

THE MOURNES AND SLIEVE CROOB STRATEGIC PATH REVIEW

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PART 1

Executive Summary

The Mourne AONB is one of the most heavily used areas for recreation on the Island of Ireland, and the uplands of the Mourne Mountains including the Eastern and Western Mournes, and Slieve Croob (the study area) are key attractions, with adjacent forests, parks, nature reserves, beaches and long distance walking routes providing additional recreation opportunities.

The path networks throughout the study area are, in effect very large social trail networks (not formally developed for recreation). The main access routes leading into the uplands are primarily old quarry and farming tracks, used for recreation, and by farmers, land managers and emergency services. Beyond these tracks, the majority of the path networks consist of paths with no formal path structure and are essentially very well established desire lines, often following sheep tracks. The nature of the topography, geology, ground condition and vegetation essentially restricts most recreational use to clearly defined paths, but also makes it vulnerable to erosion, typical of granite uplands such as the Cairngorms, and erosion in the Mournes has been well documented in previous studies. The study area is a highly accessible landscape, more so than many other similar landscapes in the UK and Ireland despite the fact that there are limited asserted public access rights or agreements. This illustrates the importance of *de facto* access in NI.

The study area provides a range of ecosystem services including agriculture, biodiversity, carbon sequestration, forestry, health and well-being, mineral extraction, recreation, tourism and water catchment, and has important European and National environmental designations. Recreation use, particularly in the Eastern Mournes, has been increasing in recent years and it is predicted that this will continue (a pattern evidenced across similar outdoor countryside sites in UK and Ireland), in particular, there is evidence that formal events are getting more frequent and larger in size. Moreover, the current and potential tourism and related economic value of the Mournes and Slieve Croob is increasingly recognised in various local and central government plans and policies, and is highlighted among other places, in the Mournes National Park Working Party's report of September 2007.

Given the range of services the upland provides and the increasing activity, concern about associated impacts has also been increasing (Mourne AONB Access Study 2007). Erosion control and path repair projects to mitigate impacts from recreational use have been on-going on an ad hoc basis since the 1990s, but other issues such as disturbance/injury to livestock, damage to boundaries, litter, anti-social behaviour, wildfire, unregulated vehicle use, liability etc., require better management. Moreover, other issues such as climate change will affect how the uplands respond to use in the longer run.

From a recreational point of view, the Eastern Mournes, Western Mournes and Slieve Croob uplands are of respectively; national, regional and local importance. The ease of accessibility, high density of paths and iconic status of the Eastern Mournes results in a wide range of user groups including those with limited countryside knowledge and skills accessing the uplands which partly contributes to the problems which are more widespread than in the other parts of the study area. The Western Mournes has a less dense network and its users are weighted to the more knowledgeable and skilled, and the scale of issues are fewer but can be locally significant. Slieve Croob in contrast is more defined by its rights of way and it is used by people of a wider range of abilities but with local knowledge, and there are fewer issues than at the other sites. It and the Western Mournes have a more remote feel to them than parts of the Eastern Mournes, which many stakeholders enjoy.

This report includes a survey of 62 paths across the 3 sites totalling a distance of 152.2kms which has been mapped using GIS, and it makes specific recommendations for management where appropriate, including erosion control and path works. However, management has to be done within a framework

that ensures the most sustainable approach is taken and accommodates the wide range of interests related to the ecosystem services, and this framework is included in the report. The report also includes assessment of the access points from where people enter the path network, and it and the path survey provide the detail on which the assessment and main recommendations are formed.

One of the challenges will be balancing on the one hand a requirement voiced for better access corridor definition, management, site information and rangering, with on the other hand a desire for less constraint and less interference with the landscape in order to preserve the wilderness experience. These are not mutually exclusive aspirations but will require a careful approach to ensure an appropriate balance can be achieved.

Patterns of recreational use within the study area and in particular the Eastern Mournes are too entrenched to change significantly and it is important to prevent impacts to areas that are not currently under excessive pressure. There is no need to establish new access and recreation routes within the vast majority of the area, and the recreation hierarchy (including increasing challenges as one progresses further into the massifs) should be maintained roughly as it is. This is particularly the case in the Eastern Mournes where the path network is at its densest and most heavily used, and the issues relating to recreational use are more extensive. However, some parts of the key routes may need to be reconfigured at particular locations to achieve sustainability.

However, some low level routes should be enhanced and new ones developed to mitigate current and future pressure on the more remote and summit areas. This would include making the Mourne Way more sustainable, developing formal routes from Donard Wood to the Bloody Bridge and beyond following the pipeline, and a link from Donard Wood to Tollymore Forest Park. Better recreational facilities catering for a wide range of activities and user groups should be developed at key access nodes where prescribed management can be implemented including Rostrevor Forest, The Silent Valley, Donard Forest, Tollymore Forest and Castlewellan Forest.

Improved management mechanisms need to be developed including establishing agreements with landowners and wider interested parties, better clarification of the status of routes and management procedures, and provision of information such as site information, best practice ethics and up to date local weather so that users can be better prepared for the environment they are entering.

There should be an appropriately resourced programme of on site management and maintenance with an enhanced ranger capacity and erosion control/path repair team to enable a more stitch in time approach to be taken. Funding should be more strategic and less based on one-off big capital projects which, as currently undertaken, militate against the above being achieved. A single organisation may be better placed to coordinate and develop initiatives rather than it being 'added on' to the individual remits of the wide range of parties tasked with managing the ecosystem services as is currently the case.

There should be a resourced programme of monitoring of the network, in particular erosion, building on previous surveys, electronic visitor counters and the breadth of anecdotal evidence that exists in the area, in order to inform management. Opportunity should be taken of establishing partnerships with educational establishments to further this aim. This should be qualified with benchmarking approaches to management, erosion control and path work against other similar sites such as the Cairngorms and the Lake District. Experience and best practice should be shared which could include jointly run workshops on erosion control and other related issues and an Upland Management Forum could be established. A strategic land management plan would obviously include much wider aspects than consideration of the recreational network but a recreational plan may contribute to its development.

Ultimately, the recreational path network needs to be managed as part of a holistic approach to management of the ecosystem services that the uplands provide, requiring agreement across landowners, managers and recreational users. Whilst there has over the years been an intention by many groups to establish an integrated approach and some significant projects have been achieved, current management of the sites is best described as partisan and unless this is addressed there is a risk that this will exacerbate the problems in the future.

PART 2

2.1. Project Brief

In 2012 the Mourne Heritage Trust, through funding made available by the NI Environment Agency and Sport NI, commissioned Dafydd Davis to develop strategic management recommendations for the recreational path networks in the Mourne Mountains and Slieve Croob.

This included the following:

- 1. Document the main recreational path networks and associated facilities in the Eastern and Western Mournes and Slieve Croob.
- 2. Prepare a report detailing prioritised strategic management recommendations for the path networks taking into account:
 - a. current route condition
 - b. current and anticipated future recreation demand
 - c. environmental and aesthetic impact
 - d. the various access demands that impinge on the recreational path network
 - e. availability of parking and public transport for visitors to access the Mournes.
 - f. adjacent outdoor recreation sites and facilities within the Mourne AONB including Slieve Roosley and Murlough, the Newcastle Way and Mourne Way long distance walking routes.
 - g. best practice ethics incorporating *Leave No Trace* for outdoor recreation in upland and mountain areas.
- 3. Produce a GIS map of the Mourne Mountain recreational path network identifying the above issues.

The project Steering group included MHT, NIEA, Sport NI, ORNI (Formerly CAAN), MI, Banbridge DC, Down DC and Newry and Mourne DC.

2.2 Methodology

This methodology centred on three key areas of work as follows:

- Review of reports and research related to the area and similar sites
- Consultation with stakeholders
- Site surveys

A review of reports and research related to the area and similar sites was undertaken and informed by the client and steering group, stakeholders and the consultant's wider experience.

Consultation with stakeholders included communicating with a range of groups and individuals as detailed below. Most of this was carried out by face to face interviews, often on site. It also included focus group meetings. Participant's views were noted on face value and validation has only been

suggested within the context of comparison with other stakeholder's opinions, research and examples from similar sites.

- Walking groups and rambling clubs
- Walking guides
- Outdoor activity providers
- Event organisers
- Duke of Edinburgh Award coordinators
- Mourne Outdoor Recreation Forum
- Tourism businesses
- Hill/fell runners
- Climbers
- Outdoor Education Centre staff
- Tollymore National Outdoor Centre staff
- NIEA staff; Conservation Designation & Protection and Countryside and Coast sections.
- Mountain Trustees
- Farmers
- Northern Ireland Water
- Forest Service NI
- National Trust
- · Mountaineering Ireland
- Northern Ireland Fire and Rescue Service
- District Councils
- Mourne Mountain Rescue
- Mourne Heritage Trust staff

Consultation has centred on gaining an understanding of the following:

- How differing groups use the Mournes for recreation
- The hierarchy of use of the path network i.e. who uses which paths, why and how often, and which are the most important and frequently used paths
- Key control points (summits, cols, lakes etc.) which affect and influence the way that people use the path network
- Key issues that affect recreational users experiences of the Mournes
- How differing groups value the Mournes and why
- · Key routes, links and access points and their importance
- Patterns of access i.e. where are the key strategic access points into the Mournes
- How recreational use of the path network affects land use in particular:
 - Agriculture (primarily sheep grazing)
 - Woodland management
 - Conservation and habitat management
 - Water catchment

Site surveys of the path network have involved:

- · Identifying which paths should be assessed and why
- Dividing the path network into key sections based on the following:
 - The nature of each path
 - Where the path starts and where it goes to
 - Its relationship with key control points

- Surveying each path on foot and recording observations
- Assigning a strategic value to each part of the path network

This work has led to the development of outline recommendations related to the path network with a particular emphasis on the following:

- Achieving sustainability in the widest sense and within the context of the sustainability framework (outlined below)
- Addressing existing and managing future impacts of recreation on the landscape and environment
- Addressing key management issues relating to the impacts of recreation on land use
- Ensuring an integrity of experience for recreational users of the Mournes

Underpinning the review of the path network and the development of the recommendations is a Sustainability Framework (Appendix A), which has been developed by Dafydd Davis. This has been developed through his experience of trail (path) and recreation management and trail repair and construction in a very wide range of landscapes and conditions worldwide, and his understanding of what makes recreation and trails sustainable in the widest possible sense.

Sustainable trail management and provision centres on a number of key issues that affect how trails are managed, provided and developed regardless of the landscape, ground condition, users, trail system, model or type. Achieving sustainability requires a clear understanding of what sustainably actually means in terms of recreational trails and in its widest possible sense. An effective way of building sustainability into trail management and provision is to develop a sustainability framework which can then inform the assessment, management or even development of trails.

Trails of all kinds are conduits through which people can experience, interact and engage with landscapes, places and habitats and this is important in improving communities and individuals' knowledge and understanding of these places and can increase the value of landscapes, habitats and places to wider society. Trails should connect people and communities to landscapes, places and habitats in positive ways that do not devalue them to any extent; rather they should add value to landscapes and habitats and enhance the sense of place wherever they are. Trails should enhance people's experiences of landscapes and habitats and must exist comfortably and appropriately within them.

In addition trails must co-exist with land use in ways that enable the recreational use of any area to take place without it impacting upon the land use or vice versa thus creating conflicts that may inhibit or restrict access to trails or affect the quality of trails. Crucially, trails must meet the needs of users without compromising the responsibilities of land owners or managers and must not affect the roles and responsibilities of any agency charged with the custodianship of the landscapes, habitats and environments of Northern Ireland.

With this in mind it is important to ascertain the following:

- What impacts can trails and their use have upon land use and vice versa
- What impacts can trails and their use have upon landscapes and habitats
- What impacts can trail management and maintenance have on the sustainability of the trails and their use
- What impacts can trails and their use have upon people and communities

This is developed through the report and further explanation is at Appendix A.

The key to the approach has been to understand the ecosystem services and the characteristics of the Mournes and Slieve Croob landscape. The strategic review of the path network looks at the nature, density and distribution of the path network within this landscape and relates this to the nature and distribution of access and key control points within the landscape such as cols or summits etc. The study then considers how differing parts of the recreational path network works, what its strategic value is, and what its impacts are on landscape, habitats and land use and management etc. In the context of land use, assessments have centred on understanding the impacts that the paths and users themselves are having on land use and management.

With all of these issues in mind, the strategic review of the path network within the study area has been carried out in a holistic way, as much as the time available has allowed.

2.3 Best Practice Ethics

Underpinning the methodology are ethics best summarised in the Sustainability Framework (Appendix A). This is very much centred on understanding the impacts that recreation and trails can and do have as outlined above and such impacts are dictated and affected by the following:

- The character, nature, quality and value of the landscape
- The nature, status and value of habitats
- The importance of the landscapes and the habitats to people
- The nature, intensity and distribution of land use

It is also important to understand the impacts that differing recreational user groups and user group cohorts (The term user group refers to different types of recreational groups, such as pedestrians, cyclists and equestrians. Within each of these groups there are separate cohorts relating to the ability of the users within the group - see Appendix B for further details) can have on landscapes, habitats, people and land use in differing circumstances and contexts.

The approach also aims to draw on best practice initiatives such as Leave No Trace and countryside codes that inform use and management at similar sites across UK, Ireland and internationally. It also takes cognisance of upland path best practice guides and principles such as British Upland Footpath Trust's *Mending Our Ways*.

2.4 The Study Area and Project Context

The Mourne AONB covers 570 square kilometres of coastline, lowland and upland areas, and contains an iconic range of granite mountains; the High Mournes with 12 peaks over 600 meters, and to the north the Slieve Croob massif. The High Mournes consists of the Eastern and Western Mournes. The Eastern Mournes are a designated SAC and ASSI, important for its upland heath, in particular the rarer montane plant communities found only over 600m, and the western Mournes are a candidate ASSI.

The High Mournes and Slieve Croob provide ecosystem services (ES) in particular:

- Agriculture
- Biodiversity
- Carbon sequestration
- Forestry
- Health and Well being
- Mineral extraction
- Recreation

- Tourism
- Water catchment/purification

The various activities related to the above ES provide economic livelihood, essential services and enjoyment, but can produce negative impacts and conflicting priorities and the key is to balance the varying demands to achieve sustainability; the UK National Ecosystem Assessment NI Summary 2011 detailed the requirement to integrate informed and coordinated management through policy to effectively deliver ES.

The Mournes and Slieve Croob have been popular with recreational users and tourists; increasingly from the 1960's and 70's (e.g. evidenced by the establishment then of walking clubs and the Mourne Mountain Rescue Team). Recent reports have estimated 1,286,000 day visits and 145,454 overnight trips annually to the Mourne AONB (Buchanan & Partners 2006) and identified walking as the most popular main activity (MHT Visitor Survey 2005). Moreover, the area is seen as an important deliverer for government agendas relating to economic development and health and wellbeing (Buchanan 2006, NITB Mourne Signature Project 2009, Outdoor Recreation NI Operational Plan 2012-2015 etc.).

Management of the various ES and related activities has primarily been carried out by individuals and agencies with regard to one or two of the ES, although, significantly the Mourne Heritage Trust was established in 1997 to provide a coordinating and development function for the AONB and has been involved in related projects and initiatives. However, limited remits and a lack of strategic coordination and resourcing generally across agencies and individuals, have engendered an ad hoc approach to managing the issues.

This report is aimed at exploring issues relating to the recreational path networks that were identified in The Mourne AONB Access Study 2007 (MAAS 2007), which set out the context with regard to the provision of and issues relating to countryside access in the wider Mourne AONB, and a series of general recommendations for addressing these issues. This report aims to analyse in more detail the path networks in the three main upland areas within the above study and to present recommendations for their strategic management.

PART 3

Analysis of the Path Networks and Users

3.1 Overview

The study area is divided into three distinct areas each with a different feel and status in terms of recreational use:

- The Eastern Mournes
- The Western Mournes
- Slieve Croob

Within the study area there is in effect a kind of hierarchy of strategic importance as follows:

- The Eastern Mournes is of major national significance as a recreation, tourism and landscape resource
- The Western Mournes is of regional importance as a recreation, tourism and landscape resource
- Slieve Croob is an important local and community recreation asset

When viewed together the three areas identified above can be seen to be a very important recreation, tourism and landscape resource for both NI and ROI and it is very important to consider the place of each area within the hierarchy and how this affects recreation provision and management through the area as a whole.

It is essential to understand the relationship which each of these areas have to the other. Each provides differing recreation experiences linked to landscapes, trail types, accessibility and value. Each of these areas has differing roles to play in providing and managing recreation within the study area and each is of great value relative to its status.

3.1.1 The Mournes

The Mourne Mountains themselves are an important recreation and tourism resource for South Down, Northern Ireland and the Island of Ireland as a whole for a number of key reasons:

- They are extremely accessible from both Belfast and Dublin
- Access onto high ground is primarily *de facto*
- Physical access into the mountains from public roads is very widespread and easy (particularly when viewed in the context of other upland areas in the island of Ireland and UK)
- There is an unusually extensive and dense upland path network (given the size of the area)
- There is very high quality and accurate mapping and route information available
- They have iconic status with outdoor enthusiasts
- The outstanding, unique and iconic nature of the landscape

The Mournes are divided into two areas – the Eastern Mournes and the Western Mournes - and each of these areas have differing qualities that affect their use as recreation areas, their importance and their value.

3.1.2 The Eastern Mournes

Broadly speaking the Eastern Mournes (also known as the High Mournes) can be characterised as follows:

- Most important area within the study area in terms of recreation
- It has highest concentration and most widely spread access points within the study area
- It has the densest and most extensive path network within the study area
- Very iconic landscape
- It has the highest number of key control points (in particular high summits and cols) and includes numerous iconic control points within the study area
- There are access issues relating to land ownership within the Eastern Mournes that require management, but they tend to be less contentious than those within the Western Mournes
- It has the only significant areas of land owned by Northern Ireland Water and National Trust in the study area and this greatly facilitates access
- It is the area most intensely and heavily used by outdoor recreational users within the study area with a broad range of users
- There are increasing pressures on path network, land use, landscape and habitats and wildlife as a result
- Management pressures are very high and increasing throughout the area
- A total of 43 paths were surveyed totalling 95.9km

The Eastern Mournes will always be the focal point for outdoor recreation within the study area and as such is of enormous value. However, this also means that it is the area most likely to require intensive management measures to deal with visitor numbers and their impacts on landscape, land use and the environment.

3.1.3 The Western Mournes

The Western Mournes however can be characterised thus:

- There are fewer and more widely spread access points compared to the Eastern Mournes
- The path network is considerably less extensive than that in the Eastern Mournes
- There are more contentious access issues related to land ownership than in the Eastern Mournes
- There are fewer major control points such as summits and cols when compared with the Eastern Mournes
- A narrower range of user 'cohorts' (see Appendix B) make use of higher elevations
- There is a much lower density of recreational use than the Eastern Mournes
- Pressures on path network are much more localised and less widespread
- The area feels more remote and 'wilder' than the Eastern Mournes
- A total of 11 paths were surveyed totalling 40km

The Western Mournes is largely characterised by a less extensive and less accessible path network, which in turn is accessed by a narrower range of users, who perceive it as a more remote place to get away from the crowds of the Eastern Mournes. In turn it may require lower levels of management and physical intervention at current levels of use.

3.1.4 Slieve Croob

- Access is limited to PROWs and permissive paths, with little other de facto access
- The trail network is very limited, the PROWs are of good standards and those trails which are not PROWs are of poor quality
- It is very much an area for a broad range of outdoor user with local knowledge
- Recreational use of the area is at a much lower density that the Mournes
- Provides an important area for quiet recreation away from the main Mournes massif
- Limited management issues identified through research
- A total of 8 paths were surveyed totalling 16.3km

Slieve Croob is a place where a real mix of users can access high ground quickly and which has yet to be impacted upon by recreation. However, the general lack of access opportunities and a limited trail network in many respects help protect this area from recreational pressure and maintain its wild and isolated character, which consultation suggests is much beloved by many of its users.

Slieve Croob differs to the Mournes in that it is set apart from the main Mourne massif and is largely not seen as part of the Mournes area. It does not have the same profile or perceived value as the Mournes because it does not include particularly iconic summits or landscape features. Therefore, its value as a recreation resource is possibly lower. Slieve Croob is therefore largely a local and community recreation resource which is currently of less strategic significance than the Mournes.

The following sections investigate in more detail the structure of the path networks and how they are used.

3.2 The Status and Structure of the Path Network and its Users

3.2.1 The Legal Status and development of the Network

Access onto the Mournes and Slieve Croob is largely *de facto* with a few exceptions where legal status has been asserted and permissive paths agreed - in particular around Slieve Croob.

The path network throughout the study area is in effect a very large social trail network, in that it has not been specifically designed for recreation, however there are a couple of exceptions where there are specific prescribed routes:

- The Mourne/Ulster Way
- The Granite Trail

And in the adjacent area:

- The Newcastle Challenge Trail
- Prescribed routes on FSNI properties

Access into the high ground of the Mournes and Slieve Croob is largely along well established tracks and paths, many of which are associated with past quarrying activities or with agricultural access and are very important land management infrastructure, and have been used with vehicles as well as on foot. These tracks largely define and dictate the patterns of recreational use of the Mournes and Slieve Croob and have also influenced significantly the development of the rest of the path network. However, unlike other areas in UK, these tracks do not have asserted vehicle rights of way ('highways' under legislation in E&W and Scotland) and this has an influence on management decisions.

From these tracks desire lines have developed (often on sheep tracks) to key control points such as cols and summits; many now are very well established paths and used primarily as recreational routes. Indeed, the majority of the path network consists of paths with no formal path structure and are essentially very well established desire lies. Moreover, crucially the nature of the topography, ground and vegetation through most of the study area essentially restricts most recreational use to defined paths. This essentially contributes significantly to the impacts that they have on landscapes, habitats and land use.

3.2.2 Access Points

The Mournes are an exceptionally accessible upland area compared to other sites on the Island of Ireland and UK mainland. The location of key access points and their relationship with paths and control points are the single most important factors that influence the impact of recreational activity in the study area.

Within the Mournes area there are 21 locations where the path network and high ground can be accessed from public roads and these range from a small lay by and stile to a major car park and large access track. All 13 primary access points and 5 out of the 8 secondary access points have car parking for 10 or more cars. In the Slieve Croob area there are 11 locations where the path network can be accessed from, 8 of these have car parking for 5 or more cars and the remaining 3 have no formalised parking.

Some access points in the Mournes area are more important than others and with this in mind all known access points have been categorised either "Primary Access Points" or "Secondary Access Points" (See Appendix C for full list).

Primary Access Points in the Mournes can be characterised as:

- · Locations with formalised parking
- Locations where there is some kind of visitor information or interpretation
- Locations where it is possible to access the wider trail network
- · Location which link into strategically important paths

Secondary Access Points in the Mournes can be characterised as:

- Locations with informal parking
- Locations with no visitor information or interpretation
- Locations which access only part of the wider path network
- Locations which are not linked into strategically important paths.

In the Slieve Croob area there are 8 primary access points and 3 secondary access points. All of these primary access points are PROW, except one, which is a formalised access on to FSNI land. The secondary accesses are informal or unsanctioned accesses.

An assessment of each of the access points to the Mournes and Slieve Croob has been undertaken and this looks at the following:

- The location of the access points
- The nature of the access points
- The relationships of the access point to the path network
- Which user groups and user cohorts use the access point
- Effectiveness of parking capacity
- The nature and extent of any management issues related to the access point

The full assessment is at Appendix D.

The number of access points coupled with a very well established, extensive and dense path network enables Mournes and Slieve Croob to be more physically accessible than virtually any other comparable upland area in the island of Ireland.

This must therefore have a significant effect on the status and importance of the Mournes and Slieve Croob as an outdoor recreation area in both an NI and ROI context and this inevitably leads to pressures and impacts from recreational use. Given that recent studies indicate significant growth in participation in outdoor activities such as walking and cycling (CAAN [now ORNI]Trends in Outdoor Recreation 1995-2008 (2009)) it is very likely that those pressures will increase and become more significant. This must be considered within the framework of the study area's importance for the range of ES it provides.

3.2.3 How The Path Network Is Used And By Whom

There is a clear hierarchy of use of paths throughout the area with different user groups and cohorts (Appendix B) appearing to use some paths more than others, and there are some paths that are much more heavily used than others; in particular key paths in the Eastern Mournes.

Most significantly whilst different parts of the path network are more important than others in terms of intensity of use, the functions they perform within the path network differ and there are a number of particularly important paths that are vital to the way that the area functions as a recreation resource. These paths are essential access routes and important conduits that link key control points that effectively dictate the movement of recreational users through the area.

The use of the path network throughout the area, but in particular the Eastern Mournes, is essentially dictated by the nature of access points, the nature of the trails themselves and their relationships to key control points such as summits and cols.

Eastern Mournes

In the Eastern Mournes there are a number of key paths that allow recreational users to move through the mountains at moderate elevations without excessive height gain and this has a profound effect on the use of the area for recreation. Examples of these are:

- The Brandy Pad
- The 500m contour path
- The Annalong Valley paths

In addition key summits in the Eastern Mournes, in particular Donard, Binnian, Bearnagh, Doan and to a lesser extent Cove serve as iconic control points and are focuses for intensive use.

Significantly, the physical nature of the path network within the Eastern Mournes should in theory restrict the use of the path network to recreational users with either local knowledge or the ability to read a map, however the accessibility of the trail network means that large numbers of users with very little local knowledge or outdoor expertise can actually access the network quickly and easily.

Therefore, the majority of the path network is most suited to:

- Hill walkers
- Fell Runners
- Ramblers
- Trail Runners

However it would seem from observations on the ground, consultation with land managers, user groups and stakeholders that the majority of the path network is actually used by a much broader range of users i.e. the above, plus:

- Casual walkers
- Leisure/occasional walkers

This would appear to contribute to management, conflict and safety concerns expressed by land owners, managers and key stakeholders such the NI Fire and Rescue Service and Mountaineering Ireland. Specifically, the path network is most suited to user cohorts at the upper end of the experience/ability/confidence spectrum, since the majority of it consists of trails that are quite challenging with steep gradients and variable surfaces (see Trail Classification and Grading, Appendix I).

Western Mournes

The Western Mournes appears to be much less frequented but there are still some very important parts of the path network in this area, in particular:

- The Mourne/Ulster Way
- Paths around Cloughmore Stone and Slieve Martin (Rostrevor)
- · Paths around Eagle Mountain and Windy Gap
- The path to the summit of Hen Mountain

The Mourne/Ulster Way is an established and promoted prescribed route, which is heavily used as a route in its own right by a range of users, and as part of the wider trail network in the area. It is also a very important route that is used by events of all kinds. The paths in the Rostrevor area are very important formalised trails that allow easy access to relatively high ground for a wide range of users and provide an important high density recreation asset. The paths around Eagle Mountain and Windy Gap are an important part of the Western Mourne network in that they enable relatively easy access into a wild upland area from formal access points, whilst the paths to the summit of Hen provide easy access to a very prominent local landmark.

More limited access opportunities in the Western Mournes coupled with a more remote feel; a less extensive and accessible path network and fewer iconic control points means that the majority of the recreational use of this area is by the following user cohorts:

- Hill Walkers
- Fell runners
- Trail riders (mountain bikers)

This is a much narrower range of users than in the Eastern Mournes. These cohorts generally have greater knowledge of countryside issues and higher levels of outdoor expertise and ability and this reduces some of the issues outlined above. However, the Western Mournes is characterised by some contentious access issues at key locations and this makes it more likely that users of this area will come into conflict with land use and land management (actual or perceived), which may in turn restrict access and the types of users.

The exception, as indicated above, is the Mourne/Ulster way, which passes through this area. The trail is a promoted NI Waymarked Way and heavily used for events and draws in considerable numbers of a wider range of user including the less experienced. This trail alone, however, is likely to require a considerable level of management to prevent it impacting upon this part of the Mournes.

However, the Western Mournes can still be characterised as being under significantly less pressure than the Eastern Mournes and with a very different, unfrequented and remote feel to it. The contrast between the two is seen as very important and actually reinforces the value of the Western Mournes as a wild area accessible only to the more adventurous and hardy.

Slieve Croob

Key parts of the trail network are very important to a wide range of users including a number of well managed public rights of way and the main track to the summit of Slieve Croob. These trails are very accessible and form the core of the recreational network and as such are very important. However, other parts of the Slieve Croob area are only accessible to those with greater local knowledge and higher countryside skills and ability levels and this means that there is a definite hierarchy of use at this site.

The key to the value of Slieve Croob though is its isolation relative to the Mournes massif, whilst still effectively being part of the area. This gives Slieve Croob an important place in the hierarchy of recreation provision within the study area, particularly in relation to access to high ground.

The main user groups including the following:

- Leisure walkers
- Occasional walkers
- Ramblers
- Hill walkers
- Fell runners
- Trail riders (mountain bikers)

Whilst the number of users would appear to be low, the spread of user cohorts demonstrates the value of the area as a recreation facility.

3.2.4 Hierarchy of Numbers of Users on Paths

This appears to influence the way in which the path system within the study area is used and there is an informal hierarchy of use in terms of user numbers as follows (in descending order):

- 1. Main access routes from formal access points leading to key control points (e.g. Trassey Track to Hares Gap)
- 2. Routes to iconic summits (e.g. Donard, Binnian and Bearnagh)
- 3. Linear mid elevation routes between cols (e.g. The Brandy Pad)
- 4. Main high level ridge routes (e.g. Slieve beg to Slievelamagan)
- 5. Prescribed routes (e.g. Mourne/Ulster Way and paths around Cloughmore Stone)
- 6. Linear routes to access control points (e.g. the path to the summit of Hen Mountain or to the summit of Slieve Croob)
- 7. Low level routes including public rights of way
- 8. Wild high level routes (such as around Eagle Mountain)

The above outline hierarchy of use is very much influenced by the accessibility and profile of individual paths, but also crucially the density and distribution of the path network in the Mournes in particular.

In the Mournes the path network allows for a very flexible and diverse recreational use and encourages a range of user cohorts to access the area. The area has a far more widespread path network than other upland areas in NI and this coupled with the ease of access results in far more intensive use by a much more diverse range of user cohorts than in many comparable areas.

This puts key parts of the path network under significant pressure in terms of user numbers and leads to some of the management and conflict issues outlined below in Section 4 and many of these are directly related to both the nature and volume of users. In particular, those recreational users who might be characterised as Casual or Occasional Walkers would tend to have lower levels of skill related to issues such as navigation and map reading etc., and are also often less aware of access and countryside issues (e.g. path erosion issues, land use/management issues or their own impacts).

The pressure on the path network from high volumes of low skilled users could possibly be a factor in the levels of physical impacts on the paths themselves and on the extent of some of the issues related to land use and management. This in turn could be influencing the impact of recreation on the

Mournes landscape and habitats and could affect the sustainability of the path network in the widest sense.

Therefore, it is important to look at the hierarchy of paths in the Mournes and identify those which are under the most pressure from the broadest spectrum of users and identifying ways of making them more robust and sustainable in the widest sense. However, it is important that not all parts of the path network are treated the same and that hierarchies with regard to differing categories of challenge/difficulty are maintained.

Within this consideration, key prescribed routes such as the Mourne/Ulster Way are recognised as providing an important role in facilitating access to lower elevations for less skilled or able users and to some extent managing key issues such as the impact of mass participation events.

3.2.5 Strategic Roles And Values Of Paths

As referred to above each part of the path network has a differing value in terms of its strategic importance to the recreational use of the study area.

Eastern Mournes

Within the Eastern Mournes the strategic functions of the path network can be divided into the following groups:

- Type A Key access routes linked to access points and car parks
- Type B Desire lines linking access routes to thoroughfares and routes to key summits
- Type C Key thoroughfares linking important cols and access routes
- Type D Key routes linking thoroughfares into summits
- Type E High level ridge routes linking summits
- Type F Desire lines linking control points

Type A – Key access routes linked to access points and car parks

Key access routes in the Eastern Mournes in order or importance are as follows:

- 1. The Glen River path from Donard Park to the Top Bridge
- 2. The Trassey track from Trassey to the quarry
- 3. The Bloody Bridge path from Bloody Bridge to the Quarry
- 4. The Carrick Little track from Carrick little to the black gate
- 5. The Ott track from Ott Car Park to the end of the track
- 6. The Happy valley Track from Happy valley to the end of the track
- 7. The Banns Road

These routes are extremely important in shaping and defining the way that the vast majority of recreational users access the Eastern Mournes and their relationship to key control points have a profound effect on the impact of recreation.

Type B – Desire lines linking access routes to thoroughfares and routes to key summits

As noted already the Type A access routes (apart from 1. above) are largely agricultural access or old quarry roads and are mostly not configured to access the places where recreational users might want to go such as cols or summits. This has lead in many cases to the development of desire lines linking the above access routes/points to key control points, which in some cases have become

unsustainable in terms of their impact on the landscape and the environment, i.e. the line 'chosen' was not necessarily on the most durable ground.

However, many of these desire lines are now very well established and have a strategic value of their own as follows:

- 1. The link between The Top Bridge on the Glen River path and the Saddle of Donard
- 2. The link between Trassey Quarry and Hares Gap
- 3. The link between the Bloody Bridge Quarry and the Bog of Donard
- 4. The link between the top of the Ott track and the Mourne Wall
- 5. The link between the Happy Valley Track to the Mourne Wall

Some have been upgraded and repaired over time (number 1 in the above list for example) so that they are now much more clearly established, but this has generally been carried out in a fairly ad hoc manner. All of these routes are of great importance in enabling access into the Eastern Mournes, but they are very much the "weak links" in the strategic path network in that their alignments and nature make it inevitable that their use will lead to impacts on the landscape, erosion and degradation.

Type C - Key thoroughfares linking important cols and access routes

The next most important part of the strategic path network are the major "thoroughfares" that link key control points namely the major cols that allow movement through the massif and around and between major summits.

These in descending order of importance are as follows:

- 1. The Brandy Pad between Hares Gap and Bog of Donard
- 2. The 500m contour trail from The Slieve Longhshanagh/ Carn Mountain Col to Bearnagh Slabs and the Bearnagh Slabs Spellack Path
- 3. The Annalong valley paths Linking the Black gate to the Slieve Beg Col
- 4. The Annalong Valley path linking the Black gate with the Binnian/Lamagan col and the path to Ben Crom Reservoir
- 5. Mourne/Ulster Way from Ott Car Park to Trassey River
- 6. Ben Crom Reservoir to Hares Gap via the Shelter Stone
- 7. Rourke park to the Bog of Donard

These 'thoroughfares' are the most strategically important paths within the whole of the study area since they essentially define the ways in which people move through the area and also what impacts they have. Some of these paths have underlying structures such as old quarry tracks but the vast majority are little more than very well established desire lines that have developed as people link key cols and respond to other control points such as gullies, crags, streams and loughs.

Crucially, these routes are by their very nature very accessible to a wide range of users and abilities since they generally involve relatively lower gradients and less height gain that other paths. They also enable both circular routes and linear routes to be used of differing lengths and crucially enable the path network to be used in a flexible way.

However, many of these paths are very heavily impacted upon by prolonged, intensive and heavy recreational use (evidenced by previous studies on erosion of the Mourne paths e.g. Smith BJ, Thomas M, Bloomfield C 1998 Erosion Hazard and Footpath Condition Survey of the High Mourne Mountains). The lack of underlying path structures on the majority of these paths means that they are in many sections unable to sustainably accommodate current levels of use. Many of the above have

also had varying degrees of path repair work carried out in an ad hoc manner over recent years in particular the Brandy Pad.

Type D - Key routes linking thoroughfares into summits

The links from thoroughfares to summits are also key parts of the path network in the Eastern Mournes and there is a definite hierarchy related to these as follows:

- 1. Col of Donard to Bog of Donard via the summit of Donard
- 2. Black Gate to Percy Bysshe via Binnian Summit and North Tor
- 3. Hares Gap to the Bearnagh Slabs via summit of Slieve Bearnagh
- 4. Slieve Beg col to Lower Cove via summit of Cove Mountain
- 5. Summit of Doan from 500m contour path
- 6. Silent Valley to Summit of Binnian via Wee Binnian

All of these routes were at some stage desire lines that have become very well established over time and which take the line of least resistance from key control points such as cols, stiles or gates up to and over important summits .

The above routes are all to some extent having an impact on the landscape and in some cases leading to serious erosion. Parts of the routes such as the path to Donard Summit and the paths over Binnian have received considerable investment in recent years in terms of footpath repair and erosion control but most of the routes highlighted above have not. Moreover, path repair work on these paths and throughout the study area has tended to be ad hoc and some extent driven by the availability of resources rather than any strategic overview, which has been typical of similar works across other protected upland areas in the UK such as the Cairngorms and Snowdonia. All of the routes highlighted above are very important parts of the path network in that they provide access to iconic summits for large numbers of people. The fact that they are also linked to the major thoroughfares makes then doubly important since this significantly increases their accessibility and therefore strategic value.

Type E - High level ridge routes linking summits

In addition to the paths highlighted above a further part of the trail hierarchy in the Mournes consists of high level ridge routes linking summits.

These are, in descending order of strategic value:

- 1. Spellack Ford to Col of Donard via Slieve Commedagh
- 2. Slieve Beg col to Percy Bysshe Via Summits of Cove Mountain and Slieve Lamagan
- 3. Top of Ott track to Bearnagh slabs via Slieve Loughshannagh, Slieve Meelbeg and Slieve Meelmore
- 4. Bog of Donard to Rourke's Park via Rocky Mountain

These routes are a very important part of the path hierarchy. They are perceived as being less accessible as they have a more extensive height gain and exposed nature and are less heavily used, and therefore provide an important integrity of mountain experience within the Eastern Mournes. These routes are much less impacted upon by users than other parts of the path network and under current management and user numbers they are likely to remain so.

However, these routes have probably been impacted upon less than other routes since the Mourne Wall Walk was stopped in the early 1980s due to concerns over erosion and safety. Moreover, it has

been suggested that that closure may have increased impact on other routes such as the Brandy Pad (Ferris TMC, Lowther KA, Smith BJ 1992 Changes in Footpath Degradation 1983-1992 A Study of the Brandy Pad, Mourne Mountains), and there have been enquiries from event organisers about starting the event again.

Type F - Desire lines linking control points

The final part of the strategic path hierarchy in the Eastern Mournes can best be described as desire lines linking control points.

Key examples are:

- 1. Bloody Bridge ford/stepping stones to Bloody Bridge Quarry (north side of river)
- 2. Deer's Meadow to summit of Slieve Muck
- 3. Banns Road to Summit of Slieve Muck
- 4. Summit of Slieve Muck to top of Ott track
- 5. Top of Ott Track to Ben Crom Dam
- 6. Tollymore Forest to Pot of Legawherry

These routes in effect link control points in a very informal way and many follow linear features such as walls. The vast majority of these routes are not subject to heavy use (the exception being number 1) and do not, therefore, raise issues connected to sustainability. However, they are potentially very susceptible to impacts from increased use due to variable ground conditions and in particular wet ground.

Western Mournes

The shape of the strategic path network in the Western Mournes differs significantly from the eastern Mournes.

Here the path network can be characterised (in order of strategic value) as follows:

Type WA - Prescribed routes

- Type WA Prescribed routes
- Type WB Linear corridors
- Type WC Desire lines to Summits
- Type WD Informal routes on farm/quarry/turbary tracks
- Type WE Informal high level routes

The most strategically important components of the path network in the Western Mournes are the following prescribed routes:

- 1. The Mourne/Ulster Way
- 2. Waymarked walks around Cloughmore Stone and Slieve Martin (Rostrevor Forest)

These routes are the most heavily used in this area and to some extent manage access to the Western Mournes. They are relatively easy access for a very wide range of users and provide and accessible and relatively safe "Mournes Experience"

The majority of the Mourne/Ulster Way in the Western Mournes uses well established forest roads, farm tracks and paths but a significant proportion of it has no formal structure on the ground. This is resulting in significant impacts in these areas and any increase in recreational use of this route is

likely to severely exacerbate these impacts. Another key strategic role for the Mourne/Ulster Way is that it is extensively used by events of all kinds and this is seen by most stakeholders as preferable to events using more heavily impacted upon areas elsewhere in the Mournes.

The waymarked routes in Rostrevor Forest also provide easy access for a range of users and they are of great strategic importance in that they are able to do this within a robust and sustainable framework.

Type WB - Linear corridors

The linear corridors can be characterised as routes that allow linear point to point routes to be completed and which link access points and key control points. These in descending order of strategic value are as follows:

- 1. Sandy Brae to Leitrim Lodge via Windy Gap
- 2. Crockbane to Kilbroney via Rostrevor Forest

Both of these routes essentially take advantage of existing track and path infrastructure to access this area and avoid using areas of very wet ground.

The strategic value of these routes is very much in their role in facilitating access into the Western Mournes, where access is more restricted by land ownership and ground conditions.

Type WC - Desire lines to Summits

In addition to the above there are a small number of desire lines that link into key summits as follows:

- 1. Hen Track to Hen Mountain summit
- 2. Deer's meadow to summit of Pigeon Rock Mountain

The route to the summit of Hen Mountain is a particularly popular short walk for a range of user due primarily to very easy access and the power of Hen Mountain and its tors as a control point. This is also a very important access route of rock climbers wishing to access one of the most popular climbing areas in the Mournes. It would seem that this path has become increasingly heavily used in recent years and there is some evidence of this beginning to cause some impacts and growing concern of erosion at the Tors. The value of this path as a recreational resource is clear as is the fact that any significant increase in levels of use is unlikely to be sustainable in the long term.

The path from Deer Meadow to the summit of Pigeon Rock Mountain running parallel to the wall is in essence sustainable in its present condition and given an assumed low level of use. However, any significant change in the intensity, frequency and level of use is very likely to lead to significant impacts.

Type WD – Informal routes on access farm/quarry/turbary tracks

In addition there are a number of routes in this area, which are centred on key access points and on well-made access tracks. Examples are as follows:

- Leitrim Lodge to Pierces Castle/Castle Bog
- Glenloughan to Red Bog,
- Pigeon Rock Car Park to the south end of Pigeon Rock Mountain and Slievemageogh.

These tracks provide very accessible and relatively short routes to prominent control points on easy to follow, mostly dry and robust tracks.

They can also form parts of other routes in the area since they enable access through difficult often very wet and boggy terrain and as such are of some (but not major) significance as part of the recreational path network in the area.

Type WE - Informal High Level Routes

These can be characterised as routes with little or no discernible path on high ground in the Western Mournes. Indeed the majority of the path network in the Western Mournes can be characterised as a complex series of often indistinct lines through wild and difficult terrain. There routes whilst low in status are a very important part of the overall network in that they enable access into the wilder and less travelled parts of the massif. The indistinct and less obvious nature of these paths is actually an important part of their value in that they are only really accessible to a narrow range of uses and this restricts their use to sustainable levels. Examples of this path type are:

- Hen mountain to Cock Mountain to Pigeon Mountain
- The Ulster Way to the summit of Rocky Mountain

Slieve Croob

In the Slieve Croob area the path network is very much more restricted than the rest of the study area and can be split into three distinct groups:

Type SA – Asserted Public Rights of Way/Permissive Paths

Type SB – Desire lines

Type SC – Forest tracks and paths (Drunkeeragh Forest)

Type SA – Asserted Public Rights of Way/Permissive Paths

The strategic value of the public rights of way (PROW) and permissive paths (PP) in descending order is as follows:

- 1. The vehicle track to the summit of Slieve Croob
- 2. Drin Road to the Summit of Slieve Croob
- 3. The Windy Gap Pad
- 4. The Moat Pad
- 5. Adders Loanin

All of these paths are marked as waymarked routes on OS maps and follow clearly defined tracks and paths on the ground and all are entirely sustainable at current levels of use.

However, the tracks and paths that are used are also important vehicle access points for farmers etc. and should levels or intensity of recreational use increase, management and conflict issues could arise.

Type SB - Desire lines

The desire lines within this area in descending order of strategic importance are as follows:

1. Summit of Slieve Croob to the Slieve Croob Inn

- 2. Legananny to Finns Road via Cratlieve Mountain
- 3. Dree Road to summit of Slieve Croob

All of the above are actually of very low strategic value in that they are not at all obvious on the ground, not marked on maps and difficult to find. However, they are used by key user cohorts, in particular, members of local rambling and walking groups and by fell runners. Whilst their use is essentially unsanctioned this does not seem to give rise to particular issues such as conflict with landowners etc.

Crucially, these routes allow more experienced and skilled recreational users to access high ground in a remote setting with very little impact and this is an important role in the study area's hierarchy of recreational use. However, should levels of use of these paths significantly increase conflict and sustainability issues could arise.

Type SC – Forest tracks and paths (Drunkeeragh Forest)

The FSNI property of Drunkeeragh Forest provides low key recreational facilities very much at a local and community level. Whilst not extensive the path network is of good quality, accessible and useable by a very broad range of users.

3.2.6 Path Survey (Detailed Path Assessments)

With the above *Strategic Roles and Value of Paths* in mind, a Path Survey including detailed assessments of the path network has been carried out and is presented in Appendices E-H. It attributes strategic values to the paths as follows:

Very High – Very important, heavily used and very popular paths which are a vital and indispensable part of the path network as a whole. Such paths define the ways in which people use the area for recreation, how they move around and through the landscape and how they access key control points such as summits or cols etc. These paths are also essential in enabling access to key landscape features or into the area as a whole by a very wide range of user groups and cohorts

High – Important paths which are well used and which provide access to key landscape features and areas for a range of use groups and cohorts. They have a significant effect on how people use the landscape for recreation and on patterns of use and movement through the area and link key control points.

Moderate – paths which are a significant component of the recreational path network and which receive regular but low levels of use by a more restricted range of recreational user groups and user cohorts . These paths link control points but not important ones and have only a moderate effect on the patterns of recreational use or the use of the path network as a whole

Low – paths which are only lightly used by recreational users and which have no effect on how the area or the path network is used for recreation. These paths do not link significant control points and are only used by a narrow range of user groups and user cohorts.

3.2.7 The Sustainability Of The Path Networks

With the above in mind the suitability of the path network for the function it is being asked to perform has been assessed and the following conclusions reached.

The upland path network in the Eastern Mournes is generally of sufficient density and extent to meet current recreational demands and predicted increase in use. However, the configuration and or structure (or lack of it) of key parts of the path network in this area is leading to key issues relating to:

- Erosion
- Increasing visual impacts
- Proliferation of desire lines
- Increasing impacts on vegetation and habitats
- Increasing impacts on the landscape and the quality and integrity of the upland walking experience
- Increasing impact on land use

All of these issues significantly compromise the sustainability of the path network in this area in the broadest sense and this has important ramifications related to long term management of recreation in the area.

Whilst a significant proportion of the path network in the Eastern Mournes in not capable of sustainably accommodating current levels of use in their current condition or configuration, the majority of paths in the Western Mournes are 'about right' in terms of their suitability relative to levels of use. However, if levels of recreational use were to significantly increase in this area the sustainability of the path network would be extremely questionable.

A significant issue in the Western Mournes is that Western end of the Mourne/Ulster Way not able to sustainably accommodate prolonged heavy recreational use in its current alignment and condition. In particular the sections between the Rowan Tree River and the col between Rocky Mountain and Tornamrock; and the section in the vicinity of Spelga Dam are particularly susceptible to significant impacts. This is especially so given the lack of any clearly defined path structure and the wet soft ground conditions. In principle though the density nature and distribution of the majority of the path network in the Western Mournes is entirely appropriate in relation to its status as a 'wilder' and more adventurous recreation area.

The paths in the Slieve Croob area would appear to be suitable for the types and levels of current use. However, the existing path and access infrastructure could not sustainably accommodate significant increases in recreational use of this area.

Whilst the path network in the Mournes area is largely of sufficient scope and scale to accommodate current levels of use, it is important that certain patterns of movement around the path network be reinforced and accentuated to mitigate impacts at higher elevations. One of the ways to do this is to improve the role of the key thoroughfares (such as the Brandy Pad) which link important control points with access routes at moderate elevations in the Eastern Mournes. This could be done by improving connectivity between key access points where this is possible and possible examples are as follows:

- Connecting The Bloody Bridge path with Donard Forest and Donard Park
- Connecting Donard Forest to Tollymore Forest

These have the potential to reinforce the use of mid elevation routes and potentially reduce some impacts on higher level route. However, they could also increase levels of use of these routes. Should such connections be developed the key routes that they link into would also need to be improved to meet sustainability standards along with some well established desire lines.

4.1 The Issues And Impacts Associated With Recreational Use Of The Path Network

4.1.1 Current And Predicted Increase In Use

As noted above, the Mournes and Slieve Croob have been increasingly popular with recreational users, tourists and for events. Evidence suggests that the numbers are currently higher than before and that these will continue to rise (MAAS 2007, Annett J Countryside Consultancy, Mourne Countryside Recreation Strategy 2002-2006 (2002) etc.). Studies have indicated a predicted increase of 3% p.a. in visitors to the Mourne AONB (Buchanan 2006). Moreover, as noted above the area is seen as an important deliverer for government agendas relating to economic development and health and well-being. The increasing value of challenge walks as charity fund raisers, and an increase in adventure races and mountain races, coupled with the advent of on-line forums for walkers, mountain bikers and fell runners, which disseminate information of routes etc. all evidence increased demand. Clearly, there will be increasing pressure on the Mournes and Slieve Croob and the current and potential impacts and issues have been considered below.

4.1.2 Agriculture

From consultation with farmers and mountain trustees/grazers and other bodies the following factors have been identified as having a significant effect on causing farmers and trustees concern with regards to recreational access onto their land:

- Damage to grazing land by paths and path users
- Damage to field boundaries (walls and fences)
- Disturbance/scattering/injury of livestock
- · Worrying or destruction of livestock by dogs
- Littering
- Wild camping and the lighting of fires
- Liability concerns related to owner/occupier liability law

Farmers and Mountain Trustees/grazers associated the above impacts with recreation use and argued for better management, or in some cases discouragement of access, particularly in areas of enclosed land at lower elevations. Moreover, whilst the levels of these impacts may be argued to be relatively small in the context of the overall user numbers and user pressure, they do have impacts on farmers and Mountain Trustees perceptions of recreation and its impacts. It should also be noted that some farmers concerns about a National Park contributed to the attitudes held. Some issues have been explored in more detail below.

Grazing

The dominant land use within the study area is agriculture, namely sheep (and some cattle) grazing. A key impact in terms of agricultural use at higher elevations would appear to be localised damage to the quality of grazing as a result of localised footpath erosion, braiding and the development of desire lines. There are particular examples of this such as the path linking the Bloody Bridge Quarry to the Bog of Donard. In this case there would appear to be damage to vegetation over an area of between 8m and 20m wide and up to 500-800m long.

Anecdotal evidence suggests that this impact is related to the braiding and erosion of the footpath. Whilst there are not many other areas reported where a single path is seen to be having such an impact on vegetation/grazing, landowners/trustees would seem in some cases to relate the erosion of some paths with impacts on grazing and this would seem to affect the perceptions of farmers/trustees of recreation and its impacts. It is clear that there should be further clarification on this issue with the

relevant government bodies and farming representatives, but it is clear the perception is a key issue as grazers had supported proposals for work at the site in question due in part to concerns about SFP eligibility.

Boundaries

At lower elevations increasing levels of recreational use would appear to be leading to increasing localised impacts on field and property boundaries such as fences and walls. These are essential tools in the management of land, grazing and livestock and their integrity is vital in enabling farmers to effectively carry out their work. In some areas field and property boundaries are being damaged by irresponsible recreational users, however this would seem to be concentrated in particular areas such as around key access points or around boundaries with FSNI lands. Much of this damage seems to be as result of low level (altitude) recreational use by irresponsible casual users, wild campers or unregulated or unsupervised groups, and sometimes associated with 'anti-social' behaviour.

In addition to landowners carrying out their own repairs, boundary repair has also been carried out by MHT and recreation volunteers and this has been welcomed by farmers, but resources limit the amount of work that can be done. Landowners, therefore, have concern over 'permeable' boundaries and some indicated preference for use of clearly defined and managed access corridors.

Livestock

Other impacts on land use include impacts on livestock from walkers' dogs, walkers and litter. Dogs are seen by most land owners and trustees that were consulted as a major issue since they have led to livestock being scattered, injured or killed. MHT had worked with farmers to erect signs at key access points to raise awareness of the issue and there is anecdotal evidence that this has improved the situation, but not solved the problem. Farmers reported walkers dispersing livestock and leaving gates open. Litter has caused damage to livestock (e.g. cut tongues), in particular where informal camp sites and hot spots have developed; often close to lower land boundaries. However, recent access management behind Tollymore Forest Park has been seen to alleviate a problem there and facilitate responsible access, and build trust with farmers. Again, defined and managed corridors with appropriate information for users and better 'rangering' have been indicated by landowners consulted as a response to this issue.

Operational

Impacts on operational issues centre primarily on the ability of farmers to effectively gather livestock for shearing, dipping or dosing from within areas that are heavily used for recreation. Essentially this must be timed to coincide with quiet periods since large numbers of people (often with dogs) within an area can make gathering livestock much more difficult and time consuming. In some cases farmers/M Trustees have worked with management bodies to manage access to address the above impacts and maintain use. For example, recently at Bloody Bridge, path works, installation of a footbridge, signage, and fencing have been carried out to encourage walkers to use the quarry track for the above reasons and to mitigate impact on the SAC. This has helped develop trust, but the situation should be monitored to see how things progress.

Wild Camping/Lighting Fires

There was concern about wild camping which farmers/M Trustees associated with damage to boundaries, litter and lighting fires, as well as other anti-social activities. Whilst there was a recognition that most groups did little if any harm, there was a general concern that tolerating camping risked 'inviting' negative impacts. Whilst this was not necessarily an issue of the path network directly,

it was associated with access and may involve the provision of better information at key access points to help mitigate problems, and better rangering.

Liability

Liability for injury of users and recompense for damage to property and livestock remained a major concern of farmers and landowners (as reported in MAAS 2007), and discussion with landowners in relation to this issue again often led to discussions about the definition of access corridors with clarified management responsibility and better rangering.

4.1.3 Forestry

Forestry is a significant land use within the study area but mostly at lower and mid elevations. Many of the forested areas within the study area provide excellent access and recreation opportunities for a range of users and also provide access onto higher ground. Indeed certain areas of forestry i.e. Tollymore, Donard and Rostrevor Forests provide important access points into the wider study area. However, commercial forestry operations may occasionally impact upon recreational access, though this is largely insignificant and manageable within existing management frameworks.

There was some evidence of problems including litter & waste, damage to boundaries, fires and antisocial behaviour at some FS sites. This included outlying areas such as at Annalong Wood and Happy Valley, but also in Donard Wood. Camping is prohibited unless on authorised sites and there was concern over the vulnerability of informal campers particularly at the time of the 2011 Easter wildfire at Annalong and Happy Valley. Again, these issues are related to access points but include land beyond the path network.

4.1.4 Water Catchment

The Eastern Mournes is a very important water catchment and abstraction area, much of which is owned by Northern Ireland Water (NIW). NIWs key priority is ensuring water quality by maintaining habitats and vegetation in particular within catchment areas.

The following issues impinge upon access in relation to water catchment:

- The need to prevent or limit wildfires
- The need to prevent impacts upon ground cover and vegetation
- The need to prevent or limit the erosion of soils into watercourses
- The need to prevent littering

These gave NIW site managers significant cause to want current access to be better managed and to be cautious about not encouraging further recreational use/increased access opportunities, particularly adjacent to reservoirs and water courses.

However, in a wider context, NIW are consulting on their draft recreation and access policy which recognises the demand for access to their land, and sets out a framework for enabling and managing access.

Moreover, recent path works on Slieve Binnian and at Glen River, and planned work at Binnian and Slieve Donard aim to mitigate erosion of the designated heathland, and NIW endorse the work in recognition of its obligation under Natura 2000 legislation.

4.1.5 Habitats, Wildlife and Geology

As indicated above, large areas within the study area are designated SAC and ASSI and include habitats and geological features of European and National importance, and the AONB designation reflects the great value and importance of the landscape.

NIEA, The National Trust, MHT and other stakeholders have all raised the following concerns related to the impacts of recreation on habitats and landscapes within the study area:

- Localised damage and removal of ground cover vegetation within the Eastern Mournes SAC in general
- Localised damage and removal of ground cover vegetation specifically within the Montane area
- Perceived localised degradation of habitats by footpaths
- Localised erosion and deposition of peat and substrate into watercourses that may be caused by footpath erosion
- Increase in wildfires which is perceived by some to be associated with irresponsible recreational use in some areas
- An increase in the visual impacts of recreational paths throughout the study area
- Disturbance and damage to wildlife

Some parts of the path network would seem to be having localised landscape and habitat impacts to varying degrees and these are seen as particularly acute on the following:

- The paths to the summit of Slieve Donard
- · The Brandy Pad
- The link between the Trassey Track and Hares Gap
- The link between the Bog of Donard and Bloody Bridge Quarry
- The path to the summit of Slieve Binnian from the Black Gate
- The path between the summit of Slieve Binnian and the North Tor
- The paths between the Slieve Beg col and the col between Slieve Lamagan and Slieve Binnian
- Key parts of the Mourne/Ulster Way
- The 500m contour path
- The link from Ott Track to the Stile/Mourne Wall
- Path to the summit of Doan
- Paths to the summit of Slieve Bearnagh

Detailed assessments of these paths are presented at Appendices E-H and each path impacts on landscapes and habitats in slightly differing ways. However, important examples which illustrate key points are as follows:

Paths to the Summit of Slieve Donard

The paths to the summit of Slieve Donard from both the Saddle of Donard and the Bog of Donard are strategically very important in that they access the most significant control point within the whole of the study area (the Summit of Donard itself). However, these paths also directly impact upon the rarest, most fragile and arguably the most important habitat within the study area, namely the Montane habitat which is only found in a few key location within the Island of Ireland; the Eastern Mournes ASSI Condition assessments 2003 and 2009 state that erosion caused by human impact is causing the Montane habitat to be in unfavourable condition and requires mitigation to be carried out.

NT managers have for a number of years endeavoured to minimise the impact of walkers' feet on this habitat by carrying out path repairs and other works. However, the vegetation is short and ground hugging and slopes are very open and steep and these factors coupled with the presence of the Mourne Wall greatly facilitate access by a broad range of users. Essentially, the Mourne Wall serves as a guide or "handrail" that walkers can follow in all weather conditions and the open slopes allow them to move around the slopes at will.

This has in turn led to very significant pressures on this habitat and path repairs have not fully succeeded in minimising or managing impacts. This is due for the most part to the open slopes and short vegetation which mean that walkers are not confined to a single narrow corridor; they are able to move across a wide area, particularly when descending.

This open landscape may initially have dissipated impacts but as pressures have increased the vegetation cover is becoming increasingly impacted upon. This is likely over a relatively short time to lead to the breaking and ultimately the removal of the ground cover as evidenced in isolated patches already, and at similar open slopes in the Cairngorms (Scottish Natural Heritage 2003 Upland Footpath Repair Techniques in the Cairngorm Mountains), which would negatively impact upon a very important habitat and significantly affect the quality of the landscape.

Given the importance of the paths to the summit of Donard it is likely that pressures and, therefore, impacts on this precious habitat will increase and prescriptive site specific measures should be developed to mitigate such impacts.

The Brandy Pad

This is one of the most important paths in the study area since it links key access points to key control points such as Hares Gap, the Bog of Donard and the Saddle of Donard. It also links into several other important paths leading to key summits and ridges. For this reason it is under extremely heavy user pressure which is leading to significant impacts on the landscape and habitats, and surveys have shown the increasing impact of recreational use (e.g. Lowther KA 1987, and Ferris TMC, Lowther KA, Smith BJ 1992).

Path erosion is leading to extensive braiding over a sometimes very wide area which is further increasing impacts on vegetation, ground cover and soils. In addition the process of erosion and braiding would appear to be accelerating (from discussions with user groups, stakeholders and MHT staff) and this is causing concern in relation to impacts on habitats and the landscape.

The physical impacts of this path are considerable and include the removal of vegetation, the erosion of soils and substrate and, in some places the destabilisation of areas of slopes. Given the length of this path and the width of the areas impacted upon, this is a significant impact on the habitat of the SAC.

In addition, the visual impact of this path is very considerable and can be seen from afar as a prominent horizontal line running across the landscape. This in itself is an important impact in that it affects the 'wild' quality of the landscape which is much valued by many users since it is a clear and obvious human intervention. This in turn can affect the integrity of recreational users experience of the landscape.

The value of this path in strategic terms means that it will always be subject to considerable user pressure and this is very likely to increase over time. The impact that it has on both landscape and the habitats should be reduced and managed and this will require prescriptive measures to ensure that this is done in appropriate ways.

Bog of Donard to Crannoge Quarry

This path is again a very important part of the strategic path network in that it links a high profile access point (Bloody Bridge) into Slieve Donard and the wider path network. As a result it is extremely popular with a wide range of users and this is leading to considerable impacts on the landscape, habitats and land use.

This path has a physical impact on the ground over an area which is up to 20m wide and up to 800m long. The physical impacts include the trampling and removal of vegetation and ground cover, the erosion of soil and substrate and in some isolated areas the destabilisation of areas of slope.

The physical impacts have initially been caused by recreational users' feet and then exacerbated and accelerated by ground and surface water. The lack of a clearly defined path structure or a single obvious line has led to the area being impacted upon expanding over time and this is showing little sign of stopping.

This has a clear and obvious impact on the habitat of the SAC and has a negative impact on the landscape over a considerable area. However, another significant impact as noted in Agriculture; Grazing above is the extent of the damage to vegetation i.e. the removal of heather vegetation has removed grazing resources for which Single Farm Payment is being claimed. There is growing concern in the farming industry of the risk of ineligibility of land for Single Farm Payment, and there is a perceived risk of farmers in this location that the impact in question will make the land ineligible and therefore, compromise payments.

Whilst this is an extreme example such cases are likely to increase in number if impacts on vegetation increase. It is therefore extremely important to manage such impacts and many Trustees and Farmers expressed a preference for providing better defined paths through vulnerable areas. In this case a site specific prescribed solution which reduces the impact of recreational use and reinstates the damage already done is urgently required.

4.1.6 Public Safety

The accessible nature of large parts of the study area means that a wide range of users can rapidly find themselves in challenging terrain and difficult weather conditions. In addition, the Mournes are considered in some quarters to be susceptible to wildfires and stakeholders have raised particular public safety concerns with regard to users related to the following:

- Map reading and navigation
- Mountain safety
- First aid
- Appropriate clothing, footwear and equipment
- Wildfires
- Emergency procedure

Some landowners and others have indicated that this gives rise to concerns about facilitating further access.

To address these issues, some stakeholders such as MI stress the importance of information and education in raising the awareness and skills of people to understand and be prepared for the inherent risks that challenging upland areas present (Leave No Trace initiative, up-to-date weather and wildfire risk information etc.), and to adopt appropriate personal behaviour.

In addition, there is a consideration by some groups that current vehicle access points at key locations (e.g. along the quarry tracks at Bloody Bridge and Trassey Track) should be maintained in order to facilitate mountain rescue and wildfire emergency response. For example, a report by the Safer Mournes Partnership 2008 identified the most important access points for this purpose in the Eastern and Western Mournes. Key contributors to this were NIFRS, NI Mountain Rescue and NI Coastguard. As a result, NIEA included this as one of the criteria for grant aid for path/track works and as a result funds have been made available for recent upgrades on the Bloody Bridge and Carricklittle quarry tracks. However, there is a strong view by some stakeholders that this is detrimental since any upgrade facilitates easier access, impacts on landscape, reduces the sense of remoteness and changes the recreation experience. This is explored more below in *Differing Priorities for Legitimate Vehicle Access*.

4.1.7 Wildfires

NI Fire and Rescue Service confirm that the study area is susceptible to wildfires (one of the worst affected areas in NI) which have become increasingly common and widespread in recent years throughout the Mournes, NI, and the UK generally (http://www.fires-seminars.org.uk/).

Wildfire, whilst a very significant environmental issue (see below) would also seem to be a public safety concern particularly for NIFRS. Wildfires present a risk to recreational users when they occur, but there is also some concern amongst Northern Ireland Fire and Rescue Service (NIFRS) personnel that the proliferation of wildfires may (in their opinion) appear to have some correlation with increased recreational use i.e. irresponsible users can cause wildfires.

The impacts of wildfires on designated upland areas can have significant negative effects. Dr Hilary Kirkpatrick's report on the Eastern Mournes Heathland for NI Water 2011 identified the risk of wildfire and potential impacts on the ecosystem services; the study area is susceptible to wildfires for a number of reasons as follows:

- Relatively dry ground
- Predominant vegetation cover of mature heather and purple moor grass provides fuel load
- High levels of recreational use
- High levels of antisocial behaviour including arson at key locations
- Ease of access enables higher visitor numbers and an increased risk of accidental fires

At Easter/May bank holiday 2011, 10 sq km of the Eastern Mournes SAC/ASSI was burnt in wildfires; a third of the area within the Mourne Wall and surveys are being carried out to monitor recovery and inform restoration management and wildfire prevention plans.

Crucially though wildfires can and do change the nature of the landscape to such an extent that this influences the ways in which paths are used and the impacts that those paths have on the landscape and the habitat.

As outlined above much of the study area, in particularly the Eastern Mournes, is characterised by mature heather and tussock grass, often overlaying very rugged rocky slopes. This can make moving through the landscape quite difficult and unpleasant and this is one of the reasons why established paths are so intensely used for recreation. Throughout large areas of the Mournes rank vegetation in

effect demarcates large parts of the path network insomuch that it encourages walkers to stay on established paths and helps to minimise (but not prevent) braiding and the development of desire lines.

Once wildfires have removed the heather and the tussock grass, as has happened over large areas in recent years, it is essentially much easier for walkers to walk off the established paths. A good example is the path from the summit of Slieve Lamagan to the col above Ben Crom Reservoir where the April 2011 wildfire removed the vegetation over a very wide area of steep slope. The established path is quite eroded, rocky and difficult, particularly in descent, but until the wildfire it was contained within a relatively narrow corridor by vegetation. However, the removal of the heather by fire has completely changed the character of this slope and it is now much more open with large areas of soft, mossy ground which is far easier and more pleasant to walk on, particularly downhill.

Whilst the majority of walkers going *up* this slope are most likely to use the established path, it is far easier and more direct to descend via the open slopes either side. These slopes are extremely susceptible to damage by walkers' boots which could result in exacerbating the impacts of the existing trail on the landscape and habitats. In effect the removal of the vegetation has made it possible for walkers to have a wider and more significant impact than previously.

As noted above, some stakeholders state a requirement for access for emergency response to protect persons and habitat, but also for the management of the habitat to mitigate the risk of wildfire spreading including ongoing methods to reduce fuel load and manage fire breaks.

4.1.8 Conservation Management

In addition to the localised impacts of path erosion on the conservation value of the sites, there are conservation management requirements that impinge on the path network. For example, the proposed Mourne Landscape Partnership Project includes heathland regeneration which will require access to some areas of the eastern and western Mournes in order to carry out heathland restoration. This is to include techniques including, flailing, cutting, seed dispersal, brash spreading and prescribed burning. This is likely to require vehicle and machinery access along quarry/farm tracks to facilitate the work being carried out.

4.1.9 Unauthorised Vehicle Use

Unauthorised vehicle use is a problem in many upland areas across UK and Ireland, and stakeholders described incidents of quad and motorbike misuse causing damage to designated land and noise and visual disturbance. Two BBC NI reports have highlighted the issue over the last few years, one focusing on an incident in the Eastern and one in the Western Mournes. Moreover, there have been numerous anecdotal reports and MHT rangers have reported a number of incidents. The Safer Mournes Partnership has worked with motor sport clubs, statutory bodies, landowners, PSNI and district councils to raise awareness of the issue and to mitigate impact. The quarry tracks appear to be the main access points for this use and it has been observed that users can attempt to travel for long distances, with reports of the Mourne wall being tossed or 'ramped' to enable trials bikes/quads to journey on.

There was also a concern voiced by a number of stakeholders that if quarry tracks were maintained for 'legitimate' vehicle access, it will give irresponsible users easier access and exacerbate the problem. Other areas have used various methods to deal with the problem with varying degrees of success; in south Wales and the Sussex Downs there have been coordinated efforts by the police and land managers to charge offenders and in many other cases effective physical barriers have been installed at considerable cost to prevent access.

4.1.10 Differing Priorities for Legitimate Vehicle Access

It has been noted that the access points and quarry/farm track infrastructure that influence how the Mournes are used, are also used by a range of 'legitimate' groups in addition to recreational users. This includes landowners, farmers, Mountain Trustees, emergency services, land management bodies, conservation bodies, recreation facilitators, and to a more limited extent quarrying bodies. Much of the legitimate use of the tracks is directly related to the ecosystem services the land provides, and related issues such as wildfire etc. In addition the heritage value of the tracks is a key consideration, as are the concerns highlighted above about the upgrade of these routes having detrimental effects on landscape, sense of remoteness and recreation experience.

In other areas on the UK mainland such as the Peak District and Wales, the legal status of similar tracks with vehicle access is clearly defined which has enabled agreement and appropriate management to be established. However, the status of the majority of tracks in the study area has not been asserted, and where it has, it has only been with regard to pedestrian access. Therefore, the question over how to manage these tracks, which directly impinges on many of the above issues, should consider:

- What is the legal status of the track (private and public rights)
- What is the purpose of the track
- Whether the purpose is still valid
- What are the wider considerations for uses that impinge on the track
- Can there be a balanced agreement achieved for management

This report will not have the necessary information to be able to prescribe how the main access/quarry/farm tracks should be managed, but where relevant it makes suggestions in the Path Survey. Ultimately, a one size fits all approach is unlikely to work and careful consideration of each route will have to be made and management options explored between the relevant parties.

4.1.11 Climate Change

Climate Change predictions for NI (Department for Environment, Food and Rural Affairs 2009 UK Climate Projections: UKCP09) include hotter drier summers and warmer wetter winters, coupled with increased frequency of extreme weather occurrences such as heat waves, dry spells, heavy rain and flooding. This is considered in some quarters as likely to affect the upland ecosystem including changes to plant assemblages, greater pressure on vegetation, soil and geology, changing watercourse dynamics and increasing risk of wildfire. This could have an impact on the risk to users and on erosion. It is important, therefore to be aware of the potential changes and plan management and monitoring accordingly.

4.1.12 Events

As noted, there is evidence that events are increasing in number and scale, including those run by charities and for challenge events. Whilst not yet on the scale of events occurring in places like the Lake District and Scottish uplands where some events have been known to have over a thousand participants, there is increasing concern about their impact. For this reason, a voluntary best practice initiative was established to encourage organisers to plan well and mitigate impacts (www.outdooreventsni.com). Organisers are encouraged to use The Mourne Way and more

sustainable sections of the path network (and it is primarily in the Eastern Mournes that events are planned) and this has been taken up well. Interestingly, farmers and Mountain Trustees indicated that they had in some cases less concern about organised events as they were often very well organised and stewarded and kept to defined routes, whereas other users had more impact.

4.1.13 Aesthetic

Many precious and fragile upland areas around the world are very important recreation and tourism resources and upland paths have for many years been coming under increasing pressure from recreational users of all kinds. These pressures have in some areas given rise to issues related to environmental, landscape and aesthetic impacts and upland path works have developed as a response to this. However, perceptions of aesthetic impacts can vary between individuals and this has is in the past and continues to lead to some debate related to these impacts.

Upland path works have been taking place in areas like the Presidential Range in the White Mountains in New Hampshire USA, Snowdonia, North Wales, and in the English Lake District for nearly 30 years with an emphasis on the repair of erosion 'hotspots' where trails were seen to be causing environmental and physical damage to sometimes fragile habitats. In some areas such as the summit of Mount Washington in the White Mountains erosion was taking place over a very wide area of a fragile upland plateau habitat above the tree line and work centred on reducing the physical and visual impacts in this area. A more clearly defined path was developed and landscaping and restoration works took place which helped demarcate the new path. When this work was taking place local stakeholder groups raised serious objections to being "corralled" on one path in an area where walkers could traditionally move freely around and there were also objections to the development of more formalised paths in a wild upland setting. These issues developed into something of a confrontation between land managers and some users who saw the work as "sanitising" the mountains and increasing access for less equipped and prepared users.

Similar path erosion issues in Snowdonia and the Lake District let to the adoption of similar techniques related to path repair and this also led to conflict between some user groups and land managers along very similar lines to those experienced in New Hampshire. All of this early path work raised a number of issues such as the legitimacy of made paths in upland settings and the impact and intrusion of the paths themselves in landscapes that were perceived as wild or untamed. Much of the early upland path works centred on existing corridors and the use of techniques which resulted in some cases in almost "urbanised" paths which did not necessarily address the key landscape and habitat issues.

However, as upland path repair and construction has developed, techniques have come to centre on creating paths which sit well in the landscape and do not detract from people's experiences of it. On Mount Washington in New Hampshire the development of a clearly defined single line across the plateau has allowed the vegetation to be re-established and the path is now a little over 1m wide and looks and feels appropriate in its setting. The impact of walkers on the plateau has been greatly reduced and the path itself does not feel incongruous in the landscape and it remains a rocky, uneven and difficult path but with a smaller footprint.

In Snowdonia and the Lake District, and increasingly in areas such as the Cairngorms, path works are beginning to focus on reducing their visual and physical impacts whilst also addressing the key environmental and landscape issues. In the past this work would not have been particularly concerned with the visual and physical characteristics of the paths and this understandably raised concern among user groups similar to those expressed in the White Mountains. In addition path works tended to take a "one size fits all" approach to how work was carried out and what paths looked like which also raised concerns among some users.

Crucially, the aesthetic impacts of paths are essentially subjective judgments, which may vary between individuals and groups. One person's purpose built low impact path can be another's visual intrusion into a wild landscape. However, the aesthetic impact of paths should be viewed in the context of the characteristics of the landscape it is in, how the path is used, who it is used by and the value of that landscape. It would probably be unacceptable to many recreational users if paved, wide paths were developed in a high mountain setting. Likewise, it would be unacceptable to some stakeholders if paths were to have significant impacts on vegetation where a particular type of vegetation characterised the landscape.

The visual and physical characteristics of paths in upland settings should therefore be very carefully considered on a case by case basis and path planning and design protocols be developed which enable effective consultation to take place. Any consultation should centre on establishing the appropriate action in relation to each path, working within a clear sustainability framework and taking into account site specific landscape issues. It is essential that any future path works in the Mournes takes place in the context of lessons learned elsewhere and that particular techniques take into account the unique nature of the Mournes. Stakeholders expressed both support and concern over techniques employed on previous path works in the Eastern Mournes, which illustrates the importance of a thorough approach.

With these issues and lessons from elsewhere in mind the path network in the Mournes has been looked at in as holistic a way as possible with the aim of understanding its wider impacts. From this work it is thought that the path network within the Mournes is currently having the following general aesthetic and environmental impacts:

- Many path corridors are quite visible within the landscape
- In some cases the visual and physical impacts of some paths are having a negative impact upon some recreational users experiences of the landscape
- The visual impacts of paths would appear to be increasing and expanding in some areas
- The most strategically important paths are having the most significant impacts
- The lack of clearly defined paths is in some cases leading to a proliferation of desire lines and the braiding of paths, thereby increasing the visual impact of the paths
- There is a view by some stakeholders that some path work including both upland and quarry track work has had a negative impact on the aesthetic and landscape value of site

The impacts highlighted above are present across the path network to varying degrees, but are most significant on the most strategically important paths in the Eastern Mournes.

The impacts of these strategically important paths on the landscape and environment should where possible be reduced and managed, but this should be done without compromising recreational users access to and experiences of the Mournes.

Indeed, these issues are best addressed if the paths impacts are reduced to appropriate levels and if they facilitate sustainable use within the context of the landscape and the environment. Reducing the impacts of key paths should enhance people's experiences of the Mourne landscape but it is essential that any work to address these issues is done in appropriate and sustainable ways.

A strategic approach to access and path provision and management is therefore required, which draws from important lessons learnt elsewhere in the world. Facilitating increased access into fragile and vulnerable landscapes and habitats can, done inappropriately, result in impacts on landscapes and habitats, the disturbance of wildlife and impact upon land use. It can also have significant impacts on landscapes and people's perceptions of them.

It is essential that any path repair take into account issues relating to sustainability in its widest sense and take place within a clear framework (Appendix A), which establishes the following:

- The aims and objectives of the work (e.g. reducing impact on landscapes/environments, managing safety, improving/facilitating access or reducing access)
- The exact nature of the works to be undertaken
- The process or protocol within which works should be carried out
- The factors which should inform and guide the design and construction process

4.2 Public Transport And Parking

A general assessment of car parking and public transport provision in the Mourne AONB was considered in the MAAS 2007. The following looks into more detail with regard to the study area.

Public Transport

The public transport within the study area is essentially defined by the relationship between key towns and villages and public roads. Access to the Eastern Mournes is facilitated by two services. Firstly, the Mourne Rambler links into either directly or indirectly all of the primary access points in the Mournes and therefore the wider trail network. This service is a could be a useful service for walkers undertaking key linear routes between particular access points, for instance Trassey to Bloody Bridge via The Bandy Pad or Carrick Little to Trassey etc. This essentially reinforces the position of particular trails as key thoroughfares which allow important control points to be linked to access points.

However, the Mourne Rambler service only runs from May to August and does not operate on Mondays. Anecdotal evidence from discussion with user groups and stakeholders that uptake of the service is somewhat limited and that this is due to the service not linking directly into key access points such as Trassey, Happy Valley and Donard Park.

The Mourne Rambler provides much more limited access to the Western Mournes through secondary access points and does not link particularly well into the trail network in this area. This service does not link in to the Slieve Croob area in any way, and does not allow for recreational access into this area.

There are regular Ulster Bus services, 6 days a weeks between Rostrevor, Kilkeel and Newcastle and these services allow indirect access into the Western Mournes via both primary and secondary access points. These services also link to the Bloody Bridge car park on a much more frequent basis than the Mourne Rambler throughout the year and this is therefore an important regular service for walkers in the Eastern Mournes.

The Slieve Croob area is characterised by numerous country lanes and minor roads and small villages that are fairly remote in relation to both primary and secondary access points into Slieve Croob. Public transport links within this area are fragmented and difficult to access and utilise, making it very difficult to access recreational opportunities in the area.

In summary, the public transport within the study area does, to some extent facilitate some forms of recreation but only really within the Eastern Mournes. In this area the public transport network is fairly effectively linked to access points and effectively reinforces access patterns and use of the path network. Within the rest of the study area (Western Mournes and Slieve Croob) public transport plays an insignificant role in facilitating recreational use of the area.

More effective and flexible public transport which is directly linked into key access points throughout the study area may help resolve some of the parking issues highlighted below.

Car Parking

Car parking is an important issue related to access within the study area. Parking opportunities can be divided into four categories:

- Formalised car parks at primary access points
- · Informal parking at primary access points
- Formalised car parks at secondary access points
- Informal parking at secondary access points

There are 18 primary access points with formalised parking within the study area; several of these are at particularly important access points, as follows:

- Donard Park
- Bloody Bridge
- Trassey
- Happy Valley
- Carrick Little

These are strategically very important access points which are very heavily used at all times of the year. These locations have been identified in the assessment of access points as locations where parking provision does not meet current demand, with the exception of Donard Park. Each of these sites has fairly restricted parking and this leads to management issues related to congestion and parking on roadsides, particularly at busier times of the year (even Bloody Bridge can experience parking on the road at peak times). However, developing additional parking may increase user pressure on those locations.

Parking provision at other primary and secondary access points throughout the study area would appear to be adequate for current demand.

The provision of sustainable parking and better sustainable transport links and their impact upon the path network should be very carefully considered as part of an overall management strategy, particularly in relation to the Eastern Mournes.

(More detailed assessments of all access points and related parking can be seen in Appendix D.

4.3 Adjacent Outdoor Recreation Facilities

There are a number of key outdoor recreation facilities adjacent to both the Mournes and Slieve Croob:

- Tollymore Forest Park (FSNI)
- The Tollymore National Outdoor Centre
- Castlewellan Forest Park (FSNI)
- Murlough Beach (National Trust)
- Rostrevor Forest/Kilbroney (FSNI)
- Silent valley Mountain Park (Northern Ireland Water)
- The Newcastle Way

- Drumkeeragh
- Slieve Roosley
- The wider public rights of way network

The sites outlined above have a very important role in recreation provision both within the study area and on its periphery. Moreover, it is significant that ORNI are working to develop site recreational master plans for Castlewellan, Tollymore and Moneyscalp (Outdoor Recreation NI Operational Plan 2012-15).

Tollymore Forest Park

Tollymore Forest Park is the most formalised FSNI recreation facility within the study area and includes the following:

- A network of prescribed waymarked walks
- A social trail network comprising forest roads and tracks
- Picnic areas
- Prescribed waymarked equestrian trail
- Car parking
- Toilets
- Caravan and camping park

The majority of these facilities are primarily designed to serve the lower end of the recreational user cohort spectrum with a particular emphasis on families.

Whilst the majority of recreational activity is very much confined within the bounds of the Forest Park, it does also enable unsanctioned access onto Mountain Trustees land for both walkers and mountain bikers. Whilst Tollymore Forest Park does not initially seem to affect the recreational use of the Mournes, it is actually an important conduit for some users. It would appear that the boundary between the Forest Park and the open mountain is particularly permeable with numerous gates leading out of the forest and a boundary wall that is in poor condition. This effectively facilitates unsanctioned access onto trustees' land which is leading to conflicts between recreational users and Trustees'

Tollymore is also a Mecca for unsanctioned mountain biking with numerous user developed trails within the forest. Use of these trails is extremely heavy and it is very common for mountain bikers to link Tollymore to Donard Wood via a by now very well established desire line between the two. The new mountain bike trails due for construction in Castlewellan may help to address the issues of unsanctioned mountain biking at Tollymore.

However, its main function is to provide accessible recreational opportunities for families etc. and it does not have a particular function in the wider Mournes picture. It is also clear that any recreational opportunities that might be considered for development here should be carried out with an eye to their possible impact on adjacent mountain land.

The Tollymore National Outdoor Centre

TNOC is a very important facility of national standing catering for a range of outdoor enthusiasts. It provides training facilities for outdoor instructors and leaders and also provides outdoor activities courses for adults and young people. It is involved in a range of mountain activities including rock climbing, mountaineering, hill walking, orienteering, mountain biking and gorge walking. It also provides activities such as canoeing and kayaking.

The centres location on the edge of Tollymore Forest Park gives it very easy access to a both the forest and parts of the eastern Mournes and groups regularly access the mountains directly from the centre on foot. The centre is a very high quality facility with highly qualified professional staff and it espouses good ethics and practices in its provision and training. Indeed, it has a potentially very important role in educating the leaders and practitioners of mountain activities in such ethics.

Castlewellan Forest Park and Murlough Beach

It may seem odd to group these two facilities together but they essentially fulfil the same strategic roles in terms of the Mournes in that they provide low level accessible family recreation and are tourism resources in their own rights.

Whilst neither site currently has any significant impact on the recreational use of the Mournes it is very likely that the status of Castlewellan in particular as a recreation and tourism resource will significantly increase with the development of purpose built mountain bike trails. It is potentially possible to physically link Castlewellan Forest Park to the Slieve Croob area with a currently derelict railway. However, this would require considerable planning and investment.

In addition, parts of Castlewellan Forest Park provide excellent viewpoints of the Mournes and beyond, particularly from Slievenaslat. The Forest Park is an excellent facility which could be of higher status as a recreation resource for the wider area and raising its profile could further enhance this status.

Rostrevor Forest and Kilbroney Park

Rostrevor Forest occupies a very important strategic position in the southernmost corner of the Mournes. Whilst not a forest park it is nevertheless an important community, local and regional recreational resource which is accessible to large numbers of people and which contains a number of important access points and paths.

In addition Kilbroney Park is a local authority country park which is immediately adjacent to Rostrevor Forest with good quality facilities including the following:

- Car parking
- Toilets
- Caravan and camping park
- Café
- Picnic sites
- Children's play area

FSNI provide the following facilities Rostrevor Forest:

- Waymarked walks
- Waymarked equestrian trails
- 2 x car parks and picnic sites

In addition to the above Rostrevor Forest provides a very extensive social trail network in the form of forest roads and tracks and these provide access to a limited trail network on the open mountain above. Walkers use the forest to access open mountain land adjacent to the forest and this has raised the following issues:

- Conflict between farmers and recreational users and in particular youth groups
- Issues related to dogs and livestock

In addition Rostrevor is something of a "hot spot" for mountain biking and a number of unsanctioned trails have developed in recent years. The growth of mountain biking in the Forest has led to some mountain bikers spilling over on to some of the open mountain paths adjacent to the forest and this has led to some conflict between mountain bikers and farmers.

Whilst the above issues are significant Rostrevor has an important role to play as a potential gateway to accessible and sustainable "Mournes experiences" which can be accessed from the car park at Cloughmore Glen. This location enables relatively easy access to high ground in a controlled way and also connects into potentially powerful control points such as Slieve Martin and Cloughmore Stone. This role could be enhanced with minor trail development and by appropriate information provision at Cloughmore Glen.

The development of a new mountain bike trail facility at Rosterevor will significantly increase its profile as a recreation resource and may increase pressures from other recreational users on the site and adjacent land. However, it is very likely to address the issues of unsanctioned mountain biking within the forest and adjacent land. Where similar mountain bike trail developments have taken place in Wales for instance, unsanctioned mountain biking reduced very significantly

The Silent Valley Mountain Park

This site is wholly owned by Northern Ireland Water who facilitate formal recreation provision with a small area of the site as follows:

- Car parking
- Café
- Toilets
- Interpretative centre
- A network of prescribed waymarked walks

This provision is of very high quality and would seem to be popular with a range of visitors but its position in the heart of the high Mournes gives it very significant potential to better serve as a key access node or gateway. Currently, the site is not particularly well used as an access into the Mournes and visitors using the prescribed trail network do not fully engage with the location and the landscape. The site has ample parking, which is under used most of the time, but can be busy during family events at the park.

The prescribed trails are mostly situated in a wooded valley below the reservoir dam and this does not take advantage of the stunning Mourne landscape all around. This site has the potential to provide very accessible Mournes experiences for a very wide range of users as well provide opportunities for delivering key management messages and measures.

This site is currently of little importance to recreation in the High Mournes in that it has little or no influence over access into the mountains or patterns of use of the path network. However, its potential strategic value is without question. The Silent Valley occupies a potentially strategically important position that could significantly affect patterns of movement around the Eastern Mournes. Any development of its role would need to consider potential knock on effects on the wider path network and very careful consideration will need to be given to the nature of that role and how it may be developed.

For example, any accessible trail opportunities that are developed in the Wee Binnian area must consider any potential impact this might have on how people access the Summit of Slieve Binnian itself. Likewise, any accessible trail that links the mountain park to either Ben Crom reservoir or the Banns Road could significantly increase impacts on the Ben Crom/Shelter Stone to Trassey paths and on currently lightly used areas such as Slievenaglough.

Moreover, among a number of reports, the NITB Mourne Signature Project 2009 Action Plan identified Silent Valley as having significant potential for tourism development as a recreational hub, and funding has facilitated works in the parkland and a corridor assessment of access opportunities in the parkland and adjacent uplands.

Newcastle Challenge Trail (Newcastle Way)

This is a prescribed route making use of minor roads, some rights of way and forest roads. It is centred on the town of Newcastle and is essentially outside of the study are, however it does provide a useful recreation resource for the community and visitors.

From consultation with some local walking groups and others it would appear that this route is widely used in parts by local occasional walkers and ramblers and by runners and leisure walkers and is very much seen as a local recreation asset. It would also appear to be used in parts by both mountain bikers and equestrian users and that this varying use does not raise any significant management issues.

Drumkeeragh

This small area of forest is a FSNI property on the lower slopes of Slieve Croob. It features a small but quite dense network of forest roads, tracks and paths as well as a small parking area. This property was developed as a recreation asset by FSNI in the 60's and 70's and included a number of waymarked walks supported by interpretation and guides/leaflets. In recent years the path network has had the waymarking and interpretation removed but the site still functions as an important low key local and community recreation asset.

Slieve Roosley

This upland area to the west of the Western Mournes has excellent landscape quality but has limited access opportunities and is mostly used by local people. Quiet minor roads provide the main routes and some lanes and tracks are used by walkers. It is mostly privately owned with shared grazing land. The area is used for the Mournes International Walking Festival, but its value as a potential for major access development to mitigate impact on the Mournes is limited.

The Wider Rights of Way Network

Many stakeholders thought that the wider rights of way network could be better linked up and further routes asserted, which would help mitigate impact on the uplands, and develop facilities in the local community areas. It has along with the Slieve Roosley area and Newcastle Way, the potential to provide a different experience to the Mournes, and maybe one that would cater for the lower skilled and less able user cohorts.

PART 5

Strategic Recommendations

Patterns of recreational use within the study area and in particular the Eastern Mournes are too entrenched to change significantly, and it is not possible to change the relationships between access points and key control points and routes between them. The priority must be to prevent recreational use from further impacting upon the landscape, habitats, land use and the integrity of recreational experiences particularly in the areas most under pressure. It is also important to prevent impacts from spreading to areas that are not currently under excessive pressure and this requires a strategic approach to recreation planning and provision within the study area.

Recommendations centre on a number of key issues as follows:

- Mitigating and managing the impact of recreational use on key parts of the study area including key issues listed in Part 4 of the report, such as unauthorised vehicle access
- Maintaining the status quo with regard to hierarchies of use and paths in the Mournes and Slieve Croob
- Developing new links between access points in the eastern Mournes to re-enforce mid elevation use of the path network
- Expanding and improving more formalised low level provision at key 'management and access nodes' at strategically important locations
- Improving the sustainability of key parts of the Mourne/Ulster Way to accommodate events and lower elevation use

5.1 General Site Recommendations

It is clear that there is a path and user hierarchy relating to the recreational use of the Mournes and Slieve Croob and that differing parts of the study area perform differing strategic functions in terms of recreational use. In essence there is no need to establish new access and recreation routes within the vast majority of the area and that the recreation hierarchy should be maintained roughly as it is. This is particularly the case in relation to the Eastern Mournes where the path network is at is densest and most heavily used. However, this does not mean that some parts of key routes should not be reconfigured at particular locations to achieve sustainability and minimise their impacts.

Crucially, it has been seen that mid elevation use of key thoroughfares is a very important part of managing the impact of walkers at higher elevations. Routes such as the Brandy Pad are very important in that they accommodate very large numbers of users and this pattern of use should be made more sustainable. Many of the thoroughfare routes are linear in character and establishing physical links between them could make them more effective in reducing the numbers of users on high ridges and summits.

To this end it is proposed that a link between the Bloody Bridge path and Donard Forest be developed in addition to a further link between Donard Forest and Tollymore Forest Park. This would create a circular route linking Donard Park with the Trassey Track, Hares Gap and the Brandy Pad. However, some sections are on private land and it is essential that an agreed approach be established, and any such development would need to be done within a robust planning and design protocol and under the umbrella of a clear sustainability framework.

An important strand of recreation management in the study area should be to develop more formal low level recreational opportunities at key "access nodes" where hard management measures can be put in place. This is potentially very important in creating a more balanced hierarchy of recreational use within the area.

Potential locations for these access nodes are as follows:

- Rostrevor Forest Park
- The Silent Valley
- Donard Forest
- Tollymore Forest park
- Castlewellan Forest Park

At these locations, which are already important access points it is recommended that the following be developed

- Prescribed trails with a clear hierarchy centred on providing a range of accessible walking opportunities
- Giving people a 'Mournes experience' in a controlled and managed setting and which is sustainable
- Providing information to recreational users related to outdoor ethics (leave no trace etc.)
- Providing a focal point for management resources
- Basic visitor facilities such as parking and toilets
- Links into public transport

These locations could still provide access to the wider path networks but their primary function would be one of managing who enters high ground and how, and thereby go some way to address wider issues.

Currently, limited access and trail opportunities in both the Mournes area and in NI in general, means that the available path network in key parts of the Mournes is heavily used by a range of user cohorts which the path network is not capable of supporting sustainably. In strategic management terms it is very important to improve recreational provision for the lower end of the user cohort spectrum in ways that meet their needs and expectations and which give them authentic experiences of the Mournes landscape.

However, this would need to be done within a sustainable framework and at sites that could accommodate such recreational use. In particular Key FSNI properties such as Tollymore and Castlewellan Forest Parks could be further developed where possible to incorporate some of the above, and it is significant that ORNI are working to develop site recreational master plans for Castlewellan, Tollymore and also Moneyscalp. Such sites also have a potentially important role in relaying sustainable outdoor ethics to recreational users and providing information.

In addition, it is recommended the Mourne/Ulster Way's function as a long distance low level route should be promoted and that it should be the primary focus for mass participation events within the Mournes. However, this will require key parts of the route to be upgraded to a sustainable standard to accommodate this.

5.2 Specific Route Recommendations

The following routes were identified in Section 4 as having significant issues and management proposals are summarised below.

Top Bridge to the Saddle of Donard

Ongoing works to reduce braiding and minimise visual and physical impacts should be extended to link into previously stone pitched section. More effective demarcation and landscaping required on the previously stone pitched section.

Saddle of Donard to the Summit and Bog of Donard to the Summit

Formal path works are unlikely to resolve impacts on fragile vegetation cover since the very open slopes facilitate braiding etc. However, the integrity of the vegetation cover should be maintained by careful management using appropriate seeding techniques and minor repairs on an on-going basis.

The Brandy Pad

Where the gradient of this trail is less than 50% of the gradient of the slope or where it is effectively demarcated by steep side slopes it is generally in good condition with only minor braiding and erosion and is also extremely robust. However erosion and braiding is extensive in key areas and the visual impact of this path is quite significant where this is the case. Any path works should focus on reducing visual and physical impacts whilst retaining the integrity of the "mountain experience" and not increasing the accessibility of the path.

This may require minor realignments at key locations and also considerable remediation/reinstatement of vegetation where erosion has been significant. However, it is also very important to ensure that the path is not made more accessible by reducing its visual and physical impact. This will require careful design work as well as the development of very prescriptive plans which are centred on working in low impact sustainable ways.

The link between the Trassey Track and Hares Gap

This route is severely damaged, with considerable visual impact over a wide area. The lack of a clearly defined line coupled with heavy traffic, steep slopes and powerful control points is leading to significant landscape, environmental and visual impacts. A much more clearly defined and robust route is required here and its alignment, nature and accessibility needs to be carefully considered. In addition, minimising the visual and physical impact of walkers on this area should be the highest priority.

The link between the Bog of Donard and the Quarry

This section is very badly eroded and its visual impact is considerable. It is likely to worsen over time and impact on vegetation, soils and substrate is likely to accelerate. A much more clearly defined and robust path is required along this route, particularly given its popularity and importance. Any path works should centre on creating a more clearly defined path and significantly reducing its visual impact. Work should also include the reinstatement of the whole area that has been affected by the path. Any path works should ensure that the classification/grading of the path remains at Category 4 or above and its visual qualities should be appropriate given the location and the landscape.

The path to the summit of Slieve Binnian from the Black Gate

This path is beginning to become eroded in key areas, particularly on steep slopes of over 50% gradient. It is largely open slopes with short vegetation which facilitates the development of desire lines, particularly in areas of wet or very steep ground. The potential for this path to have significant landscape and environmental impacts is high and it is essential that a well defined and robust line be

developed. Any path works should centre on keeping the classification at Category 5, effectively demarcating the path and landscaping/restoring impacted areas.

The path between the summit of Slieve Binnian and the North Tor

This is a path of enormous importance which is fundamental to many people's experience of the high Mournes. It has a dramatic high mountain feel, but the path is having a significant impact on ground cover vegetation and the landscape. In places the path is up to 8m wide of exposed substrate.

The vegetation is characterised as 'Alpine and Boreal Heath' and as such is both rare and designated. It is essential therefore that these impacts on the ground cover vegetation be minimised and contained, whilst also preserving the essential integrity of the high mountain experience.

The paths between the Slieve Beg col and the col between Slieve Lamagan and Slieve Binnian

The parts of this path that are along ridge lines have limited impacts, however, steeper sections, particularly either side of cols are showing signs of significant erosion. In addition, the loss of heather and tussock grass on the slopes of Lamagan due to wildfire appear to be contributing to braiding in these areas. Also, the area between Cove Mountain summit and Lamagan has numerous braided paths across an area of up to 100m wide. Careful consideration needs to be made about the potential increase in use of this route and measures to mitigate erosion.

Key parts of the Mourne/Ulster Way:

Trassey Track to Fofanny Dam

This path is part of the Mourne Way which is a crucial part of the strategic path network. It is also a very important link between access points which allows a number of key circular routes to be done from these primary access points. Given the status of this path as part of the Mourne Way and the Mourne Way's importance as part of the path network – it is likely to be very heavily impacted upon by increased use. The lack of a clearly defined line for the path on the ground is very likely to lead to some landscape and environmental impacts if user levels increase. Levels of use and impacts should therefore be monitored on an on-going basis and remedial action taken where necessary. However, it may be more effective to pre-empt any impacts by developing a robust, appropriately designed, built and landscaped path through the most vulnerable areas

Ott to Hen Track

Many parts of this path are potentially susceptible to impacts and this is primarily due to the alignment of the path and nature of the ground conditions and vegetation cover. Should any path upgrading/improvement works take place they are very likely to lead to inappropriate levels of visual and physical impacts if carried out on the present alignment. The desire line on Slievenamuck/Butter along the fence appears to be the preferred route and eco grid has been used in places. The nature of the paths (or the lack of paths) found on this section call into question its suitability to be part of a major prescribed route.

Rowan Tree River to Leitrim Lodge via Tournamrock/Rocky col

Whilst current impact levels are relatively low the ground cover vegetation and underlying peat are potentially susceptible to significant impacts, particularly on steeper slopes and across the bog, and if levels of use significantly increase. The lack of an underlying path structure also makes this section susceptible to impacts and its status as part of a major prescribed route are likely to lead to levels of use increasing over time. However, any path construction/improvement works that might be carried out on this path are likely to have significant visual and physical impacts and a realignment of the route may be more appropriate.

The 500m contour path

This is a very important path, which gives relatively easy access to high ground without extensive elevation gain (particularly when accessed from Ott). This section can be incorporated into a number of circular routes from a number of trailheads including Trassey, Ott and the Happy Valley. Excessive user pressure coupled with poor ground conditions is leading to the visual and physical impacts increasing and this is likely to accelerate over time given the fragile nature of the vegetation and the ground conditions which are very wet in places.

The surrounding vegetation and ground is potentially very susceptible to severe impacts over time and it is vital to establish a clearly defined, robust path through this area to minimise these impacts. Any path works should be centred on reducing the paths visual and physical impacts, reinstating and landscaping desire lines and ensuring long term sustainability. This may require minor realignment in places but the existing trail corridor is essentially suitable. Crucially though, any path works should be in keeping with the landscape and must take into account the integrity of the high mountain experience.

The link from Ott Track to the Stile/Mourne Wall

This is a crucial access route of great importance and value. The made track is largely robust, however the remainder of the section is beginning to have a significant impact on the landscape and the environment. This is due to the lack of any trail structure combined with soft, wet ground and a poorly defined line. The impact of this path between the end of the track and the stile should be reduced and a much more clearly defined single line established. However, the overall classification of the path should remain at Category 5.

Paths to the summit of Doan

This path is very visible from considerable distances and its physical and visual impact is across an area up to 8m wide in one area. The iconic nature of Doan and its accessibility from Ott would seem to contribute to its popularity. This popularity coupled with the nature of the ground in this area would seem to raise issues related to the long term sustainability of this path in its present form.

Paths to the summit of Slieve Bearnagh

This path is a very important route to an iconic summit. The path repair, whilst mostly very effective is visually obtrusive and affects the experience of being on such an iconic mountain. Whilst erosion is largely confined to very steep slopes of over 50%, this erosion is quite significant in places.

On less steep slopes impacts are essentially minimal though extensive braiding could lead to more extensive impact. Any future path repair must take into account the aesthetic impact of the works and must ensure that the overall classification remains at Category 6. In addition, path works should be confined to a narrow corridor adjacent to the wall wherever possible and the integrity of open slopes should be maintained by reinstating and maintaining vegetation cover.

5.3 Management of the Path Network

There must be path and recreational management mechanisms in place, which are both workable and sustainable. This would require proper engagement with landowners, trustees and stakeholders and a properly resourced programme of management.

This should centre on the following:

- Establishing, confirming and agreeing the legal status of key paths
- Establishing roles and responsibilities in relation to path management and maintenance
- Establishing, clarifying and formalising liabilities etc.
- Putting in place robust path management and maintenance protocols and agreements

If erosion control and path works were decided to be appropriate to address a problem, it should consider the following:

- A robust sustainability framework that informs all aspects of path management
- A robust path classification and grading system to be used by managers to assess and manage paths
- An effective planning, consultation and design protocol relating to erosion control, footpath repair, and construction
- · Clear and effective standards relating to erosion control, footpath repair, and construction

5.4 On-site Management and Maintenance

There should be an appropriately resourced programme of on-site management and maintenance with an enhanced ranger capacity and erosion control/path repair team to enable a more stitch in time approach to be taken. Funding should be more strategic and less based on one-off big capital projects. N.B. National Trust in Scotland currently commissions a path maintenance team to look after approximately 140km of the most important upland paths at a cost of approximately £54k p.a.

5.5 Information, Education and Training

A central part of the management of the network and issues should be to establish a programme of information and education such as specific site information, local weather information, wildfire information, best practice ethics, and training so users can be better prepared for the environment they are entering and widen the knowledge base within user groups. This could be developed in conjunction with groups such as TNOC, MI, ORNI etc.

5.6 Monitoring, Research and Sharing Best Practice

There should be a resourced programme of monitoring the network, in particular erosion, building on previous surveys such as the Mourne Mountains Footpath Condition Survey 2002 (Queen's University), electronic user counters and the breadth of anecdotal evidence that exists in the area, to inform management. Opportunity, should be taken of establishing partnerships with educational establishments to further this aim. This should be qualified with benchmarking against other similar sites such as the Cairngorms and the Lake District. Experience and best practice should be shared which could include jointly run workshops on erosion control and other related issues, and an Upland Management Forum could be established.

5.7 Management Responsibility

A single organisation may be better placed to coordinate and develop initiatives rather than it being 'added on' to the individual remits of the wide range of parties tasked with managing the ecosystem services as is currently the situation.

Ultimately, the recreational path network needs to be managed as part of a holistic approach to management of the ecosystem services that the uplands provide, requiring agreement across landowners, managers and recreational users. Whilst there has over the years been an intention by many groups to establish an integrated approach and some significant projects have been achieved,

current management of the sites is best described as partisan and unless this is addressed there is a risk that this will exacerbate the problems in the future.

References

Mourne National Park Working Party Report 2007

CAAN (now ORNI), The Mourne AONB Access Study 2007 (MAAS 2007) for EHS and Sport NI.

Barlow J, Thomas M, British Upland Footpath Trust: Mending Our Ways 1998

UK National Ecosystem Assessment NI Summary 2011

Colin Buchanan and Partners Ltd. Tourism in Mourne; Current and Potential Economic Impact 2006

MHT Mourne AONB Visitor Survey 2005

NITB Mourne Signature Project Action Plan 2009

Outdoor Recreation NI Operational Plan 2012-2015

CAAN (now ORNI) Trends in Outdoor Recreation 1995-2008 (2009)

Smith BJ, Thomas, M & Bloomfield C 1998 Erosion hazard and Footpath Condition Survey of the High Mourne Mountains for EHS

Ferris TMC, Lowther KA, Smith BJ 1992 Changes in Footpath degradation 1983-1992 A study of the brandy Pad, Mourne Mountains Queen's University.

Annett J Countryside Consultancy, Mourne Countryside Recreation Strategy 2002-2006 (2002)

Scottish Natural Heritage Upland Footpath Repair Techniques in the Cairngorm Mountains 2003

Lowther KA The Environmental Impact of Recreational Pressure on the Mourne Mountains Thesis Queen's University 1987

Safer Mournes Partnership Emergency Access to the Mourne Mountains 2008

http://www.fires-seminars.org.uk/

Dr Hilary Kirkpatrick The Heathland of the Eastern Mournes 2011 for NI Water

Department for Environment, Food and Rural Affairs 2009 UK Climate Projections: UKCP09

Queen's University Belfast Mourne Mountains Footpath Condition Survey 2002 for EHS