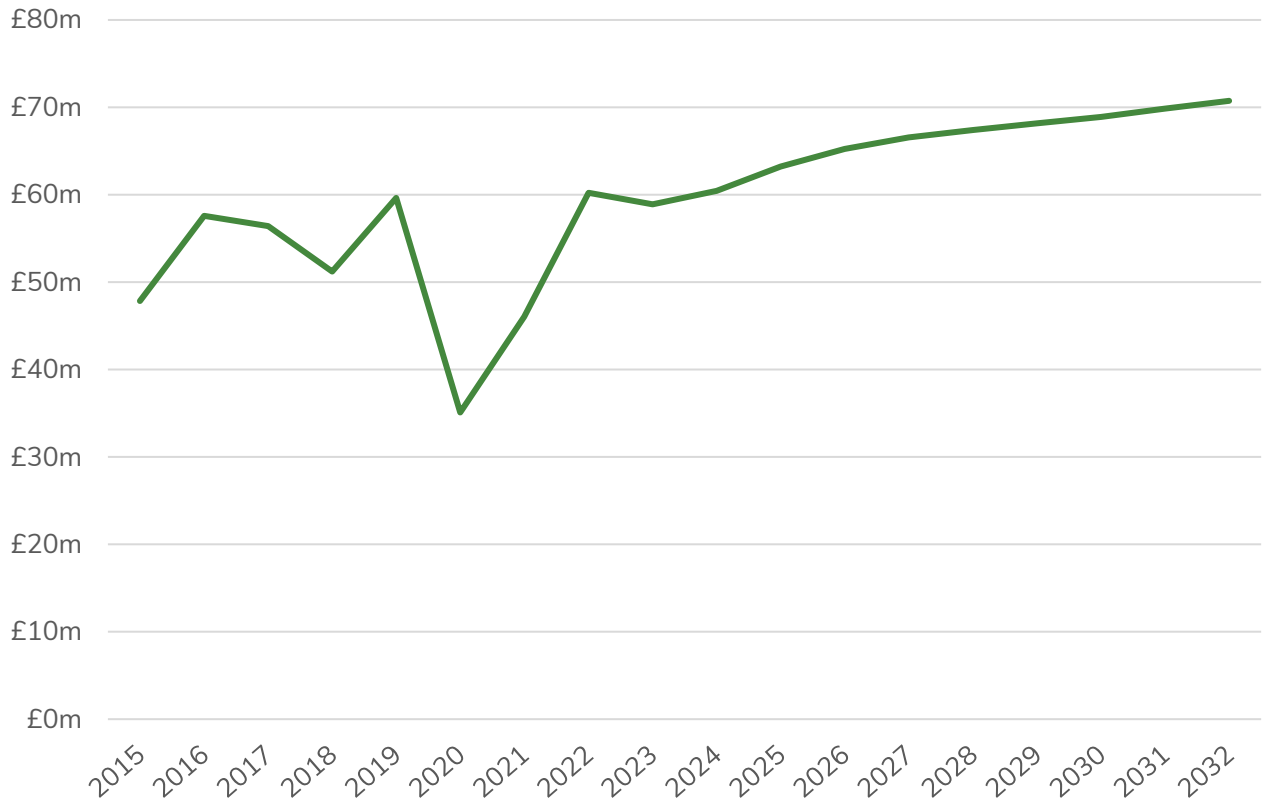


Figure 414 Forecasted Gross Value Added for the accommodation and food services sector in the Cairngorms National Park 2015 – 2032 (Oxford Economics, 2022).

Looking forward accommodation and food services activities are forecast to grow by 5.0% in the mid-term (2022 – 2025) representing an absolute change of £3.03m, and in the long-term (2025 – 2032) it is expected to grow by 11.9% representing an absolute change of £7.51m.

Employment

The report by Oxford Economics also looks at the employment by sector and total future demand for people based on the growth forecast (and replacement demand). In 2023 the report estimates that accommodation and food services activities employed 1,800[161] people. In the mid-term (2022 – 2025) this is expected to increase to 1,900 (7.3%

[161] The data is provided rounded to the nearest 100, with calculations based on unrounded figures. For further information see: https://cairngorms.co.uk/wp-content/uploads/2024/06/Economic-Forecasts-Cairngorms-National-Park-2022.pdf

increase) meaning approximately 100 more people will be required to fill positions. In the long-term (2025 – 2032) the forecast is for 4.0% growth (representing approximately 100 additional positions).

In terms of the total requirement for people required to fill vacant positions in the National Park in the mid-term (2022 – 2025) this would be 400 people (which includes 300 people required due to replacement demand). In the long-term (2025 – 2027) the total requirement would be 800 people (this includes 700 people required due to the replacement demand).

Key messages

The Cairngorms National Park has seen significant population growth over its lifetime, although this is now projected to slow down significantly over the next 25 years.

Gross household incomes are higher than the average for Scotland, however they vary across the data zones in the National Park. The National Park retains a high proportion of its workforce with the most commuting via private motor vehicle.

Higher house prices are significantly impacting on affordability in the National Park. The increase in the median house price has been far greater than the increase in the median gross household income. The 2021 median house price to median gross income ratio is nearly six times in the National Park compared to the Scottish equivalent ratio of 4.2.

Overall, deprivation levels are low, and the life expectancy of the population is estimated to be above Scotland's as a whole. Instances of life limiting conditions are low and claimants of related benefits few.

There has been strong growth in the tourism sector since the COVID-19 pandemic contributing significantly to the economic prosperity for the National Park.

Data discussed in topic one has inter-relationships with the following topics:

- Topic 1: Climatic Factors
- Topic 2: Air
- Topic 3: Water
- Topic 5: Material Assets
- Topic 7: Landscape
- Topic 8: Historic and Cultural Heritage

Appendix 3: Boundaries and statistical areas used in the analysis of the Cairngorms National Park

The Cairngorms National Park was established in 2003 having had its boundary set following wide-spread public consultation with interested groups. The boundary was revised and expanded in 2010 following further public consultation. In statistical terms it is therefore a non-standard geographical unit, because unlike other political territories, for example local authorities, its boundary does not align with the standard statistical units used for publishing most of Scotland's socio-economic data. This means that most socio-economic data is not published according to the National Park's boundary and needs to be derived from other sources or proxies.

Where data is published at smaller geographies it is possible construct an aggregate that closely matches the National Park boundary. These smaller geographies may include census output areas, postcodes, data zones and intermediate zones.

Information on the small area geographies that are used by the Park Authority as an aggregate for the National Park is available in this supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2024/07/Statistical-areas-used-in-the-analysis-of-the-Cairngorms-National-Park.pdf

Appendix 4: Glossary

Air Quality Management Area (AQMA)
If a local authority finds any places where the air quality objectives are not likely to be achieved, it must declare an Air Quality Management Area there. This area could be just one or two streets (National Records of Scotland, 2016), or it could be much bigger. Then the local authority will put together a plan to improve the air quality in this area.

Alternatives
These are different ways of achieving the objectives of the plan. Alternatives are also referred to as options.

Baseline
Data that describes issues and condition at the inception of the SEA. Serves as a starting point for measuring impacts, performance etc. and is an important reference for evaluations.

Biodiversity
The variety of life on Earth at all its levels, from genes to ecosystems, and the ecological and evolutionary processes that sustain it.

Biogenetic Reserve
Biogenetic Reserves area designated under the European network of 'living laboratories' representative of various types of natural environment found in Europe.

Buildings at Risk
Buildings, usually of some historic or cultural importance, that are considered to be at risk or under threat and placed on the Buildings at Risk Register.

Built Heritage
Built heritage represents the historical layers of our built environment in places made of brick, plaster, wood, metal and stone. Built heritage includes cathedrals and cemeteries, factories and fences, houses and hotels, museums and markets. It includes areas, precincts and streetscapes. It is the physical evidence of our cultural development.

Carbon Sink
A natural resource that takes in and stores more carbon than it releases. Important examples are peat bogs, trees and woodlands.

Catchment Area

An area of land bounded by watersheds draining into a river, basin, or reservoir. Also known as a catchment basin, drainage area or drainage basin.

Climate Change
A long-term change in the 'average weather' experienced by a given region. 'Average weather' includes features such as temperature, wind patterns and precipitation.

Compensation
Providing for the equivalent of what has been lost. In biodiversity, compensation may be bigger or more than the actual original habitat due to the time delay, often years, for the compensation habitat to reach the size/quality of the original habitat.

Conservation Areas
Conservation areas are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. Planning authorities may designate areas that are of special architectural or historic interest as Conservation Areas

Consultation Authorities
Organisations with a particular status for involvement in the SEA under the Regulations. In Scotland these are the Scottish Natural Heritage, Scottish Environmental Protection Agency, Scottish Ministers (Historic Scotland).

Contaminated Land
Land that has been polluted or harmed in some way making it unfit for safe development and usage unless cleaned.

Corbett
Corbetts are Scottish mountains that are 2,500–3,000 ft (762.0–914.4 m) high with a relative height of 500ft (152.4 m).

Core Path
Core paths are paths, waterways or any other means of crossing land to facilitate, promote and manage the exercise of access rights under the Land Reform (Scotland) Act 2003, and are identified as such in access authority (either a Local or National Park Authority) core paths plans.

Cultural Heritage

Relates to both the physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present for the benefit of future generations. Includes Scheduled Monuments and other significant archaeological sites and landscapes, listed buildings, conservation areas, historic gardens and designed landscapes included in the published inventory and others of national and corporate importance which are likely to be included.

Cultural Landscape
A landscape that is taken to embrace any kind of human activity that can be related to landscape. It includes the contrived and sometimes pre-eminent expressions of culture, like art or literature, in which the landscape may be depicted or described, as well as the prosaic and commonplace expressions, like the choice of building materials, which were perhaps not intended to create something valuable or special.

Cumulative Effects
The effects that result from changes caused by a project, plan, programme or policy in association with other past, present or reasonably foreseeable future plans and actions. Cumulative effects are specifically noted in the SEA Directive in order to emphasise the need for broad and comprehensive information regarding effects.

Ecological Connectivity
The natural link for species/genetic information to travel between habitats/populations to prevent/reverse the effects of habitats fragmentation and to allow species to adapt better to climate change.

Ecological Footprint
The ecological footprint is a measure of human demand on the Earth's ecosystems, the amount of natural capital used each year.

Ecosystem services
Ecosystem services are the products and services, such as oxygen production, water purification, carbon sequestration etc, which humans receive from functioning ecosystems. These services and products are provided by the natural environment when it is in good condition. For example, a peat bog in good condition can provide services of water purification, carbon sequestration and flood alleviation.

Enhancement
Measures envisaged to maximise the benefits of the positive actions of implementing the plan. Biodiversity enhancements are an improvement to a habitat/species

population over and above what is already there. This could be through increasing/restoring habitats or increasing/improving opportunities for species.

Environment
Mostly used in an ecological sense to cover natural resources and the relationships between them. However, more broadly it is the surroundings or conditions in which all persons, animals, or plants live or operate.

Environmental Assessment
A tool for integrating environmental considerations into decision making by assessing the significant environmental effects. In the SEA Directive, an environmental assessment means "the preparation of an Environmental Report", the carrying out of consultations, the taking into account of the Environmental Report and the results of the consultations in decision making and the provision of information on the decision", in accordance with the Directive's requirements.

Environmental Report
Document required by the SEA Directive as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a plan or programme.

European Sites
For the purpose of the SEA, European sites comprise Special Areas for Conservation (SACs), Special Protection Areas (SPA), Ramsar sites and Biogenetic Reserves.

Flood
The temporary inundation of land not normally covered by water.
Flood Prevention
Works, including man-made walls, channels, embankments and flood storage areas that are designed to protect and area from flooding or to reduce its effects.

Flood Risk
A combination of the probability of a flood and of the potential for adverse consequences associated with a flood for human health, the natural and historic environment and economic activity.

Geoconservation

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.

Geodiversity
Geodiversity is the variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them.

Geological Conservation Review (GCR) Sites
The GCR identifies those sites of national and international importance that show the scientific elements of the Earth heritage of Britain. These sites display sediments, rocks, fossils, and features of the landscape that make a special contribution to our understanding and appreciation of Earth science and the geological history of Britain,

Geomorphology
The branch of geology that is concerned with the structure, origin, and development of the topographical features of the earth's surface.

Habitats Regulation Assessment (HRA)
An Assessment of the potential effects of PPS on one or more International sites, both within the Responsible Authority's boundary and any sites that could be affected outside the boundary. The assessment looks at whether a PPS is likely to have a significant effect on an International site, alone or in combination. If so, an Appropriate Assessment is carried out to see whether the PPS would have an adverse effect on site integrity. If it is found that the PPS is likely to have a significant negative impact on any of the sites, the plan will need to be amended accordingly.

Historic Environment
The historic environment includes ancient monuments, archaeological sites and landscapes, historic buildings, townscapes, parks, gardens and designated landscapes and features, both statutory and non-statutory. It also includes the location of historic features in the landscape and the patterns of past use.

Historic Landscape
A landscape which displays a myriad of features that are the result of the activities of the people who used and shaped the land to serve their needs in the past: they reflect the beliefs, attitudes, traditions and values of those people.

Household

A household is defined as: one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area.

Household Waste
Waste from a domestic property, caravan, residential home or from premises forming part of a university, school or other educational establishment.

Indicator
A means by which change in a system or to an objective can be measured.

International Sites
See European Sites.

Inventory of Gardens and Designed Landscapes in Scotland
The Inventory of Gardens and Designed Landscapes in Scotland is a listing of gardens and designed landscapes of national artistic and/or historical significance.

The Inventory of Historic Battlefields
The Inventory of Historic Battlefields is a heritage register listing nationally significant battlefields.

Job Seekers Allowance (JSA)
JSA is an unemployment benefit that can be claim by those looking for work. It can be used as an indicator for employment rates.

Landfill
The permanent disposal of waste into the ground, by the filling of man-made voids or similar features, or the construction of landforms above ground level (land-raising).

Landscape Character
The distinct, recognisable and consistent pattern of elements that occur within a particular landscape and how these are perceived. It reflects particular combinations of geology, landforms, soils, vegetation, land use and human settlement.

Landscape Character Areas
Single unique areas that are the discrete geographical expression of a particular landscape type.

Local Authority
In Scotland, a Unitary Authority with the responsibility for responsible for all local government functions within its area.

Listed Buildings
A building or structure of special archaeological or historic interest. Listed buildings are graded A, B or C, with Grade A being the highest. Listing can include the interior and exterior of a building and any building or permanent structure. Historic Scotland is responsible for designating listed buildings in Scotland.

Local Development Plan
The Local Development Plan is a statutory plan which sets out policies and specific proposals for the development and use of land in the county for approximately 5 years and provides strategic direction for the next 20. Local Development Plans were introduced in 2004 following the introduction of the Planning etc. (Scotland) Act 2006.

Mitigation
Measures to avoid, reduce or offset significant adverse effects.

Monitoring
Activities undertaken after the decision is made to adopt the plan or programme to examine its implementation. For example, monitoring to examine whether the significant environmental effects occur as predicted or to establish whether mitigation and enhancement measures are implemented and are working.

Muirburn
Prescribed burning used to improve spring grazing for sheep and deer, but is deployed mainly on driven grouse moors as rotational strip burning ('strip muirburn') of heather moorland to maintain a mosaic of young and old heather to provide forage and cover respectively for red grouse.

Munro
A Munro is a mountain in Scotland with a height over 3,000ft (914.4 m).

National Designations
For the purpose of the SEA, National Designations comprise areas statutorily designated by the UK government i.e., National Nature Reserves and Sites of Special Scientific Interest.

National Park Partnership Plan (NPPP)
The Cairngorms National Park Partnership Plan (NPPP) 2017-2022 will be the management plan for the Cairngorms National Park as required under section 11 of the National Parks (Scotland) Act 2000.

National Nature Reserves (NNR)
NNRs are statutory nature reserves designed under Part III of the National Parks and Access to the Countryside Act 1949.

National Scenic Area (NSA)
NSAs were designated in 1980/1981 in recognition of their outstanding scenery. Along with Scotland's two National Parks, they represent our nation's finest landscapes

Natura 2000 (European sites)
Under the EU Habitats Directive, SPAs and SACs are together intended to form a European-wide network of protected areas designed to maintain or restore the distribution and abundance of species and habitats of EU interest. Many areas qualify for both SPA and SAC designation and as a matter of Government policy Ramsar Convention sites are afforded the same level of protection

Objective
A statement of what is intended, specifying the desired direction of change in trends.

Options
See Alternatives.

Placemaking
A design process aimed at creating integrated communities that are based upon high quality, distinct, accessible areas, which will help, generate strong a sense of community enabling healthy lifestyles.

Planned Towns
A town that was carefully planned from its inception and is typically constructed in a previously undeveloped area.

Plans, Policies and Strategies
Part of Stage A of the SEA process, the 'scoping' stage, requires a thorough review of relevant plans, policies and strategies (PPSs) to be completed. This review is used to

inform the SEA process, to ensure the plan is informed by up-to-date information and is also based on sound evidence.

Potentially Vulnerable Area (PVA)
Potentially vulnerable areas are areas identified by the Scottish Environment Protection Agency (SEPA) in accordance with section 13 of the Flood Risk Management (Scotland) Act 2009 where SEPA considers that significant flood risk exists or is likely to occur.

Prime Quality Agricultural Land
Prime Quality Agricultural Land is land identified as being of Class 1, 2 or 3.1 in the land capability classification for agriculture as developed by the Macaulay Land Use Research Institute.

Protected Areas
Protected areas represent the very best of Scotland's landscapes, plants and animals, rocks, fossils and landforms. They take the form of local, national and international designations, including National Nature Reserves, Sites of Special Scientific Interest, Special Protection Areas and Ramsar sites.

Quantitative Reasoning
Quantitative reasoning is the application of mathematical concepts and skills to solve real-world problems.

Ramsar Site
Wetlands of international importance designated under the Ramsar Convention. The designation recognises the fundamental ecological functions of these areas as well as their economic, cultural, scientific, and recreational value.

Responsible Authority
Under the Environmental Assessment (Scotland) Act 2005, the authority by which or on whose behalf the plan is prepared, or its successor.

Scheduled Monuments
A Scheduled Monument is a monument of national importance that the Scottish Ministers have given legal protection under the Ancient Monuments and Archaeological Areas Act 1979. There are over 200 classes of monuments from prehistoric standing stones and burial mounds, through the many types of medieval site (e.g., castles, monasteries, abandoned farmsteads and villages) to more the recent result of human activity, such as collieries and wartime pillboxes.

Scoping Report
The Scoping Report summarises the findings of Stage A of the SEA process and outlines such matters as identifying other relevant plans, policies and programmes, baseline information, environmental issues (problems and opportunities).

Scottish Index of Multiple Deprivation (SIMD)
The Scottish Index of Multiple Deprivation identifies small area concentrations of multiple deprivation across all of Scotland in a consistent way. It allows effective targeting of policies and funding where the aim is to wholly or partly tackle or take account of area concentrations of multiple deprivation.

Secondary Effects
This concept recognises that achieving economic growth has to be done in such a way that does not harm the environment or squander the natural resources we depend on, whilst at the same time distributing the wealth this creates equally to improve quality of life now and in the future.

Significant Environmental Effects
There is no statutory definition of significance. However, for the purposes of this assessment a significant effect has been defined as an effect that, either in isolation or in combination with others, should, in the opinion of the assessor, be considered in the decision-making process.

Sites of Special Scientific Interest (SSSI)
Designated under the Nature Conservation (Scotland) Act 2004, SSSIs are those areas of land and water that SNH considers to best represent Scotland's natural heritage - its diversity of plants, animals and habitats, rocks and landforms, or a combinations of such natural features

Soil Sealing
The covering of the soil surface with impervious materials as a result of urban development and infrastructure construction. Sealed areas are lost to uses such as agriculture or forestry while the ecological soil functions are severely impaired or even prevented (e.g. soil working as a buffer and filter system or as a carbon sink). In addition, surrounding soils may be influenced by change in water flow patterns or the fragmentation of habitats.

Special Areas of Conservation (SAC)

SACs are strictly protected sites designated under the EC Habitats Directive.

Special Protection Areas
SPAs are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive.

Strategic Environmental Assessment
Strategic Environmental Assessment is a systematic method for considering the likely environmental effects of certain PPS. It is required under the SEA Directive.

Sustainable Development
This concept recognises that achieving economic growth has to be done in such a way that does not harm the environment or squander the natural resources we depend on, whilst at the same time distributing the wealth this creates equally to improve quality of life now and in the future.

Sustainable Drainage Systems (SuDS)
An approach to managing rainfall and run off in developments, with a view to replicating natural drainage. SuDS also aim to reduce pollution, control flooding and often provide environmental enhancements.

Synergistic Effects
A type of cumulative effect where two or more impacts combine to produce a complex interaction where the effect may be larger or smaller than component impacts. Synergistic effects are specifically noted in the SEA Directive in order to emphasise the need for broad and comprehensive information regarding the effects.

SEA Directive
Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.

Waste
Waste is any material or object that is no longer wanted and requires disposal. If a material or object is re-usable, it is still classed as waste if it has first been discarded.

Waste Hierarchy
A framework for securing a sustainable approach to waste management. The Revised Waste Framework Directive 2023 outlines a new hierarchy which should act as a 'priority order' in waste prevention, legislation and policy. The amended hierarchy is

Prevention; then Preparing for reuse; Recycling; Other recovery including energy recovery; and finally, Disposal.

Wellbeing
A holistic, subjective state which is present when a range of feelings, among them energy, confidence, openness, enjoyment, happiness, calm and caring, are combined and balanced.

Wild Land
Large areas whose largely semi-natural landscapes show minimal signs of human influence. These areas can be mountains and moorland, stretches of undeveloped coast or large areas of peat bog.

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