Northumberland National Park - Photographs taken in the College Valley

Plate 3.1.1 Recently improved grassland in the lower part of the valley.

Plate 3.1.2 View across the College Burn towards Fawcett Shank plantation and the Lambden Burn. In the middle section of the valley.

Plate 3.1.3 Naturally regenerated scrub woodland in a clough adjacent to ASNW (SSSI) wood on the east side of the valley.

Plate 3.1.4 Looking down the valley towards Hethpool showing opportunities for woodland planting on the bracken covered slopes and river terraces.

Plate 3.1.5 View across part of the newly planted 'Wilderness Wood' at the top of the valley; Braydon Burn to the right of the picture.

Plate 3.1.6 View through a gap in the Fawcett Shank plantation showing bracken dominated land on the west side of the middle part of the valley.

Plate 3.1.1

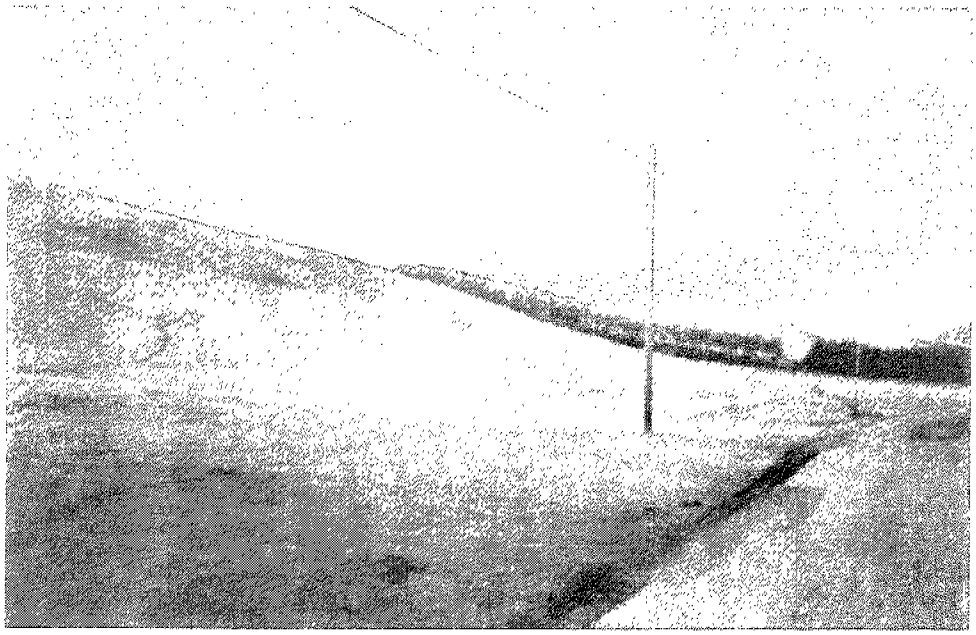


Plate 3.1.2

Plate 3.1.3

Plate 3.1.4

Plate 3.1.5

Plate 3.1.6

appreciated that the removal of the conifer plantations would open up the middle and lower valley to winds blowing down off the Cheviots, and hence reduce the shelter available to homesteads and livestock, particularly in winter.

The 'Wilderness Wood' was established in 1995/96, chiefly on sites formerly occuped by two conifer plantations. It is the largest single scheme (73 ha) funded under the Woodland Grant Scheme (WGS). This bold project has been controversial, particularly with regard to its effect upon nature conservation, since part of it is located within the Cheviot SSSI (Figure 3.1.9) which was notified in 1990 as providing "the best example of ... .a suite of upland habitats in Northumberland and [which] supports a typical upland breeding bird community". The main objection was to the principle of establishing a substantial area of woodland within a predomiantly moorland SSSI, although it must be said that in the Harthope Valley elsewhere in the SSSI, valley woodland similar to that which it is aimed to establish in 'Wilderness wood' is considered to be a valued habitat which is cited in the SSSI designation.

The vegetation which the woodland will replace (if it establishes successfully, which is by no means guaranteed at this elevation on open moorland in Northumberland) is predominantly species-poor rough pasture or 'white' moor, dominated by matt grass (*Nardus stricta*) on the better drained areas and purple moorgrass (*Molinia caerulea*) where it is wetter (Plate 3.1.5). There are vast expanses of these types of vegetation in the North Pennines and elsewhere in the British uplands. Assuming that care has been taken to avoid planting areas with rare species or communities (such as occur in the Braydon Burn shown in Figure 3.1.5), it is difficult to see how planting on this scale can have any significant adverse effect on wildlife conservation. Furthermore, it may be considered that if any substantial increase in the area of high elevation 'treeline' woods is to be achieved in England, which due to past and present agricultural practices rather than any force of nature has a tiny amount of this habitat compared with most of our European neighbours, this is unlikely to happen without sacrificing some areas currently valued for their open upland character.

We have refrained from suggesting any substantial additional planting in this upper valley area, all of which is within the Section 3 moor and heath area, including only an extension upwards along the streamside between the two remaining conifer plantations to link the 'Wilderness Wood' with the new woodland that we are suggesting lower down the valley, which in turn would be linked to the existing native woodland. This would include the naturalness of the vegetation along the valley bottom while providing a corridor for movement of flora and fauna which would assist the natural processes of woodland ecosystem development.

The middle valley area has the most existing woodland, including a substantial area of predominantly sessile oak stands (including an oak woodland SSSI) on the lower slopes and the steeper banks of the river terraces on the eastern side, with alder woods on the flatter river terraces. As Figure 3.1.8 and Plates 3.1.3 and 3.1.4 show, the woodland is fragmented, with areas of predominantly rough pasture, much of it dominated by bracken separating the generally open woodland stands. It is notable that the size and quality of the trees drops away sharply with increasing elevation and exposure either up the valley itself or up the valley side. Our suggestions for woodland expansion in this area involve linking the existing woodland areas and creating new areas of broadleaved woodland predominantly on the western slopes now largely devoid of tree cover, especially on areas dominated by bracken and illustrated

Table 3.1.2 Distribution of possible woodland expansion area by land cover types in the College Valley study area

Land cover	**Area (ha)**	**Proportion of land cover type (%)**
Bracken	134	79.7
Improved/semi-improved grass	84	28.7
Rough Pasture	89	11.3
Scrub	3	12.0
Coniferous woodland	30	9.5
Upland Heathland	6	1.8
Total	346	16.7

Our final suggestion is that a plantation might be established on a bracken-dominated area on White Hill on the other side of the valley from the ASNW on The Bell Hill. Care would need to be taken to avoid the ancient cultivation terraces which form an important archaeological feature on the south side of White Hill.

3.1.3.4 Conclusions

The College Valley study area provides a very interesting example of the opportunities for woodland expansion in the Northumberland National Park and the problems likely to be encountered in attempting to achieve them. Figure 3.1.5 shows that there is no shortage of land potentially suitable for woodland and in the middle and lower valley at least there would be few problems in establishing tree cover, provided grazing levels were controlled during the establishment period either by fencing areas out or through the use of individual tree shelters. Over much of the area it would be necessary to plant, rather than relying on natural regeneration as, away from the few well-treed areas on the lower eastern slopes there are few areas of woodland or even individual trees to provide a reliable seed source. Wherever possible, trees of local local origin should be used to maintain the genetic purity of both the new and existing woodlands.

The chief problems in achieving woodland expansion relate to agri-economic constraints (crudely put, agriculture vs forestry, although the equation is rarely as simple as that, but see the discussion in Sections 1and 4.) and conservation constraints (highlighted by the controversy surrounding the establishment of part of the the 'Wilderness Wood' native broadleaved plantation within an SSSI). In the case of the agricultural constraints, time, money and much effort has gone into 'reclaiming' rough moorland and converting it into more productive pasture, enabling stock numbers, quality and values to be increased. In the short term at least, and given current agricultural support mechanisms for hill farmers, grants for broadleaved woodland establishment and maintenance are generally seen as being insufficient to compensate for the opportunity cost of tying this improved land up in forestry, especially slow growing broadleaves. This problem is particularly acute on hill farms in LFA's where the HCLA provides an important contribution to income and where replacing

3.2 LAKE DISTRICT NATIONAL PARK

The Lake District National Park (LDNP) is the largest of the five NP's/AONB included in this study. It occupies an area of approximately 225,884 ha of land of predominantly upland, often montane character stretching from near Barrow-in-Furness on the west coast of Cumbria to the M6 and from north of Penrith almost to Grange-over-Sands in the south. (Figure 3.2.1, Table 3.1). The topography of the LDNP contrasts very markedly with that of the Northumberland National Park (NNP) the Dartmoor National Park (DNP) and the Dark Peak. Whereas they consist primarily of high rolling plateaux with no major peaks and few deep valleys, the landscape of the LDNP is much more imposing with high, often dramatic hills (fells in Cumbria), many containing corries, and deep, wide, steep-walled glaciated valleys with lakes varying from a few hectares in extent to those (e.g. Windermere, Ullswater) covering thousands of hectares. The chief land uses in the LDNP are livestock farming (predominantly sheep, but with many mixed sheep/beef cattle enterprises), forestry, mineral mining and quarrying (the former less important than formerly but leaving a rich legacy of industrial archaeological sites), leisure and tourism.

Much, but not all of the Park lies within the Cumbrian Fells and Dales Natural Area. The EN Cumbria Team have divided the Natural Area into five sub-units: the Lake District Mountains; the South Lakes Low Fells; the Morecambe Bay Limestones; the Howgills and the Orton Fells. Most of the last three of these units lie partly or wholly outside the LDNP boundary (EN, pers. comm.). At the suggestion of EN the Morecambe Bay Limestones, which are significantly present within the Park but are predominantly lowland in character, and the South Lakes Low Fells, which comprise one of the most densely wooded parts in England (Figure 3.2.2), were excluded from this study. This leaves about three quarters of the Park (the Lake District Mountains) within the study area.

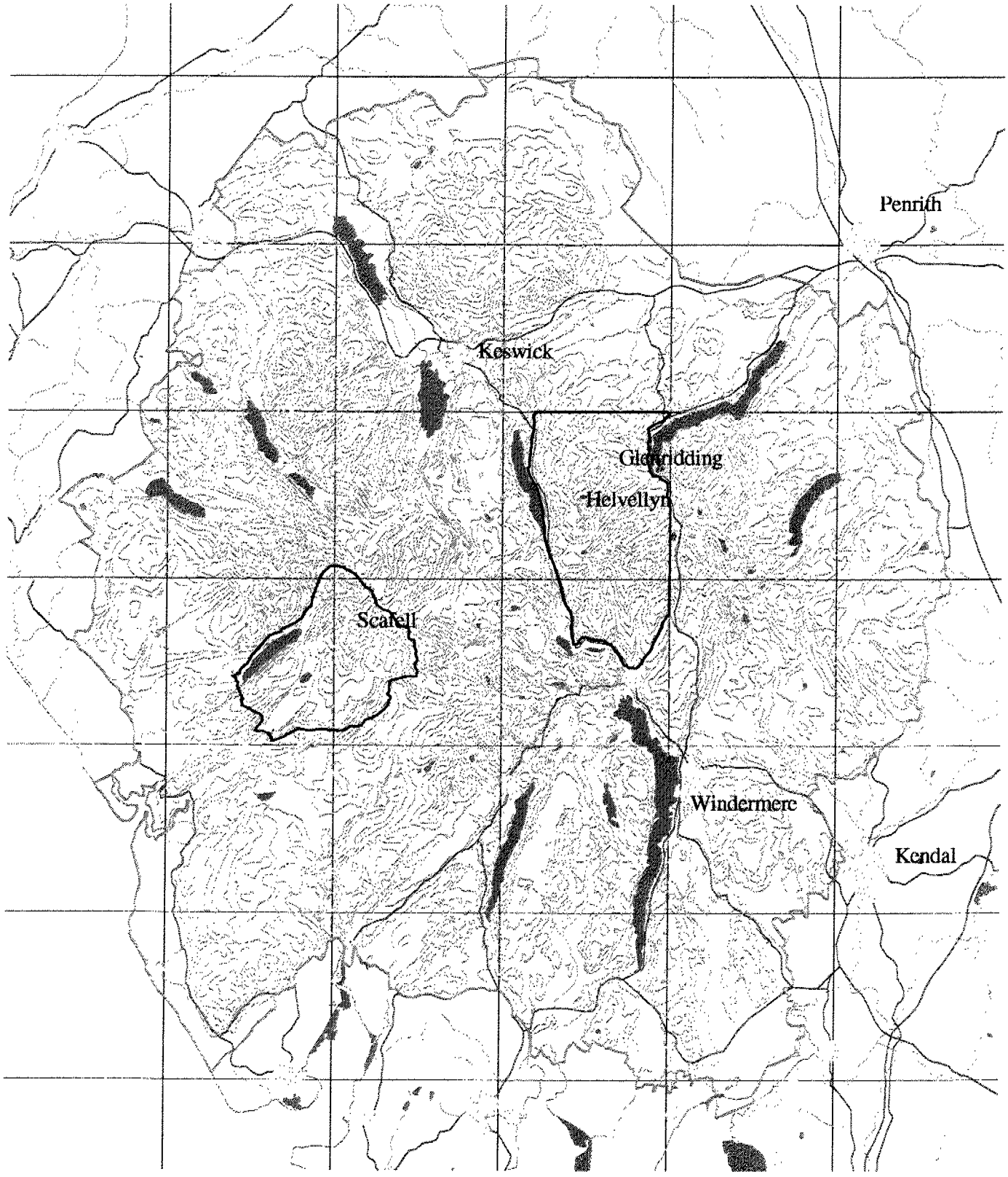
The Lake District Mountains are predominantly comprised of acidic igneous or metamorphic rocks of varying hardness, hence the complex and deep valley patterns wrought by ice and water through the softer rocks. As a result of this relatively complex geology and topography (compared with the other National Parks studied) there are quite a wide range of soil types. The mountain tops generally have shallow, very acidic humic ranker soils with a peaty horizon of varying depth depending on slope (e.g Bangor, Skiddaw series), the surface often being broken by boulders and scree. At lower elevation there is more opportunity for soil development and brown podzolic soils (e.g. Bangor, Manod series) such as are found in other upland areas over acid soils are common. Deep peats are less common because of the topography but may be found on the flatter ground over impervious rock or glacial drift. In the valley bottoms and on the lower ground towards the edge of the mountain massif, seasonally waterlogged stagnogley soils (e.g. Brickfield, Clifton, Wilcox series) are found which, when improved by draining and seeding/fertilising provide good quality pasture.

The climate within the LDNP varies considerably depending on location and elevation. and it is not therefore appropriate to give average figures for the Park as a whole. Suffice it to say that it is mildest and wettest on the western mountains, with annual rainfall exceeding 5000 mm on Scafell Pike, the highest point in England (977 m), falling rapidly away with altitude.

It has not been possible to obtain a full list of SSSI's within the National Park in time to include it in this report. However, the key habitats include mountain-top vegetation, cliffs with arctic-alpine plants, ghylls with rare bryophytes and pteridophytes, raised and blanket

Lake District National Park

Location map



National Park / AONB Boundary

'10 x 10 km' Study areas

Main Roads

100 metre contours

Main rivers

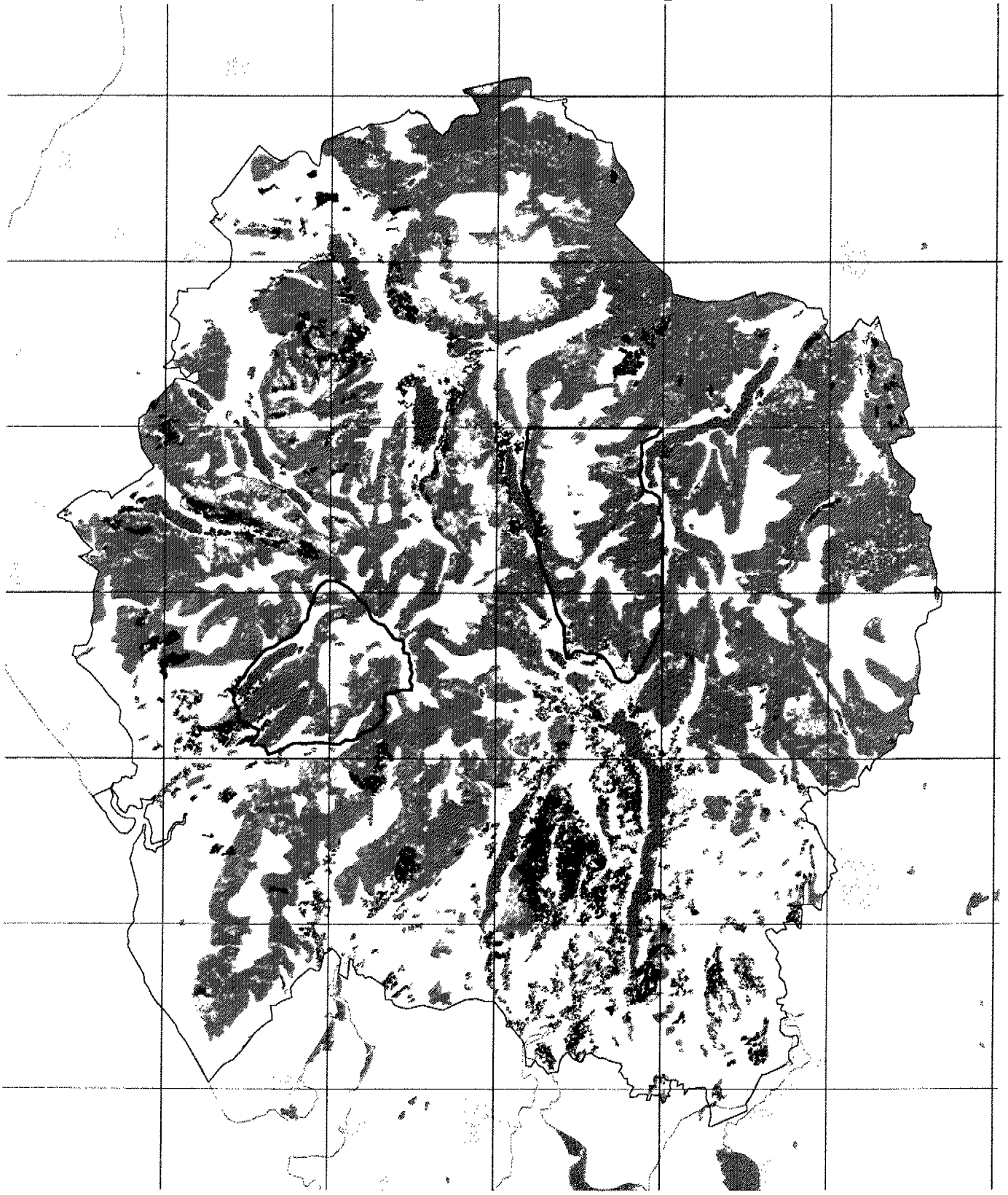
Urban Areas

Lakes

Mapscale 1 : 330000

Lake District National Park

Provisional possible areas for upland woodland expansion



Possible Areas
Possible Additional Areas
Urban Areas
Lakes/Marsh Areas
Coniferous
Deciduous
Scrub/Orchard
National Park / AONB Boundary
'10 x 10 km' Study areas'

Mapscale 1 : 333000

mires, dwarf shrub heaths (both wet and dry), flushed areas in grass fell, juniper scrub, upland oakwoods, limestone ashwoods, herb-rich unimproved pastures, hay meadows, limestone grassland, valley mires, water meadows, sea coast habitats. Key conservation issues and threats are itemised in the draft Cumbrian Fells and Dales Natura Area plan. Among these are:

- Stock management - overgrazing damages montane habitats, dwarf shrub dry and wet heath, blanket bog, rocky habitats including ghylls, and woodland. Over- or undergrazing affects grass fell, springs and flushes, mires, limestone grasslands and meadows. All these habitats are affected by seasonality of grazing pressure, and by management practices such as stockfeeding.
- Bracken control - affects heath beneficially but can lead to loss of diversity within grass fell.
- Intensification - fertiliser addition directly affects limestone grasslands, meadows, pastures and grass fell within allotments. it may also adversely affect most other habitats by associated changes in stocking or mowing regimes.
- Eutrophication - mires, spring and flush, lake, tarn and rivers are adversely affected.
- Land drainage - mires, spring and flush, meadows and pastures are adversely affected.
- Burning regimes - dwarf shrub heaths, blanket bog, raised mire, and scrub can be damaged by inappropriate burning regimes.
- **Afforestation** - all submontane and lowland habitats could potentially be affected by afforestation. This would damage the conservation interest of most habitats except grass fell and bracken and would decrease biodiversity. Within grass fell and bracken, location and type would determine the effect on the nature conservation value.
- **Silvicultural management** - inappropriate management limits the conservation value of both existing or recently established woodland.

Those issue highlighted above will be discussed in more detail later.

Birds of conservation importance associated with the open moorland and mountain areas of the lake District and the moorland fringe include red grouse, upland breeding waders, and in places raptors such as merlin and hen harrier. The oak/birch woodlands (NVC communities W11, W17) on the more freely drained valley sides and the alder/ash woodland (W7) on the valley bottoms and along watercourses are all important for birds, supporting species such as wood warbler, redstart, spotted flycatcher and pied flycatcher. Scrub on steep scree slopes provides habitat for upland passerines such as ring ouzel and whinchat. Mosaics of habitat at the moorland edge which include open moorland, extensively managed in-bye land and native woodland benefit a range of species, including black grouse, which is strongly associated with this kind of habitat (RSPB, pers. comm.).

While the Lake District is rich in archaeological sites which provide important insights into man's activities in this area since pre-historic times, it is not perhaps as heavily endowed as the other NP's in this study, at least in the central core of high mountains. This is primarily because of the inhospitability of much of the terrain. Early man tended to shy away from the high mountains and steep-sided valleys, tending instead to inhabit the valley floors and the more hospitable land on the fringes of the Park. No such inhibitions bothered those who sought mineral wealth and there are many important industrial archaeological sites throughout the mountains. It is of course essential that in considering any woodland expansion in the

LDNP expert opinion is sought and taken account of so as to avoid some of the unfortunate errors in this regard associated with commercial afforestation in the uplands in the past.

3.2.1 Native woodland in the Lake District National Park

The Lake District National Park taken as a whole is quite well wooded. Data obtained from the ITE land cover map indicates nearly 20,000 ha of woodland and forest of which 13,523 ha is deciduous/mixed (5.99% of land area) and 6051 ha is coniferous (2.68%), giving a total woodland cover of almost 10% (Table 3.1). As Figure 3.2.2 shows, however, this woodland is very unequally distributed with approximately three quarters being on the limestone geology in the south-east of the Park. In the central mountains woodland cover is largely restricted to lakesides and the lower valleys, often being completely absent from the higher valleys and open fells. That this need not be so is shown by the frequent occurrence of scrubby woodland along the larger ghylls where the individual trees and shrubs have usually grown in areas difficult of access by the ubiquitous sheep.

There is considerable interest in the LDNP in both the conservation of existing woodland and in the creation of new semi-natural woodland and it is probably fair to say that more progress has been made here than in the other NP's studied. . As in the other NP's, a *Local Accord on Native woodlands in the Lake District National Park* has been drawn up in response to the *National Accord* agreed between the Forestry Authority and the National Parks in 1993. The local accord was signed in December 1995 not just by the LDNP Authority and the Forestry Authority, but also by EN, MAFF, NRA (now EA), Forest Enterprise, National Trust and North West Water. The chief objectives of the Accord are:

1. To continue to encourage the maintenance and regeneration of existing semi-natural woodland by:

    - promoting the importance of native woodlands and the effective use of available incentives for appropriate management;
    - supporting the use of local broadleaved woodland products and the creation of new markets;
    - encouraging their expansion where this complements other environmental and landscape considerations;
    - during the course of forestry consultations, consider reducing non-native species in situations where such a reduction will achieve major benefits for the integrity of ancient semi-natural woodlands.

2. Support the establishment of new native woodlands by:

    - co-operating with individual owners and other agencies to establish exemplar or experimental projects;
    - placing particular emphasis on re-creating woodland types which are locally rare or missing, for example sites of high altitude or 'tree-line' woodland, and valley bottom 'flood-plain' woodland;
    - encouraging the use of the Forestry Authority's Bulletin 112 "Creating New Native Woodlands" which draws on the NVC for its classification of woodland types.

3. Gain a greater understanding of the role of natural recolonisation of 'bare' ground in creating 'new woodlands' and the scope for natural regeneration under different grazing regimes by:

   - pooling available information in co-operation with others to fill gaps in our present understanding and knowledge.

Issues of particular interest here, apart from the bringing together of such a wide range of organisations involved with woodlands and forestry are: support for development of local markets for hardwoods; attempts to reduce use of non-native species in new plantations; establishment of exemplar experimental projects; the emphasis on creating woodlands of types which are locally rare or missing rather than simply setting overall targets for woodland expansion. With relation to financial aspects of new native woodland the following requirements have been raised: co-ordination of existing grant aid and finance; identifying markets and returns; looking at non-timber returns such as recreation, environmental and sporting (Forestry Authority, pers. comm.). Attention has also been drawn by the Forestry Authority to the need to control deer if cost effective establishment of broadleaves is to be achieved, and the action being taken within North West England to co-ordinate deer management, including promoting venison as an alternative to beef. One of the ways the Local Accord is being promoted is through Cumbria Broadleaves which is "working to secure the future of the native woodlands of Cumbria". This body is supported by the FA, CC, EN, Cumbria County Council, LDNPA, South Lakeland District Council and East Cumbria Countryside Project.. The National Trust, which is a signatory to the Local Accord is also very active in woodland management and planting on its own estates in the LDNP. In addition to supporting the objectives of the Accord it mentions as additional advantages of increasing woodland cover, landscape robustness (reduced susceptibility to erosion), landscape appearance and quality of subsidiary habitats. The NT sees the procurement of suitable land when it is currently under agricultural tenancy and perhaps already receiving ESA payments as a major stumbling block to woodland expansion, along with the financial problems already mentioned.

In the draft Natural Area plan, EN have identified a number of specific objectives for woodlands and scrub. Implementing the UK Biodiversity Habitat Action Plan targets for upland oakwoods (increase by 10%, involving an additional approx. 1000 ha) and upland mixed ash woodland (in preparation) is high on the agenda. There is a good deal of doubt in some quarters about the likelihood of reaching the objective for oak woodland given current plans and progress. Additional objectives in the Natural Area plan include: extending existing birch/oak woodlands to altitudinal limit without decreasing the extent of heathland; extending birch/oak woods along slope into acid grassland and bracken dominated habitats; extending existing areas of juniper and hawthorn scrub; planting juniper, birch and **Scots pine** into acid grassland in selected areas; creating the full altitudinal sequence of woodlands from valley floor to tree line; retaining standing and fallen dead wood in ASNW and retaining some trees in an over-mature state in all woods. The suggested planting of Scots pine is highlighted here because of the interesting but controversial intention to create in Cumbria a type of woodland (W18, pine woodland with birch and juniper) which is only currently found naturally within the British Isles in the Scottish Highlands. It raises the whole question of what are 'native' species and 'native' woodlands since species which are now regarded as exotics (including Norway spruce, European silver fir and European larch) occurred here 'recently' in terms of

geological time, while several woodland types now absent from the north of England, notably beech woodland, probably occurred there during warmer, drier periods. It is interesting but not particularly helpful to speculate on what effect climate change may have on the 'natural' distribution of woodland and other communities, since climate is a powerful driver of plant distribution and abundance.

A number of initiatives developed or assisted by the National Park Authority for expanding native woodland in the LDNP were reported at a recent EN meeting on upland woods. This drew attention to the considerable opportunities for woodland expansion but also highlighted the problems in agreeing what types of woodland were appropriate and acceptable in a particular location to all parties who have a say in the matter. Also highlighted was the question of whether total exclusion of livestock is necessary or desirable in all cases in establishing or managing native woodlands, the suggestion being that reduced grazing as specified under ESA tier two payments for heather moor might be sufficient to allow natural regeneration in some situations. The advisability of developing a strategy to concentrate woodland expansion on land dominated by bracken was also questioned, partly because in the Lake District much of the bracken area is on common land, but also because there is a danger that by concentrating on bracken only a limited range of woodland types will be possible. More recently a study of the high brown fritillary in the Winster Valley in the south east of the NP has indicated the importance of bracken covered slopes as habitat for this declining butterfly in the Lake District, emphasizing the importance of considering all conservation priorities before deciding to 'sacrifice' a seemingly relatively valueless habitat by converting it to woodland.

3.2.2 **The 10 x 10 km study areas**

3.2.2.1 Criteria for selection

Five possible study areas were initially selected by the EN Cumbria Team from within the Lake District Mountains Sub-Unit of the Natural Area using the map of the LDNP provided by ITE showing 'potential areas' for woodland expansion derived as explained in the Methods section (2.1)(Figure 3.2.2).

i Relatively well-wooded - **South-west Ullswater (Helvellyn)**
Some below 200 m but upland in character; woodland types whose expansion is sought including bryophyte-rich oak woodland, juniper woodland, alder slope woodland.

ii With little woodland - **Eastern Buttermere Fells**
Very devoid of upland woodland although it includes a high-altitude upland oakwood example - Birkrigg Woods; upland area lies within Buttermere Fells SSSI.

iii With little woodland - **Martindale**
Only scattered fragments of woodland, objectives include increasing alder slope woodland but may also be opportunities for bryophyte-rich oakwood.

iv Not well-wooded - **Scafell/Eskdale**
Major altitudinal transitions would provide a valuable study area to assess possibilities; high altitude oak woodland, juniper woodland and mixed types of broadleaved ghyll woodland might be possible; includes part of Scafell Pikes SSSI.

v Relatively well-wooded - **Eskdale/Milkingstead**
Most woodland below 200m, but upland in character; conservation objectives include encouraging under-represented woodland types such as woodlands with hay-scented buckler fern and W4 birch bog woodland. The area includes two SSSI's and borders on three others.

Following further discussions with local EN and LDNPA staff two of these areas (South-west Ullswater (Helvellyn) and Scafell/Eskdale) were chosen as providing a good contrast between currently relatively well-wooded and poorly-wooded areas.

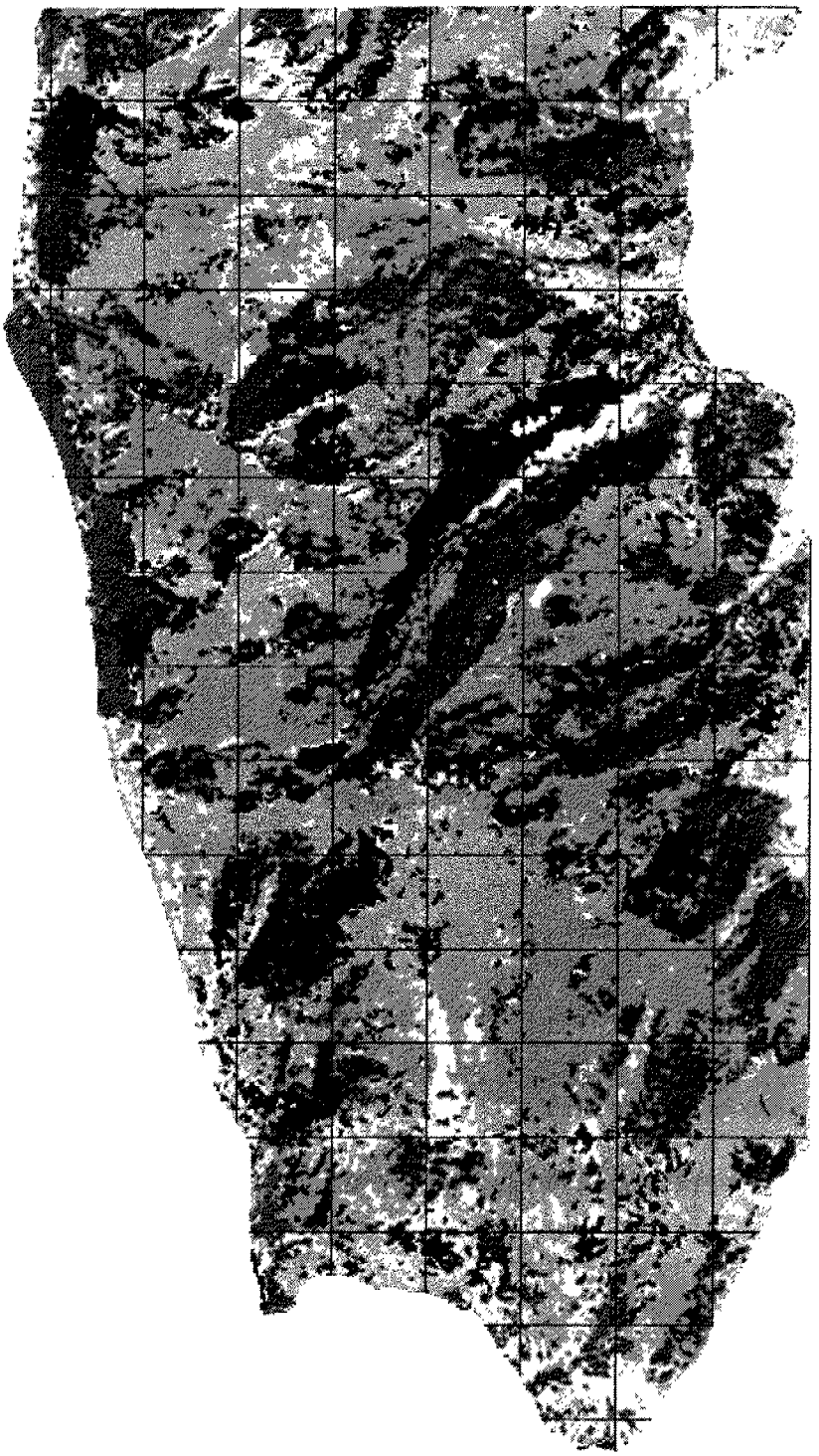
3.2.2.2 Current land cover and potential for woodland expansion
The location of the study areas are shown in Figure 3.2.1. Figures 3.2.3-3.2.4 show the land cover in each study area derived from the ITE Land Cover Map. Figures 3.2.5-3.2.6 show the existing areas of coniferous woodland, broadleaved/mixed woodland (including ancient semi-natural and secondary woodland digitised from the maps in the provisional Ancient Woodland Inventory for Cumbria) and scrub, and the areas with potential for woodland expansion. The most immediate impression looking at the land cover maps (Figures 3.2.3 and 3.2.4) is the similarity of cover in the two study areas compared with that in the paired study areas in the other NP's in this project. This is not surprising given the correspondence in soil types; on the mountain tops thin acidic humic rankers supporting grass/moor (rough pasture) mostly with insufficient heather to provide the reflectance characteristics of dwarf shrub heath; on the more steeply sloping ground typical brown podzolic soils ideal for bracken. Only on the few ares of flatter ground in the northern part of the Helvellyn study area and on the south-east side of Scafell are there substantial areas of deep peat. There is very little unimproved/semi-improved grass in either study area and it is strictly limited to the lower valley sides and bottoms.

Existing deciduous/mixed woodland cover is low in both study areas (241 ha, 2.47 % of study area in Helvellyn; 129 ha, 1.91% of study area in scafell) (Figures 3.2.5-3.2.6, Table 3.1). Almost all of this woodland in the Helvellyn study area is located along the lakesides of Ullswater and Thirlmere (where there is also a strong conifer element) or on the valleys running into Windermere. Some of this is ASNW including the National Trust owned Low Wood (SSSI) in Dovedale and Glencoyne Wood SSSI. Some is replanted woodland on former ASNW sites as at the bottom of Grisedale and around the Scandale Beck. As mentioned above, management aimed at encouraging their reversion to woodland resembling ASNW in structure and species composition is a high priority item in the *Local Native Woodland Accord.* In addition to these major semi-natural woodlands there is also some deciduous/mixed woodland on the steep slopes on the south east side of the upper part of Grisedale and scattered patches elsewhere, for example around The Step at the head of Deepdale within the Helvellyn and Fairfield SSSI. Most of the existing deciduous/mixed woodland in the Scafell study area is restricted to the screes on the south-east side of Wastwater and areas under Lord's Rake and Rakehead Crag to the south of Scafell Pike. Both these areas are within SSSI's There are only two fragments of ASNW in the area; an 8 ha wood on the E side at the head of Wastwater which has been partly replanted; Paddock Wray by the River Esk in the extreme south of the area.

The 'potential areas' for woodland expansion in both study areas (Figures 3.2.5-3.2.6) are limited not by absence of suitable soils (the large areas of bracken belie this) but primarily

Lake District National Park

10 x 10 km Study area –ITE Land Cover Map – Helvellyn

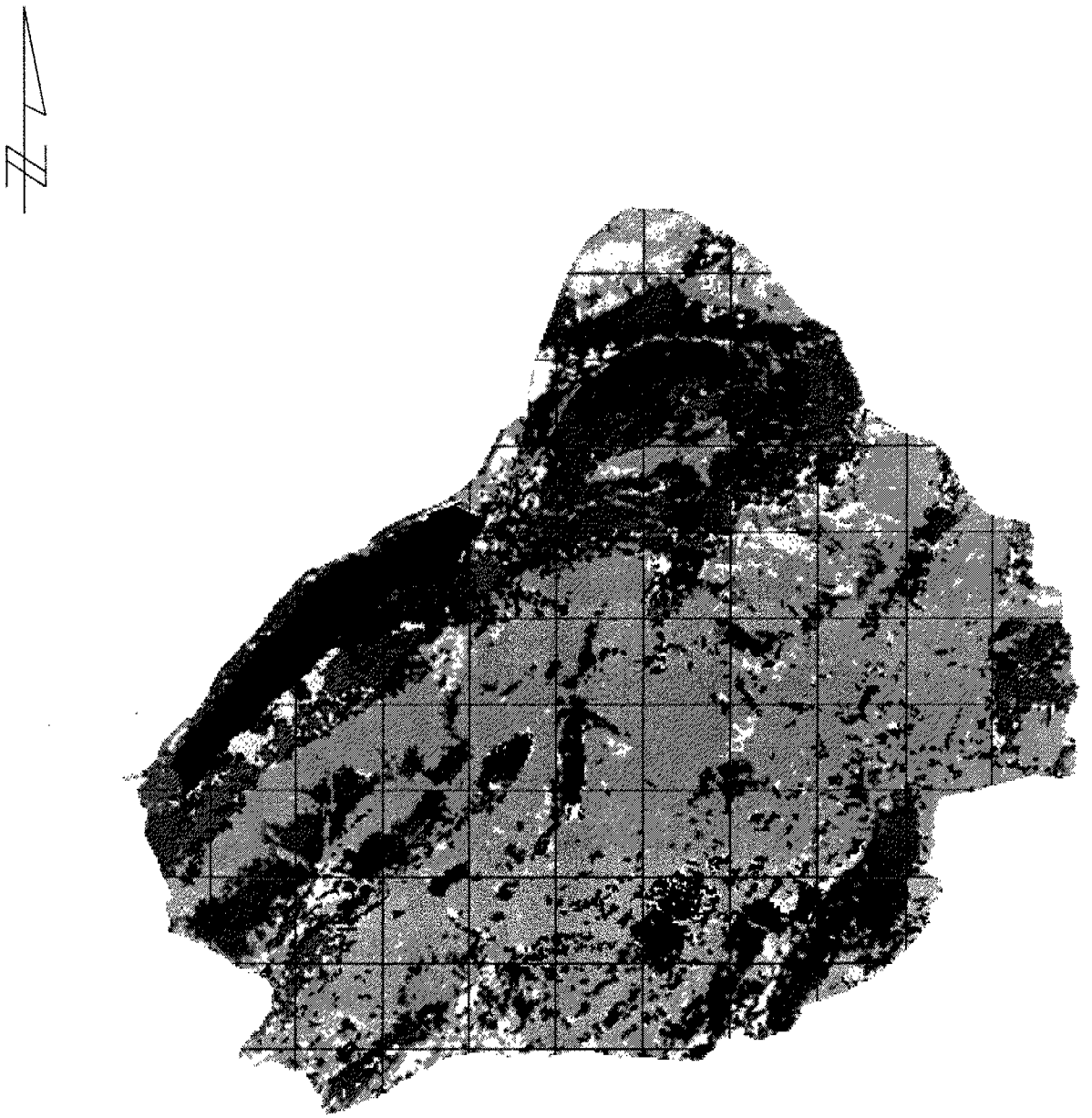


Mapscale 1 : 80000

- Inland Water
- Beach/Tidal Flats/Cliff
- Salt Marsh
- Dune/Lowland Heath
- Pasture/Amenity Grass, Mown
- Meadow/Verge/Unimproved Grass
- Marsh/Rough Grass
- Upland Grass/Moor
- Upland Grass/Shrub
- Upland Dwarf Shrub
- Bracken
- Lowland Shrub/Heath
- Shrub/Orchard
- Deciduous Trees
- Evergreen Coniferous Trees
- Upland Bog
- Arable
- Suburban/Rural Development
- Industrial/Urban
- Bare Ground
- Lowland Peat Bog
- Lowland Grass/Shrub Heath
- Unclassified

Lake District National Park

10 x 10 km Study area –ITE Land Cover Map – Scafell



Mapscale 1 : 80000

- Inland Water
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- Upland Grass/Shrub
- Upland Dwarf Shrub
- Bracken
- Lowland Shrub/Heath
- Shrub/Orchard
- Deciduous Trees
- Evergreen Coniferous Trees
- Upland Bog
- Arable
- Suburban/Rural Development
- Industrial/Urban
- Bare Ground
- Lowland Peat Bog
- Lowland Grass/Shrub Heath
- Unclassified

Lake District National Park

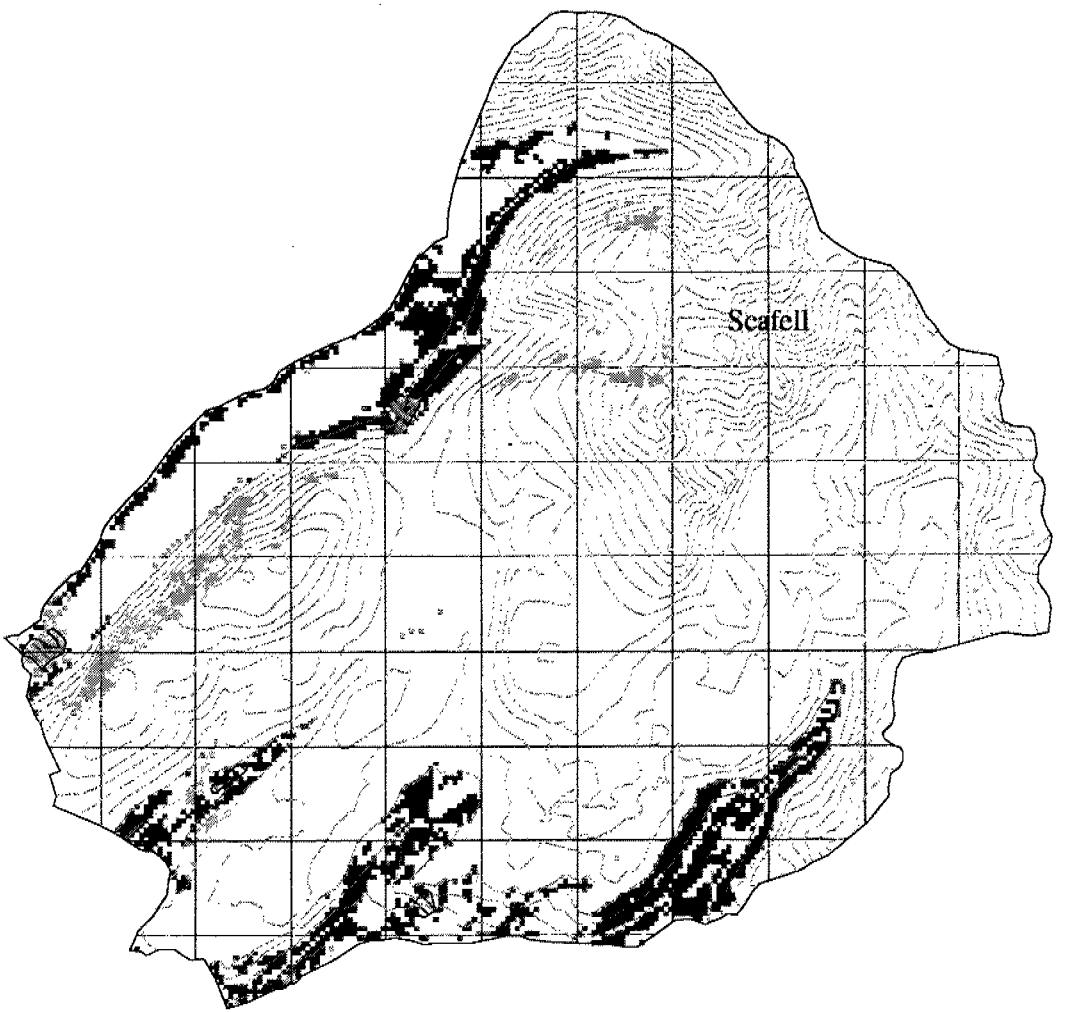
10 x 10 km Study area –Woodland –Helvellyn

Mapscale 1 : 80000

Potential areas
Non –potential areas
Existing Deciduous/Mixed Woodland
Existing Coniferous Woodland
Scrub
Ancient semi –natural
Ancient Replanted
Cleared 1901 –1925
'Smaller' Study Area

Lake District National Park

10 x 10 km Study area –Woodland –Scafell



Mapscale 1 : 80000

- Potential areas
- Non –potential areas
- Existing Deciduous/Mixed Woodland
- Existing Coniferous Woodland
- Scrub
- Ancient semi –natural
- Ancient Replanted
- Cleared 1901 –1925

by elevation (much of the land is above the 600 m cut-off point for this study) and to a lesser degree severe slope. It may be argued that 600 m is too low to set as the upward limit for woodland in Cumbria, and there are certainly some areas of scrubby woodland above this elevation, but in practice establishment of broadleaves would probably be very difficult in most situations, except perhaps along the deeper ghylls where there is some protection from exposure. The outcome of this restriction is that in both study areas the potential areas are predominantly in the larger river valleys and along the lakesides, in most cases expanding out from existing areas of woodland. This is good ecologically as expansion of existing woodland is generally the most appropriate approach, it being easier to develop new woods with similar characteristics to the existing woodland. There is a good deal more potential in the Helvellyn study area (1257 ha, 13% of the study area) than the Scafell study area (523 ha, 8% of the study area) (Table 3.2) because of the grater availability there of such situations, especially in the area to the north of Ambleside.

Most of our Helvellyn study area is within the area covered by the *Helvellyn Mountain Massif Draft Management Plan* agreed by the LDNPA, EN and North West Water Ltd. This comprehensive plan covers all aspects of landscape, geology, wildlife, archaeology, recreation, and agriculture. It includes a map showing key habitats, including woodland and juniper scrub within the northern part of the area between Thirlmere and the south end of Ullswater. This document should be referred to for descriptions of the main habitats and associated flora and fauna in the area and for a discussion of the main management issues and proposals. These include encouragement of juniper woodland regeneration at the two main remaining sites in the area; conservation of England's only population of the arctic-alpine downy willow (*Salix lapponum*); encouragement of hawthorn and other shrubs on the base of Helvellyn Screes; softening of locally hard plantation edges with broadleaved trees and shrubs; encouragement of broadleaved woodland along Helvellyn Ghyll (to the W of Helvellyn) and other similar ghylls; enhancement of woodland in Glenamara Park.

3.2.2.3 Conclusions

The Helvellyn and Scafell study areas are very characteristic of the Lake District Mountain Sub-Unit of the Cumbrian Fells and Dales Natural Area. They are similar both in their current land cover, dominated by grass/moor and bracken dominated areas, the locations and types of their existing woodland cover, although there is substantially more semi-natural woodland in the Helvellyn study area, and their potential for woodland expansion. There is no shortage of land of suitable character for woodland expansion, as indicated by the high cover of bracken, but much of both areas is above the 600 m contour and very exposed, so establishment of broadleaves would be difficult in most situations. Many of the areas on the potential woodland maps (Figures 3.2.5-3.2.6) are adjacent to or near existing semi-natural woodland. There is certainly a good case for concentrating any woodland expansion in such areas where there is the best chance for natural regeneration of appropriate tree species and colonisation by woodland flora and fauna. The first priority should however be, as highlighted in the Local Accord, to revitalise the remaining high-quality semi-natural woodland, especially secondary woodland on ASNW sites. In some cases these woodlands have been 'coniferised' in the near or distant past. Removal of the conifers at the earliest opportunity is and should be a prime objective. Many of these woods are open to grazing throughout the year and as a result have few young trees, little or no understorey and often an impoverished ground flora. The reports by LDNPA staff of regeneration and woodland colonization occurring without fencing in some areas under tier 2 ESA agreements is interesting and

relevant. The impact of deer (there are red, roe and a few Sika in the Park) is unclear but seems to vary considerably from place to place. The concerted effort now under way to control them and harvest the high quality meat resource they offer is the right way to go about limiting the problem.

It is good to see the support for scrub in the Local Accord as this is often an underrated wildlife habitat regarded as being little better than 'waste' ground. It is not surprising that the remaining small areas of juniper scrub are highly regarded but references to expansion of broadleaved scrub, usually dominated by hawthorn, is unusual and welcome. Much of this scrub will of course develop into woodland on suitable sites, but on steep scree slopes in the Lake District as in the Pennines, on Dartmoor and in Wales it is a stable type of vegetation with a very characteristic contribution to landscape and wildlife conservation value.

3.2.3 **The smaller study area - Glenridding**

3.2.3.1 Criteria for selection

Following discussions with EN and LDNPA staff the Glenridding Valley area was chosen within the Helvellyn 10 x 10 km study area. Its location is shown in Figure 3.2.1. The reasons for choosing this area were as follows:

- the whole of the study area is within the area covered by the *Helvellyn Mountain Massif Draft Management Plan* which has been the subject of a good deal of thought and consultation, with objectives, including those for woodland and scrub creation and management, agreed in principle;
- it contains one of the largest areas of juniper scrub in the NP for which there is a conservation plan within the *Helvellyn Mountain Massif Draft Management Plan*;
- the ITE map showing potential areas for woodland expansion within the Helvellyn study area indicates suitable land throughout the Glenridding Valley;
- there is a map of key habitats to provide a basis for the assessment of nature conservation impacts of increasing woodland cover.

3.2.3.2 Characteristics in relation to the 10 x 10 km study area and the National Park

The study area is representative of the Helvellyn 10 x 10 km study area and of the Lake District Mountains sub-unit of the proposed Natural Area. It comprises two main sections, a high (400 m on the valley floor), wide glaciated valley (Glenridding Common) (Plates 3.2.1, 3.2.5), all of which is within the Helvellyn and Fairfield SSSI, running north-east from below the summit of Helvellyn to the old Greenside Mine workings. The character of the valley then changes abruptly as it takes a dog-leg turn to the east, becoming steeper-sided and descending more rapidly (Plate 3.2.3) before levelling out where it flows into Ullswater at Glenridding Village.

3.2.3.3 Current land use and potential for woodland expansion

The current land use of the study area as recorded by the ITE land cover map (LCM) is shown in Figure 3.2.8 and quantified in Table 3.2.1. Our suggested opportunities for woodland expansion ares shown in the overlay (Figure 3.2.7) and the land which they would replace is shown in Table 3.2.2. Figure 3.2.7 is annotated to show the target woodland types and the preferred means of establishment. The occurrence of 'Statutory Areas' (SSSI's, DNP Section 3 woodlands, moor and heath land, Common land) are shown in Figure 3.2.9.