**Bassetlaw District Council** 

LANDSCAPE CHARACTER ASSESSMENT – BASSETLAW, NOTTINGHAMSHIRE

August 2009

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**EXECUTIVE SUMMARY** 

The Bassetlaw Landscape Character Assessment has defined the landscape character of the

administrative area of Bassetlaw District Council [BDC] and will form part of the evidence

base for the Local Development Framework [LDF]. It will be used by BDC to aid development control decisions on planning applications.

The document provides an objective methodology for assessing the varied landscape within

Bassetlaw and contains information about the character, condition and sensitivity of the

landscape to provide a greater understanding of what makes the landscape within Bassetlaw

locally distinctive. The study has recognised this by the identification of Policy Zones across

the 5 Landscape Character Types represented in Bassetlaw. Figure 1 shows the Landscape

Character Types for the whole county.

For each of the Policy Zones a series of Policy sheets has been developed which detail a

landscape action for each Policy Zone. The landscape actions are defined as follows:-

Conserve – actions that encourage the conservation of distinctive features and features in

good condition.

Conserve and Reinforce - actions that conserve distinctive features and features in good

condition, and strengthen and reinforce those features that may be vulnerable.

Reinforce – actions that strengthen or reinforce distinctive features and patterns in the

landscape.

Conserve and Restore – actions that encourage the conservation of distinctive features in

good condition, whilst restoring elements or areas in poorer condition and removing or

mitigating detracting features.

Conserve and Create - actions that conserve distinctive features and features in good

condition, whilst creating new features or areas where they have been lost or are in poor

condition.

Restore – actions that encourage the restoration of distinctive features and the removal or

mitigation of detracting features.

Restore and Create – actions that restore distinctive features and the removal or mitigation

of detracting features, whilst creating new features or areas where they have been lost or are

in poor condition.

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Reinforce and Create – actions that strengthen or reinforce distinctive features and patterns

in the landscape, whilst creating new features or areas where they have been lost or are in

poor condition.

Create – actions that create new features or areas where existing elements are lost or are in

poor condition.

Figure 2 is a summary of the landscape actions for the whole of the Bassetlaw District

Council area.

How to use this document

This document describes the landscape character of the Bassetlaw District Council

administrative area, which consists of 5 different County Character Areas. The report has

been structured to enable users not to have to read the whole document to access the

information they need, but are able to go directly to the key information.

Each chapter of the report covers a distinct character area, and describes the broad

characteristics of the area, such as:

Geology

Soils

Landform

Hydrology

Ecology

Cultural Heritage

It then describes the main factors that have brought about change in the character area, and

considers the trends and pressures that may produce change in the future. It then includes

policy sheets which summarise the key characteristics of each Policy Zone.

For example, if a user wants to know about an area of land south of Retford, the first step

would be to determine which Landscape Character Area the site falls into. In the first place,

refer to an enlarged version of Figure 1 to determine if the area is in the Sherwood Character

area or the Mid-Nottinghamshire Farmlands Character area. If, as in this case, the area is in

Sherwood, refer to an enlarged version of Figure 6, which is overlaid on to an OS base to

check which Policy Zone the site falls into, in this case SH PZ 57.

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Then consult the appropriate character description for SH PZ 57 - Gamston Airport - to obtain a summary of the field data collected about the area.

The following analysis sheet describes the key criteria which have been used to define the landscape condition, which in this case is "Moderate". The Policy Sheet then describes the key criteria that have been used to define landscape sensitivity, which in this case is also "Moderate". These factors have been used to derive a Landscape Policy - in this case "Conserve and Create" or "actions that conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition". Landscape actions are then listed at the base of the policy sheet, these are divided into actions relating to landscape features and built features.

#### 1.0 INTRODUCTION AND METHODOLOGY

- 1.1 When applied to the landscape, the notion of "character" is not a concept that merely concerns itself with aspects of scenic quality. The character of the landscape derives from a complex interaction of a wide range of physiological and historical phenomena. These include geology, topography, soils, ecology, archaeology, architecture, local customs and culture as well as the pattern of land use, settlement and fields. It is the varied interaction between these factors which produces the local and regional variations in character for which the English landscape is famous. The diversity of that character is a central part of our landscape heritage and vital to people's appreciation and enjoyment of the countryside.
- 1.2 The landscape that we see today is a product of its historical evolution, reflecting the underlying physical resource and the changing nature of human exploitation of the land. The landscape will, of course, continue to change and evolve, reflecting the changing priorities and demands that society places on it. Over recent decades, however, these priorities and demands have often degraded rather than improved the fabric of the landscape. There is now a general consensus that positive action is needed to reverse this trend, and that this should place a high value on conserving and enhancing the inherent character and diversity of our landscapes.
- 1.3 It is the responsibility of Local Authorities to undertake county and district level assessments of the landscape character. These assessments play an integral role not only within the wider planning framework, offering guidance from the outset with key aims and objectives to help guide development, but during the planning process itself providing a useful tool and checklist for both the local authority and the design team.

1.4 This landscape character assessment has been carried out at the request of Bassetlaw District Council and covers the district of Bassetlaw. It relates to the evolving landscape character assessment for the whole of the county of Nottinghamshire and other associated county wide documents including the Nottinghamshire Local Biodiversity Action Plan and the Nottinghamshire Historic Landscape Characterisation. The methodology for Nottinghamshire Landscape Character Assessment, prepared by Nottinghamshire County Council [NCC], has been used to assess the landscape character of Bassetlaw District. A copy of the full methodology is contained at Appendix A. All information contained at the introductory paragraphs within each of the following 5 chapters is specific to Bassetlaw unless stated otherwise.

#### **Context**

1.5 Bassetlaw District covers five National Character Areas [NCAs] as defined by Natural England; Southern Magnesian Limestone [30], Humberhead Levels [39], Northern Lincolnshire Edge with Coversands [45], Trent and Belvoir Vales [48] and Sherwood [49]. At a county level, Regional Character Areas [RCAs] have been defined by Nottinghamshire County Council. While these relate to the NCAs, which cover much broader areas, they do not have exactly the same boundaries and have been created using the 'Living Landscapes Project' methodology. This is a GIS based process which is not only associated with the NCA work carried out by Natural England but is an established methodology used by counties across the country, including Derbyshire and Leicestershire both of which border Nottinghamshire. A total of five RCAs fall within Bassetlaw; Sherwood, Magnesian Limestone Ridge, Idle Lowlands, Mid-Nottinghamshire Farmlands and Trent Washlands (Figure 1 shows these character areas in the context of the whole county). Each RCA forms a separate chapter within this Landscape Character Assessment. The RCAs are further divided into Landscape Description Units [LDUs], these are homogenous units within the broader RCAs.

#### **Landscape Character Assessment**

1.6 Within each Regional Character Area the LDUs are subdivided into manageable survey units known as Landscape Character Parcels [LCPs]. Each LCP is assessed in terms of its individual landscape character in accordance with the methodology. A photograph which is representative of the character of each LCP is also taken and its location recorded. This information is detailed on the Landscape Character Assessment field survey sheets for each Regional Character Area which are included at the relevant Appendix.

### **Draft Policy Zones**

1.7 Following on from the Landscape Character Assessment of each LCP a number of Draft Policy Zones [DPZs] are created using the completed survey information. Key characteristics are tabulated to help determine which LCPs may or may not be grouped together to form a DPZ, for instance LCPs with obvious similarities become one distinct DPZ. The DPZs combine either one or more LCP depending upon the similarities of their attributes. A table showing the derivation of each DPZ for each Regional Character Area is included at the relevant Appendix. [N.B. on the summary tables - under Landform/Landuse/Building Style etc. plain text denotes dominant or prominent characteristics and italics denote apparent or insignificant characteristics.]

# Landscape Condition and Sensitivity Assessment

1.8 The DPZs are assessed in terms of their Landscape Condition and Sensitivity in accordance with the methodology. This information is detailed on the Landscape Condition and Sensitivity Assessment field survey sheets for each Regional Character Area, which are included at the relevant Appendix, and forms the basis of the Landscape Policy for each Zone. It is at this stage, once the survey process is complete, that the Draft Policy Zones become Policy Zones.

#### **Policy Zones**

- 1.9 A series of Policy Sheets, one per Policy Zone, covering each Regional Character Area within the District of Bassetlaw, have been produced and are set out within the relevant chapters 2 -6, these are supported by a plan showing the resultant Policy for each Zone. Each Policy Sheet includes an overall character summary, specific characteristic features, a matrix and summary of the landscape condition and sensitivity and a representative photograph. Finally, a series of landscape actions is defined for each Policy Zone. An overarching plan of all Policy Zones within Bassetlaw has also been produced [Figure 2].
- 1.20 Collectively these provide a Policy Framework for the conservation and restoration of Sherwood, Magnesian Limestone Ridge, Idle Lowlands, Mid-Nottinghamshire Farmlands and Trent Washlands falling within Bassetlaw. This framework will help to ensure that landscape character is reflected in the many decisions and actions that affect its continuing evolution. The intention is not to fossilise change, but to provide a context that will enable policy making, planning and landscape management decisions to be made which respect and sustain the diversity and character of our countryside.

#### 2.0 **SHERWOOD**

#### 2.1 PHYSICAL AND HUMAN INFLUENCES

#### Introduction

2.1.1 The Sherwood region is characterised by a wide and diverse range of landscapes including the heartland of the historic Sherwood Forest and the extensive parklands and large estates of the Dukeries. The area, rich with historical, ecological and landscape features, is intrinsically linked to a number of historical themes including the internationally renowned Robin Hood legend. The region runs northwards from Nottingham to the lowlands of the River Idle. It is located between the heavily populated Magnesian Limestone Ridge and Nottinghamshire Coalfield regions to the west, and the more rural areas of the Mid-Nottinghamshire Farmlands region to the east. The region is entirely confined within Nottinghamshire, almost half of the area falls within the district of Bassetlaw.

#### The Shape of the Land

- 2.1.2 The region is closely associated with a broad belt of Permo-Triassic sandstones which, like the adjoining mudstones, run northwards through the length of Nottinghamshire and beyond into South Yorkshire. This belt of country, which averages 10-12 kilometres in width, narrows at its southern extremity where the outcrop thins and is faulted out along the Trent Valley. Towards the northern end of the outcrop, where the region passes into the Idle Lowlands, the Permo-Triassic bedrock is largely overlain by alluvial and fluvio-glacial drift. Within Sherwood itself the sandstones rise as a line of low hills along the eastern edge of the Magnesian Limestone Ridge. These hills dip gently eastwards, but due to the softness of the underlying rock they seldom assume the character of a bold escarpment.
- 2.1.3 The outcrop of Permo-Triassic sandstones covers nearly a quarter of the County and comprises two recognisable formations. The lower of these is the Lenton formation [formerly the Lower Mottled Sandstone] consisting of bright red, fine-grained sandstone with local clayey bands. The upper division, now called the Sherwood Sandstone formation [formerly the Bunter Pebble Beds], comprises a much greater thickness of brownish-red, coarsegrained sandstones with extensive beds of quartzite pebbles. These pebble beds and red sandstones, often showing well-developed current bedding, are frequently exposed in cuttings, sandpits and natural bluffs throughout the region. The loose-textured nature of both sandstones also makes them highly porous and as a consequence the land surface is prevailingly dry. The lower sandstone rests on an impervious bed of Permian Marl, however,

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and this forms the base of an extensive aquifer which has, since the mid-19<sup>th</sup> century, provided a major source of water supply. The western fringe of the region extends on to Permian Marl in the vicinity of Welbeck.

2.1.4 The Sherwood Sandstone typically gives rise to a markedly undulating topography, which, apart from a few larger rivers, is characterised by a general absence of surface drainage. Most of these rivers, including the Ryton, Poulter, Meden and Maun, rise on the Magnesian Limestone Ridge and flow across the region in a general south-west to north-east direction before turning northwards into the River Idle. The reason these rivers maintain their flow is that their valleys lie just below the water table. All of these valleys are defined by narrow alluvial corridors, which in places open out into wide marshy flats. The latter are particularly well-developed below the confluence of the Meden and Maun, while long narrow man-made lakes are a feature at Clumber and Welbeck. These wetland and water features contrast strongly with the dryness of the broad stretches of plateau-like country that separate the river valleys. The flanks of these low, rounded hills are nearly everywhere sculptured by numerous dry valleys, thought to have been formed by the melting of snow at a time when the climate was much colder.

## **Soils** [to be read in conjunction with Figure 3]

- 2.1.5 A range of soil types has developed within the region, the majority being well-drained sandy soils. Well-drained coarse loamy soils are found on the lower slopes of the dry valleys in accumulations of head [recent colluvium or wind-blown material]. Podzolised soils are found locally, particularly under woodland around the Clumber area.
- 2.1.6 On the eastern boundary of the region there are pockets of Mercia Mudstone; in these areas the soils are surface and ground water gleys. The soils have very slightly stoney clay loam surface horizons, and cropping limitations are imposed by the heavy texture and soil wetness.

#### **Landscape History**

2.1.7 The present landscape of the Sherwood region is dominated by the artefacts of aristocratic estates and agricultural reform, largely laid down in the 18<sup>th</sup> and early 19<sup>th</sup> centuries, and by those of late 19<sup>th</sup> and 20<sup>th</sup> century industry, particularly coal mining. This has been an area in which changes in land use, however long they took to effect, have been radical and clear cut, in contrast to the piecemeal evolution evident in other regions in Nottinghamshire. Underlying the long history of the Sherwood region, and a key determinant in the pattern of stability and change within it, is the essential character of its geology and resulting soils. The porosity of

the Sherwood Sandstones and consequent fragility of the soils in general have placed limits upon the sustainability of farming here. Advances in agricultural methods from the 18th century until today may appear to have pushed out those limits but the qualities of the land continue to present agricultural challenges which can be overcome only at a cost, financial and environmental. It remains to be seen if this cost can be both supported and mitigated or if within the vastly complex modern economic structures there will be a reversion to land uses which respect the basic qualities of this region.

- 2.1.8 Traditionally, the Sherwood region has been regarded as an area where settlement and land use were restricted by poor soils, woodland and forest law. While these restraints must be acknowledged, this is anything but the full story which is far more interesting and complex.
- 2.1.9 As in the rest of Nottinghamshire, a forest landscape will have developed here after the end of the Ice Ages. There is as yet scant direct evidence for the composition of this primeval forest but it may be surmised, on the basis of later millennia, to have been mixed birch and oak with a greater variety of species in the river valleys and on the less arid soils of its margins. The presence of early prehistoric hunter-gatherer groups is demonstrated by the occasional finding of stone tools on the surface of ploughed fields. There is no evidence of the funerary and other ritual monuments which characterise the Neolithic and Bronze Age landscapes elsewhere. Again, occasional finds of objects, such as Beaker pottery at Thoresby, or of stone tools and stone axeheads, the latter being interestingly high in frequency in this region, testify to a continuing but sparse human presence, perhaps focused on the river valleys. Even this, however, could have had some locally substantial effect upon the woodland cover, through slash and burn agriculture and more particularly the grazing of domestic animals, to produce thinnings and clearings and the establishment of pieces of heath.
- 2.1.10 Whilst clearance of woodland and the development of agriculture and settlement proceeded apace elsewhere, the Sherwood region appears to have been relatively unoccupied during most of the late prehistoric period. Indeed, it is possible that it constituted a border zone between the political, social and economic organisation of tribes. This does not mean that it was untouched, however. As woodland diminished elsewhere, its timber resource may have become more attractive, and its use as a source for animal fodder and for grazing, perhaps involving transhumance as place names hint in the post-Roman period, is likely to have increased with resulting local, and perhaps not so local, changes in woodland composition and extending clearance. As earlier, settlement in the river valleys should not be discounted.
- 2.1.11 This picture changes dramatically with the Roman period. In the mid 1970s, aerial reconnaissance and photography over the north of the region suddenly revealed an integrated landscape of field boundaries, trackways and settlements, long since levelled. Subsequent research has shown that this landscape is substantially Roman in date, although

Late Iron Age origins are possible. North of a line between Warsop and Bevercotes, this landscape is largely coherent and evidently planned, with more than one phase evident in some localities. Covering an area in excess of 100 sq miles, it extends into South Yorkshire. The social structure and economy represented by these remains is still under debate. Evidence from field walking and a limited number of excavations at Menagerie Wood near Worksop and Chain Bridge Lane in Lound, indicates that most of the settlements were of low status, in contrast to those on its eastern margins in the Idle Valley or the villas known on the Magnesian Limestone to the west. Only one site producing objects of types normally associated with Roman villas has been identified so far in this area. As to the function of the fields, understanding is hampered by the acidity of the sandy soils which normally destroys bone so that evidence about livestock is largely lacking. Given the experience of both mediaeval and modern farmers in this region, long term arable cultivation may not have been sustainable despite the possibility of an almost virgin soil and a slightly warmer climate. An equally striking analogy, however, is the similarity in size between the fields of this Roman landscape and those of 16<sup>th</sup> and 17<sup>th</sup> century enclosure in the south of Nottinghamshire. Perhaps this, together with the mediaeval and more modern history in this region of grazing, particularly of sheep, may suggest a mixed agricultural regime of rotating crops, grasses and animal husbandry.

- 2.1.12 Whatever the social and economic interpretation of this landscape may be, the evidence of the aerial photographs shows that the woodland of this area was substantially cleared by early in the Roman period. This clearance was not necessarily entire, however. The presence of coppiced hazel at Menagerie Wood, if not imported from another region such as the Magnesian Limestone Ridge immediately to the west, may hint at surviving pockets of wood which, on this evidence, are likely to have been carefully managed resources.
- 2.1.13 Woodland survival may have been somewhat greater in the more southerly areas of the Sherwood region. South of Bassetlaw the cropmarks of this Roman landscape become more disjointed. It is possible that this difference in cropmark density could reflect a difference in the intensity of Roman settlement and land use between the north and south of the region, with more woodland and presumably more heath produced by rough grazing surviving in the south.
- 2.1.14 The end of the Roman period was marked by another great turning of the landscape, in which the region became again relatively unpopulated and the Roman field systems largely abandoned. The date of this change and the reasons and processes involved are as yet unclear. General population decline and changes in social organisation and economy beginning in the later Roman period and continuing and developing in the 5<sup>th</sup> and 6<sup>th</sup> centuries are perhaps explanation enough. Soil exhaustion and erosion may also have played a part. In all events the early Roman level of settlement and land use clearly became unsustainable.

Settlement moved out of the region, probably relocating on the more fertile soils on its margins and beyond, and otherwise contracted to favourable sites in the river valleys. In consequence, woodland regenerated by expanding out from existing pockets and by establishing itself anew. Apart from such farms as may have continued or developed in river valley locations, the communities around the region's margins used it as a grazing resource in balance with their arable on the clays and other soils of adjacent regions. This use explains the siting of many communities around the margins of the region where settlement is poised between the differing agricultural resources of contrasting geologies.

- 2.1.15 Thus it was that, in the centuries around and after the end of the Roman period, the landscape developed which is now thought of as characteristically Sherwood Forest. Low in population, with space enough to attract Scandinavian settlement in the late 9th and early 10th centuries, identifiable by place names ending in 'by', this was a countryside of large and smaller areas of dense and not so dense oak and birch wood and of large and small tracts of sandland heath with gorse, ferns and grass. The woods served as game reserves, sources of timber and smallwood, and as fodder and grazing, and were in smaller or greater part managed to these ends. Much of the heath originated in areas of Roman woodland clearance, particularly around the southern margins of the region, was kept open by grazing and temporary small areas of cultivation.
- 2.1.16 It was to this landscape, and more particularly to the area south of the Meden, that the term Sherwood was applied. Assuming the "shire" of "Shire-wood" to equate with Nottinghamshire. this name can be little or no older than its first written appearance in the 10<sup>th</sup> century, when Nottinghamshire was first created. The meaning of this name remains uncertain. It may mean no more than the woodland on the border of the Shire. Alternatively, it may refer to much more ancient rights, to woodland resources held by the king, nobility, or communities within Nottinghamshire.
- 2.1.17 In 1086, the Sherwood region was the most sparsely settled area of Nottinghamshire, low in arable, with much woodland almost wholly recorded as wood pasture, exploited by larger settlements around its rim and fewer smaller ones within it. Such was its emptiness that Norman kings soon brought it under Forest Law, probably consolidating existing royal rights, to maintain its stocks of deer and other game. Under Henry II, Forest Law was extended across all of north Nottinghamshire, but this was cut back by Henry III to embrace only the countryside of woods and heaths on the Magnesian Limestone and the Sherwood Sandstones south of the Meden. However, extensive royal woods and game preserves north of the Meden and elsewhere remained subject to the Forest officials, effectively maintaining Forest Law over most of the region throughout the Middle Ages and later.

- 2.1.18 Henry III's redefinition and reaffirmation of the traditional Forest was in part a response to the effects of rising population in generating new settlement and expanding arable agriculture. Initially, the emptiness of the Magnesian Limestone and Sherwood Sandstones and the low value of the profits there, made these suitable areas for the creation of hunting parks and to be donated for the establishment of monasteries. Of the twelve monasteries and nunneries founded in Nottinghamshire, eight were within or immediately adjacent to this area, where sufficient unencumbered land was available to endow them without significant damage to the financial interest of their benefactors. Considerable blocks of land in the Sherwood region thus passed into monastic control. The 12<sup>th</sup> and 13<sup>th</sup> centuries also saw the expansion of existing settlements and the creation of new ones. By 1300, while the region remained thinly settled and more apparently untamed than the rest of the district, there was little land which was not locked into the economies of royal or monastic estates or of local manors and communities.
- 2.1.19 Indeed, however it may appear to modern communities, this was a highly managed environment in which the central dynamic was the sustainability of one economic regime, the maintenance of the traditional woodland and heathland resource, against the pressures of another, demanding land to till and grazing for animals. Royal and aristocratic parks encompassed a number of functions and land managements. There was woodland for timber and game, heath and grassland for grazing stock and deer, and rabbit warrens and arable fields for foodstuffs and fodder. Resources and activities which might be scattered through widely separated estates elsewhere were brought together in one locality created out of a single area of royal woodland and heath and held in balance by management. Even with positive management, much less without it, the woodland could not be maintained against the economic pressures towards clearance by felling, tillage and grazing.
- 2.1.20 Despite recovering from an apparent failure to replace trees felled in the 12<sup>th</sup> century, which led to a dearth of timber dating to the 14th century in buildings, and despite strict control of felling in the Royal woods of Birklands and Bilhaugh, royal interest in the maintenance of woods and heaths of the region was spasmodic. It was at best undermined by the private interests of the local nobility, who supplied the principal officials of the Forest, or by the ancient rights of communities to common pasture, and at worst negated by royal indifference or distraction by other concerns. Royal woods and lands were leased out or granted away, and the application of Forest Law became more a process of raising rents on lands long cleared by individuals and communities than a means of habitat conservation. Throughout the later 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> centuries, documentary references paint a picture of continual piecemeal enclosure, assarting and illegal encroachment by the great and the small, individuals and whole communities. Tree by tree almost, the woodland was gradually eroded. By the 16<sup>th</sup> century virtually only the core woods of the surviving royal estates and parks, Birklands, Bilhaugh, Roumwood, a few others on monastic estates and elsewhere, remained.

By the later 17<sup>th</sup> century, when royal rights in the Forest had been largely appropriated by the great landowners and after the best trees on the royal estates had been sold off by the Commonwealth, it was difficult to find useful timber in the surviving woods.

- 2.1.21 With so few settlements and so little permanent arable lying within the region, there is little trace of the social and economic changes of the period 1350 to 1600. The area did not remain untouched, however. It may be that the reduced demand for tillage from the reduced population in the 15<sup>th</sup> and early 16<sup>th</sup> centuries slowed the degradation of the woods by increasing grazing land outside the area and by decreasing any pressure to change the traditional land uses within it. Equally, the growing importance of animal husbandry in this period could well have been met by the traditional common pasturage owned by communities within and adjacent to the region. Further, animal husbandry, particularly sheep raising, was already well established as a major enterprise on some monastic estates.
- 2.1.22 Common pasture meant there was no need to enclose for animal husbandry, but the region shared in the trend towards farm engrossment and piecemeal enclosures nevertheless. Traditional agricultural practice had long involved supplementing the sometimes small areas of permanent arable, the infield, with temporary enclosures in the Forest. Within these, cultivation was allowed for a limited number of years after which the enclosure was thrown down, the fields levelled and the exhausted soil allowed to revert to scrub, heath and grass. This "Breck" system was to continue unchanged until formal enclosures arrived in the 18th and 19<sup>th</sup> centuries. For now, portions or all of the permanent arable were enclosed, primarily to allow for improved crop rotation and closer stock management. This produced the pattern of relatively small, hedged fields found close into villages bordering the region, particularly on the east, where enclosure was limited. Within the region, however, all or most of the comparatively small open arable fields might be enclosed. All the infield of Carburton, for example, had been enclosed by 1619 and was largely under grass. The region was not isolated from, nor unaffected by, the economic trends and changing agricultural practices of the day, therefore. Rather, both traditional land uses and an ability to adapt predisposed it to meet the changing economic order, when social organisation, agricultural knowledge and techniques developed so as to overcome the inherent difficulties presented by the land.
- 2.1.23 The foundation for economic growth and changes in the landscape was the dissolution of the monasteries. Grants or sales of the monastic sites and estates to leading members of the aristocracy and gentry gave power and influence in the region to a handful of families. For some 200 years these concentrated on converting or replacing monastic buildings, building and rebuilding, to produce great country houses and developing extensive parklands around them for ornament, sport and animal husbandry. The creation of a virtual chain of these properties through the region, from Clumber and Thoresby to Worksop, gave much of it a new name, "The Dukeries". After the Reformation the aristocratic landowners here began investing

in new building and reordering and restocking their parks, and the 18<sup>th</sup> century in particular saw much new development. Many of the aristocratic landowners of this period became progressive agriculturists. They saw profit in timber and undertook large-scale plantation schemes both within their parks, where new species were introduced and the woods served also as ornamentation, and on their estates at large. The legacy of this is still with us in the well-wooded aspect of significant parts of the region, for which these 18<sup>th</sup> century plantations were the foundation. They also invested in the development of agriculture on the sandlands, building upon the mixed farming regimes and diversification of crops, particularly root crops which had been introduced into the area by the beginning of the 17<sup>th</sup> century, and experimenting with fertilisers and crop rotations. Most importantly, they encouraged their tenant farmers to follow.

- 2.1.24 The result was the enclosure, through a succession of private Acts of Parliament, of most of the open heath and commons in the region and the creation of new farms outside the villages. With few existing land divisions to consider, much of this enclosure was geometrically laid out in field sizes considerably larger than those of earlier enclosed areas. Defined by fences or hedges, dominated by "quickset" hawthorn, this new "surveyor's" landscape is still a striking feature of the region, on the map and on the ground.
- 2.1.25 The region thus underwent a veritable "Agrarian Revolution" in the later 18<sup>th</sup> century. This was based on the intensification of animal husbandry, particularly sheep rearing, which was sustained by the cultivation of root crops and rotational grass, the fertility of the land being maintained by manure and early artificial fertilisers.
- 2.1.26 The physical framework of this region's landscape, established at the end of the 18<sup>th</sup> century and the beginning of the 19<sup>th</sup>, has been essentially maintained through today. There have been significant alterations, however, and none more marked than the appearance of industry, particularly coal mining. The earliest modern industrial development was the Chesterfield Canal, cut across the region in the 1770s. But it was the advent of deep mining in the 1850s which brought the major impacts. Throughout the later 19<sup>th</sup> and 20<sup>th</sup> centuries coal mines were sunk progressively eastwards across the region, introducing often lofty pithead buildings and structures, and large-scale waste heaps, into the landscape. To house the miners and those who serviced them new villages were built and new estates which have virtually swallowed the original villages to which they were appended. Infrastructure was developed, initially railways and more latterly roads; Worksop developed as a commercial centre.
- 2.1.27 In parallel with industrial development, the agricultural countryside remained relatively prosperous, responding to economic circumstances by changing balances in production. The basic reliance on animal husbandry saw the area through the 19<sup>th</sup> century. The First World

War put emphasis on corn growing and potatoes, followed by a reversion to livestock after the War. From the 1920s sugar beet began to replace turnips; by 1950 these had all but disappeared from the rotational repertoire. The Second World War again returned the emphasis to corn growing, but this time there was no substantial return to livestock. Government and European policies and the introduction of modern fertilisers have maintained the region's farmlands almost wholly under arable since. In many places this has brought alterations to the enclosed landscape through the demolition of hedgerows and boundaries to create wide open spaces suited to manoeuvring large machinery.

2.1.28 The industrial development and agricultural changes of the last 125 years are the latest additions to a long history of landscapes in this area. The combination of these with the landscapes created in the 18<sup>th</sup> and early 19<sup>th</sup> centuries, the parks, the woods, the Forestry Commission plantations and the enclosure fields, leaves a distinct impression on the modern visitor.

#### 2.2 VISUAL CHARACTER OF THE LANDSCAPE

#### Introduction

- 2.2.1 The character of the Sherwood region is strongly influenced by a number of factors. The high level of woodland cover and strong heathy character provide a reminder of the formerly extensive areas of forest and "waste". A range of features combine to produce a distinctive and sometimes unified landscape; these include rolling landform, scattered areas of grass, bracken and heather heathland, excellent examples of lowland oak/birch woodland, large mature coniferous forests, enclosed arable farmlands, narrow river corridors and ornamental parklands.
- 2.2.2 The undulating landform ensures views of varying distance. Frequently these are of well-wooded skylines; however, in the more open arable areas they are often confined to the crests of the dry valleys. The arable farmlands are, in places, totally devoid of tree cover with the geometric patterns of low hawthorn hedgerows imparting a distinctive, but rather uniform character to the landscape. To the north of the region, farmland becomes the most dominant landscape element; the extent and pattern of woodland cover is markedly different from the landscapes located further south. Scattered pockets of parkland add diversity to the landscape, creating a strong historical sense of place.

#### **Landscape Character Parcels**

2.2.3 The Sherwood region has been divided into 76 Landscape Description Units [LDUs] of which 25 fall within the Bassetlaw District [Figure 4]. Eight of these units are classed as 'urban land use', the remaining 17 were then subdivided into 30 Landscape Character Parcels [LCPs] [Figure 5]. The completed Landscape Character Assessment field survey sheets are included at Appendix B2. This information was than tabulated to help determine the Draft Policy Zone [DPZ] boundaries in preparation for the Landscape Condition and Sensitivity Survey contained at section 2.4.

#### 2.3 LANDSCAPE EVOLUTION AND CHANGE

## Introduction

2.3.1 This section examines the main forces that have brought about change and evolution within the Sherwood region over recent decades. It does this by discussing how the current structure and pattern of land use has developed, paying particular regard to agriculture, woodland, transport, urban/industrial development, mineral extraction and tourism. It also considers the trends and pressures that may produce landscape change in the future.

#### **Agriculture**

- 2.3.2 Historically, agriculture on the sandlands of the Sherwood region has had a more tenuous hold than in other parts of the district. Poor quality soils, with limited moisture retention properties, have created a relatively unstable base to the agricultural economy and this has, over the years, produced wide variations in the pattern and nature of land use. These instabilities have continued into the present century and, to an extent, are still present in the current agricultural system.
- 2.3.3 The sandstone areas are not generally capable of sustaining high quality pasture, and as a consequence most agriculturally productive land has been put to arable use. Before the Second World War arable land was mostly under fodder crops. The sandy soils, highly permeable parent rock and low rainfall averages meant that the chief management aim was to increase the water-holding capacity of the soil. This was done through liberal applications of farmyard manure, the turning in of green crops and the traditional practice of folding sheep in fields. Economic hardships experienced in the 1920s and 1930s led to the abandonment of many sandland farms. Many areas of present heathland originate from these abandoned landholdings.
- 2.3.4 Since the 1940s, technological innovations in agriculture have led to the development of intensive, high input agricultural systems. These systems have overcome many of the traditional constraints to agriculture and have, for the last few decades at least, placed the agricultural economy on a more secure footing. The widespread use of irrigation, coupled with heavy dressings of lime, potassium and phosphorus and also frequent seasonal applications of nitrogen, has ensured consistent yields at levels that were previously unobtainable.
- 2.3.5 The principal crops of the region are cereals, particularly barley and wheat, with potatoes, sugar beet, oilseed rape, field beans, dry peas, carrots and linseed also being grown. Livestock operations are found within most of the parishes of the region.

- 2.3.6 As already noted, there are a number of constraints to agricultural production, the severity of these constraints varying widely in response to physical factors such as soil type. Much of the arable land is easily worked; however, compaction and panning can occur if soils are worked too soon after heavy rain. There is also a danger of wind erosion, especially during spring and autumn. The generally low available water capacities of the sandland soils and relatively low rainfall average mean that yields are often lowered by drought.
- 2.3.7 The majority of agricultural land within the region is classified by MAFF as having moderate limitations to agricultural use. The higher quality soils, with sandy loam or loamy sand textures, have better moisture retention capacities and occur in the northern areas of the region. The lower quality agricultural land occurs extensively to the south of the Maun Valley where limitations are imposed by the susceptibility of soil to drought and the presence of pebbles.
- 2.3.8 The heavy reliance on fertiliser and irrigation inputs has created problems that now question the long-term sustainability of the current agricultural system. The Sherwood Sandstone outcrop overlies an extensive aquifer that is utilised as a public drinking water supply. There are concerns about the capacity of the aquifer to supply water for irrigation purposes and this is reflected in the limited availability of water abstraction licences. A more severe problem than this has been associated with the high inputs of nitrogenous fertiliser. Nitrate contamination of the aquifer has now exceeded statutory limits at a number of boreholes.
- 2.3.9 The problems associated with contamination of the aquifer have led to much of the region being designated as a Nitrate Vulnerable Zone [NVZ]. The NVZ scheme aimed to reduce nitrate levels by encouraging farmers to restrict applications of both organic and inorganic fertilisers. In addition, four Nitrate Sensitive Areas [NSAs] were designated within Sherwood including Barnby Moor at Retford. The NSA scheme was a voluntary agreement whereby landowners could receive financial payments for reducing nitrate leaching by changing their farming practices. Some or all of their fields falling within the NSA boundary could be entered into the scheme. The overall effect of the NSA scheme has been a reduction in fertiliser and manure applications for certain crops. This has given rise to a reduction in the area of potatoes grown within the NSAs, but has been compensated for by increases elsewhere. With regard to the NVZ scheme, it is doubtful that farming in the future will be significantly affected. There may, however, be little expansion in the area devoted to sheep and pigs because of reduced limits on organic manure.

#### **Trees and Woodland**

- 2.3.10 The woodland cover of Sherwood is higher now than for many centuries. In 1086 the greatest concentration of woodlands in the County lay within the Mid-Nottinghamshire Farmlands region, to the east. The Sherwood Sandstones were of secondary importance despite the presence of Sherwood Forest. The lowest levels of woodland cover are thought to have occurred in the 18<sup>th</sup> century largely as a result of clearance in the preceding centuries.
- 2.3.11 Landscape improvement, game preservation, timber production and fuel supply were the main reasons for increases in woodland cover during the 18<sup>th</sup> and 19<sup>th</sup> centuries. Landscape considerations were particularly influential, with many of the houses, parks and great estates being established on the agriculturally poor sandland soils. Planting was very elaborate and on a large scale, and preceded the laving out of the modern agricultural landscapes that we see today. Currently the Sherwood region is the most wooded part of the district, a large proportion of which is coniferous.
- 2.3.12 There are significant variations in the distribution and pattern of woodland across the region. These variations are one of the most important factors in determining its landscape character. The area between the Maun Valley and Worksop represents the most densely wooded area of the County. This contains the remnants of the historic Sherwood Forest, the emparked lands of the Dukeries, the broad-leaved estate lands and the coniferous infill plantations established in the last 60 years.
- 2.3.13 The main sources of land for post-1920 woodland planting have come from agriculture and waste, the light sandy soils being easily converted to woodland. Plantations were established as large management units by both the Forestry Commission and private estates. Large-scale planting by the Forestry Commission began in the late 1920s and a fivefold increase in the area of predominantly pine woodland has occurred since that time. Many of these early plantations are now reaching economic maturity and will be progressively felled in a way that restructures the forest blocks to create greater ecological and visual diversity. There have been significant increases in woodland cover within the parkland areas, with the planting and extension of existing parkland trees and plantations. Smaller-scale gains in woodland cover have been made from the planting of former industrial areas and coal tips.
- 2.3.14 Three ancient woodlands, as identified by the 1990 English Nature Inventory of Ancient Woodlands, are found within the region. The areas identified as ancient woodland at Birklands, Bilhaugh and Buck Gates are remnants of the historic Sherwood Forest and contain the best examples of oak-birch woodland in the County, they are also designated SSSIs.

2.3.15 The Ministry of Defence leases a large area of woodland and heathland from the Thoresby Estates, and this is managed in association with Natural England and Nottinghamshire Wildlife Trust.

## **Transportation**

2.3.16 A number of major roads have had an impact upon the region, the most prominent being the A614, which runs in a north-south direction through much of the area before terminating east of Worksop where it connects to the A1. The A60 also runs north-south, whilst the A617 and A620 cut across the region in an east-west direction. The A1 runs through the northern part of Sherwood. A dense network of railway lines were developed to serve the needs of the coal industry. Contraction of this industry in recent decades has led to many of these becoming derelict.

## **Urban and Industrial Development**

- 2.3.17 The main urban areas are located along the southern and western fringes of the region and include the urban edge of Warsop and Worksop. Along the eastern fringe of the region are Ollerton and East Retford.
- 2.3.18 The coal industry has played a central role in the economic life of large parts of the region, where much of the area was traditionally dependent upon mining employment. This included the larger town of Worksop as well as the numerous mining villages.
- 2.3.19 In order to provide new job opportunities and to encourage the economic regeneration of the mining areas the redevelopment of redundant collieries for employment purposes is encouraged. Green after uses, including agriculture, forestry and recreation, are the preferred options for certain rural collieries and spoil tips.

#### **Mineral Extraction**

- 2.3.20 The principal mineral resources exploited in the region are deep-mined coal and Sherwood Sandstone. Both forms of extraction have had a considerable impact on the economy and environment of the region, particularly coal extraction.
- 2.3.21 Many of the pits in the region were established during the first half of the 20<sup>th</sup> century when technical advances in the mining industry enabled wider exploitation of the deep coal

resource. A number of the pits were located next to existing villages and on green field sites in the more rural areas away from the main centres of population. This led to the enlargement of the existing villages and the creation of a number of isolated and free-standing mining communities. Examples of such colliery settlements include that at Edwinstowe, at the southern edge of the district. It was developments like this which brought industrial landscapes into the heart of the region.

- 2.3.22 A number of environmental issues are associated with coal extraction, particularly that of visual intrusion. The visual impact of mine-head developments and spoil disposal is enormous, with many spoil heaps being established prior to current planning legislation when little attention was given to environmental considerations. More recent permissions seek to minimise the visual impact of tipping through attention to grading and shaping details and so reduce the "engineered" appearance of many pit heaps. The Sherwood region has a naturally rolling landform; the opportunities to integrate pit heaps into the landscape are therefore perhaps greater than in certain other parts of the district. Priority is therefore given to the early reclamation of the external visible faces of pit heaps.
- 2.3.23 The premature closure of pits has had major environmental consequences for reclamation, as existing programmes can no longer be achieved. The County Council, UK Coal and the Forestry Commission are working together to develop new proposals to restore such spoil heaps to a mixture of forestry, heathland and public open space.
- 2.3.24 Sandstone extraction generally leaves a moderately deep void and little on-site material, and the options for infilling are limited due to the need to protect the aquifer. Low-level reclamation may be feasible; however, the resulting landform may be unsuitable both visually and in management terms. The area is unsuitable for agricultural after uses because of inherently poor soil types. Woodland and nature conservation after uses are often the most appropriate. Reclamation conditions are favourable for the establishment of native oak and birch woodland and also for the re-creation of heathland habitats.

#### **Tourism**

2.3.25 Sherwood Forest is one of the major tourist attractions in Nottinghamshire, attracting in excess of one million visitors each year. There are a number of tourist facilities, including a visitor centre at the Sherwood Forest Country Park, car parks and a number of surfaced footpaths. The Forestry Commission promotes public access within Sherwood Pines, a large block of woodland near Edwinstowe. Walking, cycling and horse-riding are the most popular activities. The presence of the Center Parcs holiday village, also near Edwinstowe, is a major tourist attraction. This complex remains one of the regions largest employers. The tourism

industry is likely to play an increasing role in the economy of the Sherwood region, particularly since the decline of the mining industry.

#### 2.4 **POLICY ZONES**

# **Draft Policy Zones**

2.4.1 Following on from the Landscape Character Assessment of each LCP a total of 25 Draft Policy Zones [DPZs] were created [Figure 6]. A table showing the derivation of each DPZ is included at Appendix C2. A subsequent Landscape Condition and Sensitivity Assessment was then undertaken of each DPZ, this information is detailed on the Landscape Condition and Sensitivity Assessment field survey sheets which are included at Appendix D2.

#### 2.5 SPECIES LIST

2.5.1 The following list includes native tree and shrub species that are commonly found within Sherwood and are suitable for inclusion in planting schemes. These are important for determining the area's regional character. A range of other native species may also be appropriate to particular locations or sites. In these cases professional advice should be sought.

Dominant Species	O	Other Species Present
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TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Alder (Common)	O			•	
Ash	O	O	•	•	
Beech	O				
Birch (Downy)	0				
Birch (Silver)	•	O	•		
Cherry (Wild)		•	0		
Crab Apple		•			
Elm (English)		O			
Elm (Wych)	O	O	•		
Lime (Small Leaved)	O				
Lime (Large Leaved and Hybrid)		O	0		
Maple (Field)		•	0		
Oak (Common)	•	•	•		
Oak (Sessile)	O		0		
Pine (Scots)	•		0		

	<b>Dominant Species</b>	O	Other Species Present
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TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Rowan	O		O		
Sweet Chestnut	O		O		
Willow (Crack)	O			•	
Willow (White)				O	

SHRUBS	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides
Blackthorn		•		
Buckthorn (Purging)		O		
Broom	0	O		
Dogwood (Common)		O		
Gorse	O	0		
Hawthorn	O	•	0	O
Hawthorn (Midland)		O		
Hazel	O	•		
Holly	0	•		
Privet (Wild)		O		
Rosa Sp.	0	Q		
Spindle		O		

#### 3.0 **MAGNESIAN LIMESTONE RIDGE**

#### 3.1 PHYSICAL AND HUMAN INFLUENCES

### Introduction

- 3.1.1 The Magnesian Limestone Ridge forms the southern most part of a narrow limestone ridge that extends from Nottingham along the western edge of the County to Oldcotes, then northwards through Yorkshire to a point beyond Ripon, where the ridge disappears under a thick mantle of glacial drift. Although never more than a few miles in width, this region forms a distinct belt of rising ground along the eastern fringe of the Yorkshire and Nottinghamshire/Derbyshire Coalfields. In the central and southern parts of the region, coalfield influences spread onto the limestone ridge and large mining settlements with their associated pit heaps, now restored, are now a prominent feature in the landscape.
- 3.1.2 Despite the impact of coal mining and more recent urbanisation of the landscape, the Magnesian Limestone Ridge still retains a very distinctive character which reflects the traditional pattern of land use and settlement within the region. In order to fully understand the character of the region, however, it is necessary to understand the factors that have contributed to its formation. The underlying geology, for example, has a strong influence on the character of the landscape, not only affecting landform, soils and vegetation, but also the human activities dependent upon it. The appearance of the land is in turn shaped by the results of man's activities, which have changed natural vegetation patterns to suit human needs and introduced man-made elements into the landscape.

#### The Shape of the Land

- 3.1.3 The Magnesian Limestone Ridge is closely associated with a narrow belt of Permian rocks which outcrop along the western edge of the County. These rocks comprise two divisions, the Magnesian Limestone and the Permian Marl. The Magnesian Limestone is a compact, partially crystalline rock which provides good building stone, it is the relative hardness of this formation that determines the lie of the land. The softer Permian Marl, which consists predominantly of red clays, generally gives rise to a more subdued relief, the essential trend of which is controlled by the underlying limestone. Both beds diminish in thickness towards the southern end of the outcrop.
- The Magnesian Limestone gives rise to a low escarpment which dips eastwards under the 3.1.4 overlying Triassic sandstones of the Sherwood formation. The western edge of this

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escarpment is defined by a steep scarp slope overlooking the Nottinghamshire Coalfield. This scarp has an irregular outline in many places, where small streams draining westwards off the ridge have cut deep valleys into the underlying Coal Measures.

3.1.5 The limestone escarpment has a pronounced dip slope, with an average fall of 90 metres from the western edge of the region to its junction with the overlying Sherwood Sandstone formation in the east. The higher parts of this dip slope form a series of rolling summits which are particularly prominent in the south and to the south-west of Bassetlaw where they average 170 metres in height. The prominence of the escarpment in this area is due to the thickness and compactness of the limestone, where the limestone becomes thinner and more sandy in composition and the topography becomes less pronounced.

The limestone Nottinghamshire is largely hidden beneath the Permian Marl, which gives rise 3.1.6 to a more subdued, gently rolling landform. Within this area the main topographic features of any note are a series of deep, narrow valleys cut into the underlying limestone by larger streams originating higher up the dip slope in Derbyshire. Prominent valleys have been formed by the River Poulter at Nether Langwith, the Milford Brook at Creswell, and the River Ryton at Shireoaks near Worksop. At Creswell, the Milford Brook occupies a gorge bounded by limestone cliffs. This gorge, known as Creswell Crags, is famous for its caves which have yielded important evidence of prehistoric man.

#### Soils [to be read in conjunction with Figure 7]

3.1.7 On the Magnesian Limestone, fertile, free-draining calcareous brown earth soils have developed. The soils have a fine loamy texture with a characteristic brown subsoil overlying the limestone. The soils are productive and easy to work, supporting a wide range of crops. The soils developed on the Permian Marl have a much heavier texture, with slowly permeable clay subsoils placing limitations on their agricultural use. These soils, which are found around Worksop can remain waterlogged for long periods in winter and spring. However, with drainage and good management they can produce moderate yields of cereals.

## **Landscape History**

3.1.8 There is still much to learn about the development of the landscapes of the Magnesian Limestone Ridge. Considered to have been a remote wooded area, of late interest to settlers, it has often been considered only as part of Sherwood Forest. While this latter is indeed true, it is not the whole story which, for the want of detailed study, can only be sketched in outline and with some imprecision.

- 3.1.9 Little coherent can be said about the prehistoric and Roman landscapes of the region. Evidence of some of the earlier human occupation and activity in the East Midlands, during the later Ice Ages and after, comes from Creswell Crags. The caves of the limestone gorge provided shelter for the hunter-gathers who 12,000 years ago moved through a landscape which was gradually changing from tundra to birch and pine forest and would eventually develop into mixed oak forest, with alder, oak, elm and lime. While Creswell is the best known and studied, other gorges in the Magnesian Limestone region also have caves which were occupied by both people and animals at these early dates, and later.
- 3.1.10 Later human activity on the Magnesian Limestone Ridge is indicated by the stone tools and fabrication debris of hunter-gatherer groups and of the first farmers and settlers of the Neolithic and the Early Bronze Age, which are found on the surfaces of ploughed fields. The effect of these people on the landscape can only be guessed, but it is to be expected that clearance for agriculture and the grazing of domesticated livestock, after 5000 BC, were the small beginnings of a long-term process of woodland diminution. Such human interference in the forests is often seen as the cause of a national decline in elm after 4000 BC and more locally of lime and pine and an increase in hazel after 1600 BC.
- 3.1.11 Modern land uses, and perhaps a lack of survey, have resulted in few cropmarks [differential crop growth over buried archaeological remains] in this region. There is however no reason to believe that it was any less favoured than others for settlement during later prehistory and the Roman period. It is to be expected that by the end of the first millennium BC the woodland here will have been substantially cleared and the brown earths cultivated. As in later generations, woodland may have been largely confined to those areas too steep to plough or too inaccessible for grazing. Such woodland as there was, during the Roman period at least, is likely to have been managed, much probably as coppice. Coppiced hazel from the Roman site at Menagerie Wood, in the Sherwood region outside Worksop, might have been brought in from here.
- 3.1.12 Roman settlement on the Magnesian Limestone Ridge is demonstrated by finds of Roman pottery and a number of coin hoards. Roman villas, including that at Oldcotes would have been the centre for a large estate. Lying outside the normal distribution of villas, it may have more in common with the villas of Yorkshire which show a marked attraction to the Magnesian Limestone. At the risk of reading more than a mutual appreciation of the soil qualities of the limestone into this common choice of geology, this distribution may reflect a border territory of greater antiquity between the Iron Age tribes. This may be an origin for the long-lived importance of the north-western boundary of Nottinghamshire as a division between regions and kingdoms in the Saxon period.

- 3.1.13 What happened at the end of the Roman period is not clear, but the result was a dramatic change in the landscape of the Magnesian Limestone Ridge. The region will have shared in the general decline in population during the 4<sup>th</sup> and 5<sup>th</sup> centuries and experienced social and economic change as Roman institutions and organisations withered. Settlement contracted towards the western margins against the clays of the Coal Measures or river valleys, where there was a greater variety of resources. Woodland regenerated in some areas, particularly in those which were more marginal. This goes some way to explaining the well-wooded aspect of the north-western county border, for the boundary runs along the Magnesian Limestone to include only its eastern fringes in Nottinghamshire and the landscape here needs to be read against developments in Derbyshire. In other areas, perhaps greater in proportion, woodland regeneration was probably limited and the change was to limestone heath maintained by the grazing of stock.
- 3.1.14 In 1086 the Magnesian Limestone Ridge was part of the most thinly populated area of Nottinghamshire. Most communities, particularly the larger ones in the south, were located along its western edge where they could both cultivate the Coal Measures clays and exploit the woodland, grazing and game of the Magnesian Limestone. In the north west of the County communities were on the whole small, situated by rivers or streams, and had small areas of arable while exploiting the woods and heaths on both the Magnesian Limestone and Sherwood Sandstone for grazing. Domesday Book records considerable tracts of woodland in the region, but much of this was wood pasture, which points to the mixture of heaths and woods already described, partly on the basis of the Domesday Book entries.
- 3.1.15 The general emptiness of the region encouraged the Norman kings to bring it under Forest Law. It is likely that the southern part of the Magnesian Limestone Ridge, the part entirely within Nottinghamshire, had been traditionally part of Sherwood. Assuming the "shire" of "Shire-wood" to equate with the County, this name can be little or no older than its first written appearance in the 10<sup>th</sup> century, when Nottinghamshire was first created. The meaning behind the name remains obscure. It may mean no more than the woodland on the border of the Shire; the woodland which distinguishes being within from being without the Shire. Alternatively, it may refer to much more ancient rights to its resources held by the King, nobility or communities elsewhere in the County. Under Henry II, Forest Law was extended across all of Nottinghamshire north of the Trent but this was cut back by Henry III in 1232 to embrace only the countryside of the Magnesian Limestone Ridge and the Sherwood region south of the River Meden. Northwards, however, the extensive royal woods and game preserves which extended into the Magnesian Limestone remained subject to the Forest officials, and to all intents and purposes still under Forest Law.
- 3.1.16 Henry III's redefinition and reaffirmation of the traditional Forest was in part a response to the effect of rising population generating new settlement and expanding arable and grazing. As

we have already seen, this process had begun much earlier on the Magnesian Limestone Ridge but in the 12<sup>th</sup> and 13<sup>th</sup> centuries became more marked, with existing villages growing and new communities appearing. The comparative emptiness of this region and the neighbouring Sherwood region in the 11th century, and the low value of their profits, made these suitable areas for the creation of hunting parks and donation for the establishment of monasteries. Of the twelve monasteries and nunneries founded in Nottinghamshire, eight were within or immediately adjacent to these two regions, with three being on the Magnesian Limestone and two more lying close by. At this time there was so little land in the region that was not locked into the economies of other monastic estates or local manors and communities, that the endowment promised to this new foundation is unlikely to have been fully completed.

- 3.1.17 The woodland of the Magnesian Limestone Ridge was under continual pressure during the Middle Ages due to village growth and settlement expansion by way of individual farms and hamlets. Documents referring to the region regularly mention timber-cutting for building, usually carefully controlled by the King, and woodland clearance and encroachment by both individuals and communities. By the later Middle Ages, woodland cover will have become very patchy except where conserved by the management of monastic estates and in the parks of a few lords who maintained detailed interest in the affairs of their estates. Even here, woods will have been sectors or compartments only within the parks which throughout the Middle Ages were increasingly turned over to tillage and the grazing of livestock. In general, it appears that more woods survived in the north of the region than in the south where village and community growth was more significant.
- 3.1.18 Communities on the Magnesian Limestone Ridge doubtless suffered as much as any other in the Black Death of 1349 and subsequent visitations of plague. The effect of these in the 14<sup>th</sup> century reduced the national population by over one third. In Nottinghamshire, it appears that outbreaks of disease were not consistent from one place to another; while one community might be struck badly, another might escape almost completely. Clear indication of both its presence and power in the region comes from the monasteries, the heads of which all succumbed in the year 1349-1350. There is however no evidence that any community in this region disappeared as a direct consequence of the plague. The 14<sup>th</sup> century epidemics did however usher in a period of protracted change in society and economy. With reduced population and social change, there was a swing away from arable production towards livestock husbandry. In the south of the Magnesian Limestone Ridge, where communities' arable was largely on the Coal Measures clays, this probably had comparatively little effect in landscape terms, as grazing was already the principal land use on the Magnesian Limestone. In the north of the region and for those communities which were largely on the limestone, some reorganisation was probably necessary as over the 15<sup>th</sup> and 16<sup>th</sup> centuries a farming regime of convertible husbandry was established. How novel this was may be doubted, for it

is likely that all the communities using the limestone heaths and woods followed the same practice as those involved on the Sherwood Sandstones, of making temporary enclosures and cultivating them for a fixed period of years after which they were allowed to revert to their former state. In these areas also, the need to enclose in order to achieve flexibility in land use may not have been pressing, as the fields of the smaller settlements and individual farms may have already been made up of closes originating in piecemeal assarts from woodland.

- 3.1.19 The 16<sup>th</sup> and 17<sup>th</sup> centuries saw a reinforcement of one form of landscape in the Magnesian Limestone Ridge, that of parks associated with the country houses of the nobility and gentry. The transfer of monastic sites and estates into lay hands was in part the foundation of this, as was the fashion for displaying status through building and ornamentation. Monastic woods and hedges at places like Wallingwells did not disappear, therefore, but were maintained by the new owners and reinforced by new planting. New parks were added to ancient manor houses leaving the older mediaeval parks to the farmland they had already largely become. New houses, such as Shireoaks Hall, were equipped with parks and ornamental gardens. This parkland contributed and still contributes to the maintenance of a wooded aspect in the Magnesian Limestone Ridge, which was reinforced by the larger ornamental gardens and plantations of the wealthy around their houses in the 18<sup>th</sup> and 19<sup>th</sup> centuries.
- 3.1.20 With much of its area given over to common grazing, enclosure only became general in the Magnesian Limestone Ridge during the late 18th and early 19th centuries. In that age of agricultural improvement and development, the common wastes were considered to be anachronistic and inefficient. The market for animal products was expanding. Industry was developing in West Nottinghamshire bringing in new population, and the canal and river network gave access to further afield. Laid out by surveyors, this enclosure landscape is still visible on the map and on the ground in the large regular and rectangular fields which contrast with the more piecemeal fields around their periphery.
- 3.1.21 Animal husbandry dominated the agricultural economy of the region during the 19<sup>th</sup> century and the first half of the 20<sup>th</sup> century, but the suitability of much of its soils for cultivation is reflected by a rise in arable from the late 19<sup>th</sup> century. Largescale conversion to arable during the Second World War was maintained thereafter by government and EEC farming policies. Increased mechanisation resulted as elsewhere, in the loss of hedgerow and other boundaries, but while sometimes locally dramatic this is less marked than in some other landscape regions in the County.
- 3.1.22 It was industry which created the modern landscape of the Magnesian Limestone Ridge, particularly in the south. There had been industrial activity, small-scale and local, throughout the Middle Ages and after. Stone quarrying was perhaps the most significant of these, supplying prestige buildings such as churches and manor houses. Equally, the local

importance of charcoal and lime burning and of corn milling, powered by both wind and water, should not be ignored. As already mentioned, wool processing and cloth making were important and these were the foundation for the first phase of industrial expansion in the later 18<sup>th</sup> century and early 19<sup>th</sup> century, which centred on textile production. Through both the development of domestic framework knitting and the construction of textile mills, people were drawn into the region, beginning a rise in population. Many of the new mills and the houses of their workers in towns, villages and the countryside were built in local stone. This perpetuated the natural tradition of the region, which had begun with the houses of the nobility and gentry in the 16<sup>th</sup> and 17<sup>th</sup> centuries and had continued with other larger communities. In a region where stone was more readily available than brick, it was natural that, as humbler dwellings were improved, stone should be used. By the end of the 18<sup>th</sup> century, even the most humble dwelling was likely to be built in stone or, depending on locality, stone and brick. In consequence, the farms and houses of the region still bestow upon it a distinctive building character.

- 3.1.23 Some of the development for textile production was locally very significant, with large mill buildings and water engineering to power them, as may still be seen at Nether Langwith. The major and more general transformation came with the development of deep mining in the second half of the 19<sup>th</sup> century. Pit heads, waste heaps, and housing now become major landscape features and the rural, agricultural character of many villages was submerged. Even more significantly, the infrastructure to serve the pits and their communities cut across and disrupted the earlier patterns of the landscape. The later addition of tramways and railways paid no particular respect to existing boundaries. After the Second World War, although railways continued to be important for bulk transport of coal in particular, they were overtaken for other purposes by road transport. Road construction and improvements and continued expansion of housing have therefore been major elements in more recent landscape development.
- 3.1.24 For all the modern development, the Magnesian Limestone Ridge remains an area in which a long history can be seen in its landscape. Together with the Nottinghamshire Coalfield, the depth and interest of this landscape is too little appreciated. It is certainly under researched in almost every dimension, including its industrial heritage. Improving both the understanding and appreciation of the history of change and continuity, and of the forces behind these, is essential to maintaining and enhancing its landscape character.
- 3.1.25 Landscape types could occur at any location within the country where there are similar physical resources and historical patterns of land use. In reality the landscape types possess a distinctively local character, because they share the broad characteristics of the regional character area, or represent a particular aspect of that character.

#### 3.2 **VISUAL CHARACTER OF THE LANDSCAPE**

#### Introduction

- 3.2.1 The Magnesian Limestone Ridge is a settled agricultural region whose character is strongly influenced by the nature of the underlying geology. This is reflected not only in the shape of the land, but also in the associated pattern of land use and settlement. The land is shaped in the form of an elevated escarpment, for the most part gently rolling, but in places deeply dissected by narrow, steep-sided river valleys, while the historical development of the region is reflected in the surface pattern of large estates, enclosed commons and small rural villages. Together with the unifying influence of limestone as a locally distinctive building material, these are the regional characteristics that differentiate the Magnesian Limestone Ridge from surrounding areas.
- The spread of the coal industry into the Magnesian Limestone Ridge during the 20th century 3.2.2 was associated with the development of new mining settlements throughout the region. However, despite the distinctly urban style of these settlements, most are fairly self-contained, and in most areas there has been little development within the intervening countryside. Consequently, the Magnesian Limestone Ridge remains essentially rural in character and even in the more heavily urbanised parts of the region there is usually a marked distinction between the built environment and the surrounding countryside. Local variation in landscape character thus continues to be determined largely by differences in the physical make-up of the region, rather than the degree of urbanisation in any particular area.

### **Landscape Character Parcels**

3.2.3 The Magnesian Limestone Ridge has been divided into 53 Landscape Description Units [LDUs] of which 13 fall within the Bassetlaw District [Figure 8]. Three of these units are classed as 'urban land use', the remaining 10 were then subdivided into 27 Landscape Character Parcels [LCPs] [Figure 9]. The completed Landscape Character Assessment field survey sheets are included at Appendix B3. This information was then tabulated to help determine the Draft Policy Zone [DPZ] boundaries in preparation for the Landscape Condition and Sensitivity survey contained at section 3.4.

#### 3.3 LANDSCAPE EVOLUTION AND CHANGE

## Introduction

3.3.1 This section examines the main forces that have brought about change and evolution within the Magnesian Limestone Ridge over recent decades. It does this by discussing how the current structure and pattern of land use has developed, paying particular regard to agriculture, woodland, transport, industrial/residential development and mineral extraction. It also considers the trends and pressures that may produce landscape change in the future.

#### **Agriculture**

- 3.3.2 Although the Magnesian Limestone Ridge has been exploited for its productive soils and natural resources since Palaeolithic times, the area has traditionally been sparsely settled, and has been subject to fluctuating populations over time.
- 3.3.3 During the Middle Ages, there was a move away from arable cropping towards grazing, mainly by sheep, in large unenclosed commons. This continued up to the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, when the commons were enclosed. Animal husbandry dominated the economy during the 19<sup>th</sup> century and the first half of 20<sup>th</sup> century, but the suitability of the soils for cultivation meant that this gradually gave way to arable production. The Second World War was probably the most significant period of change as large areas of land were ploughed up for arable cropping. Most of the region contains high quality agricultural land, with poorer areas located between Worksop and Langold.
- 3.3.4 In the river valleys, wet meadows and pastoral land uses have continued to be dominant, whilst elsewhere on the free-draining soils most of the land is cultivated, particularly to the north of the area. Other areas where pasture is present are around Holbeck and Cuckney, indicating heavier and less well-drained soils. Arable crops include wheat, oats and barley, with a smaller acreage of potatoes, sugar beet, peas and beans.
- 3.3.5 Farm holdings in the area are generally moderate to large, and the regular field pattern indicates a recent enclosure, typically bounded by well-trimmed hawthorn hedges. Mechanisation has resulted in some loss of hedgerows and other boundaries, but whilst this is locally significant, overall it is less marked than in many other regions in the County.

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## **Trees and Woodland**

3.3.6 A significant proportion of woodland is associated with a number of parkland estates, which developed from earlier monastic estates. Outside of the parkland areas woods are generally scattered. Today the region has a low proportion of coniferous woodland, and is one of the only areas in the County whose woodland area decreased during the 20th century. Losses have been due mainly to urban, industrial, and new road development. The historical development of the Magnesian Limestone Ridge has meant that a number of ancient woodlands remain, including Cow Close Wood, Lord Stubbins Wood, Owday Wood and Rough Piece.

#### **Industrial and Mineral Extraction**

- 3.3.7 The area is associated with coal mining and limestone guarrying. Limestone is the only hard rock of any economic interest within the County widely used in road construction and as a building material. The softer stone is more suitable for ornamental stonework.
- 3.3.8 Reclamation of existing quarries by filling is rare because of poor access, lack of soil conservation and groundwater problems. Within urban areas guarry floors have often been built on.
- 3.3.9 The region formed the initial location in the County of deep-coal mining into the concealed coalfield, with the first of such collieries being established at Shireoaks in 1859. As with the Coal Measures, deep mining has had a significant impact upon this area, both in the legacy of spoil heaps and associated colliery development and also in the network of railway lines used to serve the mines. The decline of the industry, with 25 pits closed in Nottinghamshire since 1980, has caused economic disruption and further changes to the local landscape. There are no active mines remaining within the area and reclamation is ongoing, as well as measures to counter subsidence problems. Various initiatives remain under way to stimulate economic regeneration of the coalfield with a wider range of amenity is being explored.

## **Urbanisation**

3.3.10 Historically the Magnesian Limestone Ridge has been the most thinly populated part of the County. At the time of the Domesday Book, most communities were located along the western edge where the exposed coalfield could be exploited as well as the grazing and game of the Magnesian Limestone. To the north west, communities were focused on rivers or streams, and the bulk of the area was left as wood pasture.

3.3.11 The first phase of industrial expansion occurred in the later 18<sup>th</sup> century and early 19<sup>th</sup> century, centred on textile production. The major transformation in urban and industrial development came with the development of deep mining in the second half of the 19th century. The agricultural character of many villages was submerged by the presence of pit heads, waste heaps and industrial housing. The infrastructure which served the pits was superimposed on earlier patterns of the landscape.

3.3.12 Today, the region retains a rural character within the Bassetlaw district, with the exception of Worksop, settlement consists mainly of villages. Shireoaks, Langwith and Warsop are specifically associated with coal mining. Further south the region is now densely populated with main urban areas centred around the industrial base.

3.3.13 Roads, railways and the Chesterfield Canal have made a significant impact on the Magnesian Limestone Ridge. The A57, A60 and A634 are dominant roads serving the region within Bassetlaw. The railway network includes lines from Worksop to Mansfield and from Worksop to Sheffield in the west and Lincoln in the east. North of Worksop the area is poorly served by rail. Some of the former mineral lines have been converted to greenways. The former dominance of freight on rail has been overtaken by the more environmentally damaging road freight since the Second World War.

#### **POLICY ZONES** 3.4

## **Draft Policy Zones**

3.4.1 Following on from the Landscape Character Assessment of each LCP a total of 14 Draft Policy Zones [DPZs] were created [Figure 10]. A table showing the derivation of each DPZ is included at Appendix C3. A subsequent Landscape Condition and Sensitivity Assessment was then undertaken of each DPZ, this information is detailed on the Landscape Condition and Sensitivity Assessment field survey sheets which are included at Appendix D3.

#### 3.5 SPECIES LIST

3.5.1 The following list includes native tree and shrub species that are commonly found within the Magnesian Limestone Ridge and are suitable for inclusion in planting schemes. These are important for determining the area's regional character. A range of other native species may also be appropriate to particular locations or sites. In these cases professional advice should be sought.

lacktriangle	Dominant Species	0	Other Species Present
		_	

TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Alder (Common)	O	0	0	•	
Ash	•	O	•	•	
Aspen	O	O		0	
Beech	O	0	0		
Birch (Silver)	0	•	0		
Cherry (Wild)	0	0	O		
Chestnut (Sweet)	0				
Coniferous Sp.	0				
Crab Apple	0	•	0		
Elm (English)	0	0	O		
Elm (Wych)	0	0	O		
Hornbeam	0				
Lime (Small Leaved)	O	O	O		
Lime (Large Leaved and Hybrid)	0	O	O		

	Dominant Species	O	Other Species Present
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TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Maple (Field)	0	•	0		
Oak (Common)	•	O	•	O	O
Oak (Pendunculate)	O				
Sycamore	O				
Willow (Crack)	O	O	O	•	
Willow (White)	O	O	O	•	
Yew	O				

SHRUBS	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides
Blackthorn	0	0		O
Blackthorn (Purging)		0		
Dogwood (Common)	0	0		
Guelder Rose	O	0		O
Hawthorn	•	•	O	O
Hawthorn (Midland)	0	O	O	
Hazel	0	O		
Holly	0	O	O	
lvy	0			
Osier	0	0		O

	<b>Dominant Species</b>	•	Other Species Present
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SHRUBS	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides
Privet (Wild)	O	0		
Rosa Spp.	O	0		
Willow (Goat)	O	0		O
Willow (Grey)	O	0		0

#### 4.0 **IDLE LOWLANDS**

#### 4.1 PHYSICAL AND HUMAN INFLUENCES

## **Introduction**

- 4.1.1 The Idle Lowlands, or the Humberhead Levels, form the southern part of an extensive lowlying region which extends northwards from Bassetlaw to the Humber Estuary. Much of this region consists of sparsely inhabited levels and former carrlands, which are now intensively cultivated for arable production. Most of the settlements in the region are located on "islands" of higher ground, including the lower-lying sandlands between Retford and Doncaster. Within Bassetlaw the Idle Lowlands are closely associated with the basin of the River Idle and its tributary, the Ryton. These basins, which extend to approximately 160 square kilometres, are roughly triangular in shape, with their southern apex at Retford. They are bordered by the Sherwood region to the south west, and by the Mid-Nottinghamshire Farmlands to the east.
- 4.1.2 Despite the draining of the levels and the impact of coal mining in the Doncaster area, the Idle Lowlands still retain a distinctive character which is reflected in the range and pattern of different landscapes that occur within the region. In order to fully appreciate the nature of these landscapes, it is necessary to understand the factors that have contributed to their formation. The underlying geology, for example, has a strong influence on the character of the landscape, not only in the way in which it affects landform, soils and vegetation, but also in the human activities dependent upon it. The appearance of the land is in turn shaped by the results of man's activities, changing natural vegetation patterns to suit human needs and introducing man-made elements into the landscape.

## The Shape of the Land

4.1.3 To understand the physical influences that have shaped the character of the Idle Lowlands, it is necessary to look at the wider regional picture. The greater part of the region, which drains to the Humber Estuary, is floored by a variable thickness of fluvio-glacial and lacustrine drift, overlain in places by more recent deposits of alluvium and peat. These deposits originated some 18,000 years ago during the last Ice Age, when ice sheets blocked the Humber to the north. When the ice sheets retreated, rivers and streams were left flowing in an unstable, braided manner across the now dry lake floor. Since the whole area was only a little above sea level, these slow moving rivers and streams deposited successive banks of silt, sand and gravel. As sea levels began to rise at the end of the Ice Age [(7,000 years ago], alluvium was deposited over the lowest-lying areas and peat began to develop where drainage was

impeded. This was essentially the beginning of the marsh and fen landscape, which persisted in modified form until recent times.

- 4.1.4 The most extensive tracts of flat, low-lying land, or levels, occur in the area to the north of Gringley on the Hill. This area, which extends northwards well beyond the district boundary, is associated with a broad, vaguely defined plain, formerly occupied by the River Idle. Levels also occur elsewhere in the region, but for the most part they occur on a smaller scale, often in basins contained by higher ground. Despite the fact that they have nearly all been comprehensively drained, the levels of the Idle Lowlands continue to be one of the most distinguishing features of the region.
- 4.1.5 Where the underlying drift is not covered by alluvium and peat it tends to form areas of land that are raised above the surrounding levels. This drift consists mainly of fluvio-glacial sands and gravels, and in the Doncaster area it forms a series of low rounded hills and terraces. Many of these sandlands are raised by no more than a few metres, but where they are surrounded by lower-lying levels this is often enough to create the impression of being on a low hill. This effect is particularly apparent at Misson, where the village is situated on an "island" of higher ground surrounded by former wetland.
- 4.1.6 Around the edge of the region, where the drift starts to thin out, the underlying Permo-Triassic bedrock is revealed as a series of higher ridges, often fringed by lower-lying sandlands. These ridges, which for the most part rise to over 30 metres in height, are orientated in a general north-south direction, reflecting the overall structural alignment of the region. There are three distinct bands of Permo-Triassic strata. The oldest is the Magnesian Limestone, which forms a gently rising escarpment along the western fringe of the region. The limestone dips eastwards and is overlain by a less well-defined belt of Triassic sandstone. This is an extension of the Sherwood Sandstone formation which takes its name from the region to the south. The sandstone is heavily dissected into a series of discrete hills and ridges, separated by low-lying alluvial basins. Two of these, at Whitewater Common and the valley of the River Torne, separate the sandstone hills from the adjoining limestone escarpment. Where it is not covered in drift, the sandstone is characterised by numerous dry valleys which reflect the freedraining nature of the underlying bedrock. Some of the higher hills, which rise to 40 metres or more, have a capping of glacial drift. The wooded Barrow Hills, for example, form a particularly prominent local feature. Elsewhere the covering of fluvio-glacial drift creates a more rounded and rolling topography which merges gradually into the adjoining lower-lying terraces.
- 4.1.7 To the south of the Barrow Hills, another enclosed alluvial basin separates the Sherwood Sandstone from the next ridge of high ground to the east of Retford. The latter is formed by a belt of Mercia Mudstone, which defines the eastern edge of the region. The mudstone forms a

prominent escarpment, which again dips gently eastwards, this time into the Trent Valley. The escarpment is truncated along its northern edge, and between Everton and Misterton there is a pronounced scarp which overlooks the flat carrlands to the north.

4.1.8 An outlier of Mercia Mudstone occurs just beyond the county boundary to form another area of high ground between Haxey and Epworth. This area is joined to Debdhill above Misterton by a slightly raised ridge of blown sand, which separates the Idle levels from the washlands of the River Trent.

## Soils, Vegetation and Land Use [to be read in conjunction with Figure 11]

- 4.1.9 The pattern of soils in the Idle Lowlands shows a very close relationship to the underlying geology. Free-draining sandy rocks, in places affected by groundwater, have developed on the fluvio-glacial sandlands, while heavier gleved soils and peat have formed in the intervening alluvial levels.
- 4.1.10 The sandlands, despite their inherently low fertility, are well suited for arable and horticultural cropping. The light sandy soils are easily worked and with adequate manuring, or dressing of artificial fertiliser, are capable of growing a wide range of crops The fact that the Idle sandlands have historically supported a traditional agricultural economy is reflected in the pattern of small rural settlements in the area. These are nearly all located on dry sites next to lower-lying terraces, which in the past were affected by seasonal waterlogging. The watertable has been extensively lowered in these areas by arterial drainage, however, and the terraces are now cropped in much the same way as the surrounding dry sandlands.
- 4.1.11 Where the fluvio-glacial drift thins to reveal the underlying Sherwood Sandstone, the soils tend to be thinner and more impoverished. Such soils, which are particularly common in the Sherwood region to the south, occur on the Barrow Hills and on the low plateau to the north and west of Bawtry. Both these areas have always been of marginal agricultural value and consequently the land has only been brought into cultivation in relatively recent times.
- 4.1.12 A significant area of the sandstone has never been agriculturally improved and is currently used for commercial forestry. Historically, however, the soils would have supported a dry heathland habitat, perhaps with scattered remnants of seminatural oak woodland. Heathland develops naturally on nutrient poor acidic soils, known as podsols. These are formed when minerals and organic matter are leached out of soil surface horizons by rainfall. Podsolised subsoils can still be found in places under remnants of semi-natural woodland and elsewhere on land cleared for agriculture in recent decades. No large areas of heathland have survived,

but their former extent is reflected by the widespread occurrence of bracken and other remnant heathy vegetation.

- 4.1.13 A very different range of soils has developed on the alluvial levels, and historically these supported a quite different pattern of land use from the adjoining sandlands. On the lowestlying sites along the River Idle, and on the former carrlands to the east of Misson, peaty soils have developed over the underlying alluvial and fluvio-glacial drift. Although most of this flat land is now drained by pumps into the embanked River Idle, these soils would have been severely waterlogged in their natural state. It is only since the advent of arterial drainage that these areas have been brought into intensive agricultural use. The dark humus topsoils are inherently fertile and easily worked and a wide range of root and horticultural crops, with cereals, is now grown on the Idle carrlands. Where drainage has only been partially effective, as along the Idle between Newington and Scrooby, much of the land is still managed as permanent pasture.
- 4.1.14 Slowly permeable clayey soils are found along the valley of the River Ryton at Whitewater Common and on the levels adjoining the River Idle to the east of Lound. Such soils are well suited to grassland and the traditional pattern of land use has, until recently, been for permanent pasture. Arable cropping is now more common, but despite the effects of drainage these low-lying areas are still affected by seasonal flooding. Permanent pasture is still the dominant land use along much of the Ryton Valley between Scrooby and Blyth.

#### **Landscape History**

- 4.1.15 Descriptions of the Idle Lowlands are mostly based upon the Roman landscapes of marsh and fen, and the modern history of agricultural improvement following drainage. Such accounts pay scant attention to the variety in even the medieval landscapes, let alone the long and complex history of earlier millennia. The region does, however, have a long and interesting history of human occupation, some of which can still be read in the present day landscape, although the changed environment increasingly demands a knowledgeable eye, while much is still buried awaiting further study.
- 4.1.16 The prehistoric landscapes of the Idle Lowlands mainly lie buried beneath and within the alluvium and peat that cover much of the region. The early hunter-gathering communities lived in a landscape of rivers and woodland at first characterised by oak, elm and hazel, which after 5000 BC became dominated by alder, oak, lime and hazel. Evidence of their presence comes from stone tools found in the upcast of drainage ditches, in gravel guarries and on the surfaces of modern ploughed fields where, as at Misterton, the dried-out peat has eroded to

expose the sand and gravel ridges which afforded suitable places for seasonally occupied encampments.

- 4.1.17 The disappearance of elm after 3000 BC is a nationally recognised phenomenon which is often attributed to the effect on woodland composition of the first farmers, in clearing woodland for tillage and by grazing. Neolithic stone axeheads, perhaps symbolic of such clearance, have come from Everton, Scaftworth, Misson and Misterton, along with occasional stone tools of the same date elsewhere. By about 2300 BC, however, a phase of reduced drainage was under way with peat growing in a filled-in river channel at Misterton. Much of the evidence for Neolithic activity therefore must lie beneath prehistoric and later alluvium and peat deposits. The same must be true for the Bronze Age also, for while there is evidence of a major clearance of woodland in the pollen record around 1600 BC, and lime declines around 1000 BC, the artefactual evidence consists of some stone tools and, from Sutton and Misson, bronze axeheads. Many more metal tools, however, have been found in the wider region of the Humberhead Marshes, beyond the county boundary. As tree pollen diminishes, so that of cultivated plants and grass rises, indicating mixed farming with both arable and grazing. This was not necessarily a story of continual expansion though; at Scaftworth it appears that woodland regenerated in the later Bronze Age.
- 4.1.18 If the history of the landscape of the Idle Lowlands during earlier prehistory must, necessarily, be somewhat general, that of the region during late prehistory and the Roman period is more sharply focused. Archaeological sites and the palaeo-environmental record both show a landscape which was substantially cleared of woodland. Settlements revealed in cropmarks [the product of a differential crop growth over buried pits and ditches recorded on aerial photographs] are found wherever the sands and gravels rise above the valley floors and along the margins of the region. Often positioned towards the edges of these higher sandy areas, the settlements are surrounded by long rectangular field systems, like those of the Sherwood region to the west. These fields in places run into the valley floor, where they have been shown on occasion to be buried under and within alluvium and peat. Equally there are strong hints that fields may have stopped well short of the river bank, suggesting a zone of waterside meadows or common grazing. Indeed, it appears likely that the sites of settlement were chosen to be central to both the arable on the exposed better-drained sands and the pastures on the lower wetter ground. Insect remains, preserved in the waterlogged fill of a Roman timber-lined well at Wild Goose Cottage, Lound, indicate an established grassland environment in the Idle Valley, which was virtually devoid of trees. That timber was available at probably no great distance, however, is shown by the timber lining of this well, which was of oak which had grown rapidly in open conditions. The similarity of this timber to that of the more modern Sherwood Forest may suggest the Sherwood region as a point of origin, together with the likelihood that it represents an area of woodland regeneration. A block of woodland was also present in the early Roman period at Scaftworth. Here, two phases of

Roman road, probably that from Lincoln to Doncaster which ran across the Idle Lowlands from Drakeholes to Bawtry, were carried over wet ground on timber causeways partly keyed into the stumps of the trees which had been felled in and around its path. In addition to oak, timber and wood of poplar, willow and alder were present.

- 4.1.19 The Idle Lowlands, then, was a landscape of settlements, fields and pastures with occasional small woods during the Roman period. It also appears to have been prosperous, for some of the settlements seen in the cropmarks are large and complex. They are similar to those of the Trent Valley, rather than the small settlements of the interior of the neighbouring Sherwood region. Like the settlements of the Trent Valley, they produce a greater range and wealth of objects in contrast to the relative poverty of sites on the Sherwood Sandstone. However, even before the end of the period, circumstances had begun to change. The virtually complete clearance of woodland within the region, and further afield, exposed land to erosion. Consequently, more alluvium was deposited in the Idle Valley. The late Roman period saw a marked increase in this alluviation, possibly because of exhaustion and damage to the vulnerable soils of the adjacent Sherwood region or perhaps due to the introduction of the heavy plough which more effectively broke up the ground. Combined with rising groundwater due to climatic fluctuations and changing sea levels, the lower land became wetter and more liable to overbank flooding. The margins of cultivation were pushed back, therefore, and field boundaries and probably farmsteads were buried in alluvium. Large areas of peat began to develop. In some areas woodland regenerated; the Roman road at Scaftworth was buried in alluvium and alder dominated woodland grew up.
- 4.1.20 Undoubtedly, this environmentally triggered change in land use and landscape was reinforced and maintained by the social and economic changes at the end of the Roman period. What actually happened remains unclear, but within a general context of falling population and a withering and transformation of Roman administrative structures, it appears that settlement and agriculture may have been pulled back from the more difficult marginal land to focus on more fertile areas. The poorer soils were not abandoned, however, but used at a lesser intensity of grazing, woodland and game. The situation, then, was one in which land use was reorganised and adapted to new conditions over a number of generations. Within the Idle Lowlands it would appear likely that settlement contracted on to the higher ground along the edges of the region and on "islands" above the wetter ground on the floor of the basin.
- 4.1.21 However, apart from occasional objects we have no tangible traces of early Post-Roman and Anglo-Saxon settlement in the region. Place names we do have, and some of these, such as Finningley, meaning "the clearing of the fen dwellers" and Mattersey, where the suffix ey means island, reflect the wet, marshy and wooded conditions which then characterised the landscape. Current models of Early and Middle Saxon settlement patterns are of dispersed farms and some larger settlements, not dissimilar to those of late prehistory and the Roman

period. By the late 9<sup>th</sup> century and more particularly the 10<sup>th</sup> century, under the pressures of a rising population and the growing power of local landowners, people began to group together around the farm of the local lord or at other geographically favoured sites to form nucleated villages. In the Idle Lowlands this process will have been strongly influenced by the availability of dry sites. This must be one reason why, despite the large size of some parishes, there does not appear to be much new settlement within the region. True, it is within a wider area where Scandinavian place names are frequent, suggesting space for incomers in the late 9th and 10<sup>th</sup> centuries, and some of the communities involved with the Idle Valley do bear such names, especially along the west where the region abuts Sherwood. Most of these latter communities, however, included lands outside of the Idle Valley where conditions for arable were better, and were sited on the valley edge for convenience of access to the cultivated fields on one side and to the grazing and wetland resources of the Idle Lowlands on the other. Within the region itself only Lound, a "clearing", which may imply contrasting woodland nearby, or Mattersey Thorpe, where thorpe implies a satellite settlement, are suggestive of late new communities.

4.1.22 Contrary to expectation, perhaps, and in contrast to the usual commentaries of historians, the Idle Lowlands were not an area of markedly low population in 1086. Communities here were not generally smaller than many others recorded in Domesday Book in Nottinghamshire. Certainly, if the statistics are reduced to numbers of people per square mile the figures appear low. But on a direct comparison of community against community on the basis of both population and areas under the plough, the region appears to fall comfortably within the average. This is not merely a product of the more extensive arable land available around the edge of the region. Even some of those whose lands lay wholly within the Idle Lowlands could boast respectable extents of arable; Mattersey, for example, had some 780 acres under plough, and Misson some 540 acres. Population and extents of arable were interdependent and were related to the area of dry ground available. Despite the extent of the wetlands there is no hint of specialisation in the economy of the region. Meadow is recorded in a number of communities, on a level of frequency equalled only by the Trent Valley, and fisheries appear at Misson and at Gringley on the Hill, where 1000 eels a year were caught. Fishing in By Carrdyke is also mentioned. Beyond these activities, unexceptional in a riverine context, there is nothing which relates to the considerable area of wetland. At first sight it might be thought possible that it was included under the wood pasture recorded in most Idle Lowlands communities, especially when calculations based on the dimensions of this in Finningley give a notional 5760 acres. However, comparison of the extents given across the region range from 1190 acres at Sutton through to ten acres at Everton and Misson. It seems more likely therefore that these entries do represent woodland rather than moor, and that the resources of the latter were not recorded, just as grassland pasture and livestock across the County as a whole were not included in Domesday Book. Equally, these entries do indicate that there

were areas of woodland within the Idle Lowlands in 1086 and that these were significant landscape elements in some places.

- 4.1.23 The landscape of 1086 set the basic pattern for the Idle Lowlands for the remainder of the Middle Ages and beyond. Within this, there were fluctuations in the nature and intensity of land use under the influence of social, economic and climatic change. The continued rise in general population until the late 13th century will have meant villages increasing in size, with arable fields being reorganised and, where possible, extended. Woodlands will have been diminished. After the mid 13th century, climatic deterioration and rising sea levels raised groundwater levels again and increased flooding, expanding the area of marsh and forcing changes in land use. The stress that this will have induced in communities was relieved by the decline in population in the late 14th and 15th centuries, impelled by the Black Death in 1349 and subsequent outbreaks of plague, from which the region probably suffered equally with the rest of Nottinghamshire. Just as important was the swing away from arable production to animal husbandry which was dominant in the agricultural economy from the 15<sup>th</sup> century. Wetter land therefore could be readily converted to pasture and a level of prosperity thereby maintained. While a number of villages in the wider region of the Humberhead Levels declined and died during the later Middle Ages and after, those within the Idle Lowlands were able to respond to the changing circumstances and survive.
- 4.1.24 Major landscape change came with the draining of the levels, progressively undertaken from the 17<sup>th</sup> century. This is not to say that the importance of drainage was not understood in the Middle Ages and earlier but, lacking technology and unable to take a regional approach, ditching at these dates was only of minor local significance. Even so, the economic value of the wetlands to the communities of the Idle Lowlands should not be underestimated. They offered a variety of resources which were as well exploited and managed as the woodland, heaths, pastures or tillage elsewhere. These resources will have spanned the whole range appropriate to the types of wetland present; fishing, wildfowling, wood and fuel are but a few. Little of this appears in the documentary records except occasional mentions, such as of 4 acres of turbary [peat cutting for fuel] in Lound in 1345 or the 40 acres of the same on an estate with lands in Misterton and Clarborough in 1564. By far the most important use of the wetter land was for meadow and pasture. The qualities of these varied with the ground conditions, which were recognised in description and presumably, therefore, in usage and valuation. This must be the significance of the categorisation given in 1527 of the lands of an estate in Everton as 100 acres of [arable] land, 100 of meadow, 200 of pasture, 100 of heath, 200 of "more", and 200 of marsh. Each of these represents areas of different habitats and ecology, exploited and managed in differing ways. Meadow appears in the documents of most Idle Lowlands communities usually in relatively small quantities, although it appears to have been significant in Scaftworth and Everton in the 13<sup>th</sup> and 16<sup>th</sup> centuries. Much of the other pastures, heaths, moors and marshes was pastured in common between communities and

their members. Illustrative of this is a dispute of 1290 in Misson which concerned common pasture in 2,000 acres of wood, pasture and moor. In the same year, when the freeholders of Misterton took their lords of the manor to court for having enclosed 20 acres of moor belonging to the common pasture, it was found that the lords were no more than commoners in the moor alongside the freeholders. The moors and marshes of the region, then, were not untamed wilderness but an environment which was used and maintained to best advantage within an integrated farming regime.

- 4.1.25 Small wonder, then, that the first large-scale drainage scheme, undertaken by Vermuyden between 1626 and 1628, provoked long-lasting protest and violence from the communities of the Idle Lowlands and the wider region. At Misterton enclosure of 1,000 acres of common and the flooding of other areas of carrland denied these lands to 200 families. Their complaint about this in 1634 pointed out that they employed 46 ploughs and kept 1000 cattle besides sheep and pigs, but without access to the North Carr and Thack Carr they were bereft of all means of livelihood. Leaving aside the abrogation of commoners' rights to an alien group of investors in Vermuyden's project, it is clear that the loss of common pasture in the wetlands threatened the traditional economic structures of the region.
- 4.1.26 Vermuyden's work was limited in success, and the completion of the drainage of the Idle Lowlands was eventually brought about piecemeal through the improvement of existing ditches and the digging of new ones in enclosing parishes. Apart from limited small-scale enclosure adjacent to villages and in some open fields, this was a region of late enclosure, carried out under Parliamentary Acts in the later 18th and early 19th centuries. This produced a landscape of large, regularly laidout, rectangular fields defined by hedges, with roads of standardised widths following straight lines. In the carrs and wetlands, fields or blocks of fields are defined by ditches, often laid out on a grid, with a lack of relief and a sense of openness accentuated by a lack of hedges, which is relieved by the occasional bankside trees and small plantations. Enclosure and drainage allowed the creation of new farms outside of the villages. In the 1760s Jonathan Acklom of Wiseton Hall led the way on his estate, which included lands in Wiseton, Mattersey, Everton, Misson and Scrooby, by pursuing a plan of building farmhouses and extensive outbuildings in brick in central positions within new units of land. In an unconscious echo of the past, slightly elevated locations were selected for these farmsteads to keep them above flood levels. Intended to be both practical and ornamental, these farms included new trees and plantations. Others followed suit on their estates, adding isolated farm buildings and small plantations to the overall landscape and developing the movement towards building in brick and tile. By the end of the 18<sup>th</sup> century it was normal to build anew in these materials, and mud and stud timber structures were fast disappearing, rebuilt or refaced, as the "traditional" character of the region's buildings became established.

- 4.1.27 The late 18<sup>th</sup> century also saw an addition to the countryside in the form of the Chesterfield Canal. The Idle had long been a commercial river from West Stockwith to Bawtry, which had developed into a significant inland port during the Middle Ages. By the 1760s, however, the demands of the market and the inconvenience of transporting goods into and out of the hinterland of Bawtry led to the design of a canal to link Chesterfield with the Trent at West Stockwith. Begun in 1771, the Chesterfield Canal runs around the eastern margin of the region, making a discreet contribution to the landscape and reinforcing, through bridges, locks and associated knots of buildings, its red brick character.
- 4.1.28 Drainage was not effectively completed until the later 19<sup>th</sup> century, aided by efficient pumping. ditch management and changes in sea level. Agriculturally, however, the region remained one of essentially mixed farming, with a heavy emphasis on animal husbandry: sheep and arable on the drier sandlands and cattle on the wetter levels. This situation persisted until the Second World War when the emphasis swung to arable production, which has since been maintained under Government and European farming policies. Despite these changes, the essentially rural character of the region has been maintained down to the present day.

#### 4.2 **VISUAL CHARACTER OF THE LANDSCAPE**

#### Introduction

4.2.1 The Idle Lowlands are a varied low-lying region characterised by carrs, levels and rolling sandland. The pattern of landscape within the region is closely related to the inherent capability of the land, particularly with regard to the natural constraints of drainage and soil fertility. As a consequence, differences in landscape character tend to be reflected more by variations in land use and settlement than by marked topographic changes. Although these differences have been blurred by agricultural intensification, individual landscapes can still be recognised in the pattern of woodlands, fields and settlement across the region. Most areas of former heath and wetland, for example, remain sparsely inhabited and many are still largely inaccessible by road. This is in marked contrast to the settled agricultural character of the adjoining sandlands. Even here, however, the poorest areas of former heath can still be distinguished by the late enclosure pattern, plantations and large isolated farmsteads.

#### **Landscape Character Parcels**

4.2.2 The Idle Lowlands region has been divided into 35 Landscape Description Units [LDUs] all of which fall within the Bassetlaw District [Figure 12]. Five of these units are classed as 'urban land use', the remaining 30 were then subdivided into 47 Landscape Character Parcels [LCPs] [Figure 13]. The completed Landscape Character Assessment field survey sheets are included at Appendix B4. This information was then tabulated to help determine the Draft Policy Zone [DPZ] boundaries in preparation for the Landscape Condition and Sensitivity survey contained at section 4.4.

#### 4.3 LANDSCAPE EVOLUTION AND CHANGE

#### Introduction

- 4.3.1 It is clear from the preceding sections that evolving patterns of land use have played a major part in shaping the landscape over many centuries. Although change can be sudden and dramatic, as in the case of wetland drainage, it is more often incremental, and it is this gradual evolution of the landscape that is an essential part of a healthy, living countryside. When considering proposals for landscape conservation, therefore, the aim should not be to return to a particular point in time but rather, by analysing the forces for change, to strike a balance between unavoidable change and ensuring that regional diversity and local distinctiveness are maintained, and where necessary enhanced.
- 4.3.2 This section examines the main forces that have brought about change within the Idle Lowlands over recent decades and assesses whether these forces are having a positive or a negative impact on the character and quality of the landscape. This is done with particular regard to agriculture, trees and woodlands, urban and industrial development and mineral extraction. It is also the purpose of this section to consider the trends and pressures that may influence landscape change in the future.
- 4.3.3 The trend towards arable intensification has been facilitated by more efficient drainage of the carrs and levels. Together with the effects of water abstraction from the underlying aquifer, this has reduced ground water levels throughout the region to such an extent that former wetlands are becoming deeply desiccated. This has been particularly severe in the Idle Valley upstream of Misson, where extensive areas of former meadowland and pasture have been ploughed up and brought into arable cultivation since 1945. These changes have had a major impact on the character and quality of the landscape. Large areas of permanent pasture and grazing animals, in many cases supporting a rich diversity of wildlife, have disappeared to be replaced by ploughed fields and intensively managed crops.
- 4.3.4 Arable intensification has also been instrumental in altering the fabric of the landscape through the removal of hedges and the creation of large fields to facilitate the use of modern farm machinery. In places, most notably in the Valley Carrs and Levels, this has fragmented the overall unity of the landscape, leaving isolated features such as remnant gappy hedgerows and dead or dying trees set within an open arable farmland. Such features not only appear out of scale with their surroundings, but often impart an impression of dereliction and decline.

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#### **Agriculture**

- 4.3.5 Prior to the Second World War, the Idle Lowlands were primarily a mixed farming region, with a heavy emphasis on animal husbandry. Market gardening was a feature on the fertile peat soils around Misson, Gringley on the Hill and Misterton, and in the vicinity of Retford. During the War, the emphasis swung towards arable production and this situation has been reinforced ever since under Government and European farming policies.
- 4.3.6 Alongside the demise of mixed farming, horticulture has also declined in the region and arable cultivation is now the dominant land use throughout the Idle Lowlands. The principal crops grown are cereals, potatoes and sugar beet, with oil seed rape grown as a break crop on the sandlands.
- 4.3.7 Although further agricultural expansion is now less likely, declining incomes and continued uncertainty in the short term may result in further intensification of production on existing farmland. This could lead to continued agricultural improvement of older grasslands and further loss of hedgerows. In the longer term, new incentives may encourage more environmentally sensitive farming, with perhaps a return to more traditional mixed farming regimes. In the last 25 years a number of factors have resulted in a reversal of some of the more damaging aspects of agricultural policy; the reform of the Common Agricultural Policy [CAP] led to a series of measures designed to reduce the level of agricultural surpluses, including the compulsory Set-Aside scheme introduced in 1988.
- 4.3.8 Along with the recognition that there is no longer a need for ever-increasing food production, there has also been growing acceptance of the need to reverse the damaging effects of agricultural intensification on the environment. At the same time, the need to maintain the farmer's income is recognised, and as a result a number of schemes have been established to provide financial incentives for environmentally sensitive farming. These range from payments for managing land in a traditional way or for re-creating certain habitats to hedgerow management.

#### **Trees and Woodland**

4.3.9 Historically, woodland cover within the Idle Lowlands has been fairly sparse. Today there is still a relatively low cover of woodland with slightly over half being broad-leaved. Between the 1930s and 1980s the region experienced an overall decrease in woodland cover which contrasts with the increases experienced at a county and national level. Over half of this woodland loss was to agriculture and rough grazing. The character and pattern of woodland cover varies throughout the region with the majority tending to be located on the sandlands,

which support most of the commercial forestry. Elsewhere woodlands are generally small plantations, with holts characteristic of the river valleys, and patches of remnant semi-natural woodland and scrub a feature of the Carrlands. Hedgerow trees are also an important component of the region's tree cover in some areas, despite losses caused by Dutch elm disease during the period 1960-1980.

#### **Urban and Industrial Development**

4.3.10 The Idle Lowlands is primarily an agricultural region and this is reflected in the settlement pattern of mainly small rural villages. With increasing numbers of people wanting to live in a high quality environment within commuting distance of their urban workplace, there has been considerable pressure for new housing in these villages. In many places this development is poorly designed and appears "tacked onto" existing settlements. Although this is due partly to the fact that the style does not reflect local traditions, it is also because of the siting and layout of the development and its relationship to existing buildings and village open space.

4.3.11 Cumulatively, new development has had a suburbanising effect in many of the villages in the Idle Lowlands. This is reflected not only in the design and layout of modern dwellings, but also in successive infilling of internal village space and unimaginative ornamental planting. Village character is also changing as a result of conversion of redundant farm buildings, the "gentrification" of existing dwellings and the imposition of suburban tastes on the rural environment.

4.3.12 The main urban areas in the Idle Lowlands are the historic market town of East Retford and the mining settlement of Harworth/Bircotes.

#### **Transportation**

4.3.13 A number of major roads have an impact on the region, the most prominent being the A1 which is highly visible across the more open landscapes. The impact of the road is likely to increase as there are proposals to upgrade to motorway standard. The other major routes are the A614 and A638. In terms of rail transport, the East Coast Main Line runs through the middle of this region. No commercial waterways are found within the Idle Lowlands, although the Chesterfield Canal, which is currently used for recreational purposes only, runs along the eastern edge.

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## **Mineral Extraction**

- 4.3.14 Mineral extraction has had a considerable impact on the Idle Lowlands, with the principal resources exploited being sand and gravel within the Idle Valley and coal in the sandlands. The impact of extraction operations varies from site to site, although the most common concerns tend to be noise and dust pollution from extraction and transportation, and visual intrusion upon the landscape.
- 4.3.15 Sand and gravel extraction in the region accounts for one third of Nottinghamshire's total production, with active quarries at Misson, Lound, Scrooby and Bellmoor. The majority of sand and gravel extracted is from alluvial deposits with the exception of Scrooby where it is of glacial origin.
- 4.3.16 Low-level reclamation which does not involve the importation of fill has been achieved at a number of sites. In Nottinghamshire, restoration of sand and gravel workings to water has been the most notable method, with an estimated 800 hectares reclaimed to this use by 1988. However, reclamation to water has raised a number of issues, particularly with the impact on landscape character, after-use and long-term management. Where workings have not breached the water table, reclamation has been possible by respreading the overburden and soil across the quarry floor. The most notable example of this can be found at Misson, where nearly 250 hectares had been reclaimed by 1988. Reclamation involving fill has also been undertaken at a number of sites. In areas which have experienced a loss of high quality agricultural land as a result of extraction, there is still a strong presumption towards agricultural restoration. On the sandlands, where the majority of agricultural land is of poorer quality, reclamation to native woodlands and heathland is generally preferred. The future of sand and gravel extraction within the Idle Lowlands remains uncertain due to declining resources. Harworth coal pit, the only one within the Idle Lowlands region, ceased production in 2006.

#### 4.4 **POLICY ZONES**

## **Draft Policy Zones**

4.4.1 Following on from the Landscape Character Assessment of each LCP a total of 12 Draft Policy Zones [DPZs] were created [Figure 14]. A table showing the derivation of each DPZ is included at Appendix C4. A subsequent Landscape Condition and Sensitivity Assessment was then undertaken of each DPZ, this information is detailed on the Landscape Condition and Sensitivity Assessment field survey sheets which are included at Appendix D4.

## 4.5 SPECIES LIST

4.5.1 The following list includes native tree and shrub species that are commonly found within the Idle Lowlands and are suitable for inclusion in planting schemes. These are important for determining the area's regional character. A range of other native species may also be appropriate to particular locations or sites. In these cases professional advice should be sought.

•	Dominant Species	•	Other Species Present

TREES	Woodlands/ Plantation	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Alder (Common)			0	O	
Ash	O	O	•		O
Beech	O				O
Birch (Silver)	O		O		O
Chestnut (Horse)	O				0
Crab Apple	O	O	O		
Elm (English)		O			
Elm (Wych)		•	O		
Larch (European)	O				
Lime					O
Oak (Common)	0	0	•		O
Oak (Sessile)	•				
Pine (Corsican)	O				
Pine (Scots)	O				O
Poplar	O			O	
Spruce	O				
Sycamore	0		0		O

TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Willow (Crack)	•	0	0	•	
Willow (White)	O		O	O	

Dominant Species Other Species Prese	Dominant Species	O	Other Species Present
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SHRUBS	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides
Beech		0		
Blackthorn	O	•		•
Buckthorn (Purging)		O		
Broom		0		
Coniferous Sp. (property boundaries within towns)		0		
Dogwood (Common)		O		
Gorse		O		
Hawthorn	•	•	O	•
Hazel	0	O		
Holly		O	0	
Privet (Wild)	0	O		
Rosa Sp.	0	O		
Spindle		O		
Willow (Goat)				0
Willow (Grey)	O	O		•

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#### 5.0 **MID-NOTTINGHAMSHIRE FARMLANDS**

#### PHYSICAL AND HUMAN INFLUENCES 5.1

#### **Introduction**

5.1.1 The Mid-Nottinghamshire Farmlands forms a discrete area within Nottinghamshire, extending in a broad band from the edge of Nottingham north to the Idle Lowlands. It is bounded to the west by the Sherwood region and to the east by the lowlands of the Trent Washlands. Small nucleated villages, isolated farmsteads and quiet country lanes are important components of the region's character, along with undulating landform, hedged fields and woodland. These features, and the fact that the area is dominated by agriculture, ensure that the region has a traditional rural character. This is reflected in the pattern of settlement and enclosure.

## The Shape of the Land

- 5.1.2 The Mid-Nottinghamshire Farmlands is closely associated with a broad belt of Triassic rocks that run northwards through the length of the Bassetlaw to Gringley-on-the-Hill and Misterton. These rocks comprise two formations: Waterstones, consisting of thinly bedded sandstones and siltstones separated by layers of mudstone, and the Mercia Mudstone [formerly known as the Keuper Marl] comprising a great thickness of stratified reddish mudstones with occasional bands of hard sandstone, known locally as "skerry". Both formations are overlain by alluvial and fluvio-glacial drift in the Idle Lowlands, which borders the region to the north and north west. This covering of drift also extends along the Trent Valley to the east.
- 5.1.3 Like the rock formations above and below it, the Mercia Mudstone gives rise to a low rolling escarpment that slopes gently eastwards in general conformity with the underlying bedrock. A well-marked scarp slope overlooks the Sherwood Sandstone along the western edge of the outcrop. The Waterstones form the lower, and on the whole gentler, portion of this slope, while the upper, and often much steeper, slope is composed of Mercia Mudstone, with its more resistant skerry bands. These bands, where they are well-developed, give rise to a much more varied and undulating topography as well as giving added prominence to the scarp slope.
- 5.1.4 Owing to the impervious nature of the underlying mudstones, the escarpment has become heavily dissected by numerous streams, each occupying a well-defined valley. Many of these valleys are floored by alluvium, especially in the central part of the region to the east of Tuxford, where the dip slope has a more subdued relief. South of this area an increasing

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number of streams have cut through the Mercia Mudstone to expose the underlying Waterstones. The various becks and streams occupy shallower valleys, than those south of the district.

## Soils [to be read in conjunction with Figure 15]

5.1.5 Dark brown stoney clay loam or clay soils cover most of the region's land surface. Dark reddish brown sandy silt loam and clay loam soils occur on the lower beds of the Mercia Mudstone group to the west. Dark brown clay loam and silty clay loam soils are found on gentler slopes in the east, where the mudstone is overlain by thin fine loamy or fine silty drift. Tongues of reddish/greyish river alluvium are found in the beck valleys. Stoney soils can be found where the skerries come close to the surface.

## **Landscape History**

- 5.1.6 Little can be said about the early history of the landscape of the Mid-Nottinghamshire Farmlands. The clay soils of the Mercia Mudstones are not on the whole sympathetic to the production of cropmarks, the results of differential crop growth over buried ditches, pits and other features which have revolutionised our understanding of the prehistoric and Roman periods in other regions such as the Trent Washlands and Sherwood. The rural character and remoteness of much of this region has also contributed to a lack of study and survey. In consequence, the archaeology of the Mid-Nottinghamshire Farmlands depends almost entirely upon objects recovered from the surface of ploughed fields and earthworks, which have to be interpreted against the wider background of landscape history deduced from evidence elsewhere.
- 5.1.7 The presence of people during prehistory is witnessed by stone tools, manufacturing debris and metal objects occasionally recovered after ploughing. It is reasonable to assume that the Mid-Nottinghamshire Farmlands will have been no less attractive to hunter-gathering groups and early farmers than other regions in Bassetlaw, and that these will have had a comparable effect upon the woodland which developed after the end of the Ice Age. The composition of that woodland may be assumed to have varied with local soils and topography and to have been dominated by a mixture of oak, lime, ash and hazel. As human settlement consolidated and expanded, this woodland will have been increasingly cleared and its composition altered.
- 5.1.8 By the Roman period it is likely that most of the woodland will have been cleared and the land placed under cultivation. This is the conclusion to which the crop-mark evidence of the Trent Valley and the Sherwood Sandstones points; indeed it might be thought that the development

of the Roman landscape on the relatively infertile soils of the Sherwood Sandstones is indicative that the better lands of the Mid-Nottinghamshire Farmlands had already been taken. It may be significant also that the Roman landscapes of the Sherwood Sandstones and the Trent Valley, on either side of the Mid-Nottinghamshire Farmlands, share characteristics indicating large-scale planning. In both, crop marks reveal blocks of rectangular fields, enclosures and trackways, and, in both, these are orientated in much the same way. It might not be unreasonable to assume, therefore, that these field systems were part of one landscape, stretching across the Sherwood Sandstone, the Mercia Mudstones and the gravels of the Trent Valley. That we know about this landscape on the Sherwood Sandstone and in the Trent Valley only, and are largely ignorant of the details of the Mid-Nottinghamshire Farmlands in the Roman period, may be attributed to the limitations on the discovery of evidence which have prevailed on the clays of the Mercia Mudstones. Where evidence is available it is striking. In Laxton, Roman material has come from no fewer than seven locations within the parish, indicating a number of farms and at least one villa. Other villas are known at Tuxford. Similarly, a quantity of Roman material has come from Darlton and South Wheatley. All of these have the common feature of having been looked at more closely because they are centres of interest. If the density of settlement implied by the evidence from Laxton, in the heart of the highest clay lands, is any guide then there is no reason to believe other than that the Mid-Nottinghamshire Farmlands was as well populated and its landscape as well developed as anywhere else during the Roman period.

5.1.9 It is clear that the end of the Roman period brought great change, but we know little to provide detail of how this came about. Population decline and changes in social organisation, beginning in the Roman period and continuing into the 5<sup>th</sup> and 6<sup>th</sup> centuries, led to a retraction in cultivation and a refocusing of settlement towards the more easily worked land. The woodland regenerated on a large scale. Although there are a few objects of early Anglo-Saxon date from the region, there is at present little to suggest that the immigrants coming into South Nottinghamshire and the Trent Valley were initially interested in moving into the interior of the Mercia Mudstones. However, there is no evidence that this was a period of collapse and abandonment; on the contrary there are hints that Roman structures and settlement patterns endured. It is possible that the part of Mid-Nottinghamshire Farmlands within Bassetlaw was initially incorporated into the early kingdom of Lindsey, which had British rather than Saxon origins. This might be the implication of some estates structures later recorded in Domesday Book and of the pattern of warfare between Mercia and Northumbria in the 7<sup>th</sup> century, in which Lindsey was a pawn. Particularly, significance must be attached to the mass baptism of the people of Lindsey by the missionary Paulinus at Tiowulfingacaester in 627. Tiowulfingacaester is identified as Littleborough, on the Trent in the adjacent Trent Washlands. This baptism was as much a political statement as a religious event and choice of site was undoubtedly intended to be symbolic of royal overlordship on

both sides of the Trent. This would have been a pointless site had there not been a population in the Mid-Nottinghamshire Farmlands.

- 5.1.10 The changes to the landscape of the Mid-Nottinghamshire Farmlands were probably piecemeal and gradual. A number of place names refer to woodland but other activities are reflected on occasion, for example, "Wheatley" implies the cultivation of wheat in a clearing amongst woodland. The woodland which developed in the immediately post-Roman period is unlikely to have been left to nature. It will have been a valuable source for common grazing, gathering food, timber and wood. It will have been managed to one degree or another.
- 5.1.11 Current models of Early and Middle Saxon settlement patterns are of dispersed farms and some larger settlements, not dissimilar to the basic pattern of later prehistory and the Roman period. By the 9<sup>th</sup> century, and more particularly from the 10<sup>th</sup> century, under the pressures of a rising population and the growing powers of local landlords this dispersed pattern began to be replaced by one of nucleated villages, with people grouping together around the farm of the local lord or in other geographically favoured locations. Whether as a result of this process or as a product of earlier loss of population and reorganisation, the Mid-Nottinghamshire Farmlands developed a settlement pattern which was particularly geared to the use of local resources. Most of the settlements exploiting the region in fact lay on its fringes or even outside it. On the south and east, the villages lay on the gravels of the Trent Washlands where the best soils for cultivation were and where there was easy access to the meadows and pastures of the Trent flood plain. On the west, villages were frequently sited at the junction of the Mercia Mudstones and the Sherwood Sandstones, where the mixture of clay and sand in the soils again provided better tillage and the heaths of the sandstone provided open pastures. Although not insignificant in number, comparatively few communities occupied the heart of the clay land, often choosing sites in valleys, beside watercourses where soils on slopes were better drained. The territories of the peripheral communities ran back up onto the clays, to include the woodland resources here, while those within the core of the Mercia Mudstones developed more or less concentric patterns of land use, with the fields closest to the village, pastures beyond the fields and then woodland. The landscape of the Mid-Nottinghamshire Farmlands in the Later Saxon and Early Mediaeval periods, then, was one of communities and farmland separated by blocks and ribbons of woodland. In many instances, as later documentary references and the intricacy of boundary lines show, this woodland served the communities on either side of it as common grazing.
- 5.1.12 This is the picture of the Mid-Nottinghamshire Farmlands which can be seen in Domesday Book, a mixture of large and small communities with arable to match, much woodland and very little meadow. Most of the woodland was recorded as wood pasture, although there was a significant group of underwood (coppiced woods) in the north of the region. Domesday

Book also shows that expansion of settlement into the woodlands was well under way due the recording of place names.

- 5.1.13 With rising population, this expansion continued in the 12<sup>th</sup> and 13<sup>th</sup> centuries. Villages grew and new settlements appeared. Arable fields were expanded at the expense of the woodland, which was further degraded by grazing. In common with the other wooded regions of the district, parks were enclosed to conserve game and provide sport for the king and nobility. Indeed, for several generations the whole of the Mid-Nottinghamshire Farmlands was included under Forest Law, until it was deforested by Henry III in 1286. At Darlton, King John enclosed a park and built a hunting lodge at Kingshaugh, cutting across the rights of pasture in the wood which belonged to the villagers of Darlton and Ragnall. As their names often indicate, particularly in the Mid-Nottinghamshire Farmlands, parks usually took in an area of woodland, but usually this was soon modified by clearances for grazing and even cultivation. This was the seed of the common fate of many parks in the later Middle Ages, to be converted into farmland.
- 5.1.14 The Mid-Nottinghamshire Farmlands has the distinction of being home to the archetype of midland mediaeval villages, at Laxton. The famous map of the parish, drawn up in 1635, gives a strong idea of the landscape here during the Middle Ages. There, on the slope above the stream, was the village, dominated by the castle which stood immediately behind it to the north. North and west of the castle was a small park with an orchard, fishponds, and horse and hay paddocks, more for exercise and pleasure than hunting, which will have taken place in East Park Wood along the north east of the parish continuous with Egmanton Wood, and in Hartshorn, a large block of wood pasture on the southern side of the community. East, west, south west and south of the village were the open fields. The East Field and the one to the south west, Mill Field, are likely to have been the original arable, to be joined by the West Field possibly during the 12<sup>th</sup> century. The South Field was the last to be created early in the 13<sup>th</sup> century. Along the stream as it ran across the top of the South Field were the principal meadows of the community, with other areas of meadow on the sykes, unploughed strips alongside the other arms of the Radbeck and more minor streams running through the open fields. Unploughed wide verges beside the trackways through the parish were also managed as meadow. Beyond the fields there was in 1635 a zone of enclosed fields, then under grass. The names of these closes clearly indicate, as much as their position, that they were cut out of the woodland, probably in the piecemeal process of clearance known as assarting. Whether these assarts were originally intended for arable or pasture cannot be ascertained. Either would have been appropriate, although some theories about land organisation might suggest pasture. One area of pasture was the common, on the north-western tip of the parish. This too was originally woodland, as its name "Westwood Common" implies, part of a substantial wood contiguous with that of Wellow and Ompton. Hartshorn also was probably grazed. At the opposite, north-eastern, end of the parish was a separate, off-shoot

community, Laxton Moorhouse. This settlement developed its own set of open fields, but some of its occupants farmed strips in the South Field also. Finally, as will have been apparent already, the margins of Laxton were substantially wooded with Westwood, Hartshorn, woodland between Laxton and Moorhouse north of the meadows, and East Park Wood all in the vicinity.

- 5.1.15 By 1300 plough lands in the Mid-Nottinghamshire Farmlands were at their maximum extent. Under pressure from a high population almost any land that could produce a crop was cultivated. In Laxton, poorer, wetter land normally used for meadow, including sykes, was ploughed. But the climate was deteriorating and in 1349 the Black Death arrived, ushering in a period of protracted difficulty. The Black Death and repeated visitations of plague during the 14<sup>th</sup> century reduced the national population by over one third, and it appears that the Mid-Nottinghamshire Farmlands bore its share of this loss. With reduced population and social change, there was a turning away from arable production. Marginal plough lands and pastures were restored to grassland, leaving ridge and furrow on the sykes at Laxton, and open field rotations were reorganised to allow for larger fallows, temporary grass and the creation of closes of more permanent grass. Vacant tenancies were engrossed into occupied farms, creating more differential between large and small farms. With land exchanges, the tendency for larger farms to be made up of consolidated blocks of land within the open fields grew. Overall, the 15<sup>th</sup> and 16<sup>th</sup> centuries saw the establishment of convertible husbandry. with a more balanced, mixed farming regime.
- 5.1.16 Some communities were so weakened by the difficulties of the later 14th and early 15th centuries that their viability was completely undermined. The Mid-Nottinghamshire Farmlands saw a number of villages either completely or virtually disappear, in the course of the later 15<sup>th</sup> and 16<sup>th</sup> centuries. Some of these were settlements of considerable antiquity. A number were the more marginal communities developed in the centuries of expansion from the 10<sup>th</sup> century on. Although at least 13 communities failed in this period and many other villages shrank in size, the majority survived. The open field system was inherently flexible and could be readily adapted to changes in economic need, with areas being taken in and out of cultivation according to market demands. The economy of the Mid-Nottinghamshire Farmlands thus remained one of mixed farming, still with quantities of arable, until well into the 20<sup>th</sup> century.
- 5.1.17 However, doubtless because of the resilience of the open field system and the swings in demand and profitability, which never quite made one agricultural strategy preferable to another, and made landowners think twice about the expense of enclosure, society here was inclined to be conservative. This is illustrated by the long endurance of bare fallows. The land itself also imposed certain restrictions on development. With the onset of colder, wetter conditions in the later 13th century the clay soils of the Mercia Mudstones had become that

much more difficult to work and crop yields had declined. This was probably a significant factor in the demise of some communities in the 15<sup>th</sup> and 16<sup>th</sup> centuries and remained a problem until the 19<sup>th</sup> century.

- 5.1.18 Although there was an amount of piecemeal enclosure, the Mid-Nottinghamshire Farmlands were not generally enclosed until the later 18th and 19th centuries. This was the age of agricultural improvement, when open fields were seen as anachronistic and an impediment to progress, and enclosure was promoted through Acts of Parliament to overcome any objectors. Laid out by surveyors, the field systems created through Parliamentary enclosure tend to be larger and more regular than those of preceding centuries, although in these clay lands the long-established physical frameworks of the open fields had to be taken into account. Nevertheless, it was still an expensive business and took time to become general. The clay fields of Rampton were still unenclosed in 1835, and North Wheatley and parks at Treswell and Askham were enclosed the following year. At Laxton enclosure has never been completed. Behind this pattern lies the fact that at the end of the 18th century the Mid-Nottinghamshire Farmlands was regarded as backward in agricultural terms and farming was less profitable than in other regions.
- 5.1.19 The retraction of arable in the 15<sup>th</sup> and 16<sup>th</sup> centuries undoubtedly saw an expansion of woodland particularly in the southern half of the region. To this was added the planting associated with the parks and gardens around the houses of the nobility and gentry laid out during the succeeding centuries. During the 19<sup>th</sup> century plantations were added throughout the region both for timber and as game coverts, particularly in peripheral areas of parishes. During the 18<sup>th</sup> and 19<sup>th</sup> centuries also, the villages were rebuilt in brick. Beginning in earlier centuries with the houses of the nobility and gentry, it became usual for the humblest of dwellings to be built in brick by the end of the 18<sup>th</sup> century. Gradually over the course of these two centuries the old style timber frame buildings of mud and stud construction and thatched roofs were replaced or encased in brick with tile roofs. Local clay pits were often the source of the bricks. The new farms of the enclosed landscapes created in the late 18<sup>th</sup> and 19<sup>th</sup> centuries, standing apart from the old villages, were built in brick. Since they were newly established at a time when agriculture was making new strides they often replicate the "model farm" concept with outbuildings and farmhouse convenient to one another around a quadrangle.
- 5.1.20 The advent of piped under-soil drainage during the mid 19<sup>th</sup> century and enclosure brought improvements to the region. The farming regime remained mixed, however, with extensive crop rotation on a field-by-field basis. Some new crops were tried, hops being a big business in the late 18th century, but in the main it was the traditional arable-livestock balance that prevailed. With the collapse of grain prices caused by foreign importation in the late 19<sup>th</sup> century, this balance swung towards animal husbandry, with more grassland and feed crops.

Apart from a temporary swing towards arable during the First World War, this remained the situation until the 1940s. Post-war government and EEC agricultural policies then placed emphasis on arable, resulting in a marked decline in livestock. This has produced considerable landscape change as many 18<sup>th</sup> and 19<sup>th</sup> century enclosure hedges and many earlier ones have been uprooted to enable the use of large machinery.

5.1.21 While it would be easy to believe that the modern landscape of the Mid-Nottinghamshire Farmlands is the product of the last few hundred years, this would be a complete misreading of what it has to tell us. It is not only at Laxton that a long history may be seen in the village, its fields and its woods, and a comparable longevity in the shapes and features of the countryside is apparent throughout the region. Even the relative openness of the landscape in the north of the district is an ancient characteristic.

#### **VISUAL CHARACTER OF THE LANDSCAPE** 5.2

#### **Introduction**

- The Mid-Nottinghamshire Farmlands is an area of undulating landscape with a distinctively 5.2.1 rural, agricultural character. Arable farming is the predominant land use on the clay soils, where mixed farming prevails. The historical pattern of land use and settlement is influenced by the physical characteristics of the region, particularly its soils. It is also influenced by its geographical relationship with adjacent regions where different physical conditions occur. Many villages have been established along the margins of the Mercia Mudstone outcrop where a wider range of physical resources is accessible. A more limited range of resources has historically been available to the inhabitants of the central parts of the region, consequently a sparser settlement pattern is evident.
- 5.2.2 The region is relatively remote from major population centres and has a well-defined and largely undeveloped rural character. Industry is of little significance save for the occasional clay quarry and brick works. A number of main highways cross the area, but typically roads are narrow country lanes linking the scattered nucleated settlements. The villages are well integrated into the surrounding countryside with small-scale field patterns, unimproved pastures, species-rich hedgerows and remnant orchards forming common features along their edges.
- 5.2.3 A characteristic of the Mid-Nottinghamshire Farmlands is the strong sense of enclosure which exists over most of the region. Field patterns have remained largely intact although they have

become somewhat eroded in the most intensively farmed areas, especially to the north and east. Ancient hedgerows are scattered throughout, hedgerow trees are usually ash and oak and have a localised importance in the landscape.

5.2.4 The landscape has a generally well-wooded character except over tracts of land to the far north and east. Woodlands tend to be mainly deciduous or mixed and are typically small to medium in size. A special feature of the area is the many ancient woodlands, often prominently sited on hilltops and rising ground. Scattered pockets of parkland add to this wellwooded character, along with the many tree-lined streams which drain the area from west to east.

#### **Landscape Character Parcels**

5.2.5 The Mid-Nottinghamshire Farmlands region has been divided into 62 Landscape Description Units [LDUs] of which 17 fall within the Bassetlaw District [Figure 16]. One of these units is classed as 'urban land use', the remaining 16 were then subdivided into 32 Landscape Character Parcels [LCPs] [Figure 17]. The completed Landscape Character Assessment field survey sheets are included at Appendix B5. This information was then tabulated to help determine the Draft Policy Zone [DPZ] boundaries in preparation for the Landscape Condition and Sensitivity survey contained at section 5.4.

#### 5.3 LANDSCAPE EVOLUTION AND CHANGE

## Introduction

5.3.1 This section examines the main forces that have brought about change and evolution within the Mid-Nottinghamshire Farmlands over recent decades. It does this by discussing how the current structure and pattern of land use has developed, paying particular regard to agriculture, woodland, transport, industrial/residential development and mineral extraction. It also considers the trends and pressures that may produce landscape change in the future.

#### **Agriculture**

- 5.3.2 The economy of the region is dominated by agriculture with most farmland being of medium agricultural quality. Pockets of higher quality land occur to the west and east of the region on loamy drift and in the alluvial valley bottoms.
- 5.3.3 A large proportion of the farmland in the region is under arable rotation. Wheat is by far the most frequent crop, with barley a close second. The local climate and the nature of the soil mean that autumn sown crops are usually a more feasible option than those sown in spring. Peas and root crops such as sugar beet and potatoes are grown as part of rotations on the lighter, higher quality agricultural land.
- 5.3.4 The main change in agricultural practice since the Second World War has been the swing from a mixed agricultural economy to one dominated by arable farming, with an associated increase in holding size. The scale of permanent pasture has vastly reduced since 1939. The majority of pastures are now found south of the district and elsewhere along watercourses and settlement edges. Traditionally, cattle farming was widespread and in the 1930s strong corridors of pasture flanked most of the beck valleys. The character of these features has changed with significant areas now used for cropping. A change in grassland management has also occurred, present day management being more intensive and often involving two or more annual silage crops compared to the un-intensive hay crop taken 50 years ago.
- 5.3.5 Wheat has remained constant as the dominant arable crop since the 1930s. Oats, once a frequent component of arable rotations in the region, have become much less common, and superseded in importance by barley. Root crops, then as now, play a small role as break crops. Clover was widely planted as a break crop in the 1930s, being second only to wheat in terms of arable area. Clover crops are now uncommon with oilseed rape and field beans taking their place.

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5.3.6 Horticulture has a similar distribution now to that of the 1930s, although it is much reduced in area. Small areas of horticulture are scattered through the region, occupying a small percentage of the total farmed area. A major change in the rural economy has been associated with the dramatic decrease in the area of orchard land. In the 1930s expansive orchards were found in the region with concentrations occurring around North Wheatley [101 ha] and Tuxford [162ha]. Remnant orchards are, however, a feature of many of the smaller village settlements and are suggestive of their past importance to the local land-based economy.

# Woodland/Tree Cover

- 5.3.7 The Mid-Nottinghamshire Farmlands is a relatively well-wooded landscape containing many deciduous woodlands and a high proportion of the County's ancient semi-natural woodland. At the beginning of the present millennium the region was the most wooded part of Nottinghamshire despite the presence of Sherwood Forest to the west. However, in more recent times large-scale planting in Sherwood has meant that the area has been overtaken in terms of the proportion of woodland that it contains. Small and medium woodlands are scattered throughout although in the north and east, woodlands are less common.
- 5.3.8 Deciduous woodland is the dominant woodland type across the region and includes a relatively high number of ancient semi-natural woodlands. These vary in size from the small, linear woods along the valleys to the large blocks of woodland like Wellow Park, which is 130 ha in extent. Ash, field maple, hazel, oak, hawthorn and wych elm are typical deciduous woodland species.
- 5.3.9 Between 1920 and the present day there has been a slight but perceptible change in the nature of woodland cover in the region. Agricultural intensification has led to a number of established woodlands being cleared or reduced in size. However, many new woodlands have been planted, often small ones of less than one hectare. The end result is that since the 1920s there has been an overall increase in the hectare-age of woodland in the region but a decrease in the area of ancient semi-natural woodland.
- 5.3.10 Dutch elm disease had a major impact upon the landscape during the period 1960-1980, leading to the loss of virtually all hedge and roadside elms. Despite this loss hedgerow trees still form an important component of the region's tree cover, with ash, oak and willow the dominant species.

#### **Transportation**

- 5.3.11 A small number of main roads affect the region, crossing the area in a west to east direction. These are linked to the rural settlements by a comprehensive network of country lanes. The A1 and A57 are the only trunk roads and these converge at the busy Markham Moor roundabout on the western fringe of the region.
- 5.3.12 Running parallel to the A1 is the main London railway line. The Gainsborough-Sheffield rail link traverses the northern half of the region and a freight link to Cottam power station spurs off this to the east. A further freight line bisects the area south of Tuxford linking Ollerton to High Marnham power station.

#### **Urban and Industrial Development**

- 5.3.13 The Mid-Nottinghamshire Farmlands is a sparsely populated region, the settlement pattern is formed by numerous small nucleated villages and isolated farmsteads.
- 5.3.14 Industrial development and mineral extraction are closely linked within the region as a whole, with most activity confined to the area south of the A1. There are no collieries in the Bassetlaw area.
- 5.3.15 Clay quarrying and associated brickworks form the most important industrial activity with Nottinghamshire supporting a locally significant brick manufacturing industry. Kirton is the largest active clay pit in Nottinghamshire with a permitted area of 80 hectares, which will eventually be partially landfilled and restored to agricultural use.
- 5.3.16 Oil has been found in the carboniferous sandstone which underlies the Mercia Mudstone. Active fields in the region are to be found at Kirklington, Egmanton, South Leverton, Bevercotes [Farleys Wood] and Beckingham in the north. In landscape terms winning oil is not very obtrusive as the necessary landtake is small. The plant is minimal and is generally screened by low earth mounds and/ or trees. Following exploitation, land is restored to its former use. It is likely that further exploration for oil will take place in the area.

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#### 5.4 **POLICY ZONES**

# **Draft Policy Zones**

5.4.1 Following on from the Landscape Character Assessment of each LCP a total of 14 Draft Policy Zones [DPZs] were created [Figure 18]. A table showing the derivation of each DPZ is included at Appendix C5. A subsequent Landscape Condition and Sensitivity Assessment was then undertaken of each DPZ, this information is detailed on the Landscape Condition and Sensitivity field survey sheets which are included at Appendix D5.

#### 5.5 SPECIES LIST

5.5.1 The following list includes native tree and shrub species that are commonly found within the Mid-Nottinghamshire Farmlands and are suitable for inclusion in planting schemes. These are important for determining the area's regional character. A range of other native species may also be appropriate to particular locations or sites. In these cases professional advice should be sought.

•	Dominant Species	•	Other Species Present

TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Alder (Common)				•	
Ash	•	O	•	•	
Aspen	O				
Birch (Silver)	O				O
Cherry (Wild)	O				
Crab Apple	O	O	O		
Elm (English)		O	O		O
Elm (Wych)	•	O			O
Horse Chestnut	O		O		O
Lime (Small Leaved)	O				
Lime (Large Leaved and Hybrid)	O		0		
Maple (Field)	•	O	O	•	O
Oak (Common)	•	O	•	O	
Oak (Sessile)	O		0		
Pine (Scots)	O				
Sycamore	O				

Dominant Species	Other Species Present
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TREES	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides	Individual/ Parkland Trees
Willow (Crack)	O		O	•	
Willow (Goat)	O				
Willow (White)	O		O	•	

SHRUBS	Woodlands/ Plantations	Hedges	Hedgerow Trees	Wet Areas/Streamsides
Ash		O		
Blackthorn	•	•		0
Buckthorn (Purging)	0	O		
Dogwood (Common)	0	O		0
Elder		O		
Guelder Rose	0	O		•
Hawthorn	•	•	•	•
Hawthorn (Midland)	0	O		0
Hazel	•	O		
Holly	0	O		
lvy		O		
Maple (Field)		O		
Oak (Common)		O		
Osier	0			0
Privet (Wild)	0	O		
Rosa Sp.	0	•		0
Rubus Sp.		O		

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