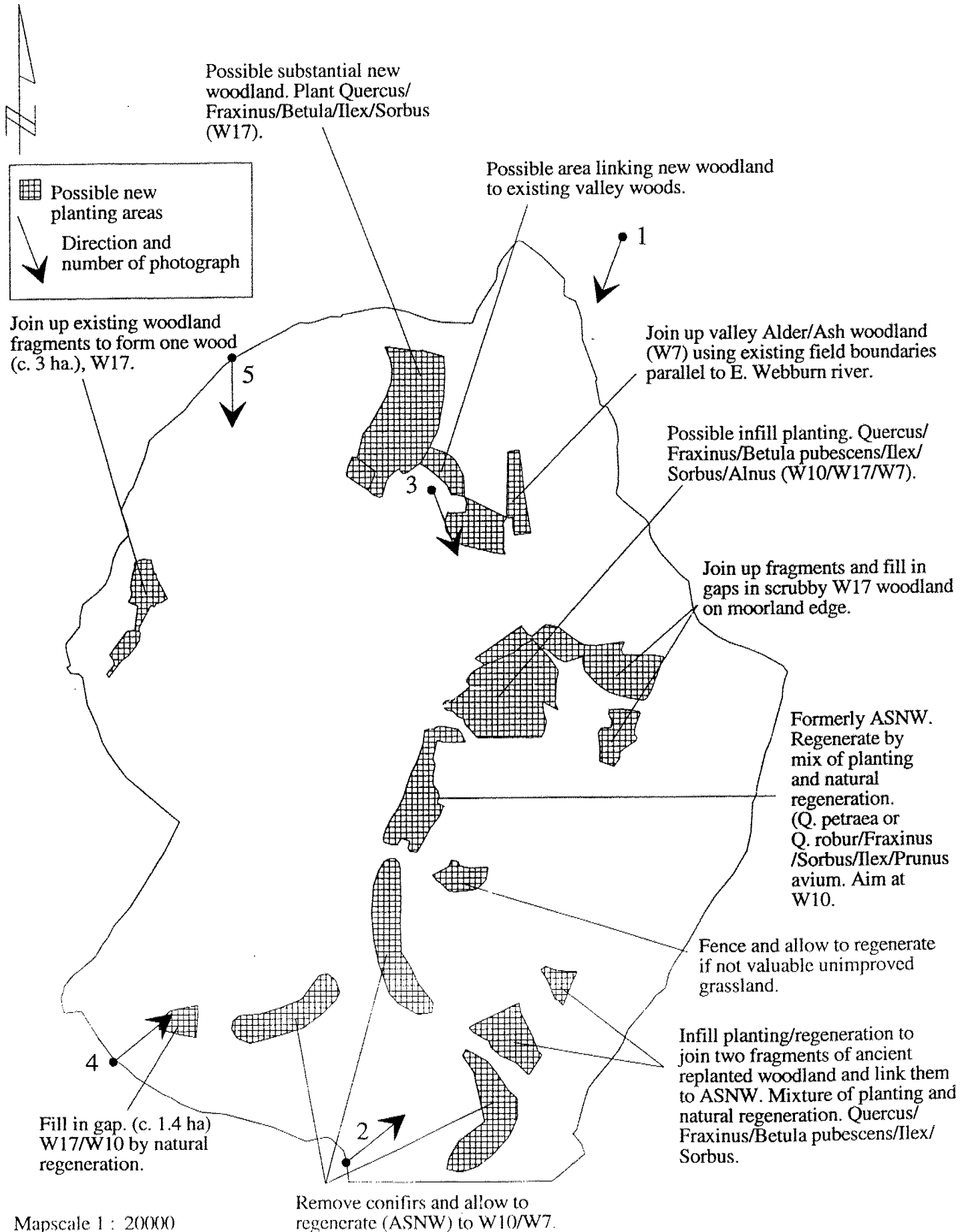


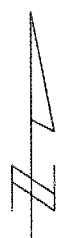
Dartmoor National Park

Smaller Study area – Possible woodland expansion – Widecombe in the Moor

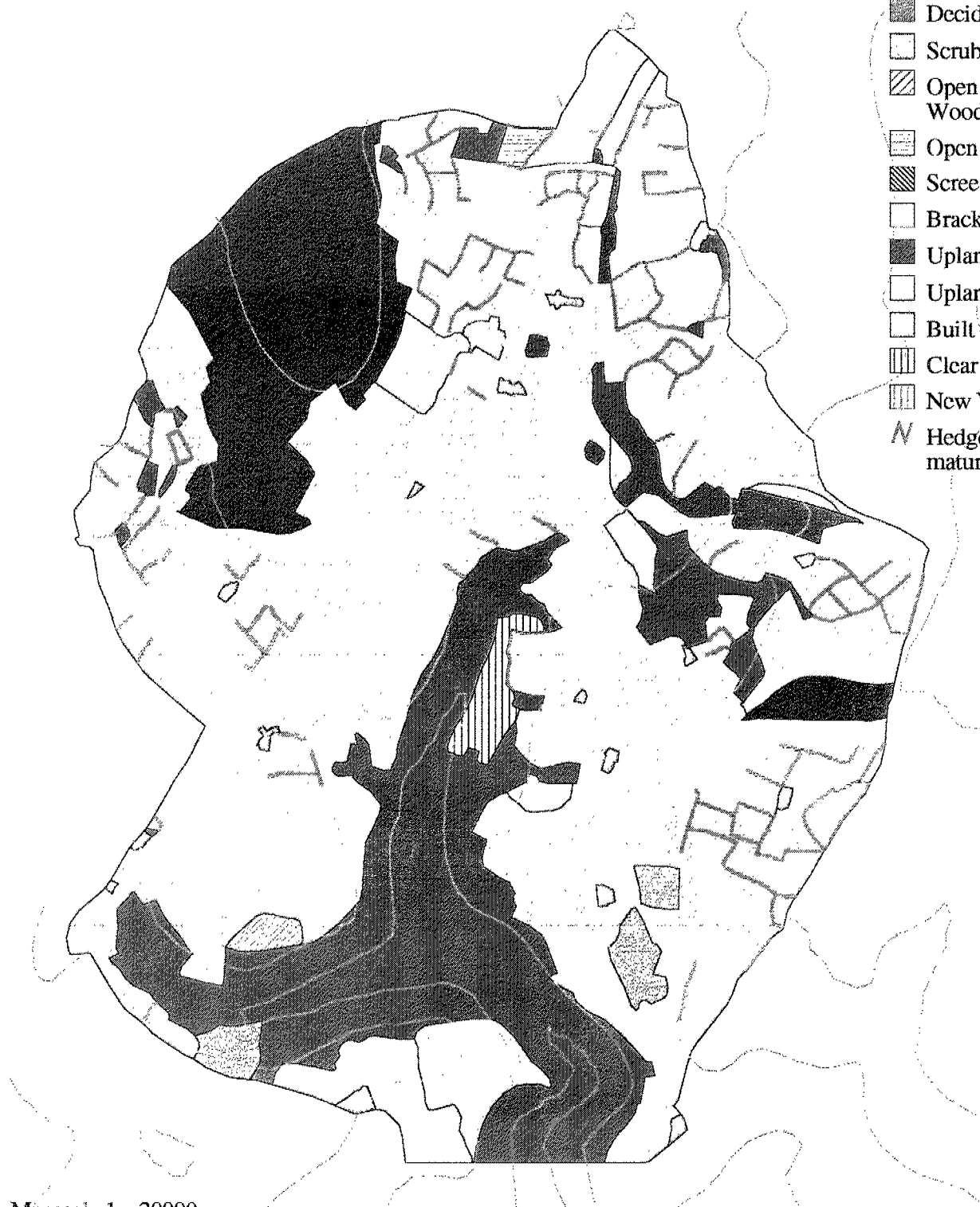


Dartmoor National Park

Smaller Study area – Land cover – Widecombe in the Moor



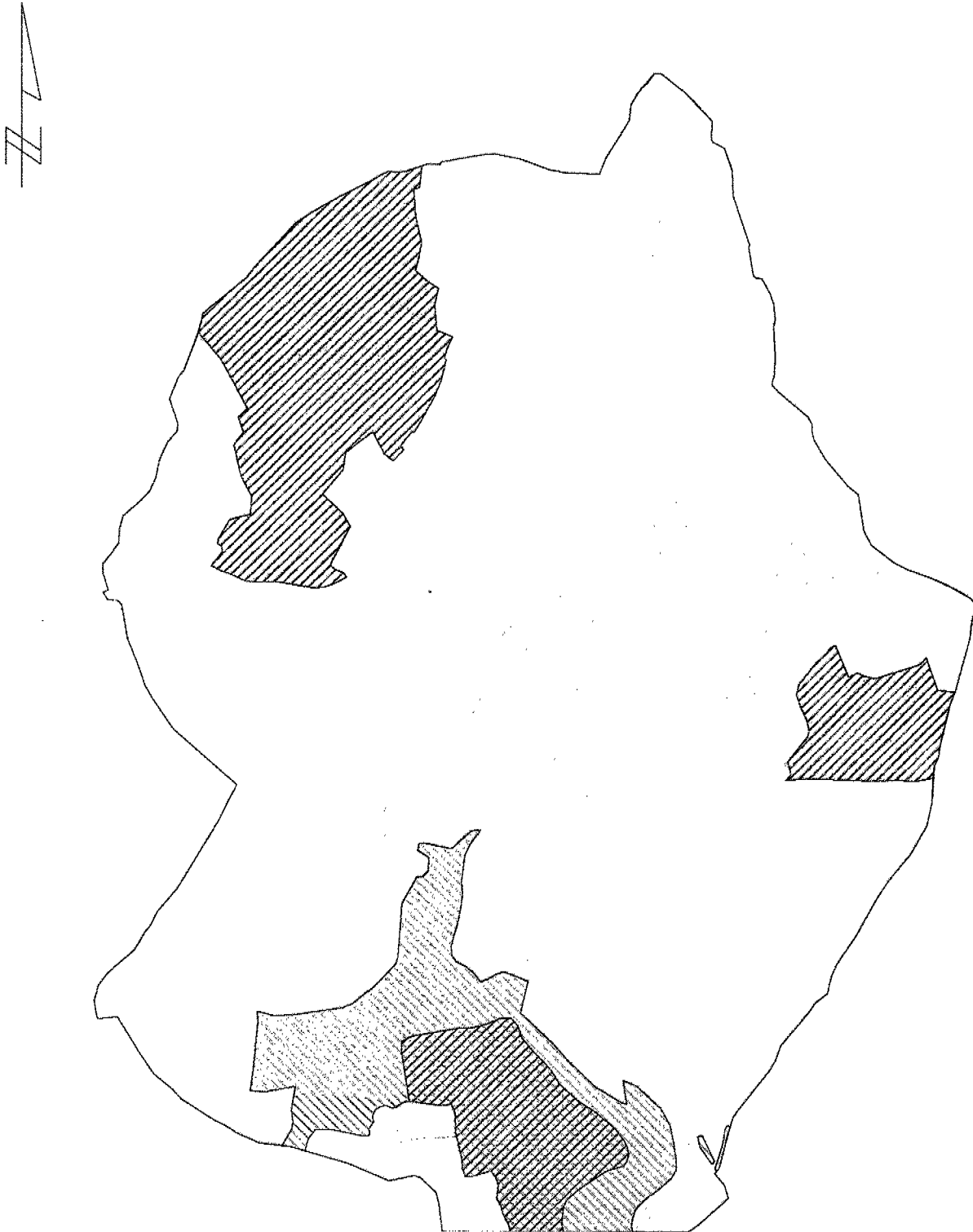
- Improved / Semi-improved
- Rough Pasture
- Coniferous Woodland
- Mixed Woodland
- Deciduous Woodland
- Scrub
- Open Deciduous Woodland
- Open Scrub
- Scree / Rock
- Bracken
- Upland Heathland
- Upland Grass Moor
- Built-up Areas
- Clear Felled
- New Woodland
- Hedgerows with mature trees







Mapscale 1 : 20000
 Contour interval 50 m

Dartmoor National Park

Smaller Study area –Statutory Areas relating to possible woodland expansion - Widecombe in the Moor



-  Section 3 Woodlands
-  Commonland
-  Section 3 Moor and heath land
-  SSSI

Mapscale 1 : 20000

Dartmoor National Park - Photographs taken at Widecombe in the Moor

- Plate 3.3.1** View of the study area from above and to the east of the village of Widecombe.
- Plate 3.3.2** View across woodland in the lower part of the valley showing conifers within ASNW oak-birch-ash woodland.
- Plate 3.3.3** View from near Dunstone across Alder-ash valley woodland and improved-semi-improved grass fields to the moorland beyond; note woodland and scrub on the moorland edge.
- Plate 3.3.4** View across semi-natural broadleaved woodland showing a gap which could be easily filled in by natural regeneration.
- Plate 3.3.5** View across moorland which is common land heavily grazed by sheep and ponies resulting in suppression of heather.
- Plate 3.3.6** View across the open moor near Haytor Rocks showing scattered hawthorn scrub on well drained stony ground.

Plate 3.3.1



Plate 3.3.2



Plate 3.3.3



Plate 3.3.4



Plate 3.3.5



Plate 3.3.6



Table 3.3.1 Distribution of land by ITE land cover types in the Widecombe study area

Land Cover	Area (ha)	Proportion %
Improved/Semi-improved grass	450	63.1
Rough Pasture	6	0.8
Coniferous Woodland	2	0.3
Mixed Woodland	9	1.2
Deciduous Woodland	136	19.1
Open Scrub	2	0.2
Bracken	28	3.9
Upland Heathland	69	9.7
Built-up areas	6	0.8
Clear-felled	6	0.8
Total	714	

There is one substantial area of moorland plus a second smaller area which together amount to 69 ha (9.7%). Both areas are common land and included on the DNP Section 3 moor and heath map (Figure 3.3.9). This moorland has a high cover of gorse in places and little heather (Plate 3.3.5). It is heavily grazed and a number of Dartmoor ponies were seen during our visit. Adjacent to the moorland and merging into it are fairly extensive areas of bracken-dominated grassland (28 ha, 3.9%). There are no large free-standing conifer plantations but the extensive areas of broadleaved woodland in the lower part of the valley have been substantially underplanted/supplemented in places with conifers (mainly larch and Douglas fir, but with some spruce and hemlock) (Plate 3.3.2). In addition to the continuous areas of woodland on the valley sides, much of which is ASNW (mostly oak dominated, but often with abundant ash, sycamore, beech, birch, rowan, holly and hazel, and (we are informed) occasional small-leaved lime - NVC classes W10/W17 - there are linear stands of alder/ash woodland on the valley floor (W7). There are also a number of scattered areas of woodland/scrub, the largest group leading up almost from the valley floor to the bracken fringing the moorland edge on the eastern boundary of the study area. These areas together give a total deciduous plus mixed woodland area of 145 ha (20.3% of land area).

Our proposals have two main objectives; to link up areas of existing woodland to create continuous woodland cover while taking up as little agricultural land as possible in doing so; removing the conifers from the ASNW. Our assessment of the means of achieving these objectives are shown in Figure 3.3.8 and its overlay (3.3.7). It will be seen by referring back to Figure 3.3.5 that our suggestions are modest in relation to the potential area of additional woodland which could be achieved in the area according to our objective means of assessment. Almost all the new woodland would be planted/regenerated on improved/semi-

improved pasture (51 ha, 11.3% of the total of that land cover in the area) (Table 3.3.2), reflecting the high proportion of this land cover type (450 ha) in the study area (Table 3.3.1). We have indicated in Figure 3.3.7 where we think natural regeneration would be the most appropriate means of woodland establishment and where planting would be necessary. By restricting most of our suggestions to linking up existing areas of woodland the potential for natural regeneration is maximised. While this is generally desirable, ensuring the genetic integrity of the resulting larger woodland areas, it can cause problems if undesirable (exotic) species colonize more readily than the more desirable native trees. Conifers such as larch and Douglas fir could come into this category where there is a seed source nearby, but also sycamore and beech which might be tolerated as a minor component (it would probably be impossible to eliminate them completely in any case) but not if they threatened to dominate. It could be labour intensive and costly to control these competing species and where it was felt that a major problem might arise it would perhaps be wise to consider planting the desired species. It might also be considered appropriate to introduce species such as lime and wild service tree grown from local seed as these would be unlikely to colonise naturally in most places being so scarce in the existing woodland.

Table 3.3.2 Distribution of possible woodland expansion area by land cover types in the Widecombe study area

Land Cover	Area (ha)	Proportion of land cover types (%)
Improved/Semi-improved grass	51	11.3
Rough Pasture	2	33.3
Clear-felled	6	100.0
Total	59	8.2

The areas marked on the map for woodland expansion should not be considered as areas which we would necessarily envisage being converted into continuous dense woodland. In some areas, notably where linking existing large woodland fragment this might be appropriate, elsewhere, for example near the moorland edge, the creation of open woodland/scrub, perhaps by planting groups of trees in shelters, would be more appropriate. Similarly, we would not consider that natural regeneration which failed to produce complete cover or an even canopy was a failure; we have become too used in Britain to seeing woodland as an all or nothing thing whereas in many countries in situations similar to those in the English uplands, open woodland and scrub is the norm.

3.3.3.4 Conclusions

At first sight it might be considered that the Widecombe study area is already very well wooded and that there is no ecological benefit to gain from woodland expansion. This may be true in terms of the biodiversity of the area; it is unlikely that any new woodland plants or animals would be attracted into the area as a result of the suggestions we have made. But

biodiversity is not all that conservation is about; building up and maintaining viable areas of key habitats and populations of key species is equally important and for many woodland species (particularly those birds and mammals which require privacy to thrive, and those invertebrates and plants that have low mobility) this means having large blocks of habitat. It is also probable that by linking substantial but isolated woodlands to larger areas the number of viable sub-populations will be increased, although we still know insufficient about the genetics of metapopulations to be sure of the detailed requirements. It is essential, of course, that in increasing the area of woodland we do not unwittingly undermine the conservation value of other equally important habitats. This requires very careful planning both in terms of prioritisation of habitats for particular areas and consideration of the ecological costs and benefits of changing the balance both in general and on particular sites. However, when opposing a case for woodland expansion the fact that in many instances woodland would be the natural cover should not be forgotten. It is easy to forget how fragmented our native woodlands have become, even in such a relatively well-wooded place as the Widecombe study area. Bold decisions will be required if the long history of woodland removal in England is to be halted, let alone reversed.

3.4 PEAK DISTRICT NATIONAL PARK

The Peak District National Park (PDNP) occupies an area of approximately 141,216 ha of land of very varying upland character in the centre of England (Figure 3.4.1). The Dark (North) Peak and the South West Peak resemble much of the Pennines further north, including parts of the Northumberland National Park. The terrain, especially in the Dark Peak, comprises a high and wild moorland plateau, dominated by blanket bog which is often hagged and eroded, partly as a result of past damage to the sensitive mire vegetation by air pollution coming from the industrial conurbations of Lancashire and South Yorkshire which lie adjacent to the Park on its west and east boundaries. The South West Peak, being smaller in area and generally of lower elevation is similar in character but the terrain is more rolling and less severe. Much of the land in both areas lies above 500 m elevation. The underlying rock is predominantly Carboniferous millstone grit, shales and sandstones. The White Peak in the south-eastern part of the PDNP is very different in character comprising a pastoral landscape, mainly of small enclosure fields laid out in geometrical fashion and separated by walls built of the underlying carboniferous limestone, but with more open areas known as 'limestone heaths and hills' which have a much more upland feel. Very steep-sided valleys (dales) have been cut through the soluble rock by a few substantial rivers, notably the Derwent and the Dove and their tributaries. Some of these are 'dry' valleys, except during periods of heavy winter rainfall.

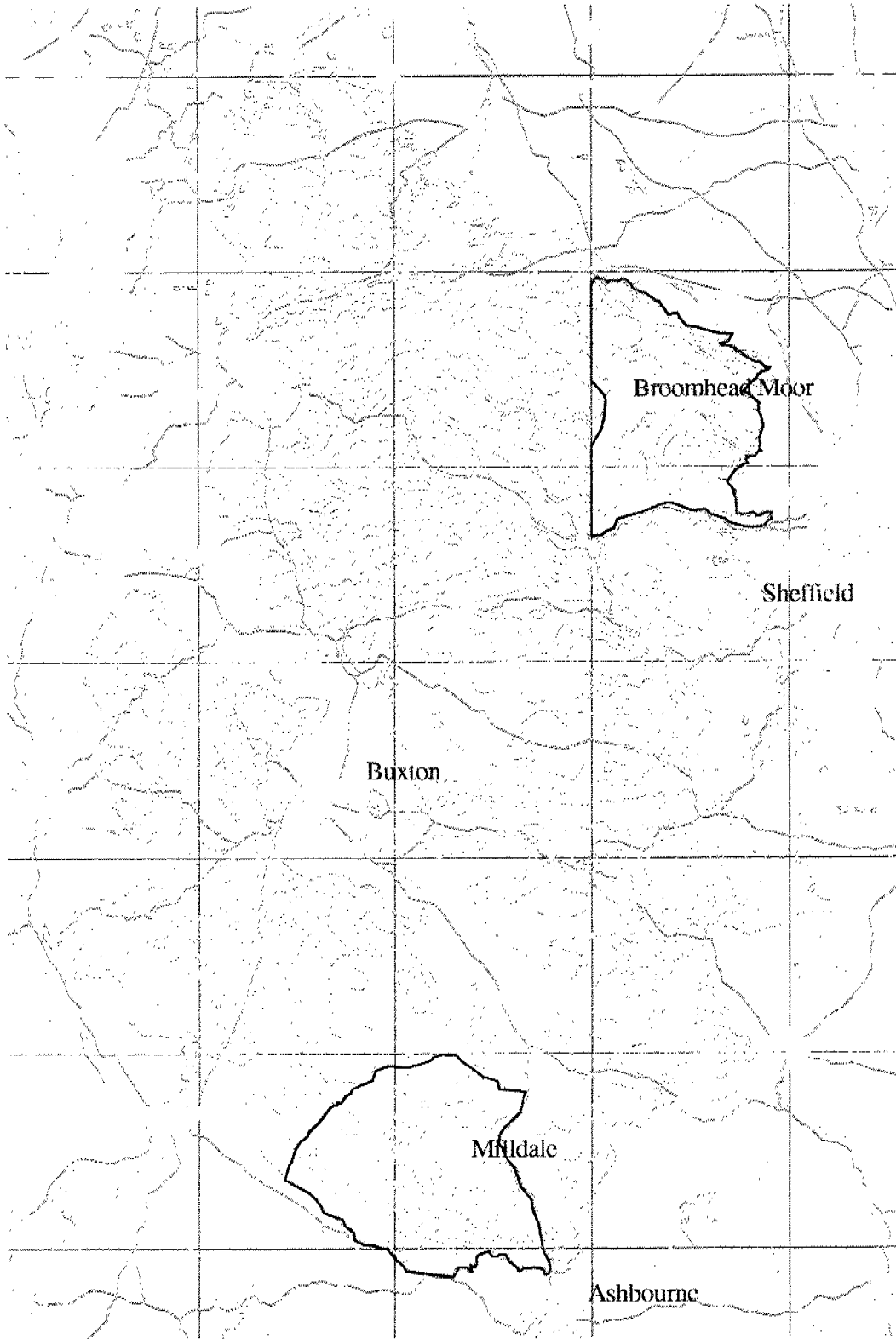
The soils in the Dark Peak and the South West Peak are predominantly deep, very acid peats of the Winter Hill series on the highest plateau ground, giving way to ironpan stagnopodzols (e.g. Belmont series) at lower elevations and on sloping ground where peat accumulation has been less active, and to staghomic gleys towards the moorland edge. These soils generally require draining before even coniferous trees can be established so there is little opportunity for development of broadleaved woodland over much of this moorland area, even if it were felt to be desirable. The soils of the White Peak are much more suitable for growth of native woodland being mostly fertile and freely drained brown earths (chiefly Malham series), although sometimes, and especially on the dale sides and around limestone rock outcrops they are very shallow.








The differences in the physiography of these areas determines not only their character but also their usage. The Dark and South West Peaks are of little agricultural value, supporting only low densities of grazing animals, chiefly sheep. Being near to major centres of population they do, however, have a very high recreational value and usage, providing a potential wilderness experience within an hour of home for several million people. The streams and rivers draining the moor are harnessed to supply water to their homes and industry. The White Peak is much more of a working landscape with intensive livestock farming, but here too tourism is a very important industry, the Derbyshire Dales having a gentler but no less attractive appeal. Quarrying the valuable limestone is also an important, and in places controversial industry within the Park.

The climate is also very different between the Dark and South West Peaks and the White Peak. On the high moorland, winters are cold and wet and summers cool and damp with annual rainfall exceeding 2500 mm, while in the White Peak the climate, while still affected by elevation and its location in the heart of England, is milder and much drier (mean July temperature, 14.2°C, mean annual rainfall 1400 mm, at Buxton).

Peak 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

The chief nature conservation interest in the Dark Peak lies in the extensive area of heather moorland and blanket bog which provides habitat for a wide range of characteristic plant and animal communities and species, many of which are of international as well as national and local importance. The area is designated as an ESA with the conservation and regeneration of heather as a key objective. The moorland, like that in Northumberland, the Lake District and Dartmoor has important populations of breeding waders (golden plover, dunlin), red grouse, skylark (a species in alarming decline nationally) and merlin. The in-bye land on the moorland edge holds breeding populations of typical upland birds such as grey wagtail, dipper and ring ouzel. Black grouse have been extinct for over ten years. There is little native woodland but what there is provides the usual suite of common woodland birds RSPB, pers. comm.).

While the South West Peak has an important area of moorland with similar plant and animal communities to those of the Dark Peak, it is its moorland fringe habitats, especially wet rushy pastures and species-rich hay meadows which are of particular interest. Ornithologically, it is probably the most intensively studied area of upland habitat in the UK, RSPB surveys extending back to the 1970's (RSPB, pers. comm.). These studies have shown how populations of birds including breeding waders (curlew, lapwing and snipe) twite and black grouse have declined rapidly as a result of agricultural intensification - specifically the drainage and improvement of fields and the switch from hay to silage. The area has been designated as an ESA with the aim of conserving these declining habitats.

In the White Peak, nature conservation activity is focused primarily on limestone heaths and hills and the dales. The limestone heaths and hills are areas of open, semi-natural grassland, not substantially improved for agriculture, which in places support a heathland type of vegetation. They display a wide variety of species mixtures from calcareous grassland (mainly on thin soils on steep slopes, where the soil is relatively alkaline and grazing has produced a characteristic flower-rich community) through to the heaths which develop on flatter areas as a result of acidification of the soil by leaching out of lime. Much of the limestone plateau now in intensive pastoral agriculture was limestone heath before the enclosures and agricultural improvement. The fact that limestone heaths are suitable for agricultural improvement makes them very vulnerable and in need of protection. As a result an SSSI has been declared on Longstone Moor (the largest remaining area) while the Peak Park Planning Board has concluded management agreements on other areas. As a result, 118 of the 148 ha of remaining limestone heath are now protected.

The limestone dales are of international importance and many are already managed by conservation bodies or are SSSI's. As well as being scenically beautiful, with impressive rock outcrops and screes, many of them contain nationally and in some cases internationally important examples of herb-rich grasslands and ancient semi-natural woodland (of which more below). The dale grasslands, which contain the widest variety of plant species found in the Park, are dependent on grazing by domestic livestock, chiefly sheep, to retain their biodiversity. During this century there has been a major switch in the dales from sheep to dairy cattle, accelerated as agricultural improvement has raised the profitability of dairying. The decline in sheep grazing, now seemingly in (temporary?) reverse as a result of milk quotas, has led to problems of scrub encroachment onto herb-rich grasslands in many areas throughout the dales and some important sites have been lost and others reduced in interest.

English Nature and Peak Park Planning Board policies aim to maintain a balance between grassland, scrub and woodland, by active intervention where possible and necessary.

The PDNP has a very rich cultural heritage as indicated by the many archaeological sites, 200 of which are Scheduled Ancient Monuments, a figure likely to quadruple as a result of a current review (Peak Park Planning Board policies document). These sites provide a record of man's settlement in and use of the area since earliest times. Bronze age burial mounds pepper the White Peak. Ring-cairns, stone circles and prehistoric settlement sites occur on the gritstones in the Dark and South West Peaks. Hillforts crown the limestone and gritstone heights. Clearly, it is essential to take full account of the location and importance of such archaeological remains when considering any expansion of forestry in the National Park.

3.4.1 Native woodland in the Peak District National Park

Extensive areas of woodland are not a feature of the PDNP (apart from the area in and around the Chatsworth Estate) and a few large conifer plantations on the gritstone. The total area recorded by the ITE Land Cover map (LCM) was 14,411 ha (10.2% of land area), comprising 10,032 ha of deciduous/mixed woodland (7.10%), 1,200 ha of conifer woodland (0.85%) and 3,179 ha of scrub (2.25%)(Table 3.1). However, where native woodland does occur, as in some of the larger river valleys (e.g. Longdendale) on the gritstone, or the dales in the White Peak, it makes a major contribution to the landscape while providing wildlife and recreational benefits, also raw materials and hence employment for local business. Semi-natural woodland is mainly confined to the higher and steeper slopes of the gritstone/shale valleys and the limestone dales. The valley-side woodlands on the gritstone are generally oak-birch woodlands (NVC types W16, W10). Few of them are particularly good examples, however, and many are small, overgrazed and derelict, with few young trees and little or no regeneration. Current Peak Park Planning Board policies, supported and acted upon by such bodies as the National Trust, Severn Trent Water Authority and the Derbyshire Wildlife Trust, favour action to revitalise and where appropriate and possible to extend these gritstone woodland fragments, by exclusion of livestock and, where necessary, planting.

The woodland of the White Peak is of two principle kinds, small woods on the limestone plateau and larger valley-side woods in the dales extending down onto the narrow river terraces. The plateau woods may mostly be classified as W8 (ash-field maple woods) with the damp stream side woods being W7 (alder-ash woodland). The small plateau woods, many <0.5 ha in size, are under constant threat, most being unenclosed and subject to overgrazing and/or clearing for agriculture. The PDNP Planning Board has policies aimed at maintaining the small woodland character of this part of the Park, by promoting the various grant schemes available for small woodlands and by developing grant and management schemes of its own.

Some of the semi-natural woodlands in the limestone dales are of ancient origin, while other are secondary. In a few cases conifer plantations have been established on ASNW sites, but they may retain all or some of the ground flora associated with ancient woodland, which might recover if appropriate species were substituted in the next rotation and managed sensitively. Studies of ground vegetation growing beneath canopies of different tree species on the same site indicate that the species of tree is less important than the shade it casts and that conifers casting a light shade (notably pines), or a heavy shade (e.g. Sitka spruce, Douglas fir) but heavily thinned at all stages of growth, support similar ground vegetation to broadleaves (Anderson 1979, Good *et al.* 1990). There are a number of woodland SSSI's in

the PDNP, most of them in the limestone dales. Seven of them (Cressbrook Dale, Dove Valley and Biggin Dale, Hamps and Manifold Valleys, Lathkill Dale, Matlock Woods and Via Gellia Woodlands) have been grouped together into a proposed Peak District Dales Woodlands, Special Area for Conservation (SAC). The reason for choosing this area is that it contributes to an identified European priority interest in "mixed woodland on alkaline soils with associated rocky slopes" for which it considered to be "one of the best areas in the United Kingdom".

A memorandum of agreement concerning *Native woodlands in the Peak District National Park* has recently been finalized (but not yet agreed) between the PDNP Authority and the Forestry Authority (East Midlands Conservancy) based on the National Accord signed in 1993. The local agreement sets out an agreed woodland strategy, describes current initiatives and sets down a course of action for the future. Safeguarding and appropriately managing the existing semi-natural woodland is seen as top priority for both the Forestry Authority and the PDNPA. Getting a full and accurate inventory of these woodlands is therefore accorded high priority and it is hoped that work in hand to achieve this will also help to decide planting and management targets, such as appropriate areas and species for native woodlands. The PDNPA is in a strong position here through its ownership and management of 140 woodlands throughout the NP, to provide leadership and training in the woodland management procedures needed to maintain and enhance conservation values. The reversion of plantations on ancient woodland sites to semi-natural woodland is also a high priority for action under the local accord. Among the proposed new initiatives is one to set an annual target of 10 ha for new native woodland creation. It may be considered that this target is rather low given the current broadleaved/mixed woodland area in the Park of c. 10,000 ha (of which perhaps half is semi-natural). At this rate of expansion it would take 10 years to increase the area of semi-natural woodland by 2% and half a century to increase it by a modest 10%.

Other initiatives agreed under the local accord include provision of advice, training and demonstrations to landowners and others on management of existing woodlands and the potential to increase native woodland; promoting the development of small businesses in the woodland industry; promoting the use of local woodland products; encouraging local nurseries to produce native trees of local provenance.

3.4.2 The 10 x 10 km study areas

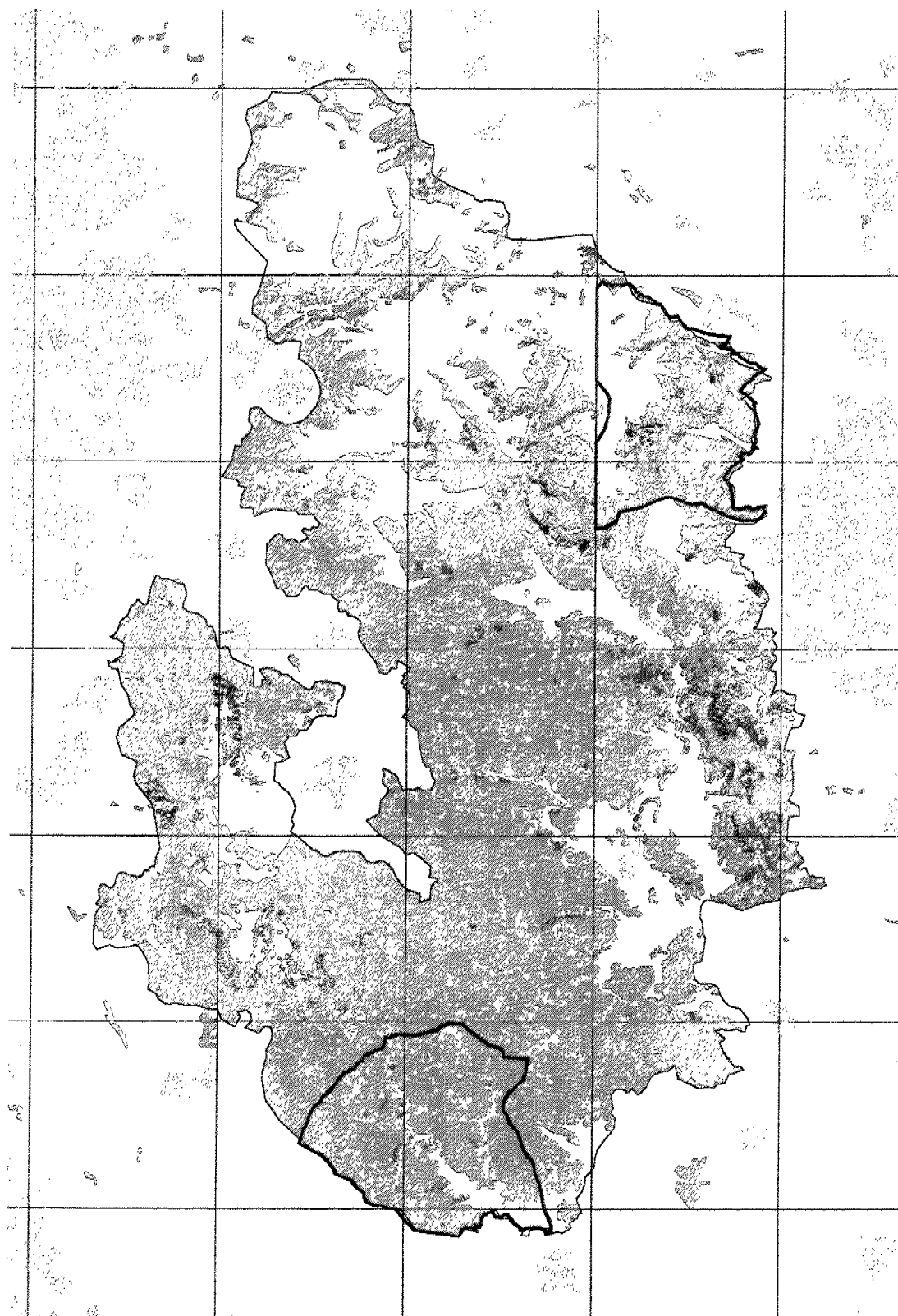
3.4.2.1 Criteria for selection










Two 10 x 10 km study areas were selected by the EN Peak District and Derbyshire Team after consultation with PDNP officers, using the map of the NNP provided by ITE showing 'potential areas' for woodland expansion derived as explained in the Methods section (2.1) (Figure 3.4.2):

- i. Relatively well wooded - **White Peak limestone plateau and dales**
Dove Dale, Wolfscote Dale, River Hamps, R. Manifold, Grindon Moor
- ii. With little woodland - **Dark Peak - Broomhead Moor**
Broomhead Moor, Bradfield Moors, Derwent Moors, River Loxley and reservoirs, Ewden beck and reservoirs

Peak District National Park

Provisional possible areas for upland woodland expansion



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



Mapscale 1 : 333000

Area (i) was chosen because it comprises a mix of limestone plateau of varying character, with a mix of more open limestone hills and enclosure fields, plus most of Dovedale and its major 'tributary' dales. Issues of woodland/scrub/grassland balance which affect the White Peak as a whole are prominent in this area while there are opportunities for establishing new woodland of high conservation value on mainly good improved grassland. Area (ii) was chosen as being representative of the rather featureless mid-altitude (300-500m) moorland edge landscape characteristic of the eastern side of the Dark Peak. Issues in such areas include: conservation and extension of remnant semi-natural woodland in cloughs; conversion of conifer plantations to native woodland; possible conversion of some moorland/heath to woodland; opportunities for new woodland on rough grazing land; suitability of bracken land for tree planting - existing habitat value.

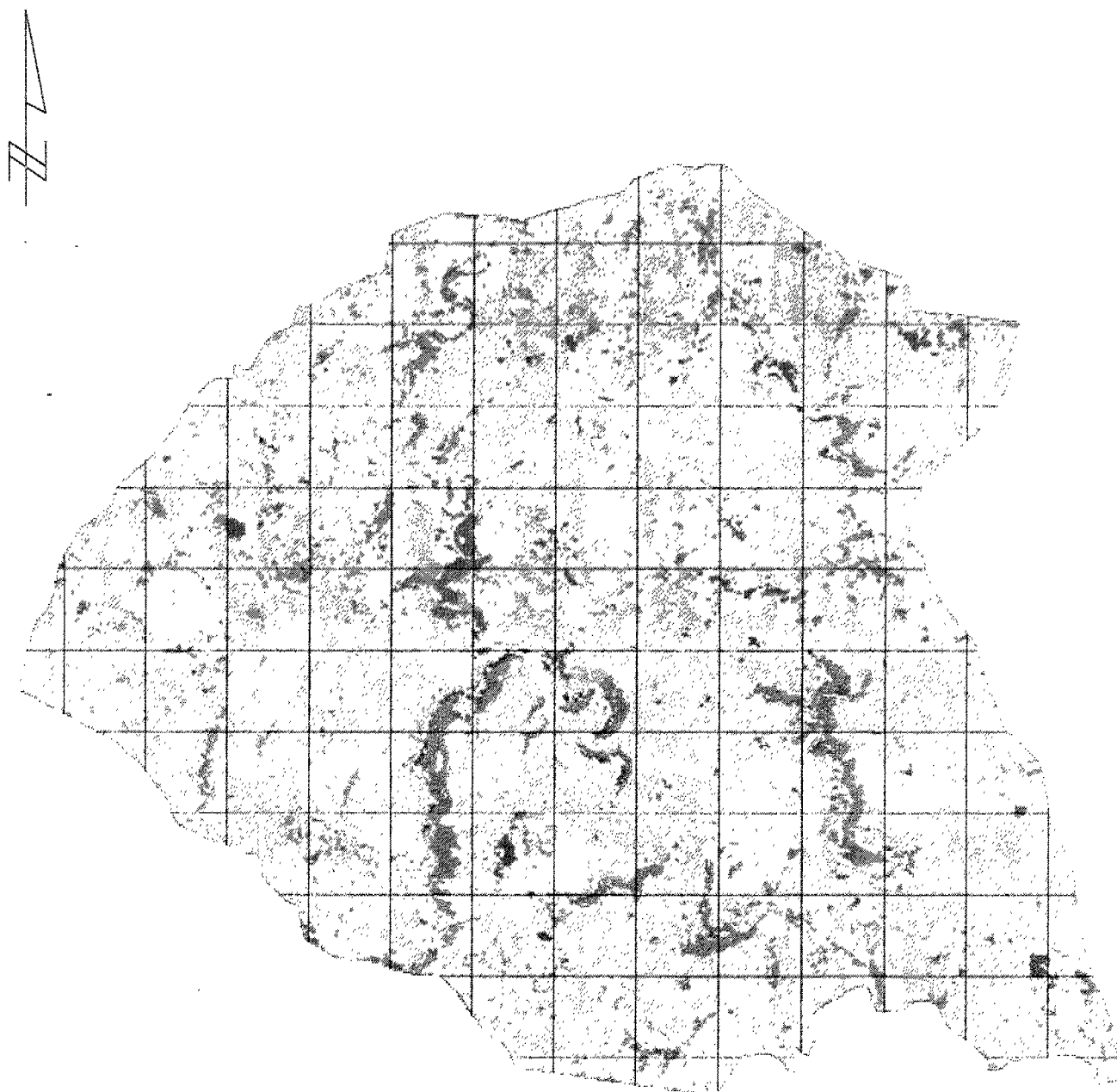
3.4.2.2 Current land cover and potential for woodland expansion

The land cover of the two study areas as derived from the ITE Land Cover Map is shown in Figures 3.4.3-3.4.4. Figures 3.4.5-3.4.6 show the existing areas of coniferous woodland, broadleaved/mixed woodland (including ASNW and secondary woodland digitised from the maps in the provisional Ancient Woodland Inventory for Derbyshire and Yorkshire) and scrub, and the areas with potential for woodland expansion. It can be seen from Figures 3.4.3 and 3.4.4 that the land cover differs very much in the Milldale and Broomhead Moor study areas. The limestone plateau terrain, broken only by the dales and with occasional higher hills on the eastern edge of the study area has resulted in the Milldale study area having a remarkably uniform land cover compared with most upland areas in Britain. The most obvious feature is the dominance of improved and unimproved pasture, the only other substantial vegetation types being deciduous woodland, 'lowland heath' on the steep dale sides and other steeply sloping, stony ground (actually calcareous grassland but with similar reflectance to lowland heath), 'shrub/orchard' (scrub in this case) and, on the moorland fringe to the east, upland grass/moor. In the Broomhead Moor study area (Figure 3.4.4) the dominant vegetation is upland dwarf shrub (heather moorland) giving way to upland grass/moor towards the moorland edge, with extensive areas of bracken picking out the steeper, more freely drained slopes along the major cloughs. On the lower ground around and to the east of Agden Reservoir and only 4-5 km from the outskirts of Sheffield there is a substantial area of improved grassland, with other smaller areas in the other river valleys.

Figures 3.4.5 and 3.4.6 show the very varied distribution of both the existing woodland cover in the two study areas and the areas revealed by our analysis as having potential for woodland expansion, while Table 3.2 shows the area and proportional cover of different woodland types. In the Milldale study area (Figure 3.4.5) the woodland is, as we have already noted in the earlier discussion, divided into two major types, the substantial broadleaved woodland in the dales (e.g. Dove Dale), much of which is ASNW or woodland replanted on ASNW sites, and the scattered areas of very small woodlands, scrub and individual trees which pepper the whole area. As a result the overall area of deciduous/mixed woodland is not large (494 ha, 5% of the area) although the feel in most places is of a well wooded, or perhaps more accurately, 'well treed' landscape. The area of scrub here (265 ha, 2.7% of land area) is much greater than in any other of the 10 x 10 km study areas in this project (it does not exceed 1% elsewhere). This highlights the problem of scrub encroachment onto limestone hills and heath already mentioned, but equally it indicates the suitability of much of the ground for woodland, scrub normally being a half-way house from grassland maintained by grazing. Clearly, most of the White Peak was once woodland or scrub and much of it would

Peak District National Park

10 x 10 km Study area –ITE Land Cover Map – White Peak



Mapscale 1 : 80000

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

Peak District National Park

10 x 10 km Study area –ITE Land Cover Map – Dark Peak

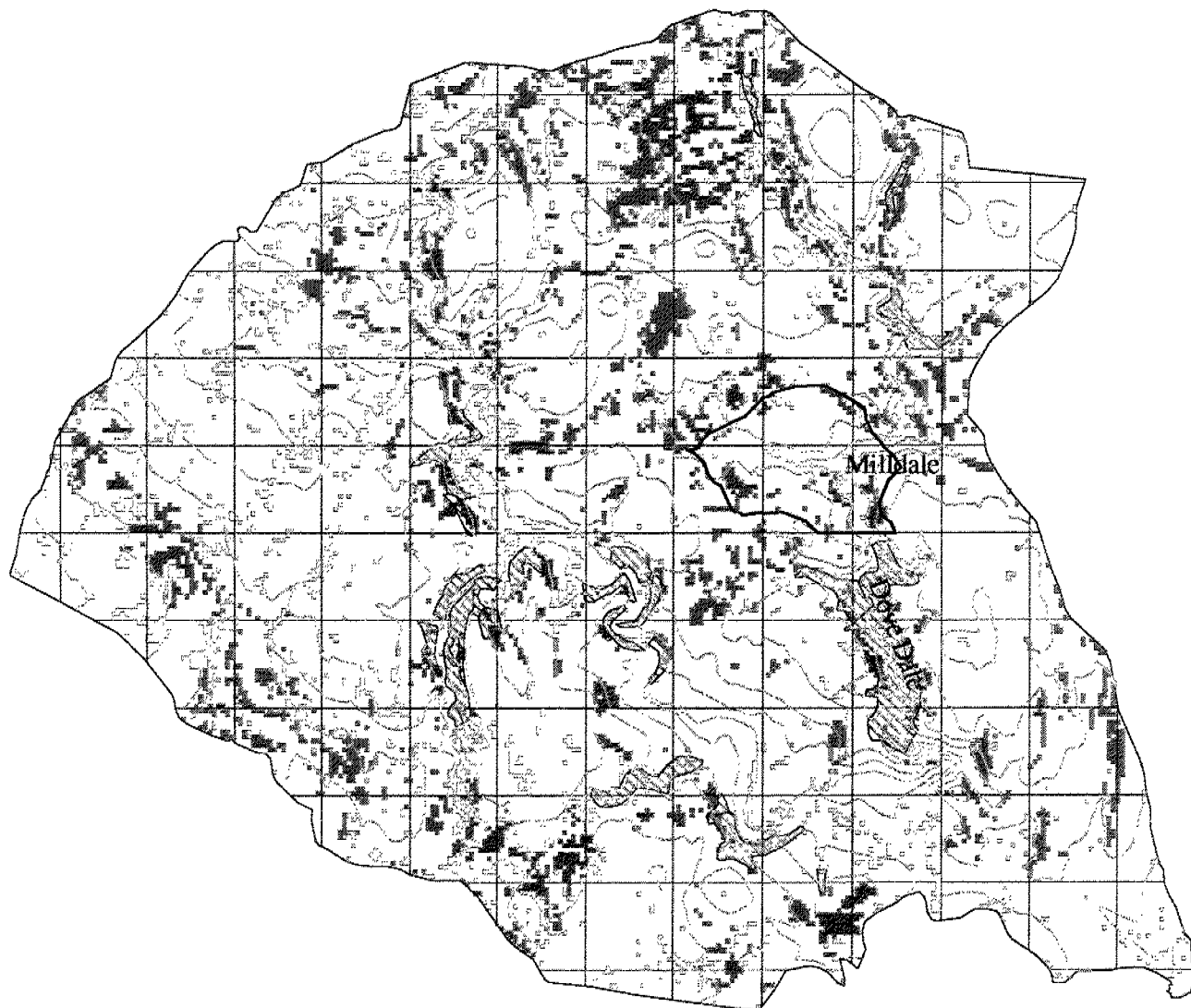
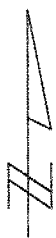


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|-------------------------------|---------------------|----------------------------|---------------------------|
| Inland Water | Marsh/Rough Grass | Shrub/Orchard | Industrial/Urban |
| Beach/Tidal Flats/Cliff | Upland Grass/Moor | Deciduous Trees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

Peak District National Park

10 x 10 km Study area –Woodland –White Peak

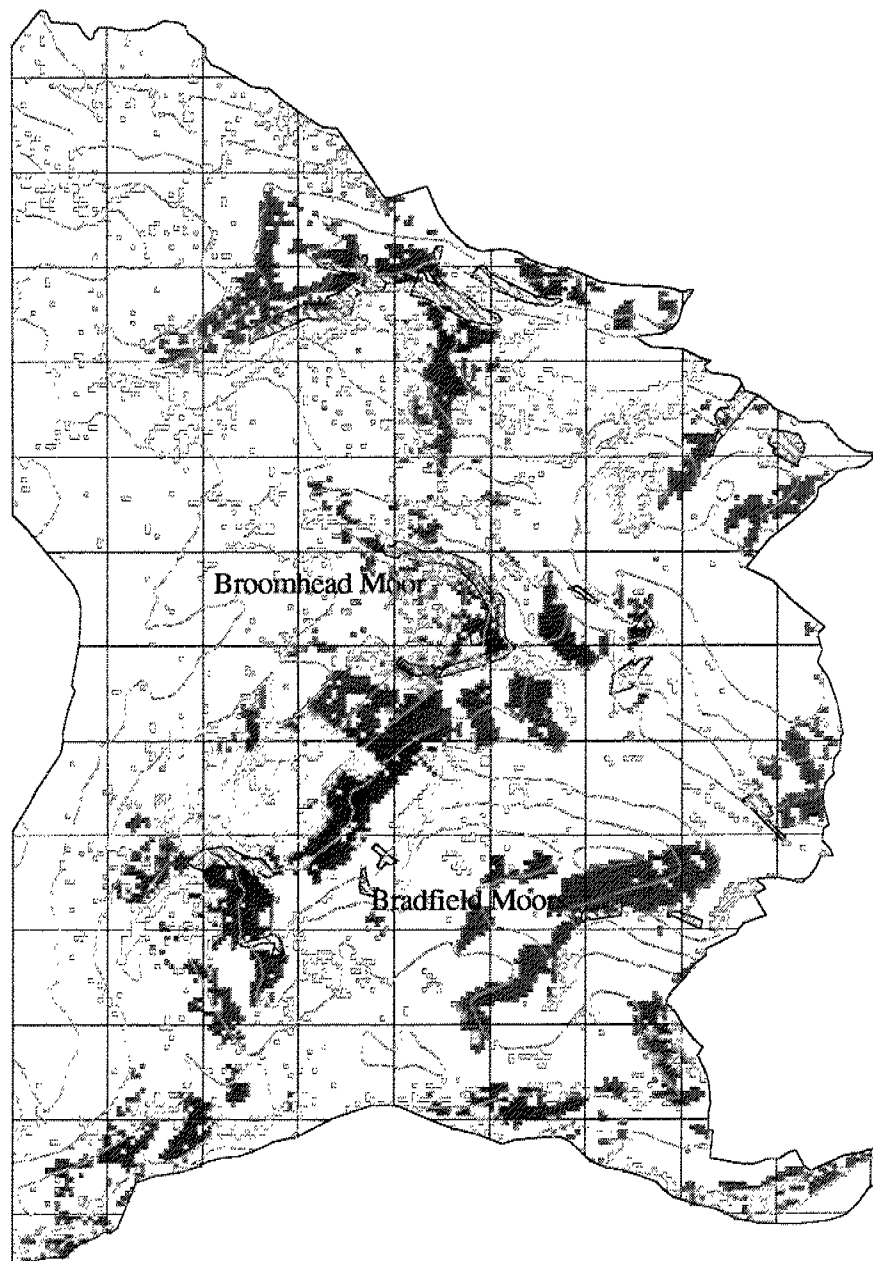
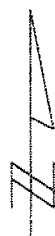


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

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

Peak District National Park

10 x 10 km Study area –Woodland –Dark Peak



Mapscale 1 : 80000

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

very rapidly return to it if left to its own devices. The valued species-rich, unimproved open-ground habitats, while much less common now than before the advent of agricultural improvement are, nevertheless, probably still much more common than they would be but for sheep, while the woodland and scrub which seeks to replace them is the natural cover here as over most of Britain. The fact that a high proportion of woodland cover is now largely a thing of the past in Britain and that we are therefore not used to it, and the tendency of conservation organisations to favour the *status quo* means that woodland expansion often receives insufficient priority when deciding conservation objectives.

Where, as in the White Peak, site conditions are suitable and patterns of distribution of existing trees and woodlands needed to provide seed allows, natural regeneration is obviously a favoured method of woodland establishment where woodland expansion is required. It is easy to see in Figure 3.4.5 that few of the potential new woodland areas are more than a few hundred metres in any direction from existing woodland. In many, perhaps most instances, therefore, simply reducing or eliminating grazing will be all that will be required for woodland development, provided speed of establishment and mix of species is not important, while the genetic 'purity' of the new trees will be assured.

Figure 3.4.6 shows a very different pattern of distribution of existing woodland in the Broomhead Moor (Dark Peak) site. Most of the existing deciduous/mixed woodland is in cloughs or around reservoirs and although it does not show as scrub because the canopy is too dense, it is often scrubby in character, particularly in the higher cloughs. There is only one substantial area of ASNW, along the Ewden Beck above Broomhead Reservoir. An area of former ASNW above Agden Reservoir has been replanted with a mixture of conifers and broadleaves at some time in the past and there are many other similar mixed woods in the area, some on ancient woodland sites. Converting these back to semi-natural woodland is one of the chief objectives of the new local NP/FA Native Woodland Accord. Where such woods have retained a ground vegetation containing a characteristic suite of species this should not be too difficult, but where that flora has been lost, and especially if the wood is isolated from others with more complete woodland communities, colonization, particularly of the less mobile species, is likely to be difficult and slow. The same situation is true, only more so, in the case of conifer plantations and it will generally be preferable to develop positive plans for regenerating and extending the existing broadleaved woodland. This suggestion is supported by Figure 3.4.6 which shows that an objective analysis indicates that most potential for woodland expansion lies in areas adjacent to existing deciduous/mixed woodland. This approach would also find sympathy with those in the Forestry Commission, MAFF, EN and Peak Park Planning Board who have agreed that "Afforestation is most unlikely to be agreed in the 'core' moorlands unless it is aimed at creating woodlands similar in character to semi-natural woodlands".

3.4.2.3 Conclusions

There are good, but very different opportunities for woodland expansion in all areas of the National Park. In the White Peak most new woods are likely to be small, enmeshed within the patterns of fields and walls on the limestone plateau, and ideally established primarily by natural regeneration. Planting should be used only where a quick end result is required or where it is necessary to supplement those species likely to turn up naturally with others which may not do so but which may be considered desirable for forestry or nature conservation reasons. Planting will also be required in the relatively few cases where larger areas of

woodland are established on improved grassland. Even in these instances natural regeneration can play a part if small woods or groups of trees abut or are near to the new woodland area, as will generally be the case. In the dales there are many situations where semi-natural woodland, including ASNW has become fragmented in the past and where judicious encouragement of natural regeneration or planting could re-establish links. Care will need to be taken to ensure that not too much high quality calcareous grassland is lost in the process. Careful planning is needed with clear, justified objectives and equally careful monitoring of the process of woodland establishment and its subsequent development.

There are plenty of opportunities for woodland expansion in the gritstone areas but in order to avoid altering the character of the 'core' moorland areas it is appropriate to limit new woodland to areas adjacent to existing woodland. This will often mean extending woodland out from the cloughs onto the surrounding slopes. Bracken-dominated ground will generally be the easiest on which to establish woodland - most of it will have been wooded in the past - but it will be necessary to assess the nature conservation costs of doing so, as well as the benefits, before deciding whether to proceed. The same sort of ecological cost-benefit analysis should be carried out routinely when planning new woodlands on all but improved agricultural land.

3.4.3 The smaller study area - Milldale

3.4.3.1 Criteria for selection

Following discussions with local EN and NP staff it was agreed that the study area should be an area around Milldale in the White Peak 10 x 10 km study area. This area was chosen for the following reasons:

- typical area within the limestone dales area including part of Dove Dale; a 'dry' dale (Sunny Bank) with steep sides supporting a mixture of herb-rich calcareous grassland, woodland and encroaching scrub; plus improved enclosed pastures.

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

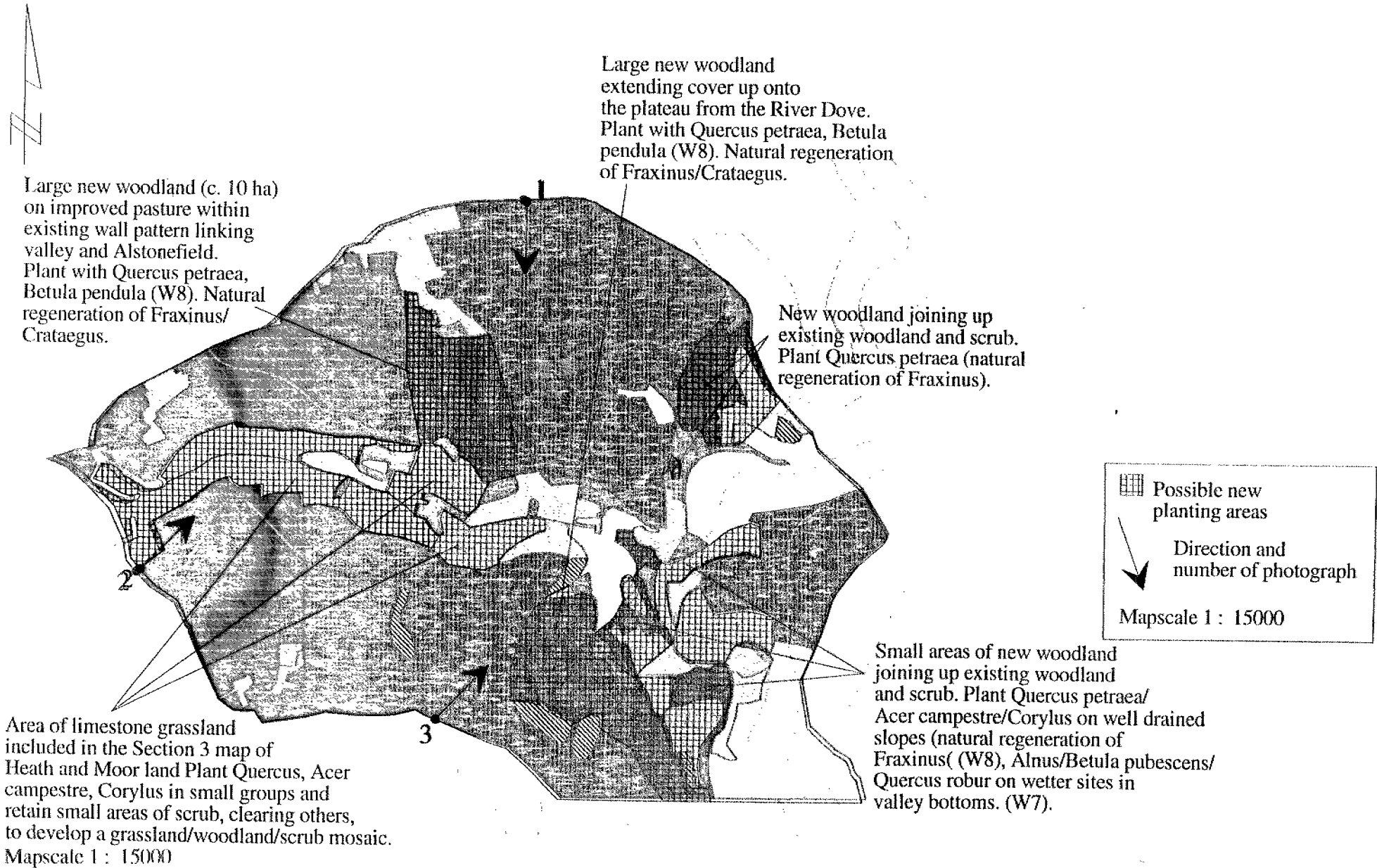
Because of the fundamental difference between the gritstone/shale and limestone areas within the PDNP it is not possible to choose a single area representing the whole Park. Ideally smaller study areas would have been chosen in each of the Dark Peak, South West Peak and the White Peak, but resources did not permit this. This having been said, the differences between these areas have been discussed above and, given the national nature of this project it is appropriate to choose the White Peak as it is so different from all the other study areas in the five National Parks/AONB.

3.4.3.3 Current land use and potential for woodland expansion

The current land use of the study area is shown in Figure 3.4.8, with our suggestions for possible areas for woodland expansion shown on the overlay (Figure 3.4.7), including the broad woodland types sought and the preferred means of establishment. The occurrence of 'Statutory Areas' (SSSI's, PDNP Section 3 woodlands, moor and heath land) within the study area are shown in Figure 3.4.9. Areas and proportions of the ITE land cover types in the study area are shown in Table 3.4.1. It can be seen that the area is a plateau dissected from west to east by a deep-sided dale ('Sunny Bank'), which in this case has no stream, hence a 'dry'

Peak District National Park

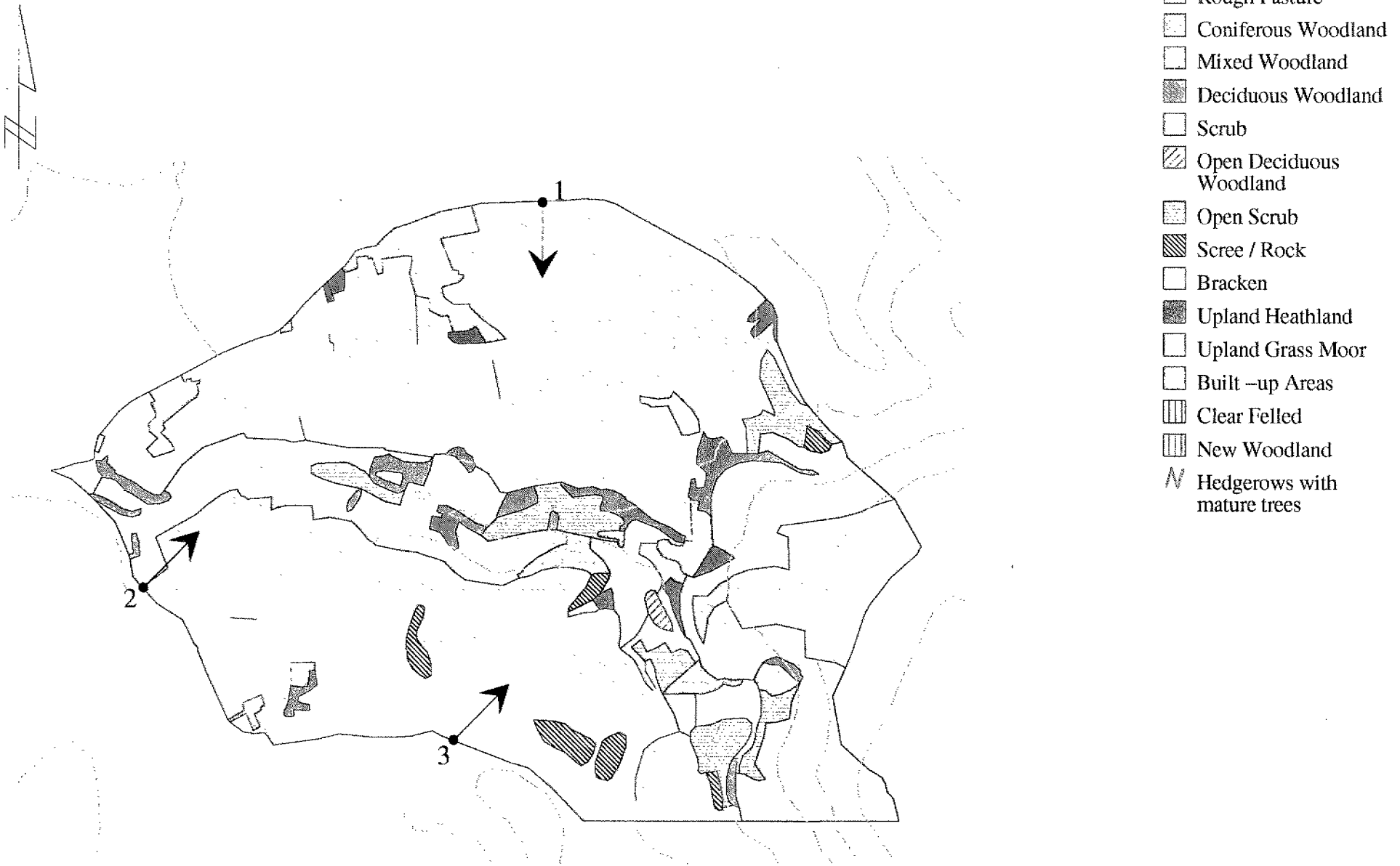
Smaller Study area – Possible woodland expansion – Milldale



Peak District National Park

Smaller Study area – Land cover – Milldale

Figure 3.4.8







Mapscale 1 : 15000

Peak District National Park

Smaller Study area – Statutory Areas relating to possible woodland expansion –
Milldale



-  Section 3 Woodlands
-  Section 3 Moor and heath land
-  SSSI
-  Commonland

Mapscale 1 : 15000