

# Landscape Conservation Action Plan

Compiled by the Nevis Landscape Partnership

January 2014

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#### **Executive Summary**

The European Landscape Convention (ELC), ratified by the UK Government in 2007, states that a landscape's natural and cultural components form a whole. The Convention also highlights the importance of helping the public and institutions recognise the value of the landscape, and of working together to take part in decision making.

Ben Nevis and Glen Nevis represent one of Scotland's most treasured landscapes, yet one which is seriously under-resourced. The Nevis Landscape Partnership, constituting a wide range of stakeholders and communities, is cohered around a shared vision to: protect this unique place for the future; to manage it collectively; to view it holistically; and to give voice to its diversity and many communities.

The Nevis Landscape Partnership (NLP) has produced the Landscape Conservation Action Plan (LCAP) following a collaborative and intensive period of research, consultation and analysis. Most importantly, the LCAP represents a collective response to the extant issues facing the Nevis Management Area.

To aid the reader, this document is best viewed as being structured around three core purposes. The first is to understand the landscape and the many layers of value attributed to it. The second is to analyse this information and prioritise it. The third is to identify the actions needed and the mechanisms to ensure their successful delivery.

Adopting this framework, sections 2 to 7 provide a deeper understanding of the landscape, incorporating biodiversity, geodiversity, landscape character, built and cultural heritage, history and the many audiences and activities which characterise the area.

Section 8 brings focus to the preceding chapters by highlighting and prioritising those aspects of greatest significance. Section 9 completes this analysis of the landscape by identifying the major risks and opportunities.

This provides the justification and rationale for the following sections (10 onwards) which outline the vision and aims of the Partnership as well as the detail of scheme projects. These sections also address the central issues of partnership management and future sustainability once the initial investment period is concluded.

In effect the LCAP is an 'operational plan' for the Nevis Landscape Partnership. It will remain a work in progress, being reviewed and formally adopted on an annual basis in consultation with the Heritage Lottery Fund. It is vital that the LCAP remains a dynamic document if the Partnership is to deliver effective and efficient use of public funds. Whilst the vision, aims and objectives of the Partnership will remain solid, there must be the flexibility for project detail to respond to and capitalise on emergent data and opportunities.

# ACKNOWLEDGEMENTS

This Landscape Partnership scheme represents a culmination of 10 years of community and stakeholder collaborative enterprise driven by the Nevis Partnership.

The LCAP which has been developed over a period of 18 months would not have been possible without the valuable contributions, support and involvement of all the members of the Nevis Landscape Partnership board of directors (past and present), in particular:

Alison Austin – John Muir Trust, Dave Wrigglesworth – Outdoor Capitol UK, Cathy Mayne – Scottish Natural Heritage, Roger Gibbins - Chamber of Commerce, John Hutchison - Nevis Landscape Partnership, Patricia Jordan – Nevis Landscape Partnership, Fran Lockhart – John Muir Trust, Sheila Maclennan - Glen Nevis Resident, Mike Pescod - Abacus Mountaineering, Ruari Watt -Forestry Commission, David Munro – No Fuss Events, Eric Sharkey – Police Scotland, Andrew Irvine - Police Scotland, May Johnstone - Project Perspectives, Strathspey Surveys, Joanna Macaulay - The Lime Tree, Matt Ritchie - Forestry Commission, David Key - Eco Self, Blair Fyffe -Highland Council Ranger, Jenny Able – Highland Council Ranger, Eilidh- Ann Phillips – Highland Council Rangers, Michelle Melville – Highland Council Ranger, Ronald Cameron – Whin Knowe Guest House, Henry Dobson - Forestry Commission, Jo Joelson - London Field Works, Anna Trafford – Friends of Nevis, Joy Biggin – Friends of Nevis, Kerry Mackay – Friends of Nevis Volunteer, Ben Lennon - Forestry Commission, Jim Beattie - Rio Tinto Alcan, Neil Dalgleish -Hillside Agency, Stuart Ogg - Sport Scotland, Noel Williams - Lochaber Geopark, Sarah Lewis -John Muir Trust, Steve Taylor – West Highland College, Peter Varley – West Highland College, Bruce Gilchrist – London Fieldworks, Alex Gillespie - Photographer, Karen Haggarty – Nevis Visitor Centre, Andy Peutherer - Scottish Landscape Painting, Colin Simpson - Highland Council, Kevin Peace – Forestry Commission, Mick Tighe, Sitara Keppie - Circle Design, Matt Nelson – Circle Design, Richard Spencer - Mountaineering Council of Scotland, Tina Davenport - Fort William Mountain Festival, Alistair Stewart – Highland Council, Martin McCrorie, Christina Bell – SNH, Jim Blair – Lochaber Geopark, Heather McHaffie, Gordan Rothero - Ecologist, Susan Wright- John Muir Trust, Hugh Barron – British Geological Survey, Juliet Robinson – Freelance Red Squirrel Specialist, Becks Denny - Freelance Water Vole Specialist, Pete Cosgrove - Alba Ecology, Tom Prescott – Butterfly Conservation Scotland, Chris Goodman – John Muir Trust, Brian and Liz Wilshaw - Formerly of Nevis Partnership, David Govan - Voluntary Action Lochaber, Linda MacEwan – RA Clements, George Duff – Highland Council, David Hughs-Hallott – HLF Mentor, Dougie Baird – Cairngorms Outdoor Access Trust, Francoise van Buuren – Cairngorms National Park, Ken Johnston – Lochaber Disability Access Panal, Kevin Fairclough – Paths for All.

# 1. INTRODUCTION

Ben Nevis is an international Scottish icon; a landmark recognised beyond our shores. As the highest mountain in the British Isles it has economic and reputational value on a national scale, sitting at the heart of the Outdoor Capital of the United Kingdom. More profoundly, it has deep cultural and environmental significance. The encompassing mountain landscape of Glen Nevis constitutes one of Scotland's most accessible and cherished National Scenic Areas. The high profile and national importance of the area attract hundreds of thousands of tourists annually. The area is also nationally significant for its unique range of habitats and biodiversity. Managing the complex tensions between recreation and conservation is critical in securing the future legacy of the Nevis landscape.

# **1.1 A Partnership Response**

The Nevis Landscape Partnership (NLP) builds on over 10 years of collaborative work in the area. However, resources have rarely met the scale of the challenge of managing Ben and Glen Nevis adequately. As a national asset and a resource for all, this unique landscape requires investment far beyond the means of the local stakeholders and community. Development of more sustainable tourism is critical in securing a healthy environment and a thriving local economy.

Supported by the Heritage Lottery Fund and through a partnership approach to managing the landscape, this scheme will unlock social and financial resources that would not otherwise be available to the community. A legacy of social cohesion, economic stability and environmental protection will emerge and sustain itself long into the future. Similarly, a collective response to land management is the only way large-scale challenges like climate change, sustainability and community resilience can be met effectively in the long-term. This project creates the working relationships necessary to deliver outcomes far beyond the scope of any individual organisation or agency.

# 1.2 A National Resource

Globally, Ben Nevis holds value as a recognisable 'brand', embodying a sense of Scottish identity. It is because of such national assets that the area has successfully been branded the Outdoor Capital of the UK. More regionally, Ben Nevis and Glen Nevis provide the bedrock of a vibrant tourism economy. The NLP aims to capitalise on the charismatic pull of Ben Nevis, while meeting key objectives of a diversity of organisations, agencies and communities with a stake in the area. The project will deliver practical conservation solutions on the ground and a range of educational activities that will engage tens of thousands of people with Scotland's natural heritage. Through this process, it will build the social capital necessary to sustain management of the land long after initial investment.

The Partners recognise that Ben and Glen Nevis represent priceless assets for Scotland. They include infrastructure and geography that underpin the local economy, while providing powerful cultural and symbolic meaning for millions of people. They also support a globally unique diversity of flora and fauna and provide the wild habitats upon which they - and the local human community - depend.

#### 1.3 Value



In terms of Natural Capital, Ben and Glen Nevis present priceless assets. The £3.9 million HLF investment plan will better capitalise on and future-proof this national resource, enhancing its economic, social and environmental value. The scale of the scheme and its national reach ensure that returns on the overall investment will exceed the outputs of its constituent projects. It is a coordinated, multi-partner scheme which has been built through years of developmental work, funding, partnership, community involvement, research and consultancy. As an integrated investment package, the framework increases project impact and supports Partners in targeting resource more effectively.

The scale of the challenge presented in managing Ben and Glen Nevis far exceeds the capacity of the local community and stakeholders. Without National Park status and associated core funding, this HLF Landscape Partnership scheme is the only mechanism available which can provide the level of investment, resource and organisational support required for essential conservation work and infrastructure development.

The Nevis Landscape Partnership has identified four different categories of value which will be enhanced by the project. These are intrinsic value, economic value, social/cultural value and environmental value.

# 1.3.1 Intrinsic Value

- Providing a working model for future National Scenic Area management or National Park status
- Increasing resource, capacity and confidence to manage the scale of visitor numbers and complexity of conflicting interests
- Social capital developed through partnership and knowledge exchange
- Multi-partner, strategic coordination of data, management plans and resources
- A central team of specialist staff to facilitate partnership working and deliver projects
- Protecting the future of Scotland's most iconic mountain, a symbol of national identity

# 1.3.2 Economic Value

- Future-proofing a key tourism driver at the heart of the Outdoor Capital of the UK.
- Modern visitor experience hub, encouraging longer stay and return visits
- Diversification of the market into heritage tourism, eco-tourism and geo-tourism
- Greater provision for low-level activity, encouraging family and all-ability visits
- Local businesses will benefit from training, workshops and networking events
- Festivals, events, technology and films will promote the area in a sustainable way
- £185,000 of skilled volunteer outputs to assist in management of the area
- Formation of a Sustainable Tourism Committee

# 1.3.3 Social and Cultural Value

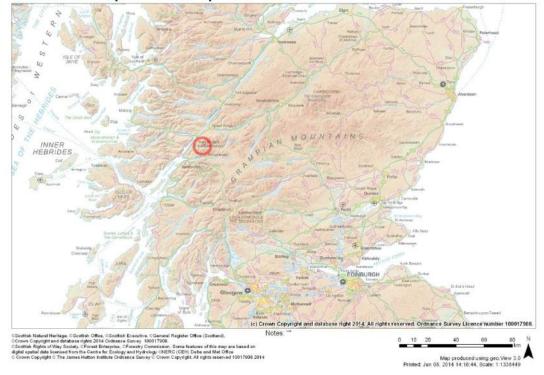
- Hundreds of thousands of visitors per year learning about ecology, heritage, geology, archaeology and mountain culture
- Young people engaged in outdoor activity and playing a role in the future of their landscape and biodiversity
- Developing Ben/Glen Nevis as a centre of life-long learning and supporting Scotland's Universities in achieving graduate employment
- Public engagement with Citizen Science and National Biodiversity data
- · Health and wellbeing from improved and inclusive access to outdoor activity
- Fostering community connections with landscape and heritage
- Research and conservation of nationally important archaeology
- Formation of a Community Engagement Committee

# 1.3.4 Environmental Value

- Enhancing the landscape character of one of Scotland's most important National Scenic Areas
- Surveying and monitoring nationally significant biodiversity in unrecorded sites
- Utilising the high public profile of Ben Nevis to raise awareness of biodiversity, ecosystem services and environmental pressures such as climate change
- Developing multi-partner and landscape-scale habitat management plans which are future looking and focused on adaptation and resilience
- A strategic, partnership response to visitor and environmental impacts
- Training a volunteer workforce in environmental conservation
- Formation of a Landscape Conservation Committee

#### 1.4 Context





#### 1.4.1 European Landscape Convention

The European Landscape Convention (ELC) came into force in the UK on the 1<sup>st</sup> of March, 2007. The ELC definition of landscape is' ... an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (*Article 1, European Landscape Convention, Definitions*).

The ELC is the first international treaty devoted exclusively to the management, protection and planning of all landscapes in Europe. It stresses the importance of adopting a holistic perspective and approach to management. It seeks to conserve and improve landscape quality for the benefit of all. The Convention also highlights the importance of helping the public and institutions recognise the value of the landscape, and of working together to take part in decision making.

The UK has signed up to the Convention, which came into effect in the UK in 2007. The Government aims to integrate the ELC with UK policy reviews and through the practical management of landscapes. The ELC brings attention to the need for more democratic processes in landscape management and a wider recognition and understanding of the many layers of value, which include: biodiversity, spatial frameworks, cultural and aesthetic values, physical resources, energy, geography, ecosystem services, health and well being.

The Nevis Landscape Partnership fully adopts this stance. It recognises that multiple complex and often conflicting factors must be considered democratically and holistically if a more enlightened and future-focused approach to landscape management is to be achieved.

#### **1.4.2 National Context**

The Heritage Lottery Funded, Nevis Landscape Partnership Scheme will deliver both at a local and national scale, assisting Scottish Government in achieving key targets. The projects contribute to achieving many of the Scottish Government's National Performance Indicators:

Increase people's use of Scotland's outdoors	۷
Improve the condition of protected natural sites	۷
Improve the state of Scotland's historic sites	۷
Increase cultural engagement	۷
Improve the skill profile of the nation	۷
Improve Scotland's reputation	۷
Increase physical activity	۷
Reduce Scotland's carbon footprint	۷
Increase number of graduates in positive destinations	۷

# 1.4.3 Alignment with Government Economic Strategy

PRIORITIES	DELIVERY THROUGH NLP SCHEME AND INDIVIDUAL PROJECTS
Infrastructure development and	Ben Nevis Mountain Path
place	All-ability Riverside Trail and Bridge
	Visitor Hub – Interpretation, Structures & Installation
	CIC hut to Halfway Lochan path
	Polldubh Paths
Effective Government	Supporting the Partnership as a mechanism to draw in funding to ensure Scotland's public services are fit for the future
	Improving the efficiency of the public sector through partnership working, pooling resources and attracting funding
Learning, Skills and Wellbeing	The training programme will assist in post-16 learning focusing on employability, training and skill development
Equity	Supporting the development of an enterprising third sector in Scotland

# 1.4.4 Regional and Local Context

The work included in the Landscape Conservation Action Plan compiled by the Nevis Landscape Partnership assists in achieving a number of objectives included in the Council's agreed programme for the period 2012-17 notably:

- Working with the Scottish Government, Highlands & Islands Enterprise and private sector partners, the Council will maximise the tourism potential of the Highland area. Opportunities in destination-tourism, green tourism, and the Gaelic language will continue to be explored.
- Working with our many partners, the [Highland] Council will seek to expand access to culture and the arts across the Highlands, and implement the Council's culture strategy.

- The Council will support the UHI as it continues to develop relationships with secondary schools, and as we seek to retain skills in the Highlands. We will maximise the opportunities offered by the new UHI Inverness campus and other UHI colleges across the Highlands.....to further develop its community partnership projects.
- The Council will engage meaningfully with the third sector across a range of policy areas and in service provision. We will also agree with partners a joint approach to supporting volunteering and community development in the Highlands.

The Council is also the lead partner in the **Single Outcome Agreement** between the Highland Community Planning Partnership and the Scottish Government – an agreement that contains a number of outcomes that this project will assist in achieving. Most notable amongst these are the outcomes:

- The region has strategies and action plans for the growth of the key sectors (which includes both Tourism and Creative Industries)
- Improve the ways in which communities participate and are empowered.
- Manage sustainably the outstanding natural heritage of the Highlands to optimise the economic, health and learning benefits; and
- Improving access to the outdoors.

The Single Outcome Agreement also recognises a number of connections across the different priorities contained within it and this applies to Nevis Landscape Partnership Scheme projects – for example making best and sustainable use of the environment in the Highlands will support long term economic growth while improving access to the environment will help increase physical activity levels for all age groups.

#### 1.4.5 Alignment with Highlands and Islands Enterprise

The entire scheme is fundamentally focused on the 'sustainability' of one of Scotland's most iconic natural assets and one of the key 'economic' drivers of the region. 'Growth' is embedded throughout the scheme in terms of training; business networking events; improving visitor experience; improving management of the area; increasing digital and multi-media communication and promotion; widening the portfolio of tourism focused products and experiences.

In particular, the scheme will:

- 1. Strengthen communities and fragile areas
- 2. Develop growth sectors and distinctive regional opportunities

Highland communities will benefit from an enhanced recreational and cultural landscape. Local communities particularly will benefit from access to training and opportunities to participate. The fragility of the area will be protected, through strengthening ecosystem resilience and protecting landscape character. Tourism is a dominant industry in the Highlands, with Ben Nevis sitting at the heart of the Outdoor Capital of the UK. The NLP scheme levers in £3.9 million of investment which will ensure that tourism continues to play a vital role in the area's future in a way which is economically, environmentally and socially sustainable by:

- Increasing awareness and learning of a world class destination
- Supporting regionally (and nationally) significant infrastructure development
- Improving visitor experience and exceeding visitor expectations
- Conserving the nationally important scenic value of the landscape
- Protecting and promoting the iconic geo- and bio-diversity
- Developing key tourism sectors such as adventure tourism, geo-tourism, cultural tourism, wildlife tourism
- Increasing care and respect for the environment
- Increasing skills, knowledge and employability in eco-tourism

# 1.4.6 Key national, regional or local strategies & policies relevant to the scheme

- The Nevis Strategy 2001
- The revised Nevis Strategy 2008
- Lochaber Tourism Strategy 2012-2016
- Ben Nevis Management Plan 2008 2012 (JMT for the Nevis Estate)
- Tourism Scotland 2020; The future of our industry, in our hands
- 2020 Challenge for Scotland's Biodiversity
- Lochaber Local Biodiversity Action Plan
- The Early Years Framework
- Learning Outside the Classroom Manifesto
- Curriculum for Excellence
- Glen Nevis Forest Design Plan
- The Nevis Partnership Transport Policy
- The Regional Transport Strategy for the Highlands and Islands (Hitrans)
- Scotland's National Transport Strategy
- Highland Council Core Paths Plan
- The Single Outcome Agreement Government
- West Highlands and Islands Local Plan
- The National Performance Framework
- Lochaber Community Development Plan
- Lochaber Rivers and Lochs Biosecurity Plan (Lochaber Fisheries Trust Ltd)
- (SFGS) Glen Nevis Native Woodland and Restoration Scheme
- (SEPA) Argyll and Lochaber area management

### 1.5 Scheme Summary

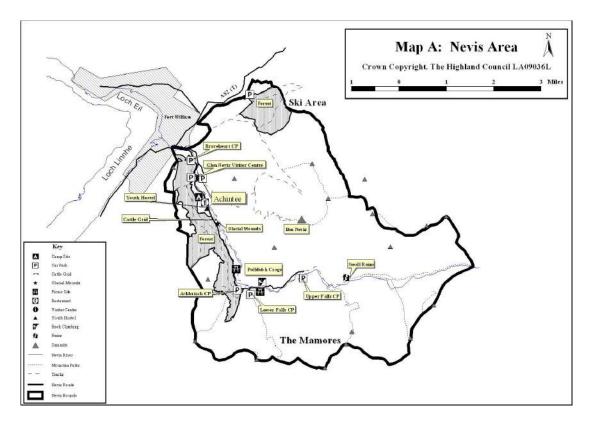
- Essential repair and upgrade of Ben Nevis Mountain Path
- All-ability riverside path and bridge
- Forest restructuring to support regeneration of native species
- Habitat connectivity blueprint for long-term, adaptive and targeted planting
- Educational projects and youth engagement activities
- A national training and work experience programme for conservation and eco-tourism volunteers
- Dun Deardail, Iron Age Hill Fort: archaeological research, experimentation, excavation, outreach, volunteering and publication
- Coordinated, multi-partner: interpretation, installation and information (Gaelic, ecology, cultural heritage, safety, minimal impact)
- Biodiversity events and citizen science
- Documentaries and feature length film focusing on the heritage of Ben Nevis
- Geological survey, maps, information and visitor guide
- Community volunteering and training
- Interactive and educational website
- Youth award scheme encouraging outdoor activity
- Landscape art projects and publication
- Monitoring and management of biodiversity/habitats,
- Survey of unrecorded areas of the North Face of Ben Nevis (SSSI/SAC)
- Landscape-scale, multi-partner action plans

#### 1.6 Landscape Partnership Area

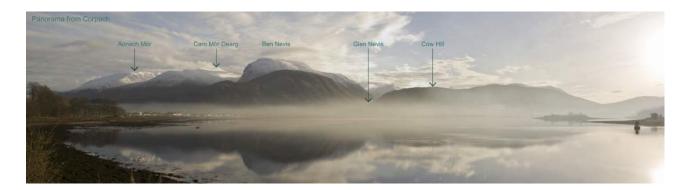
The scheme is based around Ben Nevis to the south east of Fort William in the Highland Council area of Scotland. The area covered by this scheme is the Nevis Management Area (Appendix 1, Map of Nevis Area), comprising Glen Nevis, Ben Nevis and surrounding mountains and slopes of the River Nevis and Allt a' Mhuilinn catchments.

The Nevis Area includes the Ben Nevis Massif, Carn Mor Dearg, the northern summits of the Northern Mamores and the south-west slopes of Aonach Beag, but excludes the wider Mamores, Grey Corries and Aonach Mor.

The approximate size of the area is 89km2, which contains the main visitor facilities and activity areas in Glen Nevis - from the Glen Entrance to the Upper Falls car park. It excludes residential and industrial properties at Claggan and the Aluminium Works.



# 2. Landscape Character



#### 2.1 Summary

"This is a landscape of massive proportions, breathtaking grandeur and great variety. It offers the highest altitude and greatest vertical relief in Britain."

(Extract from: Scottish Natural Heritage (2010). The special qualities of the National Scenic Areas. SNH Commissioned Report No.374. (see SNH Sitelink)).

#### The qualities that make this area special and distinctive include;

- Outstanding and internationally important geology
- Range and quality of landscape character
- Unique and varied biodiversity
- The many statutory conservation and landscape designations
- · Ben Nevis as the highest mountain in the UK having international iconic status
- Ancient history and archaeology
- Recent historic heritage particularly in relation to the observatory and the development of mountaineering
- Recreational importance as a major tourist destination
- A unique outdoor learning resource for all
- Socio-economic importance
- Importance as a highly regarded community resource

This section should be read in conjunction with the Nevis Landscape Character Assessment and Statement of Significance, Ben Nevis and Glen Coe NSA and The Lochaber Landscape Character Assessment (1998) (see SNH Sitelink).

The area covered is the Nevis Management Area, comprising Glen Nevis, Ben Nevis (1343m; the UK's highest mountain) and adjacent mountains (Appendix 1; Map of Nevis Area). It is one of the most iconic landscapes in the British Isles – rich in cultural, social and natural history.

The outstanding quality of the area's geological features was officially recognised in 2007 when Lochaber was awarded European and Global Geopark status. The landscape is one of contrasts and extremes, extending from a riparian zone at the base of the glaciated valley, up through ribbons of native woodland to montane scrub and beyond to the rare arctic-alpine plant communities on the plateau and cliffs of the high tops. This wide range of geophysical-and bio- diversity calls for careful and sensitive protection and conservation and the whole area is protected under numerous statutory and non-statutory, international, national and local conservation and landscape designations.

The built heritage includes the scheduled monument of Dun Deardail, a vitrified fort, and other archaeological sites. More recent evidence of human interaction with the landscape includes the Observatory ruins on the summit of Ben Nevis and the pony track that was built to service it.

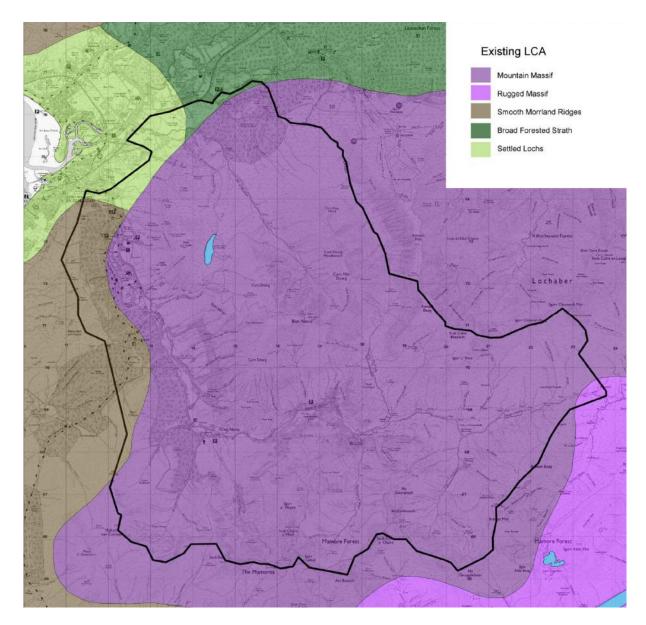
The crags, rock faces and gullies of Ben Nevis played a key role in the development of mountaineering. Glen Nevis is the main access point for walkers to Ben Nevis; annually more than 150,000 walkers reach the summit by the pony track, but the Glen is also a significant attraction in its own right. In addition to the c.50,000 walkers who pass through the Glen on the West Highland Way, over 200,000 people visit each year. Nevertheless, much of the surrounding area remains true wilderness.

#### 2.2 Landscape context

"The Nevis Management Area is located to the [east] of Fort William in the Scottish Highlands. The Highlands comprise dramatic mountain ranges that contrast with the glens, lochs and coast that contribute to the varied landscape of the country. Scottish Natural Heritage (SNH) has coordinated a national Landscape Character Assessment of Scotland in partnership with local authorities. The Lochaber Landscape Character Assessment (1998) covers the Nevis Management Area and has been used as the starting point for assessing the landscape character of the area in more detail."

(Nevis Management Area – A Landscape of Constrast. Landscape Character Assessment and Statement of Significance)

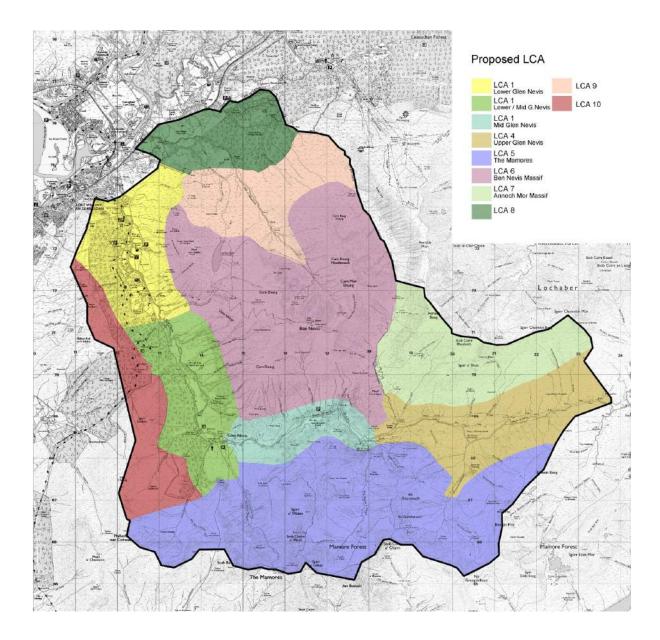
The map below shows the landscape character types within the Nevis Management Area. The majority of the area is of the Mountain Massif Landscape Character Type which includes Glen Coe and Glen Etive as well as Ben Nevis and the Mamores.



As this work was carried out on a region-wide scale, there was a need for more detailed and focused research to fully capture the landscape character in the Nevis Management Area. The Circle Design, Nevis Landscape Character Assessment and Statement of Significance was published in 2012 to address this area in detail.

# 2.3 Landscape Character Areas

The diversity and contrast of landscape character within the Nevis Management Area is demonstrated by ten distinct Landscape Character Areas (see below).



# 2.3.1 NLCA 1 - Lower Glen Nevis Entrance

This character area is located at the northern end of the Glen and is strongly influenced by recreation and tourism development. The character area extends from Fort William to the point in the valley where built development ends and the conifer forestry to the west side of the Glen meets the road.

### Geology, topography and hydrology

- Dalradian metamorphosed sedimentary rocks shaped by glaciation and overlain with glacial drift/till.
- Flat valley bottom, steep sided glaciated U shaped Valley.
- Water of Nevis meanders in valley bottom lined with alder.
- Streams have been straightened to follow field boundaries.

# Land cover, land use and habitats

- Conifer forestry, native and semi natural woodland and trees, semi improved and rough grass.
- Extensive grazing for cattle and sheep in semi improved grass fields surrounded by stone wall and fenced boundaries in flat valley bottom.
- Recreation facilities and development surrounded by beech hedges.
- Native birch and oak woodland.

# Cultural Heritage

- Old and new buildings concentrated on west side of valley, camping and caravans.
- Samuel's Stone.
- Rocking Stone.
- Dun Dige possible medieval earthwork.
- Cemetery and graveyard
- Older buildings (Nevis House & Achintee House).
- Recreation / tourism facilities

# Infrastructure

- Accessible by road from Fort William
- Paths along Water of Nevis, Car Parking, forest paths.
- West Highland Way (a long distance route) passes through the forestry on the west side of the Glen.
- Ben Nevis mountain path on east side of Glen.
- Signs and interpretation information throughout.

# 2.3.2 NLCA 2 - Lower Glen Nevis

The Lower Glen Nevis landscape character area differs from the Lower Glen Nevis Entrance character area as a result of there being few buildings and no modern built recreational development. The area extends from the end of the influence of built development in the valley bottom near a cattle grid where the conifer forestry meets the road to the car park at the bridge across the Water of Nevis at the Lower Falls.

# Geology, topography and hydrology

- Dalradian metamorphosed sedimentary rocks shaped by glaciation and overlain with glacial drift/till. Area of granite.
- Flat valley bottom, steep sided glaciated U shaped Valley.
- Braided river in valley bottom fed by streams running down valley sides.

# Land cover, land use and habitats

- Semi improved and unimproved grass fields extensively grazed.
- Large scale conifer forestry.
- Native oak and birch woodland.
- River corridor and streams providing fresh water habitat.
- Semi natural woodland associated with conifer plantation.
- Wooded river corridor.

# **Cultural Heritage**

- There are few single story buildings in the valley bottom.
- Dun Deardail vitrified fort is located in forestry on the edge of this character area.
- Ach nan Con Old graveyard and site of former settlement.

# Infrastructure

- Accessible by road.
- Car parking along the road and at the bridge.
- Paths and tracks through the Glen and the forestry.
- Signs and interpretation information

# 2.3.3 NLCA 3 - Middle Glen Nevis

The Middle Glen Nevis character area begins at the bridge over the Lower Falls and Polldubh Crags where the valley turns from a north south orientation to an east west orientation. The character area extends to the end of the Nevis Gorge and includes the valley sides up to an elevation of approximately 500m although this does vary depending on landform.

# Geology, topography and hydrology

- Dalradian metamorphosed sedimentary rocks (schists), and granite. Glacial drift in lower part of character area.
- Steep sided U shaped glaciated valley narrowing with collapsed sides at Nevis Gorge.
- Water of Nevis rising from approximately 40m to 200m.
- Numerous minor tributaries feeding into the river.
- Allt Coire Eòghainn is a prominent water slide over granite bedrock for much of its length on the north valley side near to the Upper Glen Nevis car park.

### Land cover, land use and habitats

- Native oak, birch and pine woodland.
- Rough grass, rocky outcrops, birch scrub.
- Mosaic habitats comprising woodland, heath, mire, calcifugous grasslands and montane communities.
- River used for water sports (canoeing)

#### **Cultural Heritage**

- No intact buildings except at Steall (hut).
- Charcoal burning platforms and associated paths.
- Evidence of past activity enclosures and dykes, charcoal burning platforms.
- Popular for water sports canoes, kayaking.
- Samuel's Cave.

#### Infrastructure

- Single track road to car park at beginning of Nevis Gorge.
- Car parking along the road.
- Footpaths through the gorge.
- Interpretation and information signs for visitors.

# 2.3.4 NLCA 4 - Upper Glen Nevis

The Upper Glen Nevis character area begins as the Nevis Gorge ends and extends to the top of the valley to the watershed at Tom an Eite. The character area extends up the valley sides to approximately 600m elevation.

#### Geology, topography and hydrology

- Dalradian metamorphosed sedimentary rocks (schists and quartzite).
- Glaciation has created flat valley bottom with steep sides at An Steall narrowing further up the valley with gently sloping sides in the valley bottom becoming steeper up the valley sides.
- Water of Nevis fed by numerous mountain streams.
- An Steall waterfall over a hanging valley.

#### Land cover, land use and habitats

- Small area of past cultivation but land no longer actively managed.
- Stunted trees confined to steep lower slopes of Mamores on south side of Glen and water of Nevis banks. Birch, alder and rowan.
- Mosaic habitats comprising mire, heath and native woodland.

#### **Cultural Heritage**

- Ruined house and enclosures at Steall.
- Tigh an Stèill House (restored and in use as a mountain hut).
- Neolithic arrowhead find spot on south side of upper glen.

#### Infrastructure

- Paths along Water of Nevis to the top of the valley and beyond.
- Wire bridge across Water of Nevis, timber bridge across Allt Coire Giubhsachan, stepping stones and fords elsewhere along the path.

# 2.3.5 NLCA 5 - The Mamores

The Mamores character area is a distinctive mountain massif at the southern end of the Nevis Management Area where the boundary is the ridge line and peaks that are the skyline of the Mamores. The character area extends beyond the boundary to encompass the south facing slopes of the mountains as well as the north facing slopes within the Nevis Management Area.

# Geology, topography and hydrology

Quartzite peaks and ridges with schists at lower levels.

- Rugged mountains over 900m. (10 Munros 9 on boundary of Nevis Management area).
- Mountain slopes generally above 600m.
- Numerous mountain streams flowing out of corries created by glaciation.
- Small number of small lochans at the head of some streams in the corries.

# Land cover, land use and habitats

- Mosaic habitats.
- Rocky summits, montane vegetation and rough grass slopes, sparse occasional trees on lower slopes adjacent to water courses.
- Tree cover sparse restricted to water courses at lower levels and shelter parts of corries at lower elevations.
- No grazing.

# Cultural heritage

- Popular with hill walkers and climbers.
- No buildings and no formal land management.
- Red deer stalking at lower levels and management of deer population.
- Find-spot for Neolithic arrowhead on boundary with Upper Glen Nevis (NLCA4)

# Infrastructure

• Intermittent walkers' paths created through regular use.

# 2.3.6 NLCA 6 - Ben Nevis Massif

The Ben Nevis Massif character area comprises the highest mountain in Britain and surrounding peaks within the Nevis Management Area that are made up of igneous rock that was formed over 410 million years ago. The rugged exposed mountain landscape comprises Ben Nevis (1344m) and adjacent peaks to the northeast and northwest (Carn Beag Dearg, Carn Dearg Meadhonach, Carn Mòr Dearg and Carn Dearg) and the slopes of the mountain sides generally above 500m.

### Geology, topography and hydrology

- Andesite rock at Nevis summit, lower slopes and surrounding summits pink inner granite.
- Andesite cliffs and buttresses on north side of mountain.
- Mountain slopes above 500m elevation.
- Small streams and waterfalls on the mountain slopes.
- Corries created by glaciation.

# Land cover, land use and habitats

- Diverse and unique rock, scree and montane habitats of international importance.
- No tree cover.
- Snow covers the summit for much of the year and hangs on in the gullies well into the summer months.
- Recreation is the dominant land use.

# **Cultural Heritage**

- Highest mountain in Britain first recorded ascent was in 1771.
- The summit observatory (1883-1904).
- Hotel/cafe (closed 1916).
- Popular for walking and climbing and challenges.
- Mountain path (formerly the pony track) to summit constructed in 1883. Other walkers' paths.
- 360 degree view from summit when not in cloud.

# Infrastructure

- Limited to the mountain path that provides the easiest route up the mountain and paths linking mountain tops e.g. Carn Mòr Dearg arête.
- Summit cairns and navigation cairns.

# 2.3.7 NLCA 7 - Aonach Mòr Massif

This character area includes the peaks of Aonach Beag, Sgurr Choinnich Beag and Sgurr Choinnich Mòr on the north boundary of the Nevis Management Area and Aonach Mòr which is outside the management area to the north. The topography of the area is rugged and elevation is generally above 500m.

### Geology, Topography and Hydrology

- Mainly Dalradian mica schist (Aonach Mòr granite). Aonach Beag is the highest schistose mountain in the country.
- Some limestone at high elevation.
- 500m to over 1000m.
- Steep slopes incised by mountain streams.
- Corries and glaciated valleys.
- Glacial drift deposits on lower slopes.

#### Land cover, land use and habitats

- Diverse and unique rock, scree and montane habitats of international importance.
- Snow cover throughout winter. Snow hangs on in gullies into summer.
- No tree cover.
- Montane rock and scree habitat on summits and higher slopes.

#### Cultural heritage

• Walking and climbing are popular activities.

#### Infrastructure

- Mountain paths along ridges created as a result of regular use by hill walkers.
- Outside Nevis Management area but still part of the Aonach Mòr Massif are the ski slopes of Aonach Mòr to the north.
- Summit cairns.

# 2.3.8 NLCA 8 - Wooded North Facing Slope

The Wooded North Facing Slopes character area is located on the northern boundary of the Nevis Management Area and comprises the forested and wooded slopes above the A82 corridor to the north. The area is strongly influenced by the proximity of Fort William and associated development which can be seen in views out of the area to the west and northwest.

#### Geology, Topography and Hydrology

- Lower slopes schist becoming igneous granite further up the slope.
- Overlain with glacial drift. Gravel on the lower slopes.
- North facing slope from below 50m to approximately 350m.
- Rocky streams generally flowing from south to northwest.

### Land cover, land use and habitats

- Large scale conifer forestry.
- Semi natural woodland.
- Woodland, heath, mire, and califugous mosaic habitats.
- Fort William Golf Course.
- Pipes carrying water for hydro electricity linked to aluminium industry

#### **Cultural Heritage**

- Recreation walking and cycling in forestry.
- Main route to Ben Nevis North Face and CIC mountain hut.
- Aluminium smelting has an influence and several heritage sites on the edge of the area are linked to the industry.
- Lochaber narrow gauge railway (the Old Puggy Line)
- Ben Nevis Distillery is located just outside the area boundary.

#### Infrastructure

- Limited infrastructure within the area but aluminium industry has influence along with distillery and golf course on boundary plus views of Fort William.
- Hydroelectric pipes linked to the aluminium smelter.
- Track and car park in forestry, forest tracks, path to CIC Mountain Hut and Ben Nevis North Face.
- Information boards and signs in forestry.

# 2.3.9. NLCA 9 - Allt a' Mhuilinn and Allt Daim

The Allt a' Mhuilinn and Allt Daim character area covers the lower slopes and glens north of Aonach Mòr Massif and Ben Nevis Massif above the extent of forestry and woodland. The elevation of the area is generally between about 300m and 600m.

#### Geology, topography and hydrology

- Granite bed rock shaped by glaciation into U-shaped valleys.
- North facing glens lead up to corries on the north side of the mountains.
- Sloping north facing landform
- Streams fed by narrow tributaries running down valley sides from mountain tops.
- Allt a' Mhuilinn and Allt Daim are the main water courses draining northwest.

#### Land cover, land use and habitats

- Rock and montane vegetation.
- Mosaic habitats.
- Mountain hut at the bottom of the North Face of Ben Nevis.
- Scattered trees (birch, rowan and alder) on banks of stream.

# **Cultural Heritage**

- Allt a' Mhuilinn means mill burn. There is a history of abstraction from this stream for whisky making and more recently hydro electric power.
- Mountain hut at the bottom the North Face Ben Nevis is on the boundary of the character area with the Ben Nevis Massif.
- No known evidence of past settlement in this remote rocky landscape.

# Infrastructure

- Main path to North Face for climbing via Allt a' Mhuilinn.
- CIC mountain hut.

# 2.3.10. NLCA 10 - Fort William Forest/Moorland Edge

This character area is located on the west side of the Nevis Management Area above the two Lower Glen Nevis character areas. To the south of the area is the Mamores. The area is distinct from the mountains as it is lower lying and changes in elevation are less pronounced. The Lochaber Landscape Character Assessment identifies this area as being in the Smooth Moorland Ridges Character type.

# Geology, Topography and hydrology

- Geology is metamorphic sedimentary rock of the Dalradian series (schist).
- Glaciation has rounded the hills and left glacial moraine.
- Sloping, undulating land below 700m.

# Land cover, land use and habitats

- Forestry and moorland habitats.
- Large scale conifer plantation.
- Rough grazing.

# Cultural heritage

- Not much evidence of built heritage in the area possibly obscured by forestry.
- Possible neolithic cairn obscured by forestry.
- Views into the area from Dun Deardail (vitrified hill fort) of the boundary with the Lower Glen Nevis character area.

# Infrastructure

- Forest tracks and paths linking to the core path network.
- West Highland Way.

### 2.4 Geology and topography

The key characteristics within the Nevis Management Area are listed in the Scottish Natural heritage, Lochaber: landscape character assessment:

- Grey craggy peaks of vast and imposing scale with sweeping concave slopes of steep, smooth rock faces which plummet into glaciated valleys.
- Strong visual force created by the slope profile and accentuated by fans of scree and bracken, which draws the eye up and down the slopes.
- Typical glacial forms such as arêtes and corries within the hills, and moraine and erratics along the glen floors.
- Deep rocky clefts within the hillside carved and highlighted by silvery burns and shadows, sometimes packed with birch trees, forming meandering mossy veins on the rock face.
- Glens affording a small scale refuge from the vast mountainous masses and often containing roads, footpaths, settlement and picnic areas.
- Rivers along the glen floor that are wide and shingly near the mouth, steep and rocky higher up the glen; these are often highlighted by clumps of alder, rowan and birch.
- Single track roads, often with dead-ends, small bridges and stone dykes, concentrated along the small scale glens; their scale provides a contrast to the experience of the vast scale of the landscape.

The whole of Ben Nevis Estate lies within the Ben Nevis and Glencoe National Scenic Area. The great variety of landform and scenery within the area is attributable in the main to the intricacy of geological structures and its glacial past. The great whaleback of Ben Nevis, higher than any other mountain in Scotland, is a distinctive feature when viewed from any direction. It overlooks Fort William with steep cliffs on its northern flank descending as much as 700 metres in places. The southern flank of Ben Nevis in comparison encompasses a much more gentle aspect.

This contrast is a key landscape feature. The sinuous ridge of the Carn Mor Dearg arête, dropping eastwards from the summit of Ben Nevis before rising towards Aonach Beag and continuing on towards the Grey Corries, is one of the finest linking high peaks in Scotland. Glen Nevis ranks among the most beautiful and striking highland glens. No other part of the country has greater relative relief. The lower reaches are pastoral, with an alder threaded rivers and woodland clothing the sides of the Glen. The middle section, including Steall Gorge, exhibits 'Himalayan' character, while the Upper Glen is a lace of peaceful meadows, alpine in feeling and enhanced by the presence of the Steall Waterfall.

The gentler southern aspects of Ben Nevis are visible from the road in Glen Nevis, but the steep northern face and the summit are more difficult to view. The cliffs and summit are visible from Torlundy to the north, and the Corpach Basin and Caledonian Canal to the east. However, they can only truly be viewed by those prepared to walk some distance uphill over rough terrain. Views of upper Glen Nevis and the An Steall Waterfall can also only be accessed by walking.

The special qualities identified in the National Scenic Area (NSA) which apply to the Nevis Management Area are reported in SNH's report (Scottish Natural Heritage (2010). The special qualities of the National Scenic Areas. See SNH Sitelink).

- A land of mountain grandeur: this is a landscape of massive proportions, breathtaking grandeur and great variety. It offers the highest altitude and greatest vertical relief in Britain.
- The impressive massif of Ben Nevis: the huge Ben Nevis range dominates the setting of Fort William. The brooding mountain, with its massive rolling shoulders and dramatic eastern cliffs, attracts a wide variety of walkers and climbers. Some are drawn to the challenging rocky precipices and snow-filled gullies of Coire Leis Dearg, while others simply want to reach the highest point in Britain.
- The wild Mamores and the secretive Glen Nevis: the Mamore Forest consists of open rolling moorland and rounded, rocky mountain exhibiting an unspoilt character and a wild integrity. Penetrating between the Ben Nevis range and Mamores, Glen Nevis offers a striking transition from the pastoral and wooded lower valley, through a boulder-strewn gorge of Himalayan proportions, into a secretive upper glen bounded by steep rocky slopes and waterfalls (SNH 2010). The contrasting nature of different parts of the NLP is emphasised at both human and topographic scales – from very busy to very quiet, from the busy lower glen to the remote upper glen and from the glen floor to surrounding mountain summits.

# 2.5 Wildness and sense of place



The human values we place on wild places are personal to the individual. They include emotional or spiritual factors which give a sense of freedom, solitude, a contrast with modern life, spiritual renewal, spiritual challenge and sometimes risk. Wild places provide the physical conditions for recreation, relaxation, contact with nature and essential peace and quiet. The following extract is from 'Scotland's Scenic Heritage':

'Many people would consider that Glen Nevis ranks with Glen Affric and Glen Lyon as one of the most beautiful glens in Scotland. No other part of the country has greater relative relief. But it is not scale alone which makes Glen Nevis memorable. The lower reaches are pastoral, with an alder threaded river and woodlands clothing the glen sides. The middle section exhibits a 'Himalayan' character, while the Upper Glen is a place of peaceful meadows, Alpine in feeling, enhanced by the presence of the graceful Steall waterfall. On the north side of Ben Nevis is Coire Leis, 'the most splendid of all Scottish corries' (Murray).'

Apart from their importance to human beings for physical and spiritual renewal, wild places are important as refuges for wildlife living in a natural or near natural environment. Wild places also provide a source of scientific and educational interest. There are also ethical values connected with caring for wild land and protecting it for its own sake.

In good or moderate weather, the long views down to the populated glen from Ben Nevis, the man-made structures on the summit of the Ben, the path and the number of people on the path may make an ascent of the Ben feel the least wild and remote part of the Ben Nevis Estate. In bad conditions, however, the same walk on Ben Nevis Estate can feel as wild as anywhere. Furthermore, on the plateau, away from the path and summit, there is very little evidence of human presence and impact and it thus has a distinctly wild character. The path into Steall Meadows can feel wilder with restricted views, but the large number of people and the built path make it feel less wild and remote.

The north-east part of the Ben Nevis Estate - including Coire Giubhsachan, the isolated Coire nan Laogh, the summit of Aonach Beag and the ridge line towards Sgurr Coinneach Beag with views across to the Mamores and Grey Corries - gives a greater feeling of intimacy with the natural elements and a greater connection with a feeling of remoteness. There is much less evidence of human interference or presence here than from the summit of Ben Nevis where lower Glen Nevis and Fort William are visible along with roads and the industry alongside Loch Eil and Loch Linnhe.

# 2.6 Cultural and historic associations

The mountain track (historically known as the pony track or bridle path), which zigzags its way up the southern flank of Ben Nevis, is clearly visible from a long distance (10 to15 miles or more), as is the eroded line of descent following the Red Burn. Further erosion lines cutting off the section of path that detours past Lochan Meall an t'Suidhe are also visible from afar. These routes will probably remain as fairly visible features of the landscape regardless of future path maintenance.



Following from : Lochaber Forest District: Forest Design Plan : GLEN NEVIS, 2014-2024

The Forestry land is a major feature in the enclosed landscape of Glen Nevis and particularly when viewed from Ben Nevis. It is mostly seen in views from the lower sections of the walkers' path to the summit of Ben Nevis and from the visitors' facilities on the floor of the glen near Achintee. From Fort William its northern end is seen on the slopes of Cow Hill. With its distinctive telecommunications mast, Cow Hill is a well known orientation point in the local landscape.

The lower boundary of the forest follows the line of the only public road access down the Glen to the Lower Falls. It is seen as a significant element in local views from this road. The smaller forest of Tollie, in the side valley above Glen Nevis is seen from the scattered dwellings and farms of Blarmachfoldach and is a dominant foreground feature in the views from the fort Dun Deardail. It is also visible from the middle section of the paths to Ben Nevis from between 200m and 900m. However, given the scale and drama of the surrounding landscape it is only a minor element within the extensive views. The West Highland Way passes through the forest. From it there are some opportunities to see the forest in its landscape context, though local views mostly dominate.



The majority of hillside within the Ben Nevis Estate is affected by human management, chiefly grazing by deer. In the past, there has also been sheep grazing. While sheep no longer graze the Ben Nevis Estate, they do graze other parts of Glen Nevis. The impact of both sheep and deer on the woodland cover is a significant feature of the landscape and will be visible for some time to come.

# 2.7 Activities

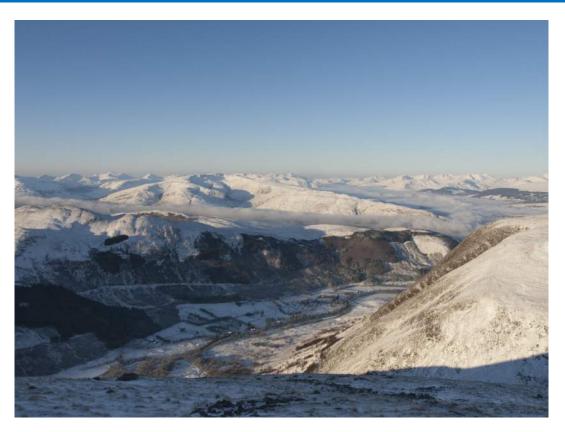
The landscape area is nationally significant for the quality and range of outdoor activities available. These human interactions with the environment, including their historical and cultural associations influence the character of the landscape, both physically and symbolically. Section 6 provides a detailed study of activities in the area, with section 9 providing an analysis of associated impacts.

# 2.8 Conclusion

The Nevis Management Area is an iconic landscape of great importance for a plethora of reasons, the combination of which result in a unique area that is highly valued. The varied natural and cultural heritage characteristics and features combine to create a diverse landscape of contrasts that is of key importance to this. The Nevis Management Area is of national importance and its sensitive conservation and management is vital to preserve and enhance its distinctiveness and the value of the entire heritage in the area.

# 3. Geodiversity

# 3.1 Geology



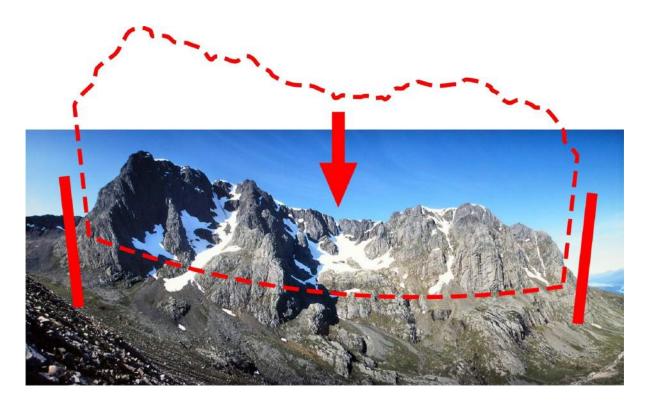
Ben Nevis Estate is situated south of the Great Glen Fault and to the north of the Highland Boundary Fault. This places it, geologically speaking, in the Grampian Highlands. The Grampian Highlands are largely composed of metamorphic rocks formed during the Caledonian Orogeny or mountain building episode of 460–430 million years ago. Ben Nevis itself is made up of intrusive and extrusive igneous rocks that make up the Ben Nevis Complex. The Ben Nevis Complex was intruded at the end of the Caledonian Orogeny around 420 million years ago.

The metamorphic rocks which surround Ben Nevis and make up the rest of Ben Nevis Estate belong to the Dalradian Supergroup. These Dalradian rocks started off as marine sediments deposited at the edge of a basin around 700 million years ago. These sediments mostly comprised clean sands, silts and lime rich layers. They were buried deeply over time and eventually turned into sedimentary rocks. They were then folded, heated and fractured during the Caledonian Orogeny when large tectonic plates collided with each other during the closure of the lapetus Ocean around 450 million years ago. The great mountain chain created by this collision, known as the Caledonian Mountain Chain, may have been similar to the western Himalaya with peaks as high as 6000–8000 metres. There are wonderful examples of recumbent folds in the Mamores where the original rock layers have been completely overturned. As a result of all this squeezing and heating the original sedimentary rocks.

Layers of impure metamorphic limestone are found on the west side of Glen Nevis as well as on the flanks of Meall Cumhann and Aonach Beag. A band of white metaquartzite can be traced from the Grey Corries down to the floor of Glen Nevis at An Steall and then up onto the summits of Sgùrr a' Mhaim and Stob Bàn. Much of the remaining area is built of mica schist, including the popular climbing crags at Polldubh.

By some 420 million years the processes of erosion had exposed the Dalradian rocks at the Earth's surface. The igneous rocks of the Ben Nevis Complex then began to form. Initially volcanic breccias and andesite lavas were piled up onto the land. Then magma was injected at depth into the Earth's crust. When the early geologists surveyed Ben Nevis just over a century ago they were astonished by what they found. A great pile of volcanic rocks – mainly breccias and andesite lavas forming the top 600m of the mountain – was surrounded by a series of concentric dioritic and granitic intrusions. Granite and lava would not normally be juxtaposed in this way, since lava is erupted at the surface and granite is formed at depth. The early geologists explained their proximity by a process called 'cauldron subsidence'. Lochaber was one of the first places in the world where the process of cauldron subsidence was identified in ancient rocks.

Just prior to cauldron subsidence, a number of NE-SW trending porphyrite and lampophyre dykes were intruded into both the Dalradian rocks and the outer intrusions of Ben Nevis. When the roof above the magma chamber could no longer support itself, a block of the overlying volcanic rocks collapsed down into the molten granite. This created a large crater at the Earth's surface called a 'caldera' and vast quantities of ash and hot gasses were blasted into the atmosphere.



In the 400 million years since volcanic activity ceased, erosion has removed the top 2 or 3km of crust. All the original lava flows which once covered the Dalradian rocks have been eroded, except where they have been preserved by collapse within the Ben Nevis caldera.

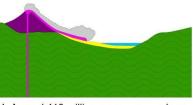
Càrn Mòr Dearg is located 1km north-east of the Ben Nevis summit and the rock here is inner granite. This was originally the molten material in the magma chamber that the andesite lavas collapsed into. The granite has a pinkish colour and this has given rise to the Gaelic name Càrn Mòr Dearg, which means *great pile of red rock*. Aonach Mòr is approximately 2.5km north-east of the summit of Ben Nevis and is made up of outer granite which is coarser than the inner granite. It is cut by numerous dykes which have eroded to form prominent gullies on the western flank of the mountain. Aonach Beag is on the eastern boundary of the Nevis Management Area and lies approximately 2.8km east of Ben Nevis and 1.5km south of Aonach Mòr. It is situated just outside the Ben Nevis Complex and at 1234m is the highest schistose mountain in the country.

The final sculpting of the local scenery was brought about by the multiple glacial episodes which have occurred in northern latitudes over the last 2.6 million years. During the most recent glaciation which ended approximately 11,500 years ago, the highest peaks remained free of ice as nunataks. The glaciers that filled the glens and mountain corries eroded out the U-shaped valleys and hanging valleys we see today. The ice carried away huge amounts of eroded material and, as the glaciers retreated, this material was deposited as moraine. In the Great Glen the moraine has formed distinctive hummocky landforms. Large rocks were picked up by the ice in one place and deposited elsewhere as erratics.

Coire a' Mhàil is a classic hanging valley in the Nevis Management Area. It gives rise to An Steall, a waterfall that drops more than 120m from the hanging valley into Glen Nevis. The hanging valley was created where the smaller glacier of Coire a' Mhàil met the larger Glen Nevis Glacier. The glacier in the side valley did not erode as deeply and as a result there is a dramatic difference in height. The summits were not covered in ice during the most recent glacial episode but they were affected by the extreme temperatures and freeze/thaw action. This led to the shattering of bedrock to create sharp ridges, rocky summits, blockfield and scree slopes.

## 3.2 Geomorphology

Ben Nevis is the highest mountain in the UK. It has a contrasting shape on opposite sides. When viewed from the south and west it has a hump-like appearance, but on its northeastern flank it has a long precipice with a complex array of cliffs overlooking the glen of the Allt a' Mhuilinn.



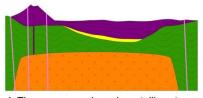
1. Around 410 million years ago a volcano erupts onto a land surface of metamorphic rocks (eroded Caledonian mountains). Initial deposits, which include volcanic breccia, are covered by numerous andesite lava flows.



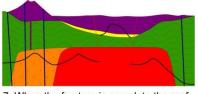
2. The lavas fill in a depression in the landscape. Some of the ash falls settle into freshwater lochans.



3. A large body of magma rises within the crust.



4. The magma cools and crystallises to form the OUTER GRANITE. The area is then subjected to sideways tension. Vertical fractures develop in the crust and molten material is erupted to the surface along these fissures to create dykes.



7. When the fracture is complete the roof starts to fail. (The wavy black lines mark the present day land surface.)



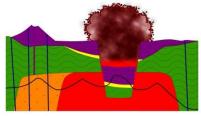
5. The dykes cool and crystallise. Some time later a new body of magma rises within the crust.



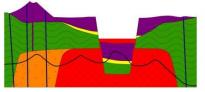
8. A cylindrical block starts to sink down into the magma chamber. Vast quantities of gas and hot ash escape around the margins of the sinking block.



6. Pressure from the new magma domes up the roof of the magma chamber. When the magma subsides slightly the roof can no longer support itself and a cylindrical fracture develops.



9. A CALDERA is formed at the surface and fresh lavas are erupted into this giant crater.



10. Eventually volcanic activity ceases. The magma then cools and crystallises to form the INNER GRANITE.



11. Over the next 100 million years huge quantities of rock are removed by erosion. In the succeeding 250 million years large parts of the Highlands are at times submerged by the sea.



12. Renewed uplift of the Scottish Highlands began some 50 million years ago. Repeated glaciations over the last 2 million years have shaped the landscape we see today.



The final shaping of Ben Nevis was brought about by the action of ice. The Earth experienced a dramatic change in climate at the start of the Quaternary some 2.6 million years ago. Since then the Highlands have been glaciated many times. Longer periods of cold (stadials) were interspersed by relatively shorter warm (interglacial) phases. We are at present in an interglacial, the Holocene, that has lasted 11,500 years. The ice that engulfed Scotland encountered a land mass much the same as we see today, with dissected mountains and valleys. Repeated glaciations modified the pre-Quaternary landscape by widening, deepening and straightening pre-glacial river valleys.

The greatest extent of the last Scottish ice sheet occurred around 21,000 years ago when much of the Highlands lay under nearly 2km of ice. In the west, warm-based glaciers built up which had greater erosional power than the cold-based glaciers of the east. As a result, the west suffered much more deep erosion and glacial scouring. Selective linear erosion picked out NE-SW trending lines of weakness such as shear lines and dykes in basement rocks. The deep sea lochs of Loch Linnhe and Loch Eil to the west of Ben Nevis were gouged out in this way, as was Glen Nevis to form hanging valleys that can be seen on the flanks of the mountains within the Ben Nevis Estate today. An Steall, which can be viewed from Steall Meadows, spills out from such a hanging valley.

Rapid warming 14,000 to 13,000 years ago resulted in the disappearance of ice over much of the country, save perhaps some mountain glaciers in the north and west. Sudden climatic change 12,900 years ago led to the return of ice in the western Highlands. This was known as the Loch Lomond Re-advance or Stadial. The maximum thickness of the ice dome at this time was centred over Rannoch Moor to the south of Fort William. Ice spread out radially from this location. Ice advancing across the Great Glen from the west and south dammed up lakes which gave rise to shorelines known as the Parallel Roads of Glen Roy, Glen Gloy and Glen Spean to the north of Ben Nevis. This period also gave the west its rugged outline as many peaks, such as Ben Nevis, remained above the surface of the ice cap to be shattered by intensive frost action. On the summit of Ben Nevis and the upper slopes of Aonach Beag, there are fine examples of solifluction terraces, solifluction hummocks, patterned ground and frost-heaved stones as well as large areas of shattered rock known as blockfield.

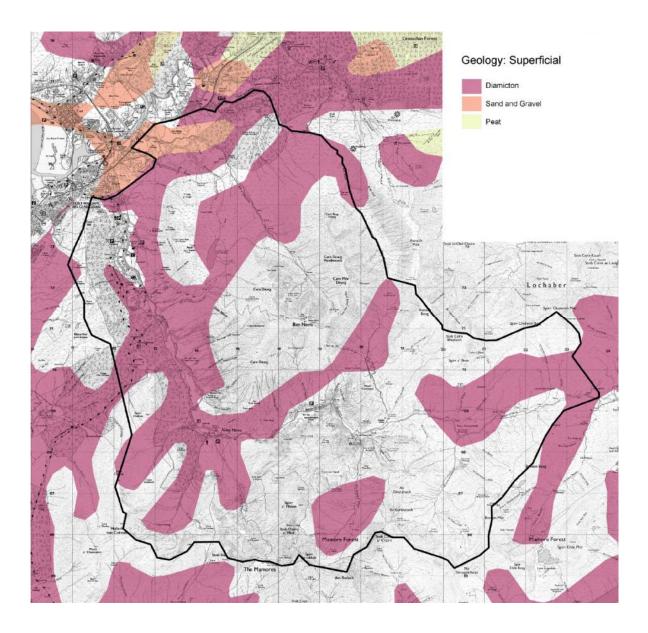
Within Glen Nevis itself, there are excellent examples of roche moutonnées, formed when ice scraped over the bedrock to create small crags with a distinctive profile. The upstream surface was smoothed and scraped, while the other end was plucked by the ice passing over it to leave a steeper downstream face. Glacial erratics are found throughout Glen Nevis. Water worn crags with distinct potholes are evident high on the south-west facing cliffs of Meall Cumhann where Steall Gorge opens out into the Meadows area. This is attributed to a stream cascading down the marginal crevasse of a glacier.

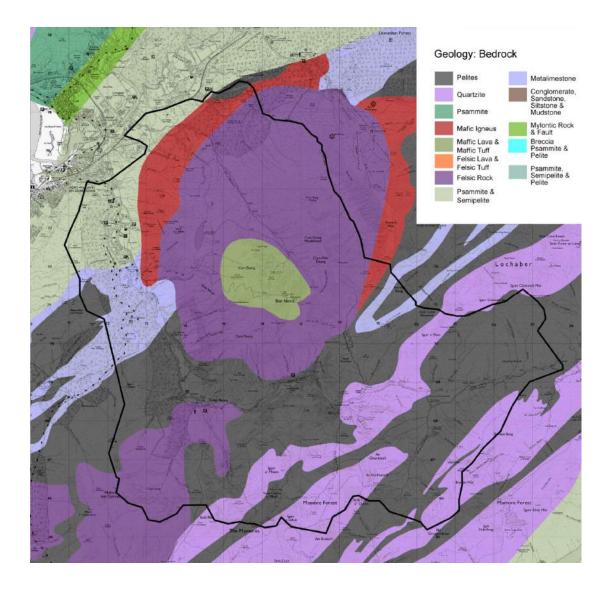
De-glaciation, although rapid, was not smooth. There is evidence of a series of pulses of warmth and ice melt followed by standstills in the fluvioglacial gravels deposited. Of note are two crescentic moraines which occur at the lip of the hanging valley of Allt Coire Giubhsachan.

The rapid increase in temperature following the end of the Loch Lomond Stadial 11,500 years ago, led to the establishment of crowberry and juniper scrub with the subsequent expansion of mixed deciduous woodland comprising birch and hazel, followed by either oak and elm or pine and alder woods. These forests declined after 5000 years, partly as a result of the cooler, wetter climate which favoured the growth of blanket peat, and partly as a result of human activities.



The U-shaped valley- N. Williams





# 4. Biodiversity

#### 4.1 Overview



Ben and Glen Nevis contain a hugely varied biodiversity, reflecting the contrasts seen in the landscape through geology, topography, altitude and the impact of human activity. Some parts of the area are remote, rarely visited and have relatively natural habitats, while others are significantly influenced by current and historic human activity and have heavily modified habitats. The range of bedrock ranges from highly acidic granite through to base-rich limestone and the topographic range is the greatest seen anywhere in the UK, from almost sea level near the mouth of the Waters of Nevis to the summit of Ben Nevis, the highest point in the UK.

Some of the flora and fauna will be familiar and can be seen in many other places within Scotland while other species and communities are extremely rare and confined to very specific environmental niches. Many of the rarer species are found in great abundance in Scandinavia, with the Scottish populations representing the southernmost limits of their distribution. Other species may be more abundant at higher altitudes, rather than latitudes, and again can be at their lowest altitudinal distributions. Most of these arctic-alpine species are to be found on or near the top of Ben Nevis, or in suitably shady, mobile gullies and ledges on its precipitous North Face. Plants, which cannot move away during winter-time, as most mammals, birds and insects can, must tolerate very harsh growing conditions and therefore have slow growth rates and compact, cushion formations.

The proximity of Ben Nevis to the warm North Atlantic Drift ocean current and its position on the Western boundary of mainland Europe where the westerly flow of air, crossing the Atlantic, first hits land, creates some of the steepest climatic gradients anywhere on the planet. The decrease in temperature with increasing altitude is so great that even a small hill, like Ben Nevis, can demonstrate the complete transition from temperate forests and grasslands at its base to barren Arctic fjellfield habitats on the summit.

Many of the plants found here are mosses, liverworts and lichens, which tolerate the harsh conditions much better. On first glance most of the scree-covered summit plateau of Ben Nevis is devoid of life but closer inspection will reveal a mosaic of lower plants, with a few scattered cushions of arctic-alpine flowering plants where the cobbles give way to finer gravel. The diversity here can be extraordinary, with a few square centimetres of hepatic

mat containing a dozen or more tiny liverworts. Where late snow-beds lie in hollows, the montane parsley fern (*Cryptogramma crispa*) and alpine lady fern (*Athyrium distentifolium*) may accompany the rich cover of mosses.

Where the substrate is more stable and finer, rush and sedge heaths are common with thick carpets of woolly fringe moss (*Racomitrium lanuginosum*). On ledges where limestone outcrops, montane willows such as woolly willow (*Salix laponnum*) can be found amongst a profusion of other cliff vegetation such as water avens (*Geum rivale*) and rose root (*Sedum rosacea*). In drier spots mountain avens (*Dryas octopetala*) can be found in amongst the species-rich grasslands while on the more acid granite the vegetation is dominated by heather and its relatives (*Erica* spp.) and deergrass (*Tricophorum cespitosum*).

Lower down, but still on the open hill, a range of heath vegetation is interspersed with blanket bog, where waterlogging and the development of sphagnum mosses has, throughout millennia, produced deep layers of peat. The cotton grasses of the *Eriophorum* species flag the wetter ground with their white flowering pompoms and the characteristic reds and browns of their leaves while the rich greens, browns and reds of the many sphagnum species form hummocks and pools across the peat.

Within all these upland habitats a sizeable range of invertebrates thrive, many of them specifically adapted to the harsh conditions and not found more commonly in Scotland at lower altitudes. They provide, along with seeds, an important food source for upland ground-nesting birds, most of which come to the higher ground to breed where the threat from predators is reduced. A few hardy species live here all year round, including the ptarmigan, raven, red grouse, eagle and buzzard. Summer visitors include waders like the dotterel, dunlin and golden plover and smaller migrants such as the wheatear and snow bunting.

Mountain hares are present on the high ground, blending in with the changing seasons by turning white in winter and brown in summer. Lower down, they are replaced by their brown cousins who thrive on the agricultural pasture in the bottom of the Glen. Here the river meanders through a flat flood plain of grazed fields but is lined with riparian woodland composed mostly of alder and oak. On drier ground the oak is joined by ash, rowan, hazel, holly and birch while on the steeper, rocky ground both Scots pine and aspen thrive. Where livestock have grazed for centuries, but have now largely been removed, thick carpets of bracken thrive; eventually young trees will poke their heads through these dense stands to re-create the natural woodland that would have filled the Glen before man cleared it for agriculture, building and firewood. On the open ground butterflies like the small pearl-bordered fritillary and the Lochaber endemic chequered skipper can be found in summer.

The rich woodland soils provide excellent ground for commercial plantation forestry on the west side of Glen Nevis. Here well-grown timber of larch, Norway spruce and Sitka spruce are interspersed with some Scots pine. Red squirrels are to be found here, along with pine marten. Roe deer are plentiful in the woodlands and are joined by herds of red deer in winter; in summer the red deer migrate to the high ground to avoid the biting flies and insects that plague them, but in autumn the Glen resounds with the deep roars of rutting stags.

The Water of Nevis itself provides a valuable habitat for fish, including brown trout and salmon. Historically the river contained a population of freshwater pearl mussels but these have been lost to pearl-fishers.

This picture of biodiversity can be seen throughout the Scottish Highlands but nowhere is it all to be found in such a small geographical location – essentially one small catchment – where the gradient of change with altitude is the steepest in the UK.

## 4.2 Habitats



The Nevis Management Area contains a rich variety of habitats. Ben Nevis SAC has been designated for 17 habitats of international importance as listed in Annex 1 of the EU Directive 92/43/EC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive"). Four of these are 'European Priority Interest Habitats'

The limestone outcrops to the east of Ben Nevis contribute to this richness. In the long term, there is potential for both the rehabilitation of some habitats, particularly degraded native woodland and scrub, and for the development of a natural tree line at local altitudinal limits.

The list below highlights some of the broader types of habitat found within the Nevis Management Area (See appendix 7, Biodiversity – designated species/habitats):

- Alpine and sub-arctic heaths and grasslands
- Montane heaths
- Woodland including Caledonian pinewood
- Heaths and grassland
- Blanket bogs
- Riparian woodland
- Scree and snowbeds

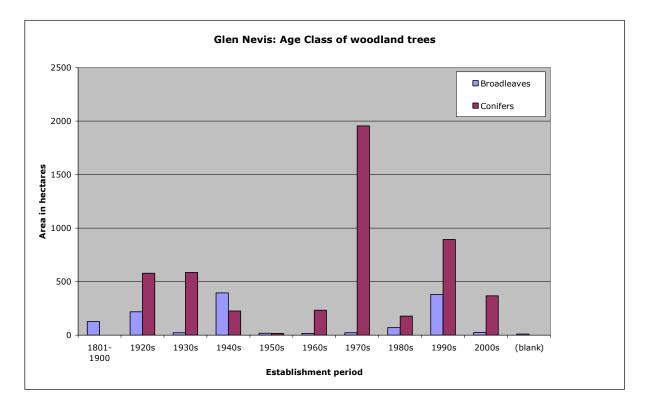
A substantial section of the area is managed by Forestry Commission Scotland. While the area includes less ancient semi-natural woodland relative to other forests in Lochaber, fairly extensive native pinewoods and birchwoods support rare species such as black grouse and red squirrel. Black grouse are found in the open habitats above the forest in addition to the woodland itself where open glades and rides are particularly important. Red squirrel use stands of mature conifers throughout the forest and the patches of hazel woodland on the slopes of Cow Hill. These slopes are also important for the rare butterflies which breed in the sunny glades, kept open by careful grazing management by Forestry Commission cattle.

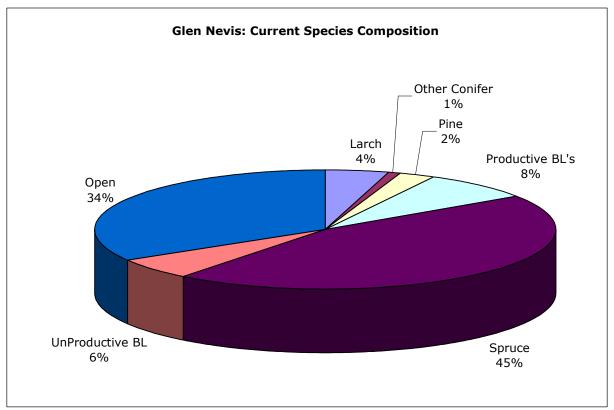
The scattered woodland on Cow Hill is considered to be of recent semi-natural origin, resulting from land use changes in the second half of the twentieth century. It is, however, of biological interest as well as being important in the landscape.

The mature conifers, principally larch species and Scots Pine towards the southern end support a very small population of red squirrels. The area does not lie within a scheduled squirrel reserve or within a squirrel buffer zone.

As part of the restructuring process, the upper limit of restocking has been brought down the hill and in all the parts of the forest covered by second rotation crops there is a substantial amount of open ground. This is concentrated along the upper margins, but is also located around watercourses. The Dun Deardail site is another significant area of open ground and this is bordered by areas of failed plantation, on the shoulder between Tollie and the main forest block, giving a fairly natural transition between open ground and closed canopy forest. Within the forest, regeneration of birch and willow in open areas is profuse and areas along roadsides that were once open have become in-filled with trees with a potential loss of biodiversity.

There is an area of alkaline grassland above the current tree-line just north of the Tollie block that is slowly regenerating with spruce. At the moment this is only a minor threat, but increased tree regeneration would threaten this site. The incorporation of Cow Hill into the forest has substantially increased the percentage of open ground. At the moment this area is not grazed and the likelihood is that this will lead to an expansion of semi-natural woodland cover without some sort of intervention. Age structure, species and yield class of the woodland is fairly typical of the period. The slow period of accumulation of land in the glen has resulted in crops from the 1920s-1940s.





There was a large period of expansion in the 1970s which is typically dominated by Sitka spruce. Older crops are more diverse and are comprised of larches, Norway spruce and pine.

Sitka spruce comprises 45% of the total FCS land area and 67% of the current woodland area. There are further opportunities to reduce this figure following a refinement of soils information. The future of both larch and lodgepole pine remain in doubt at the present time due to plant health issues (*Phytophthora ramorum* and *Dothistroma-DNB* needle blight respectively). Existing stands of mature Scots pine are currently looking relatively unaffected by DNB, but there remains a threat. There is currently little ash in the woodland.

There is a small area of plantation on an ancient woodland site (PAWS) in the extreme south of the forest from Polldubh towards the Steall Gorge. This is surrounded by a larger area of restored semi-natural woodland, principally birch, but including some areas of planted Scots pine of local origin. Restored semi-natural woodland is a key feature of the southern part of the forest.

The significant remnant of woodland in Steall Gorge is dominated by silver birch (*Betula pendula*). This woodland and that around Polldubh also contains:

- downy birch (*Betula pubescens*)
- rowan (Sorbus aucuparia)
- goat willow (Salix caprea)
- ash (*Fraxinus excelsior*)
- hazel (Corylus avellana)
- alder (Alnus glutinosa)
- aspen (*Populus tremula*)
- holly (*llex aquifolium*)
- wych elm (*Ulmus glabra*)
- oak (Quercus petraea)
- Scots pine (*Pinus sylvestris*)

On the south-facing slopes above the Water of Nevis in the upper reaches of Glen Nevis, there is little tree cover due to historic grazing pressure. However, in steep-sided burns and river gorges, a mixture of rowan, eared willow (*Salix aurita*), birch and holly has survived. On the open hillside, eared willow can be found. Recent reductions in deer numbers and the removal of livestock mean that woodland in this area is beginning to recover.

A mosaic of *Erica* dominated wet heath and *Molinia* grassland is predominant above the woodland. This is interspersed with many other vegetation types including bracken and drier *Calluna* heath along with various grass and rush heaths. There are also areas of blanket bog and some small areas of herb rich grassland and base-enriched flushes. On the limestone and calcareous schist of Meall Cumhann, Coire Giubhsachan and Sgurr a'Bhuic, there is montane willow (*Salix lapponum*) scrub. Streams are numerous and support a variety of riparian habitats.

At higher altitudes, mossy grasslands predominate, which give way to montane *Racomitrium* heath and sedge heath. The summits of Ben Nevis and Aonach Beag support extensive lichen cover, patches of snowbed vegetation, alpine lady fern and parsley fern, and some small areas of lichen heath. There is some localised degradation of the lichen habitat where braided path systems have developed on the summit screes of the Ben, but there is potential for the rehabilitation of some of these small areas.

In 2003, Ben and Alison Averis undertook a comprehensive survey of the vegetation of Ben Nevis Estate and prepared a report (*Vegetation Survey of the Ben Nevis Estate in Summer 2003*) in which they described and mapped the National Vegetation Classification (NVC) communities they found. A total of 115 types of vegetation were recorded.

8 Habitats are UKBAP species and are noted in (See appendix 7, Biodiversity – designated species/habitats). In some cases they do not correlate exactly with the SAC Habitats (which are based on pan-European habitat types). Ben Nevis SAC has been designated for 17 habitats of international importance as listed in Annex 1 of the EU Directive 92/43/EC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive"). Four of these are 'European Priority Interest Habitats'.

Conservation of semi-natural habitats is of high priority, in particular, the protection of natural vegetation habitats and the creation of more natural and sustainable habitats for wildlife. The aim is also to enhance visitor experience.



## 4.3 Vascular Plants

Alpine club moss - JMT

The Nevis management area is included within the Ben Nevis SSSI and the Ben Nevis SAC. The area is of international importance for its range of upland habitats and of national importance for the upland vascular plants, mosses, liverworts and lichens, along with the woodlands and their associated mosses and lichens.

A survey undertaken by Ben and Alison Averis in 2004, found 238 vascular plant species. Several species are nationally or locally uncommon in the British Isles. Of the recorded species of vascular plants, 12 are considered to be of national importance and 12 are included in the current *Vascular Plant Red Data List for Great Britain* (JNCC 2006).

Nationally rare (NR) species are known from less than 16 10x10 km squares in Britain and nationally scarce (NS) species are known from less than 100 10x10 km squares in Britain. (See appendix 7, Biodiversity – designated species/habitats): shows the status of vascular plants found in the area.

Most of the uncommon species are associated with either montane snowbed areas, base rich outcrops in the Dalradian rocks or in areas with base-rich flushing.

Some examples of vascular plants in the Nevis Area include:

- Curved wood rush (Luzua arcuata) (NR)
- Arctic mouse-ear (Cerastium arcticum) (NR)
- Glaucous meadow grass (Poa glauca) (NS)
- Alpine meadow grass (*Poa alpina*) (NS)
- Highland saxifrage (Saxifraga rivularis) (NS)
- Sibbaldia (Sibbaldia procumbens) (NS)

## 4.4 Bryophytes

A Site Condition Monitoring Report of Bryophytes on Ben Nevis SSSI for SNH in 2005 by Gordon Rothero indicated that within Ben Nevis SSSI there are 18 nationally rare species, 15 of which are RDB species, and numerous nationally scarce species (Rothero, 2006). A number of these nationally rare and scarce species are found on Ben Nevis Estate.



Racomitrium lanuginosum

Rothero noted that the main bryophyte features of interest are:

- Areas of Racomitrium heath on the summits and ridges
- Springs and flushes, particularly those associated with springs from meltwater
- Assemblages of bryophytes on the calcareous outcrops
- Liverwort rich oceanic montane heath community in the screes

• Assemblages of Atlantic bryophytes in the rocky woodlands

The internationally important oceanic bryophyte element of the Scottish bryophyte flora is well represented in the woodlands of Glen Nevis where some 42 oceanic bryophytes have been recorded. The flora of the snowbed vegetation is typical of such sites in Scotland, but particularly noteworthy is the abundance of *Andreaea nivalis* on Ben Nevis and of *Andreaea blytii* on Aonach Beag.

In a 2004 survey, 252 bryophyte species were recorded on Ben Nevis Estate. Of the recorded list, the mosses *Brachythecium glaciale* and *Andrea nivalis*, and the liverworts *Gymnomitrium apiculatum* and *Pleurocladula albescens* are nationally rare. A further 17 moss species and 24 liverwort species are nationally scarce; some are included in the current *Red Data List for Great Britain* (JNCC, 2006). Appendix 7, Biodiversity – designated species/habitats), shows the status of bryophytes present in the area.

Nationally rare (NR) species are known from less than 16 10x10 km squares in Britain and nationally scarce (NS) species are known from less than 100 10x10 km squares in Britain.

## 4.5. Lichens

The summit plateau, a shattered scree field, has been colonised by an array of lichens with small pockets of bryophyte rich lichen heath. It contains internationally important assemblages of upland and montane lichens. It is likely that the plateau area supports one of the oldest climax communities in the British Isles. Several nationally rare species recorded during the NVC survey have their stronghold in the Nevis range including:

- Staurothele arctica
- Sterecaulon tornense.

A lichen survey of Ben Nevis summit by John Douglas in 2006 recorded 70 species of lichen on the plateau area plus two lichenicolous fungi. These species include 20 nationally scarce, eight nationally rare, two RDB near threatened, one RDB vulnerable and 11 species associated with late snow-lie.

Species recorded which are associated with late snow lie included:

- Ionaspis odora (NS)
- Lecidea paupercula (NS)
- Lecidea pycnocarpa (NS)
- Lepraria neglecta (NS)
- Micarea marginata (NR)
- Porpidia contraponenda (NS)
- Protothelenella corrosa (NS)
- *Rhizocarpon anaperum* (NR)
- Rhizocarpon lavatum
- Stereocaulon tornense (NR)
- Toninnia squalescens (NR)

The cairn at sub-site 3 and the emergency shelter (sub-site 8) support nationally scarce crustose lichen, *Lecania subfuscula*, which requires high levels of nutrients and is often found close to bird colonies. Many large cairns and structures near the summit area are used as toilets by people and as such can accumulate high levels of nutrients.

Much of the scree on the paths, around cairns and around the summit area contains no lichens at all. The habitat just off the paths, however, has most available surfaces covered in lichen or bryophyte growth and seems to be in excellent condition.

It is not known what level of grazing by deer the plateau area receives, but it is likely that grazing pressure is limited due to the high elevation and regular disturbance by humans.

## 4.6. Mammals



The most numerous large mammal on Ben Nevis Estate is the red deer, *Cervus elaphus.* They are generally found in the upper part of Glen Nevis, in Coire Giubhsachan, around Meall Cumhann and in Coire nan Each to the west, and also over most of the southern slopes of Ben Nevis.

The numbers of red deer within the NLP boundaries are managed by the different ownerships within the framework of the relevant (voluntary) Deer Management Group. In this instance it is the Mid-West Association of Highland Estates, which stretches from Kinlochleven right across to Ben Alder. The DMG's objectives are set out in their Deer Management Plan (2013), which takes into account the needs of individual estates but also acknowledges other objectives, including the need for collaborative working across estates (since deer do not confine themselves to specific ownerships) and the need to address conservation targets on designated sites.

Deer numbers in the Ben and Glen Nevis area have generally remained fairly stable in recent years. Generally numbers on the Ben Nevis estate (JMT) have decreased, with counted density falling from 6.6 deer/km<sup>2</sup> in 2006 to 3.2 deer/km<sup>2</sup> in 2011. The wider ground owned by RTA at Killiechonate had a deer density of 9.2 deer/km<sup>2</sup> in 2011, but most of this population lies beyond the boundary of the NLP, to the east.

SNH commissioned a report on Advisory Herbivore Impact Targets – Ben Nevis SAC in 2009, which was repeated in 2013. It compares the condition of notified habitats with a quality standard and notes that condition is strongly influenced by past as well as present management. A number of habitats in the SAC were classed as unfavourable due to heavy grazing by deer following the 2009 report. The 2013 report, which is still in draft form, shows significant recovery of habitats following the removal of livestock in 2003 and subsequent effort in active deer management by RTA/Bidwells and JMT. This report is being used to guide a joint woodland and moorland management strategy with Nevis area estates, SNH and FCS.

There is also evidence of the following mammal species with special protection/of conservation concern:

- Fox (Vulpes vulpes) (but the population is unknown)
- Mountain hares (*Lepus timidus*)
- Stoats (Mustela erminia)
- Weasels (Mustela nivalis)
- Otter (*Lutra lutra*)
- Red squirrel (Sciurus vulgaris)
- Water voles (Arvricola terrestris)
- Pine marten (Martes martes)
- Badgers (Meles meles)
- Mink (Mustela vison)

Feeding signs of red squirrel (*Sciurus vulgaris*) have been found in the Steall woodlands and particularly on FCS ground further down the Glen. There have been some sightings west of the woodland around Polldubh. It is possible they are present in Steall Gorge woodland in small numbers, but there is very little Scots pine to provide a food source.

Recent surveys carried out in 2013 by Becks Denny and Friends of Nevis volunteers identified signs of water voles (*Arvricola terrestris*) in the Nevis management area (see supporting documents).

"very recent water vole signs, including two well used latrines, fresh feeding remains, tracks in mud on the banks and runs in vegetation, were found on a small burn of sub-optimal habitat running into the River Nevis at NN1366469947 (see site 2 on map 2). No burrows were found. Possible old burrows were found at two locations. Three possible old burrows were found in sub-optimal habitat on a small burn through the woodland creation scheme at NN1471568322 (see site 1 on map 2). This area had been burnt by an accidental fire earlier in the year. Two possible old burrows were found in sub-optimal habitat on small burns running into the east side of Lochan Meall an t-Suidhe at NN1448572684 and NN1452172816."

This new data, collected in 2013 during the development phase, highlights the importance of the water vole conservation work planned for the delivery phase.

Of the smaller mammals in the Nevis area, there is evidence for the presence of:

- Field voles (*Microtus agrestis*)
- Bats (although no study of the species present has been made to date)

Other small mammals likely to be present are shrews (species unknown) and moles (*Talpa europaea*). Further studies are needed. Species with special protection and of conservation concern recorded in the Nevis area are listed in appendix 7, Biodiversity – designated species/habitats).

## 4.7 Birds



Golden Eagle & stonechat

The diversity of montane and sub-montane habitats, together with the great altitudinal range, provides conditions suitable for an important community of upland breeding birds including several species with restricted breeding ranges in Britain. Species found include:

- Snow bunting
- Dotterel
- Merlin
- Golden eagle
- Hen harrier
- Ptarmigan.

Dotterel have been recorded breeding on Aonach Mor, where there is extensive suitable habitat. A bird survey was carried out for John Muir Trust in summer 2005 (Elliot, 2005). From 2006 to 2008 an annual Common Bird Census was carried out in the woodland in Glen Nevis. From 2009 onward this was replaced by an annual Breeding Bird Survey. Another Breeding Bird survey was set up to record moorland bird species present from Steall ruin up into Coire Guibhsachan and back down to the car park at the end of the Glen Nevis road. Breeding bird species with special protection and of conservation concern recorded are fully listed in (See appendix 7, Biodiversity – designated species/habitats). The list contains 4 BoCC red list protected species:

- Skylark (Alauda arvensis)
- Spotted flycatcher (Muscicapa striata)
- Ring ouzel (Turdus torquatus)
- Song thrush (Turdus philomelos)

Across the FCS ground, as detailed above, improvements in the extent of pine rich and other native woodland will support the expansion of the local population of black grouse (*Tetrao tetrix*). This conservation target species has suffered significant decline through loss of habitat and lekking sites. FCS plans will help reverse this trend in Glen Nevis.

# 4.8 Herptiles



No specific survey of amphibians or reptiles has been carried out. The species present in the Nevis area are listed in appendix 7, Biodiversity – designated species/habitats.

#### 4.9 Invertebrates



Chequered Skipper & Clouded Buff – Tom Prescott

Other than Lepidoptera, little work has been done on the invertebrate fauna of Ben Nevis. A good range of butterflies are present including:

- Small pearl-bordered fritillary (Boloria selene)
- Small heath (Coenonympha pamphilus)
- Red admiral (Vanessa atalanta)
- Scotch argus (Erebia aethiops)
- Chequered skipper (Carterocephalus palaemon)
- Mountain ringlet (Erebia epiphron)

A general mountain ringlet survey has been carried out yearly by JMT staff and volunteers since 2002. The species have been recorded on most of the south-facing corries and slopes on the estate where vegetation is suitable. In 2009 5x100m transects were set up to record and compare mountain ringlet populations annually. Two are located in Coire Guibhsachan and three in Coire nan Laogh.

There are a number of UK BAP moth species such as:

- Argent moth
- Sable moth (Rheumaptera hastate) (NS)

Further studies are needed. Moth trapping was carried out in Steall meadows in 2008 and 2009 Species recorded are listed in biodiversity appendix 7, Biodiversity – designated species/habitats. In 2013 a number of surveys were carried out with Tom Prescott (BCS) and Friends of Nevis volunteers. The Delivery phase will provide an opportunity to carry out further research into Lepidoptera in the Nevis management area through a variety of volunteer and citizen science surveys and transects.

Of dragonflies present on Ben Nevis Estate, there are no records beyond golden ringed dragonfly and common hawker. Further studies are needed.

There are some diptera and coleoptera species of interest listed in the SSSI statement as being present on Ben Nevis SSSI (See appendix 7, Biodiversity – designated species/habitats):

Nationally rare (NR) species are known from less than 16 10x10 km squares in Britain, also listed as RDB. Nationally scarce a (NSa) species are known from 16-30 10x10 km squares in Britain. Nationally scarce b (NSb) species are known from less than 100 10x10 km squares in Britain.

# 5. History & Cultural Heritage

#### 5.1 Ben Nevis

The summit of Ben Nevis itself, as the highest point in the British Isles is arguably the most culturally significant element within this landscape. It draws hundreds of thousands of people, many of whom will etch a once-in-a-lifetime achievement into their personal narratives. The attraction and the impact of the mountain both endure and extend beyond the shores of Scotland. The myriad social values and cultural meanings attached to it are profoundly personal yet commonly shared. Ben Nevis stands as one of our most treasured physical landmarks, a symbol of cultural identity, a Scottish icon and emblem of the Highlands. It epitomises human endeavour, having provided the stage for exploration, discovery, personal challenge and accomplishment for over two centuries.

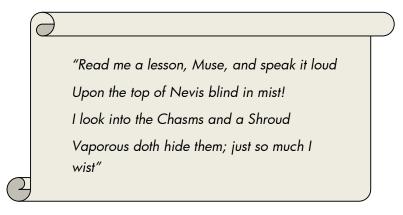
#### 5.1.1 Exploration

James Robertson, a botanist, is credited with the first recorded ascent of Ben Nevis in 1771 for scientific purposes. The first recorded ascent for non-scientific purpose was made in 1787, by a party of 11 who employed Highland guides alongside sergeants and privates of the Royal Fusiliers as porters. Whilst demonstrating the military style of the period, this ascent can be identified with the beginnings of tourism as well as mountaineering in the area.

By the end of the eighteenth century, Ben Nevis was established as a destination for those on a tour of Scotland.



Jim Bell climbing in his socks, on the first ascent of The Long Climb (VS), (June 1940) Photo: John 'Jock' Wilson John Keats, during his grand tour, made an ascent of Ben Nevis in 1818, writing:



In 1894, Edward Whymper wrote of the North Face of Ben Nevis,

"This great face is one of the finest pieces of crag in our country, and it has never been climbed, though every now and then adventurous ones go and look at it with wistful eyes."

It was unknown to him at this point that the first route had been made in September 1892 by the Hopkinson family from the North of England.

The North Face of Ben Nevis has continued to play a major role in the development of climbing and mountaineering standards throughout the 20<sup>th</sup> century. The mountaineering heritage of the area (see below) is internationally significant. The cliffs have always been a testing ground for the very best of the UK's climbers with pioneers such as Naismith, Bell, Marshal, Smith, Patey, Cuthbertson and MacLeod all having left their mark.

The natural architecture of the North Face has become synonymous with its mountaineering heritage. The names of routes, climbers and natural features have been woven together, merging and embedding a story into the physical landscape. The vast 700 foot high precipice is broken into crags, sheer faces, buttresses and gullies. Many of these now take their name from historic routes such as: Point Five Gully, Observatory Ridge, Orion Face, Tower Ridge, Indicator Wall, Douglas Boulder, The Comb, Raeburn's Buttress.

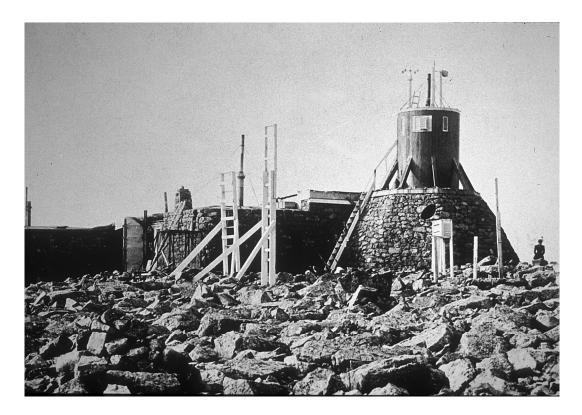
#### Ben Nevis summit map



## 5.1.2 Summit Observatory and Pony Track

In the summer of 1877, the President of the English Meteorological Society suggested the establishment of '*mountain observatories on isolated peaks*'. The Scottish Meteorological Society was quick to take up the challenge, and had soon identified Ben Nevis, with its unrivalled altitude and proximity to Atlantic depressions as a prime location. Plans were drawn up to fund and construct a weather observatory on the summit. Clement Wragge, on hearing this, volunteered to make preliminary readings. He made the ascent every day in the summers of 1881 and 1882, taking readings at various heights. These observations hold special value both historically and for their particular detail as a record of mountain weather.

On old maps of the 19<sup>th</sup> century the current route from the Glen to the summit of Ben Nevis was not recorded. The path to the summit was from the distillery area, up the Allt a Mhuillin, along the side of Lochan Melantee and on to the summit. This was the route used every day by Wragge. By the end of the 19<sup>th</sup> century the Scottish Meteorological Society had initiated the building of the summit observatory and the construction of the Pony Track to provide access. An appeal for funds was made by the Scottish Meteorological Society early in 1883 which successfully raised £4000. The Pony track was constructed by local labourers in only four months; a testament to the endeavour of the men involved and the local school master, Colin Livingstone, who designed the work. The route today, which carries 150,000 plus visitors to the summit each year, still follows this original path up the flank of the mountain to the summit and nowhere exceeding a gradient of 1 in 5. The final rise of the path is still named MacLean's Steep, after the Fort William contractor who built it, James MacLean. Due to the very high numbers of users and the extreme climatic conditions, the path is now in serious need of conservation work.



The Observatory opened in 1883 and was closed due to lack of funding in 1904. In that time it was manned continuously and provided daily meteorological information. The history of the observatory is well recorded and the meteorological data gathered was comprehensive. The importance of the observatory to meteorology at the time and to subsequent research continues. In 2004 a ceremony was held to mark the twinning of the Ben Nevis Observatory with Haldde Observatory in Northern Norway and to mark the lives of two scientists who were inspired by the mountain observatories in the late 1800s.

Two years after the opening of the observatory a small hotel was opened on the summit. This was a wooden structure open in the summer months. Refreshments were served and there was basic accommodation. The hotel closed in 1916 and there is no longer any evidence of the structure. There are a number of historic photographs of the summit that show both the observatory and the hotel and provide information on the interior and exterior of both.

## 5.1.3 Ben Nevis Race

The advent of the West Highland Railway and the construction of the Pony track greatly increased the number of visitors to the mountain. By the end of the nineteenth century, the first timed ascent of the Ben had been recorded. This led to a number of timed solo ascents which later evolved into what is now known as 'The Ben Race' (see section 6.5). In 1898, the race gained a more competitive look when a local hotel proprietor offered a gold medal to the first man to finish. The Ben Race still remains an important cultural event, attracting competitors from around the globe.

# 5.1.4 CIC Hut

Following the closure of the Observatory and the Summit Hotel, these buildings soon fell into disrepair with no new structures erected to replace them. Hospitality and shelter were not to be afforded to climbers and mountaineers till work began in 1928 on an ambitious project to a build a hut for the Scottish Mountaineering Club (SMC). The project was undertaken as a war memorial to commemorate the loss of Charles Inglis Clark (CIC), a young member of the SMC who died in military service in 1919.

The hut was carefully sited beneath the North Face at an altitude of 680m on a small spur above the Allt a' Mhuilinn at the entrance point to Coire na Ciste. Built to provide better access to the mountain's North Face and particularly its winter climbs, the structure remains of a uniquely alpine character for a mountain hut in the British Isles. The hut's official opening ceremony in 1929 spurred on a new period of exploration on Ben Nevis, allowing visiting teams to stay for longer, in relative comfort.



CIC hut 1929–from the A. Gillespie collection

The history of the hut and its transient inhabitants has been accurately preserved through the club's practice of keeping a hut journal. The many volumes provide a direct and chronological record of past climbers' exploits as well as an insight into their characters. Climbs and other activities which were recorded through the decades in the 'Climbs Book' are now lodged in the National Library of Scotland. The heritage of the hut was secured for the future when the hut was upgraded in 2009. The CIC hut, as it is commonly known, remains an important and much used element in the landscape by the mountaineering community and has provided the setting for a range of international events and meetings.

## 5.1.5 Mountaineering

The 16 years beginning in 1880 saw the development of Ben Nevis as a climbing ground as Scottish mountaineering developed into an entity distinct in character and style from Alpinism. In 1894, the West Highland Railway opened and the Scottish Mountaineering Club switched their Easter meet in 1895 to Fort William. By the end of the 19<sup>th</sup> century, a number of summer and winter routes had been established on the Ben, establishing it in no uncertain terms as a major British climbing ground.

Scottish winter climbing is world renowned for its history, ethics and the harsh conditions encountered. The jewel in the crown is Ben Nevis, so popular and well known that climbers from all parts of the globe can be heard calling to each other while enjoying the unique style of climbing found here. The traditional approach to climbing is strongly maintained and the history of the climbs is well remembered. Modern ice climbing was developed here and that heritage adds greatly to the modern day climbing experience.

In the winter of 1960 Jimmy Marshall and Robin Smith completed the most significant week of climbing ever achieved in Scotland. Orion Direct, Smith's Route, Minus Two Gully and the first single day and free ascent of Point Five Gully were amongst the seven Climbs they completed on consecutive days. All of this was achieved with a single ice axe each and crampons with no front points.



Photo – M.Pescod

Ten years later in 1970 Yvon Chouinard made a brief visit which was to trigger a change that would revolutionise winter climbing. Using prototype curved ice hammers he made some very fast ascents demonstrating how to climb ice by direct aid, hanging off the pick itself embedded in the ice. Comparing techniques with John Cunningham, Hamish MacInnes and many others, modern ice climbing was born.

That year, Hamish MacInnes developed "The Terrordactyl", a short, all metal ice tool with a steeply dropped pick. The "Terror" and Chouinard's ice hammer were at the forefront of international ice climbing for several years. Eventually these two designs were combined to create the banana pick which is still the basis for modern ice tool design.



Ben Nevis continues to play an important role in the world of rock climbing and winter climbing. What is likely to be the hardest rock climb in the world using natural protection is on Ben Nevis (Echo Wall on the side of Tower Ridge). What could well be the hardest winter climb using natural protection is also on Ben Nevis (Anubis on The Comb). By continuing to be the venue for cutting edge climbs with the style of climbing and protection we've used for over one hundred years, Ben Nevis is setting a worldwide standard for climbing. This style of adventurous climbing is now seeing resurgence in countries such as France where sport climbing with fixed anchors has been the norm for several decades.

Dr. Duff with his rescue stretcher developed to get climbers safely down after injury – from the A. Gillespie collection

## 5.2 Bronze Age & Iron Age

Human activity in Glen Nevis and the Nevis Management Area dates back thousands of years. Following the end of the last glacial episode people started moving north and settling in the Highlands. The main impact on landscape by people in the Bronze Age was some clearing of forest and the development of settled agriculture.

There is little physical evidence recorded of Bronze Age activity in the Nevis Management Area. A Bronze Age arrow head has been found approximately one mile up the Glen from An Steall. However a more significant find outside the management area has been a find comprising 18 axe heads and 4 dagger blades by the River Lochy north of Fort William and not far from the Nevis Management Area, which indicates that people were in the area at this time. The Highlands Historic Environment Record (HER) records possible Bronze Age settlement in the flat valley bottom of the lower Glen but it is not certain.

#### 5.2.1 Dun Deardail

Dun Deardail is the only Scheduled Ancient Monument (SAM) within the Nevis Management Area. It is located on an elevated rocky knoll (NN 2705 70131) on the west side of Glen Nevis. No archaeological excavation has ever taken place within the fort and it remains undated. However, excavation of other similar sites indicates that the fort may have been built and occupied between 700 BC and AD 900.

Traditionally, forts were regarded primarily as places of defence and for many archaeologists, given the fluidity of the political situation in the Late Iron Age and throughout the Early Historic Period in Scotland, this seems as good as explanation as any. Large enclosing ramparts may also have served as a symbol of the occupants' wealth and power to command resources and labour beyond their immediate kin. In the Early Historic period these enclosed sites may have served as central military and administration places, controlled by an elite and within which specialised goods were made, imported and redistributed.

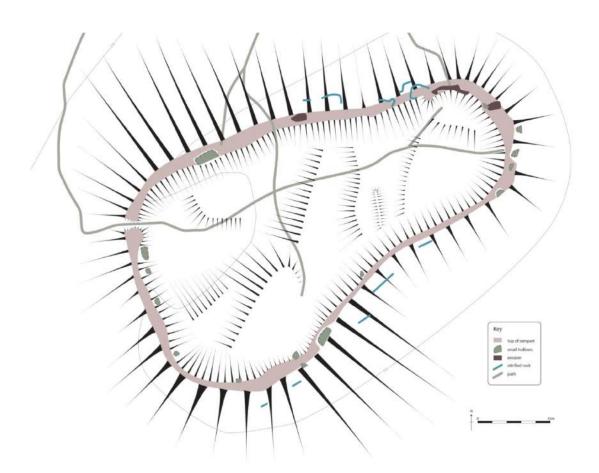


## **Dun Deardail**

What little excavation of forts there has been in Scotland has largely concentrated on the ramparts. This has resulted in some understanding of site specific chronological development but consequently there is very little information on the activities taking place inside. Recovery of animal bones, querns, spinning and weaving tools, accumulation of midden as well as limited evidence for domestic structures from excavations at Dunadd (Lane and Campbell 2000), Maiden Castle (Cook 2010) and Dundurn (Alcock et al 1989) indicates that these sites also witnessed and supported more mundane domestic tasks.

The fort provides a nationally rare and important example of vitrification – a process by which intense heat from a man-made fire causes the smaller core material within the wall to partially melt and fuse. The mystery behind the purpose of vitrification, coupled with the powerful imagery it invokes, has proved to be as intriguing to locals and visitors as to archaeologists. The vitrification of defences through deliberate burning has been identified on a number of enclosed Iron Age and Early Historic sites. Recent excavation at Trusty's Hill revealed that rampart had been vitrified and the authors argue that this was a deliberate act of destruction by an invading force (Toolis & Bowles 2012). It has also been suggested that,

as vitrification would result in a brittle rampart, it may have been stimulated by ceremonial or religious beliefs, marking the abandonment of a site rather than a means of site destruction or re-fortification. There is also some debate on how vitrification was achieved.



The fort commands extensive views up and down the Glen, also affording one of the best viewpoints of Ben Nevis' Western flank. There is a path to Dun Deardail from the West Highland Way that passes approximately 200m west of the fort. As a result the fort is easily accessed from the glen on foot or bicycle via the West Highland Way and forest track. With good access, panoramic views, proximity to car parks and the visitor centre, the Dun Deardail presents a major opportunity for greater visitor engagement and education.

## 5.3 Medieval and Post-medieval Sites

Dun Dige, located close to the old house of Glen Nevis, consists of a mound surrounded by a shallow ditch and may be medieval. It is believed to have once been the home of the MacSorlie chiefs, a now extinct branch of Clan Cameron. It was from here, so the story goes, that men from Clan Chattan took their dreadful and bloody revenge on Clan Cameron. The word 'dige' is the Gaelic form of dyke which is either a ditch or wall. Tom Eas an t-Slinnean (meaning Knoll of the waterfall of the shoulder) is a medieval to post medieval (1058 AD - 1900 AD) graveyard. This was the final resting place for the MacSorlie branch of the Cameron clan that is now extinct.

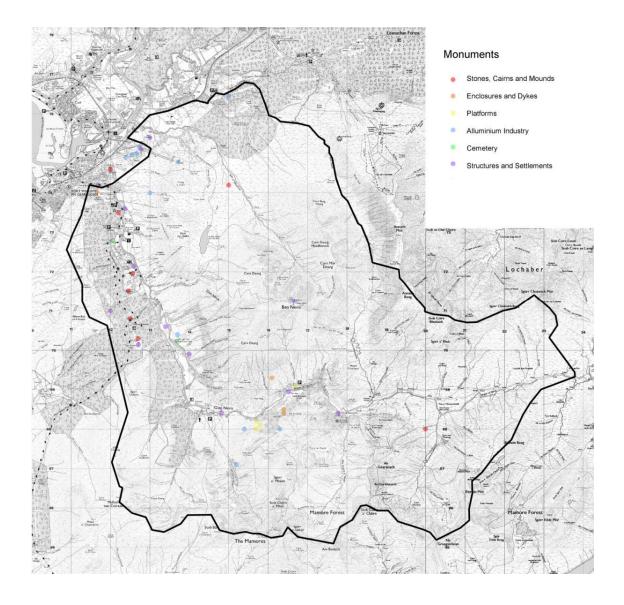
Evidence of post medieval (1560AD to 1900AD) buildings, enclosures and rig and furrow earthworks indicating farmsteads is scattered up the Glen, although mostly concentrated in the middle and lower glen. Not all records are dated but it is thought most would be post medieval. Sites include the following: Steall ruins (not included in Highlands HER); Luib Shonnachain (near Steall waterfall); Blàr Bàn; Dorchaid an Eas Buidhe; and Allt an Aon Doruis.

On the east side of the lower glen is Ach nan Con graveyard, a post medieval cemetery. This burial ground constitutes a tranquil and scenic spot at the foot of the west slope of Ben Nevis. Enclosed by a stone wall and lined with impressive Beech trees, the graveyard has a particularly sheltered and quiet quality. This bestows it a rather unique 'sense of place'. The place name, Ach Nan Con means 'Field of the Dogs'. Quite why the name was chosen for the burial ground is a mystery. Close to the burial ground is an old settlement which is thought to date from between 1755 and 1845. The settlement, which has been almost completely buried by flood debris, includes buildings, enclosures and rig and furrow earthwork.

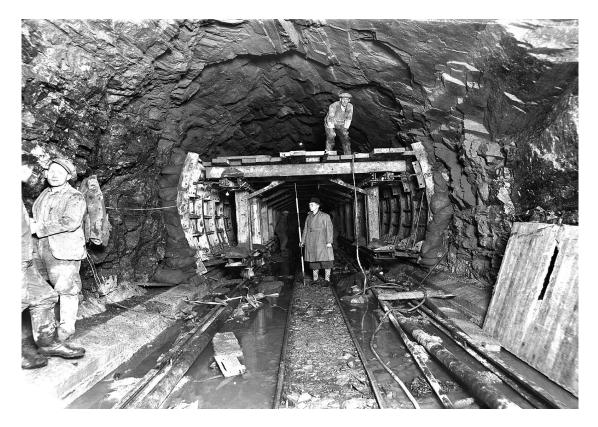
The path through the Nevis Gorge is now a well-worn tourist route that would once have been the main route to the houses in the glen. Human activity in the upper part of the glen is probably greater now than in the past due to the number of walkers using the path estimated to be about 40,000 people a year. Below the Nevis Gorge the sides of the valley have a large number of former charcoal burning platforms. These are flat areas that have been created on the valley sides.

A total of 58 charcoal burners' platforms were identified in the 2003 survey, mainly concentrated on both valley sides of the middle part of the glen. They date from the 18th century when the charcoal would have been sold for use in the iron smelting industry. There is the possibility that some of these platforms date back much further as there is evidence elsewhere in Scotland that charcoal burning platforms used sites that had been used historically. The survey stated that further investigation is needed to determine whether or not any of the charcoal burning platforms in Glen Nevis have older origins.

Glen Nevis House is a post medieval building still in use and is the former house of the MacSorlies. Many of the buildings in the lower glen are recent and are linked to tourism and recreation activities. There is only one listed building on the edge of the Nevis Management Area, the Old Nevis Bridge which is grade B listed and of post medieval origin. The peat track has been identified as being of cultural and historical interest. This was used by the residents of Glen Nevis to gain access to the peat cutting grounds above Upper Achintore. The path has recently been upgraded to a high standard and is an important part of the recreational access network.



## 5.4 Industrial Heritage



Modern industry has had a significant influence on the area. There are a number of HER sites linked to aluminium smelting to the north side of the Nevis Management Area. The Old Puggy Line (dismantled Lochaber narrow gauge railway) passes through the northern end of the Nevis Management Area. Of particular note are the structures on the north facing slopes above the Lochaber Aluminium Smelter that are linked to the production of hydroelectric power for the aluminium industry. The aluminium smelter is not in the Nevis Management Area but is a large complex just outside the boundary. Rio Tinto Alcan owns the Lochaber Aluminium Smelter and is the major landowner in the Nevis Management Area. As a result this industrial heritage has a significant influence on the management of the Nevis Management Area.

1894 saw the birth of the Aluminium industry in the United Kingdom with the formation of the British Aluminium Company. In 1896 the company's first smelter went into production on the eastern shore of Loch Ness at Foyers. It produced approximately 2000 tonnes per annum which satisfied 10% of the world demand for aluminium at the time.

The 1914-1918 war brought a vast and rapid increase in demand for aluminium. Additional primary aluminium production capacity was required, thus began the scheme which resulted in the building of Lochaber Smelter at the foot of Ben Nevis. In 1924 work had begun. Welfare buildings for a workforce of 2000 were constructed; a temporary power station was set up for the operation of the contractors' equipment, and 23 miles of surface railway (known as The Puggy Line) was laid. All this was preliminary to the main undertaking of

drilling a 4.50 metre diameter tunnel a distance of 15 miles from Loch Treig to Fort William through the shoulder of Ben Nevis.

In 1931 the second stage of the scheme pushed ahead with the construction of the Laggan Dam across the River Spean. Laggan Dam is 213 metres long and 40 metres high. Water is transferred from Laggan Dam through a 4.30 metre diameter tunnel for 2.8 miles into Loch Treig. The final stage involved diverting the flood waters of the River Spey via a tunnel to Loch Laggan; this was constructed with the help of Canadian troops in 1943.

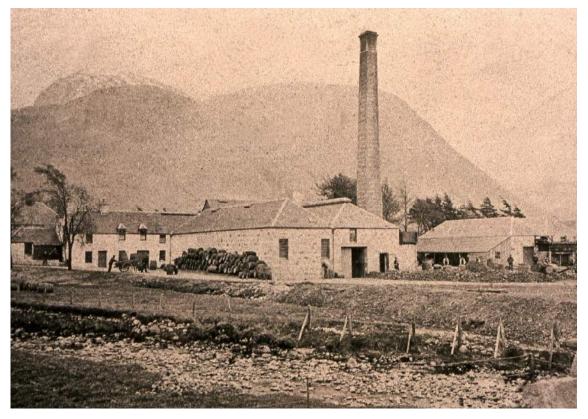
The 15 mile tunnel from Treig terminates in a Surge Shaft which is 9.14 metres in diameter and 72.5 metres deep. From the bottom of the Surge Shaft, two branch tunnels connect to the inlets of the five steel pipelines, which one can see running down the hill, to the power station. Once through the turbines in the power station the water flows down the tailrace for 0.5 mile and discharges into the River Lochy.



The Power Station remained unchanged for many years with the 12 DC machines and 3 auxiliary generators giving reliable service. However, due to continuing developments within the smelting process, it was recognised that the DC machines were operating at their limits. On this basis a decision was taken to replace them with five 20 MW AC machines. This work was started in 2009 and completed ahead of schedule in 2012, heralding a new era for power generation and aluminium smelting in Lochaber. The Lochaber Smelter had a turnover of £75m and a capital investment of £5m in 2012. With modernisation over the years, continuous improvements and the efforts of 160 people, Lochaber now produces 48000 tonnes annually.

The village of Inverlochy which includes houses, shops and hall was modern when constructed by the company for the workforce. Over the years employees purchased their houses and now only a handful of houses remain within company ownership along with houses on the estates. The estates still form an integral part of the Lochaber site; carrying out deer management, forestry operations, various other commercial activities and sharing this land with the public to enjoy.

The Ben Nevis Whisky Distillery is located northeast of the aluminium smelter and was established in 1825. It is outside the Nevis Management Area but has an influence on the environment of the area though the extraction of water from Allt a' Mhuilinn. The fact that water is extracted from this stream for both the whisky and aluminium industry has led to its poor potential ecological status as determined by SEPA in the River Basin Management Plan status report for that water course.



Ben Nevis Distillery 1900 – from the A. Gillespie collection

## 5.5 Forestry

The history of human activity in the Nevis Management Area has shaped the landscape we see today. The majority of human activity has occurred in Glen Nevis where man's influence has made a significant contribution to landscape character in particular through deforestation, farming and more recently, forestry planting.

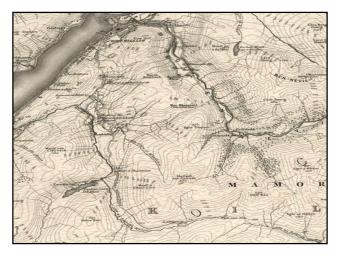
Roy's map of the highlands (circa 1750) shows virtually no woodland beyond the immediate riparian zone. Some form of cultivation is shown along the length of the Glen on the lower ground. The Ordnance Survey of 1885-1900 similarly shows little woodland other than that along isolated burns.

The Forestry Commission was set up between the First and Second World Wars to address the serious shortfall in home grown timber. This raised the very real question of exactly where this muchneeded timber resource was to come from.

The answer was to buy areas of land so that new forests could be established. Glen Nevis, together with other areas



Roy's map of the Highlands 1747-52



OS 1" 1885-1900

across the whole of Scotland, was chosen as just such a place.

With the formation of the Forestry Commission in 1919, the commission commenced procuring land and properties in Glen Nevis around the 1920s.

Forest workers resided in crofts (Forestry Workers Holdings) where they had the use of the land for livestock. There were cattle to look after and cows to be milked, hay to be cut and harvested as well as work in the wood. At this time there was a strong community spirit, each family helping the other with croft work.

The hay was cut by scythe as late as the 1960s before being replaced by the tractor. While the men worked in the wood, the wives worked in the Forestry nursery, weeding the thousands of young trees there. The nursery was the field adjacent to Glen Nevis Farmhouse.

In 1948 the forestry built two blocks (two dwellings per block) of Finnish houses for four more workers. Nancy, wife of Lachie (St. Kilda) at number seven started a Sunday school for the Glen children in her sitting room. The Glen was busy for the workers in the wood: planting, thinning, brashing, felling and extraction of the wood. Extraction until the late sixties was by horse and chains, with the horse being stabled at Glen Nevis Farmhouse barn. The horse wasn't the only resident in the Barn, as the RAF Mountain Rescue regularly used it as a base.

In the 1960s and '70s the forestry industry had to change again. With the demand for home grown timber dropping, the Forestry Commission had to think more creatively about its role. What other uses might forests have for people? This important question opened up a new role for the Forestry Commission. New work was begun to improve the actual appearance of forests in the Glen; paths and tracks were developed for visitors and important work was started – and continues - looking at ways to protect native woodland inhabitants.

Today, the Forestry Commission's key role is managing the Glen Nevis forest to support local timber processing. However, this work is set against a complex background where the demands on the forest have changed significantly. With tens of thousands of visitors coming to the Glen every year, forestry workers have to rise to the challenge of getting timber to the roadside safely.

With so many pairs of feet walking through the glen, there is also a need to ensure that the network of paths and car parks are kept in good condition. Conservation of biodiversity is also a growing concern for the Forestry Commission. Ancient woodland, as well as more recent forest stock provides important habitat for key wildlife species including the red squirrel and the chequered skipper butterfly.

# 5.6 Farming and Life in the Glen

# 5.6.1 Farming

Before the days of forestry and aluminium farming and crofting were central to life in Glen Nevis. The nature of the landscape meant the Glen was used almost exclusively for grazing cattle and sheep. Arable crops on any large scale would never have survived here, although the outlines of old 'lazy beds' – which can be seen on the east side of the River Nevis just upstream from the Youth Hostel – are evidence that some small areas of land would have been cultivated. 'Lazy beds' were a way of growing crops that was widely used in Scotland until the 19<sup>th</sup> century. It involved digging rows of ridges and furrows and gave the land a distinctive ribbed or corrugated appearance.

Farming was not an industry for the faint hearted. Shepherds would walk miles and in all weathers to gather their Black Face sheep, a breed chosen for its ability to survive in an unforgiving climate. Half a century ago there would have been around 400 sheep in the Glen. While these numbers have fallen sharply in recent years, sheep and cattle are still bred in the Glen and there is real pride in the pedigree herd of Highland cattle, which includes the 'old type' black breed. There is no grazing of the land above the Lower Falls at Polldubh. Stalking and fishing take place on a relatively small scale on Ben Nevis, and in Glen Nevis.

A string of settlements and arable stretches in the lower part of Glen Nevis recorded in the mid 18<sup>th</sup> century had been replaced by the mid 19<sup>th</sup> century. This change of habitation pattern reflect an evolution of land use and suggests that the old settlements had been cleared to make way for a sheep economy which required dispersed shepherd's houses.



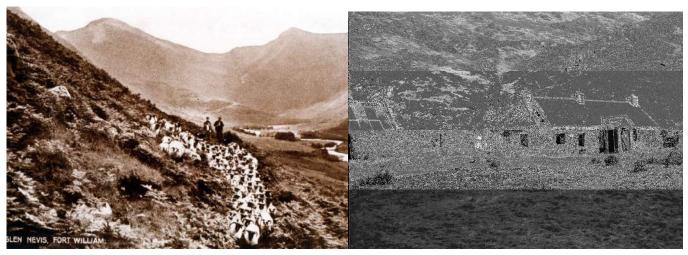
Shearing by hand - from the A. Gillespie collection

The development of isolated buildings further up the Glen includes the building named Steall where a wooden footbridge crosses the Allt Coire Guibhsachan, and what is now the Lochaber Mountaineering Club Hut known as Tigh an Steall at Luib Shonnachain. Tigh an Steall, restored as a club hut, was occupied just before World War II when the residents served tea to visitors.

Steall, (at NN 1865 6880) meaning ruin, was a large house with mortared stones. It had a conjoined enclosure, which were presumably sheep handling pens, with a small area of rig and furrow. It was occupied by 1870 and still in use just before World War II. It was noted in the 1841 census that "the people distinguished as Agricultural Labourers are principally shepherds and the Glen is wholly under sheep and a few cattle. It is not suited for Agricultural purposes" (indicating that farming was not easy in this environment).

During the early 20<sup>th</sup> century there were farms, farm cottages and crofts throughout the Glen, extending through the Gorge of Nevis. The farms were worked by tenant farmers who employed ploughmen and other agricultural workers, hence the need for hostel accommodation. There were five shepherds employed in the Glen which denotes the number of sheep there at that time. Employment was to be found as estate workers such as shepherds and stalkers. These were mobile, seasonal positions and life was dictated by the "term" system. There was the May "term" and the November "term" when families could move on to pastures new or remain (if allowed).

The houses were "tied" so if you left the job you had to leave the house. It was not easy to have supplies delivered to these dwellings beyond the Gorge, so there was a shed circa 200yds along the Gorge path from the end of the (now tarmac) road where the goods were deposited by the carter. Today there is not much left of the shed to be identified, but from there, bags of coal, grain, oatmeal and flour etc were either manhandled or transported by pony through the gorge to the families.



Glen Nevis Postcard & Old Croft, Upper Steall, 1944 – from the A. Gillespie collection

# 5.6.2 Daily life

Much of what we know of life in Glen Nevis during the last 100 years or so has been gleaned from the memories of people who lived here. At the far end of Glen Nevis lie the Nevis Gorge and Steall Falls. The last people to live in this remote and beautiful valley would have moved out in the 1930s. A cottage from that time still stands and is used today as a climbing bothy. With no school or shop, every Monday the children would set out and walk the three-and-a-half miles to Achriabhach for their lessons. They would stay there until Friday and then return home.

There was and still is no electricity in the upper glen and many houses had no running water. Early residents like the shepherds were allowed to keep three cows and also several sheep of their own. Many families survived on mutton of sheep infected with the disease braxy.

Food and other essential provisions would be walked through the gorge. It was a simple, unspoilt life. During the 1950s most people living in Glen Nevis had their homes around the area of Glen Nevis Farm. It was the obvious place to choose mainly because it was close to the youth hostel, the farm itself and houses and cottages which the Forestry Commission had built for workers and their families. In this close little community those with land around their homes would keep poultry and grow vegetables. There was also venison from the hill, which families would share out, and even the occasional salmon from the River Nevis. What they couldn't grow or make themselves using the fresh milk, cream and butter from the farm was brought into the Glen by mobile shops.

Household rubbish was collected once a week by horse and cart and, for a treat, local children would often hitch a ride. A number of enterprising people opened up small teashops. One of the now deserted cottages at Achriabhach was home to one of these and was run by a local shepherd.

Further down the Glen, towards Fort William, were the Croft Tearooms, situated next to the curling ponds. Not only did it serve up hot meals and ice cream but it also provided the perfect venue for Saturday night dances. Curling was a hugely popular sport and a great way for people to get together. This was where the Fort William Curling Club met. The club is now 140 years old and continues to meet. The Nevis Partnership, working with the Friends of Nevis, recently carried out an extensive conservation project around the curling ponds in Glen Nevis.



Curling Ponds – from the A. Gillespie collection

## 5.6.3 Conclusion

Like forestry, farming and daily life have had to adapt to a world that is changing. Farmers and landowners in the Glen have successfully diversified into other areas, mainly tourism and conservation, where they play a key role in helping to preserve and protect this special

landscape. Local life in the Glen now predominantly revolves around recreation, with accommodation providers and other small businesses catering for the many tourists who visit the area. The close community spirit of a small-scale, rural based economy has had to evolve in response to a century of unparalleled social change.

Whilst particular ways of life have been lost, and others are adapting, the area remains vibrant and full of opportunity. The cultural importance of the area has changed, but it has not diminished. The landscape stands as a national resource, providing a wealth of culturally significant experiences which can be utilised to connect people with their heritage. Through careful management, the area can offer new opportunities to provide sustainable and meaningful lives for those who live and work in the Glen.

## 5.7 Folklore, Language and Artistic Associations



"Braveheart" film set – A. Gillespie

#### 5.7.1. Film and Art

The Glen and its iconic mountain scenery have provided the locations for numerous films and documentaries. The landscape, its heritage and biodiversity have been captured in many documentaries about the natural environment and Scottish history. In particular, films such as 'Braveheart' and 'Rob Roy' have substantially been filmed in Glen Nevis, with significant film sets being constructed.

There is a long history of Art in Glen and Ben Nevis; some work is touched on in the Activities chapter (see section 6).

# 5.7.2. Folklore

Clach Shomhairle (Sorley's stone) is said to be named after Sliochd Shomhairle Ruaidh and commemorates a decisive victory. It is also known as Clach Chomhairle (The stone of advice and counsel) as it is said that at certain times of the year the stone revolves three times and that any person who finds it turning will receive answers to any question they put to it before it stops moving.

Tom-Eas-An 't Slinneain (Knoll of the waterfall of the shoulder) is the old burial ground of the Camerons of Glen Nevis and is home to a gravestone inscribed entirely in Gaelic for an Alasdair Cameron. Running past the Graveyard is the old peat track which was originally used to carry peat from Blarmafoldach to Glen Nevis.

The ancestral home of the MacSorlies was Dun Dige, the site of a massacre which is also linked to Cnocan na mi-chomhairle (Hill of Evil Counsel). The story goes that sometime after 1386 the MacSorlie chief decided to make peace with one of his enemies, the Clan Chattan. He invited the Chattans to his home and lavished hospitality on them – this was not looked on favourably by all the clan and when he called his piper to play for the departing guests, the piper played the War piobrach of his clan. Enraged at such an insult, the Chattans vowed vengeance and upon reaching Cnocan na mi-chomhairle, they decided to take their revenge. They returned to Dun Dige when the household had retired to bed and killed all men, women and children before finally setting fire to the house.

One of the MacSorlie's clansmen (Iain MacDhon 'ic Raoil) snatched the sleeping infant heir along with some valuables and went to hide in Uamh Shomhaile until he was discovered by his wife, who had followed the family's dog. He then headed north until the child needed an education, at which point he returned to Lochaber, calling in at the house of the murdered chief's sister and asking for porridge. Iain then produced a silver spoon to feed the child which was immediately recognised as belonging to the murdered Chief and the boy was taken in and educated by his Aunt. At seventeen the exiled heir was recognised as Chief of the MacSorlies of Glen Nevis.

Achriabhach was the home of Iain MacDon 'ic Raoil. Close to here one of the MacSorlie chiefs was murdered in the early part of the 17<sup>th</sup> Century. He had gone to see his cattle and was drinking from a bowl when an arrow pinned the vessel to his head. The murderer was said to be MacAindrea, a cunning and malevolent dwarf who was blamed for many deaths.

Glen Nevis House was used as a headquarters for the Jacobite uprising by the Chieftains Cameron of Lochiel and MacDonell of Keppoch. After Culloden the Duke of Cumberland and his men were determined to subdue the last of the rebels and marched south from Inverness to Fort William, burning and looting as they went. The wife of Cameron of Glen Nevis buried all the family's valuables and hid with her infant son in Uamh Shomhaile (Sorley's cave) further down the Glen.

She was discovered by the soldiers and subjected to bad treatment. Upon seeing that she had something concealed under a shawl, one solider cut off her brooch with his sword to reveal her infant hiding below – the child was wounded in the neck but survived and bore the scar for the rest of his life. It is said that Mrs Cameron of Glen Nevis wrote a poem in Gaelic

to a waterfall while hiding in the cave. This cave is associated with countless tales and linked by legend to Ossian, a Gaelic bard who was supposed to have lived during the 3rd century.



Uamh Shomhaile (Sorley's cave) – Courtesy of A. Gillespie

## 5.7.3 Gaelic in Glen Nevis

In "Place Names of Lochaber", Lachie MacKinnon quotes a 16<sup>th</sup> century verse about this much loved glen:

Gleann Nibheis, gleann nan clach, Gleann am bi an gart anmoch, Gleann fada, fiadhaich, fàs, Sluagh bratach a' mhì-ghnàis

Translated as "Glen Nevis, glen of stones, where the harvest ripens late, a long, wild, waste glen with thievish folk of evil ways."

Iain Taylor in "Place Names of Scotland" recounts the even less complimentary *Amar* sgùrainn an domhain mhòir meaning slop pail of the wide world. When one remembers that Professor W.J. Watson, the doyen of Gaelic place name experts, was of the opinion that Beinn Nibheis (Ben Nevis) probably meant venomous mountain, it seems that the old Gaels had a fairly negative view of our Ben and Glen.

Most of the place names in Glen Nevis and on the Ben are Gaelic, as is the case throughout the Highlands and Islands, and it is clear that it has very long links with the Gaelic culture. One the south side of the Glen, close to the West Highland Way, is an ancient vitrified fort, Dùn Deardail or Deirdre's Fort. 1500 years ago Deardal nam bron dubha, Deirdre of the black sorrows and her lover, Naisi, fled Ireland to live in Scotland in defiance of her father,

Conor, King of Ulster. Some, who refute this legend, say the fort's name was Dùn Dearg Shuil, the fort of the red eye, referring to its use as a beacon site.

The Camerons of Glen Nevis were alternatively known as the MacSorlies, coming from the Gaelic patronymic Mac Shomhairle, meaning son of Somerled. It is suggested that the Glen Nevis Camerons may have been descended from a 15<sup>th</sup> century Somerled, Lord of the Isles and ruler of the sea kingdom. This suggests that they were originally MacDonalds before transferring their allegiance to the Lochaber Camerons.

#### Gaelic Place Names (with pronunciations)

Dun Deardail (Doon Jee-ar-dull) - Deidre's Fort. Named after Deirdre who, Celtic legend says, caused the death of the three heroes of Ulster.
Dun Dige (Doon Jee-guh) - Ditch/Dyke Fort. This is the site of the original home of the MacSorlies. It would have been a wooden structure surrounded by a moat or ditch.

**Uamh Shomhairle** (Oo-av Hoh-orl-yuh) - Samuel's Cave. This cave has been used as a place of refuge in the past by the Camerons on at least two occasions.

Carn Dearg (Carn Jarag) - Red Rocky Mountain

Sgorr an lubhair (Skorr un Ewe-ur) - Mountain of the Yew

Am Bodach (Am Bot-uch) - The Old Man

Poll Dubh (Pow-ul Doo) - Black Pool

Coire an Lochain - (Corr-uh un Loch-un)

Coire of the Little Loch Stob Bàn (Stop Bah-un) - Fair or White Hill

An Steall (Un Shhh-chee-al) -The Spout (waterfall)

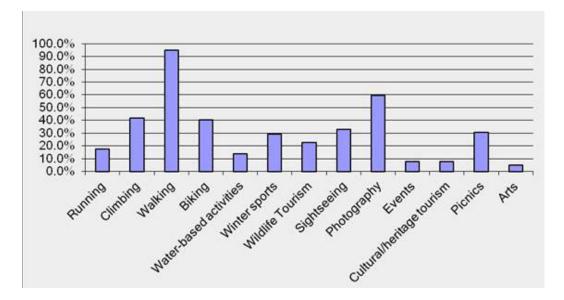
**Meall an t-suidhe** (Mee-yal un Too-yuh) - Hill of the Seat. Perhaps confusingly, the area under the hill is known as **Dail an t-sìthidh** (Field of the Stormy Blast) leading some people to speculate that the original name for the hill is **Meall an t-sìthidh** (Mee-yal un Chee).

# 6. Activities, Audiences & Access

The Nevis Management Area is a landscape rich in experiences and activities. People come from all over the world to be inspired by the landscape and the activities that are on offer in the heart of the Outdoor Capital of the UK. Each year, hundreds of thousands of people explore the natural and cultural heritage of Ben and Glen Nevis. The following chapter aims to cover a handful of the main activities that are enjoyed here by locals and tourists alike.

# 6.1 Range and Popularity of Activities

The graph below provides results from the NLP Community Consultation and Visitor Survey (2013). Participants were asked in what activities do you participate in Glen/Ben Nevis?



The significance of the area as a place for walking is paramount. Walking is estimated to bring £125 million to the Scottish economy before taking account of its wider social benefits such as increased health and wellbeing (SNH, 2010). The importance of Ben and Glen Nevis as internationally recognised walking areas cannot be overstated.

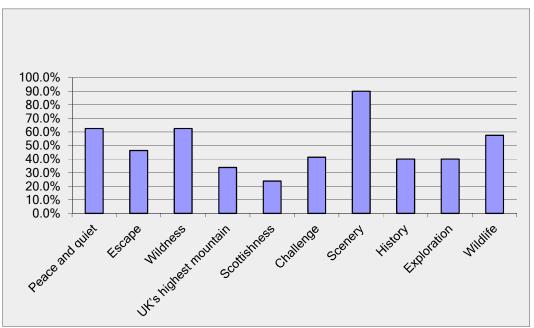
The high numbers associated with walking also reflect that it encompasses everything from a ten minute stroll or dog-walking to multi-day expeditions into the wilder mountains. Being at the heart of the Outdoor Capital of the UK, the area is also host to an impressive range of more specialist and adventurous outdoor pursuits. Each of these activities is covered in more detail within this chapter.

Besides facilitating a wide range of physically demanding activities, the area is highly valued for its more tranquil aspects. The high percentage of respondents who visit the area for photographic purposes highlights the appeal and significance of the area's scenic qualities. Sightseeing, short walks, family outings and picnics are also popular. These activities demonstrate the more relaxing and rejuvenating ways in which individuals, groups and families appreciate and engage with the landscape.

## 6.2 Health and well being

The link between health and well-being and natural heritage is established and complex but it is generally accepted that the natural environment contributes to people's health and well being both physically and mentally. The Scottish Government published "Good Places, Better Health", a new approach to environment and health in Scotland and the Forestry Commission has produced a Woods for Health Strategy (2009) that looks at making woods accessible and welcoming. SNH policy includes looking at developing the contribution of natural heritage to a healthier Scotland.

The Highland Single Outcome Agreement also makes the link between health and the environment. The Nevis Management area is a great resource for the enjoyment of the outdoors at all levels of interest and ability and as such has an importance and valuable contribution to make to the health and well being of the Scottish people and visitors to the area. This is often noticed by tourists who often comment on how relaxing a place it is to visit and stay in.



Results from NLP Community Consultation and Visitor Survey, (2013)

"The variety of ways one can use the Ben and Glen is important; it is an endless source of renewal." Quote from survey respondent

The consultation found that after 'scenery', the most important aspect was 'peace and quiet', providing evidence that the area is valued by visitors and the local community for its tranquility and the opportunities to escape from the pressures of modern life.

Publication of an update to the Scottish Government's National Planning Framework for Scotland 2 (2009) in April 2013 included mapping of areas described as wild land states:

"Some of Scotland's remoter mountain and coastal areas possess an elemental quality from which many people derive psychological and spiritual benefits. Such areas are very sensitive to any form of development or intrusive human activity and great care should be taken to safeguard their wild land character." (Paragraph 99)

## Strengths (Nevis Management Area)

- Tranquil setting with space to relax
- Places to get close to nature
- Wild landscape character
- Ease of access and opportunities for fresh air and exercise

# 6.3 Artistic Activities



Andy Peutherer- Ben Nevis Across Loch Linnhe, Scottish Highlands

Glen Nevis and the surrounding mountains are considered a landscape of high scenic quality as demonstrated by the NSA designation. The considerable seasonal, atmospheric and climatic variations, coupled with unparalleled mountain vistas, provide for a constantly changing landscape full of artistic inspiration. The close proximity of the Glen to Fort William and the easy access to the area despite its relative remoteness attracts high visitor numbers to the area.

A local art gallery, the Lime Tree, houses many original works inspired by Ben and Glen Nevis. It was purpose built to bring public exhibitions from national collections and archives and hold talks and painting demonstrations for school groups and the public. Similarly, many of the high street shops are full of paintings and photographs of the mountain landscape and its wildlife.

Art Lochaber is a programme of workshops and events which allow individuals to share their passion for art with like-minded people. Led by skilled tutors, workshops are designed to suit all levels. Workshops take place at various venues around the Lochaber area. An annual exhibition takes place in early summer but members' work is displayed on an on-going basis in the Belford Hospital, Fort William. They are non-profit organisation and funds are raised through subscriptions/modest commission made from the exhibition sales.

Room 13 International represents a growing network of student-run arts studios in schools and community settings worldwide and is based near the Nevis Management area. It began in 1994, when a group of students established their own art studio in Room 13, Caol Primary School near Fort William, Scotland. They ran the studio as a business, raising funds to buy art materials and employ a professional Artist in Residence to work with them. Slowly and organically, Room 13 has gone on to establish a network of creative studios and a thriving community of young artists and entrepreneurial thinkers that stretches around the globe.

Outlandia (the remotely sited artists field station and studio) is a legacy project of the Year of Highland Culture 2007, situated in Glen Nevis. The structure offers an imaginative space to immerse its occupants in a very particular environment, provoking responses to and encouraging creative interaction between artists and the land.



Since it opened in 2010 Outlandia has hosted 25 short artists' residencies documented on www.outlandia.com. These residencies have been inspirational to artists whose practice has developed significantly as a result. There have been artist talks, poetry readings, open studio events and walks to Outlandia that have proved popular with the local community. This project will build on these past residencies and activities to further integrate and embed the project in the



local community and to reach out to a national and international audience.

The Lochaber Poetry Pack, Wild Words was produced for education purposes by the Scottish Poetry Library, the John Muir Trust and the Nevis Partnership and demonstrates how the landscape and our environment can be a source of inspiration for poetry writing. The publication has input from five Scottish poets and includes a chapter on writing poetry about the Nevis mountains and rivers.

Mountainous landscapes have inspired artists and photographers for many years and the Nevis Management Area is no exception. The Glen Nevis Recreation Survey of 2003 indicated that 86% of visitors come to the area to see the scenery and natural beauty of the area and highlights the aesthetic value of mountain landscapes in recreation. Photographs that record the history of climbing in the area as well as recording the scenery have been taken since the advent of the camera. More recently, a range of short films have been made capturing both the people and the landscape of Ben and Glen Nevis. The Fort William Mountain Festival has been instrumental in supporting these artistic and cultural endeavours.

Artists and landscape photographers are continually drawn to the area, with some choosing to stay and make more detailed studies of the landscape. Alex Gillespie's works provide but one example of this.

The inspiration provided by the landscape of Glen Nevis and the surrounding area to writers, poets and artists is significant in the range and diversity of works available.

#### Strengths (Nevis Management Area)

- Range of climatic, seasonal and atmospheric conditions
- Scale, altitudinal range and contrast of mountain scenery
- Reputational and cultural significance of highest mountain in the UK
- Quantity and quality of vistas
- High number of tourists visiting the area
- Diversity of habitats, flora and fauna
- Access to wild land and proximity to Fort William
- Heritage of writers, poets, photographers, film makers and artists
- Fort William Mountain Festival

## 6.4 Mountaineering & climbing

Since the opening of the West Highland Railway in 1894, Fort William has served as a popular base for British climbers exploring the cliffs and summits of Lochaber.

# 6.4.1. North Face of Ben Nevis

Ben Nevis remains at the forefront of international mountaineering, with some of the hardest rock and ice climbs in the world. There are plenty of higher, more remote peaks in other parts of the world but what draws climbers back to the Ben time and time again is the mountaineering heritage of the area, the great variety of high quality climbs and the unique challenges of the North Face. The particular combination of altitude, north-easterly aspect, latitude and exposure to both Atlantic and Arctic weather fronts generate some of the most unique and unpredictable winter climbing conditions to be found on any mountain. It stands as one of the leading places in the UK for ice climbing.

The relative challenge posed by any particular rock climb is recorded in guidebooks by a well established system ranging from Difficult through to Extreme, with associated numerical and alphabetical distinctions. Ben Nevis offers numerous climbs of rare and exceptional quality (many being given the highest possible quality rating of 4 stars which denotes international importance) across the full range of grades. It is this combination of diversity, quality, and unparalleled scale within the British Isles, which mark it as a mountain of unique significance.

No formal surveys exist of the number of climbers visiting the area, but the quantity of guidebooks and other mountaineering literature on sale would indicate their number is significant. During the winter climbing season "several hundred climbers may pass the (CIC) hut " (Ben Nevis, 2009:106) on their way up to the North Face.

# 6.4.2. Polldubh

The Glen also houses one of Scotland's most popular rock-climbing outcrops: Polldubh Crags. The climbs here are very accessible and popular with climbers from all over the UK. In contrast to Ben Nevis, the crags are made up of Schists. Their proximity to the road and the quality of the routes has ensured their popularity.

These crags are nationally important with



a range of famous routes across the grade spectrum. They played an important part in the early days of rock climbing and in particular during the 1950's climbers such as Jimmy Ness pushed the limits of what had been achieved to that date. Pioneers such as Dave Cuthbertson continued to establish cutting edge routes during the 80's and 90's. Dave MacLeod, the UK's current leading professional climber lives locally and continues to demonstrate the importance of these crags as a testing ground for the 21<sup>st</sup> century.

## 6.4.3. Bouldering

Bouldering, as both a form of training and as a social occasion is as old as climbing itself. Numerous accounts and photographs can trace its evolution through the last century. In recent years bouldering has seen an exponential growth in popularity. Polldubh and the wider glen are scattered with a profusion of suitable boulders. The variety and quality of the bouldering has earned the area a reputation of national significance, being covered in a range of recent publications

The recent divergence of bouldering into a distinct sport in its own right has seen a range of specialised equipment and guides emerging. Similarly, a new audience is being drawn here. These 'boulderers' will explore the wider Glen for a day or two, ticking off the best boulders. Many will never attempt the more traditional climbs at Polldubh, or the multi-pitch routes on the North Face.

## **Strengths (Nevis Management Area)**

- Unique scale and climatic conditions of the North Face
- Internationally significant mountaineering heritage
- Quantity of nationally important routes
- Exceptional quality of climbs
- Variety: ice climbing, mountaineering, rock climbing, multi-pitch, bouldering
- Geodiversity
- Access to climbs and proximity to Fort William
- Quality and reputation of local guides/instructors

# 6.5 Running

Not everyone climbs or walks up Ben Nevis. Each year men and women from all parts of the UK and beyond gather at Claggan Park football ground on the outskirts of Fort William to take part in the gruelling Ben Nevis Race – a 14km run with a 1,340 metre ascent to the top of Ben Nevis and back again. They're following in the footsteps of a man called William Swan, a barber from Fort William, the first person to make the first recorded hill run of this massive mountain. He did it in 2 hours 41 minutes.



The present day record, from Claggan Park, is almost half Swan's time. This run is not for the fainthearted. Entry is restricted to people who have already completed three hill races

and, even then, numbers are kept to a maximum of 500 people due to the fragile and demanding nature of the mountain environment. Anyone who doesn't make it to the peak in two hours is turned back.

Besides the iconic Ben Race, the area is popular with the local community as well as visitors as a place to train for mountain races, to run with local groups or simply as a stunning location to take exercise.

## **Strengths (Nevis Management Area)**

- Iconic status of the highest mountain in UK
- Heritage of mountain running
- Range of paths
- Proximity to Fort William
- Landscape character

# 6.6 Winter Sports

Ben Nevis provides one of Scotland's most impressive winter sports venues. Besides winter mountaineering and ice climbing, the gullies of the North Face are famous for their off-piste, alpine-scale skiing and snowboarding. The lack of ski infrastructure adds to the wild character of the experience and is highly valued by those more experienced skiers and snowboarders.

The nationally important skiing area of Nevis Range sits on the edge of the Nevis Management Area and shares the same mountain massif. It provides opportunities for all levels of skiers and snowboarders and is also widely used by winter climbers to access the cliffs of Aonach Mor. During the winter months the high peaks of Lochaber are covered in a mantle of snow and ice, making this a premier destination in the UK to practice winter mountaineering and ice climbing. The Coire an Lochain and the Westface provide some of the most reliable conditions in Scotland considering their altitude.

#### **Strengths (Nevis Management Area)**

- Snow staying till late in the season in gullies
- High standard of facilities available at Nevis Range
- Suitable for different levels of skier/boarder
- Fantastic off-piste skiing
- Beautiful scenery
- Specific outdoor equipment shops located nearby in Fort William
- Trained instructors

# 6.7 White Water

The topography and proximity to Atlantic weather fronts ensures that the area receives high rainfall. The large mountain watershed, underlying rock and poor drainage concentrate this rainfall into a powerful hydrological force. The River Nevis has become a huge attraction for white water sport enthusiasts with an abundance of rapids, gorges and tight, twisting channels.

The upper section of the river is where the most challenging waters are to be found. With names such as Boulder Blast, the Mad Mile, Leg Breaker and Roaring Mill, these are waters for really experienced canoeists. Kayakers grade white water on a scale of 1 to 6. Grade 1 rapids are easy while grade 6 enters the realm of the impossible.



The River Nevis has plenty of grade 4 rapids and some really tough grade 5 runs. One of the most exciting sections starts at the foot of the Nevis gorge and runs down to the Polldubh Falls. The lower sections of the Nevis offer gentler stretches of water suitable for less technically challenging and more relaxing activities.

Many sections of the River Nevis are also popular for picnics, paddling and wild swimming. Lower Falls has a long tradition of pool jumping. The Glen Nevis River Race event takes place every summer in the Glen and raises thousands of pounds for Lochaber Mountain Rescue Team. Contestants descend the river with nothing more than buoyancy aids and a lilo.

# Strengths (Nevis Management Area)

- Climate
- Water catchment and hydrology
- Diversity of river features
- Range of graded sections of river
- Quality and unique character of rapids and falls
- Access and proximity to Fort William

## 6.8 Walking

#### 6.8.1. Ben Nevis

The building of the pony track in 1883 for the Ben Nevis summit observatory opened up the first direct route to the top. It is this same route which, today, around 150,000 people annually climb to reach the summit of Ben Nevis. For many, it's the only mountain they may ever climb – a personal Everest. The path is incredibly popular, attracting people from around the world. On any day in the summer period thousands of people can be encountered, including individuals, families, self organised groups, educational groups, military groups, commercial guides, and those involved in large-scale events and challenges. This level of annual footfall coupled with the demanding climatic conditions means that erosion is a constant and very serious threat to the sustainability of future access. In the Glen Nevis Recreation Survey, 2003 68% of participants stated the reason for their visit was for hill walking and climbing in the area and 30% said the main reason for their visit was to reach the summit of Ben Nevis. This is a strong pull for tourists visiting the area.

## 6.8.2. The West Highland Way

This route was Scotland's first official long distance route, linking Milngavie on the northern outskirts of Glasgow to Fort William, a distance of 154 km (96 miles). The walk finishes passing the foot of Ben Nevis and affords a stunning view of the mountain. Up to 80,000 people walk the West Highland Way every year with around 30,000 completing the route from start to finish.

#### 6.8.3. Shorter Walks

Reaching the summit of Ben Nevis is not an objective for most visitors. The mountain landscape and heritage attract hundreds of thousands of sightseers and walkers who wish to see Ben Nevis but not scale it. For many visitors and for the majority of locals, shorter walks, to sites of interest and to reach places with scenic vistas, are important. Similarly, for those having already reached the summit of Ben Nevis, there is much to be gained from exploring the wider glen, discovering its diversity and seeing the mountain they have scaled from other vantage points.



The NLP Community Consultation and Visitor Survey (2013) revealed a number of important walking locations in Nevis Management Area:



## 6.8.4. Access to walks

Thousands of visitors and locals use the forest walks and other low level walks within the Glen. Most people access the walks from the bottom of the Glen. Visitors are typically either staying in the camp site, youth hostel or chalets within the Glen, or they are day visitors parking in one of the car parks. The major access points for this group are via the Visitor Centre and the car parks at Braveheart, Lower Falls and Steall Gorge. There are also access points at the end of the peat track and near the Youth Hostel. However, the volume of visitors means that many of the lay-bys and passing places along the road are blocked during the summer months.

Provision of a high quality recreation infrastructure is therefore of great importance in Glen Nevis. The NLP Community Consultation and Visitor Survey (2013) findings recorded the following:

#### Needs

- · Better provision of low-level and short walks
- Better signage and information
- More family orientated walks
- Better interpretation and trails with interactive learning

# **Strengths (Nevis Management Area)**

- Quality, character and diversity of the natural environment
- The diversity of available walks
- Existing walking infrastructure
- Sites of cultural heritage
- Unique land access rights
- Good variety of tracks for different levels of mountain biker
- Britain's highest mountain
- West Highland Way

### 6.9 Cycling

The road through Glen Nevis is ideal for cycling. From the entrance to the Glen the road winds along for about 12 miles. It rises gently and takes about half a day and is used by locals regularly for events. There are a number of Forestry Commission trails in and around the Nevis area which are used for mountain biking for example, Cow Hill. Many of the tracks are well used by the local community and so an alternative track was created by Forestry Commission to encourage users away from steeper paths like the Old Peat Track. This has made the track safer for other users such as walkers. Parts of The West Highland way are also used for cycling; they are rocky and rough but still accessible for many abilities and are done as circuit with other trails.

There are also many unofficial routes that are used which link to different trails, these are mostly used by keen mountain bikers in the local area. The CIC hut track is an iconic, local place to ride but it is more susceptible to recreational pressures than many forestry trails. The zigzags are a trail running from Rio Tinto Alcan land to Leanachan Forest where you can find the Witch's Trails. There is a cycle route which runs down the edge of the Nevis management area giving access to Nevis Range cross country and downhill tracks.

There are many opportunities for more extreme versions of the sport such as downhill mountain bike racing within Nevis Range. The UCI mountain biking world cup is held here and it has been voted best event in the World a record breaking 9 times. The track is unique, being the only one in the UK with gondola access and it has put Fort William and the Nevis Area on the map as a world class mountain biking destination and bringing many visitors to the area. Research carried out by the Forestry Commission across Scotland showed that 22% of people visit forested areas for the sole purpose of cycling (All Forests Scotland, 2004-2005).



Photo – No Fuss Events

# Strengths

- Scotland already has a reputation as a world-class mountain biking destination as does the area surrounding the Nevis management site.
- Unique land access rights
- Good variety of tracks and forestry trails for different levels of mountain biker
- High profile from hosting major events, especially the mountain bike world cup.
- Existing sport and outdoor businesses
- Varied landscape character
- Inspiring setting for achievement
- Active local community

# 6.10 Wildlife tourism

Glen and Ben Nevis have an abundant range of rich and unique wildlife and habitats Ben Nevis SAC has been designated for 17 habitats of international importance. These include:

- Sub-arctic
- Alpine
- Blanket Bog
- Caledonian Pinewood
- Heaths
- Screes
- Nardus Grassland



This complex and fragile mosaic of habitats supports an unusually diverse range of flora and fauna. Gnarled sentinel Scots pines are surrounded by birch and oak, standing amongst an array of wildflowers, Atlantic bryophytes and rare lichens. The summit plateau and North Face of Ben Nevis support specialised plant communities which have evolved to survive in these harsh conditions. Many of these species are designated and/or rare. The Nevis Management Area offers visitors and the local community an opportunity to catch a glimpse of many iconic species including:

- Salmon
- Mountain hare
- Red Squirrel
- Ptarmigan
- Red Deer
- Pine Marten
- Black Grouse
- Mountain Ringlet
- Water Vole
- Golden Eagle



Of particular significance is the **Chequered Skipper**, an incredibly rare butterfly which is only found within 30km of Ben Nevis.

Wildlife holidays in Scotland are on the increase and this presents a major opportunity in the Nevis area. Some 1.2 million trips were made by UK residents to the Highlands and Islands where individuals participated in wildlife activities; this created net annual expenditure of  $\pounds$ 84.5m in the area (SNH, 2010)

The importance of wildlife to visitors and the local community was rated highly in the NLP Community Consultation and Visitor Survey (2013). Similarly the findings demonstrate a significant interest in wanting to learn more about the natural processes, habitats and ecosystems which support the area's biodiversity.

#### **Strengths (Nevis Management Area)**

- Iconic species
- SSSI and SAC Designations
- Range of habitats
- Wild land
- Access opportunities

## 6.11 Geotourism

Geotourism is a form of landscape tourism that specifically focuses on geology and landscape. It promotes tourism to geosites and the conservation of geodiversity and an understanding of earth sciences through appreciation and learning. This is achieved through independent visits to geological features, use of geo-trails and view points, guided tours, geo-activities and patronage of geosite visitor centres. (Newsome & Dowling, 2010).

The outstanding quality, diversity and international importance of the area's geodiversity is recognised by its designation as a Geopark. European Geoparks have an active role in the economic development of its territory through enhancement of a general image linked to the geological heritage and the development of geotourism. The direct importance of geodiversity to the local community and visitors is evident in the results of the NLP Community Consultation and Visitor Survey (2013). 60% of respondents stated they would be interested in learning more about the area's geology and that this would enhance their appreciation of the landscape.

#### Strengths (Nevis Management Area)

- Geopark
- Range of geodiversity
- Scale of geomorphology
- Quality of geological features
- Access
- The highest mountain in the UK
- High numbers of visitors
- Geological foundations of ecosystems and habitats
- Interpretation and engagement events already in existence through geopark

# 6.12 Cultural tourism

The rich cultural heritage in Glen Nevis is a huge selling point that draws many to the area as an outstanding place to connect with history and days gone by. The archaeology, Clan history, historical sites, highland tradition and Gaelic appeal to tourists from near and far who come to soak up the culture or who want to learn about their heritage. The Glen Nevis Recreation Survey, 2003, revealed that 21% of participants visited the area because of the variety of sites and activities available. The Fort William Mountain Festival is one of the most successful and important cultural events in the calendar, with the mountaineering heritage playing a central role.

# 6.12.1 Dun Deardail

One of the most significant, yet little known, sites of cultural heritage in the Nevis Management Area is the Scheduled Ancient Monument of Dun Deardail, an Iron Age hill fort (see section 4.2.1).

The cultural and scientific heritage of the summit Observatory (see section 4.1.2) is well documented in popular publications and tourist information. Similarly, the heritage of the Pony Track is disseminated through the West Highland Museum in Fort William. The other main cultural sites (see section 4.3 and 4.4) within the Glen such as Dun Dige, Ach nan Con graveyard, Steall ruins, Glen Nevis House, Clach Mhic Shomhairle (Samuel's Stone) and the Rocking Stone are recorded in publications, tourist literature and guides.

# Strengths (Nevis Management Area)

- Cultural and Scientific Heritage
- Mountaineering Heritage
- Historic sites including a listed ancient monument (Dun Deardail)
- Gaelic language kept alive through place names

# 6.13 Charity events

The National Three Peaks Challenge is a mountain-endurance challenge in Great Britain in which participants attempt to climb the highest peaks of each of the island's three mainland countries; Scotland, England and Wales.

- Snowdon (Wales 1085m)
- Scafell Pike (England 978m)
- Ben Nevis (Scotland 1344m)

Although the challenge has no official rules or time restrictions, most participants try and complete it within 24 hours including the transportation time to travel between the mountains. The John Muir Trust and other conservation and governing bodies such as the National Parks and National Parks Authorities are trying to encourage those who are determined to do the challenge despite the conservation, environmental and local area issues, to

undertake a slightly more leisurely challenge over 36 hours or to take a weekend to enjoy not only the challenge itself but the local areas around the mountains as well.

The "The John Muir Trust and others have warned about the damage and disruption caused by the Three Peaks Challenge (<u>Ben Nevis</u>, <u>Scafell</u> <u>Pike</u> and <u>Snowdon</u>) and similar events. We urge people to consider other ways of raising funds and to think twice about taking part." - John Muir Trust

The mountains climbed, in order of elevation, are Ben Nevis 1,344 metres (4,408 ft), near Fort William in Western Scotland; Snowdon, 1,085 metres (3,560 ft), from Llanberis in North Wales; and Scafell Pike, 978 metres (3,209 ft), typically from Wasdale in North-Western England. In all the challenge involves some 42 kilometres (26 miles) of walking and approximately 9,600 feet of ascent, with total travel between the mountains of around 765 kilometres (475 miles). The challenge is usually undertaken starting with Ben Nevis, the highest, and for many the most distant.

A minority of participants choose to start and finish the challenge at sea level, touching the sea with their hand at the sea loch in Fort William and the sea in Caernarfon, which adds approximately 20 - 30 minutes to the overall time. The vast majority simply start and end at a representative point at the foot of the first and last mountains (Ben Nevis and Snowdon or vice versa).

There is no formal governing body of the National Three Peaks Challenge although there are a set of guidelines issued by the Institute of Fundraising (Code of Fundraising Practice, 2012) and in consultation with the various parties, concerned about the rocketing numbers of 'Three Peakers' attempting the challenge. Each year a large number of organised attempts are made at the challenge. In 2008, an estimated 60,000 people undertook the Three Peaks Challenge, approximately twice the number than was officially booked with the appropriate authorities, and made up of the larger events plus the smaller groups of 'unofficial' challengers. Karen Haggerty, Manager of the Glen Nevis Visitor Centre describes how the events are managed currently on Ben Nevis:

"Many charities hold Three Peaks and Ben Nevis Challenge events to raise money. Early summer is the most popular time of year for these events when walkers can take advantage of maximum hours of daylight. In 2013 a total of 74 events registered with us averaging between 60 and 70 participants per event... The organisers of these events usually contribute towards our costs of rubbish removal and toilet cleaning etc. However there are many more groups which arrive without prior notice making it virtually impossible to give any estimate of the number of people who participate in these events on Ben Nevis."

The core issue with the charity events is the density of impact. High numbers arrive at the weekends when the area is busiest with other visitors and some arrive during the night when the Visitor Centre is unmanned. Some organisers do not register their events. The number of minibuses blocking parking bays, lay-bys and roadside verges can be significant. Some

erosion is an unavoidable side-effect of these events, though impacts can be reduced through careful management of route choice and participant education.

The Nevis Landscape Partnership Manager, the Visitor Centre Manger and John Muir Trust Conservation Officers continue to work with representatives from Snowdon and Scafell Pike. These members constitute the Inter Mountain Working Group and are exploring issues of environmental impacts, sustainability, management and education.

# 6.14 Conservation

Due to variety of habitats, wildlife and stunning scenery in Glen and Ben Nevis, it is no surprise that people travel from all over the UK to volunteer and learn new skills in this iconic environment. There are a number of reasons why people volunteer including:

- Meeting new people
- A love of nature
- Gaining new skills, more experience and learning
- Spending time outdoors
- Conserving land and heritage that is important to them
- Contributing to a better future and making an impact

Kerry Mackay, a Friends of Nevis volunteer, describes her experience surveying water voles on Ben Nevis:

"I chose to volunteer on Ben Nevis because it was relatively near to where I live and a good chance to get out and experience the mountain. It was good fun; roaming about the hillside, appreciating the views and learning at the same time. I learned about how to identify the signs of water voles and field voles. It was also really nice to meet like minded people for a chat as well"

Every year there are a number of activities, events and volunteering opportunities in Glen and Ben Nevis. These opportunities are at varying levels, some are aimed at families and all-abilities while some are aimed at a higher level of fitness and require more specialist volunteers. Events range from land management and conservation tasks such as path work and litter picks, to key species events for all levels. Some of the organisers who currently hold events and opportunities in the area include:

- John Muir Trust
- Friends of Nevis
- Forestry Commission Scotland
- Nevis Ranger Service

Friends of Nevis (FoN) has members across the UK, with the majority being in Scotland but others in England and a few further afield in places such as Canada. The public can support FoN without paying a membership fee and many people do this giving time rather than money. FoN volunteers are a diverse group with a core, regular group being very local to Fort William. For more informal drop in events, such as the turn up exploratory wildlife counting walks, also attract visitors to the area. FoN have some regular foot path volunteers who are unemployed but looking to gain work experience, or social interaction and they come from across Northern Scotland. This is where support from local businesses and being able to offer free camping accommodation is vital. Other volunteers come up from the central belt of Scotland or North of England to give something back to an area they have gained pleasure from.

From April 2013 to beginning December 2013 FON contributed 188\* volunteer days of work into the Nevis area in a variety of ways:

- Litter picks.
- Wildlife Surveys.
- Path maintenance work parties.
- Maintenance of recreational areas.
- Publicity of the work of the charity and activity in the Nevis area. This is already carried out by FoN supported by social media and web based communication.
- New technology also provides opportunities such as remote volunteering. Currently FoN's volunteer Helen, who is based in Kent, is helping out managing social media for the charity.

\* (inc. the HLF development grant to encourage wildlife volunteering & inc. children under 14 counted as a  $\frac{1}{2}$  day)

# Strengths

- Committed Friends of Nevis volunteers, already engaged and skilled in conservation work
- Nationally important and unique landscape and biodiversity
- Opportunities to engage with wider audiences and tourists in the area
- Many local conservation professionals and organisations

## 6.15 Deer Management

Deer management is necessary in order to maintain the welfare of these large mammals which no longer have any remaining predators apart from man. Modern management techniques use population modelling to transform count data (from foot and helicopter counts) and cull data (from larder records) and thus inform strategic culling. None of the estates within the Nevis Landscape Partnership have sport as their primary interest but nonetheless this forms an important part of management on all the ownerships, with slightly different emphases.

However, all are members of the relevant Deer Management Group (in this case the Mid West Association of Highland Estates) and are committed to collaborative deer management across the whole deer range. The Deer Management Plan for the MWAHE includes the objectives of each individual ownership and an undertaking to work towards delivering

favourable or unfavourable-recovering condition for all the features on each designated site within its boundaries. This includes the Ben Nevis SSSI/SAC.

Management in recent years across the area covered by the Ben Nevis SSSI/SAC for herbivore impacts has concentrated on the removal of livestock and maintenance of culling effort. The positive results of this are demonstrated in the 2013 Herbivore Impact Assessment undertaken on behalf of SNH, which is now informing the newly-invigorated Management Steering Group. This group includes FCS, RTA/Bidwells and JMT, promoting collaborative management and specific actions to target areas where the recovery of habitats has been less positive. The work of this group has been enhanced and enriched by partnership working through the NLP and it seems likely that a number of habitats will soon achieve unfavourable-recovering condition on the Ben Nevis SSSI/SAC.

#### 6.16 Audiences

This analysis is derived both from a consideration of the literature and from the extensive consultation process undertaken and reported upon by the Centre for Recreation and Tourism Research in 2013. Through a process of data distillation it is broadly suggested that there are the following key audiences:

#### 6.16.1 Local Community and Schools

This chapter has outlined many of the ways in which the local community use and value the landscape. This includes a range of activities from picnics and dog walking through to winter climbing. Many of the local community have specifically moved to the area to have better access to this incredible landscape. Individuals, friends, families, school children and college students, particularly those studying Adventure Tourism at West Highland College, all interact with the landscape, forming their own personal connections with the place. The area is also valued as a community resource by those who gain a living from it and special interest groups such as: The Polldubh Club, Lochaber Athletic Club, West Highland Wheelers, Lochaber Natural History Society, UHI Mountaineering Club.

#### 6.16.2 Lay majority (visitors, event participants)

As the highest mountain in the British Isles, at the heart of the Outdoor Capital of the UK, the area is of international importance as a visitor destination. The surrounding landscape of Glen Nevis with Steall Falls and its unique Alpine meadow are also a major tourist attraction. The majority of independent visitors are drawn by the scenic quality of Ben and Glen Nevis, hundreds of thousands come to walk or to reach the summit. This demographic includes significant international visitors who wish to see Ben Nevis as part of a wider cultural tour. There are also many who wish to either employ the services of a specialist guiding business or take part in one of the many nationally prestigious events. This audience may be predominantly well intentioned, but the scale and concentration of impacts along with an ignorance of landscape/heritage fragility can have serious consequences.

#### 6.16.3 Activity Experts

Ben Nevis attracts a high number of experienced climbers and mountaineers, drawn by the mountain's prestigious reputation, routes and heritage. Similarly, the iconic status of the landscape and the challenging terrain attract a range of high-level outdoor specialists, encompassing all the activities identified in this section. This audience is predominantly self-

sufficient with a relatively high skill set, and comfortable in remote and challenging environments. The untapped opportunity is to engage this already highly motivated and physically fit audience in more conservation work and a wider appreciation of the area's heritage.

#### 6.16.4 Working Community and Stewards

This group comprises those who live and work in the area. The list includes: Highland Rangers; Forestry staff; Visitor Centre staff; John Muir Trust staff; Glen Nevis Estate staff; freelance conservationists and ecologists; Scottish Natural Heritage staff and local guides. All have an influence on the landscape and most play a central role in its conservation. They have an important stake in the landscape and more can be made of their shared knowledge and enthusiasm. From a strategic point of view, these key roles are at the top of the pyramidial cascade of knowledge, ideas and learning.

#### 6.16.5 Volunteers

The iconic nature of the Nevis landscape can and does attract committed volunteers from all over the UK to stay in the area and enhance the condition of the Glen and the mountain. However, the bedrock of volunteer activity in the area comes from the local community. The Friends of Nevis constitutes a cohesive group of mainly local residents who proactively care for the environment. They carry out important conservation work including litter picks, cleanups, path maintenance and more recently, with the support of the NLP, wildlife surveys. The challenge of managing national-scale visitor impacts is, however, well beyond the capacity of a small local community. Similarly, the Friends of Nevis is a very small organisation. Additional resource and strategy is required to make the most of the local potential, to attract volunteers from further afield and increase conservation outputs. Through the initial work of the Friends of Nevis we have discovered that there is a desire amongst many to 'put something back' into the landscape people have come to enjoy. At the end of November 2011 Friends of Nevis had approximately 65 full members plus c 100 associate (volunteer). 3 corporate and 25 corporate associate (in kind contributors) members. The demographics for volunteers indicate a 47%/53% male bias and a broad age range (35% over 50, 55% 20 - 50 and 10% under 20).

#### 6.16.6 Educationalists

In terms of inspiring the next generations, local, national and beyond, this is a vital audience. The Nevis Management Area is a much used and valued outdoor learning resource. Teachers, Scout leaders, college lecturers, outdoor instructors, Outward Bound and other activity centre staff, come from all over the UK to bring young people to Ben and Glen Nevis. These people occupy a valuable place as sharers of knowledge and inspirational guides who can influence the way young people connect with this landscape and care for it

#### 6.16.7 Business Community

Whilst outdoor activity providers and mountain guides feature in this category, so too do accommodation providers, event organisers and more. Indeed, it could include anyone who lives and works in the Fort William and surrounding areas. These people have much to gain from an enhanced Nevis Landscape at the heart of their community and economy. Local businesses have an incredible natural resource on their doorstep. Many of them recognize this and not only promote the landscape, but also support it through donations and voluntary efforts. There remains, however, great potential to increase awareness of the diversity of

heritage and range of activities in the area. Whilst this would be good for business it would also help create knowledgeable ambassadors for the landscape, who would support its protection and enhancement.

# 6.17 Local Demographics

The "Greater" Fort William area (the town plus the immediate surrounding rural area) has a population of 10,317. The population distribution by age is as follows:-

	Age 00 to 15	Age 16 to 44	Age 45 to 64	Age 65 to 74	Age 75 plus	All Age
Persons	2,089	3,578	2,851	971	829	10,317
Female	1,043	1,816	1,450	525	513	5,346
Male	1,046	1,762	1,400	446	316	4,971

Council based on National Records of Scotland Small Area Population Estimates 2011

The Scottish Index of multiple Deprivation 2012 (SIMD12) is the Scottish Government's official measure of the level of deprivation in 6,505 data-zones where rank 1 is the most deprived. The 13 data-zones in Greater Fort William rank from 994 to 5511 on the multiple Index. Only the 15% most deprived zones in Scotland (ranks 1 to 976) are regarded as multiply deprived meaning no local zones are included. However there are some deprivation issues - in Fort William Plantation education skills & training is a particular issue, health is an issue in four data-zones in the town centre, and the crime rate in Fort William Central is one of the highest in Scotland (rank 91).

Average annual incomes in the Caol and Mallaig and Fort William & Ardnamurchan wards are £30,396 and £30,747 respectively which compares with averages of £33,039 and £34,569 for Highland and Scotland respectively – i.e. incomes locally are some 10% to 12% below average. Conversely, the median house price in Caol and Mallaig is £160,000 and £138,000 in Fort William & Ardnamurchan which compare with £152,000 and £150,000 for Highland and Scotland respectively.

# The following extracts are taken from the Highland Council's Single Outcome Agreement:

In keeping with the demographic profile of Scotland, the population is ageing. The changing economic climate is having an impact on the Highland economy and unemployment levels are rising.

Seasonality in employment reflects the relative importance of agriculture and tourism to the regional economy. One feature of seasonality is that many people have a number of parttime occupations throughout the year which often results in a lack of specialisation and relatively highly qualified individuals inadvertently underemployed. The number of people of unhealthy weight in Scotland is second only to the USA among countries in the Organisation for Economic Cooperation and Development (OECD). Unhealthy weight is a risk factor for a range of chronic diseases and there is concern that the increasing prevalence of unhealthy weight will lead to increased incidents of diseases such as diabetes, coronary heart disease and certain cancers.

With an ageing population and projections now of the number of people aged over 75 years doubling by 2030, there is a need to increase the healthy life expectancy of the population. Currently the difference between healthy and total life expectancy is about 18 years for males and 20 years for females.

<sup>•</sup>One of the main issues [facing Lochaber] is the quality of jobs and the relatively low-wage economy. Main social / economic constraint is the lack of affordable housing in the area which is likely to continue for some time.<sup>•</sup> (Dot Ferguson, Lochaber Wards Manager 18/11/10)

The Nevis Landscape Partnership can clearly contribute to the challenges and opportunities taken from the Single Outcome Agreement and, in particular, by improving health through activity, fitness and well-being and by increasing volunteering, participation and ownership. The area has played, and will continue to play, a leading role in 'making the most of it in terms of wildlife and green tourism' and this is both a challenge and opportunity requiring a fully integrated environmental and visitor management system.

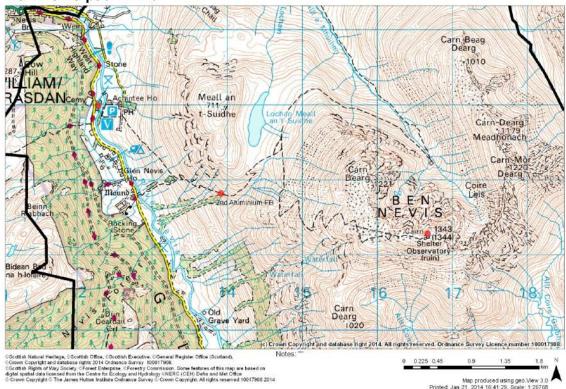
#### 6.18 Access

#### 6.18.1 Ben Nevis Visitor Numbers 2012



Ben Nevis, with the Allt a' Mhuilinn counter in the foreground

The Lochaber Countryside Rangers analysed visitor numbers for Ben Nevis during 2012. Visitor numbers are recorded by various chambers radio beam counters. These devices record the number of times a radio beam is broken by a passing person (or creature). The first of these devices is located on the main path up Ben Nevis on a small metal bridge at NN137718 (see map below). The vast majority of walkers, and all three peak challengers will pass this way.

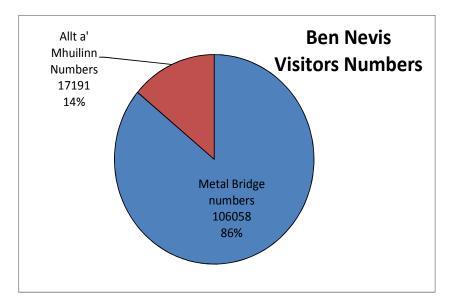


## Ben Nevis path - 2nd AI FB

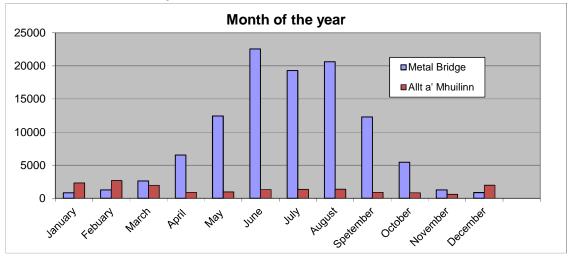
Almost everyone who climbs the mountain via this route returns the same way. This means almost everyone will be counted twice (once of the way up, once on the way down). This makes it easy to convert from the number of counts to the number of visitors (divide by a factor of 2). A brief one day survey suggested that the counter was quite accurate, and around 90% of people who passed this counter summited the mountain.

The other counter is located on the main path up beside the Allt a' Mhuilinn, and is located at NN148749. This is on the main path into the North Face, and is the route that almost all climbers and mountaineers will take. It is more difficult to know what percentage of people who pass this counter will reach the summit of the mountain, but as the main motivation for people passing this way will be climbing, it would be much less. It is estimated that 50% of the people going this way will summit the mountain; there is an alternative route down which some people will take which misses this counter. This makes it more difficult to convert the number of counts to the number of visitors. From discussion with local mountain guides a factor of 1.7 was used. This assumption does introduce some uncertainty into the Allt a' Mhuilinn visitor numbers.

## 6.18.2 Total visitor numbers.



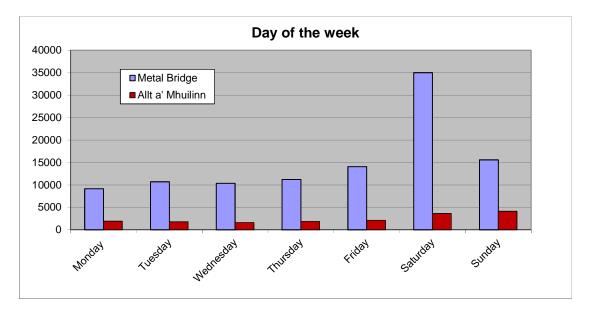
Approximately 123,000 visitors were recorded on Ben Nevis during 2012. The vast majority (86%) were on the main path and passed by the metal bridge counter. The other 14% used the Allt a' Mhullinn path. There will, of course, be some people who used other routes with no counters, but these numbers will be very small. There is another counter in the Steall Gorge. There is some uncertainty in the accuracy of these numbers due to erroneous counts from branches swaying in the wind. Accounting for this gives a visitor number of about 73,000.



#### 6.18.3 Visitor numbers by month

The main mountain path was busiest during the summer months, with about 58% of the total traffic being during June, July and August. The Allt a' Mhuilinn path, on the other hand, is busiest in the winter months. This will mainly be winter walkers, climbers and skills groups heading up to the North Face. January was quietest on the main path, but the second

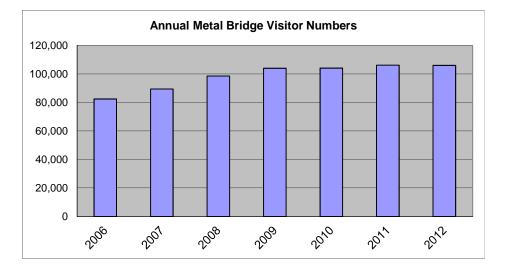
busiest for the Allt a' Mhuilinn. There is another small spike in the Allt a' Mhuilinn during the summer months. The North Face is much quieter during the summer than the winter.



## 6.18.4 Visitor Numbers by day of the week

As expected, the weekend is busier than mid-week. About a third of all people on the main path are there on a Saturday. On the Allt a' Mhuilinn, Sunday is actually more popular than Saturday. The busiest mid-week day in both cases is Friday.

The busiest time at the counters is around 10 or 11 in the morning. For both counters there is a more attenuated spike in the afternoon as people start drifting down the hill. Percentage wise the Allt a' Mhuilinn path is more popular early as climbers make earlier starts in the short winter days



#### 6.18.5 Trends

The number of visitors on the main paths has risen in quite a uniform manner from 2006 to 2009, and has remained fairly constant after that. There were periods in 2006 and 2007 when the counter was not working properly and during these periods visitor numbers were estimated, assuming a typical yearly distribution. These values should be treated with some caution, and are marked as red in the table below.

	Annual Metal
	Bridge Visitor
Year	Numbers
2006	82444
2007	89480
2008	98591
2009	104003
2010	104072
2011	106219
2012	106058

# 7. Management

Management of the Nevis Area is predominantly influenced by a mosaic of landowners (Rio Tinto Alcan, John Muir Trust, Forestry Commission Scotland, The Highland Council, Glen Nevis Estates), local communities and its designation as an NSA, SAC and SSSI.

# 7.1 Forestry Commission Scotland – Management Plans

The Forestry Commission landholding around Glen Nevis comprises 2521 hectares of woodland and open hill to the south of Fort William. The current extent of the landholding has been created over a period of time. The earliest acquisition began 1924 followed by a series of acquisitions and disposals over subsequent decades.

The latest of these has been the purchase of 1500 Ha of Blar a Chaorrainn to the south in 2013. The area is situated to the south and east of Fort William and faces the principal approach to Ben Nevis. The area comprises around 1000 Ha of commercial forest and 1500 of open hill and mountain. Within this are remnants of native woodland and native Scots pine.

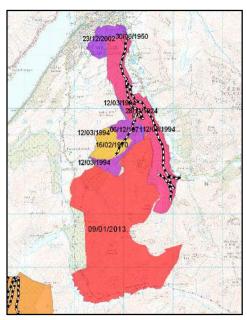
# 7.1.1 Previous Plans and Achievements

- **Producing wood and marketing timber** Majority of fellings completed. Some outstanding coupes currently in the programme. One has been withdrawn due to access issues but may be reprogrammed as these are addressed.
- Managing or regenerating forests and woodlands

Previous plan has improved diversification and more diverse forest.

• Enhancing the landscape Felling of coupes along the principle road through Glen Nevis has improved the quality of the landscape for visitors along the glen. It has also improved views out from the forest road. Some of the felling coupes have been carried out and dropped over a long period of time and this has resulted in poor landscape quality in places for a number of years.





Acquisition of Glen Nevis

## • Maintaining and creating new wildlife habitat

Some sites programmed for restock have regenerated and this has been recruited and incorporated into the design. Some of the felling coupes have also been amended in order to retain areas of Scots pine. Grazing on Cow Hill has benefited the habitat for chequered skipper.

- Providing public recreation
   Facilities have been maintained to a high standard although the West Higland way is
   showing signs of deterioration due to wear and tear and increasing pressure.
   Braveheart car park has also suffered from storm damage and high usage. Walks
   around this area remain very popular.
- Conserving archaeological features

Known features have been conserved during forest operations. Felling around Dun Deardail has improved the quality of the experience in this area. The restock patter has sought to maintain the character of the area.

#### 7.1.2 Current Objectives

Managing recreation, managing and regenerating forest and woodlands and enhancement of the landscape were seen as high priorities in the previous plan. These remain high priorities in this sensitive location.

Timber production and creation of new wildlife habitats will remain as medium. Conservation of archaeological features was previously low; this should be regarded as medium to high on account of Dun Deardail.

# 7.2 John Muir Trust: Ben Nevis Estate Main Management Priorities

The following summary outlines the main management priorities of emerging from the John Muir Trust Management Plan.

# 7.2.1 Liason

- Informal and Formal with The Highland Council (THC) Visitor Centre manager and staff leading to consensus on subjects such as Three peaks, up to date info. going to visitors
- Informal and Formal with THC Rangers leading to shared education events
- Lochaber Biodiversity Action Plan Group supporting local action on biodiversity e.g. Butterflies of the Highlands leaflet
- Lochaber Geopark supporting shared interpretation and education
- Nevis Partnership re cairns, interpretation, volunteer work, shared events
- Nevis Landscape Partnership
- Inter Mountain working group regarding 3 peaks events

# 7.2.2 John Muir Award

- Encouraging local participation in JMA
- Supporting groups with JMA

# 7.2.3 Education and Events

- Support Fort William Mountain Festival and deliver schools competition during festival
- Range of events and walks, talks for public if time allows
- School visits as requested
- Summer playscheme in Lochaber with THC Rangers
- Other schools events/education opp as required
- Support and input to West Highland College courses where requested

# 7.2.4 Interpretation

• Development and distribution of interpretation on wildlife and nature on Ben Nevis and in Glen Nevis

# 7.2.5 Estate Monitoring

- Butterfly and Bird monitoring
- Dwarf Shrub and Tree seedling and tree transects
- Annual; water vole monitoring
- Annual Mountain Ringlet Monitoring
- Other e.g. summit lichens, mountain invertebrates, blanket bog, dwarf juniper

# 7.2.6 Estate maintenance

- Basic maintenance of Steall path and Ben Nevis path
- Dealing immediately with any path issues e.g. fallen trees, broken bridge

# 7.2.7 Work Parties

- 4 Ben Nevis work parties annul
- 1 3 day \Glen Nevis work party annually
- Supporting and leading where needed Friends of Nevis opportunities
- Work activities of Outwrad Bound groups and other groups completing JMA

# 7.2.8 Deer Control

- Set and carry out annual deer cull
- Liaise with neighbouring landowners and contribute to Midwest Deer Management Group

See section 6.15 for detailed information on deer control in the Nevis Management area.

# 7.3 The Highland Council

The Highland Council do not have any management plans specifically concerning the Nevis Landscape Partnership Area but a number of the Council's plans do affect work in the area. Each Council Service has a published Service Plan detailing it's activities and of these the (see bibliography) covers the tourism, countryside access and Countryside Ranger activity that are the areas of most relevance to this initiative. In an access context a more specific plan is the Council's Core Paths Plan (see bibliography) which was adopted by the Highland Council and approved by Scottish Ministers in 2011. The Core Paths aim to satisfy the basic needs of local people and visitors for general access and recreation and provide links to the wider path network throughout the Highland Council area. A specific section of the plan covers the Lochaber area and includes a number of paths in the Glen Nevis area. A specific management plan for the West Highland Way, part of which passes through Glen Nevis is also being developed during 2014 as is a further plan for Countryside Ranger Service activities.

## 7.4 Scottish Natural Heritage

Due to the area's designations as an NSA, SSSI and SAC, Scottish Natural Heritage play a significant role in the management of the landscape. Using targeted and proportionate action, promotion and advice, SNH's aims are:

- High quality nature and landscapes that are resilient to change and delivery public value;
- Nature and landscapes that make Scotland a better place in which to live, work and visit;
- More people experiencing, enjoying and valuing our nature and landscapes;
- Nature and landscapes as assets contributing more to the Scottish Economy.

The Nevis Landscape Partnership scheme delivers significantly on all of these aims and its fit with SNH's priorities in terms of the work that it funds is demonstrated by the level of funding which SNH has put forward and the funding priority rating it has received, which is  $2^{nd}$  only to statutory responsibilities.

In terms of the Ben Nevis SSSI/SAC, the stated management priorities are as follows (from the site management statement):

- 1. To maintain the condition and accessibility of the geological features by:
  - Retaining the visibility and accessibility of the rock exposures
- 2. To maintain or restore the condition and extent of the open upland habitats by:
  - Keeping livestock and deer density at a level at which there is no obvious damage to the vegetation from over-grazing or trampling and the vegetation continues to support key species such as saxifrages and the flush communities.
  - Managing recreation impacts in such a way that there is no obvious damage to the vegetation from trampling and the vegetation continues to support key species such as saxifrages and the flush communities.
- 3. To maintain or restore the condition and extent of the woodland habitats by:
  - Keeping stocking and deer density at a level which permits natural regeneration.
- 4. To maintain the population and distribution of the breeding bird assemblage by:
  - Ensuring the suitability of habitats and food sources supporting relevant species.

- 5. To restore the populations and distribution of the vascular plant and lower plant assemblages to favourable condition by:
  - Keeping livestock and deer density at a level at which there is no obvious damage to the vegetation from over-grazing or trampling. Sourcing rock and surfacing material for pathwork should not be allowed to have a negative impact on the plant assemblages.
- 6. To maintain the favourable status of the fly assemblage by:
  - Ensuring the suitability of the habitats supporting relevant species.
- 7. To maintain the population and distribution of the small mountain ringlet by:
  - Preventing the spread of bracken onto the *Nardus* grassland habitat, and keeping grazing levels such that food and nectar plants are maintained.

Work being delivered through the NLP will contribute directly or indirectly to almost all of the above priorities, all of which occur within the NLP area. The partnership approach through the NLP scheme has also enhanced the opportunities to build better relationships with key stakeholders for work that is not directly covered by the scheme, so its intangible impacts are being felt beyond its borders. In summary, the NLP scheme will deliver many of the strands of work which SNH recognises to be within their remit and of national importance.

# 7.5 Managing Public Access

The Highland Council built the Glen Nevis Visitor Centre (GNVC) and car park at the start of the old bridle path in 1992 where a small car park had existed before. One of the first Ranger posts created in the Highland area was in Glen Nevis in 1980. The North Face car park at Torlundy was installed by the Forestry Commission in the 1990's Prior to this, anyone attempting to ascend Ben Nevis by the North Face or Carn Mor Dearg arête reached it through the golf course which was the usual access described in a number of guidebooks. People counters were installed in 1991 on the Ben Nevis path and on Steall path by the ranger service, but proved unreliable. New counters were installed in 2006.

In 2001, Ben Nevis Estate was purchased by JMT from the Fairfax Lucy family.

A secondary summit shelter, unfit for use and frequently buried in snow, was dismantled by the Trust in 2002. The Trust, in conjunction with the NP, removed two further shelters, the Carn Dearg shelter and Coire Leis shelter, on the grounds that their limited safety value was heavily outweighed by their negative visual intrusion on the landscape. Carn Dearg shelter was not in an especially hazardous area and they were both frequently buried in winter. Coire Leis shelter was outwith Ben Nevis Estate, but within the wider NP area.

In 2005, the NP agreed to remove the majority of the cairns on the summit. Of more than 100 cairns, the mountain management sub group of the NP (including representatives from Mountaineering Council of Scotland and Lochaber Mountain Rescue) agreed that 23 should remain in specific agreed locations. In 2006, JMT work parties removed around 20 cairns

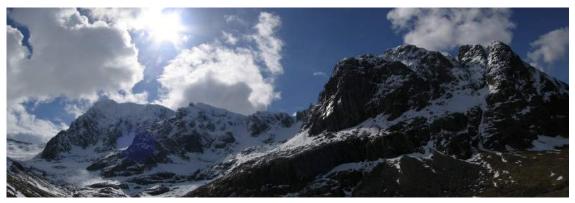
and rebuilt five of those that were to remain. In 2007 this work was completed by contractors. In the winter 2007/08 a number of complaints were received that the cairns were misleading in winter. As they followed the original path line they presented a meandering line on the summit when the path was covered in snow which may have led someone to descend following a line towards the cliffs on the North Face. The MCofS and LMC representatives involved in the original planning agreed this and it was decided to relocate the cairns in a straight line following the winter bearing. Around half the cairns were then relocated during the summer of 2008.



JMT advocated the removal and relocation of the plaques and associated material that were present upon the mountain on the grounds that collectively they had a similar impact to litter. Like litter, the more that they are seen, the greater the perception is that it is acceptable to leave them on the mountain. In 2005, the NP agreed to the removal of memorials on the summit and this was completed by JMT staff and volunteers in 2006. The NP opened a Site for Contemplation in August 2006 in the woodland next to the GNVC as an alternative to placing cairns on the mountain. They also set up a virtual remembrance site upon which all existing plaques have been logged. New memorials can be added to this.

# 8. Significance

The diversity of heritage described in the previous sections clearly demonstrates the importance of the Nevis Management Area. To assist the Partnership in analysing and prioritising the many significant aspects of the area a comprehensive list of reports have been consulted (see bibliography), but central to the process has been the Nevis Management Area Landscape Character Assessment, 2012 and the Nevis Landscape Partnership Community Consultation and Visitor Survey, 2013.



M.Pescod

# 8.1 Summary of Significance

#### 8.1.1 National Significance:

- Ben Nevis as a national icon and highest mountain in the UK
- Scotland's most famous and historically important mountain path
- Outstanding and internationally renowned geology Geopark Status
- Quality and contrast of landscape character in one of Scotland's most treasured National Scenic Areas
- Nationally significant biodiversity and unique altitudinal range of ecosystems and habitat mosaics
- Designation as a Special Area of Conservation, Site of Special Scientific Interest
- Access to an unrivalled recreational resource at the heart of the Outdoor Capital of the UK
- Nationally important mountaineering heritage
- Climate, mountain weather and meteorological heritage
- A unique outdoor learning resource for all
- An international tourist attraction and economic driver for the region
- Dun Deardail, a Scheduled Ancient Monument of national importance

#### 8.1.2 Most significant aspects from Community and Visitor Consultation:

- Scenic quality
- Wild landscape character
- Peace and quiet
- Wildlife and ecology

- Geology
- Valued and highly regarded as a recreational resource, involving a variety of activities
- Cultural heritage and history of the area including Gaelic
- Dun Deardail
- Paths, particularly those providing access to:
  - Ben Nevis
  - Steall Falls
  - Riverside
  - Polldubh
  - Woodland
  - North Face
  - Dun Deardail

Whilst not a characteristic or feature of the landscape *per se,* it is worth noting that many respondents reported that conservation of the area was important to them.

Respondent's quote:

"Glen Nevis is a unique place. There is nowhere else like it in Scotland."

# 8.2 Statement of Significance

The statement of significance has considered the value of the wide range of natural and cultural heritage attributes that have been identified for the Nevis Management Area. The diverse combination of heritage assets ranges from the geology and ecology to the built heritage and cultural sites that indicate centuries of human activity which has shaped the landscape.

The Nevis Management Area is important for a number of reasons including the following: The scientific value of the area including its geodiversity, biodiversity and built heritage; there are a number of rare and endangered species of flora and fauna in the area; the cultural heritage has importance to understanding the past and some sites are under threat from scrub encroachment; there are several sites of archaeological importance including Dun Deardail which is a scheduled ancient monument; the place provides an important recreational and educational resource for the enjoyment and experience of the outdoors. There is potential for greater use in education on a number of levels; and its use as a recreational resource and the ongoing and changing management of the area reflects its significance as an important and valued area of national importance. The importance of the area is acknowledged through a range of national and international designations in the area which include the following:

- Ben Nevis and Glen Coe National Scenic Area
- Lochaber Geopark
- Ben Nevis and Allt a' Mhuillinn Geological Conservation Review site
- Ben Nevis Special Conservation Area
- Ben Nevis Site of Special Scientific Interest
- Dun Deardail Scheduled Ancient Monument



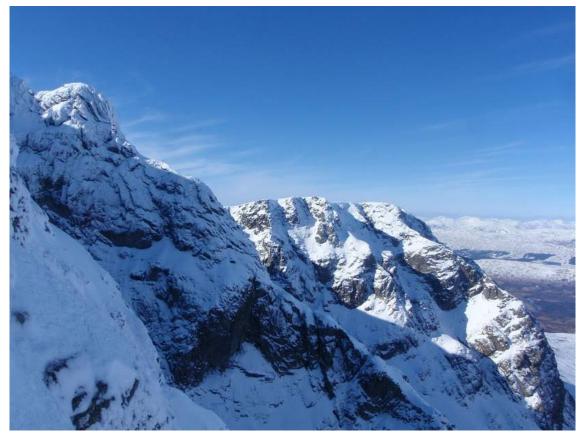
The significance of Ben Nevis as the highest mountain in Britain has great importance in attracting visitors. The accessibility of Glen Nevis and the Ben, located so close to Fort William and major transport routes through the Highlands, contributes to the importance of the area for recreation, tourism and enjoyment of the outdoors. However, large numbers of visitors also gives rise to issues such as development, erosion of paths and litter, that require management to ensure that the value of all heritage in the area is not diminished.

National and local government policy that is concerned with heritage emphasises the importance of the various elements of Scotland's heritage to the environment and our understanding of the processes that have shaped the landscape. The Nevis Management Area is representative of a range of heritage that is covered by government policy.

# 8.3 Significance of Natural Heritage

The whole Landscape Partnership area lies within the Ben Nevis and Glencoe National Scenic Area but approximately half of the Nevis Landscape Partnership area also falls within the Ben Nevis Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) as well as encompassing the whole of the Ben Nevis and Allt a'Mhuillin Geological Conservation Review (GCR), which underpins the geological designation in the SSSI. These designations include all of the high ground on the Ben Nevis massif and the eastern side (true right bank) of the Water of Nevis from Achintee to just above the lower falls, where the designated ground moves to incorporate the left bank and the pinewoods around the Steall gorge.

The SSSI and SAC designations cover a range of geological and biological features, all of which are present within the NLP area (see bibliography).



Courtesy - M.Pescod

The quality of the features found on and around Ben Nevis is high. This in part reflects the varied nature of topography and geology but can also be attributed to the relatively benign land management of recent decades and moderate to low levels of human impacts. Where impacts are high, in the lower part of the Glen or on the main route up Ben Nevis, habitats and features



have suffered loss and damage. However, in many cases there are plentiful other examples of the affected features. Loss of native woodland is perhaps the most significant impact in historic times with the remnant woodlands offering a small fraction of the potential woodland on the site. Their rarity does, however, contribute to their significance, as does the complexity of their composition. The juxtaposition of very high altitude with near sea level and very acidic granites close to base-rich limestone is a very significant part of the natural mosaic of flora and fauna on the site. It is rare to find the high level of biodiversity (see section 4) on any one site and therefore the value of the site as a whole is enhanced. There are very few sites in the UK which con show the same level of biodiversity and ecological importance.

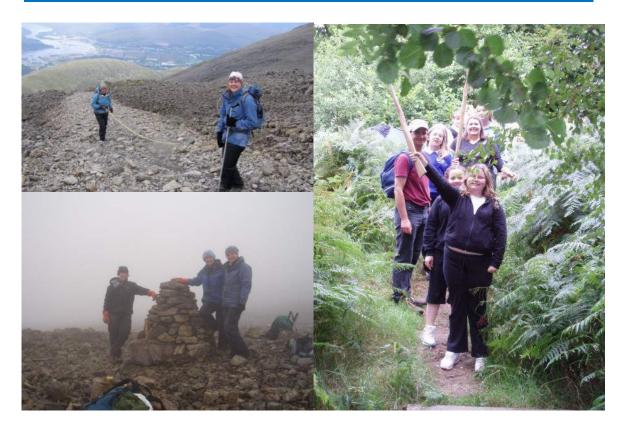
Such naturalness is important for a range of ecosystems services. Until relatively recently the water supply for the whole of Fort William was sourced directly from the Water of Nevis. In spite of its size and industrial background, the environment around Fort William, its air quality and vegetation are still relatively pristine, which is a reflection on the value of the local ecosystem to absorb pollution and human impacts.

An additional significance for the natural heritage is its potential to impact on visitors. Many visitors would not visit if the natural heritage were not so inspiring, nor would they derive the potential to appreciate, understand and engage with their environment in a positive and lifechanging way. It is through this engagement that the Nevis Landscape Partnership hopes to encourage and foster a wider understanding of our impacts on, and our place within, the planet's ecosystems; this whole strategy revolves around the available natural heritage, without which there would be no project.



Saxifraga cernua - courtesy of Dan Watson

## 8.4 Community Significance



The Nevis Area is held in huge affection by local residents who regard ownership as immaterial, the Ben and the popular routes to Steall and Allt a'Mhuilinn being 'theirs'. There are clear parallels in song:

#### 'You cannot own the Land, the Land owns you' (Dougie Maclean)

As demonstrated (see NLP Community Consultation and Visitor Survey), the Nevis Management Area is highly valued by the local community. The range of activities (see section 6) engaged in is extensive, ranging from family outings and landscape photography through to very specialist adventure pursuits. The area is significant, not just to the local community, but to the communities of the Highlands who visit for recreational purposes. Events such as the Ben Race and the Fort William Mountain Festival provide a platform for the community to enjoy and celebrate their landscape and heritage and share it with an international audience.

There are strong links between the forest of Glen Nevis and the local communities. In the past there has been a considerable amount of work provided by the establishment of the forest. This has dwindled over recent years. However, the purchase of Cow Hill in 2002 provided for the opportunity for stronger links between the forest and the local community. There is now a long walk around Cow Hill with a link to a view point at the mast. The circular walk ties into the communities at Fort William in several places providing informal access on foot.

West Highland College, UHI runs a range of courses including Outdoor Leadership and an Honours degree in Adventure Tourism Management. The proximity to Ben and Glen Nevis are significant assets for the College, with many of their outdoor activities taking place in the Nevis Management Area. Local schools visit the Glen for educational purposes, with the Highland Rangers running a range of environmental education activities. Additionally the Rangers organise family focused events which are very popular with the local community.

The landscape is significant to a wide range of specific community interest groups such as The Polldubh Club, Lochaber Athletic Club, West Highland Wheelers, Lochaber Natural History Society, UHI Mountaineering club. The importance of the landscape is also evidenced by the commitment and hard work of the Friends of Nevis, a local charity concerned with the conservation of the Nevis area.

Lochaber Mountain Rescue Team (LMRT) was set up in the late 1960's by local climbers to help fellow climbers in difficulties on the mountains of Lochaber and especially on Ben Nevis. It is the busiest mountain rescue team in the UK with over 100 call-outs a year, attending incidents that are remote from the road side where the normal emergency services are unable to operate.

The LMRT is entirely made up of unpaid volunteers with the current membership standing at approximately 40 men and women of various ages from early 20's to early 60's. The commitment of LMRT members is remarkable. One team member retired from the team recently at the age of 65 after 50 years of service. However, he still turns up on occasional rescue call outs and his vast experience is invaluable. Team members are all recruited from the local community and there is a slow turnover of team members since most stay in the team for many years. The rescue team as a whole, and individual members, are regarded with great respect in the local community and in the wider mountaineering community. LMRT is heavily involved in delivering training courses to rescue teams across Scotland and the rest of the UK.

The value of the LMRT is very great. The number of hours dedicated to rescues, training and maintenance put in by volunteers is huge. The LMRT, like all Scottish rescue teams, is supported by SportScotland but the primary source of funding is through donations and active fund raising by the team. This funding then supports local businesses and retailers which supply the team. However, the greatest value of the LMRT is the knowledge of visitors and locals alike that the rescue service is free. Unlike many other countries where expensive insurance is required to cover rescue fees, people climbing on Ben Nevis know that any potential rescue will be at no cost to them and will be carried out by experienced and highly trained mountaineers.

# 8.5 Social and Cultural Significance



The social significance of the landscape is highlighted in sections 3.6 and 3.7 of "Nevis Management Area – A Landscape of Contrast", by Circle Design and Janet Falkingham consultancy, February 2012.

The area is particularly significant for its:

- Landscape character (see section 1)
- Recreation and contribution to health and well being (see section 5)
- Mountaineering heritage (see section 4.1.5)
- Archaeological heritage of Dun Deardail (see section 4.2.1)
- Meteorological heritage (see section 4.1.2)

Ben Nevis is an international Scottish icon and one of the world's best known and best loved mountains. As the highest mountain in the British Isles it has deep cultural and social significance - far beyond the shores of Scotland.

Scotland's cultural identity is tied to the land and sea. Its wild, rugged land- and seascapes demand humility, respect, tenacity, camaraderie and determination. The land has offered deliverance from oppressors, a means of survival and protection - and a place of return. It has also led to one of the most creative and ingenious nations in the world, driven by necessity, inspiration, education, community and national pride.

The Nevis landscape embodies a sense of national identity, providing powerful cultural and symbolic meaning for millions of people. The many layers of intangible and material heritage embedded in the landscape provide reminders of our shared ancestry and our evolving relationship with the environment. Dun Deardail, a rare vitrified fort is of national importance yet remains unexcavated and largely unknown to visitors and locals alike.

Ben Nevis itself draws around 150,000 'summiteers' each year. Thousands also come to climb on the unique North Face. Many more visit to simply see the mountain and walk in the Glen. Most of them are not mountaineers or climbers, but everyday people fascinated by this place. When they meet the mountain - which is always done on the mountain's terms - they are given experiences that exceed anything they have previously known. These have tremendous impact, opening people to a new sense of self - and their place in wider nature.

These kinds of wild experiences have led to some of the most powerful social movements in history, including the birth of the conservation movement itself as evidenced by pioneers such as John Muir.

In short, experiences of wild places can be one of the most significant factors of social form and change. Ben Nevis, with its magnetic pull and easy access - through education and engagement - offers an unrivalled opportunity to develop Scotland's social and cultural heritage.

#### 8.6 Economic Significance

Within a global context, Ben Nevis holds international value as a recognisable 'brand', a cultural landmark and important visitor destination. On a national level, both Ben and Glen Nevis represent priceless assets for Scotland, residing at the heart of the Outdoor Capital of the UK. More regionally, they provide the bedrock of a vibrant tourism economy in the Highlands and Lochaber.

Tourism is the major industry in the area with overnight tourism being worth £175.5millionin 2012 with further spend coming from day visitors. Approximately 80% of this benefit is direct spend with tourism businesses with the remaining 20% being indirect spend as tourism businesses buy local services e.g. legal or accountancy services. Research in 2002-03 showed that, from a wide range of reasons, the scenery was the largest single attractor with 21% saying this was their main motivation for visiting while a further 8% more specifically mentioned mountains/ hills. A more recent Highland wide survey with more limited choices for reasons for visiting confirmed this with 57% giving scenery/landscape as their main reason for visiting.

The importance of Ben and Glen Nevis to the wider tourism economy cannot be over stated. Certain sectors depend heavily on the landscape such as wildlife tourism and activity providers. However, it is the significant, self-guided market that brings the greatest benefits to accommodation providers, restaurants and other tourism service providers. All benefit directly from their proximity to such a nationally important visitor destination. Notably, wildlife tourism and the activity sector have both seen significant growth over the last decade.

The primary industries of forestry and farming are well represented in the area. Many of the lower slopes are used for commercial timber production. There is a strong demand for the principal products of the Forestry Commission. Spruce is in high demand and finds a ready market at BSW in Corpach and James Jones at Mosstodloch. Small round wood and bio-fuel also find access to ready markets via the A82 and A86. As with much of the West Highlands farming is generally small scale and the land quality is not high but both mountain sides and much of the lower ground are important for sheep grazing.

The combination of high rainfall and high ground provided the ideal location for the development of an aluminium smelter powered by hydro electricity from the surrounding hills and today 80 years after its construction, Rio Tinto Alcan's smelter is still an important local employer for Fort William. The smelter in Fort William produces 48,000 tonnes of aluminium each year and contributes £8m to the local economy. It employs 173 people directly but at least twice that number locally who provide support and services.

# 8.6.1 Statements of Significance from local businesses and members of the Fort William Chamber of Commerce:

"Without the landscape and its associated activities we would have no business and nor would most of the accommodation businesses in Fort William!" Andrew Keen, Owner, Torlinnhe Guest House

"Robertson relate very closely to The Nevis landscape which wholly captures vigour, stoicism, presence and identity all qualities aspired to in our business. The Nevis landscape is the core of what people, both resident and visitor see as Fort Williams greatest asset and boast. Unrivaled!"

#### **Robertson Northern**

"The mountain environment and the stunning scenery are what our business is all about. Not only is it the high spend, niche markets of snowsports, mountain bikers, winter climbers and paragliders, who are here to 'play' on the mountains and in the forests, but also the general visitors. They outnumber the active ones 5 to 1 and come to experience the landscape, the green in summer, the autumn colours and the snowscapes in winter. They love the landscape and mention it 20 out of 20 reviews on Trip Advisor. We have over 150,000 ticket buying visitors a year and thousands more who come to use the facilities in the forest – many come back year after year and they all spend money elsewhere in the area. The landscape is also what helps attract people to come to live and work here – it is of enormous importance."

#### **Nevis Range Mountain Experience**

"So many of us live from the income that our visitors bring to us and the area. They visit because of the natural beauty of the area; it is the goose that lays a wonderful egg... and we must protect her."

#### Laurence Young, Director, Dragon's Tooth Golf Course

"Abacus Mountain Guides is a small mountain guiding and coaching business that I have run for 13 years based in Fort William. We take our clients ice climbing in the winter, scrambling and rock climbing in the summer and we guide many hundreds of people to the summit each year in small groups of visitors to the area or larger groups as part of a charity fundraising challenge. My business provides the sole income to my household supporting my family of three children, my wife and me. In financial terms, about half of my business is based on Ben Nevis or in Glen Nevis. In terms of numbers of clients, we take about 90% to Ben Nevis. It is very clear to me that without Ben Nevis I would not be able to generate enough trade to support my family. To me, the Nevis landscape means I can run a stable business that supports my household and benefits many other freelance instructors who I hire.

It is easy to understand that many people use my services to climb Ben Nevis due to it being the highest peak in the UK. This also means that the snow and ice climbing conditions are more reliable here than anywhere else in Scotland, drawing more clients here and making the winter season longer here than elsewhere. There are unique climbs on Ben Nevis that many people aspire to and are happy to hire a guide to make it possible. There is also a unique mountaineering heritage and culture that is known and respected world wide. One of our clients had already climbed the seven summits and several other 8000m peaks - he agreed that this was all good preparation for the real thing on Ben Nevis." **Mike Pescod, Abacus Mountain Guides** 

"We support all those who, like ourselves, invest in our landscapes to keep them precious. This is a responsibility we all share as together, we can make Lochaber an even more special place to visit, to stay and to enjoy."

Paul Mills, Director, Glencoe Activities Ltd

# 8.7 European and National Designations

The importance of landscape is recognised through the following designations:

- Special Area of Conservation, European Natura 2000 site
- Ben Nevis SSSI Site code: 19 AREA: 9539.73 h
- Ben Nevis and Glen Coe National Scenic Area
- Scheduled Ancient Monument An Dun, fort, Dun Deardail Index Number 2893

The outstanding quality of the area's geological features was officially recognised in 2007 when Lochaber was awarded Geopark status. Glen Nevis was designated in 2009 as one of the world's first Dark Sky Discovery Sites.

# 8.8 Conclusion

The Nevis Management Area is an iconic landscape of great importance for a plethora of reasons the combination of which results in a unique area that is highly valued. The varied natural and cultural heritage characteristics and features combine to create in a diverse landscape of contrasts. The Nevis Management Area is of national importance and its sensitive conservation and management is vital to preserve and enhance its distinctiveness and the value of the entire heritage in the area.

# 9. Risks & Opportunities

## 9.1. Summary

Ben and Glen Nevis are unique and priceless to Scotland's people. They are, however, under resourced and under threat. A long term vision, approach and investment strategy is critical if this place of contrast is to be protected for future generations. Failure to invest at this time in the region's history will lead to a huge loss of natural and cultural heritage for the British Isles.

Appreciation of landscape can be at several different scales but not all are equally affected by changes in land use and/or other factors (e.g. in Glen Nevis the mass of the landscape can be considered almost unchanging over time; the majority of changes come at smaller scales). However, all landscape attributes are vulnerable to the cumulative impacts of 'development' and other changes caused by land use or natural change, and smaller changes that individually may seem of little importance, but lead to incremental change that poses a long-term threat to local landscape character.

This section will provide a detailed analysis of the various risks and opportunities within the Nevis Management Area. The Partnership have identified the following:

#### **Risk categories**:

- 1. Built and Cultural Heritage
- 2. Natural Heritage
- 3. Participation and Learning
- 4. Physical Access

#### The greatest threats are considered to be:

- Recreation and Tourism
- Climate Change
- Inappropriate Development
- Crime and Anti-social Behaviour
- Lack of Resource and Fragmented Management

To assess the impact of change (for example, the natural regeneration of the lichens and lower plants of the Acidic Scree habitat on the upper slopes of Ben Nevis, or woodland regeneration projects), the contrast in scale, dominance and compatibility between elements of the landscape, and in particular the elements that are important to the landscape character, the capacity of the landscape to absorb change, as well as the rate of change, need to be considered.

Assessing the impact also includes 'an evaluation' of the existing and the projected landscape that requires a certain level of knowledge and understanding, both in what is generally considered important to all landscapes of a particular type, but at a local level what is important to people that are within the landscape frequently. In Glen Nevis, in addition to the native woodland, there are commercial forests containing similar age exotic species in clearly defined plantations, however the structural gradation from forest/woodland through scrub to open hill may be taken as a more 'natural' state. Although a Scottish Government national objective is to increase woodland cover this can be achieved in a way which is in keeping with this more 'natural' state by adjacent landowners working together to restore native woodlands.

# 9.2. Built and Cultural Heritage

The table below highlights the main vulnerabilities/risks to the area's built heritage as well as presenting opportunities. For more detailed information see the sections on Climate Change and Recreation and Tourism.

Risks	
•	Individual landowners have insufficient resource to conserve key heritage sites The Historic Ben Nevis Mountain Path reaches a critical condition of failure Dun Deardail continues to be undervalued and exposed to climatic and visitor erosion Summit heritage reaches a critical state of deterioration through climatic erosion and visitor impacts Visitors and local community fail to appreciate of the cost of maintaining built heritage
Орроі	rtunities
•	Utilise the HLF LP scheme to develop the necessary resource to conserve and future-proof key heritage sites Engage the wider community and increase understanding and appreciation of the cost of conservation Share the responsibility for managing, conserving and promoting built heritage

# 9.3 Natural Heritage

The table below highlights the main vulnerabilities/risks to the area's natural heritage as well as presenting opportunities. For more detailed information on the threats to natural heritage see the sections on Climate Change and Recreation and Tourism.

	Landscape character is visually degraded through the impacts of high visitor numbers and events
	Resource for conservation remains insufficient to the scale of impacts
•	Climate change impacts key habitats and species too violently for adaptation or resilience.
•	Loss of habitat connectivity through uncoordinated land management General decline of threatened species continues
•	Lack of public awareness of the importance of 'ecosystem services' means mountain landscapes are undervalued
•	Lack of data to aid management
	Invasive species out-compete native species
ppo	ortunities
ррс •	Promote minimal impact ethics and practices
ррс •	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor and land management
ррс • •	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor and land management Engage business community in the landscape and conservation activity
ppc	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor and land management Engage business community in the landscape and conservation activity Increase data, knowledge exchange and multi-partner analysis
ppc	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor and land management Engage business community in the landscape and conservation activity

# 9.4 Participation & Learning

The table below highlights the main vulnerabilities/risks to participation and learning as well as presenting opportunities.

•	Development of public understanding and engagement in landscape and
	heritage will not take place, resulting in greater environmental impact
•	Nationally significant heritage remains relatively undiscovered and inaccessible
•	Audiences remain untapped for the scale of volunteer work needed
•	Landscape interpretation and information remains uncoordinated, fragmente and piecemeal
•	Lack of expertise and resource to facilitate participation and learning
•	Visitor and local satisfaction could deteriorate resulting in fewer return visits
•	and a perception of declining landscape value Identified shortfall in heritage related skills
•	
• •	Identified shortfall in heritage related skills
•	Identified shortfall in heritage related skills
• • •	Identified shortfall in heritage related skills ortunities Diversify participation opportunities and engage a national audience Make the most of nationally significant heritage and leverage the iconic stat
• • •	Identified shortfall in heritage related skills ortunities Diversify participation opportunities and engage a national audience Make the most of nationally significant heritage and leverage the iconic stat of the area
• • • •	Identified shortfall in heritage related skills ortunities Diversify participation opportunities and engage a national audience Make the most of nationally significant heritage and leverage the iconic stat of the area Target specific audiences

# 9.5 Physical Access

The table below highlights the main vulnerabilities/risks to access as well as presenting opportunities.

lisks	
	Landslip and collapse of sections of the lower Ben track causing major
	disruption of access (main ascent route to Ben Nevis with no diversion
	possible) as well as habitat damage
•	Increasing deterioration of other paths and subsequent damage to adjacen designated habitats
	Future development of infrastructure is uncoordinated
	Path infrastructure present barriers to certain audiences
<b>7</b> .•	Unchecked growth of scrub restricting access to Polldubh crags and
	unapproved ad hoc felling degrading landscape character
	Lack of resource and expertise to manage high density of visitor impacts to paths
•	Lack of visitor awareness of walking routes/sites other than the Ben Path
)ppo	Lack of visitor awareness of walking routes/sites other than the Ben Path
1915	
1915	Promote minimal impact ethics and practices
•	Promote minimal impact ethics and practices
•	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor management,
•	Promote minimal impact ethics and practices Develop a coordinated, multi-partner strategy for visitor management, information and interpretation Develop high quality all-ability access routes suitable for a wider range of

# 9.6 Recreation and Tourism

The most immediate and visible threat to landscape character and heritage are the impacts of recreation and tourism (see section 6 for more details on the scale of recreational activities undertaken in the area).

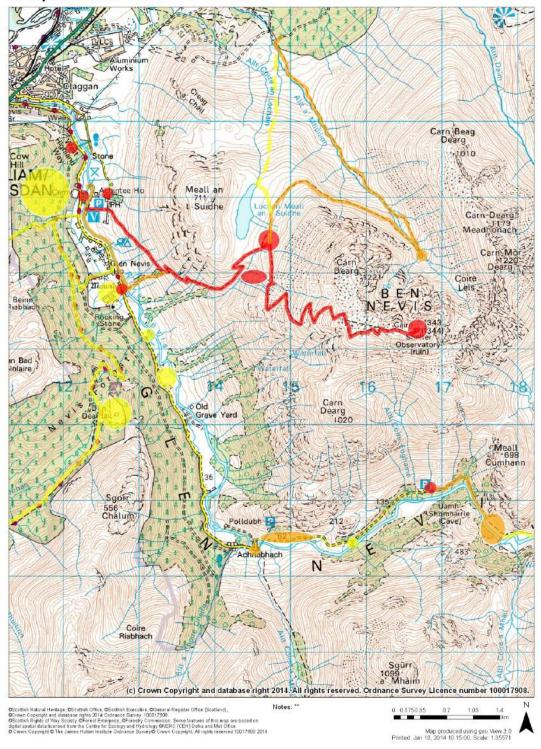
Following an extensive period of consultation and research (NLP Consultation / Survey and TLP Strategy), it has become clear that while Ben and Glen Nevis are landscapes greatly valued for their scenery, iconic status and opportunities for recreation, for example, this landscape is overburdened with pockets of visitor pressure and is currently under-resourced to sufficiently manage or mitigate these impacts. The lack of national park status has served to disadvantage the resourcing to deal with these issues, The consultation report highlighted the need for multipartner approaches to impact management of visitors, and also suggested the likely strategies to address this issue.

#### 9.6.1 Mapping Impacts

One way of perceiving the Nevis Management Area is as a series of 'zones'. The map overleaf demonstrates a broad analysis of recreational density and pressure. The areas coloured deep red are 'hot' zones, where there is the most intense footfall and people pressure. This is where both resources and the carrying capacity of the landscape are over-stretched. Orange denotes sites of medium to high impact and yellow covers those areas with either a low to medium level of visitor density or else a more robust landscape better able to absorb pressures.







# Hotspots within NLP

This analysis demonstrates both where key impacts are experienced and where future work is most needed to manage and reduce these issues.

Trampling by walkers can damage the vegetation in fragile upland ecosystems but the resilience of these communities is little understood. Ecosystem resilience is the capacity of an ecosystem to tolerate disturbance without collapsing into a qualitatively different state that is controlled by a different set of processes and is less valued. When resilience is lost or diminished, the system is at high risk of shifting to a different state, and restoring such a system to its previous state can be complex, expensive and sometimes impossible.

Although paths usually do not cover a large area at the landscape scale, the random development of paths, or inappropriate routing, and/or poor maintenance of paths can lead to high landscape and visual impacts.

# 9.6.2 Key Issues:

The following headings emerged from the NLP Consultation, especially from the views and experiences of those who live and work in the Glen.

- Erosion of paths and surrounding habitat
- Litter
- Irresponsible wild camping
- Human defecation
- Organised events erosion, vandalism, parking issues, camping, noise pollution and major litter impacts



The John Muir Trust alone remove an average of 40 black bags of litter from the summit each year. The Highland Council employs an industrial size skip to contain the litter at the Visitor Centre.



Volunteer groups (Friends of Nevis, Rangers and the John Muir Trust) estimate that approximately 3 tonnes of litter is taken out of the Nevis area every year. Friends of Nevis have been holding regular litter picks since 2008 and have noticed that by creating a more looked after environment, less litter is being picked up every year. But still enough litter is being collected to justify two litter picks annually in Glen Nevis. Groups and individuals from outwith the area also pick litter from the Ben, with the rubbish on the summit of the Ben attracting regular press coverage.

The Nevis Partnership landscaped a once derelict area at the start of Glen Nevis, created new recreational area, and reduced fly tipping. This has been achieved by creating a space that now looks well kept and promotes regular usage by strollers and dog-walkers, which creates passive security.

A further risk may be loss of scenic value due to attempts to cater for increased visitor numbers – for example trying to offer more parking space or more space for events could require vegetation removal which in turn has an impact on scenic value as well as potentially biodiversity. There have already been some suggestions that levels of provision should be increased to cope better with peak demand.

#### 9.6.3 Events

The spike in impacts caused by events is evidenced here through a summary of the condition of the Braveheart car park in Glen Nevis after the Downhill Mountain Bike Event:

- 15-20 fire pits with at least 3/4 of them in totally inappropriate places ie. on paths and mown grassy areas
- Picnic tables vandalised

- Smashed bottles in picnic areas. All gravel had to be swept up in order to remove the glass and will need re-surfacing.
- Pond full of empty beer bottles
- 3 waymarkers burnt as firewood
- Aggressive camper on Monday morning and reports from local users of aggressive behaviour over the weekend.
- 4 wheel drive parked on mown grassy area
- Countless bags of rubbish picked up on Monday morning

# 9.6.4 Loss of Tranquility

Many believe the restorative function of tranquil surroundings is the most important physical and psychological benefit that people enjoy in their experience of nature. However, the widening gap between nature and the human population has numbed our sensory capacities, and consequently our 'ecological perception' (Stewart-Pollack, 1996).

It should also be noted that in remote and/ or mountain areas, people may or may not be aware that they also seek an element of risk. Tranquillity is subjective and occurs in landscapes at a series of different scales. Three main components make up a tranquil environment; 1) the combination of landscape elements; 2) their aesthetic quality; and 3) intangible qualities, such as emotional experience and ephemeral effects, e.g. light and noise, and weather (over which we have no control).

Woodland tends to feel more tranquil because it absorbs people more easily. On the other hand a landscape with people working using traditional methods may also feel tranquil. In addition, it is becoming increasingly difficult to find areas where the view of the night sky is unaffected by illumination; expanses of land with low population levels, such as those in the Highlands, are some of the few remaining areas where light pollution is minimal in the UK. Glen Nevis was designated in 2009 as one of the world's first Dark Sky Discovery Sites.

# 9.6.5 **Opportunities**

Referring back to the notion of the highimpact zones, this is clearly where the bulk of NLP's efforts must be targeted. If this element is successful, the rest will naturally follow. Education and inspiration are needed to raise awareness of the issues and sensitivities, as well as promoting positive ways to reduce impacts and contribute to a sustainable future. Enabling all audiences to begin to appreciate the effects of climate change is in effect a wayin to signpost the fragility and sensitivity of



these special places to environmental change, including those changes created by humankind. Beyond this, a programme to engage event organisers, mountain guides, businesses and educators via training events, building eco-sensibility into their experiential offer is a second crucial aspect, as these people then become guardians of the hill and its environs, thereby inspiring clients and visitors via the guiding / interaction process. This is based on some of the principles of ecotourism and ecophilosophy, which suggest that people are most likely to protect and conserve the wild and natural environments they encounter if they have a sense of belonging, understanding and ownership of these places. Connecting with young people through local schools and colleges is seen as a particularly powerful means of changing people's attitudes and behaviours towards cherished local landscapes.

# 9.7 Climate Change

Whilst recreation presents the most serious immediate threat, it is climate change which presents the following issues:

- Most significant long term threat
- Most complex to plan for
- Future impacts unknown

From 1883 to 1904, when a meteorological station was maintained on the summit, readings showed that the summit was extremely wet and cold with the mean monthly temperature at or below freezing for eight months of year and the warmest monthly average being five degrees centigrade. The average annual temperature at the summit between 1883 and 1903 was 0.3 C. The low temperatures reached on average in March reflected the strong maritime influence on this part of Scotland.

The low summer temperature is partly the result of the persistent cloudiness which reduces annual sunshine to an average of only 750 hours (a mean of 969 hours). In the 21 years of summit observations, sunshine only reached the summit for one sixth of that time. Snow lay on average for 215 days of year on the summit which supported some of most persistent snowbeds in Scotland. In fact, the maximum snow depth was often not reached until April. In more recent years Ben Nevis has experienced significantly fewer days of severe cold, frost or snow and has a much reduced total depth of snow on the summit than those recorded 20 years ago. However the most recent winters 2008/10 and 20010/2011 have proved to be much drier and colder with more significant snowfall.

Soils rarely dry out due to the cool oceanic climate. There is a great range in climatic conditions from woodlands in Glen Nevis, which have a mild temperate climate, to the summit snowbeds where conditions are near Arctic.

The effect of local topography on winds was observed at the Summit Observatory on Ben Nevis (1884-1903). The most frequent wind direction recorded on the summit was northerly as north-westerly winds are deflected around Carn Mor Dearg and give rise to gusty northerlies at the summit. South-westerlies may be backed to a more southerly direction, while south-easterlies are accelerated up the relatively gradual slope. The strongest winds on the summit are from the south to south-east.

# In general terms:

- Most frequent and strongest wind direction in the Ben Nevis area is south-west to west
- Wettest months are generally December and January and driest months are generally May and June
- Warmest months are July and August
- Most stable weather occurs in February, October and March with January being the worst month for gales
- Average annual rainfall is 4804mm, twice that of the Cairngorms
- Snowfall may occur all year round. Snow will start to lie on the summit from October and can last well into August, especially in sheltered north-facing corries.

# 9.7.1 Climate change and ecosystems services

Ecosystem services include a range of fundamental processes, providing supporting, provisioning, regulating and cultural services to all species on our planet. Without them functioning at a certain level, we would be unable to survive. Pressure on ecosystem services from the exploitation of resources, whether directly through primary industrial activity or indirectly through unsustainable levels of economic activity, is exacerbated by environmental changes like climate change. The ability of the ecosystem to recover is not only handicapped by unsustainable use but its response to stressors like changing climate is also compromised.

Climate change is, therefore, a subset of a wider environmental set of concerns about the planet's ability to support our burgeoning population and ever-increasing expectations in living standards. However, it is one of the more tangible and accessible concepts within this wider context and therefore represents a valuable delivery mechanism for raising public awareness about threats to our ecosystems. It is also one of the most pressing to tackle since its effects are difficult to accurately predict and thus mitigate. Its impacts will be felt long after the emissions that drive it have been reduced and the range of likely impacts cover all the Earth's ecosystems and their functioning.

The effects of climate change on the Nevis Landscape Partnership area is, not surprisingly, hard to predict. However, several key climate trends have been identified for Scotland (UKCP09):

- Warmer, drier summers
- Milder, wetter autumns and winters
- An increase in extreme weather events including summer heatwaves, drought and extreme precipitation events
- Rate of sea-level rise and sea surface temperature to increase around our coasts.

How our natural heritage will respond to these changes (and indeed, how they will be manifest on a regional or local scale) is not clear. As ecological niches (or spaces, representing optimum conditions for any given species) migrate with changing climate, so species will be forced to move too. Those species that are in places like mountain tops, where migration is blocked by a lack of higher elevations, are threatened with extinction, at least locally. Many of the rarer plant species found within the Ben Nevis SSSI and SAC, which form part of the SSI Vascular Plants feature, are already at the southernmost limit of their range. These arctic-alpine specialists are readily out-competed by the more robust grasses, sedges and rushes found lower down on the hill and have no available places to migrate to; these are the species most likely to be lost first.

Iconic bird species like the ptarmigan, dotterel and snow bunting also face local decline or loss, being dependent on other species (insects like the mountain crane fly) or habitats (moss-heaths above the limit of heather) that face real losses under climate change scenarios.

Changing climate increases the environmental stress experienced by any species. This tends to lead to an increase in pests and diseases – for example, the recent proliferation of tree diseases within the UK – and the spread of invasive, non-native species like rhododendron. Greater incidence and magnitude of extreme weather events threatens slope stability and river morphology while sea-level changes threaten our coastal habitats. All of these threats are very real in or near Glen Nevis.

The impact of more extreme weather events has already been felt in Glen Nevis. Planned



reintroduction of the freshwater pearl mussel, which historically was known to be present in the Water of Nevis, has had to be abandoned from the Landscape Partnership programme. A programme of reintroductions across Scotland into rivers where FWPM were known to exist in the past included the Water of Nevis in its list of suitable sites and in 2006 approximately 1km of the river downstream from the visitor centre was considered suitable habitat for these threatened molluscs. By 2013 all bar 38m<sup>2</sup> had been lost to high spate events, caused by high intensity rainfall in the upper parts of the catchment. This loss brings to an end an extremely long history of freshwater pearls in catchments like the Water of Nevis. Only a few suitable catchments remain, almost all containing a mid-catchment loch to buffer the effects of orographically-enhanced high intensity rainfall events and the resulting high-energy spates that rip out the riverbed.

Exploitation of FWPMs has taken place from pre-Roman times. Historic losses relate primarily to over-fishing in the 19<sup>th</sup> and early 20<sup>th</sup> centuries when the value of pearls exceeded that of the precious and semi-precious stones they were often used to enhance. More recent efforts at conservation are now subject to the adverse impacts of changing climate. This fascinating story will form one of the central themes for public engagement on the issues of climate and environmental change within the Nevis Landscape Partnership area.

One of the most alarming dichotomies surrounding environmental issues is that intellectually we may be aware of climate or environmental change, but we do not necessarily perceive that it is an issue that directly affects us or that there is anything we need to or should be doing to mitigate it. In order to support the resilience and adaptation of natural systems, their health and ability to provide us with essential services, we need to understand the threats emotionally as well as intellectually, and be enabled to make lifestyle changes that reflect this understanding.

Inevitably, there is a tendency to focus on the global scale of the environmental challenges we face and there is limited awareness in the UK of the serious threats faced at regional and local levels. If awareness can be raised about the threats within an iconic landscape like Ben and Glen Nevis, then this is likely to have a significant wider impact:

"High impact examples are needed which detail how the environment is changing within the UK, but also how environmental damage is interconnected between regions, regardless of national boundaries."

DEFRA 2007: Public understanding of the concepts and language around ecosystems services and the natural environment. NR0115

A more robust approach requires support from the public. If we can reduce pressure on ecosystems by allowing species and habitats to thrive, strengthening networks, making space for natural processes to function properly within our own nation, and plan effectively for change rather than the status quo, then we have a chance to facilitate climate change mitigation and adaptation across a much wider area. This vision is one that needs to be grasped by the Scottish people, placing us at the forefront of post-industrial nations willing to change the way we operate and pursue a genuinely sustainable society, environmentally as well as economically.

The Nevis Landscape Partnership is uniquely placed to contribute to this vision. Greater public engagement with the natural environment, from the perspective of deep ecology where people are seen to be part of the ecosystem, rather than remote from it, and using specific examples from the range of habitats and species that occur within the NLP area, will

lead to a better understanding of the issues and how people can act to address them. When fully engaged with our natural heritage, people find reasons within themselves to change their behaviour, with the chance that those changes will be enduring and effective. They also have the opportunity, when faced with various options, to make better informed choices with a realistic understanding of the consequences of their actions. This empowerment lies at the heart of a democratic society that has the opportunity to behave in an environmentally moral way, which will be necessary to address the global environmental crisis which we currently face.

With Ben Nevis at the heart of this iconic landscape, the opportunity to experience the full force of nature's power is open to all on a daily basis just by going up the hill. Nowhere else in the world experiences the same rate of change in wind and temperature with increasing altitude, making the really very small change in altitude a real monster in climatic terms. Every year lives are lost here because of the weather conditions. There is no more brutal reminder of how puny we are in the face of nature. But in spite of centuries of social mores that have focused on man's dominion over nature, we are still very much at its mercy and this is an excellent place for people to grasp that. Leading people away from the argument for domination and towards an understanding of integration will allow people to recover a sense of belonging and acceptance when they are able to go with the environmental "flow" rather than against it. This lies at the core of the concept of ecosystem services; what we do on a daily basis impacts on the ability of all life forms on this planet to thrive, including ourselves. We are inextricably entwined in our own fate.

Using nature to create this awareness is not new. It lies at the heart of the Knowledge, Engagement and Participation Strategy for the Nevis Landscape Partnership and runs as a common thread through all the projects. It is our aim to use the powerful and iconic landscape of Ben and Glen Nevis to invigorate and inspire the Scottish people and all those who visit the area to act to safeguard the future of this landscape and the ecosystem that supports it. It is then a very small step for people to take this inspiration home with them and apply it to the places where they live.

#### 9.7.2 **Opportunities**

The iconic status of the landscape area, its high public profile and unique range of habitats present a significant opportunity to raise awareness of the importance of ecosystem services and biodiversity. Equally, the potential impacts of climate change, to both nature and society, can be explored at the local, national and global scale. The scheme presents a rare opportunity to bring these issues to the forefront of the public consciousness and develop a case-study for the Scottish Government.

#### 9.8 Development threats to the Landscape

The Glen Nevis area's greatest asset is its proximity to the town of Fort William and unfortunately this is also its greatest danger. In recent years a number of proposed industrial and domestic developments have encroached on the boundaries. Local people feel a real sense of ownership for the Glen and, for many; it provided cherished memories of growing up. Understandably, these threats of development have led to a desire for action to be taken to sustain the natural environment. Local people remember the Glen fondly from their childhood, disappearing for hours to carry out their favourite activities like swimming, walking, cycling, camping, and picnicking. There is a desire to preserve the area and the activities enjoyed there for future generations.

Lochaber's, and particularly Fort William's, need for affordable housing and commercial economic growth can make development and landscape issues difficult to reconcile in the Glen. An example of that was a request to extend retail park development which lies on the existing boundary, encroaching further, potentially into a national scenic area. This was a contentious issue in the local community as it led to conflict of interests between development/job opportunities and environmental damage. Glen Nevis has been recognised as one of Scotland's "Dark Skies" locations and, in that context, the further intrusion of house and street lighting would be undesirable.

Another threat for development in the Glen is the loss of tranquillity. Many believe the restorative function of tranquil surroundings is the most important physical and psychological benefit that people enjoy in their experience of nature. However, the widening gap between nature and the human population has numbed our sensory capacities, and consequently our 'ecological perception' (Stewart-Pollack, 1996). Both locals and visitors alike enjoy the wilderness off the area, spending time in areas such as this can be beneficial for health and well-being.

Sensitivities and pressures concentrate on tourism – the impact of large numbers of people in the landscape, particularly related to recreational activity – and commercial forestry. The small scale of the Glen, relative to the massive nature of the mountains, makes it particularly sensitive to built development, such as car parks and tourist facilities, as well as the smothering nature of commercial forestry, where the intricacies of the landscape are lost beneath much larger, homogenous tracts of coniferous plantation.

Erosion on upper slopes where vegetation cover is limited poses a particularly significant visual impact and is a direct result of visitor pressure.

The obvious threats are houses and other buildings, as well as inappropriate hill tracks. Publication of an update to the Scottish Government's National Planning Framework for Scotland 2 (2009) in April 2013 included mapping of areas described as Wild Land. According to the NPFS2:

"The most sensitive landscapes may have little or no capacity to accept new development. Areas of wild land character in some of Scotland's remoter upland, mountain and coastal areas are very sensitive to any form of development or intrusive human activity and planning authorities should safeguard the character of these areas in the development plan."

A number of different boundaries exist related to the political representation for the Ben Nevis and Glen Nevis area. For the Westminster government it lies within the Ross, Skye and Lochaber constituency while for the Scottish parliament it sits within the Skye, Lochaber and Badenoch constituency. For local government purposes the area is entirely within the Fort William and Ardnamurchan electoral ward but lies on the boundary with the Caol and Mallaig ward. With the adjacent areas of each ward containing most of the Lochaber population political decisions and policies from both wards can have an impact on the Nevis Landscape Partnership area.

The Highland Council's work is focused on delivering a number of priorities in "Working Together for the Highlands"- the Council programme for 2012-2017. This programme covers a range of areas from economic development to education and social care while also containing a number of actions where the Council will work with local communities. For development planning purposes the Highland Council has a Highland wide development plan which sets out the overarching vision statement, spatial strategy and general planning policies. This is complemented at a more local level by a series of local development plans of which the West Highland and Islands Local Plan (2010) covers this area. Land allocations in the previous Local Plans remain in place (unless an updated site allocation is given in the Highland-wide Local Development Plan) until such time as the respective Area Local Development Plans are adopted. It is proposed that the new West Highland and Islands Local Development Plans with a call for sites being carried out in 2014.

#### 9.9 Crime and Anti-social Behaviour in the Nevis Area

"Overall it is encouraging to see that whilst large numbers of general tourists and persons participating in outdoor activities visit / use and enjoy the environment and resources such as accommodation / restaurants in the [Nevis Landscape Management] area, the crime levels are low. It is apparent that the users of the area treat both the area and its environment - and other visitors/users - in general with a high level of respect and consideration."

Andrew Irvine (Strontian Police)

While this provides a strong platform to move forward, it is important not to become complacent to the effects of even a few individuals in a landscape of this scale, with such a high number of visitors. The following section will investigate risks of crime and antisocial behaviour to the Nevis Management Area.

During the period of Northern Constabulary, the Highlands and Islands of Scotland proved to be the area with the lowest crime figures in the country and Lochaber, within this, had one of the highest detection rates.

Through the personal knowledge of one of our directors who has served as a Justice of the Peace for almost 30 years, coupled with a check with Police Scotland in Fort William, it can be confirmed that crime and anti-social behaviour in the Nevis Area is at the lower end of the scale. This contrasts with the nationally higher levels of crime in Central Fort William.

Incidents can be grouped as:

- minor theft, mainly within camp sites and occasionally from vehicles;
- minor disorder and breach of the peace, again at camp sites when too much alcohol has been consumed;
- some disorder amongst groups of young people in the summer, mainly alcohol related, particularly in the vicinity of the Roaring Mill;

- speeding particularly within the 30mph restriction at the entrance to the Glen; and,
- Seasonal reports about alleged poaching on the higher ground.

The main Police activity in the area is through coordination of mountain rescue.

#### 9.9.1 Wildlife Crime

"The West Coast is limited in wildlife crime in comparison to many other places in Scotland, with the biggest issue being poaching." Eric Sharkey - Wildlife Crime Liaison Officer

Andrew Irvine (Strontian Police) describes wildlife crime in the Nevis area over the past 10 years;

"I have looked back in our records over the past 10 years and it is pleasing to find that crime and in particular wildlife crime in the Glen Nevis / Ben Nevis areas is shown to be at a very low level. During the period 01/01/2003 to date; only three instances of deer poaching have been recorded in the area and no instances of salmon poaching are recorded. Similarly no instances of wildlife crime involving birds have been recorded. From a wildlife crime perspective the Nevis area though frequented by large numbers of persons is not, thankfully, subjected to any consequential levels of wildlife crime."

#### 9.10 Resource and Management

Perhaps the greatest threat to the future health and vitality of the Nevis Management Area is a lack of long-term funding to ensure sufficient resource and effective partnership management of the many complex issues and conflicting priorities. Similarly, the patchwork land ownership of the landscape, with its various boundaries, presents a significant risk. Management could become fragmented with a loss of landscape-scale vision and multipartner collaboration.

# **10. Aims and Objectives**

#### Summary

The Partnership aims to implement a project of national significance which represents a unique and rich opportunity to sustain the future of the Nevis Management Area and the communities of life which depend upon it. It will provide a landmark example of international best-practice in sustainable nature-based tourism and visitor management, appropriate for one of the world's best known and best loved mountain areas.

In terms of Natural Capital, Ben and Glen Nevis present priceless assets. The £3.9 million HLF investment plan will better capitalise on and future-proof this national resource, enhancing its economic, social and environmental value.

#### **Investment for Scotland's People**

As a national icon and a resource for all, investment in Ben and Glen Nevis will bring significant impact to the Scottish public. Access to the UK's highest mountain is a cultural right and for many a lifetime achievement which may in turn enthuse a passion for nature and an active lifestyle.

# **Investment for Scotland's Natural Capital**

As one of Scotland's key natural assets, the value of this landscape exceeds its ecology and biodiversity. The high profile and attraction of Scotland's greatest mountain will be levered in to deliver environmental education and awareness raising messages that can reach tens of thousands each year. Climate change, ecosystem services and conservation will be core messages.

# **Investment for Scotland's Future**

The scheme will ensure that our youth are stakeholders in the landscape and that the area has a vibrant future which is economically productive, resilient and self supporting. Ben Nevis will act as a national brand, supporting the national and local economy and spreading a message of social and environmental responsibility.













# 10.1 Vision

The Nevis Landscape Partnership presents a unique opportunity for collaboration in managing and future-proofing one of Scotland's most treasured landmarks. Central to this is a shared vision:

"Our vision is that in 20 years' time the legacy of the Nevis Landscape Partnership is clearly visible though exemplary environmental and visitor management. The area will thrive both economically and as a sustainable bioregion supporting all the communities of life that depend upon it. Enhanced landscape character will demonstrate pride in Ben and Glen Nevis as landmarks of national importance. All members of society will be able to connect with this landscape as a place to rejuvenate, explore, learn, work and live. People will form lasting connections with the landscape through meaningful and memorable experiences which foster care for our shared heritage. Management of the area will be collaborative, ensuring ecosystems, biodiversity, heritage and infrastructure are more resilient to pressures such as climate change and visitor impacts."

(NLP Vision Statement)

In 20 years' time the legacy of the Nevis Landscape Partnership will be evident through:

- The area being recognised as a national exemplar for visitor and environmental management
- Distinctive landscape character enhanced with 'wildness' and 'tranquility' conserved
- A generation of local people having participated in, and continuing to be involved in, habitat improvement and monitoring biodiversity
- Healthy and diverse ecosystems, with natural processes valued and protected
- A long-term landscape blue-print with two decades of data on adaptive habitat management
- A sophisticated and cohesive Partnership, effective at securing long term investment and delivering collective outputs
- Key elements of built and natural heritage being resilient to climate change and visitor pressures
- Conservation being seen as an integral part of recreation, tourism and local life
- A greater range of activities and interests being catered for and supporting a diverse and vibrant local economy
- A strategic and inclusive approach to access having connected a wider spectrum of society to this special landscape
- Ben and Glen Nevis being recognised as an internationally important centre of learning with regard to conservation, mountain environments and culture

# 10.2 Aims

To fulfil this vision there are four central aims which the Nevis Landscape Partnership will strive to realise. These are common to the entire scheme and are therefore contextualised and given more detail in the Nevis Landscape Partnership Scheme Objectives.

- A) To conserve and restore the built and natural features that create the historic landscape character of Ben and Glen Nevis.
- B) To increase community participation in conservation and local heritage.
- C) To increase and improve access to and learning about the landscape and its heritage.
- D) To increase training opportunities in landscape and heritage skills which directly benefit the local area and community.

# 10.3 Scheme Objectives

As an integrated and holistic scheme, the projects have been designed to support one another in a coordinated strategy which is built around a set of core objectives. Individual projects will deliver a number of these central objectives alongside a series of project specific targets.

#### The NLP scheme will:

1	Protect and enhance landscape character for future social and environmental benefit
2	Encourage responsible access and mitigate visitor impacts
3	Strengthen ecosystem resilience and plan for future adaptation
4	Connect people with the landscape through meaningful and memorable experiences
5	Increase learning and conservation of cultural heritage
6	Support community participation in conservation and visitor management
7	Increase knowledge, skills and employability in conservation and eco-tourism
8	Increase <b>public awareness</b> of <b>climate change</b> , biodiversity and ecosystem services
9	Adopt a partnership approach to visitor and land management, which is future focused, adaptive and landscape-scale
10	Develop the local economy in a sustainable way
11	Contribute to health and wellbeing by improving access to the outdoors
12	Provide examples of best-practice in sustainable nature-based tourism

The following matrix identifies how these core objectives are mapped throughout the scheme projects.

	SCHEME OBJECTIVES											
	Landscape Character	Visitor Impacts	Ecosystem Resilience	Connection & Experience	Cultural Heritage	Community	Knowledge & Skills	Climate Change	Visitor/Land Management	Local Economy	Access	Sustainable Tourism
PROJECT TITLE	1	2	3	4	5	6	7	8	9	10	11	12
Polldubh Paths		$\sqrt{}$	$\checkmark$	$\sqrt{}$	$\checkmark$					$\checkmark$	$\sqrt{}$	
All-ability Riverside Trail &												
Bridge		$\sqrt{}$		$\sqrt{}$						$\sqrt{}$	$\sqrt{}$	
Ben Nevis Mountain Path	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$					$\checkmark$	$\sqrt{\sqrt{1}}$	$\sqrt{}$	$\checkmark$
North Face Path		$\sqrt{}$		$\sqrt{\sqrt{1}}$							$\sqrt{}$	
Community Engagement	$\sqrt{\sqrt{1}}$			$\sqrt{}$	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{1}}$	$\checkmark$	$\checkmark$	$\checkmark$		$\sqrt{}$
Pinewood Restoration	$\sqrt{}$		$\sqrt{}$						$\checkmark$		$\sqrt{}$	
Future Forests	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$		$\checkmark$	$\checkmark$
North Face Survey	$\checkmark$		$\sqrt{}$			$\sqrt{}$	$\sqrt{}$	$\sqrt{\sqrt{1}}$	$\sqrt{}$			$\checkmark$
Dun Deardail	$\checkmark$	$\checkmark$		$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$	$\sqrt{}$				$\checkmark$	$\checkmark$	$\checkmark$
Vitrification experiment and outreach	$\checkmark$			$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$					$\checkmark$	
Summit Conservation	$\sqrt{\sqrt{1}}$										$\sqrt{\sqrt{1}}$	
Sustainable Futures: Erosion & Impacts	$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$				$\sqrt{\sqrt{1}}$		$\checkmark$	$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$		$\sqrt{}$
Geology - publication & outreach	$\checkmark$	$\checkmark$		$\sqrt{\sqrt{1}}$				$\sqrt{\sqrt{1}}$		$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$	
Outlandia - publication					$\sqrt{\sqrt{1}}$							
Sustainable Futures -												
Interpretation	$\checkmark$	$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Celebrating the Wild		$\sqrt{}$		$\sqrt{\sqrt{1}}$	$\sqrt{\sqrt{1}}$	$\sqrt{}$		$\sqrt{}$	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Ben Nevis Film+		$\sqrt{}$		$\sqrt{\sqrt{1}}$				$\sqrt{\sqrt{1}}$		$\sqrt{}$	$\checkmark$	$\sqrt{}$
Nevis Heritage Website		$\sqrt{}$			$\sqrt{\sqrt{1}}$			$\sqrt{}$	$\checkmark$	$\sqrt{}$	$\checkmark$	$\sqrt{}$
Nevis Training Programme	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	$\sqrt{\sqrt{1}}$	$\checkmark$	$\sqrt{}$

Key

$\checkmark$	Project contributes to achieving objective
$\sqrt{}$	Project focuses on this objective

#### 10.4 Conservation

The Nevis Landscape Partnership will conserve and enhance:

- The Historic Ben Nevis Mountain Path
- The Scheduled Ancient Monument of Dun Deardail
- Habitat for key species around the Polldubh area
- Native Pinewood habitat in the Forest Estate
- Arctic-alpine species on the North Face of Ben Nevis
- Landscape Character across the NLP Management Area
- Built Heritage on the summit of Ben Nevis
- Key access routes (see map below)

# **10.4.1 Partnership Approach to Conservation**

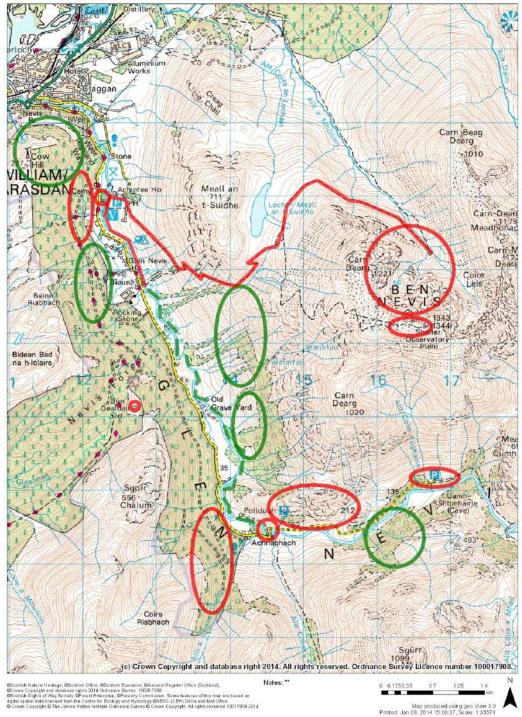
Recognising that conservation work is often reactive rather than proactive, the Partnership has adopted four key principles:

- 1. Change is inevitable and not everything can or should be conserved: resources are limited, so must be targeted where most needed
- 2. People will only protect what they value: conservation hinges upon education and connecting the visiting public and local community with their heritage.
- 3. Conservation must be future-focused: conservation efforts must build resilience against future predicted pressures rather than simply addressing current impacts retrospectively.
- 4. Action must be strategic and prioritised: high quality and recent data is essential (as is its continual analysis) if conservation strategies are to remain appropriate and responsive to changing pressures.

# **10.4.2 Mapping Conservation**

Site specific conservation will be carried out through projects which focus on key locations identified on the map overleaf (project locations) red areas or corridors. There are close correlations between the mapping of impacts and the mapping of conservation. Detail regarding conservation activity can be found in the relevant project briefs (see appendix 12). A broader approach to conservation of the area's landscape character, habitats and species will be implemented through the conservation volunteer workforce and community engagement projects. The priority areas for this type of conservation activity are denoted by green areas or corridors.





**Red** areas or corridors = site specific conservation projects **Green** areas or corridors = more general conservation activity focusing on volunteers

# 10.4.3 Conservation Standards:

Each of the scheme projects will meet required standards in specific ways (see appendix 12). The key issue for many of the projects is compliance with the site designations:

- Special Area of Conservation, European Natura 2000 site
- Ben Nevis SSSI Site code: 19 AREA: 9539.73 h
- Ben Nevis and Glen Coe National Scenic Area
- Scheduled Ancient Monument An Dun, fort, Dun Deardail Index Number 2893

# Natural Heritage:

Scottish Natural Heritage is a core funder of the scheme and an advisor to the Partnership. SNH has a ten year track record of supporting and working with the Nevis Partnership. This relationship alongside the importance of the scheme to SNH provides the working relations to ensure that the Nevis landscape Partnership can meet conservation standards and the stipulations of any Operations Requiring Consent.

# **Built Heritage:**

Dun Deardail is a Scheduled Ancient Monument (SAM 2893). Scheduled Monument Consent will be required before the start of fieldwork. Historic Scotland has been consulted about the project and has indicated that SMC may be granted on receipt of the completed SMC application forms, the Project Brief (appendix 12) and a Method Statement. The Site Director is responsible for liaising with HS and submitting the application for SMC and ensuring that all requirements of SMC are complied with in full and within the agreed timescale. The Site Director will be a Member of the Institute for Archaeologists (IfA). All work will be carried out in accordance with the current IfA standards of good archaeological practice.

# 10.5 Participation and Learning

It has been demonstrated (see section 6) there is little need to attempt to attract more people to the Nevis Management Area. In fact to do so would over-burden the stakeholders and environment. What is needed, however, is a way to engage the many audiences in a deeper connection with the landscape: to inspire families, walkers and climbers about the natural and cultural heritage and to foster a sense of care and responsibility. Hundreds of thousands visit the area every year, thus a small shift in attitude or behaviour has significant implications.

# **10.5.1 Audience Development:**

In broad terms, the Nevis Landscape Partnership scheme has a core theme – one which is less concerned with micro or macro environmental phenomena, special interests, land ownership / management or even tourism. The core theme is essentially a focus on **people in the landscape** and the development of human capital, in a range of workers, user groups and publics. The project management team needs to think in terms of *audiences, learning and inspiration,* if long-term goals are to be achieved.

From the research (see NLP Consultation), it is apparent that there are seven main types of audience, though overlap occurs:

- Lay Majority (visitors, event participants)
- Working community (rangers, teachers, guides, tourism businesses)
- **Experts** (climbers, ecologists, experienced walkers)
- Local community
- Schools and Universities
- Volunteers (made up of all the above)
- **Under represented audiences** (disabled, unemployed, disenfranchised, low wage, socially deprived)

It is people who will make a difference here: by their absence, by their understanding, commitment, joy of experience, sharing and remembering. All of this has to be set against a famous, historic, powerful, challenging and inspiring landscape which is also contested and fragile.

Thus the scheme will focus on 'people in the landscape', their engagement and felt sense of ownership of the place – echoing the *allemansrätt* of Scandinavia, but also encouraging an embodied sense of place and comfort in nature tempered with that very British notion of challenge in wild places. It has been written many times, and is reflected in wider philosophical literature, that care for the wild follows naturally if people feel that they belong in and are part of a place.

Feelings of connectedness to nature and changes in attitudes to nature have been widely reported in the studies reviewed, ranging from the aesthetic appreciation of beautiful scenery and landscapes to a deep sense of belonging to the natural world. In addition, participants often reported an increase in spiritual values, an awareness of a spiritual dimension and a development of a sense of place' (*Social, Psychological and Cultural Benefits of Large Natural Habitat & Wilderness Experience- Hine, Pretty and Barton 2010*)

In addition Hine, Pretty and Barton go further and conclude that attitudes to the natural environment can change through:

- establishment of a connection with the natural environment and development of a sense of belonging to natural setting 'at one with nature'
- enhancement in the understanding of the natural environment and the appreciation of the enjoyment that can be derived from spending time outdoors
- development of an understanding and appreciation of nature which is more likely to foster a respect for nature and for participants to support nature and wilderness conservation in future

The Partnership will therefore raise awareness of the value of our heritage along with the issues that affect its long term sustainable use and enjoyment. The Partnership will also implement a people centred, sensitive approach to a fully integrated environmental and visitor management scheme that is an exemplar of good practice.

Traditionally, outdoor learning has been a combination of adventure and environmental activities often carried on outside school hours and linked to a limited range of subjects. 'Outdoor learning' today, and into the future, is much broader. Outdoor education is no longer seen as just adventure or environmental activities, but as a teaching approach outdoors which can enhance and integrate a huge range of activities across the whole curriculum - activities which connect learners with their environment, their community, their society and themselves. It engages and motivates learners through first-hand experiences which demonstrate the relevance of knowledge and understanding.' (Learning and Teaching Scotland)

Outdoor learning is equally applicable to lifelong learning and although some work with schools, West Highland College UHI and volunteers has already taken place, on the whole the heritage value of the area in respect to learning is an under used resource.

The educational and training elements within the scheme act as a conceptual lynch-pin, joining other aspects of the programme: conservation work, tourism development and management, local economy, professional development and dissemination activities. The scheme promises a meaningful engagement with mountain places, mountain issues and scientific enquiry. These will be interpreted for a variety of audiences.

The dissemination of heritage information can be undertaken in many different ways and using different media formats. Although the primary purpose is to inform and educate, this should be done in a way that engages, stimulates and enables.

Provision will therefore be made to ensure there are opportunities for people to take part in all aspects of heritage work and for further research at a variety of levels and at any age. To this end the Partnership will strengthen and develop further links between West Highland College UHI and other Universities to provide work placements, work experience and pragmatic research.

It will develop a range of training and learning opportunities and accredited, flexible modules related to the issues and impacts of effective landscape heritage management, ecotourism and heritage conservation. In addition it will provide field trips, workshops and work parties for volunteers, produce a range of publications, documentaries and an interactive website giving access to information about all of the heritage work being undertaken. We will also make use of current developments in social media such as Twitter and Facebook. Audience development is therefore a qualitative not quantitative objective. The NLP do not wish to increase audience numbers, but to increase audience connection and participation with the diverse heritage of the area. The following headings outline the key audiences to be developed:

#### Lay Majority (visitors, event participants)

The main objectives to develop this audience are:

- To improve interpretation and access to information on the diversity of heritage
- To provide activities to engage the public and increase learning
- To promote minimal impact ethics and practices
- To promote and develop ways for the public to contribute to conservation

- To inspire and reach a wide audience through multi-media platforms
- To raise awareness of the importance and fragility of ecosystems, biodiversity and pressures such as climate change
- To provide more inclusive access

# Experts (climbers, ecologists, geologists, etc)

The main objectives to develop this audience are:

- To increase engagement with conservation activity
- To strengthen relations and knowledge exchange between the mountaineering community and conservation bodies
- To raise awareness of biodiversity and ecosystem fragility
- To promote minimal impact ethics and practices
- To increase appreciation of cultural and natural heritage
- To develop Landscape Champions

# Working Community (Stewards, Teachers, Guides, Tourism Businesses)

The main objectives to develop this audience are:

- To increase knowledge exchange through networking events and training modules
- To share data and decision making through Partnership sub-committees
- To increase access to CPD and external expertise
- To provide more human resource through a volunteer training programme
- To develop human capital, confidence and capacity
- To provide more targeted opportunities to participate in conservation activity

# Local Community

The main objectives to develop this audience are:

- To provide a diverse range of educational activities
- To diversify and increase local community engagement in conservation
- To provide more inclusive access
- To increase understanding and appreciation of cultural heritage
- To provide opportunities for people to celebrate their landscape and heritage
- To increase outdoor activity
- To increase access to training
- To provide an outdoor community meeting place in the Glen

# Schools and Universities

The main objectives to develop this audience are:

- To engage local schools in the landscape and support outdoor learning
- To develop and promote involvement in a Youth Award
- To provide training and work experience for Graduates
- To increase artistic and creative exploration of the landscape
- To provide educational material and projects
- To increase access to information through multi-media formats
- To increase access to subject experts
- To engage local youth in woodland regeneration
- To increase volunteer activity from University Clubs

# Volunteers:

The main objectives to develop this audience are:

- To engage the local community in a wide range of volunteer activities
- To diversify the range of opportunities for people to contribute to conservation
- To train and manage a dedicated conservation volunteer workforce
- To attract volunteers from all over Scotland
- To diversify the demographic of volunteers through outreach and promotion
- To increase employability and career skills of volunteers
- To engage volunteers in specialist work such as archaeology, habitat surveys and path building
- To provide an essential space in the Glen for volunteers to meet, share ideas and receive training
- To run Citizen Science events, encouraging the public to contribute to National Biodiversity data
- To attract new audiences through outdoor activities with conservation work included

# Under represented audiences:

The Partnership recognise that many sectors of the local community are under represented and potentially excluded from forming meaningful connections with the Nevis area. The main objectives to develop this audience are:

- Offering work experience placements through the job centre
- Developing all-ability infrastructure and working closely with Lochaber Disability
- Monitoring participation to analyse engagement from the most socially deprived areas of Fort William
- Working closely with the West Highland College and local schools to offer outdoor learning, field-trips, establishing tree nurseries and tree planting days; providing a range of family focused activities which aim to attract disengaged audiences through inspiring their children
- Working with the Fort William Mountain Festival to provide free outdoor activities and to develop a Youth Award for Excellence in Mountain Culture.

Engaging local communities and visitors to assist with landscape maintenance and conservation is a key concept in this scheme. Many of the Partnership's core aims are to some extent dependent upon actively involving both local communities and visitors in the care, maintenance and management of the Nevis Area.

Ongoing training, both formal and informal, is also necessary to ensure the required skill set for management is both available and maintained. This will be achieved by increasing the Friends of Nevis volunteer base and widening its demographic. This will be achieved through workshops and activities to include species specific field work as well as footpath and habitat maintenance, litter picking and shrub and invasive species clearing.

Most important of all is the fostering of a sense of ownership and responsibility amongst the all the communities who enjoy and share this landscape. This is wholly in keeping with the Report of the Scottish Landscape Forum to Scottish Ministers March in 2007; "A people centred approach that highlights the importance of engaging with people and communicating landscape work lies at the heart of the Forum's approach"

# 10.5.2 Learning:

The scheme will provide opportunities to learn about:

- Geodiversity
- Key species and habitats
- Climate change, ecosystems and natural processes
- Archaeology and history of Dun Deardail and the wider landscape
- Mountain heritage of Ben Nevis
- Human impacts, 'responsible access' and 'leave no trace'
- Cultural heritage and Gaelic in the Landscape Area
- Conservation
- The professional skills and knowledge required for employment in: visitor and land management, heritage conservation, tourism, ecology, path maintenance.

Methods of delivering educational objectives:

- Festivals and a range of educational films about the Nevis landscape
- A multi-partner strategy for visitor interpretation/information
- Visitor Hub with interactive interpretation
- NLP Website and social media
- Publications on Geology, Dun Deardail and Outlandia
- Surveys, reports and popular articles
- Citizen Science events and wildlife activities
- Workshops, events and activities
- Inspirational speakers and subject expert walks/talks
- School projects and outreach events
- Multi-module training programme and knowledge exchange

# 10.6 Access

As the UK's highest mountain and a nationally important recreation area, physical access to the landscape is paramount to the scheme. An analysis of where best to concentrate project activity has considered: community and visitor perspectives; significance of the paths and the sites accessed; inclusiveness of access and removal of barriers; current conditions of the paths; current and expected future pressures.

The NLP scheme will:

- Conserve and enhance the lower half of the nationally important and historic Ben Nevis Mountain path
- Develop an all-ability riverside trail and bridge
- Conserve and enhance paths to the nationally important climbing crags at Polldubh
- Conserve and enhance access to the iconic North Face of Ben Nevis, connecting the Ben Nevis Mountain Path and the Allt a' Mhuilinn Trail
- Consolidate access at the site of Dun Deardail to reduce future visitor impacts

Without a high quality, well maintained network of paths, tourists will be less likely to visit or return and tourism is the lifeblood of the Highland economy. High visitor numbers means significant footfall and, especially in the more environmentally sensitive areas, every footfall has an impact. The Ben Nevis Mountain Path is the main tourist ascent route to the summit of Ben Nevis attracts over 100,000 people every year. The upper sections from Lochan Meall an t-Suidhe to the summit were stabilised and repaired over a 3 year period from 2007 through funds being made available from various sources including HLF. The scheme will encourage and accommodate access to active lifestyles in an environmentally sustainable manner.

The Partnership will now stabilise the lower sections of the path which will complete the restoration of the whole track which was built in 1883 as an access and supply route to the summit observatory. The path, observatory ruins and related memorabilia are an important part of the history of this landscape. The Ben Nevis Mountain Path is the likely to be the most iconic and widely known upland path in the British Isles. Its social and cultural value is beyond measure.

The vision for the future of this landscape area is one which includes a detailed, and costed, maintenance schedule for all the paths as well as particularly important habitats. The Nevis Partnership currently has a policy of ring-fencing finances to ensure that work can be carried out for the duration of all its path maintenance liabilities.

# **10.6.1 Virtual Access:**

The Partnership will drive a fully modern and inclusive approach to access and dissemination of information. This will ensure that a diverse range of audiences can be engaged. Particular importance is given to the fact that many of the existing and potential audiences do not necessarily have the ability to physically access many of the area's key sites.

Providing virtual access to landscape and heritage information can assist in reducing the impacts of physical access in sensitive areas. It also increases understanding and appreciation of the area's value and fragility, as well as promoting responsible access and conservation opportunities.

The Partnership's integrated, virtual access package will support much of the educational aims and projects within the scheme. Multi-media formats will include:

- Website and social media
- Films
- Popular Publications,
- Reports and Special Interest Articles
- Talks
- Interpretation

# **10.7** Climate Change & Effects on the Environment

Ben Nevis provides the greatest altitudinal range of habitats in the British Isles. This ecosystem is extremely sensitive and finely balanced. Ben Nevis is also a national icon, with universal appeal. These factors combined present a unique challenge and opportunity.

The future impacts of climate change on the biodiversity of this landscape are beyond our ability to mitigate fully. Whilst action will be taken to future-proof habitats and species, the unique opportunity is to utilise the high public profile of the area to raise public awareness of climate change.

Ben Nevis stands both as a cherished landmark in the British Isles and as a highly exposed 'beacon' to the impacts of climate change. The NLP scheme will lever the magnetic fascination with this mountain to deliver powerful messages and raise public awareness.

#### 10.7.1 Aims for addressing climate change:

- Take action to build habitat resilience and plan for adaptation
- Raise public awareness of the impacts of climate change
- Future-proof infrastructure against climatic pressures

#### 10.7.2 Objectives:

- Survey unrecorded areas for threatened species/habitat
- Monitor biodiversity
- Increase awareness of climate change and its impacts through films, activities, articles, interpretation and website (delivered through many of the scheme projects)
- Build resilience and plan for adaptation through a habitat blue-print and targeted woodland regeneration to strengthen habitat connectivity
- Upgrade the Ben Nevis Mountain Path to withstand increased erosion from rain.
- Enhance and conserve access around the riverside by upgrading the path to withstand increased flooding

#### **10.7.3 Effects on the Environment:**

The greatest human impacts on the Nevis Landscape Area are currently those associated with recreation and organised events. These issues affect the local community, landowners, stakeholders and other visitors. A partnership approach to engaging with these issues and educating users is required.

#### The NLP scheme will:

- Reduce impacts from organised events through education, dialogue, direct support and promotion of good practice (see Sustainable Futures Erosion & Minimal Impact)
- Increase awareness of environmental sensitivity and promote minimal impact approaches (see Celebrating the Wild, North Face Survey, Future Forests, Sustainable Futures Interpretation, Ben Nevis Film+, Website)
- Develop a partnership approach to visitor management
- Encourage participation in conservation activity

# 10.8 Maintenance

The maintenance of key sites and new work carried out by the Nevis Landscape Partnership will be delivered collaboratively amongst the various stakeholders. Legacy and sustainability have been addressed on both a scheme-wide scale and at the micro-level of each project. Many of the projects have in-built legacy and will continue to have reach and impact without direct maintenance costs (see project briefs for details). The table below highlights those projects which will require further investment to ensure their maintenance.

# 10.9 Management of the NLP

A collective response to land management is the only way large-scale challenges like visitor impacts and expectations; sustainable economic growth; community resilience; conservation and climate change can be met effectively in the long-term.

# 10.9.1 Summary

This section should be read in conjunction with the **Memorandum of Understanding** (appendix 2); the **Remit of the NLP Board and Executive Committee (appendix 5)**; and the **Remit of Project Groups and Managers** (see appendix 6).

Management of the Nevis Landscape Area is influenced by a range of: national and European designations; local and regional plans and priorities; national legislation and policy; as well as the needs of landowners and stakeholders (see section 8). This presents a complex challenge requiring collaborative management. This is significantly amplified by the strongly held perception of visitors and locals that this is *'their mountain'* and *'their glen'* (see *TLP Survey, 2013*)

#### 10.9.2 Managing the Core Fund

The Nevis Landscape Partnership (NLP) is comprised of the following members:

- Nevis Partnership
- Friends of Nevis
- Highland Mountain Culture Association
- Outdoor Capital of the UK
- West Highland College UHI
- Lochaber Geopark Association

The Nevis Partnership (NP) is a company limited by guarantee, registered in Scotland as number 235028 and a Scottish Charity, number SC 033418. It has a broad range of members comprising the main community and environmental interests in the Nevis Area, namely:

- The Highland Council
- Fort William Community Council
- Fort William and District Chamber of Commerce
- Inverlochy and Torlundy Community Council
- Glen Nevis Residents
- John Muir Trust
- Mountaineering Council of Scotland
- Lochaber Mountain Access Group
- SportScotland
- VisitScotland
- Forestry Commission Scotland
- Rio Tinto Alcan
- Scottish Natural Heritage acts as an adviser to both the Nevis Partnership and to the Nevis Landscape Partnership.

As a registered Scottish charity and company limited by guarantee The Nevis Partnership (NP) will manage the 'core fund' of the NLP Scheme. From an operational and management perspective the Nevis Partnership will in effect become the Nevis Landscape Partnership (with an increased membership and wider range of specialist advisors, organisations and individuals). Delivery of individual projects will either be managed by the NLP core staff team or by a 'delivery partner' leading the project. The existing management systems and procedures will be reviewed and if necessary, modified annually by the Nevis Landscape Partnership Board.

The Nevis Landscape Partnership Management Board shall comprise the Nevis Partnership board acting with a nominated person from each of the other Members, jointly acting as one body to:

- meet four times a year and have overall strategic responsibility for the delivery and management of the Landscape Partnership;
- appoint an Executive Committee and a Finance Sub-group, which will meet approximately monthly;
- make, or delegate to the Executive Committee, all decisions necessary for the delivery of the Landscape Partnership; and,
- appoint other working groups of the Executive Committee as required to receive advice on specific responsibilities, projects and activities, the remit and duration of which shall be defined by the Executive Committee.

#### **10.9.3 Nevis Landscape Partnership Board**

For details of the NLP Board & Directors (see appendix 3).

Membership of the NLP Board					
Friends of Nevis					
Highland Mountain Culture Association					
Lochaber Geopark					
Outdoor Capital of the UK					
West Highland College					
Nevis Partnership	Highland Council				
	Forestry Commission Scotland				
	Fort William Community Council				
	Fort William and District Chamber of Commerce				
	Inverlochy and Torlundy Community Council				
	Glen Nevis Residents				
	John Muir Trust				
	Mountaineering Council of Scotland				
	SportScotland				
	Rio Tinto Alcan				
Advisors					
Scottish Natural Heritage					
Visit Scotland					

# 10.9.4 NLP Management Aims:

- To be collaborative and cohesive
- To be inclusive and transparent
- To be future focused and dynamic
- To be more strategic
- To be better informed
- To be committed to action and investment

The Nevis Landscape Partnership represents a diverse spectrum of stakeholders and communities. All share a common interest in securing a sustainable future for Ben and Glen Nevis. A unifying aim for all the Partners is to lever much needed investment into the area to ensure economic vitality, a healthy environment and a vibrant society.

However, the greatest potential value of the Partnership is not the additional funding it will leverage into the area, or the projects it will deliver, but rather the strength of multi-partner relations. Communication and knowledge exchange needs to happen not just at a Board level, but with communities and at the ground-level, amongst conservation and public facing staff from all organisations. Similarly this must be supported and mirrored by co-ordinated guidance from managerial staff and strategic leaders.

#### 10.9.5 NLP Management Objectives:

The NLP recognises that one of the most valuable elements within the entire scheme is the Partnership itself. Many of the issues facing the area are too complex for individual organisations/projects to resolve. Partnership, long-term strategy, dialogue and shared responsibility are the only way to ensure a future which balances economic, environmental and social considerations. The NLP will achieve these aims through the following:

- Data, knowledge and expertise will be shared and analysed collaboratively through the NLP Board, Project Steering Groups and NLP Sub-committees.
- The NLP Executive Committee will regularly review the LCAP, adopting it as a multipartner management plan, with the Board formally approving an updated version every year.
- The members and advisors to the NLP will interact with each other at Board level and through more specific sub-committees, allowing front-line staff to also share knowledge and input to the LCAP
- The Partnership will continue to consult widely with the public, this process will overseen by a Community Engagement Sub-Committee
- The Partners will develop a shared visitor strategy and coherent messages throughout the Nevis Management Area
- The Partnership will continue to analyse risks and explore opportunities for further funding and sustainability past the HLF funding period

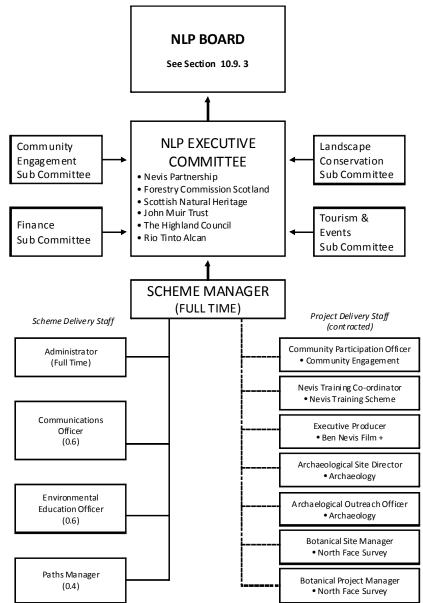
# **10.9.6 Philosophy of the Partnership:**

The scheme embraces the holistic philosophy of other HLF Landscape Partnerships, as well as those which underpin concepts such as 'natural capital' and ecosystem services. A more complex economic model, which recognises the value of nature, is of growing political and social importance and particularly relevant to this nationally significant icon.

Previously marginal concepts such as deep ecology, eco-tourism, sustainability, biophillia and ecopsychology are now being subsumed as mainstream. All stem from the fundamental premise of human society being dependent upon natural processes. The implication for the Partnership is that *protection* of our heritage and the natural world is dependent upon, and emerges from, the level or depth to which people *connect* with their environments.

In approaching this project, the Nevis Landscape Partnership would like to extend the European Landscape Convention's (ELC) definition of a landscape, by proposing that human beings *are part of nature*, not separate agents that interact with 'it'. This enhancement of the ELC definition encourages a holistic and long-term response to land management. It ties people into the landscape - along with other animals, plants and ecosystem processes - directly connecting human health and wellbeing with ecological health.





The aim of developing sub-committees within the Partnership is to better focus the expertise and extant knowledge embedded therein. The sub-committees will pull together a range of professional perspectives to both inform the Partnership and inform the individual Partners. It is envisaged that a minimum of two meetings per year will be held to discuss relevant topics, pooling data, analysing shared issues and exploring opportunities. Minutes of meetings will be kept and sent to the Executive Committee and to relevant line management within each Partner organisation. The structure which is modelled on that of the Cairngorms National Park Authority has been approved by the Partners but remains open to review:

	Membership of Sub-Committee	S
LANDSCAPE & CONSERVATION	COMMUNITY ENGAGEMENT	SUSTAINABLE TOURISM
John Muir Trust	Fort William Community Council	West Highland College
Scottish Natural Heritage	Torlundy & Inverlochy Community Council	Chamber of Commerce
Highland Council Rangers	Glen Nevis Residents Association	Outdoor Capital of the UK
Forestry Commission Scotland	Friends of Nevis	Visit Scotland
Lochaber Geopark	Mountaineering Council of Scotland	The Highland Council
	Forestry Commission Scotland	

Each of the sub committees will have distinct objectives as outlined below. These objectives will remain flexible, being prioritised and added to as situation demands and in response to Partner requirements. Objectives will be formally reviewed on an annual basis.

#### NLP Sustainable Tourism Committee Objectives:

- To bring focused tourism expertise to the Partnership
- To ensure projects bring both economic and environmental benefits
- To diversify tourism in the Glen and reduce visitor impacts
- To strengthen partnerships and local networks

#### NLP Landscape & Conservation Committee Objectives:

- To bring focused landscape and conservation expertise to the Partnership
- To ensure projects have a landscape-scale approach to ecosystems, geodiversity and biodiversity
- To identify priority conservation activities
- To strengthen partnership working, data/knowledge exchange and pooling of resources

# NLP Community Engagement Committee Objectives:

- To encourage and support community participation
- To maximise learning, education and skill development in the local community
- To develop and maintain effective and targeted communications
- To strengthen partnership and community relations

#### 10.10 Benefits and Beneficiaries

The project outputs will lead to an improved visitor experience within one of Scotland's most popular and important mountain settings. Much of the Highland economy hinges on tourism and as such these developments will have significant and wide reaching impact. Together with the boost to local business, training in landscape and heritage skills should help bring greater employment and enterprise opportunities to the area.

The scheme will provide new and exciting opportunities for local businesses, communities and visitors to engage in aspects of landscape conservation work. Individual projects will provide much needed conservation to: heavily degraded and historically important mountain paths; rare and endangered species; ecologically important habitats and archaeological sites.

Alongside this, the scheme will foster a greater sense of connection with the landscape, and care for its fragile ecology. Besides raising awareness of key environmental issues there are many potential health and social benefits attributed to improved outdoor access and increased community activity. An all-ability access trail will facilitate a much wider segment of society being able to actively enjoy this internationally important recreation destination. The Landscape Partnership can clearly contribute to helping achieve the challenges and opportunities taken from the Single Outcome Agreement and in particular by improving health through activity, fitness and well-being and by increasing volunteering, participation and ownership. The area has played, and will continue to play, a leading role in 'making the most of it in terms of wildlife and green tourism' and this is both a challenge and opportunity requiring a fully integrated environmental and visitor management system.

Although the only settlement included in the scheme is in Glen Nevis with a resident population of less than100 other local beneficiaries from this scheme will be in the Fort William and Ardnamurchan and Caol and Mallaig wards of the Highland Council.

In addition a group of important beneficiaries will be the visitors to the area, many of whom come specifically because of Ben Nevis which has iconic status both nationally and internationally.

The main beneficiaries will therefore include all local communities and visitors, local guides, accommodation, providers, restaurants and other visitor service providers. Organisations that will help to deliver the outcomes and benefit include OCUK, the Chamber of Commerce, West Highland College UHI and local schools.

Scottish tourism in general should benefit. A visit to Ben Nevis is often the highlight of a visit to Scotland after Edinburgh. It is important to point out that the benefit to local communities is both direct (as in people accessing the landscape for their own enjoyment) as well as from an economic perspective.

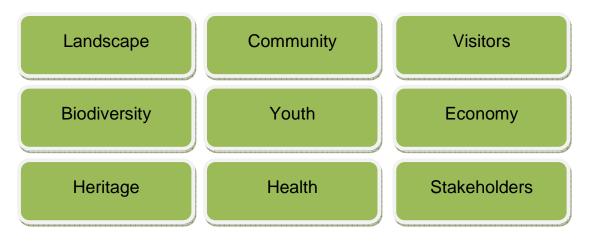
Other important benefits include intellectual (the proposals linked to the flora, fauna and archaeology in this scheme have already generated considerable enthusiasm) and spiritual. Although the latter is difficult to quantify or even define; peace, tranquillity, access to 'wild

land' and being close to nature are all things that are valued. To quote from the report of the Scottish Landscape Forum to Scottish Ministers March 2007:

"There is a growing awareness of the contribution that Scotland's landscapes make to the prosperity and well-being of its people"

From an education perspective this scheme underlying philosophy is one of lifelong learning. Although the work with schools and the UHI will target and focus on specific age ranges, the workshops, fieldtrips and related activities will provide opportunities for all.

#### Investment will benefit:



# 11. Scheme Plan & Costs

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#### 11.4 Programme A: Conserve and Restore

#### **Ben Nevis Mountain Path**

At the moment the Ben Path is probably the most important single element of the scheme's built heritage from the perspective of local communities and visitors. It is important both in providing access to the UK's highest mountain in a way that minimises damage to the surrounding landscape and as a monument to the skill and ingenuity required to build the 'pony track', by hand, in 1883. The path is of international significance and a vital contributor to the sustainability of the local economy and national economy.

The works undertaken will be on the lower section between Achintee and John's Wall. This 3.2km section will complete the final phase in bringing this historic path back into condition and protecting it for future generations. This section has deteriorated rapidly in recent years and some pitching has collapsed causing not inconsiderable difficulties to walkers and potential safety issues. In addition, in an effort to find an easier route, walkers are damaging sensitive habitat of this Natura site adjacent to the path and taking shortcuts which cause further damage and visible scarring. The path requires major upgrade and conservation work to ensure that it is stabilised and capable of withstanding over 100,000 visitors annually. At present the rate of deterioration is likely to result in major structural failure, path collapse and landslide. The impact to adjacent habitat and landscape character is significant.

#### **Audience & Beneficiaries**

• National and local: visitors, walkers, charities, educational groups, activity providers, local tourism businesses

#### **Activities & Outcomes**

- 3.2km of path restored/enhanced
- Landscape character protected
- Conservation of Scotland's most iconic mountain path
- Conservation of built heritage
- · Long term sustainability of a regional economic driver
- Improved visitor experience
- Enhanced community resource
- · Access improved and protected to the UK's highest summit

#### **Pinewood Restoration**

This project is focused on Forestry Commission landholding in Glen Nevis. It is primarily aimed at improving both landscape and habitat quality through the regeneration of native pinewood which is an important and designated feature of the landscape. The reduction of hard edges and an increase in perceived 'naturalness' are significant factors in conserving and enhancing the identified character of the Glen. Resultant natural regeneration of site native species such as birch will be enriched with Scots pine and other site native broadleaves. These activities will form part of a longer term management commitment to enhance the landscape quality of the Glen Nevis Forest. There will be enhancement of natural habitat in Glen Nevis for key species such as red squirrel, black grouse and chequered skipper with volunteers trained in species monitoring and forest regeneration.

#### Audiences & Beneficiaries

- Local volunteers
- Local communities
- Local businesses
- Visitors and tourists.
- Users of the Ben Path and West Highland Way
- Landscape Character
- Biodiversity and habitats

# **Activities & Outcomes**

- Remove non-native conifers within the pinewood area that out-compete native trees species
- Carry out enrichment planting to influence species composition in favour of pinewood habitat
- Improve habitat for black grouse by diversifying forest and vegetation structure through tree felling and cattle grazing;
- Volunteer project to construct and monitor breeding boxes for pine marten and barn owls
- Volunteer survey of red squirrel population to inform future management of the forest
- Events to engage and inform the public about the species and habitats within Glen Nevis
- Works will benefit three key species: black grouse, red squirrel and chequered skipper. Many other species will also benefit as associated species.

**Delivery Partner: FCS** 



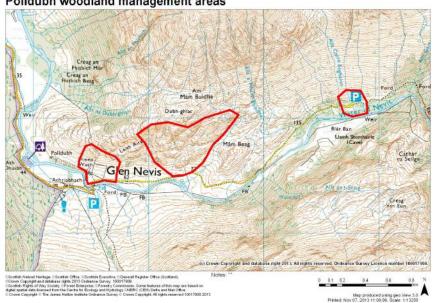
#### **Future Forests**



Photo - A. Gillespie

The Future Forests project will create a blueprint for enhancing woodland habitat connectivity. A long-term, sustainable approach to habitat enhancement and resilience will be established through activity in the Polldubh area of Glen Nevis.

Local children will be at the heart of this project, collecting seeds, establishing nurseries and planting trees. The blue-print will serve to create an enduring legacy, developing local involvement in a sustainable, organic way. The project focuses on the capacity for adaptation. In this way the project will eventually deliver the same outcomes as a large-scale native woodland scheme, like those funded through SRDP, but delivered at a fraction of the cost and with enormous public benefit in the much slower process of delivery.



Polldubh woodland management areas

Map – SNH

The starting point of this project is to invite the community to consider what Glen Nevis might look like in 100 years. In doing so, the project acknowledges that there are no certainties in planning for the future and we must all be adaptive. The project will connect local children directly with the future of the Glen through planting new woodland, and establishing a legacy that will outlast them and their children. People will grow with the landscape, fostering a sense of pride and ownership of their natural heritage.

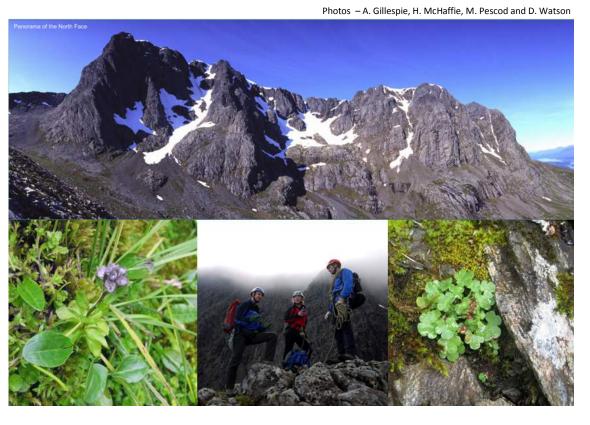
# Audiences & Beneficiaries

- Key species
- Children and teachers
- Habitats
- NBN Gateway
- Public tourists and local community
- Stakeholders
- Landscape Character
- Local economy

#### Activities & Outcomes

- Small-scale regeneration of Scots Pine woodland
- Strengthening habitat connectivity planning for adaptation and resilience
- Habitat improved for key species
- Raise awareness and education of Scotland's woodlands
- Increase community pride and participation in woodlands
- Research into woodland heritage
- Volunteer work tree thinning, planting and habitat improvement
- Interpretation
- Tree nurseries in local schools
- Contribute to health and wellbeing by connecting people with nature
- Improve landscape character
- Encourage and reward environmentally positive behaviour with tree planting and adopt a tree schemes
- Involvement of schools and local community
- Habitat improvement, survey & targeted tree planting across 75 ha.

#### The North Face Survey



The North Face of Ben Nevis provides a unique habitat in the UK for rare arctic-alpine species which are at high risk to climatic changes. Unfortunately, much of the viable habitat has not been surveyed as a significant proportion of the terrain is only accessible with specialist climbing techniques and equipment.

This project will train professional mountaineers (who already have a close working knowledge of the cliffs) in the skills required to identify and survey plant species. The climbers will be supported in the survey by botanical experts. Areas of Ben Nevis which have never previously been recorded will be explored. In addition, these climbers will act as landscape champions, promoting environmental awareness as well as running field trips and workshops to educate the wider public.

#### Audiences & Beneficiaries

- SNH will benefit directly with additional data for a fuller assessment of the Ben Nevis SSSI feature "vascular plants". Data will be kept by SNH and will also be passed to the HBRC and the BSBI.
- Biodiversity and habitat
- Management plans
- Landscape champions
- Mountaineering organisations and providers
- Habitats
- Local economy
- Public will be communicated on a national level

# Activities & Outcomes

- 3 annual surveys of the North Face
- New data of rare arctic-alpine flora in unrecorded parts of the Ben Nevis SSSI/SAC coverage of c. 125 Ha at an average angle of 40°.
- Climbers trained in field identification of arctic-alpine plants total of 10 climbers working with 3 conservation experts
- Promotion and publicity via the Mountain Festival and the NLP website.
- Public events/workshops 1 field trip annually in the summer; 2 schools programme groups every year going round to the North Face.
- Website elements information on species and habitats on 1 dedicated web page within the main website. Opportunities for people to record their own sightings.
- Film footage Significant element of feature-length film about the NLP programme (5 minutes minimum).
- Annual meeting and reporting one meeting every year for discussion of additional survey and reporting.
- Environmental best practice will infiltrate into professional practice.
- The focus on climate change and nationally scarce/rare species will inform and enthuse hill users regarding minimising impact as well as increasing appreciation and understanding of montane ecology.
- Professional climbers, promoted as landscape champions, will be able to increase public awareness of biodiversity and add to the data during their guiding and recreational activities.
- Mapping of the North Face to aid future monitoring and management plans

# **Dun Deardail Excavation**

The only scheduled ancient monument in the scheme area is Dun Deardail (an Iron Age fort) and its importance is therefore self evident. No archaeological excavation has ever taken place within the fort and it remains undated. However, excavation of other similar sites indicates that the fort may have been built and occupied between 700 BC and AD 900. The proposed conservation work to the site is clearly necessary and will include: recording and consolidating areas of the rampart and entrance that are suffering from visitor erosion; researching the nature and extent of archaeological deposits within the interior; providing a number of volunteer training opportunities.

#### Audiences & Beneficiaries

- As well as contributing to the historic record, the project will provide "hands on" learning experiences
- Academic community and Students
- Volunteers
- West Highland Museum
- Local community and economy
- Visitors

#### **Activities & Outcomes**

- A three year programme of archaeological excavation and site consolidation
- 300 volunteer days
- 6 excavation trenches
- Site records and register of fines
- Scale drawings
- Topographic survey
- 3D recording
- Development of training book
- 3 Archaeological reports
- Enhancing the historic environmental record
- Informing future conservation management
- Engaging local people in their built heritage
- Ensuring practical public involvement and education
- Ensuring a lasting educational legacy
- Website element; Dun Deardail Facebook page
- Specialist and general interest article (3)
- 3 open days; 3 public lectures; 30 Master classes in archaeology

Delivery Partner: FCS.

#### Summit Conservation

The project lead by John Muir Trust and The Nevis Landscape Partnership aims to protect the summit area and maintain the wild land experience for all those who reach it. People of all ages and backgrounds can experience, connect and enjoy this wild place and learn the importance of caring for it. This project will conserve historically important elements of the summit plateau. The built heritage of the summit consists of a summit shelter built upon the foundations of the original observatory. Cairns are essential in key locations to act as markers. All of these structures are subjected to extreme weather conditions and are in need of restoration work. Over 100,000 people endeavour to reach the summit of Ben Nevis annually. These visitors, and also those people who make their living on the mountain, will all benefit from this project as it will enhance the visitor experience and help maintain the living history of this iconic mountain.



Photos - A. Gillespie, M. Pescod

#### Audiences & Beneficiaries

- National and local: visitors, walkers, charities, educational groups, activity providers, local tourism businesses
- Nationally important heritage
- •

# Activities & Outcomes

- Conservation of Triangulation Point
- Conservation of Summit Shelter
- Conservation of Navigational Cairns
- Conservation of upper sections of Ben Path

**Delivery Partner: JMT** 

# **Sustainable Futures, Erosion and Minimal Impact**

Ben Nevis and the Glen suffer from significant, large scale human impacts every year. The extent of the problem is highlighted by the fact that repairing the lower section of the Ben Path alone will cost £800,000. As the highest mountain in the British Isles, Ben Nevis attracts over a hundred thousand walkers annually. Litter, erosion and human waste are steady-state issues, yet numerous other global geo-tourism sites, particularly in America, have resolved these challenges. An integrated, multi-partner strategy is required to find effective solutions, to investigate options and begin the slow journey of changing behaviour and cultural attitudes.

# Audiences & Beneficiaries

- Habitat & Biodiversity
- Landscape Character
- Local community and organised groups
- Activity providers and event organisers
- Stake holders
- Local economy
- Schools & students involved in outdoor education
- Conservation organisations and national charities

# Activities and Outcomes

- Develop a Ben Nevis Badge scheme to recognise and promote landscape champions within the professional outdoor community
- Develop a scheme which encourages business and visitor 'pay back' and contribution to conservation efforts
- Facilitate networking events to share good environmental practice amongst event organisers
- Negotiate and explore solutions to the impacts from the Ben Nevis Race - predominantly, re-routing
- Support event organisers with training, information, resource and volunteers to ensure impacts are minimised
- Reduce environmental impacts from recreation
- encourage and accommodate active lifestyles in an environmentally sustainable manner





Photo A. Gillespie

# **11.5 Programme B: Community Participation**

#### **Community Engagement**

This project will engage the local community, the wider visiting tourist community and some special interest communities, such as hill-walkers, & wildlife enthusiasts, in the safeguarding, restoring and enhancing of the Nevis landscape. This engagement aims to be sustainable and to contribute to the awareness, appreciation and conservation of the natural and cultural landscape of the Nevis area whilst also contributing to the well-being of the communities.

#### Audiences & Beneficiaries

- Local Community (all levels of fitness/ability)
- Visitors
- Retired & Unemployed
- Students and University Clubs
- Community interest and other conservation groups
- Mountaineering community and professional guides
- Existing Friends of Nevis volunteers
- Landscape Character
- Built Heritage
- Key species, Habitats and Biodiversity
- Local economy from improved landscape quality

# Activities & Outcomes

- 140 volunteer days a year delivered through the following projects:
- The Secret Life of a Path increasing participation in path maintenance
- Wildlife Heroes increasing participation in biodiversity monitoring
- Alien Invaders increasing participation in habitat improvement
- Talks/Events increasing participation in full range of heritage
- Awareness Raising reaching new audiences

# **Dun Deardail Vitrification & Outreach**

This project is in effect a subsidiary element of the archaeological excavation of Dun Deardail. The focus of this project will be an archaeological outreach programme and a vitrification event/experiment. The process of vitrification will be investigated by reconstructing a section of rampart (off-site and location to be decided) and then vitrified by fire.





Photos - Friends of Nevis

The project will enthuse and engage the community in their heritage through educational events and wider landscape surveys. These will be linked to the archaeological excavation at Dun Deardail, bringing the past to life with various interpretation and educational activities and setting it within its wider context.

#### Audiences & Beneficiaries

- Local schools and colleges who wish to provide "hands on" learning experiences for students,
- Those interested in volunteering, history and archaeology
- Tourists looking for interesting sites to visit and the local community as a site for leaning
- Academic community
- West Highland Museum

#### Activities & Outcomes

- 80 volunteer days
- Construction of Rampart
- Vitrification event & experiment
- 3 Lectures
- 2 Teachers resource packs
- Website and Facebook page
- 3 Community and teacher training seminars
- 15 School workshops
- 6 Special and general interest articles
- Increased understanding of the processes of vitrification
- Engaging local people in their built heritage

Delivery Partner: FCS.

# 11.6 Programme C: Access and Learning

#### **Polldubh Paths**

This project will improve access to the historic and popular rock climbing area of Polldubh Crags and in so doing make a positive impact on the landscape character in this part of the Glen. The project will restore and improve access to the crags primarily for rock climbing purposes, but also as an important recreational area. The proximity to the Lower Falls and associated car parking, make this a high priority spot for a range of visitors.

The short access paths to these climbs have degenerated and require professional re-pitching and/or surfacing. The work done so far has not



only opened up some of the crags to climbers once more but has also had a serendipitous positive effect on the mosaic of habitats for key species such as Chequered Skipper.

#### Audiences & Beneficiaries

- Climbers
- Walkers
- Local community
- Visitors
- Local outdoor providers
- Schools and Colleges
- Key species
- Habitats
- Landscape character

#### **Activities & Outcomes**

- Key sections of path restored
- Volunteer involvement in path building/maintenance
- Erosion reduced
- Habitat protected for key species
- Landscape character enhanced
- · Access conserved to a nationally significant climbing area
- A wider range of audiences accessing a key natural heritage site

Photo - M. Pescod.

# All-ability Path & Bridge

Ben Nevis and Glen Nevis are nationally important for recreation and tourism, as well as providing a valuable community landscape. The core aim of this project is to bring essential infrastructure development to support a more socially inclusive approach to outdoor access: encouraging greater participation and removing barriers. Families, the elderly, less fit and mobility impaired all have a right to be able to enjoy this landscape and engage in suitable outdoor activity.



Photo- A. Gillespie

This project will ensure that access infrastructure is of a standard befitting a world class destination, that it is inclusive and built to withstand the pressures of climate change and thousands of visitors. The project will install an all-ability bridge to access the Ben Nevis Mountain Path and upgrade the riverside path to all-ability specifications. This will both protect the riparian habitat and reduce the impact on the Ben Path.

# Audiences & Beneficiaries

- Mobility impaired audiences
- Families, elderly and less able audiences
- Health and well being through more inclusive outdoor access
- Local economy
- Highland communities
- Those with limited confidence/experience to access wild environments
- Landscape Character
- Riparian habitat
- Safety of those accessing the Ben path

# Activities & Outcomes

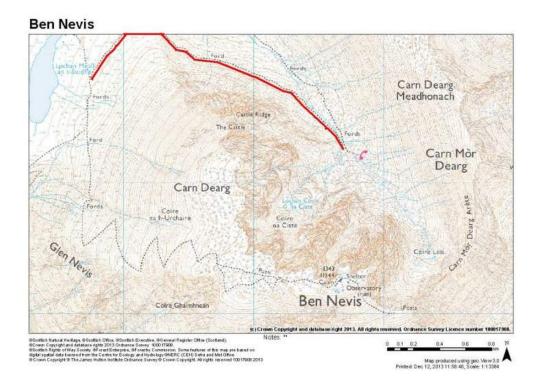
- Upgrade 1.5 km of path between Visitor Centre and Youth Hostel bridges.
- Full specifications for wheelchair users
- New Bridge suitable for all-ability access (also bringing visitors directly to the Visitor Centre, vital safety information, heritage interpretation and to the start of the Ben Nevis Path)
- 6 small bridges crossing tributaries
- Reduce erosion and divert intensity of foot traffic away from the Ben Path
- Protect riparian habitat
- Provide a high quality, alternative walk for family groups, mobility impaired, older people, school groups, local walkers, runners and dog owners
- Careful and sensitive landscape design to blend the path in with the natural environment, curving around trees etc

- Path built to withstand predicted impacts of climate change such as increase in flood intensity.
- maintain opportunities for active lifestyles in an environmentally sustainable manner

THC are the Delivery Partner for the Bridge (but not the path).

#### **North Face Footpath**

The completion of this project will link two historic paths and offer unparalleled access to, and views of, the impressive North Face of Ben Nevis. It will provide an alternative journey for thousands of visitors and a much improved path for climbers descending from the summit. The path contours an existing 3 km line. It is in a state of disrepair, and is currently unsuitable for visitors. This project will make significant improvements to access around the UK's highest mountain and increase engagement with mountain heritage.



The project is to be staged over 4 years. Works will be targeted as per detailed survey by the NLP Paths Project Manager (once in post) and consist of maintenance, upgrade, preemptive erosion control and full rebuild in key sections. To ensure the project delivers beyond its budget, the Nevis Landscape Partnership (NLP) will contribute an annual workforce of Conservation Volunteers as part of the Nevis Training Programme.

#### **Audiences & Beneficiaries**

- Climbers & mountaineers
- Walkers
- Local community
- Visitors
- Local outdoor providers
- Schools and Colleges
- Habitat
- Landscape character

#### **Activities & Outcomes**



Photo - A. Gillespie

- Key sections of path sensitively restored to maintain wild character
- Volunteer involvement in path building/maintenance over 4 years
- Erosion reduced
- Habitat protected for key species
- Landscape character enhanced
- · Access enhanced, interlinking two nationally important mountain paths
- A wider range of audiences accessing the iconic North Face
- maintain opportunities for active lifestyles in an environmentally sustainable manner

#### **Geology Publication**

Many thousands of people visit the Nevis area each year, but at present there is no accessible geological guide available to explain the main events which shaped the area's spectacular scenery. The provision of attractive and non-specialist information about how the landscape came about will help enhance the visitor experience.

The Earth heritage of the Lochaber area, including Ben Nevis, is of international importance. This was recognised when the Lochaber area was awarded European and UNESCO



Photo- Noel Williams

Global Geopark status in 2007. The project will deliver a fully up-dated and professional publication of the rich geological heritage in the Nevis area with a particular focus on Ben Nevis. This will be in line with Scotland's Geodiversity Charter and developed by the Lochaber Geopark Association.

#### Audiences & Beneficiaries

- Visitors
- Those with an interest in Earth heritage
- Local economy diversification into geo-tourism
- Walkers
- Local Community
- Schools and Students

## **Activities & Outcomes**

- Surveys and research
- Geology Guide Booklet (1000)
- Detailed geological maps, diagrams, illustrations and photos (1000)
- A series of walks to particular sites of geological interest and viewpoints
- Outreach events, walks and training

Lochaber Geopark Association and BGS have committed to provide significant professional services to this publication (see project brief for budget details) as in-kind contributions. The NLP will, however, ensure that the procurement process invites competitive tenders.

## Outlandia

Outlandia is a research fieldwork station for artists and writers in Glen Nevis designed and built to encourage creative interaction between artists and the land, and to disseminate this experience to a wider public. The tree-house structure is an inspiring place allowing closeness with nature. This project will allow the publication of a collection of dialogues and landscape inspired artworks. Contemporary visual artists who use fieldwork as a core element of their practice will be



involved and support local involvement with the landscape area.

## Audiences and Beneficiaries

- Creative Practitioners
- Young People and Local Schools
- Local Communities
- Local, National and International Audiences
- Visitors

## Activities & Outcomes

- Provide residencies at Outlandia for 8-10 artists
- Lead 6 workshops for a total of 60 young people from the local community
- Develop a series of radio broadcasts to reach a projected local, national and international audience of 500,000
- Develop a series of performances for live transmission to Edinburgh Art Festival over 3 weeks to an audience of 300,000

- Create a publication with a print run of 4,000 and international distribution
- Host 4 book launches with live performances reaching an audience of 3000
- Reach and inspire new audiences through the Fort William Mountain Festival
- Make artistic works more accessible through an annual exhibition/event
- Create access to artists' fieldwork practices and perspectives of the landscape and encourage interaction between visiting artists and the local community
- Increase engagement with and appreciation of natural heritage in Glen Nevis
- Foster links between the local community, creativity and the environment
- Raise awareness of the ecological and cultural value of the natural environment.
- Demonstrate the potential for art to help question our perceptions and relationships to landscape, climate and their changes.

London Fieldworks are the Delivery Partner for this project.

## Sustainable Futures: Interpretation, Installation and Information

A multi-partner strategy towards visitor management will be developed, with a visitor hub at the centre of the visitor experience. Core messages from all partner organisations and coherent design will greatly improve visitor understanding, enjoyment and orientation.

This project will develop a visitor experience befitting a national icon. It will increase enjoyment, learning and appreciation of the areas outstanding natural and cultural heritage. Furthermore, a strategic multi partner plan will insure that any future interpretation information and information is coordinated, landscape-scale and coherent. The project will provide a modern visitor experience through a variety of multimedia and interpretation formats. It is a sustainable approach to tourism and visitor management which is future focused and strategically planned.

## Audiences & Beneficiaries

- Visitors
- Event participants
- Local community
- Local economy
- Those interested in learning about local heritage
- Walkers
- Climbers
- Schools
- Colleges
- Glen Nevis Ranger team
- Stakeholders



#### Activities and Outcomes

- Multi-partner visitor management & interpretation strategy
- Visitor hub with coordinated design for all partners and representing the entire landscape
- Landscape interpretation (biodiversity, geodiversity, ecosystems, climate change)
- Cultural heritage interpretation (Gaelic, sites of interest, archaeology, folklore)
- Maps and improved orientation for walking routes
- Gaelic trail for children/families
- Key messages –wild camping, safety, litter, toilets, responsible access, leave no trace
- Public information (safety, transport)
- Community shelter and learning space
   for volunteer activities, training courses and events
- Interpretation Gallery
- A gold standard visitor experience, incorporating multi-media approaches to recreation, landscape and cultural interpretation and access to information
- A wider appreciation of the impacts of climate change and human pressures on the landscape
- Safer, more responsible and informed visitors
- Increased appreciation of the importance of Cultural Heritage, especially the Gaelic language and its relationship with the Landscape
- A wider appreciation and understanding of the environmental importance of Ben Nevis as one the UK's most extreme and fragile habitats
- To improve partnership working pooling the shared knowledge and presenting coherent and coordinated messages from all stakeholders to visitors

The Highland Council will be the Delivery Partner.

## Celebrating the Wild



Photos - SNH, A. Gillespie, A. Kimber, Friends of Nevis, M. Pescod

'Celebrating the Wild' brings together a range of projects which showcase the people and biodiversity of mountain landscapes, bringing a special focus to Glen and Ben Nevis. The Mountain Festival will leverage the appeal of the area to a national audience and will focus on the past (mountain heritage), the present (innovation in mountain culture) and on Scotland's future (its young people, its landscapes and biodiversity).

These projects will raise public awareness of the fragility of mountain ecosystems and inspire people to make new connections with natural and cultural heritage. The internationally important mountaineering heritage of Ben Nevis will be passed on to a new generation, encouraging healthy lifestyles and a lifelong relationship with the outdoors. Celebration and recognition of excellence in mountain culture will ensure a legacy of photographers, film makers, artists, adventurers, explorers, writers and conservationists are there to enjoy and protect wild landscapes into the future.

#### Audiences & Beneficiaries

- Local schools and young people
- Local community
- Retired & Unemployed
- Students
- Visitors
- Mountaineering community
- Scientific community
- Conservation organisations
- Business community
- Stakeholders
- Local economy
- Local environment

#### **Activities & Outcomes**

- 5 Fort William Mountain Festivals focusing on and celebrating the Nevis landscape & its heritage
- 500 volunteer days
- Production of 5 Films on youth engagement
- Showing of an annual NLP documentary (North Face, Biodiversity, Climate Change, Conservation)
- Development and promotion of Youth Award for Excellence in Mountain Culture
- 20 Citizen Science events surveys, focusing on key habitat/species

- Training in survey techniques (200 people)
- 20 School engagement projects/trips
- 20 Inspirational speakers increasing knowledge and understanding of the area's heritage and encouraging conservation activity
- 25 guided outdoor activities focused on reaching new audiences
- 6 Interpretation and interactive displays
- Wildlife sighting upload area on website
- Postcard survey sheets
- Annual data analysis and reporting, collating and sharing data between stakeholders
- Wildlife Calendar
- 5 Landscape champions every year
- Conservation volunteering 25 events
- Leave no trace promotion at Festival
- Community engagement and activity promotion
- Promotion of NLP and public engagement with all NLP projects through the Festival

The Fort William Mountain Festival is a core partner in this project.

## Ben Nevis Film+



The production of a series of high quality short films will be set amongst the stunning, panoramic scenery of the North Face and summit plateau of Ben Nevis. These films will be will be showcased at the Fort William Mountain Festival, Glen Nevis Visitor Centre, the Nevis Heritage website and the Outdoor Capital UK's website to ensure impact and reach to a national audience. The films will utilise the magnetic attraction of this powerful landmark to celebrate its diversity and contribute to a better relationship between conservation and recreation.

Ben Nevis is one of Scotland's most treasured natural assets and the most widely known mountain in the British Isles. This iconic status is arguably justification in itself for a feature film set in of the UK's most dramatic and challenging environments, comprising extensive north facing cliffs and semi-permanent snowfields. With its unparalleled altitudinal range, from sea to summit, there are some of the most extraordinary habitats and ecosystems to be found in the UK. These habitats are not only scarce, but are under threat from human impacts and climate change. Coupled with the drama of climbers and extreme weather the

location offers prime ground for a distinctive and informative cinematic production with appeal to a diverse audience.

NLP will be working in partnership with the Fort William Mountain Festival to commission and premier four short films and produce a feature length documentary. All films will focus on Ben Nevis and the surrounding landscape.

#### Audiences & Beneficiaries

- A national audience
- Charity event participants
- Local community
- Schools and colleges
- Mountaineering community
- Conservation organisations

## Activities & Outcomes

- Film 1 (2015): North Face Survey Climbers and Botanists surveying unrecorded sections of the North Face
- Film 2 (2016): *Mountain Wildlife* Species surviving the harsh conditions of the UK's highest mountain
- Film 3 (2017): Conservation Focusing on the volunteer work on the North Face Footpath
- Film 4 (2018): *Mountaineering and Minimal Impact* focusing on recreation and visitor pressures
- Feature Length Film (2019) A 45 minute documentary pulling all the previous films together. This will be accompanied by an educational pack and offered to Schools and Colleges.
- Local competitions to increase participation
- Premier each year at Fort William Mountain Festival
- A selection of 3 minute edits for website and visitor centre purposes
- Free online access for Colleges etc.
- Production of 100 DVD's to distribute to event organisers
- Educational material Inlays, photo pull out, ID chart, geology
- Opportunities for local people and key specialists to contribute to script and filming
- Providing welcome entertainment/education for groups travelling to the area such as charities, 3 peak challenge and other similar events.
- Reduce visitor impacts through education and inspiration

## Website

The NLP website will form a single point of access for information on all our landscape work and the diversity of habitats and species the area supports. The website will be designed to inform the public of the work of the NLP and aims to provide the best resource for those wishing to visit Ben Nevis and Glen Nevis, either with original material or acting as a portal to existing information from the best sources. There will be sections to assist species identification where visitors can upload images. Updates on projects will be through text, social media and videocasts. There will also be a base map of the area with data layers that can be overlaid. It will encourage responsible access, increasing awareness of ecosystem services and climate change, appreciation of Gaelic and cultural heritage.

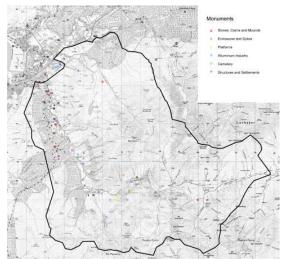
## Audiences & Beneficiaries

- Visitors
- Event participants
- Activity providers / mountain guides
- Event organisers
- Local community
- Tourism focused businesses
- Schools & colleges
- Families
- Volunteers
- Stakeholders
- Anyone with an interest in learning about the environment and culture of the area.
- Local economy

#### **Activities & Outcomes**

The website will have separate sections on:

- Wildlife
- Habitats and ecosystem services
- Environmental pressures (climate change)
- Meteorology
- Mountain safety
- Minimal impact
- Geology
- Archaeology
- Gaelic
- Cultural heritage
- Sites of interest
- Walks and orientation
- Activities and events
- Volunteering
- Films
- Projects
- NLP and land management
- Maps



Map – Circle Designs, Painting –F. Nightingale

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## 11.7 Programme D: Training and Skills

#### **Nevis Training Programme**

A range of training and learning opportunities and accredited, flexible courses related to the issues and impacts of effective landscape heritage management, ecotourism and heritage conservation. The training programme is focused around the need to bring motivated, young and capable volunteers into the area to assist the stakeholders in managing visitors and their impacts. The core of the project is centred on university graduates who will be recruited into a summer work experience programme, when demand is at its highest. They will access a wide range of training modules, which will also be open to local volunteers and stakeholders.

#### Audiences & Beneficiaries

- Students/graduates seeking work experience
- Conservation Volunteers
- Local Community
- Rangers and Visitor Centre Staff
- Friends of Nevis Volunteers
- Local Stakeholders
- Teachers and Lecturers
- Outward Bound and Guides
- Local Economy and Businesses
- Local Landscape and Heritage



Photo - Friends of Nevis

#### **Activities & Outcomes**

- 1,600 volunteer days
- 4 Volunteer work experience summer placements (32 students over 4 years)
- 4 Astronomy Modules
- 4 Creating great Customer Experience Modules
- 4 Leave no Trace Modules
- 4 Geology Modules
- 4 Ethnobotany Modules
- 4 Cultural History and Interpretation Modules
- 4 Gaelic in the Landscape Modules
- 4 First Aid Modules
- 4 Manual Handling Modules
- 4 Navigation Modules
- 4 Conflict Resolution Modules
- 4 Mountain Eco-access Modules
- 1 week botanical survey training for climbers
- Development of a Biodiversity Educational Pack
- 4 Wildlife Monitoring and Habitat Conservation modules (8day)
- Development of John Muir Award Conservation Activity Pack
- 4 JMA Conservation Training Modules
- 9 'Natural Capital' events

- Increased human resource
- Reduced visitor impacts; improved visitor experience
- Conserved and enhanced landscape character and built heritage
- Multi-partner working and knowledge exchange

## 11.8 Scheme developments since first-round application

The first stage application consisted many separate projects and budgets focusing on specific elements, species, habitats and activities. During the development phase the Partnership have undertaken research, consultation and analysis of these initial proposals. Elements have been prioritised by the major criteria of:

- level of public interest
- significance
- threats and opportunities
- impact and reach
- current site condition
- value for money
- sustainability

The second and critical stage of developing the scheme has been focused on reducing the number of individual projects originally proposed, whilst strengthening core objectives. This has targeted resource more effectively, to increase reach and impact. It has established a landscape-scale approach to conservation and future-proofing the heritage of the area. Similarly, the focus on public engagement has shifted from a micro-level approach of scattered events and activities, to one which is more coordinated and strategic. In essence, core themes and messages have been developed and strengthened.

The overall impact of this process is that the many isolated, individual projects have now been refocused and drawn together into cohesive project clusters. The rationale behind this is manifold. Firstly, Heritage Lottery Funded Landscape Partnerships are driven by an underlying philosophy, which encourages holistic approaches, reflecting the interconnectedness of landscapes, ecosystems and communities. Similarly, landscapes are viewed as being multi-layered, encompassing biodiversity, habitat, natural processes, land use, history, human experiences, culture, and physical features. This is reinforced by HLF's focus on four key outcomes: conservation, community participation, access and learning, training and skills. These outcomes however are not seen as occurring in isolation, but rather, as reinforced by each other, and delivered collectively.

Secondly, the interdependence of species and habitats is best reflected in a wider, ecosystem focused project which builds in habitat resilience and species adaption. Focused intervention in key areas to strengthen and establish habitat networks is deemed the most efficient use of public resource to protect biodiversity.

Thirdly, this approach encourages and provides greater opportunities for partnership involvement. By contributing to a wider project cluster as members of a project steering

group, the partners form a community with a common focus and a new platform for sharing ideas, concerns and best practice. Each individual is thus an integral and valued part of something larger yet tangible and clearly identifiable. Furthermore, this ensures that no expert knowledge is deployed in isolation or kept to a narrow focus, but rather informs a broader, landscape scale perspective.

Fourthly, by having fewer, core project clusters rather than a raft of separate projects, the public and other organisations can more easily grasp what the partnership is doing. Many of the outcomes of the landscape partnership hinge on public engagement, and for this to be successful, it is vital that we have clear and easily understood messages. Promotion of events, activities, training and volunteer opportunities will all benefit from a more coherent project image which the public can easily comprehend and identify with.

## Summary of Key Project Developments:

Habitat and species projects drawn together into three distinct projects:

- Future Forests (greater focus on schools, community legacy, habitat connectivity, adaptation and resilience)
- Pinewood Regeneration (greater focus on landscape-scale intervention for species and habitat)
- North Face Survey (greater focus on climate change and accessing new data)

Community participation events and activities drawn together into one core project:

• Community Engagement (focus on diversifying activities and audiences)

**Training** opportunities drawn together into one core project:

• Nevis Training Programme (focus being on a volunteer work experience programme which - attracting new, dedicated and young volunteers to strengthen the human resource available through the summer)

Built heritage and cultural heritage elements drawn together into three distinct projects:

- Dun Deardail (found to be of major public interest and worth expanding)
- Vitrification and Outreach (now encompassing the wider landscape)
- Summit Conservation (key heritage not previously addressed)

Learning and access to heritage information drawn into five multi-media projects:

- Celebrating the Wild (puling many public engagement activities together)
- Sustainable Futures: Interpretation, Information & Installation (one co-ordinated and strategic approach to visitor experience and education)
- Ben Nevis Film+ (increased budget due to increase in scope)
- Nevis Geology Map and Guide (increased budget due to increase in scope)
- Nevis Heritage Website (reduced budget due to reduced scope)

#### Conservation/enhancement of physical access:

- Ben Nevis Path (5% cost increase plus £20,00 for final design, CDM and legal fees)
- Riverside Path (reduction in budget and refocusing following consultation, to provide high quality, future-proof and all-ability access)

- Revising the scale of path infrastructure between the CIC hut and Halfway Lochan to provide a 'light touch' intervention which will better conserve wild landscape character and provide greater opportunities for volunteer participation
- Increasing volunteer participation in the Polldubh Paths project

#### Changes to Programme E: overheads, staff and scheme delivery costs:

One of the key lessons learnt during the development phase has been the value of core Partnership staff in supporting the positive and strategic interaction of stakeholders. The vision of the NLP scheme rests upon an inclusive and constructive process of communication between the many communities and organisations which have a voice in the future of the Nevis landscape.

The partners and the community lack the human resource to fully facilitate such a complex interface between so many interested parties with often conflicting priorities. This is perhaps the most valuable element within the entire scheme, and one which can only be achieved through a core Partnership staff team focused on co-operative and inclusive solutions.

The Nevis Partnership as the lead partner has no human resource to bring to the process, other than that secured through the NLP scheme. This presents a challenge in that there is no direct support network. There must be sufficient capacity and expertise within the core scheme staff team to ensure the successful delivery of the scheme, but also to strengthen partnership working for the future. In effect, the Nevis Partnership will have only one function during the lifetime of the scheme: to deliver the projects and ensure legacy.

Acknowledging that core staff are pivotal to the whole process and the secure management and delivery of the scheme, the Partnership have increased the budget within this cost heading. This decision has been informed by consultation with other LP schemes regarding appropriate staffing levels and the risk of overstretching human resource.

## 11.9 Programme Tables: Costs & Schedules

See appendices and supporting documents.

## 11.10 Detailed Project Briefs

See appendix 12

# **12. Sustainability**

Increasing project sustainability and legacy has been one of the driving forces for change between the first-round LP application and the second-round application. This has been achieved through a reduction in the number of small-scale, isolated projects, and a strengthening of core projects.

## 12.1 Legacy

Projects will continue to have impact after the initial funding through:

- Infrastructure, including the historic Ben Nevis Mountain Path, more capable of supporting tourism in a sustainable way and built to withstand increasing climatic pressures.
- Modern, multi-media visitor interpretation will remain fit for the next decade and reach hundreds of thousands of visitors.
- Forest restructuring will continue to encourage native regeneration.
- A blue-print for adaptive habitat management will be part of a much longer term strategy focusing on ecosystem resilience and adaptation.
- A tried and tested model of multi-partner working, at operational and strategic levels will continue to strengthen local confidence, capacity and capability of securing and delivering future investment schemes.
- A coordinated strategy for visitor management will continue to provide a framework for: assessing and improving visitor experience; reducing visitor impacts; ensuring future investment is founded on research and is well targeted.
- Social cohesion and a greater sense of community pride and responsibility will have been developed and future-proofed by investing training in local champions.
- A framework and training programme for maintaining a seasonal volunteer workforce will allow the partners to continue this work at lower cost.
- A local school woodland regeneration programme, requiring minimal future investment with the potential to run for the next 30 years.
- New base-line data of key species/habitat in unrecorded locations within the Ben Nevis Special Area of Conservation and Site of Special Scientific Interest.
- Landscape and infrastructure which are more resilient to future pressures such as climate change and visitor impacts.
- High quality publications covering history, archaeology, geology, eco-art and ecology will remain relevant for the next decade, continuing to diversify the tourism market and connect people with the landscape.
- A series of high quality natural heritage films will continue to educate and inspire audiences for years to come.
- Website will continue to act as a central hub for visitor information on the area's natural, built and cultural heritage.
- Data obtained from the North Face Survey will establish a new level of base-line data. This will identify the key areas and species which will need to be monitored in the future.

- Dun Deardail will be reconsolidated, more resilient to future impacts and established as a nationally important heritage destination.
- Environmental good practice established amongst key event organisers and activity providers will continue to set the standard for others, inspiring sustainable approaches to events and tourism.
- Encourage good practice amongst return visitors, to create a legacy of responsible behaviour
- Community with new skills, confidence and capacity to carry out conservation tasks in the landscape
- Friends of Nevis will have developed in confidence and capability, with a bigger vision and wider reach. Expertise to facilitate, recruit and train volunteers will have grown.
- Information sources through a variety of multimedia and publications; guides, website, films, maps.
- Information about the landscape and habitats which will continue to inform future management in the area and help with managing climate change.
- Habitat improvements for key species will continue to have impact for years after the funding, though it is essential that maintenance is carried out.
- Landscape champions from the climbing community who will inspire environmental ethics and pass on skills to new audiences.
- Information for charity event participants will continue to help reduce impacts.
- Preserved heritage sites in a heavily visited, iconic area will (through their improved condition) encourage greater care for them in the future.

## 12.2 Climate Change and Conservation

## Climate change

Flexible and dynamic management strategies are incorporated throughout the scheme in acknowledgement that future impacts of climate change are difficult to predict. This is especially the case with sensitively balanced ecosystems and habitats such as snowbeds.

There are four main strategies which engage with the issue of sustainability in the face of climate change:

- Increasing public awareness of the impacts of climate change
- Increasing range and quality of ecological data
- Planning for change: building habitat connectivity for resilience and adaptation
- Establishing a multi-partner and dynamic approach to management

## Conservation

Conservation activity will be sustained in the Nevis Landscape Area through the following:

• Continuation of the Nevis Training Programme (at least at a smaller scale) to bring dedicated conservation volunteers to the area for summer placements. This could be managed by the Highland Council in Partnership with Forestry Commission and West Highland College.

- Friends of Nevis having tapped into a wider and more diverse volunteer demographic, and having had a range of specialist activities developed.
- John Muir Trust will continue the conservation work carried out on the summit of Ben Nevis.
- Forestry Commission Scotland will continue the conservation work carried out through the Pinewood Regeneration and tat Dun Deardail.
- The local community (particularly schools) will continue the Future Forests project tree planting. This will require minimal financial input and would be supported by SNH, with potential for small scale funding to come from Rio Tinto Alcan, the land owner.
- Having established a strong focus on mountain ecology, ecosystem sensitivity and climate change at the Fort William Mountain Festival, future Festivals will continue promote conservation activity.

## 12.3 Key Projects

All scheme projects address sustainability and legacy to some degree. The following, however, will have significant impact beyond the initial funding period. Sustainability and legacy have been approached from both socio-economic and environmental view points.

## **Future Forests Project**

The Future Forests project will focus on creating a blueprint for enhancing woodland habitat connectivity, from which the beginnings of a long-term, sustainable approach to habitat enhancement and resilience will be created through activity in the Polldubh area of Glen Nevis for wildlife, public engagement and learning.

It will initially involve working with children to start to recreate a more naturally wooded glen but will also aim to open up opportunities to engage with other, local groups with specific needs, primarily those with learning disabilities and those with terminal illnesses. The blueprint will serve to create an enduring legacy, developing local involvement in a sustainable, organic way and including the capacity for development and change in response to new information about habitat response and resilience. In this way the project will eventually deliver the same outcomes as a large-scale native woodland scheme, like those funded through SRDP, but delivered at a fraction of the cost and with enormous public benefit in the much slower process of delivery.

The capacity to learn from mistakes and to adapt to new information is an important element of this slower process and will give the project much greater legacy and adaptability, which is completely absent from a one-off planting scheme.

## **Nevis Training Programme**

This is a strategy with a clear legacy, so that the knowledge exchanged continues to be deepened and shared well beyond the life of the funding programme. The Nevis area will become a place of learning and understanding of the critical balance required in human being's relationship with natural environments, and the ways in which anyone can adjust

their everyday behaviours in order to mitigate those effects. The Nevis Landscape Partnership can become leaders in this alternative approach to the management of protected areas and wild lands. Through a Partnership strategy, dedicated conservation volunteers can continue to be attracted to the area and offered a valuable learning experience.

#### Ben Nevis Mountain Path

The mountain path will have been upgraded to withstand the hundreds of thousands of visitors as well as increased weathering from climatic extremes. The high specification of the path will ensure future access to Scotland's most iconic mountain. Similarly, a robust and high quality path will play a major role in the sustainable economic future of the local community.

#### **Sustainable Futures Project**

A multi-partner strategy towards visitor management will be developed, with an interpretation hub at the centre of the visitor experience. Core messages from all partner organisations and coherent design will greatly improve visitor understanding, enjoyment and orientation.

This project will develop a 21<sup>st</sup> century visitor experience befitting a national icon. It will increase enjoyment, learning and appreciation of the areas outstanding natural and cultural heritage. Furthermore, a strategic multi partner plan will ensure that any future interpretation information and information is coordinated, landscape-scale and coherent. The project will provide a modern visitor experience through a variety of multimedia and interpretation formats. It is a sustainable approach to tourism and visitor management which is future focused and strategically planned.

#### 12.4 The future of partnership working and area management

The Nevis Partnership recognises that there is a need to continue to seek a longer term solution to the management needs of the Nevis Area. To this end it has been working along with OCUK and a broader Reference Group to assess options for a more integrated approach to management of the Ben Nevis and Glencoe National Scenic Area.

In March 2013 the Reference Group (which was chaired by the executive director of NP) resolved that a single National Scenic Area Management Strategy be produced and governance arrangements to take this forward are currently being put in place. Although the work will be facilitated by SNH, the Nevis Landscape Partnership intends to play a part in developing a long-term future strategy for the management of the area.

The Nevis Landscape Partnership evolved because of a perceived threat of a national park in Ben and Glen Nevis after Lord Sewell's announcement about National Parks in Scotland. The Scottish Government is unlikely to create a new national park in the medium term in the current economic and political climate. However, the outstanding importance of the Nevis area, its coherent identity and special needs remain. Without a body such as the Nevis Landscape Partnership, there is unlikely to be collective effort to manage the area and its conflicting demands and pressures. Plans and projects of this scale and complexity, though essential, will be difficult to fund and manage without an organisation co-ordinating partnership working. Benefits of the approach at Nevis chime well with the National Performance Framework and National Outcomes, including the private, academic and Third sectors collaborating better.

The above is true for the other outstanding areas in Scotland and increases the need for alternative models of sustained collaborative management to be developed and tested. A successful landscape partnership for the Nevis area would be seen as an exemplar of good practice and a potential (albeit small scale) model for any integrated management structure under consideration.

## **13. Monitoring & Evaluation**

#### 13.1 Introduction

The Nevis Landscape Partnership both values and is committed to monitoring and evaluating the project. While many of the outputs are tangible and quantifiable (completion of capital works, volunteer numbers, community engagement), a significant indicator of the success of the project will be the changing attitudes and habits of the people who engage with the Nevis area. These may be best recorded through qualitative research methods such as focus groups and interviews. The life of the scheme will be documented on film, with annual editions and a final review produced.

#### 13.2 Monitoring

The Scheme Manager will have overall responsibility for the monitoring of the project, assisted by members of the core staff.

Each project brief includes key indicators to be adhered to and monitored. These may concern:

- Implementation; adherence to budget, timetable and specifications
- Engagement;numbers of volunteers, visitors to website and users of paths
- Access; metres of path improved or created; numbers of users engaging with the area, either physically visiting or developing their interest in a specific field. This will include demographic research to ascertain whether a new, broader audience has been engaged, particularly the young and less able
- Learning; numbers of persons engaged in education and learning activities, ranging from exposure to interpretation board and media, to acredited training courses/modules.

The methodologies to record this data will include surveys, self-reporting comment cards, and progress reports.

Project leaders will be required to produce progress reports to accompany invoices; these will be fed back to the NLP Board (which meets quarterly) and the Executive Committee, which will meet approximately monthly.

#### 13.3 Evaluation

The Scheme Manager will have overall responsibility for evaluation and producing the final summative report; as such, he/she will be employed for a further six months beyond the end date of the scheme.

A budget has been allocated to allow an external consultant to evaluated the scheme by :

• enhancing the existing baseline data at the beginning of the delivery period

- producing a formative report between years 2 and 3 to ensure progress is 'on track' and to objectively highlight successes and potential issues. This will inform a midway point review by the board to reflect on lessons learned and make amendments to the scheme as necessary
- performing a review towards, and beyond, the end of the scheme which form the basis of the Scheme Manager's summative evaluation.

#### 13.4 Sharing

The NLP encompasses a broad range of partner organisations and a number of stakeholders who have a deep-rooted interested in the area. The need to foster a more inclusive way of working and collaborating between these parties has been identified as a incidental, but very significant, benefit of the scheme. Therefore, the internal monitoring and evaluation of the scheme will be shared as broadly as possible between the partners and to the wider public. Similarly, monitoring and evaluation of NLP activity by the partners and stakeholders will be fed back to the NLP.

The Communications Manager will be set key indicators such as a defined number of news stories, targets for social media engagement and website visits and compiling a press book.

It is envisaged the annual documentaries will be shown at film festivals and available via digital media, and will form a final cinematic record of the scheme.

#### Example: Dun Deardail

Within one month of the completion of each fieldwork season the results of the archaeological works will be presented in the form of a written Interim Data Structure Report. A site database will be complied utilising Access and updated each year.

The reports will be prepared in accordance with current standard Historic Scotland procedural requirements and standard procedures. The Interim Data Structure Report will contain the following;

- a location plan of the site
- a location plan of the trenches
- plans and sections of features
- appendices to include: context descriptions, drawing record, photographic record, sample record, special samples record and finds record
- summary description of the results of each trench
- summary interpretation of the results of each trench
- Summary conclusions

Following the production of the Interim Data Structure Report a costed Post-Excavation Design will be prepared; the costed Post-Excavation Research Design will be produced within two weeks of the completion of each Interim Data Structure Report. Following consultation with HS and FCS a preliminary programme of post-excavation will be undertaken following the completion of fieldwork in season one and season two. A final costed Post-excavation Research Design will be produced after the completion of the final Interim Data Structure Report. The final publication will be produced within a year of the agreement of the final Post-Excavation Design.

A summary report on the works and its findings will be submitted to Discovery and Excavation in Scotland at the end of every season to ensure compliance with standard practice.

A digital copy of all the Interim Data Structure Reports will be available free of charge on the Dun Deardail web site.

#### Evaluation of the project

All volunteer activities will be evaluated by means of participant evaluation / feedback forms to be produced by the archaeological contractor; this will be managed on site by the training officer. A sample of casual visitors to the site will also be asked to complete a feedback form once they have been given an informal tour of the excavation. All evaluation material submitted by volunteers and participants taking part in any of the numerous archaeologically related events will be collated. In addition a sample of volunteers, field staff, school staff and stakeholders will be interview with a view to gauging their experience and perceived outcomes of the project. The data will be analysed and a final evaluation report produced which will aim to measure and assess the success of the project implementation. The aim of the evaluation will be:

- To quantify to what extent the project achieved its aims and whether this was good value for money; and
- To showcase the achievements and legacy of the project.
- The anticipated audience for this evaluation are:
- Archaeological Project steering group and peers; and
- Nevis Partnership stakeholders.
- The report of the evaluation will include the evaluation of:
- The volunteer programme, using evaluation material collated during the project;
- The education programme, including interviews with local schools;
- The publication, including local public perception and a wider audience;
- The press coverage (were the aims and outcomes of the project distributed successfully?);
- The effectiveness of the project management and the partnership; and
- The overall project legacy, including training, education, raising awareness and long term resources provided.

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