

# Worcestershire Historic Landscape Characterisation

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Report 1936

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# **Worcestershire Historic Landscape Characterisation**

## **Stephen Crowther and Vanessa Clarke**

### **Part 1 project summary**

This document serves as a revised method statement, desk manual and summary for the Historic Landscape Characterisation (HLC) project for Worcestershire, which has been carried out by the Worcestershire Archive and Archaeology Service of Worcestershire County Council (WCC). Worcester City, which is the subject of a separate characterisation project, is excluded from this project. This report aims to provide an introduction to the project and a summary of the results, and to act as a guide to those who may wish to begin using the HLC and/or understand the methodology that has been applied.

This report is for anyone with an interest in the historic landscapes of Worcestershire. It is not, however, the aim of this report to provide a potted landscape history of Worcestershire. Rather, it aims to show the potential value of the HLC project's digital information, illustrate some of the ways it may be interrogated and suggest practical applications. This information from this project has many applications but its greatest potential will be as a powerful and flexible tool to manage and enhance Worcestershire's historic landscape character, especially for those with responsibility for setting frameworks for change or making decisions that might affect the County's historic landscape character, such as County Council or District Council strategic planning or conservation staff.

The purpose of HLC is to provide relatively objective material to inform direction and guidance on how the different landscapes can be managed in respect of its historic character and sustainability. HLC seeks to identify the valued characteristics of the County's landscapes, whether it is field patterns, settlements or other elements, so that they can be effectively managed into the future, providing benefits for residents and visitors alike. Information contained within the HLC is also relevant to land-owners, land estate managers, or for commercial developers and others whose plans might result in landscape change. The HLC information can also be applied to many other areas of interest and research avenues.

The HLC project is broken down into four stages: familiarisation through the pilot study, data collection through mapping, analysis and interpretation, and the final report and dissemination of results (Worcestershire Archive and Archaeology Service, 2006). The most time-consuming element was the mapping phase, whereby the whole county was divided into parcels of land (polygons) that share similarities through time. Information was collated from a variety of sources: physiographic data, modern maps, historic maps, aerial photographs, the Worcestershire Historic Environment Record (HER) and the County's

habitat mapping data to build up a picture of how places have developed over time as well as demonstrate how the past is present in today's landscape. HLC information is not definitive, however and the absence of information about a particular landscape element or feature in a landscape does not mean it is either unimportant or uncharacteristic.

The collated data sets have been analysed through a framework of 11 historic landscape character Broad Groups. Landscape attributes have been ascribed to these Broad Groups, which are further subdivided into Historic Landscape Character types, and in this way the landscape has been defined and mapped as individual polygons in a seamless map layer using Worcestershire County Council's Geographic Information System (GIS), ESRI's Arcview.

The Worcestershire HLC pilot study was the initial phase of the Worcestershire HLC project, building upon and developing methodologies used in previous HLC projects countrywide, enabling assessment and analysis to be undertaken of both past and present landscapes and provides visual, dynamic mapping that demonstrates landscape change. The pilot study consists of three areas, designed to test the project methodology as they cover a variety of the County's landscape types (Worcestershire Archive and Archaeology Service, 2006). The pilot study produced interesting and contrasting results, underlining the diverse nature of Worcestershire's landscapes. A number of significant, broad trends are evident in all three pilot study areas, notably the high loss of field boundaries that occurred largely since the Second World War. There was also an increase in orchard planting from c.1850s onwards, which subsequently declines throughout the 20th century.

Following the pilot study, revisions to the original methodology were made, the modifications and additions to the historic landscape character types, based on other County HLC projects, reflecting local landscape variations in Worcestershire (Worcestershire Archive and Archaeology Service, 2006). A further variation in methodology followed to increase the minimum polygon sizes.

As a fundamental aspect of the County's environmental infrastructure, the historic landscape has a major role to play in Worcestershire's future. The historic landscape is sensitive to change and needs to be properly understood before change is planned, to ensure its effective management and enhancement, so that it can make its full contribution in shaping sustainable communities. With that principle in mind, one of the key statistics that has come out of analysis of the HLC information is that 50 per cent of Worcestershire's entire land area has undergone some kind of landscape character change since 1945. Of that 50 per cent, nearly 27 per cent results from the amalgamation of fields by means of hedgerow removal, presumably as part of post-war industrialisation of agricultural practices. Another 4 per cent represents the reorganisation of fields and destruction of character, mainly as a result of the construction of three



motorways and several dual carriageways through the County. It is unlikely that this significant change to the character of the County's fieldscapes in the past 65 years has hitherto been identified or quantified by other projects.

The HLC report presents baseline historic landscape character statistics for both the County and separately for the five District Councils. The HLC information metadata contains time-depth information, so it has been possible to document significant changes to the County's landscape character through time and reconstruct earlier landscapes. Of unexpected significance has been the enclosure of large tracts of formerly open heaths, lowland moors, commons and wetlands in the early 19th century, which at that time made up over 22 per cent of the County and represents a major change to the County's historic landscape character.

## Part 2 main report

### 1. Introduction

In July 2007, Worcestershire Archive and Archaeology Service (hereafter WAAS) began a two and a half year project, jointly funded by English Heritage and Worcestershire County Council, to characterise the historic landscape of Worcestershire through mapping and associated interpretive material. The Historic Landscape Characterisation Project (hereafter HLC) will form a vital contribution to Worcestershire County Council's move towards a more holistic treatment of environmental issues. It will also supplement and extend the existing Landscape Character Assessment work, and forms part of English Heritage's national programme of Historic Landscape Characterisation (Fairclough, 2008).

#### 1.1 Aims and Objectives of Historic Landscape Characterisation

The overall aim of the project is to digitally record, map and interpret the current historic landscape character of Worcestershire to better inform management strategies and conservation issues at local, regional and national levels and to provide an evidence base for the purposes of a range of forms of spatial planning. Worcestershire HLC output will also directly inform consultation for the County's land management agreements. In addition, the mapping of previous historic landscape character will provide a platform for past-oriented research.

The broad objectives of the Worcestershire HLC project are:

- To improve understanding of the landscape in Worcestershire;
- To provide a context for archaeological sites and monuments within the County;
- To provide a framework for informed landscape management strategies;
- To better inform spatial planning, development control, conservation issues and academic research;
- To underpin historic environment advice given to district councils and other environment/ conservation agencies, such as Natural England and the Forestry Commission;
- To monitor future changes within the historic environment;
- To support and inform outreach and educational programmes in order to engage and inform the wider community about their local historic landscape;
- To create a dynamic and versatile dataset that can be enhanced and updated to reflect changes in the historic environment;

- To produce a dataset that is compatible with those of adjacent counties in order to inform regional and higher-level historic landscape characterisation.

## 1.2 **Applications of the Worcestershire HLC project**

HLC has a wide range of applications because it presents a comprehensive overview of the historic landscape. It promotes a framework, a background understanding and a better informed starting point from which to consider issues and proposals. It provides information, not judgements, and does not identify the „best“ areas but allows appropriate decisions to be made in the light of proposed change. HLC does not seek to answer every question about the historic landscape, but focuses on one factor: surviving time-depth, the legibility and enjoyment of the past in the present landscape.

HLC is a valuable method for raising awareness of the historic dimension in the landscape, and a means of ensuring that its needs are taken into account alongside those of the natural environment when proposed changes are considered. However, HLC is not concerned to preserve the landscape unchanged, or to return it to some past point in its evolution. Nor is it a means to protect the past landscape, but to manage sustainably the past history and origins of the landscape in the present. HLC defines the historic character of the current landscape. HLC does not aim to determine how the landscape of the past should stay, be maintained or recreated, but rather identifies traces of the past within the modern landscape, and recognising that essentially the landscape has its present character because of the changes it has undergone over the past millennia. The challenge therefore is to address how various forms of future change can sensitively respect local character and diversity (Clark et al., 2004).

### 1.2.1 **Spatial Planning & Development Control:**

The information and understanding offered by HLC can be used to inform a range of applications:

- A tool to use in the creation of Local Development Frameworks, Supplementary Planning Documents (SPDs) and new planning policy.

HLC can reveal the diversity, local character and sensitivity to particular forms of change of the existing historic landscape in a given area and should facilitate the development of positive approaches to the integration of historic landscape character into spatial planning.

- A framework within which the determination of the broad scale and location of development can be facilitated in a sustainable way with

regards to the historic landscape character and wider historic environment.

The HLC will allow planners, with support from specialist historic environment advisors, to integrate the promotion, management and enhancement of the local historic landscape character of an area both within Local Development Documents and master plans for major developments, with due attention to the sensitivities and capacity for change of different historic landscape character types.

It is important that opportunities for the enhancement of the historic landscape character of an area are realised and that adverse impacts associated with development are mitigated. HLC provides a positive template for new development and plays a key role in creating a „sense of place“ and community identities.

- Guidance to Planners at the early stages of development proposals.

HLC provides planners with an overview of the historic landscape character of proposed development sites and surrounding areas, and used at an early stage for identifying the potential impact on the historic landscape character, highlighting the need for informed development. HLC can also be utilised as an assessment tool for the purposes of Environmental Impact Assessments.

- An effective framework for engagement between planners, developers, local communities and other interested parties.

HLC provides a means of engaging professionals, other agencies and the wider public with the historic landscape character of a geographical area in every aspect of planning, including Village Design Statements, Conservation Area Appraisals, Parish Plans and Community Strategy.

- Feeding into emerging Historic Environment Characterisation Projects carried out to inform Local Development Frameworks, Land Management Plans and potential Housing Growth Areas.

Historic Landscape Character, one of three main sources for historic environment characterisation, can be integrated with Archaeological Character and Historic Urban Character to form a single combined Historic Environment Characterisation study for an area. This can be undertaken to provide a detailed assessment of the historic environment and may be useful for a range of purposes including informing Local Development Frameworks, Land Management Plans and potential

Housing Growth Areas (e.g. the Worcester New Growth Point and the London-Stansfeld-Cambridge (LSC) Growth Area).

#### 1.2.2 **Landscape Management**

- Output, which will directly inform consultation for land management agreements.

HLC output will directly inform consultation for land management agreements, such as Natural England's Higher Level Environmental Stewardship Scheme, the Forestry Commission's England Woodland Grant Scheme applications, and developing strategies such as the Forestry Commission Woodland Opportunities Map. It will also be used to inform hedgerow removal applications under the 1997 Hedgerow Regulations. The final report will include a series of management recommendations for the conservation, improvement and enhancement of defined Historic Landscape Character Areas and Types.

- A useful method of integrating information about the historic landscape into other types of management plans.

Cotehele House in Cornwall has been the subject of a large-scale HLC commissioned by the National Trust, which has placed the property in its landscape context with improved understanding and enhanced presentation (Clark et al., 2004). In addition, elements of the Forest of Bowland AONB Management Plan have been based on HLC (Ede and Darlington, 2002). There is much scope to apply HLC to similar applications within Worcestershire.

#### 1.2.3 **Landscape Character Assessments (LCAs) and Strategies**

- Contributing to county, district or AONB-wide Landscape Character Assessments by supplementing and integrating information on the historic time-depth of landscape.

Because the whole of Britain is historic, HLC is an important form of LCA in itself, but it can also add the often-missing dimension of time-depth to LCAs, providing a clearer and more detailed understanding of how human action has shaped the environment and landscape. The greater the human contribution, the more prominent the detail contributed by HLC. It provides an overview of the historic dimension of the landscape and this broad character based approach links directly with LCA. HLC will be used to amend and redefine landscape character types and where urban character types are lacking they can be adopted wholesale from the HLC mapping.

#### 1.2.4 **Informing Other Work Areas**

- Informing initiatives that are built around the concept of character, such as Conservation Area Appraisals, Parish Plans and Village Design Statements.

For example, the extension of a Conservation Area to take into account the historic landscape character of the immediate, surrounding area.

#### 1.2.5 **Integration of Historic Landscape Character into the HER**

- A greater understanding of the landscape enabling new questions to be asked, better management decisions within the HER and development control process and formulating regional resource assessments and research agendas.

Dynamic interaction between Worcestershire's HLC and the HER will inform and empower management of the historic resource and enrich academic research, education and outreach programmes.

#### 1.2.6 **Access and Outreach**

- The visual nature of the HLC mapping makes it ideal for mapping the imagination and enthusiasm of local people, connecting them to the landscape in a new way.

Upon completion of the project, the Worcestershire HLC report will be made available as a downloadable document on Worcestershire County Council's website, along with the HLC Project Design, helping to raise awareness of Worcestershire's rich and varied historic landscape. It is also envisaged that eventually the completed HLC project mapping material will be available on the Worcestershire County Council website with interactive GIS layers similar to the Worcestershire Tithe and Inclosure Map Project:

<http://worcestershire.whub.org.uk/home/wcc-arch-tithe-maps.htm>

Also the Landscape Character Assessment on Landscapes of Worcestershire:

<http://worcestershire.whub.org.uk/home/wcc-lca-home.htm>

## 2. **Worcestershire HLC Project Area**

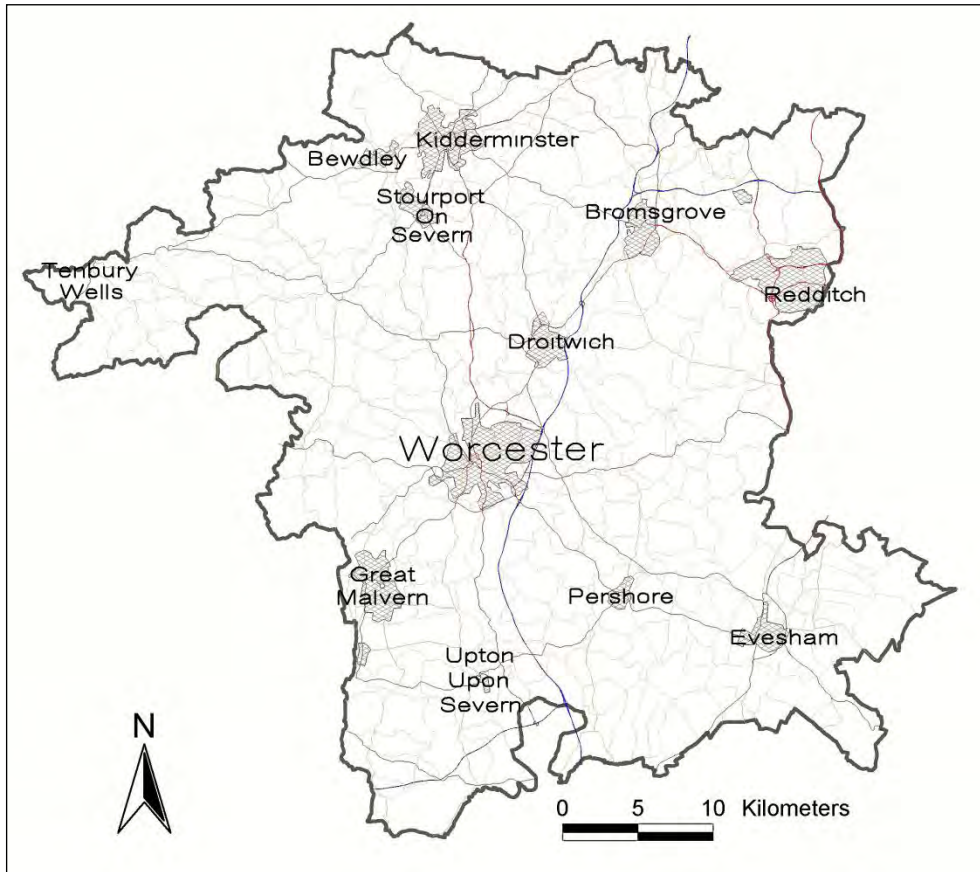
The urban and rural landscape of Worcestershire is a much-treasured resource whose form and character reflects millennia of human activity and underlying topographical and geological influences. It is a living, dynamic and changing entity that alters in response to natural factors such as climate change, as well as human intervention such as 20<sup>th</sup> century farming practices. As landscape is largely a matter of perception and cognition, it also alters as people's understanding changes. The landscape of an area has many qualities and values including its visual character, biodiversity, recreational uses and economic value to those who farm it and own it. It is also an important historical resource that catalogues the activities and lifestyle of past communities.

Economic, political and social demands bring their own pressures to bear upon the landscape. These pressures are, in many respects, greater and more disparate than at any time in the past and there is an increasingly pressing need for historic environment professionals to manage effectively the changes that such pressures bring to bear. HLC is one tool that will aid those providing advice relating to the historic environment in reaching an informed position. Further characterisation will help to fill a gap between the HER's site-specific data and the historic dimension of the landscape as a whole.

### 2.1 **Boundaries and administrative units**

The study area comprises the post-1997 county boundary of Worcestershire, consisting of the present administrative County excluding the Unitary Authority area of the City of Worcester. Worcestershire sits centrally within the West Midlands and shares boundaries with Gloucestershire, Herefordshire, Shropshire, Staffordshire, Warwickshire and the West Midlands. Worcestershire is not a unitary authority, but is divided into five district councils: Bromsgrove, Malvern Hills, Redditch, Wychavon and Wyre Forest, whilst the City of Worcester being a separate authority.

The County of Worcestershire has a population of approximately 556,000 people and covers an area of approximately 1723 sq. km (Figure 1). In addition to the City of Worcester, there are twelve towns ranging in size from small historic market towns, such as Upton upon Severn and Bewdley, to the large „new town“ of Redditch. The County is largely rural with many small villages, hamlets and farmsteads.



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*Figure 1. Worcestershire County showing its main urban centres.*

## 2.2 Landscape Character

Worcestershire's county boundary encompasses a variety of different landscapes, which can be broadly divided into two distinctive topographical types. A rolling landscape with areas of semi-upland character cut by often deeply incised stream valleys dominating the northern, north-western and extreme western parts of the county. The central and southern and eastern areas of the county are generally lower lying, dominated by distinctive river vales.

Within these very broad landscape types there are sub-zones of distinctive variation. For example, the former Feckenham Forest, the Teme Valley, as well as large landscape features such as the Wyre Forest, Malvern Hills and Bredon Hill, contrast with and dominate their surroundings.



### 3. **Previous Landscape Characterisation Programmes**

#### 3.1 **Historic Landscape Characterisation – A National and Regional Context**

In 1991, a Government White Paper „This Common Inheritance“ (HM Government, 1990) invited English Heritage to prepare a list of landscapes of historical importance. Inclusion on this list deemed the identified landscapes as worthy of greater protection. English Heritage instigated a research and development project to assess appropriate methodologies for identifying „historic landscapes“. This project concluded that the whole landscape has a historic dimension that is of value and as such should be subject to characterisation. A simple Register, therefore, was not appropriate. This appreciation of the significance of landscape was subsequently embedded into the planning process through guidance in PPG15 - Planning and the Historic Environment and the need to respond to PPS7 Sustainable Development in Rural Areas. Conservation of the historic dimension of the contemporary landscape relies upon effective management based upon information and understanding. This is one of the principal aims of the Historic Landscape Characterisation process.

Based on their conclusions, English Heritage sponsored a series of mostly county-based HLC projects, carried out on behalf of planning authorities. The first project was undertaken in Cornwall in 1994 (Herring, 1998) and a range of projects have now been completed across the country, evolving through practice the original, methodology and reflecting changes in technology and local variations, although each subsequent development has retained the core structure and principles of the initial approach.

The need for the programme is best explained as two gaps in understanding:

- The historic environment resource at landscape level with the consequent lack of a robust framework for making decisions in terms of managing change;
- A gap in landscape assessment where the historic and archaeological dimension (time-depth) is concerned.

HLC is therefore designed in part to assist those who are involved in managing the historic environment and making decisions that will impact upon it at a landscape scale, ranging from historic environment professionals, planners and policy makers to other organisations such as Natural England, the Forestry Commission and National Trust.

Whilst no previous structured characterisation of Worcestershire's historic landscape has been conducted, a number of completed, ongoing and proposed HLC projects will provide regional coverage across the West Midlands and adjacent counties. These include the completed HLC projects for Gloucestershire, Herefordshire, Shropshire and Staffordshire. Historic landscape projects are ongoing in Warwickshire and the West Midlands conurbation. The Worcestershire HLC pilot study phase has utilised this regional and extra-regional resource to strengthen its approach and looks towards the wider integration of results.

### 3.1.1 Key Principles

The identification of historic landscape character follows several principles as embraced by the former Countryside Commission in „Views from the Past“ (Countryside Commission, 1996). These principles are closely connected with the European Landscape Convention's definition of landscape and extended to apply to historic landscape. Fairclough and Macinnes (2003) summarise the principles behind historic landscape character and characterisation.

- **A focus on present day landscape character as created by past action, not on the past landscapes themselves, reading today's landscape as material culture:** the main object of study and protection by HLC is the present landscape as created by human action in the past and perception in the present;
- **A focus on history not geography:** the most important characteristic of landscape for the purposes of HLC is the way that earlier landscapes and change can still be seen in the present-day landscape;
- **Area not point data:** HLC-based research is concerned with landscape not sites; it is not simply a process of mapping findspots and monument distributions, or pointing out major buildings in the landscape;
- All areas and aspects of the landscape, no matter how modern or degraded, are treated as part of the historic landscape character, not just special areas;
- **All the environment is strongly influenced by human activity:** semi-natural and living features (woodland, land cover, hedges etc) are as much a part of historic landscapes as archaeological features. Biodiversity is similarly strongly influenced by human activity;
- Landscape is a different view on the environment. Characterisation of landscape is a matter of interpretation not record, perception not facts (Highways Agency, 2007).

### 3.2 Landscape Character Assessment

Preceding the HLC in Worcestershire, the companion Landscape Character Assessment approach has been largely developed and promoted by the Countryside Agency (previously the Countryside Commission and now subsumed within Natural England) and jointly published with English Nature the Character of England map, which was accompanied by Regional Character Area descriptions (Countryside Commission and English Nature, 1996), each including characteristic features of nature conservation and landscape interest. These areas do not constitute any sort of statutory designation, but form a framework for other countryside-related policies and programmes.

### 3.3 Regional Character Areas

The „Character of England“ map divided the country into 159 Regional Character Areas based on the broad interaction between the natural and cultural aspects of the landscape (Countryside Commission 1987; 1993). Worcestershire contains all or parts of eight areas (Figure 2):

- Mid Severn Sandstone Plateau;
- Arden;
- Cotswolds;
- Severn and Avon Vales;
- Malvern Hills;
- Herefordshire Lowlands;
- Herefordshire Plateau;
- Teme Valley.

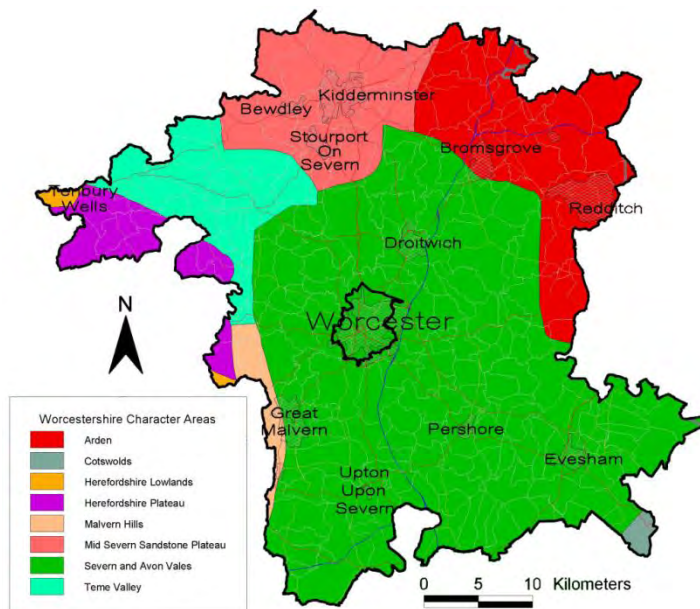


Figure 2. Regional Character Areas for Worcestershire.

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The relationship between these areas is considered, and more fine-grained “Regional Character Areas” are defined in the County Landscape Assessment (Worcestershire County Council online resource). All these projects have developed Countryside Character Descriptions that analyse and describe the character areas in detail. It should be noted that the historic character of present settlements informs the Countryside Character Descriptions.

#### 3.4 **The Landscape of Worcestershire**

The County Engineer and Planning Officer prepared a draft report in 1990 in response to the emergence of planning policies and initiatives seeking to affect change in the landscape (Jones, 1990). It was based on an appraisal of the County’s landscape, identifying broad areas with differing character and dealing with those designated by Structure Plan Policies as Areas of Great Landscape Value.

#### 3.5 **Draft Landscape Character Assessment (LCA)**

Local authorities have been encouraged to progress the work undertaken by the Countryside Agency for their „Character of England“ map and so the County Council has undertaken an assessment of Worcestershire’s landscape as part of a national programme of landscape characterisation (Countryside Agency, 1999; 2002). This is presently reaching final publication as Supplementary Planning Guidance to the range of local policies affecting landscape highlighted above.

The process of landscape characterisation involves the gathering and assimilation of information relating to the six elements that may be deemed to define landscape character – geology, topography, soils, tree cover, settlement pattern and land use, the first three relating to the physiographic character of the landscape and the final three, relating to aspects of its cultural evolution. This process of data gathering and its analysis enables the identification of a series of „landscape types“, which are then further subdivided into „Land Description Units“ (LDUs). Landscape policy is linked to the assessment through guidelines for retaining the specific character of different areas in the LDU descriptions.

LCA offers a „horizontal“ view of the landscape, describing it as it appears when standing on the ground, which is achieved through both desk-based assessment and observations made during field survey. As a result, LCA tends to offer an evaluation of the landscape based upon its contemporary form and appearance, rather than seeking to understand how and why the current landscape looks as it does. The LCA approach tends to lack or at least downplay „time-depth“.

In addition, patterns of woodland cover, broad settlement pattern and simple field boundary morphological attributes are recorded under land-use, assessed only alongside geology, soils and topography to define landscape identity where they have „strongly defined character“. This is a weakness of a holistic methodology where one attribute type (e.g. landform or woodland) is used to define the dominant characteristic of the landscape, and more importantly define the extent of that landscape type. This has the effect of picking and choosing some aspects of historic landscape character as a relevant factor in defining landscape character.

### 3.6 **Rural settlement in England**

Patterns in the form and distributions of settlements across the country are published in the English Heritage Settlement Atlas (Roberts and Wrathmell, 2000). The atlas provides a mapped definition of rural settlement patterns and illustrates the wide regional variation indicative of a diverse physical, social, economic and political history. Worcestershire falls within what have been coined the Central and Western Provinces (*ibid.*, p.45-56). The Central Province is characterised by the presence of large concentrations of nucleated settlements, while the Western Province contains a great deal of variety from the mountains of the Lake District in the north to the gentle plains of Herefordshire in the south. The atlas has identified the following Provinces, sub-Provinces and local regions that fall within the County.

#### Central/Inner Midlands CINMD

1 Stour-Avon-Soar Clay Vales

2 South Midlands

The Inner Midlands sub-province is defined as “the largest area wholly dominated by nucleations in the Country” (*ibid.*, p.49) with large numbers of deserted villages and intensive medieval and post-medieval cultivation.

#### Western/West Midlands WW MID

1 West Midland Plateau

3 Black Country

4 Severn Slope

Low plateaux, escarpments and gravel terraces of the Severn and Avon Valleys define this part of the West Midlands. Settlement takes the form of hamlets and scatters of small farms and cottages, with occasional larger moated farmsteads dotted across the landscape. Nucleated settlement is generally limited to areas of industrial activity (*ibid.*, p.55).

#### Western/Wye-Teme Valley WWYTE

1a Herefordshire Plain

1d Clee Hills

## 2b Malvern Hills

This area is dominated by dispersed hamlets and small farmsteads in ancient enclosed landscapes. Parts are still heavily wooded and nucleated settlement is mostly confined to market towns. With the exception of the Malvern Hills, high-density dispersion predominates and there are many earthwork castles and moated sites dotted across the landscape (*ibid.*, p.56).

### Central/Cotswold Scarp CCTSV

#### 2a Severn Plain and Vale

#### 2b Cotswolds (NE)

The Central and Cotswold Scarp is a more complex landscape with many variations. The Severn Plain and Vale has high clusters of villages and hamlets with few deserted settlements and moated sites, whereas the Cotswold Scarp contains more dispersed settlement and deserted villages are common. Both areas contain “a significant scattering of greens” (*ibid.*, p.51) and probably have their origins in the Romano-British period.

### 3.7 **Other Landscape and Characterisation Projects**

The development of historic towns along the Welsh Marches has been analysed and a chronology established (Dalwood and Buteux, 1994). The Central Marches Historic Town Survey (CMHTS) has mapped the historic components of thirteen of Worcestershire’s historic towns: Alvechurch, Bewdley, Broadway, Bromsgrove (Buteux, 1995), Clifton-On-Teme, Droitwich, Evesham, Kidderminster, Pershore, Redditch, Stourport-on-Severn, Upton and Tenbury Wells.

The survey methodology is essentially a bottom-up approach to defining the major period-based components of the historic towns. A synthesis of existing archaeological information, historical documentation and cartographic evidence has enabled the major components of the towns to be mapped and described, including areas of buried archaeological deposits. These are as follows:

- Historic components (pre-1800);
- Industrial components (1800-1913);
- Post-1914 (1914-1944);
- Post-War (1945-present).

The historic components of the towns form the basis of the major urban settlement types in the HLC project, the mapped areas being imported as a primary dataset. The data also helps contextualise HLC types in the hinterland of these historic towns.

### 3.7.1 **Worcester City Historic Townscape Characterisation**

A project to characterise the historic urban centre of the City of Worcester commenced in 2002 (Dinn 2008). The City Council Historic Environment Team carried out the project with funding from English Heritage as part of the Worcester Urban Archaeological Strategy.

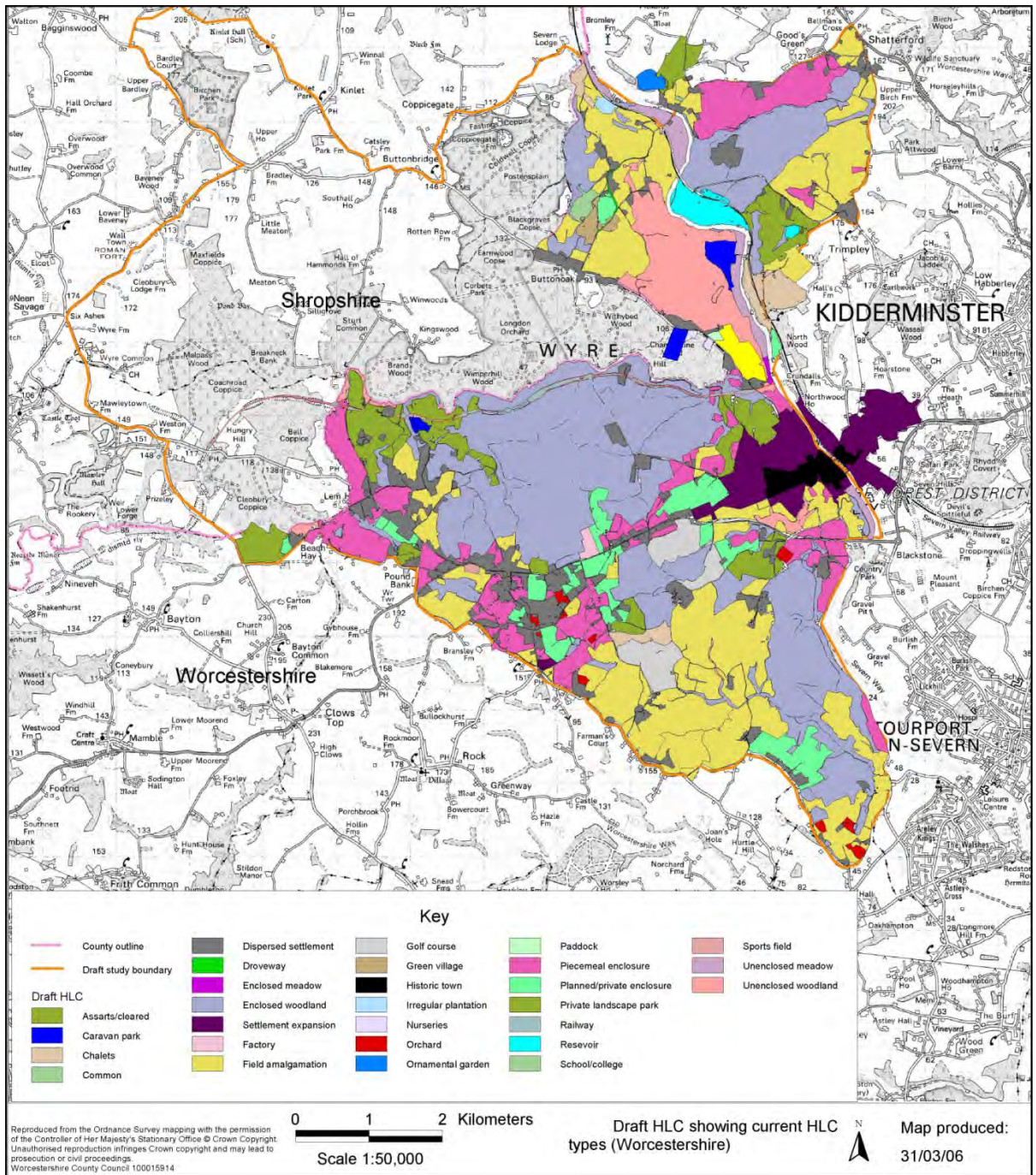
The methodology employed was similar to that used in the Towns Survey and did not include provision for characterising the non-Urban components of the City area. The Worcestershire HLC project will cover the non-urban areas within Worcester City boundaries.

### 3.7.2 **Forestry Commission Wyre Forest Project**

WAAS contributed towards the planning stage of a major Heritage Lottery Fund (HLF) project application, which was aimed at restoring and promoting the distinctive landscape of the Wyre Forest, through the provision of an archaeological scoping report. WAAS is now actively contributing towards a major element of this project by undertaking the GIS-based interpretation of airborne remote sensing surveys (known as lidar), flown especially for its purposes.

As part of the process of producing the scoping report, an outline HLC was generated for the Worcestershire part of the project draft study area (Mindykowski, 2006a). This was intended to complement the completed Shropshire HLC data for that part of the study area in Shropshire. It was carried out with the aim of characterising the area using broad attribute groups and historic landscape character type definitions developed for the Worcestershire HLC project. Beyond providing a useful contribution to the scoping report, the outline HLC enabled the HLC definitions to be applied and tested as part of a real study. The project identified where refinements to these were necessary and some new definitions were added. Some of these HLC types have been modified further prior to the commencement of the HLC project proper. The outline HLC aimed to provide current and previous HLC maps for the area with polygons being generated at the same scale and resolution that it was envisaged would be used for the main project (Figures 3 - 5). The maps show the results of the outline HLC with character types listed. No detailed descriptions were written, however, a broad interpretation was written based on the results with key historic landscape themes listed.

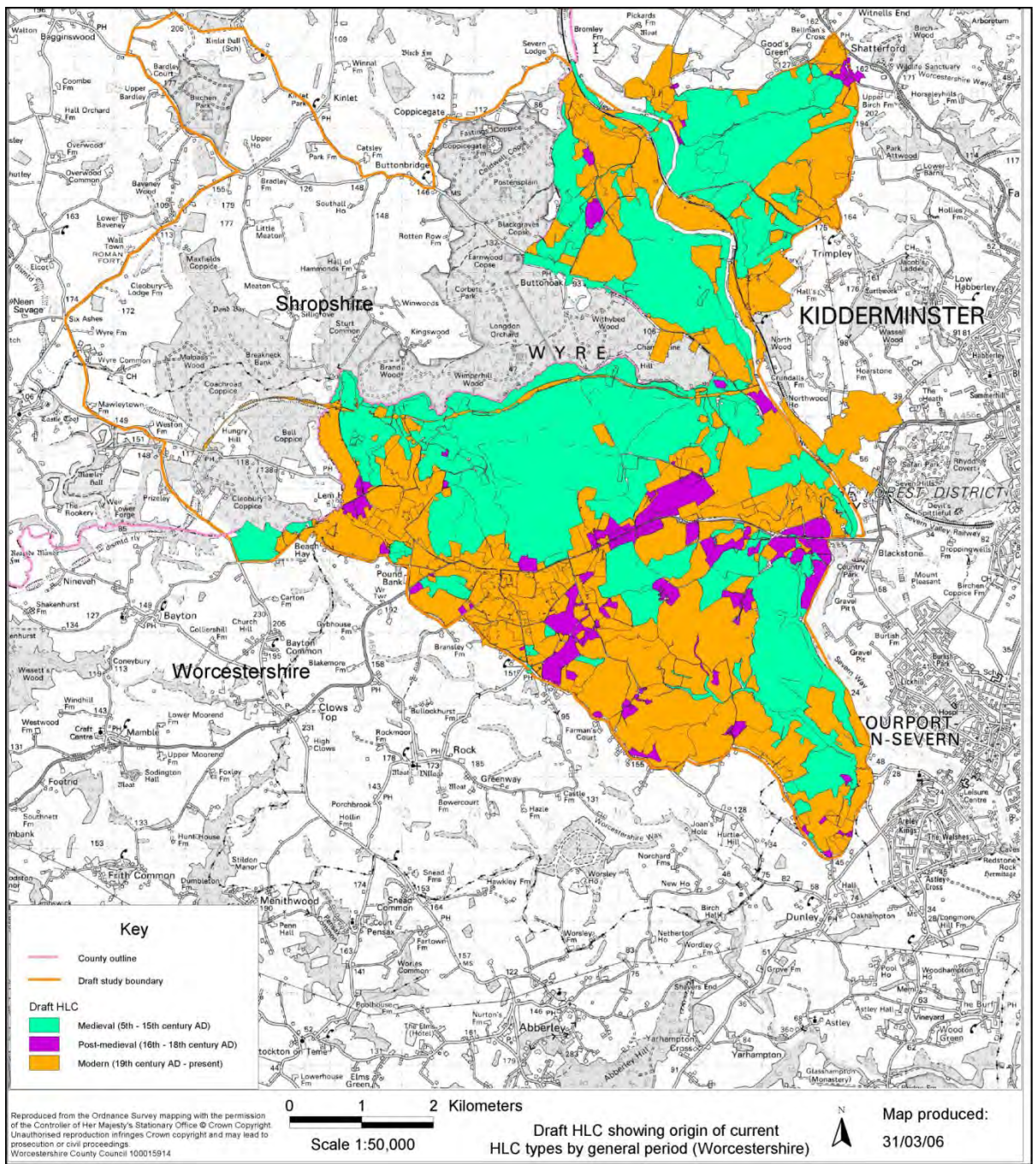
The Wyre Forest Project HLC exercise proved useful as a pre-application pilot study to test the HLC definitions and informed the Worcestershire HLC project's pilot study, which incorporated part of the same area in the Wyre Forest.



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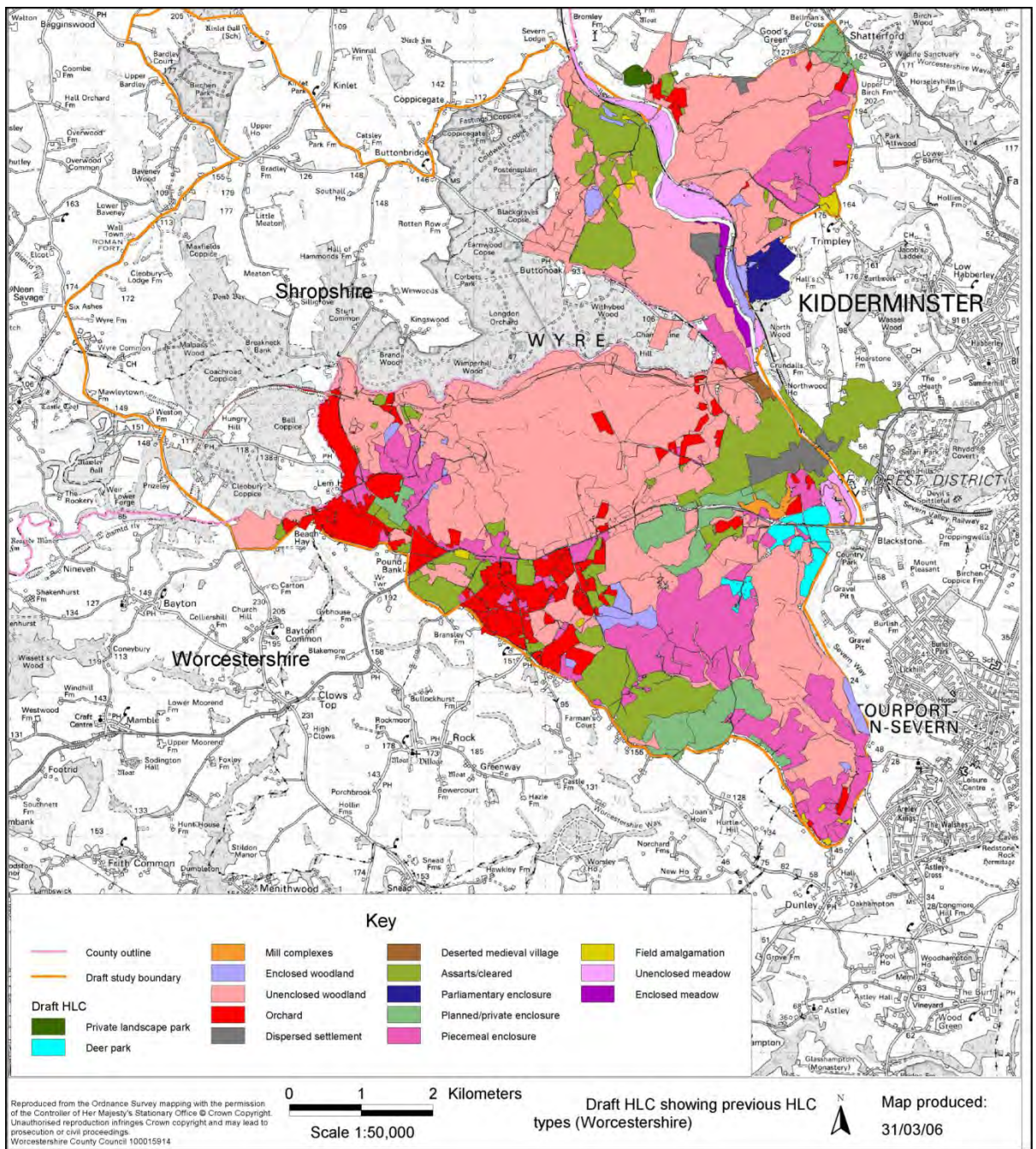
Figure 3. Outline HLC for the Wyre Forest showing current HLC types.





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**Figure 4. Outline HLC for the Wyre Forest showing origin of current HLC types by general period.**



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Figure 5. Outline HLC of the Wyre Forest showing previous HLC types.

## 4. **Worcestershire HLC**

### 4.1 **Introduction**

Over the past decade there has been a significant increase in the number of landscape, ecological and historic character assessments being conducted in Worcestershire. These have been undertaken by different organisations, at different scales, times and in relation to differing priorities. These provide a rich source of information on some aspects of the character of the county's landscape. However, they do not provide a consistent or holistic statement on the county's historic landscape.

The Worcestershire HLC aims to provide an additional component of the County's recently completed LCA. The HLC provides a more detailed analysis of the patterns of landscape development and change (time-depth), which have combined to form the modern landscape. Consequently, The HLC and LCA will eventually form complementary components of a unified Worcestershire Landscape Assessment. The HLC will provide an opportunity to test and compare the results of the LCA. To ensure the interactive relationship between the two forms of survey is as objective as possible, the HLC has been conducted independently of the LCA. This partly reflects differing time scales and the methodological differences between the two forms of characterisation. HLC is essentially a desk-based „vertical“ form of landscape survey, being principally map-based, which seeks to explore the degree of visible time-depth in the present-day landscape. LCA offers a „horizontal“ view, describing the landscape as it appears when standing on the ground, which is achieved through both desk-based assessment and observations made during field survey. Consequently, LCA offers an evaluation of the landscape based upon its contemporary form and appearance.

### 4.2 **Methodology**

The Worcestershire HLC project design (Mindykowski, 2006b) has adopted a methodology based upon the Shropshire HLC (Wigley, 2003a-c) and Staffordshire HLC models, which were in turn based upon the Lancashire model (Ede and Darlington, 2002), as well as using elements of the Leicestershire Method Statement (Leicestershire County Council, 2005), the Warwickshire Desk Manual & Revised Method Statement (Wallace, 2006). The historic landscape character types created for the other West Midlands HLC projects have been utilised with minor modifications and some additions, with the exception of Settlement HLC types that have been adopted from the Buckinghamshire project (Buckinghamshire County Council, 2005). The archaeology services of Staffordshire and Shropshire also provided the design of their HLC Access database, which has since been further modified for the Worcestershire HLC.

These provided a range of historic landscape character types, which might be broadly applicable to Worcestershire. Lancashire's HLC represents one of a number of „second generation“ projects that have refined the methodology developed in Cornwall in the early 1990s (Herring, 1998). Subsequently, in evolving Worcestershire's HLC project methodology during the pilot study, the completed Buckinghamshire and the recently completed Warwickshire HLC project have also been influential (Buckinghamshire County Council, 2006; Wallace, 2006).

The Worcestershire HLC project is a primarily desk-based exercise in which information is gathered digitally from a variety of sources held by the Worcestershire HER. The information gathering process is followed by analysis and defining historic landscape character type areas, hereafter known as polygons. The Worcestershire HLC project is carried out using the County Council's corporate GIS package, ESRI's ArcView. The GIS component is supported by a Microsoft Access database (version 2000).

The Worcestershire HLC project report provides a description of Worcestershire's landscape with the elements of historic time-depth. The central premise upon which this study is based is the assertion that landscape is dynamic and ever-changing. One of the key issues this project will address concerns how present-day communities can effectively engage with and influence future landscape change. For this reason the Worcestershire HLC methodology is designed to ensure the project's output has a wide range of applications in planning and land management.

This report presents the results of the Worcestershire HLC pilot study, which focused on three distinctive and contrasting areas in terms of geography, physiography and visual landscape, in order to test and refine the methodology that was produced at the beginning of the project (Mindykowski, 2006). It also includes definitions of the historic landscape character types that were refined through analysis of the data collated as part of the pilot study (Appendix B).

#### 4.3 Main aims

The main aim of the project is to produce a GIS-based digital map of Worcestershire's historic landscape character, supported by a database containing details of the attributes of each particular landscape „unit“, which:

- Provides a broad assessment of the historic and archaeological dimensions of the County's landscape *as it exists today*;
- Sets the historic environment features recorded in the Worcestershire HER within a wider landscape context;

- Adds a higher degree of detail to, and form an integral component of, the existing Landscape Character Assessment, which is based upon the Countryside Agency's methodology (Swanwick, 2002);
- Enables a range of applications for historic landscape characterisation to be developed that actively contribute to the more effective and sustainable management of Worcestershire's landscape;
- Identifies key characteristics of the county's landscape that might be considered for conservation and enhancement through planning guidance and related development control procedures;
- Supports Culture, Commissioning and Community Directorate's other core functions relating to the delivery of services on archaeology, historic buildings, landscape and nature conservation and records management.

#### 4.4 **Project Stages**

The project is split into four stages:

**Stage 1:** The pilot study. The purpose of this stage was to become familiar with the sources and assess the project methodology. It also highlighted any need for modification to the methodology, whether or not additional data sets were required, and assessed the technical suitability of the computer software and hardware available;

**Stage 2:** Data collection and assignment of HLC types to the rest of the study area using the refined project methodology determined by the pilot study;

**Stage 3:** Review, analysis and interpretation of the data. Secondary sources were used to assess and inform emerging patterns and trends within the Stage 2 data. This takes a range of forms but includes assessment in terms of time-depth and landscape change. It is hoped that the HLC results will contribute to issues such as predictive modelling, holistic land management, etc;

**Stage 4:** Preparation of a report, archive and dissemination of the results.

#### 4.5 **Defining Polygons**

The basic unit of analysis is the HLC polygon. Each polygon covers a discrete geographical area containing a particular combination of HLC attributes that can be assigned a single historic landscape character type. These units are loosely equivalent to Land Description Units (LDUs). Through the analysis of HLC attributes, polygons are assigned a single historic landscape character type, forming the basic building blocks for HLC.

The methodological approach adopted for the Worcestershire HLC is largely attribute-based, where descriptive criteria and morphology (for

example, field patterns) is employed to determine current HLC Types. This attribute led approach, in which a series of rules are applied to each polygon, helps to maintain a level of objectivity and consistency throughout the characterisation process.

The Worcestershire HLC is a relatively mechanical process, identifying and describing historic attributes of the County's contemporary rural and urban landscape, using a range of common sources. These attributes represent aspects of the natural and built environment that have been shaped by past human activity: the shape of field boundaries, the network of roadways and railways, the distribution of woodland and other semi-natural features, the distribution of towns, villages and other smaller settlements for example.

Examples of HLC attributes:

- Current land use
- Past land use
- Field morphology (size, shape, group patterns)
- Boundary types
- Distribution and types of other resources (e.g. woodland, water, minerals)
- Distribution and types of buildings
- Place names and earliest references
- Settlement types and patterns
- Communication types and patterns
- Archaeological and historic sites recorded on the SMR Common Sources
- Modern OS mapping (usually GIS-based)
- Modern land use and thematic mapping (e.g. Phase 1 Habitat Survey)
- Geological, soil, hydrological and topographical mapping
- Comprehensive historic mapping (e.g. OS First Edition)
- Selected historic mapping (e.g. Enclosure Awards, Estate Maps and Tithe Maps)
- Aerial photographs
- Documentary sources (e.g. VCH, place name surveys)
- SMR data (especially designations)
- Other research

(Clark *et al.*, 2004: p7)

However, the method also involves numerous professional decisions that introduce subjectivity to the process. Each HLC polygon is defined on the basis that most of the area within it can be interpreted as belonging to the same attribute group. Within each polygon a common set of attributes is regarded as being dominant. For example, if an area is defined as belonging to the Fields and Enclosed Land attribute group, then all the field enclosures should have common characteristics (e.g. large, rectilinear and with straight boundaries). Most of the areas within a polygon are also interpreted as having the same previous landscape character, such as containing evidence of medieval strip fields.

The HLC mapping process focuses on historic components legible in the present-day landscape. Its primary objective is not, for example, to map the former extent of the medieval field systems, but rather to identify where the modern landscape is broadly of medieval origin and surviving character (Clark, Darlington and Fairclough, 2004).

As a result of the pilot study, changes to the methodology were made to the minimum polygon size as Stage 2 of the HLC project proceeded. These amendments were made in order to balance the need to produce a finely detailed county HLC and the practical requirements of project timeframes. For fieldscapes, therefore, the minimum size for Worcestershire HLC polygons was increased from two hectares to five hectares, though larger and more generalised polygons have been created wherever possible. Within an urban and settlement context, there are generally small areas of growth or redevelopment within or around the fringes of settlements. For the purposes of HLC, urban areas are characterised at a smaller level of resolution than rural landscapes, and were increased from a minimum polygon size of one hectare to two hectares.

#### 4.6 Data Structure and Capture

Each of the polygons created through the mapping process have metadata attached to them.

*Data Level 1 – polygon identification code and location.* Data Level 1 captures two basic categories of data that provide each polygon with a unique identification code and a definition of its geographical location. These categories are defined as:

**1. Polygon I.D. No** – Each polygon has its own unique identification code. The first part of this code consists of a „character code“, which corresponds to the attribute group to which the polygon has been assigned (Figure XX). The second part of the polygon identification code is a number unique to each character code (e.g. OPR4, SET2 etc.) given to 3 digits (for numbers 1-999), 4 digits (between 1000 and 9999) and 5 digits (between 10000 and 50000);

**2. Location data** – The British National Grid Reference (NGR) of each polygon is recorded digitally, embedded in the GIS;

<b>Character Code</b>	<b>Original Broad Attribute Groups</b>	<b>Pilot Study Broad Attribute Groups</b>
OPR	Ornamental, Parkland and Recreational	
COM	Communications	
CVL	Civil	Civic and Commercial
MIL	Military	
IND	Industrial and Extractive	
WDL	Woodland	
ORC	Orchards	Orchards/ Horticulture
SET	Settlement	
FEL	Fields and Enclosed Land	
UEL	Unenclosed Land	
WVF	Water and Valley Floor	

*Table 1. Broad Attribute Groups*

Each of the landscape units within the database and associated GIS polygon is assigned to a basic classification category known as a Broad Type. For the Worcestershire HLC there are 11 Broad Types (Mindykowski, 2006b), which have undergone minor modifications as part of the pilot study. A comparison list is given at Table 1. Each of these Broad Types is further divided into more specific Historic Landscape Character Types, each of which is defined in Appendix A. Nine new HLC types were introduced during the pilot study. Each landscape unit is assigned a Broad Type, and different attributes are defined for the HLC unit depending on which Broad Type has been assigned. Other data is also recorded for the HLC unit, including „Period“ and „Previous Character Types“. This system allows each landscape unit to be allocated a specific HLC Type through analysis of the data collected, ensuring a reasonably objective and standardised methodology.

The Worcestershire HLC Access database is based on the proven Staffordshire and Shropshire HLC projects' models (Figure 6). In the pre-pilot study stage only two changes had been made to the Staffordshire model. An opportunity was taken at the early stages of the pilot study to make further changes to convert these HLC Access databases for use in Worcestershire. Additional attribute drop-down boxes were inserted, such as that for the percentage of fields or boundaries lost or gained since the 1<sup>st</sup> edition OS mapping. A further „Previous Character“ was added, providing for up to three previous character types. A table was added to the settlement type. Settlement Type 1 contained the four settlement



types identified by Staffordshire: pre-1800, 1800-1913, 1914-1945 and post 1945. These types allowed for direct comparison between the Staffordshire and Worcestershire data. The insertion of a Settlement Type 2 table consisted of the more interpretative settlement types set out in the HLC character types table (e.g. SET3- Modern expansion).

**Worcestershire Historic Landscape Character Assessment**

Polygon I.D.No.  HLC Code  HLC Type

**LEVEL 1 DATA - LOCATION** LDU:  Notes:   
 NGR (8 figures):  Parish:

**LEVEL 2 DATA - ATTRIBUTE DESCRIPTIONS** Notes (temporary - so you can see your notes to work on the attributes!)   
 Attribute Group:

2. Fieldscapes and Enclosed Lands

Pr Field Size:  Pr Bo Mo:  Contains area of Copse/covert  Indic A:   
 Pr Field Shape:  Sec Bo Mo:  Ridge and Furrow Present  Indic B:   
 Pr Bo Type:  Other External Bo Mo:  Indic C:   
 % Boundary Loss:  Other Internal Bo Mo:  Pr = Predominant Bo = Boundary Mo = Morphology Notes:   
 % Fields Lost:  PrevHLTypeLegibility:  Key

**LEVEL 3 DATA - CURRENT CHARACTER** **LEVEL 4 DATA - PREVIOUS CHARACTER**

Historic Character:  Previous Attribute Group:   
 Period:  Previous Character Description:   
 Confidence:  Period:   
 Note:  Confidence:   
 Source/Reference:  Source/Reference:

**LEVEL 5 DATA - PREVIOUS CHARACTER 2** **LEVEL 6 DATA - PREVIOUS CHARACTER 3**

Previous 2 Attribute Group:  Previous 3 Attribute Group:   
 Previous Character Description:  Previous Character Description:   
 Period:  Period:   
 Confidence:  Confidence:   
 Source/Reference:  Source/Reference:

Record:  of 1454  
 LEVEL 1: Unique HLC reference (eq.W3) [Text field, 10 chrs]

Figure 6. Microsoft Access database HLC Type form.

4.7

### Current Historic Landscape Character Type Definitions

Each of the polygons created through the HLC process is assigned a current historic landscape character type. These character types along with their definitions are detailed in Appendix A. The character types are based on the attributes in the HLC database and broadly follow the models used by Staffordshire and Shropshire. These attributes are determined through reference to a variety of data sources (Appendix D).

During the pilot study characterisation process, a number of further historic landscape character types were identified, as the attributes of certain polygons could not be squeezed into existing HLC types. The

HLC database contains within it a high level of flexibility, so it was possible to add new character types. The Worcestershire HLC pilot study fully tested the suitability of the original character types that were based on completed HLC projects from other counties.

As part of a streamlining review at Stage 2 of the HLC project, further amendments were made to the historic landscape character types. An additional HLC Type was added, but other HLC Types were subsumed into more generic categories (e.g. Enclosed Strip(s) and Enclosed Furlong(s) were aggregated into Piecemeal Enclosure). A full descriptive definition of each HLC type is at Appendix A.

#### 4.8 **Previous Historic Landscape Character Type Definitions**

Previous character type(s) are defined as the former historic landscape character(s) of a polygon and by recording them it is possible for several phases of broad change in the character of the landscape to be charted, in some cases extending back to the medieval period.

The former historic landscape character is recorded through the „Previous Types“ form within the Access database and is also part of the metadata within the GIS dataset. It is not always possible to identify or suggest the previous landscape character of a polygon and in such cases this part of the Access form is left blank.

Where a previous character is identified, however, this is usually done through a variety of documentary and mapping sources. For the pilot study, previous character was identified using previous editions of the Ordnance Survey maps (for the pilot study this was principally the 1<sup>st</sup> Edition 1:2500 scale County Series), tithe and enclosure mapping, documentary evidence contained in secondary sources such as the Victoria County Histories, and aerial photographic evidence.

For Stage 2 of the Worcestershire HLC, the reference material available for identifying previous character was re-assessed and was restricted only to the 5<sup>th</sup> Edition 1:10,560 scale Ordnance Survey maps (1954-1963), the Ordnance Survey 1<sup>st</sup> Edition 1:2500 scale County Series mapping, the 2 inch to the mile scale Ordnance Surveyors' Drawings (1810-1817). Using these sources, it was possible to assign previous characters with a high degree of confidence for at least three and possibly four of the project's time periods (Current, AD1914-1945, AD1800-1913, and AD1540-1799), based on their presence on a detailed map. For some interpretation, the County Council's 2005 vertical aerial photographic layer was also examined. Aerial photos can record cropmarks or surviving earthworks of ridge and furrow signifying medieval and/or post-medieval arable cultivation. Alternatively, previous character will have been inferred from the current historic landscape character. This places a greater reliance

on the HLC Officer's knowledge and experience of landscape history and archaeology and results in a greater degree of subjectivity that is reflected in the level of confidence assigned to a previous character type.

The Worcestershire HLC database allows for up to three previous HLC Types to be recorded (Figure 6), so it is possible to chart several phases of change in landscape character. In most cases the same character types, descriptions and HLC codes are used for „Previous Character“ types as for „Current Character“ types. Moreover, a degree of confidence („certain“, „probable“ and „possible“) and period of origin is likewise selected from drop-down boxes. The source material that identifies a „Previous Character“ type can also be selected. There is no free text box, however, due to space restraints and all comments relating to a previous type are entered in the free text box in the form's „Current Character“ type section.

## 5. **Worcestershire HLC: Pilot Study**

### 5.1 **Introduction**

The primary aim of the Worcestershire HLC pilot study was to determine whether the methodology laid out at the beginning of the project met the requirements of the County's wider HLC project. Results from the HLC's initial stage highlighted the need for some modification to the methodology and to data recording, and assessed the technical suitability of the computer software and hardware available.

Some changes and additions were made to the original HLC types and their definitions mostly to reflect local variations. These parameters, however, remained broadly consistent with those used by other HLC projects in the West Midlands, which should provide for a regional comparison and integration of the project results at some future date.

A small number of modifications were made to Staffordshire's HLC Access database. Compatibility issues during the early stages of the pilot study for its use in Worcestershire (e.g. building new queries to link to tables holding local data) caused considerable delay to the commencement of the project, which were resolved with the help of colleagues in Shropshire County Council. This also provided an opportunity to enhance the database form, particularly in terms of adding further HLC attributes, enabling a more detailed interrogation of the dataset in the analysis stage.

There are, however, some remaining constraints of using a „flat“ database (i.e. a spreadsheet with no relationships) that cannot be mitigated. Double-handling of data as a result of using a stand-alone Access database, whose entries have to be periodically imported into the GIS metadata rather than using a linked HLC module, such as that provided as part of the Exegesis package, has had an adverse impact on the project's time-scale.

Additional datasets not recognised at the start of the project were added in to the pilot study, consisting principally of the digital 5<sup>th</sup> Edition OS (1:2500 scale County Series 1958-1963) historic mapping that was purchased especially for the project from Landmark with the assistance of other County Council departments. Although not available for use during this initial stage of the pilot study, it will be used for the remainder of the project. This is a vital data source to answer questions relating to large-scale boundary loss in Worcestershire, as it has long been suggested that much occurred either during or following the Second World War.

The early 19<sup>th</sup> century 2" to the mile scale Draft Ordnance Surveyors' maps for the County arrived towards the end of the pilot study and are likely to replace detailed tithe maps as a source for the early nineteenth

century period, given the time constraints of the project. They appear particularly useful because areas of woodland, meadow and „waste“ are colour-washed. Where these features have survived into the present landscape they give an indication of time-depth and where they have not, enable a previous historic landscape character type to be identified.

Another dataset used is Worcestershire County Council’s habitat mapping data, available as a thematic layer on the County Council GIS. As well as this dataset feeding into the HLC, in return the completed Worcestershire HLC data will subsequently feed into it, providing an indication of age, origin and long-term changes to certain habitats, such as the growth and decline of different forms of orchard.

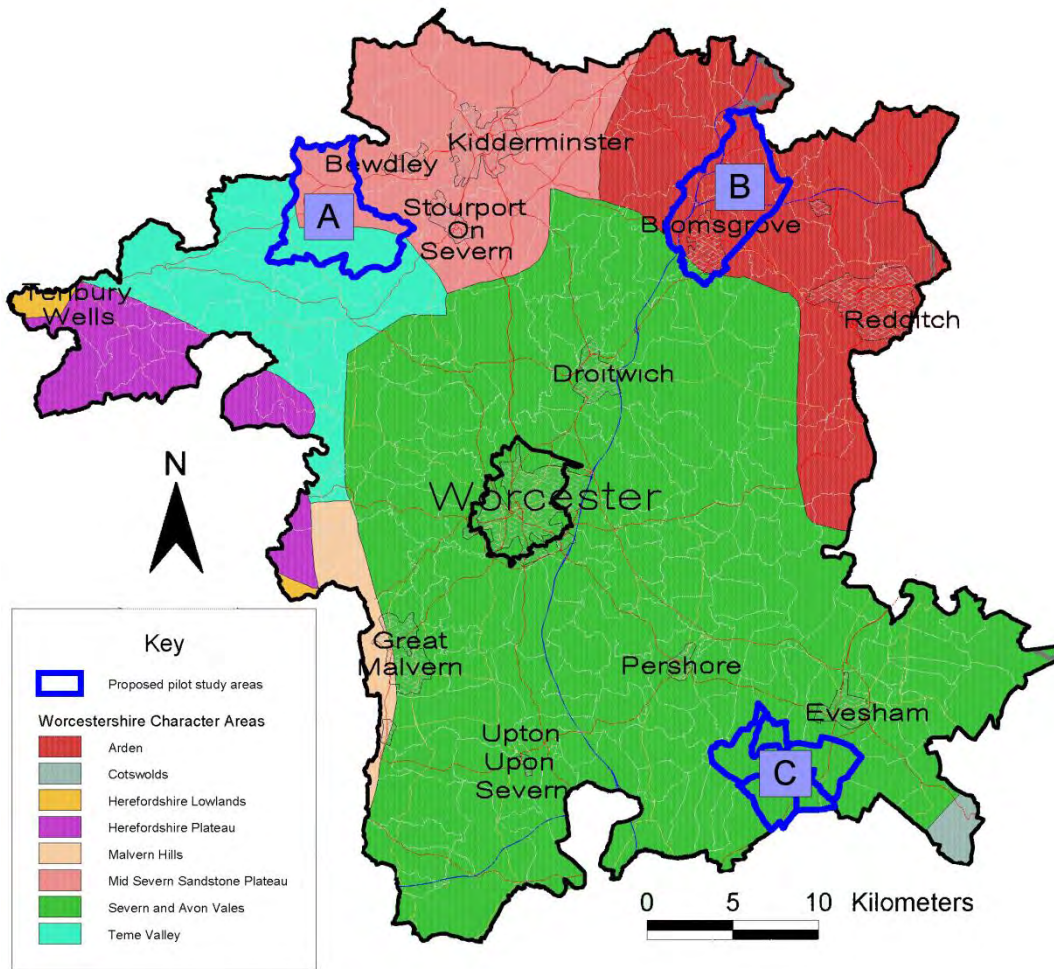
For the parish of Sedgeberrow in the pilot, the late 18<sup>th</sup> century medieval open field strip map has survived and was made available to the Worcestershire HLC project by its owner. Although not a countywide source, the information that the open field strip map offered on the previous historic landscape character of Sedgeberrow was significant. For this reason, on occasion, similar sources may be used when time allows.

## 5.2 Pilot study areas

The pilot study was based upon parish units. Three areas were selected and named as part of the project design (Mindykowski, 2006b) with the chief aim of providing a good cross-section of representative HLC types in Worcestershire. The table (Table 2) and map (Figure 7) show the location and relationship of these pilot study areas to sub-regions of the County.

Key See fig	General location	District	Joint Character Area (JCA)	Parish study areas
A	North-west Worcestershire	Wyre Forest Malvern Hills	Mid-Severn Sandstone Plateau Teme Valley	Rock
B	North-east Worcestershire	Bromsgrove	Arden Severn and Avon Vales	Bromsgrove
C	South-east Worcestershire	Wychavon	Severn and Avon Vales	Elmley Castle Netherton Hinton-on-the- Green Sedgeberrow Ashton-under-Hill

*Table 2. The Worcestershire HLC pilot study areas and parishes.*



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*Figure 7. Worcestershire HLC pilot study areas.*

The three pilot study areas were carefully chosen to test the project methodology fully as they represent a variety of Worcestershire's landscape types. Area A covers both part of the Wyre Forest and part of the Teme Valley. In contrast, Area B is typical of the more urbanised upland landscape of the north-east of the County. Area C is typical of the landscape in the Vale of Evesham, although it also includes Bredon Hill, a feature that contrasts with and dominates the surrounding landscape. The results of the Worcestershire HLC pilot study are described at Annex B.

## 6. **Worcestershire HLC: Main Study**

### 6.1 **Introduction**

The primary task of this project has been to digitally record the County's current (extant) historic landscape character, collecting and recording information through the process of 'mapping', using the modern Ordnance Survey maps and other information sources such as recent vertical aerial photography and the Historic Environment Record. This chapter sets out the main data results of Worcestershire's Historic Landscape Character project, with its primary emphasis on the Current HLC, the County's landscape as seen in the present day.

It is not the aim of this report to provide a potted landscape history of Worcestershire. Rather, it aims to show the potential value of the HLC project's digital information, illustrate some of the ways it may be interrogated and suggest practical applications.

### 6.2 **The Current Historic Landscape Character of Worcestershire**

The statistical information and images presented in this chapter are the result of the projects Stage 1 (pilot study) and Stage 2 mapping process. The County's mapped area covers 1,723 square kilometres (670 square miles), not including Worcester city, though a separate historic landscape character project of the latter is also being undertaken.

The HLC project's digital information can be manipulated and interrogated statistically and then can be graphically represented in many ways. The basic historic character statistics for the County and District Councils that follow in this chapter are merely exemplars of what can be produced. The full digital information gathered has enormous potential to provide an up-to-date and hitherto unquantified data source for a wide variety of research avenues.

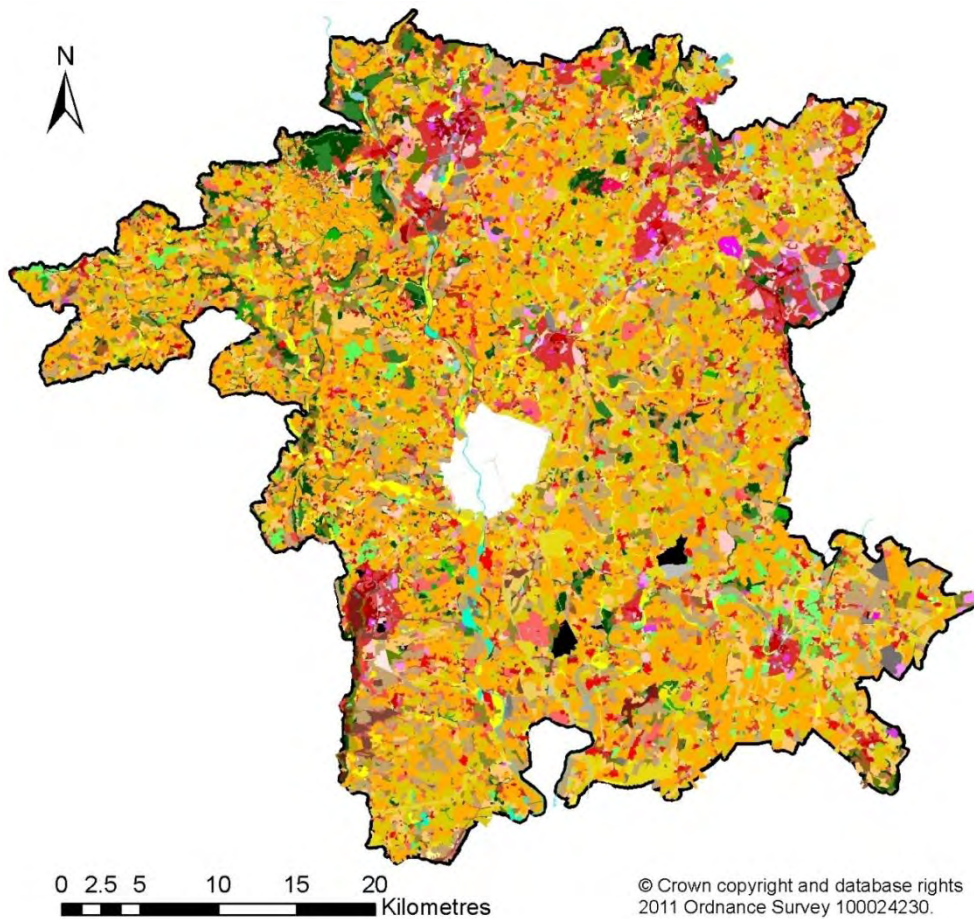


Figure 8. *The completed mapping of the Current HLC for Worcestershire County (excluding Worcester City).*

Figure 8 shows the completed mapping of the Current HLC, the present-day landscape. The result of the project's mapping process is 14,942 historic landscape units (polygons), created as a seamless digital layer in the County Council's ESRI Geographic Information System (GIS), with an average historic landscape unit (polygon) size of 11.5 hectares (Table 3 and Figure 8).

Sum (area)	1723019639 sq m
Count (No of polygons)	14942
Mean (area)	115308 sq m
Maximum polygon size	4408421 sq m
Minimum polygon size	25 sq m
Range	4408396 sq m
Variance	40873749281sq m
Standard Deviation	202173

Table 3. *Statistics from the completed HLC's digital GIS layer.*



Table 4 shows the statistical breakdown of all the Landscape Character Types for the Worcestershire HLC, along with the percentage of the whole County that each type represents in the current landscape.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)	Worcestershire County Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	24360999	1.41		Historic Town	3951699	0.23	
Garden	152044	0.01		New Town	9834214	0.57	
Public Open Space	5793891	0.34		Modern Expansion	87717641	5.09	
Deer Park	459546	0.03		Modern Infill	7683891	0.44	
Race Course	1235396	0.07		Nucleated Cluster	22006988	1.28	
Golf Course	12722863	0.74		Nucleated Row	13893084	0.81	
Sports Ground	7541544	0.44		Interrupted Row	38662553	2.24	
Show Ground	845378	0.05		Isolated Farmstead	17068047	0.99	
Safari Park	843583	0.05		Clustered Settlement	20351808	1.18	
Camp Site	712580	0.04		Waste/Common/Green-edge Settlement	5873549	0.34	
Cemetery	458362	0.03	3.20	Model Planned Village	815687	0.05	
Prison	1483686	0.09		Caravan Park/ Chalet Site	3667098	0.21	
Government & Civic Centres	230578	0.01		Minor Dispersed Settlement	1766300	0.10	
Educational Establishment	7061081	0.41		Smallholding	1668748	0.10	
Hospital	831388	0.05		Country House	3320144	0.19	13.82
Religious Site	728643	0.04		Ancient Enclosure	1532097	0.09	
Hotel	873454	0.05		Assarted Enclosure	16334759	0.89	
Commercial and Retail	7930495	0.46		Medieval Open Field	558897	0.03	
Leisure Centre	244643	0.01		Enclosed Furlong	394342	0.02	
Council Depot	234784	0.01	1.14	Enclosed Strip(s)	104819	0.01	
Military Airfield	4640743	0.27		Piecemeal Enclosure	227123654	13.18	
Defence Research Establishment	503802	0.03		Rectilinear Squatter Enclosure	233546	0.01	
Military Base	184142	0.01		Irregular Squatter Enclosure	64010	0.00	
Storage Depot	49383	0.00		Encroachment Enclosure	3109462	0.18	
Firing Range	173349	0.01	0.32	Small Irregular or Rectilinear Fields	41800888	2.43	
Hard Rock Quarry/ Extraction Site	473905	0.03		Parliamentary Enclosure	136020047	7.89	
Sand and Gravel Extraction Site	3157000	0.18		Planned Private Enclosure	32365238	1.88	
Mines/Spoil/Processing Areas	182958	0.01		Field Amalgamation	480220689	27.87	
Brickfield/Clay Extraction	319326	0.02		Meadow	31457739	1.83	
Industrial/Factory Complex	9435462	0.55		Paddock	8482878	0.49	
Mill Complexes	2416492	0.14		Modern Subdivision	103396253	6.00	
Utilities	3191007	0.19		Rough Pasture	4301699	0.25	
Landfill/ Rubbish Dump	1635332	0.09	1.21	Field Reorganisation	92192863	5.35	
Ancient/Semi-Natural Woodland	46660004	2.71		Planned Enclosure for Orchard	1237785	0.07	
Replanted Ancient Woodland	19149201	1.11		Post-Enclosure Reorganisation	4208566	0.24	68.72
Recent Woodland (Secondary)	41209237	2.39		Heathland	28148	0.00	
Woodland Plantation	8211724	0.48		Unimproved Open Hill Pasture	4963268	0.29	
Common Grazed Woodland	580049	0.03	6.72	Other Common/ Green	9027742	0.52	
Pre-1880's Orchard	8332181	0.48		Moorland	60421	0.00	0.82
Post-1880's Orchard	16107550	0.93		Reservoir	1958133	0.11	
Nursery/Garden Centre	9319023	0.54		Artificial Lake/Pond	3817591	0.22	
Allotment	947859	0.06	2.01	Natural Open Water	6996438	0.41	
Major Road Junctions	1651682	0.10		Marsh	166631	0.01	
Motorway	6089292	0.35		Watermeadow	3968017	0.23	0.98
Canal/Lock/Basin	104444	0.06					
Railways/Stations/Sidings	5840721	0.34					
Airport/Airfield	3473236	0.20					
Bus Station/Park and Ride	11926	0.00	1.05				
				Total Area (square metres)	1723019639		

Table 4. Statistical breakdown of the HLC project's digital mapping.

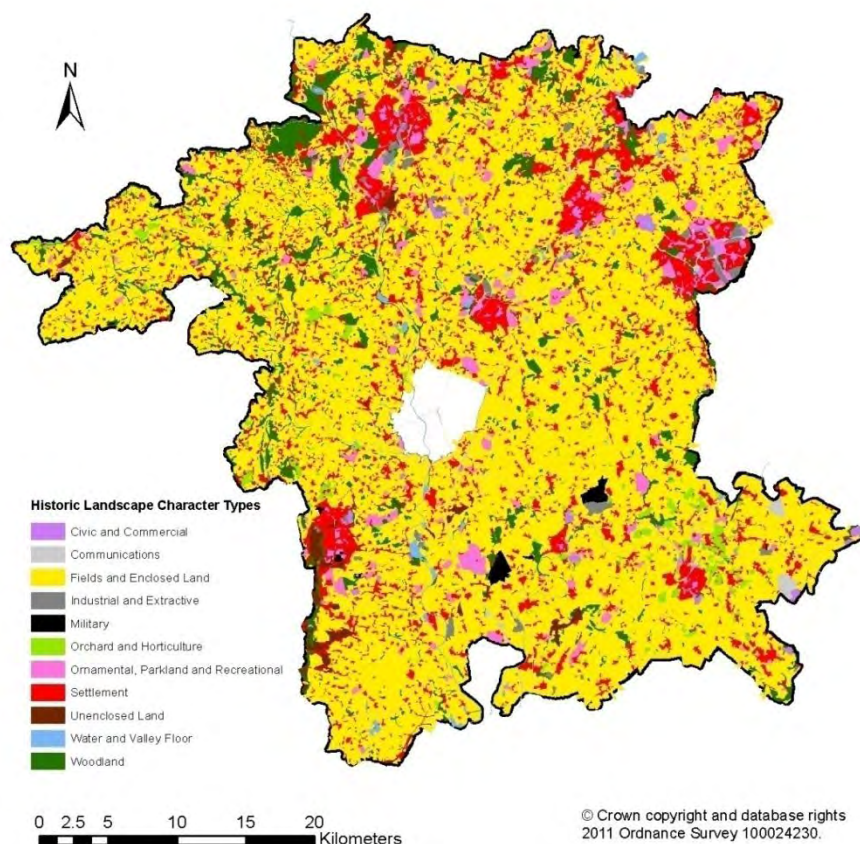
- The largest single Historic Landscape Character Type is 'Field Amalgamation', a sub-type within the Field and Enclosed Land broad group, forming nearly 28% of Worcestershire's entire present historic landscape character. This is a significant statistic, as that 28% represents field boundary loss through hedgerow removal since the Second World War;
- 'Piecemeal Enclosure', another sub-type from the Field and Enclosed Land broad group has the next largest percentage of land area at over half that of Field Amalgamation at 13.18%.

**THE CURRENT HLC BROAD GROUPS**

The HLC methodology identifies 11 broad historic landscape character groups that encompass the County's landscape, settlement and infrastructure:

- Ornamental, Parkland and Recreational
- Civic and Commercial
- Military
- Industrial and Extractive
- Woodland
- Orchards and Horticulture
- Communications
- Settlement
- Fields and Enclosed Land
- Unenclosed Land
- Water and Valley Floor

Nearly fifteen thousand individual historic landscape units (polygons) are a significant amount of information to illustrate effectively at a County scale. The data is more readily interpreted if the 15,000 polygons are aggregated into the eleven Historic Landscape Character Broad Types and by visually expressing those figures in map and statistical form, showing the percentage of the County that each broad character type comprises (Figures 9 and 10).



*Figure 9. The nearly 15,000 polygons of the Current HLC aggregated into the eleven broad Historic Landscape Character groups. The yellow colour representing the Fields and Enclosed Land broad group dominates*

As may be perceived in map Figure 9, the current historic character of the County is dominated by the yellow of the Fields and Enclosed Land broad group, comprising 68.72% of the County's land area. The complete breakdown of the County's Current HLC's broad groups is shown in Figure 10. The second largest broad group is that of Settlement, which represents nearly 14 per cent of the County's current land area.

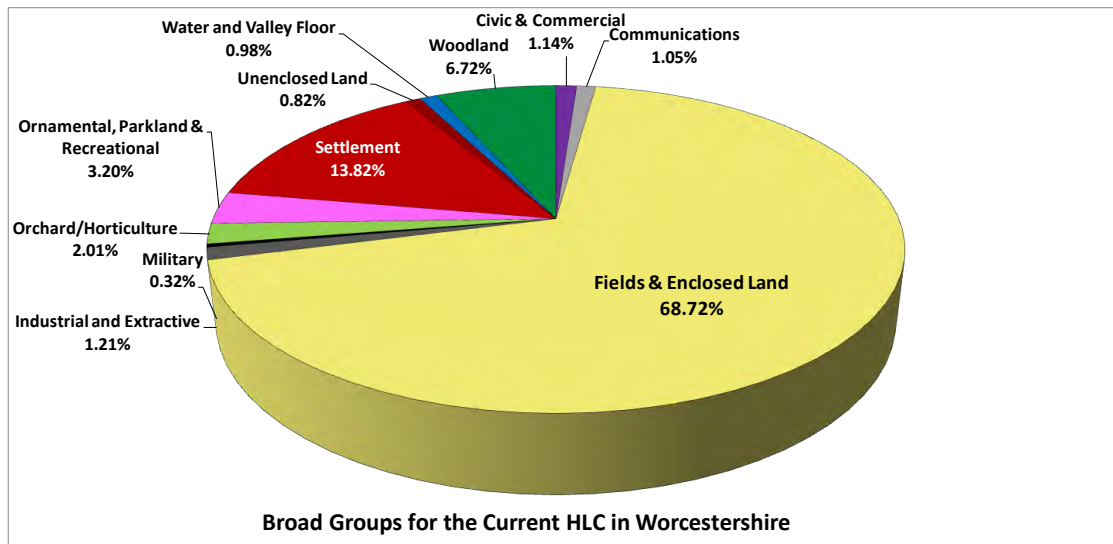


Figure 10. The current HLC represented as Historic Landscape Character broad groups.

As part of the national programme of historic landscape characterisation, it is possible to compare these results with those from neighbouring counties' HLC projects. It is fortuitous that the completed Shropshire, Warwickshire and Staffordshire HLC projects' methodologies were strong influences on the Worcestershire HLC. The Warwickshire HLC results (pers comm. Peter Herring, 2011) can consequently be compared directly with those from Worcestershire (Table 5).

Of note are:

- Worcestershire's 6.72% area of woodland cover is somewhat below the recently reassessed 9.9% average of woodland cover for England (Forestry Commission, 2011), but almost one third more than that of Warwickshire;
- Worcestershire's settlement cover (13.8%) is significantly more than that of Warwickshire (9.8%). Warwickshire's HLC did not include the city of Coventry, as Worcestershire's HLC did not include the city of Worcester;
- The Worcestershire Orchard/ Horticulture HLC group is two and a half times greater than Warwickshire, though perhaps this might be anticipated given the historic orchard activity in the Vale of Evesham.

<b>HLC Broad Group Type</b>	<b>Worcestershire (%)</b> 1,723 km <sup>2</sup> (670 square miles)	<b>Warwickshire (%)</b> 1,975 km <sup>2</sup> (763 square miles )
<b>Ornamental, Parkland &amp; Recreational</b>	<b>3.20</b>	<b>4.66</b>
<b>Civic &amp; Commercial</b>	<b>1.14</b>	<b>1.26</b>
<b>Military</b>	<b>0.32</b>	<b>0.60</b>
<b>Industrial &amp; Extractive</b>	<b>1.21</b>	<b>2.64</b>
<b>Woodland</b>	<b>6.72</b>	<b>3.81</b>
<b>Orchards/Horticulture</b>	<b>2.01</b>	<b>0.56</b>
<b>Communications</b>	<b>1.05</b>	<b>1.98</b>
<b>Settlement</b>	<b>13.82</b>	<b>9.80</b>
<b>Fields &amp; Enclosed Land</b>	<b>68.72</b>	<b>73.42</b>
<b>Unenclosed Land</b>	<b>0.82</b>	<b>0.33</b>
<b>Water &amp; Valley Floor</b>	<b>0.98</b>	<b>0.95</b>

*Table 5. The breakdown of Worcestershire's Current HLC aggregated into the eleven main Historic Landscape Character broad groups.*

As previously described, within these 11 broad groups are the numerous HLC Types that create the kaleidoscopic image of the finished HLC mapping (Figure 8). The flexibility of the digital information means that not only can the mapping for the broad groups be presented, but these broad groups can also be separated and examined in isolation.

## **ORNAMENTAL, PARKLAND AND RECREATIONAL**

The Ornamental, Parkland and Recreational broad character group makes up 3.20% of the Current Historic Landscape Character of Worcestershire. The various sub-types that make up the group are shown in Table 6.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Parkland	24360599	1.41
Garden	152044	0.01
Public Open Space	5793891	0.34
Deer Park	459546	0.03
Race Course	1235396	0.07
Golf Course	12722863	0.74
Sports Ground	7541544	0.44
Show Ground	845378	0.05
Safari Park	843583	0.05
Camp Site	712580	0.04
Cemetery	458362	0.03

Table 6. Breakdown of the Ornamental, Parkland and Recreational historic landscape character types.

As shown in Table 6 and Figure 11 Parkland makes up 1.41% of the County's total area, the largest type within the broad group;

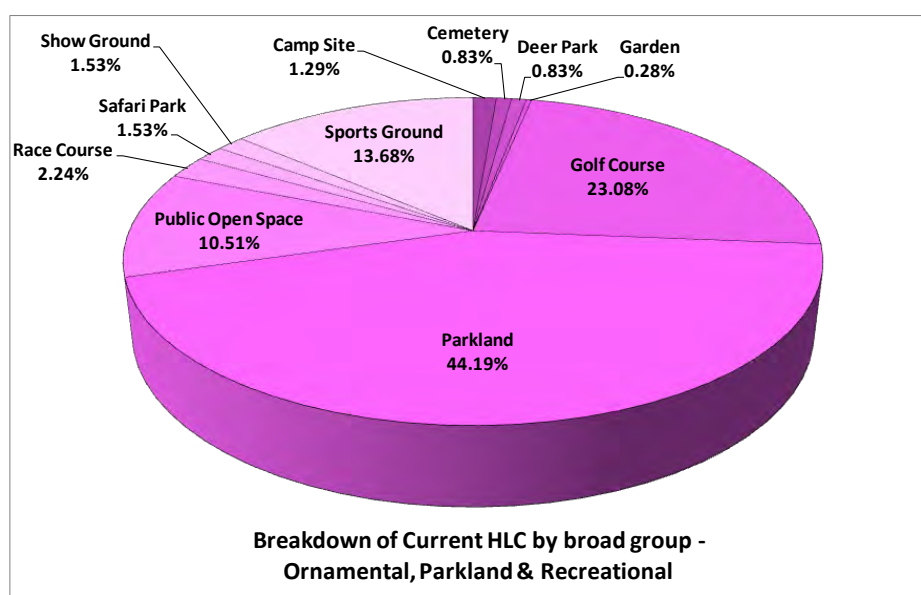
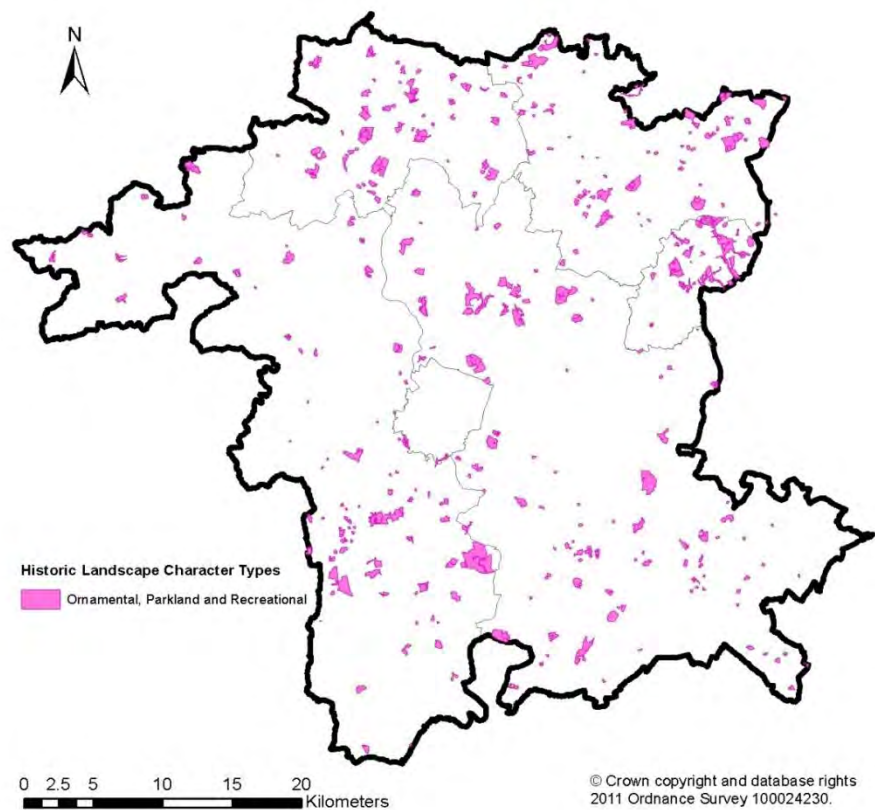


Figure 11. Breakdown of the Ornamental, Parkland and Recreational broad group that make up 3.20% of the County's total area in the Current historic landscape character.

- Within the Ornamental, Parkland and Recreational broad group that make up 3.20% of the Current historic landscape character, Parkland comprises over 44% of the group.

Figure 12 is a cluster map of the Ornamental, Parkland and Recreational broad group.

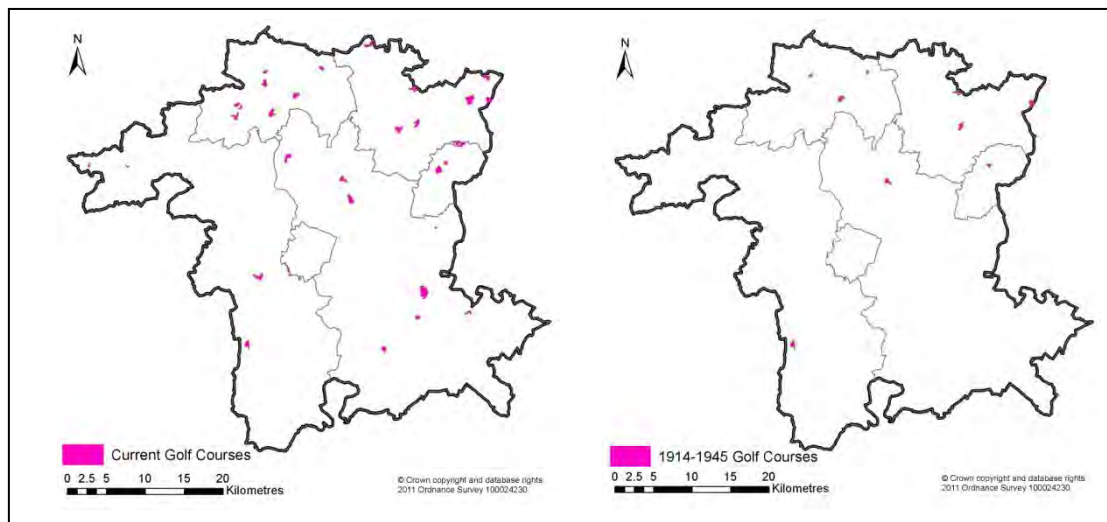
- There is a strong focus of features in the north and north-east and also a band across the centre-south of the County;
- There is paucity of Ornamental, Parkland and Recreational features in an east-west oriented band across the centre of the County, as well as in the very southwest and north-west;
- The distribution of these features corresponds with the major centres of population in the County;
- Many more of these HLC Types (e.g. sports grounds, formal gardens, cemeteries and public open spaces) exist in the Current HLC but are not recorded individually as their polygon area fall beneath the 2 hectare minimum size as set out in the HLC methodology. Any such features will have subsumed into another HLC Type, most likely from the Settlement broad group.



*Figure 12. Cluster map of the Ornamental, Parkland and Recreational polygons that make up 3.20% of the County's Current historic landscape character.*

Each of the HLC types within the Ornamental, Parkland and Recreational broad group can be queried and the results displayed graphically. For example, the HLC has recorded 29 Golf Courses in the Current historic landscape, which comprise 0.74% of the County's total area (and 23.08% of the Ornamental, Parkland and Recreational broad group). There is a focus of golf courses in the north of the County, adjacent to the larger urban concentrations of Kidderminster, Redditch and the fringes of the Birmingham conurbation (Figure 12). Of those 29 courses, only 9 pre-date the Second World War and were created in the Post-1914 period (1914-1945). No golf courses in the County are

recorded by the HLC prior to the start of the 20<sup>th</sup> century. However, the 2<sup>nd</sup> Edition Ordnance Survey maps (1890s-1910s) were not available as evidence sources for the HLC and so there may be examples which were laid out in that period.



*Figure 13. (left) The Current distribution of Golf Courses and (right) those Golf Courses created in the first half of the 20<sup>th</sup> century.*

It is notable that only two of the County's Golf Courses were created directly from former parklands: Sutton Park and King's Norton Golf Clubs and they are post-1945 in origin. The remaining golf clubs are, in the main, formerly areas of either enclosed field, common or woodland.

Parkland and Deer Parks comprise 1.44% of the County's total area in the Current HLC. The distribution of these features is concentrated in the south and centre of the County (Figure 13). Many of the extant parklands are remnants of formerly much larger historic parklands and deer parks that pre-date 1800 and sometimes originate in the medieval period.



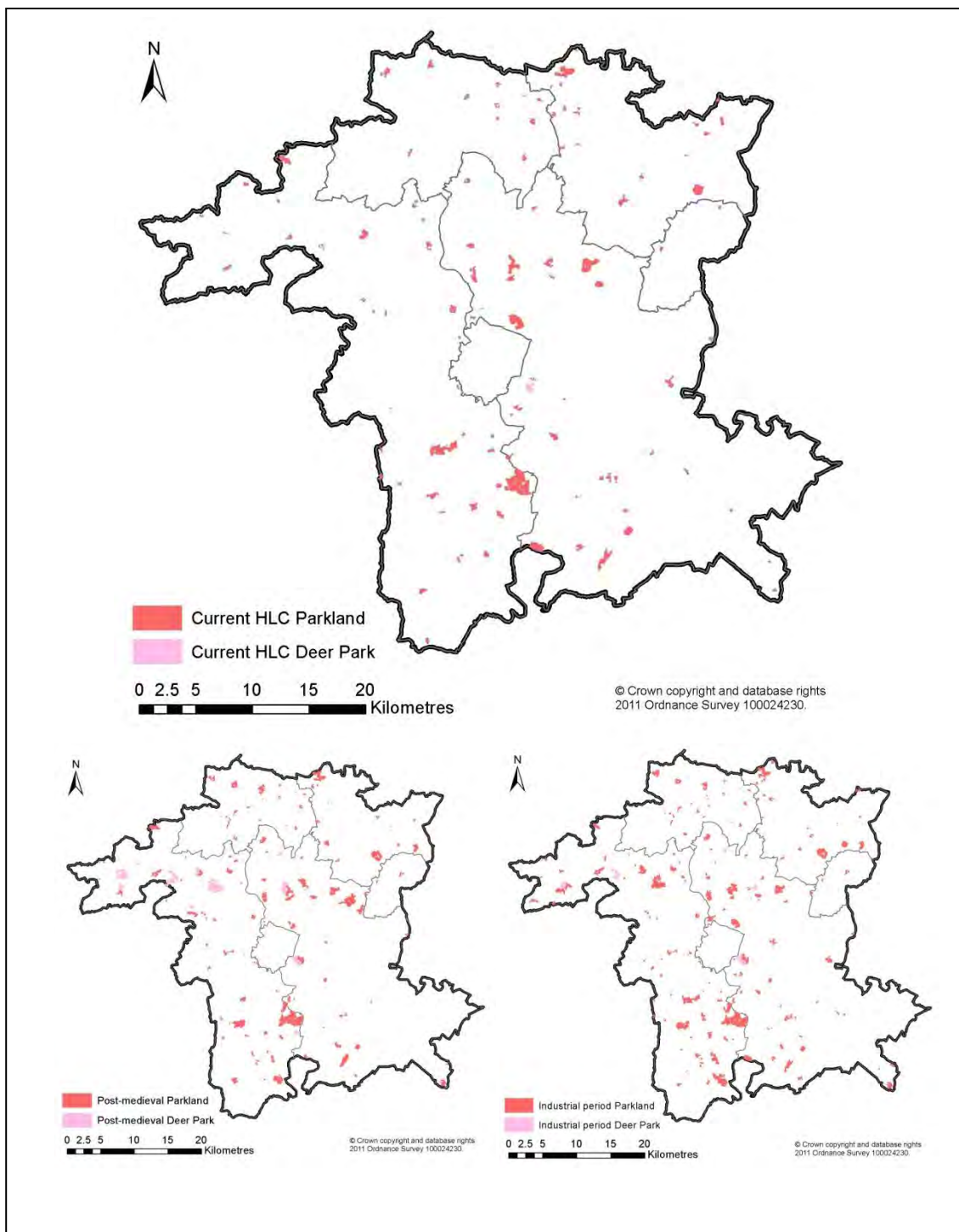


Figure 14. (top) The Current distribution of parklands and Deer Parks compared to the former extent in the 19<sup>th</sup> century (bottom right) and pre-1800 landscape (bottom left).

Given the flexibility of the digital HLC information with its attached time-depth and previous character data, it is possible to interrogate, extract and present the probable extents of deer parks and parklands in the past.

HLC Type	Current (sq m)	Current (%)	Industrial (sq m)	Industrial (%)	Post-medieval (sq m)	Post-medieval (%)
Parkland	<b>24360599</b>	<b>1.41%</b>	<b>50940610</b>	<b>2.96%</b>	<b>41428547</b>	<b>2.40%</b>
Deer Park	<b>459546</b>	<b>0.03%</b>	<b>3420372</b>	<b>0.19%</b>	<b>11390013</b>	<b>0.66%</b>
Total Area	<b>24820145</b>	<b>1.44%</b>	<b>54360982</b>	<b>3.15%</b>	<b>52818560</b>	<b>3.06%</b>

*Table 7. A comparison of Parkland and Deer Parks in the current HLC, in the 19<sup>th</sup> century and probable extents pre-1800.*

- Although the total area for Parkland and Deer Parks changes little between the post-medieval period (AD1540-1799) and the Industrial period (AD1800-1913) (Table 7 and Figure 14), a number of Deer Parks are changed in the 19<sup>th</sup> century and become merely Parkland instead;
- Many of the parklands and deer parks extant during the 19<sup>th</sup> century in the north and north-west of the County are subsequently enclosed for agricultural use by the present-day.

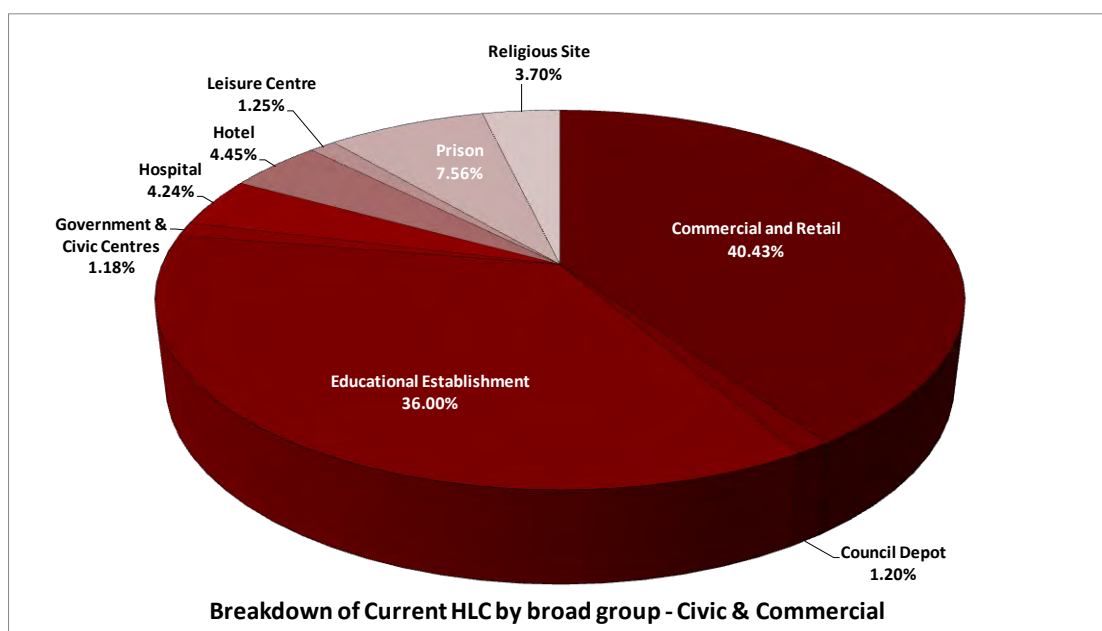
## **CIVIC AND COMMERCIAL**

Civic and Commercial polygons comprise 1.14% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 8.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Prison	1483686	0.09
Government & Civic Centres	230578	0.01
Educational Establishment	7061081	0.41
Hospital	831388	0.05
Religious Site	726643	0.04
Hotel	873454	0.05
Commercial and Retail	7930495	0.46
Leisure Centre	244643	0.01
Council Depot	234784	0.01

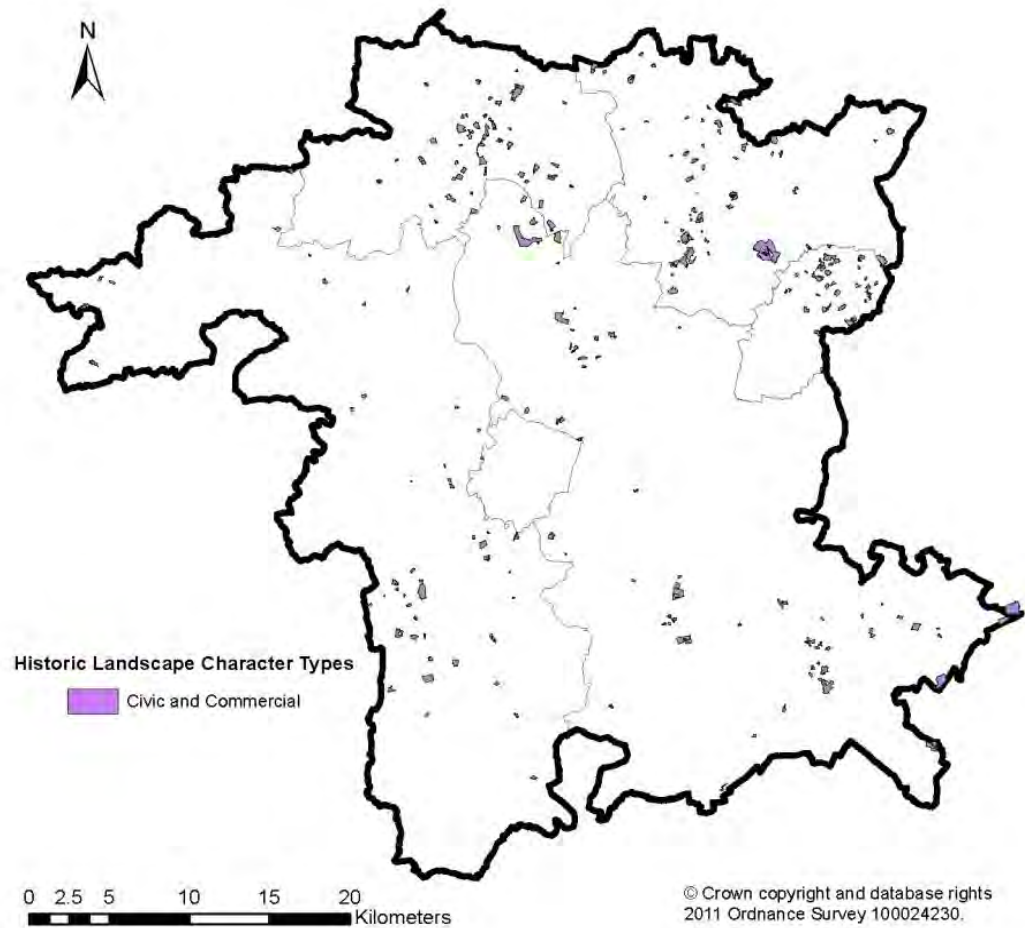
*Table 8. Breakdown of the historic landscape character types within the Civic and Commercial broad group.*

- Commercial and Retail and Educational Establishments polygons represent the largest type within the Civic and Commercial broad group, comprising 0.46% and 0.41% (respectively) of the County's total area in the Current Historic Landscape Character (Table 8).
- Many more of these HLC Types are present in the County (with perhaps the exception of the prison) but are not recorded individually as their polygon area fall beneath the 2 hectare minimum size. Any such features will have subsumed into another HLC Type, most likely from the Settlement broad group.



*Figure 15. Breakdown of the HLC Types within the Civic and Commercial broad group that together comprise 1.14% of the County's total area in the Current HLC.*

- Within the Civic and Commercial broad group that makes up 1.14% of the Current historic landscape character, Commercial and Retail polygons and Educational Establishments dominate, together comprising over 76% of the broad group (Figure 15).



*Figure 16. Cluster map of the Civic and Commercial broad group polygons that make up 1.14% of the County's Current historic landscape character.*

- As may be expected, the cluster map at Figure 16 shows that the polygons for HLC Types that comprise the Civic and Commercial broad group are focused around the main urban population centres in the County, particularly concentrated in the north around Kidderminster, Stourport and Redditch, but also around Malvern, Evesham and Pershore

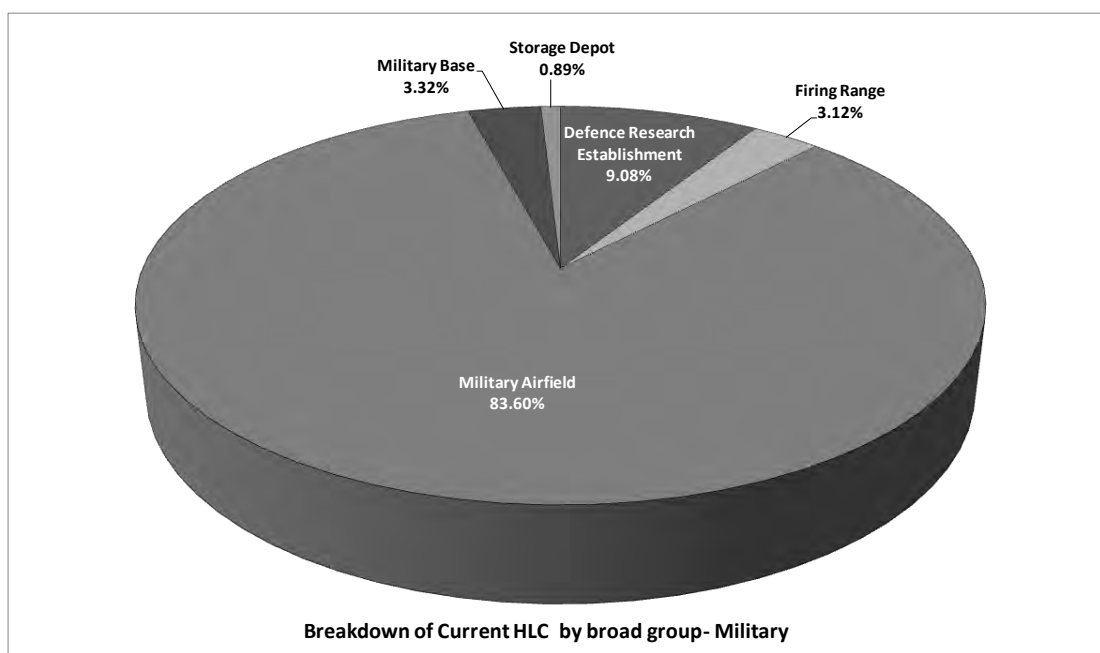
## **MILITARY**

Military polygons comprise 0.32% of the County's total area in the Current Historic Landscape Character, half that recorded for Warwickshire's in their HLC project. The various sub-types that make up the group are shown in Table 9.

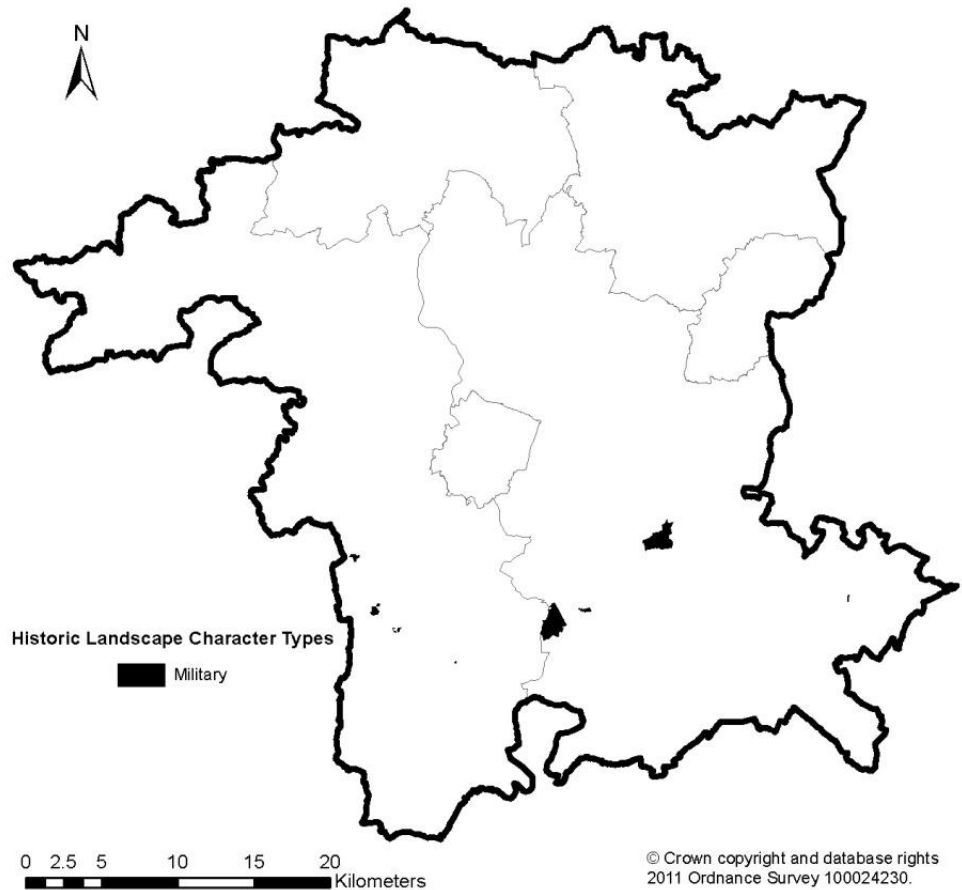
Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Military Airfield	4640743	0.27
Defence Research Establishment	503802	0.03
Military Base	184142	0.01
Storage Depot	49383	0.00
Firing Range	173349	0.01

*Table 9. Breakdown of the historic landscape character types within the Military broad group.*

- The formerly active military airfields at Defford and Throckmorton represent the largest type within the Military broad group, comprising 0.27% of the County's total area in the Current Historic Landscape Character (Table 9). Whilst no longer active RAF flying stations, the land is still used by the Ministry of Defence and the runways are still extant.

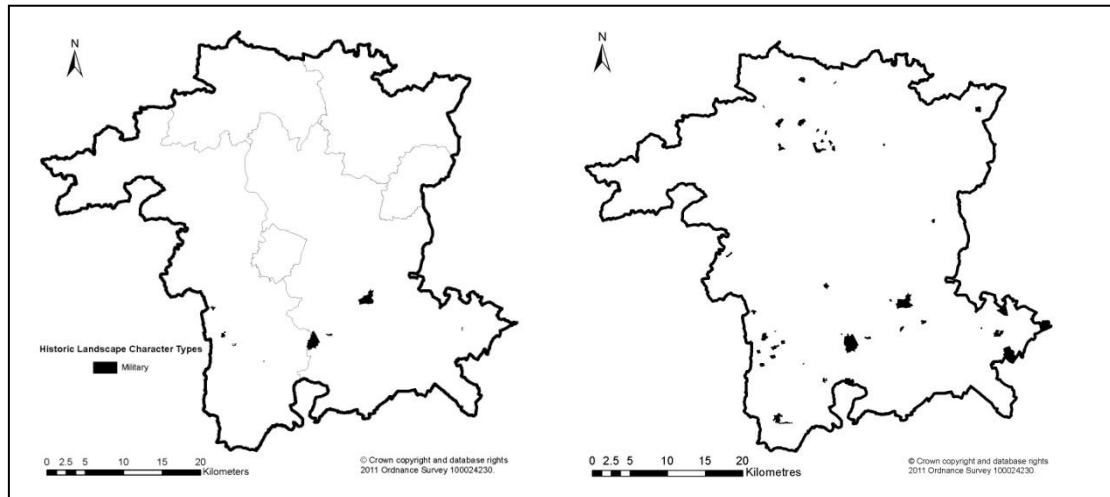


*Figure 17. Breakdown of the HLC Types within the Military broad group that together comprise 0.32% of the County's total area in the Current HLC.*



*Figure 18. Cluster map of the Military broad group polygons that make up 0.32% of the County's Current historic landscape character.*

- The cluster map (Figure 18) shows the focus of military activity in the south of the County in the Current HLC;
- The closure of large military sites in the County in the post-war period (Norton Barracks south of Worcester, the Defence Establishment Research Agency (DERA) at Malvern, RAF Honeybourne and RAF Hartlebury) has significantly reduced the military presence within the County compared to its neighbouring counties such as Gloucestershire and Warwickshire (Figure 19).



*Figure 19. Cluster maps of the Military broad group polygons in the Current HLC (left) and in the period 1914-1945 (right).*

- In the period 1914-1945, the Military HLC broad group comprised 1.20% of the County's total area at that time (compared to 0.32% in the Current HLC);
- During the Second World War, there were a significant number of other military sites located in the County, from Allied Forces training bases, army camps, military hospitals and POW camps to searchlight and anti-aircraft positions. Many of these were temporary sites, but are recorded on the County's Historic Environment Record and described in detail in the Defence of Worcestershire publications (Wilks, 2007: and Jones et al., 2008 ).

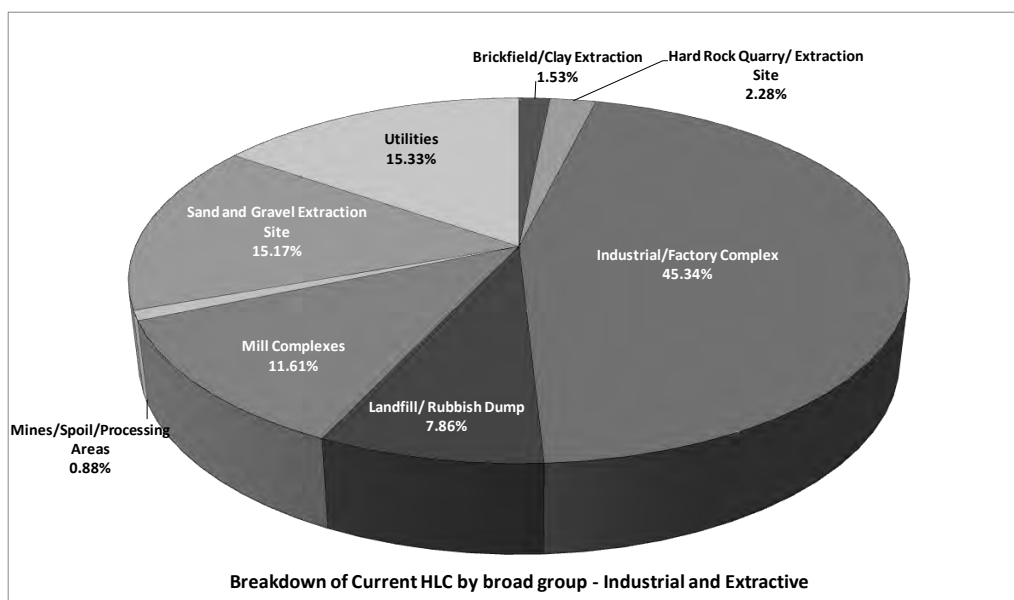
## **INDUSTRIAL AND EXTRACTIVE**

Industrial and Extractive polygons comprise 1.21% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 10.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Hard Rock Quarry/ Extraction Site	473905	0.03
Sand and Gravel Extraction Site	3157000	0.18
Mines/Spoil/Processing Areas	182958	0.01
Brickfield/Clay Extraction	319326	0.02
Industrial/Factory Complex	9435462	0.55
Mill Complexes	2416492	0.14
Utilities	3191007	0.19
Landfill/ Rubbish Dump	1635332	0.09

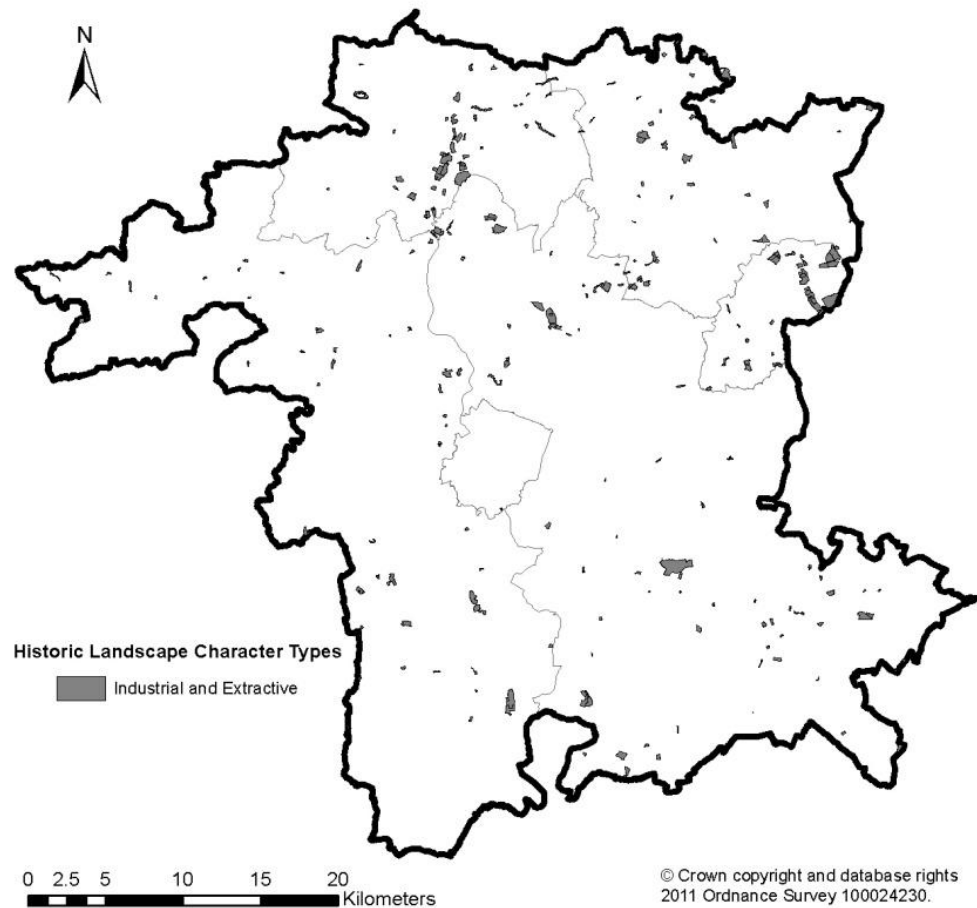
*Table 10. Breakdown of the historic landscape character types within the Industrial and Extractive broad group.*

- The largest HLC Type represented in this broad group is Industrial/Factory Complexes, being 0.55% of the County's total area;
- Many more of these HLC Types are present in the County (e.g. factories, mills, utilities, small quarries and clay pits) but are not recorded individually as their polygon area fall beneath the 2 hectare minimum size. Any such features will have subsumed into another HLC Type, most likely from Field and Enclosed Land or Settlement broad groups.



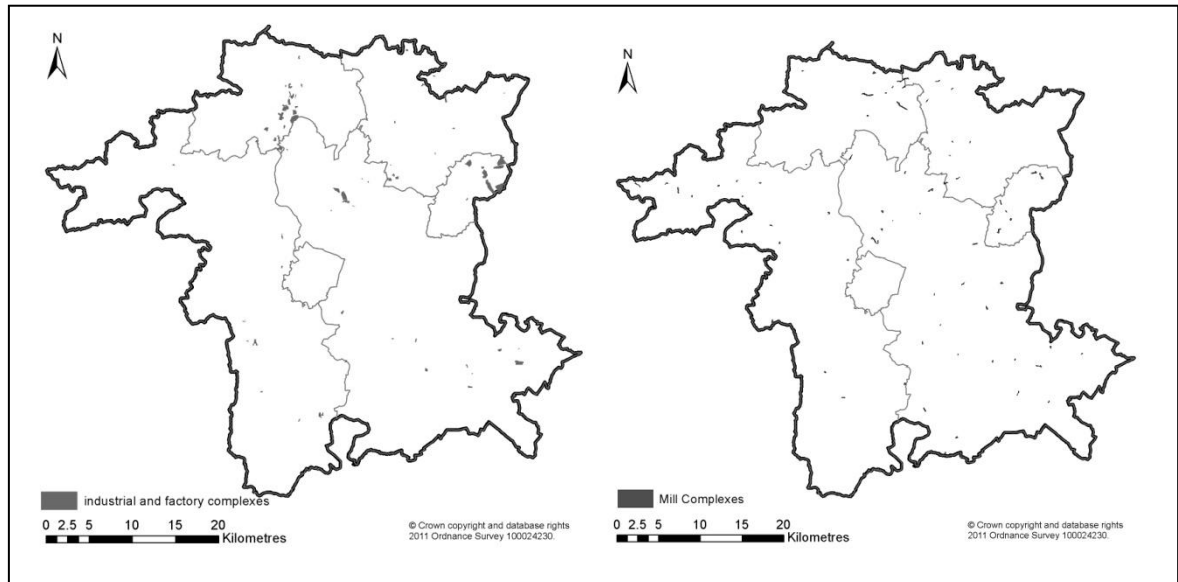
*Figure 20. Breakdown of the HLC Types within the Industrial and Extractive broad group that together comprise 1.21% of the County's total area in the Current HLC.*





*Figure 21. Cluster map of the Industrial and Extractive broad group polygons that make up 1.21% of the County's Current historic landscape character.*

- As shown in Figure 21, many Industrial and Extractive polygons are clustered around the urban population centres of Kidderminster, Bromsgrove and Redditch;
- Many of the Industrial and Factory Complex HLC Type polygons represent modern-day industrial estates, especially those around Redditch new town (Figure 22). The cluster of Industrial and Factory Complex HLC Types around Kidderminster in the north, however, represent the remains of the historic carpet manufacturing industry, some then becoming industrial estates built on former factory sites.



*Figure 22. Distribution maps of the Industrial/Factory Complex HLC Type (left) and Mill Complexes HLC Type (right).*

- Mill Complexes comprise 0.14% of the Current County's historic landscape character and often date to the 19<sup>th</sup> century or earlier. The distribution map of mills (Figure 22) is interesting in that there appear to be few recorded on the west and south-west side of the County. This may result from a lack of suitable watercourses or that the mills in those areas were not recorded by the HLC as their area was less than the minimum polygon size set out in the HLC methodology. Mills in the north and north-east of the County are often associated with the large-scale carpet-making, needle-making and scythe-making industries of the 18<sup>th</sup> and 19<sup>th</sup> centuries and, as industrialised mills, are larger in area than corn mills and so have sufficient area to be recorded by the HLC.

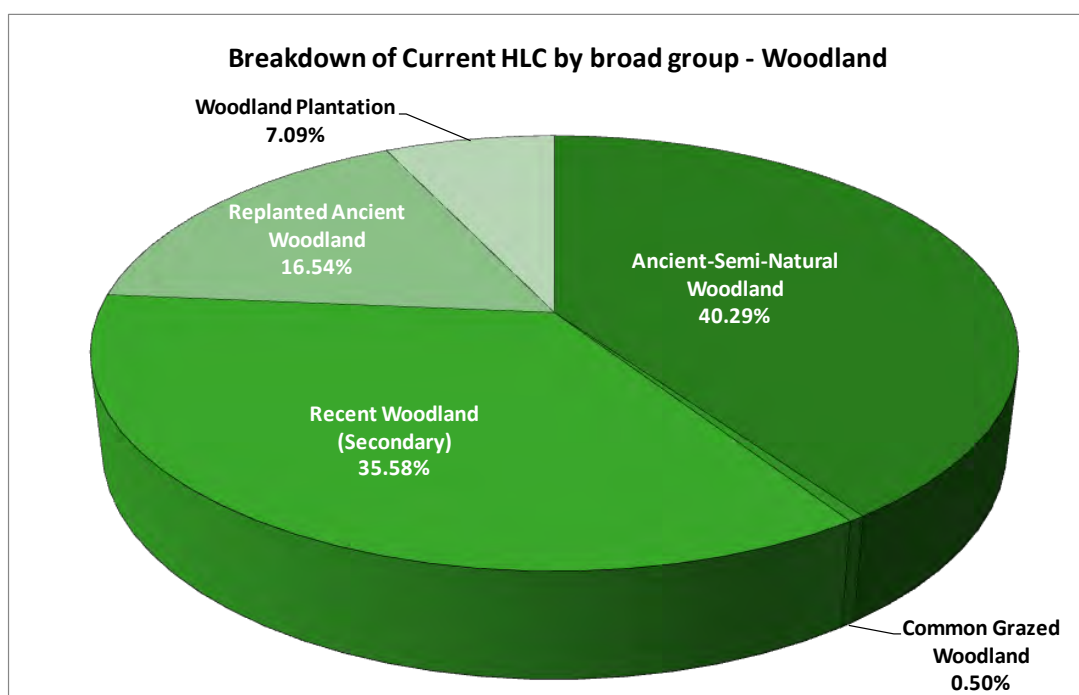
## **WOODLAND**

Woodland polygons comprise 6.72% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 11.

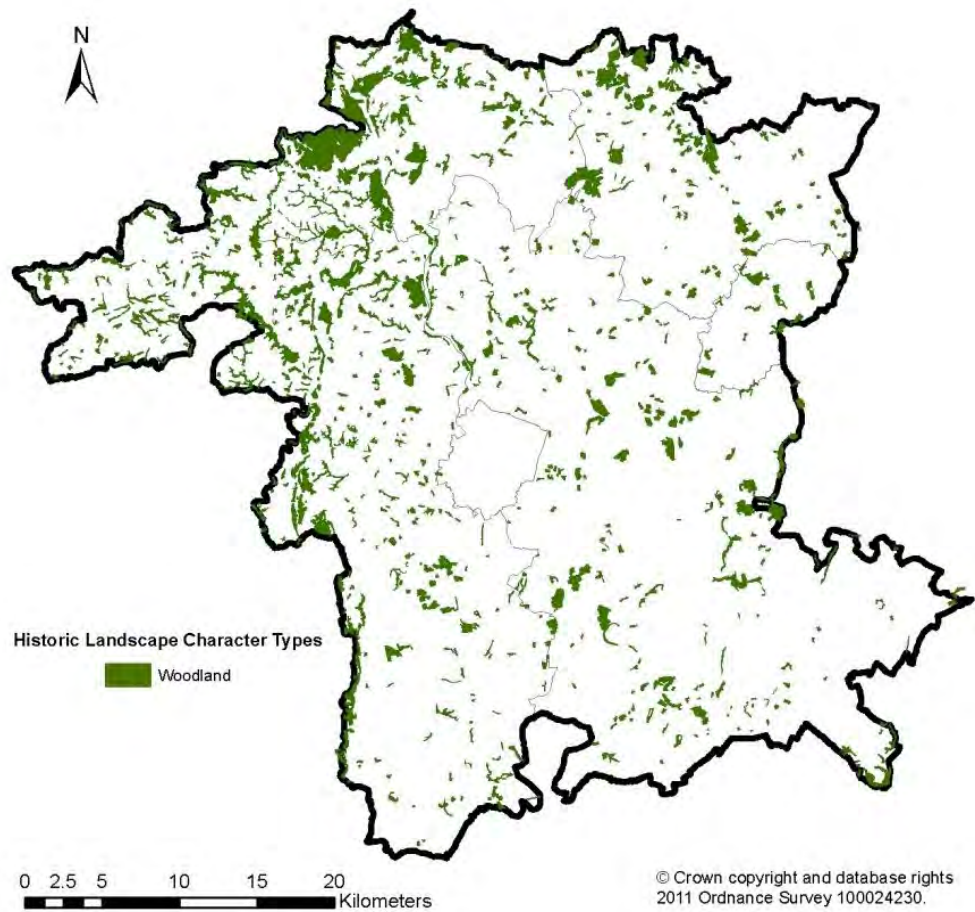
Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Ancient-Semi-Natural Woodland	46660004	2.71
Replanted Ancient Woodland	19149201	1.11
Recent Woodland (Secondary)	41209237	2.39
Woodland Plantation	8211724	0.48
Common Grazed Woodland	580049	0.03

*Table 11. Breakdown of the historic landscape character types within the Woodland broad group.*

- There has been as much secondary woodland and woodland plantations (2.87%) created in the County since 1800 as there is remaining historic ancient semi-natural woodland (2.71%);



*Figure 23. Breakdown of the HLC Types within the Woodland broad group that together comprise 6.72% of the County's total area in the Current HLC.*



*Figure 24. Cluster map of the Woodland broad group polygons that make up 6.72% of the County's Current historic landscape character.*

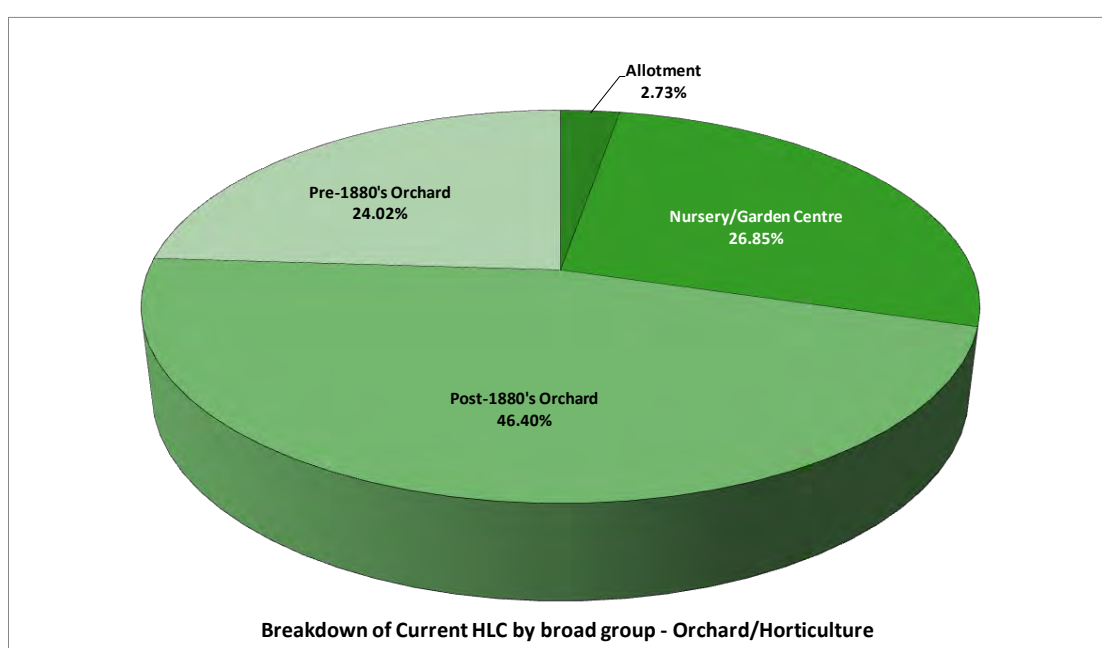
- Woodland in the cluster map (Figure 24) is focused in the north and north-west of the County, mainly representing the Wyre Forest area but also reflecting the wooded hills and valleys in that part of the County.

## **ORCHARDS/HORTICULTURE**

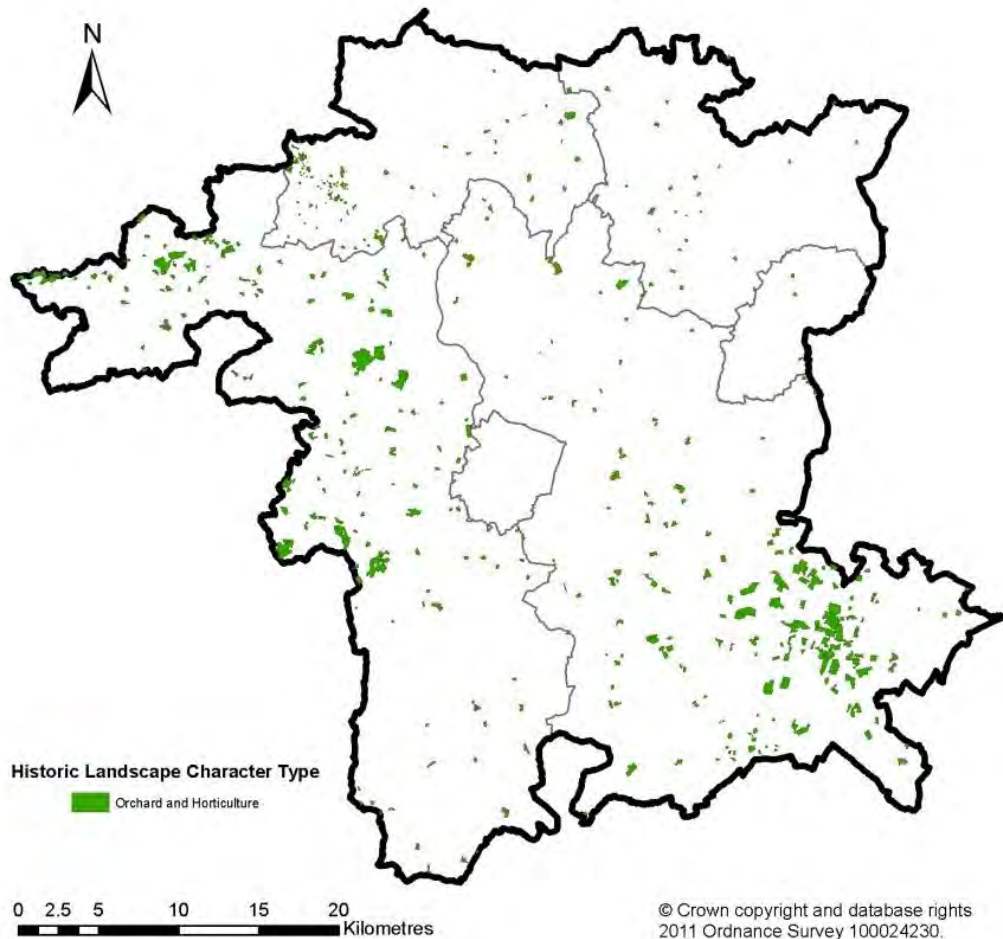
Orchards and Horticulture polygons comprise 2.01% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 12.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Pre-1880's Orchard	8332181	0.48
Post-1880's Orchard	16107550	0.93
Nursery/Garden Centre	9319023	0.54
Allotment	947859	0.06

*Table 12. Breakdown of the historic landscape character types within the Orchards and Horticulture broad group.*

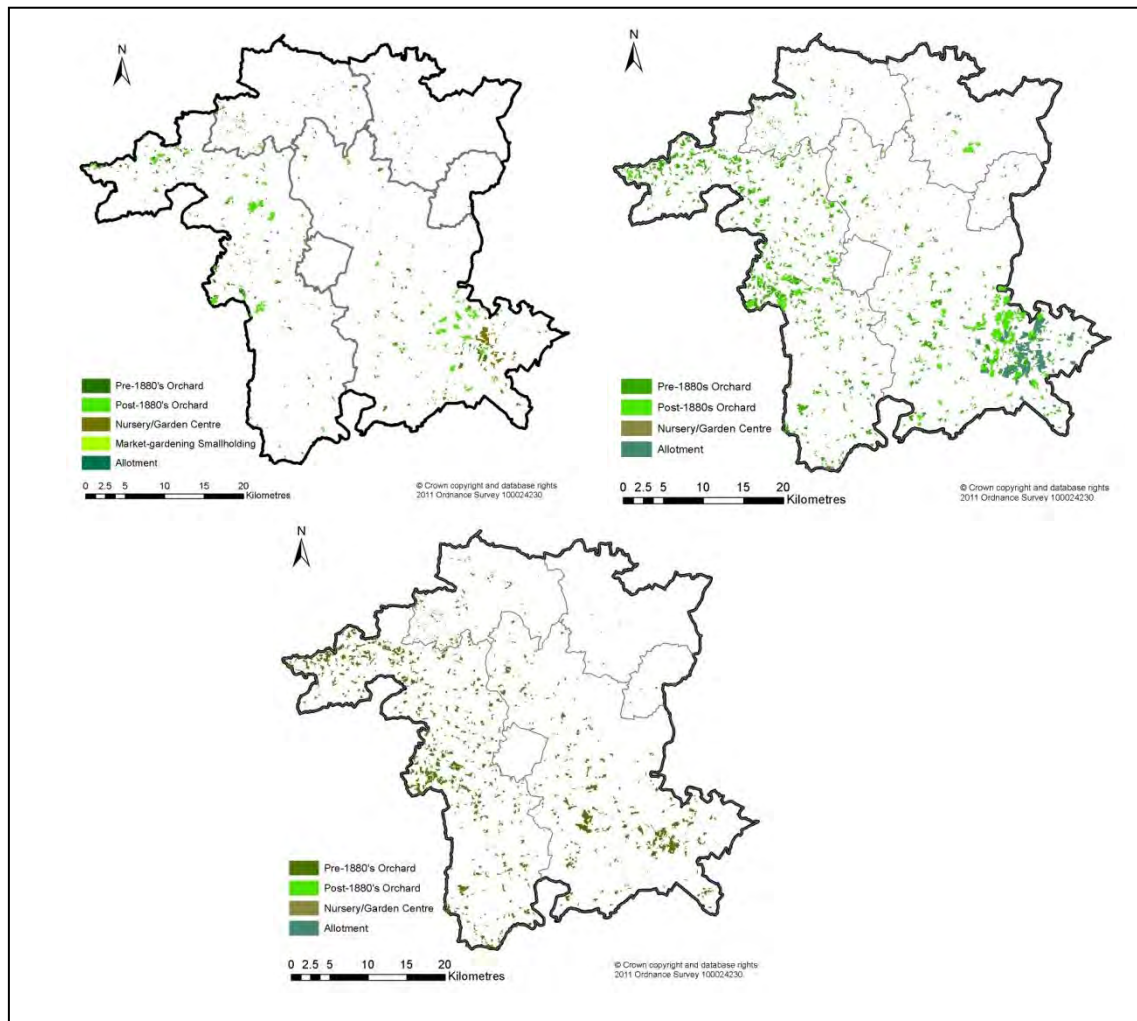


*Figure 25. Breakdown of the HLC Types within the Orchards and Horticulture broad group that together comprise 2.01% of the County's total area in the Current HLC.*



*Figure 26. Cluster map of the Orchards and Horticulture broad group polygons that make up 2.01% of the County's Current historic landscape character.*

- The focus for orchard and horticulture polygons in Figure 26 lies in the Vale of Evesham in the south-east of the County, with its nurseries and orchards. In the north-west of the County, however, there is also a less dense but wider distribution of these HLC types;
- Post-1880s Orchards and Nursery/Garden Centres dominate the south-east around Evesham in the Current HLC (top left Figure 27), whereas Post-1880s Orchards mix with Pre-1880s Orchards in the north-west;
- The HLC methodology allows for the recording previous historic landscape characters of each Current HLC polygon as part of the metadata. Through simple data queries, the extents of Orchards and Horticulture polygons in former time periods can be extracted and presented graphically for comparison with the present-day (Figure 27);



*Figure 27. Distribution maps of the Orchards and Horticulture broad group polygons in (top left) the County's Current HLC, (top right) in the Post-1914 period (AD1914-1945) HLC and (bottom centre) in the Industrial period (AD1800-1913) HLC.*

- In the Post-1914 period (AD1913-1945) (top right Figure 27), a large number of so-called Allotments and Post-1880s Orchards around the town of Evesham, charting the small-scale market gardens that arose in the first half of the 20<sup>th</sup> century. A vertical aerial photograph taken in the 1940s (Figure 28) shows the area divided into a mosaic of small strips of land for market gardens, each producing various vegetables or fruit, giving it a kaleidoscopic look that probably echoes the old medieval open field system.



*Figure 28. A vertical aerial photograph taken in the 1940s of the area east of Evesham showing the mosaic of strip cultivation from small-scale market gardens.*

- The number of Pre-1880s and Post-1880s Orchards in the north-west and west of the County, in parishes such as Tenbury, Alfrick, Suckley, Lulsley and Knightwick, reflect an orcharding industry, supplying fruits to The Midlands industrial heartland, which grew significantly in the latter half of the 19<sup>th</sup> century and reached its zenith in the early 20<sup>th</sup> century;
- In the Industrial period (AD1800-1913), Pre-1880s Orchards are widely distributed through the south, west and north-west of the County, but there is a notable absence of any significant orchards in the north, north-east and east.



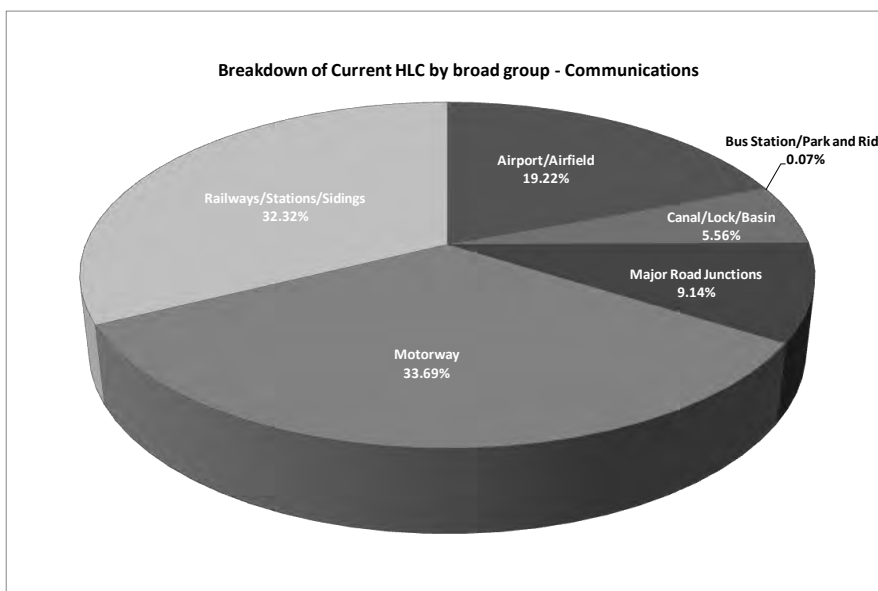
## **COMMUNICATIONS**

Communications polygons comprise 1.05% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 13.

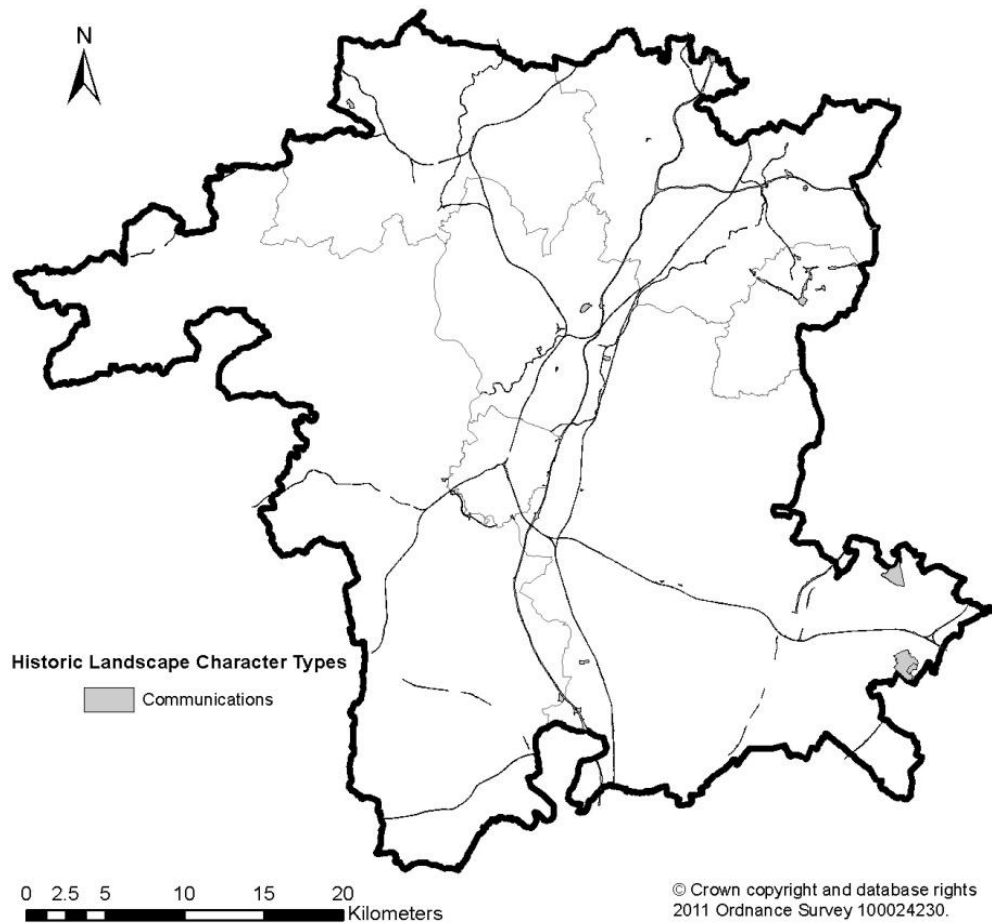
Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Major Road Junctions	1651682	0.10
Motorway	6089292	0.35
Canal/Lock/Basin	1004444	0.06
Railways/Stations/Sidings	5840721	0.34
Airport/Airfield	3473236	0.20
Bus Station/Park and Ride	11926	0.00

*Table 13. Breakdown of the historic landscape character types within the Communications broad group.*

- Although the Communications HLC broad group only accounts for 1.05% of the County's total area, it has been the direct cause of major changes to the County's landscape history over the past 250 years;
- Many of the HLC Types in the Communications broad group are the visible consequence of significant technological advances in British history. The canal systems were set out at the beginning of the Industrial Revolution in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, necessitating the division and reorganisation of field patterns and altering historic routeways. From the middle of the 19<sup>th</sup> century, the laying out of railways and their associated infrastructure further changed historic field boundaries, bisected roads and altered settlements. In the 20<sup>th</sup> century, the invention of the airplane and the motor vehicle has brought the massive landscape change to fields and settlements associated the construction of its infrastructure in the airfield and the motorway.



*Figure 29. HLC Types within the Communications broad group that together comprise 1.05% of the County's total area in the Current HLC.*



*Figure 30. Cluster map of the Communications broad group polygons that make up 1.05% of the County's Current historic landscape character.*

- Along the length on both sides of every mile of railway track, canal or motorway (Figure 30), field boundaries have been altered, removed, reorganised, subdivided or in some way changed.

## **SETTLEMENT**

Settlement polygons comprise 13.82% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 14.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Historic Town	3951699	0.23
New Town	9834214	0.57
Modern Expansion	87717641	5.09
Modern Infill	7583891	0.44
Nucleated Cluster	22006988	1.28
Nucleated Row	13893084	0.81
Interrupted Row	38662553	2.24
Isolated Farmstead	17068047	0.99
Clustered Settlement	20351808	1.18
Waste/Common/Green-edge Settlement	5873549	0.34
Model Planned Village	815687	0.05
Caravan Park/ Chalet Site	3667098	0.21
Minor Dispersed Settlement	1766300	0.10
Smallholding	1668748	0.10
Country House	3320144	0.19

*Table 14. Breakdown of the historic landscape character types within the Settlement broad group.*

- At 5.09% of the County's total area (and 37% of the Settlement broad group), Modern Expansion is the largest HLC Type within the Settlement broad group (Table 14 and Figure 31);
- The second largest HLC Type is Interrupted Row at 2.24% of the County's total area. It is this historic wayside settlement pattern that appears to be most characteristic of the County;
- At the heart of most villages and towns is an „historic core“. The Worcestershire HLC project has mapped these cores but also recorded the distinctive plan character of each settlement, the recognition of which can lead to recommendations for protection and preservation. Within Worcestershire, the categories of settlement morphology are listed in Figure 31;

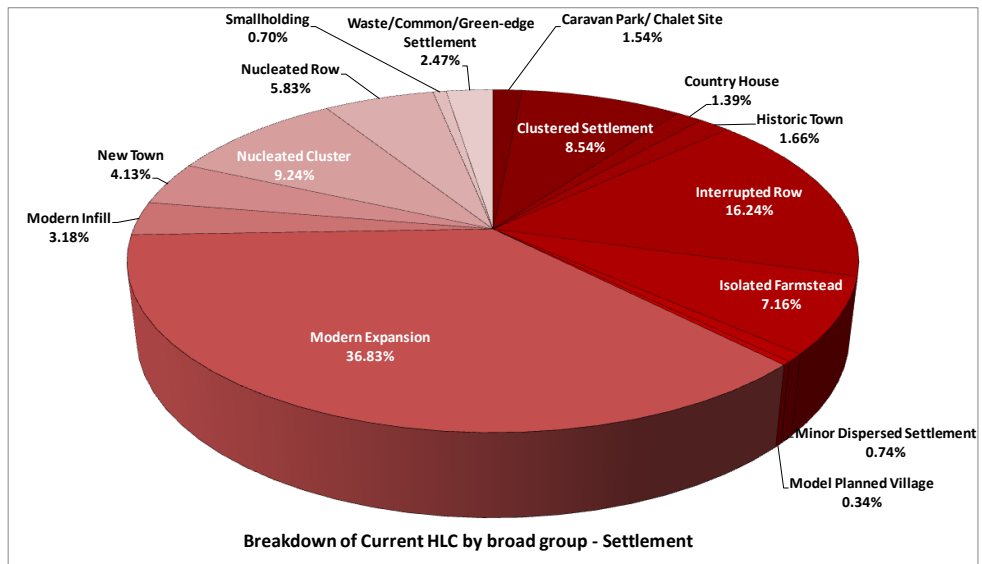


Figure 31. Breakdown of the HLC Types within the Settlement broad group that together comprise 13.82% of the County's total area in the Current HLC.

- Much of the Modern Expansion and Modern Infill that has taken place in the County has done so since 1945. Figure 32 illustrates that the focus of post-war settlement expansion has taken place in the north of the County, most especially in Redditch, Droitwich, Bromsgrove and Kidderminster. In the south, settlement expansion of Malvern and Evesham is also notable;

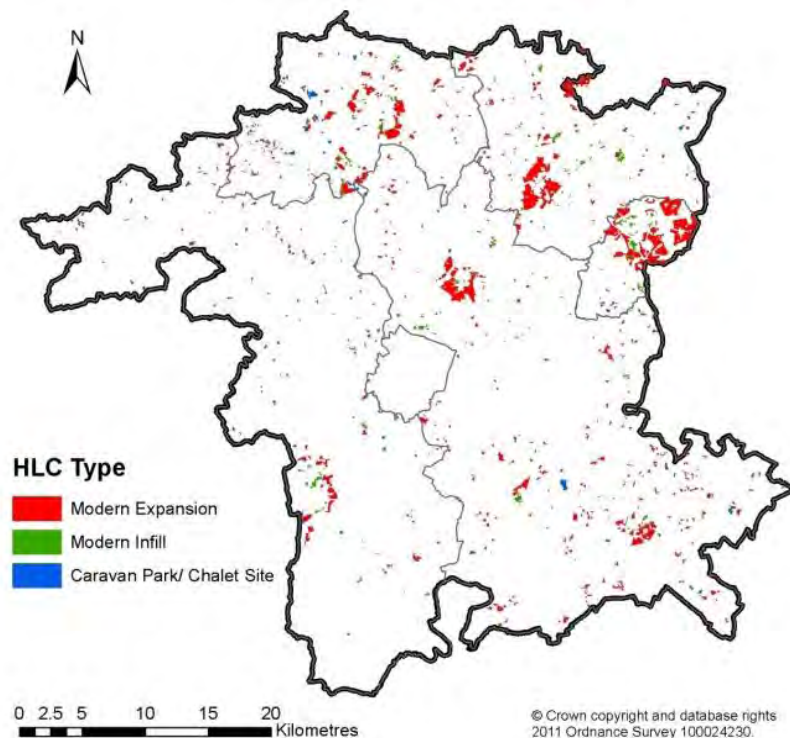
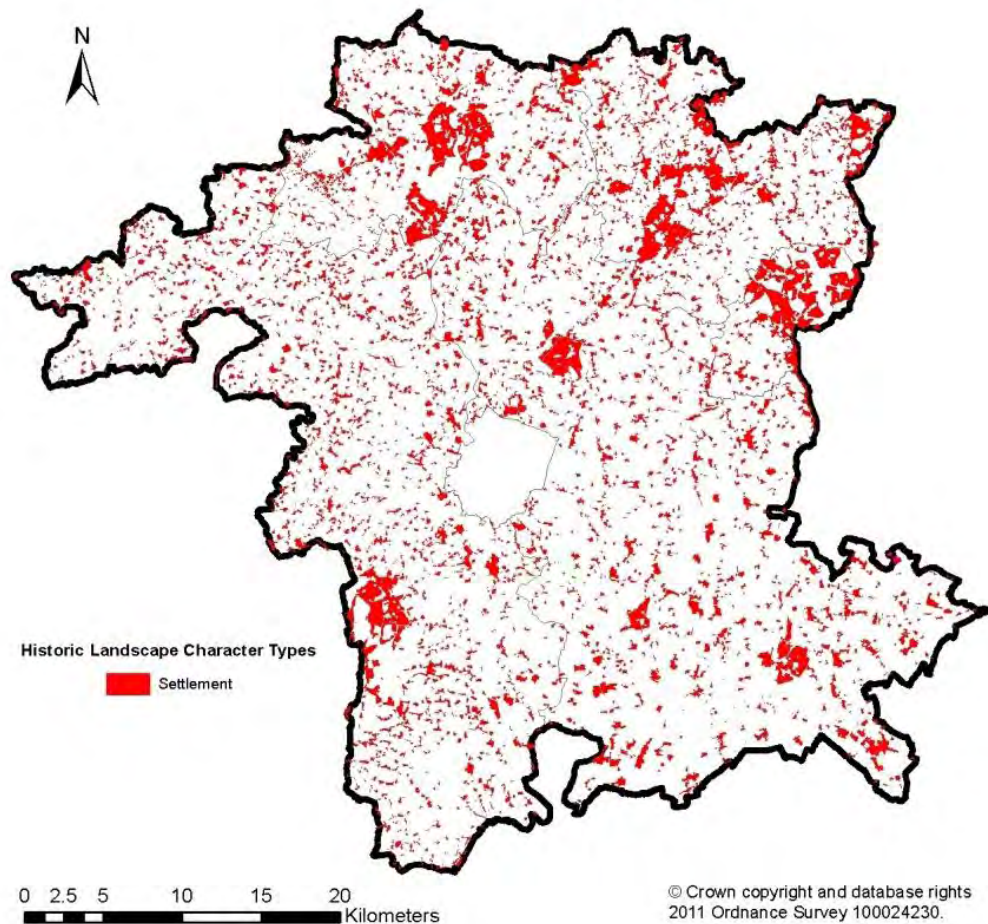
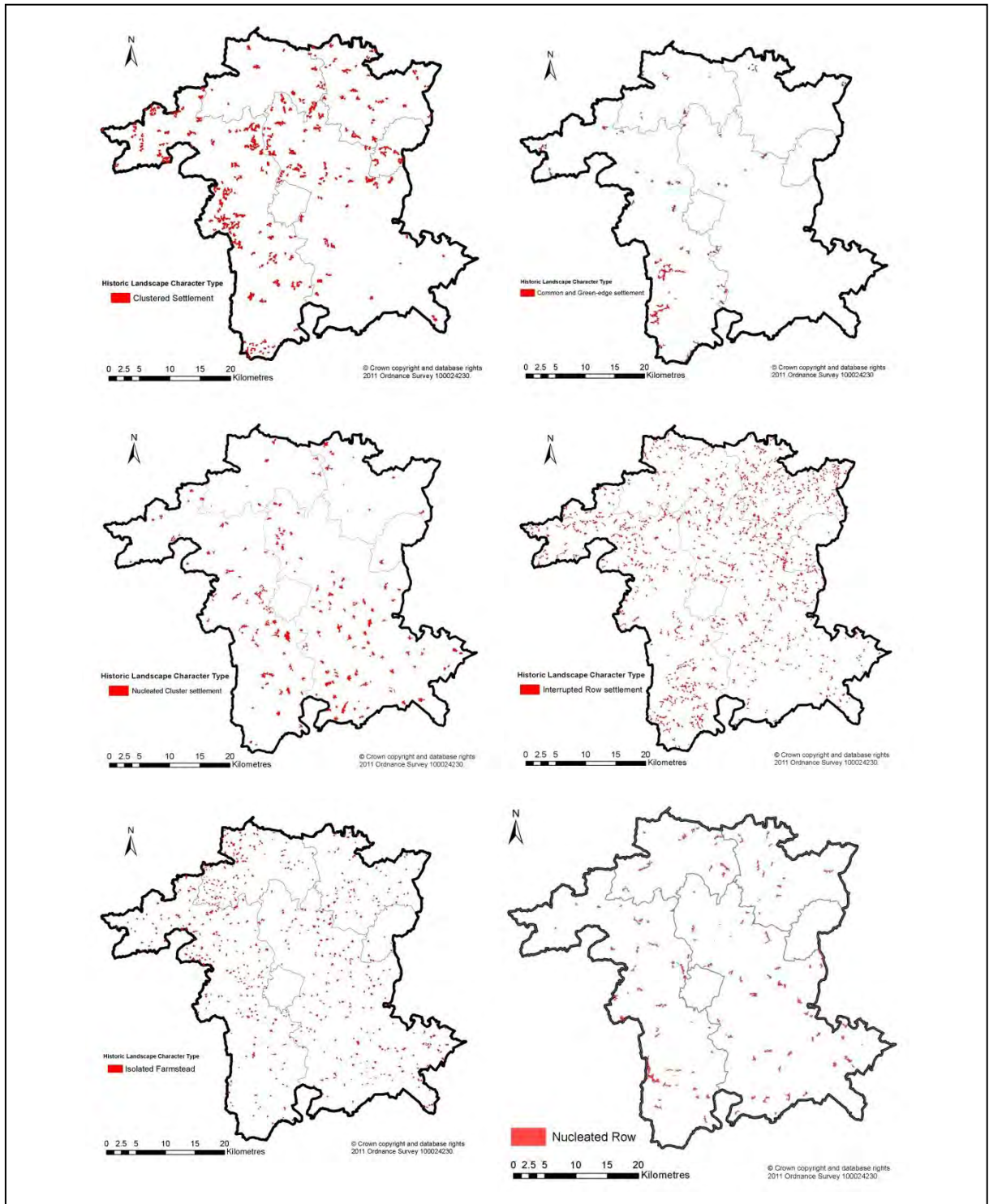


Figure 32. Distribution map of the Modern Expansion and Infill in the County's Current historic landscape character that has taken place since 1945.



*Figure 33. Cluster map of the Settlement broad group polygons that make up 13.82% of the County's Current historic landscape character.*

- Settlement is one of the more complex historic landscape groups, but the HLC information can be simply queried to extract the various settlement types and their patterns examined. For example, in Figure 34, Clustered Settlements (top left) are predominantly located in the west and north of the County;
- Conversely, Nucleated Cluster settlements are focused mostly in the south-east (middle left), the latter a pattern established from the medieval period as the County's south-east was an area of 'champion land', a name given to the medieval open field system.



*Figure 34. Distribution maps of some of the HLC Types in the Settlement broad group in the County's Current historic landscape character.*

## **FIELDS AND ENCLOSED LAND**

Field and Enclosed Land polygons comprise 68.72% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 15.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Ancient Enclosure	1532097	0.09
Assarted Enclosure	15334759	0.89
Medieval Open Field	556897	0.03
Enclosed Furlong	394342	0.02
Enclosed Strip(s)	104819	0.01
Piecemeal Enclosure	227123654	13.18
Rectilinear Squatter Enclosure	233546	0.01
Irregular Squatter Enclosure	64010	0.00
Encroachment Enclosure	3109462	0.18
Small Irregular or Rectilinear Fields	41800888	2.43
Parliamentary Enclosure	136020047	7.89
Planned Private Enclosure	32365238	1.88
Field Amalgamation	480220689	27.87
Meadow	31457739	1.83
Paddock	8482878	0.49
Modern Subdivision	103396253	6.00
Rough Pasture	4301699	0.25
Field Reorganisation	92192863	5.35
Planned Enclosure for Orchard	1237785	0.07
Post-Enclosure Reorganisation	4208566	0.24

*Table 15. Breakdown of the historic landscape character types within the Field and Enclosed Land broad group.*

- Field and Enclosed Land is by far the largest of the HLC broad groups at nearly 70% of the County, within which Field Amalgamation is the largest single HLC Type at 27.87% of the County's total area, and the second largest HLC Type, Piecemeal Enclosure, which is 13.18% of the total area.

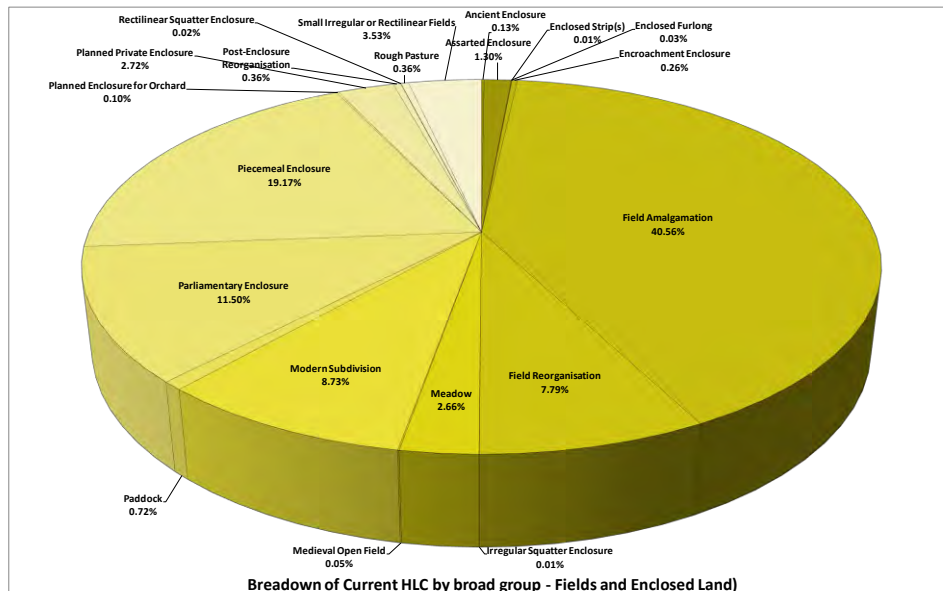


Figure 35. Breakdown of the HLC Types within the Field and Enclosed Land broad group that together comprise 68.72% of the County's total area in the Current HLC.

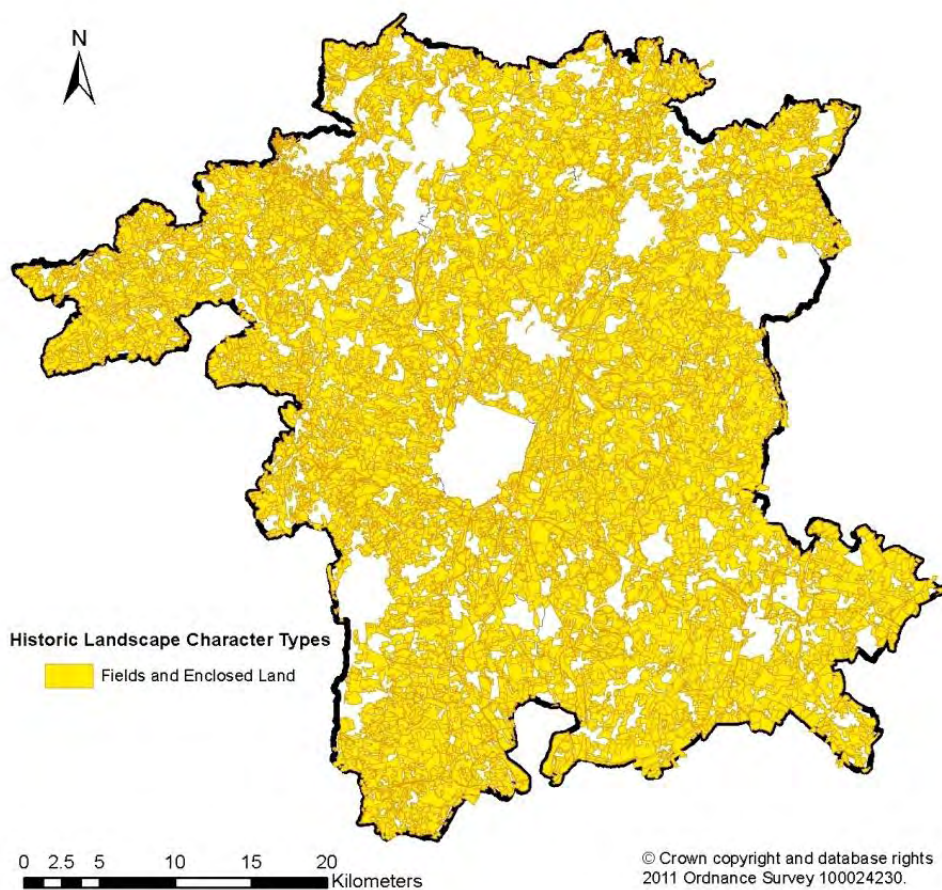


Figure 36. Cluster map of the Field and Enclosed Land broad group polygons that make up 68.72% of the County's Current historic landscape character.



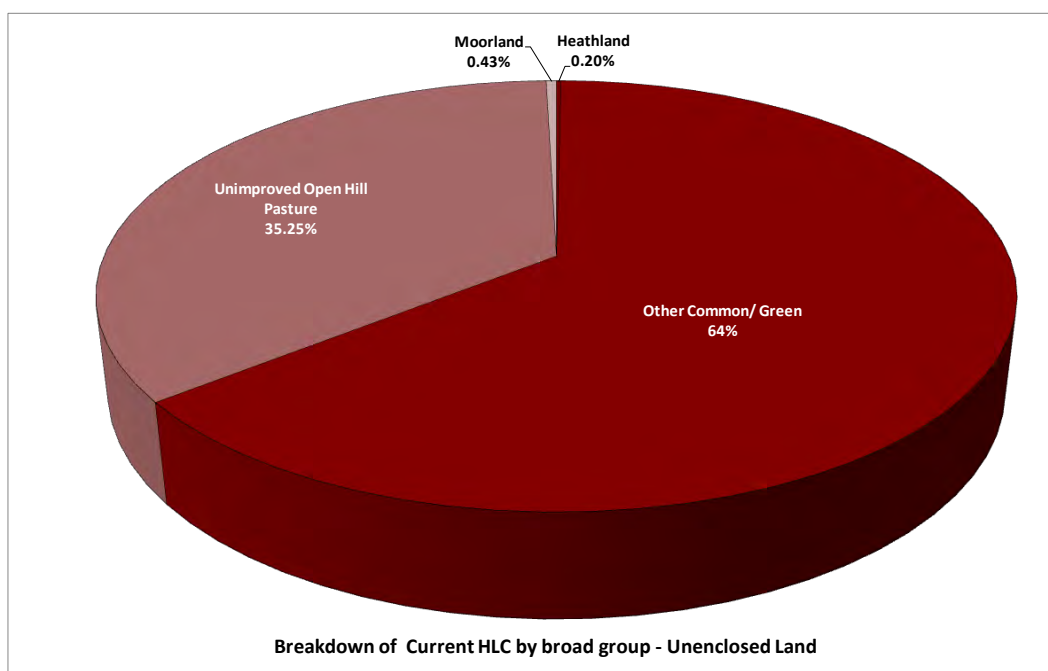
**UNENCLOSED LAND**

- Unenclosed Land polygons comprise 0.82% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 16.

Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Heathland	28148	0.00
Unimproved Open Hill Pasture	4963268	0.29
Other Common/ Green	9027742	0.52
Moorland	60421	0.00

*Table 16. Breakdown of the historic landscape character types within the Unenclosed Land broad group.*

- Other Common /Greens are the largest HLC Type in the Unenclosed broad group, being 0.52% of the County's total area and is mostly now located in the lee of the Malvern Hills in the open commons of Castlemorton and Birtsmorton;
- Unenclosed land is mainly focused in the south of the County, with Unimproved Open Hill Pasture on the Malvern Hills and Bredon Hill (Figure 39).



*Figure 38. Breakdown of the HLC Types within the Unenclosed Land broad group that together comprise 0.82% of the County's total area in the Current HLC.*

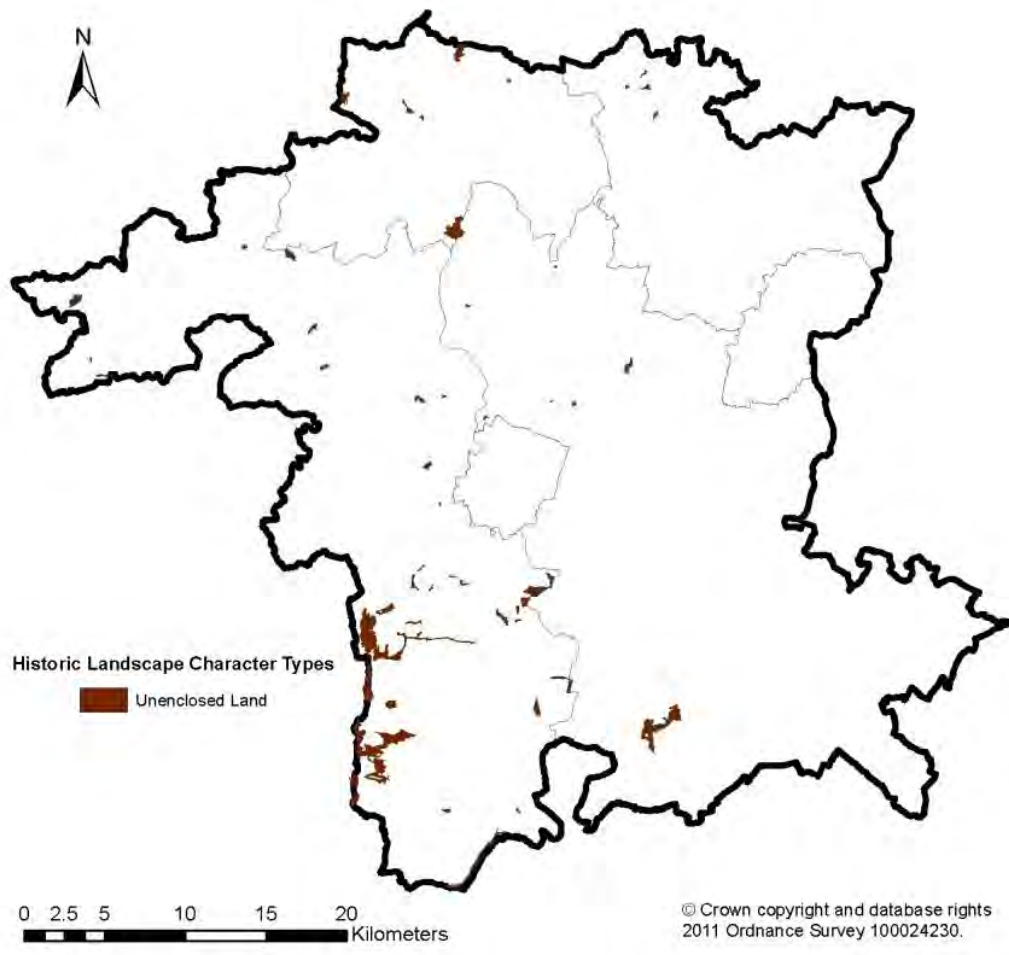


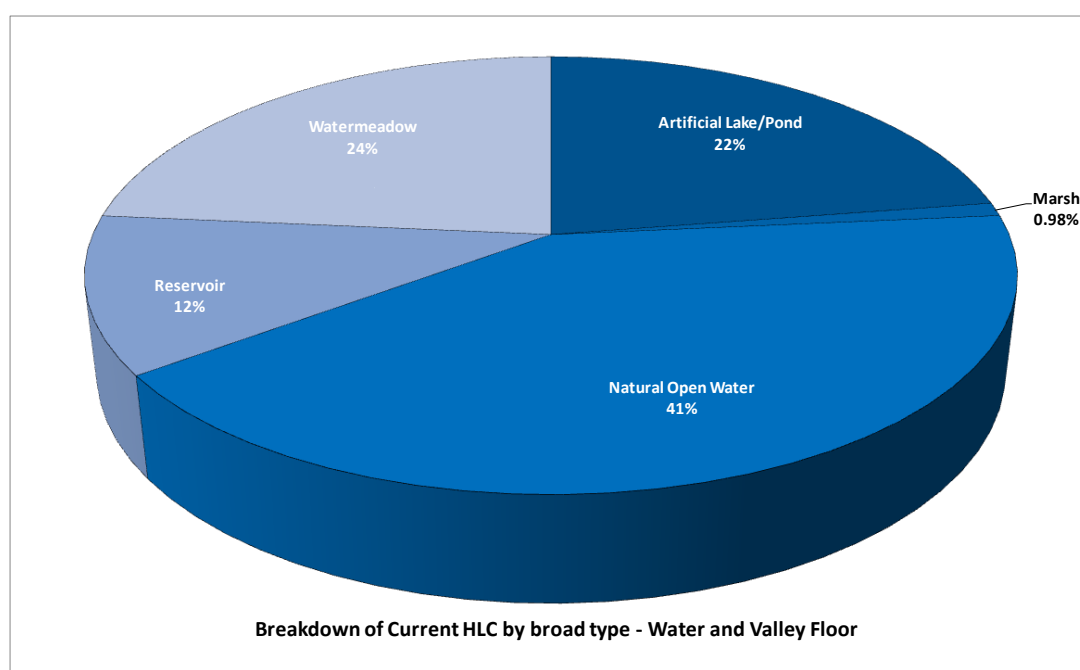
Figure 39. Cluster map of the Unenclosed Land broad group type in the Current HLC.

## **WATER AND VALLEY FLOOR**

- Water and Valley Floor polygons comprise 0.98% of the County's total area in the Current Historic Landscape Character. The various sub-types that make up the group are shown in Table 17.

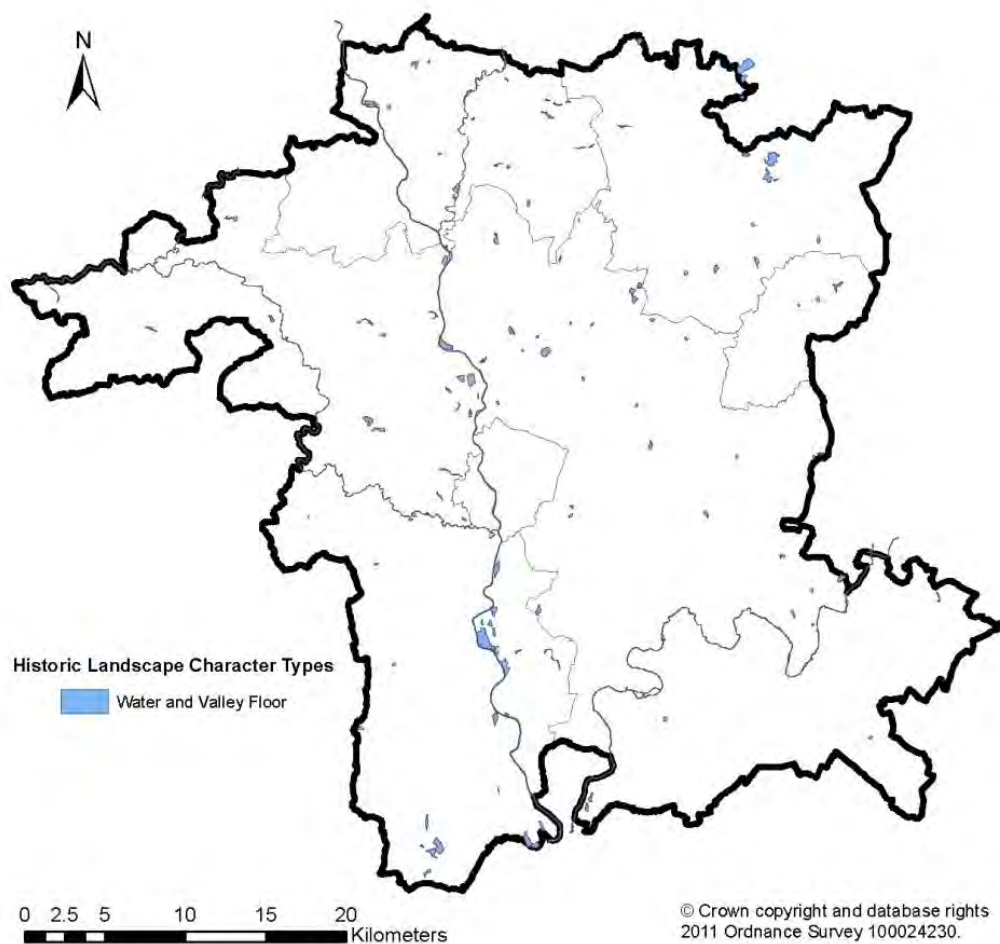
Worcestershire County Current HLC Type	Area (sq m)	Area (%)
Reservoir	1958133	0.11
Artificial Lake/Pond	3817591	0.22
Natural Open Water	6996438	0.41
Marsh	166631	0.01
Watermeadow	3988017	0.23

*Table 17. Breakdown of the historic landscape character types within the Water and Valley Floor broad group.*



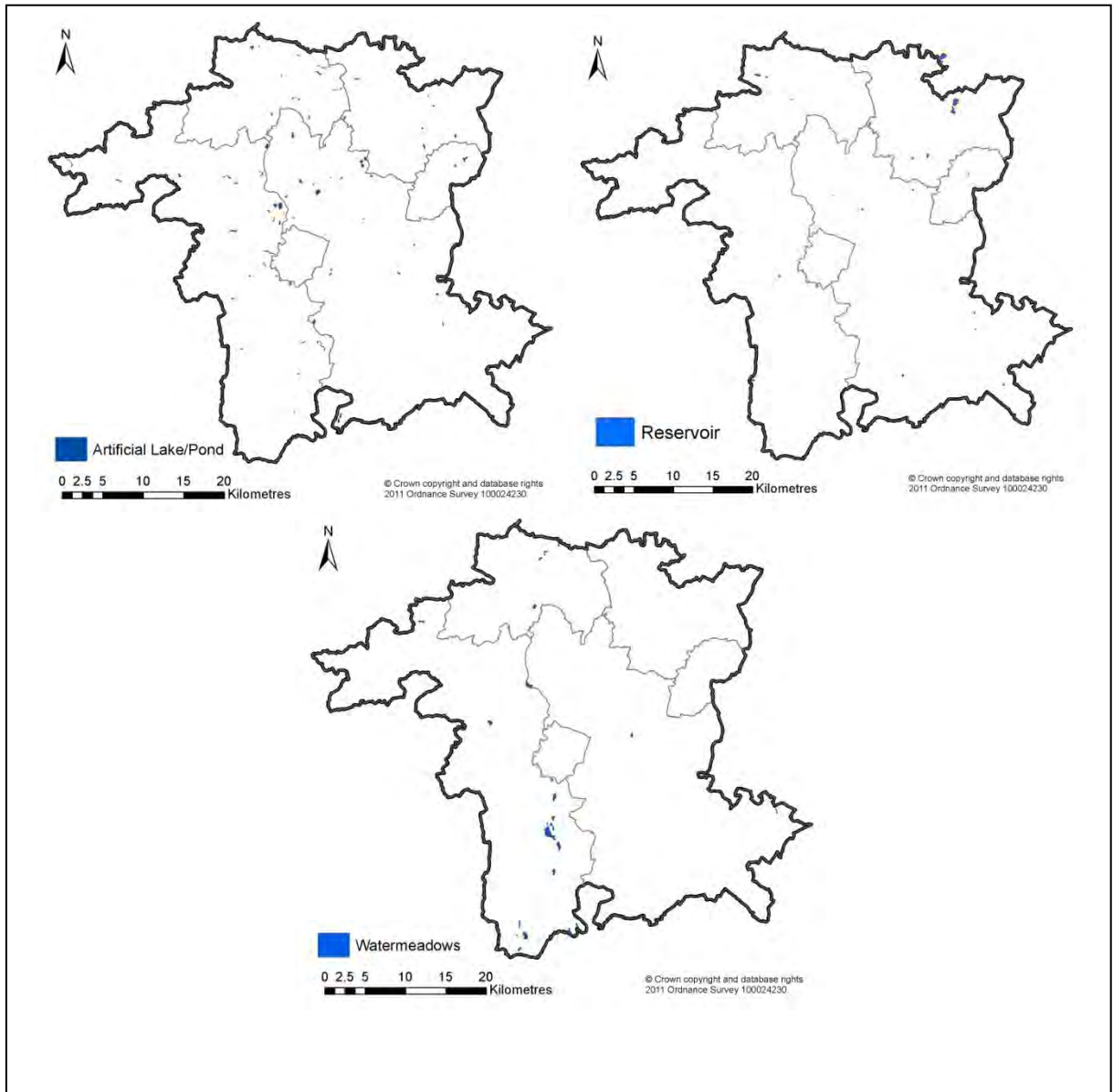
*Figure 40. Breakdown of the HLC Types within the Water and Valley Floor broad group that together comprise 0.98% of the County's total area in the Current HLC.*

- At 0.41% of the County's total area, Natural Open Water comprises the largest HLC Type in this broad group, recording the County's rivers (Figure 41).



*Figure 41. Cluster map of the Water and Valley Floor broad group type in the Current HLC.*

- The distribution of Reservoirs and Artificial Lakes/Ponds is focused in the northern half of the County;
- The Worcestershire HLC identified surviving examples of former Watermeadow (Figure 42). These managed systems of drains and ditches, mostly on riverside meadows along the River Sever, probably date from the 18<sup>th</sup> century and many of these distinctive earthworks are visible on aerial photographs used in the HLC mapping process.



*Figure 42. Distribution maps of Artificial Lakes/Ponds (top left), Reservoirs (top right) and Watermeadows (middle bottom) in the Current HLC.*

## 7. The Current HLC for the District Council areas

In the same way that the Current Historic Landscape Character information is extracted for the whole County area, the HLC digital information set can be queried to provide a statistical analysis of the historic landscape character for each of Worcestershire's 5 local councils (City of Worcester is excluded from the scope of this project).

In the following sections, baseline statistical HLC information is set out for each local council. Each council is shown with its full Current Historic Landscape Character and a statistical breakdown of HLC Types recorded in the present-day landscape. The HLC polygons are aggregated into the eleven Historic Landscape Character Broad Types to provide a more immediate visual expression and these statistics are also set out in pie charts.

### 7.1 Redditch Borough Council

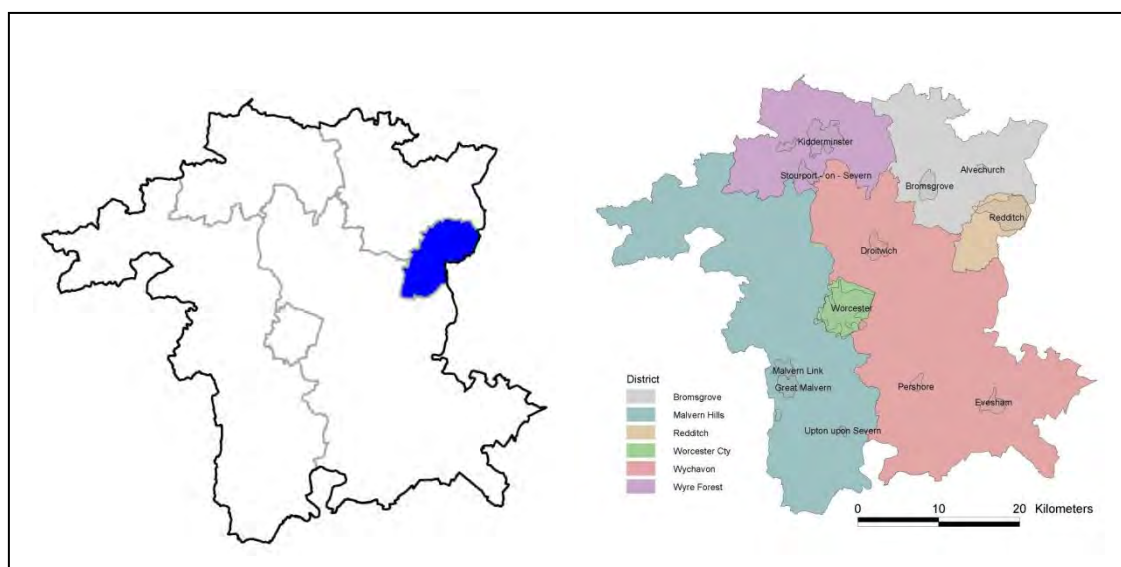


Figure 43. Redditch Borough Council area.

Redditch is the smallest of the local councils at 54.25 square kilometres (20.9 square miles) and has a population of approximately 78,700 (source: Wikipedia 2011). The council administers the borough of Redditch (Figure 43) and is based in Redditch town.

The historic landscape of Redditch Borough Council area is mapped with 540 polygons, whose character is split between the urban new town of Redditch in the north and the more open fields and scattered farms and villages to the south (Figure 44).

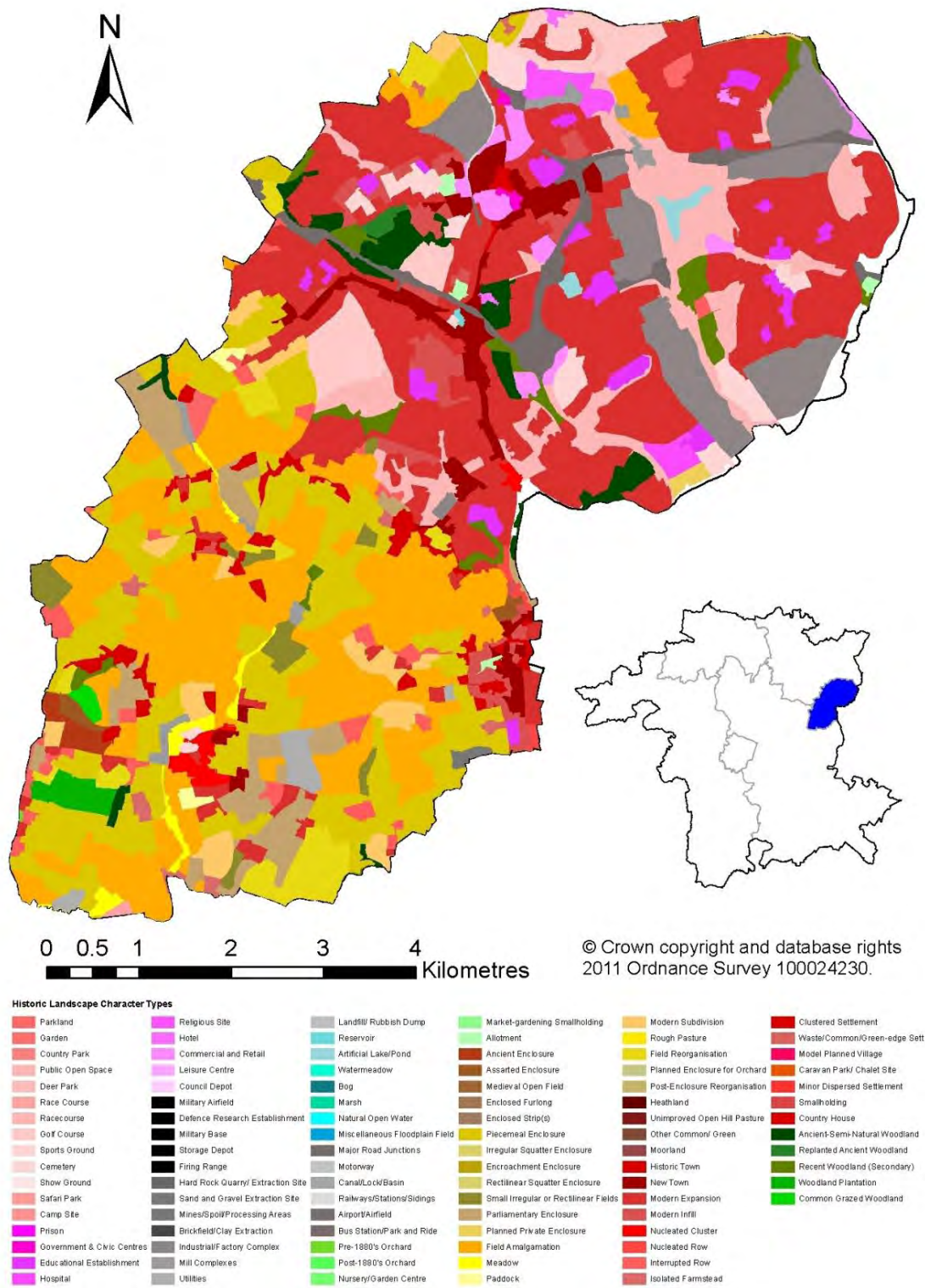


Figure 44. The Current HLC for the Redditch Borough Council area showing all the Historic Landscape Character Types recorded.

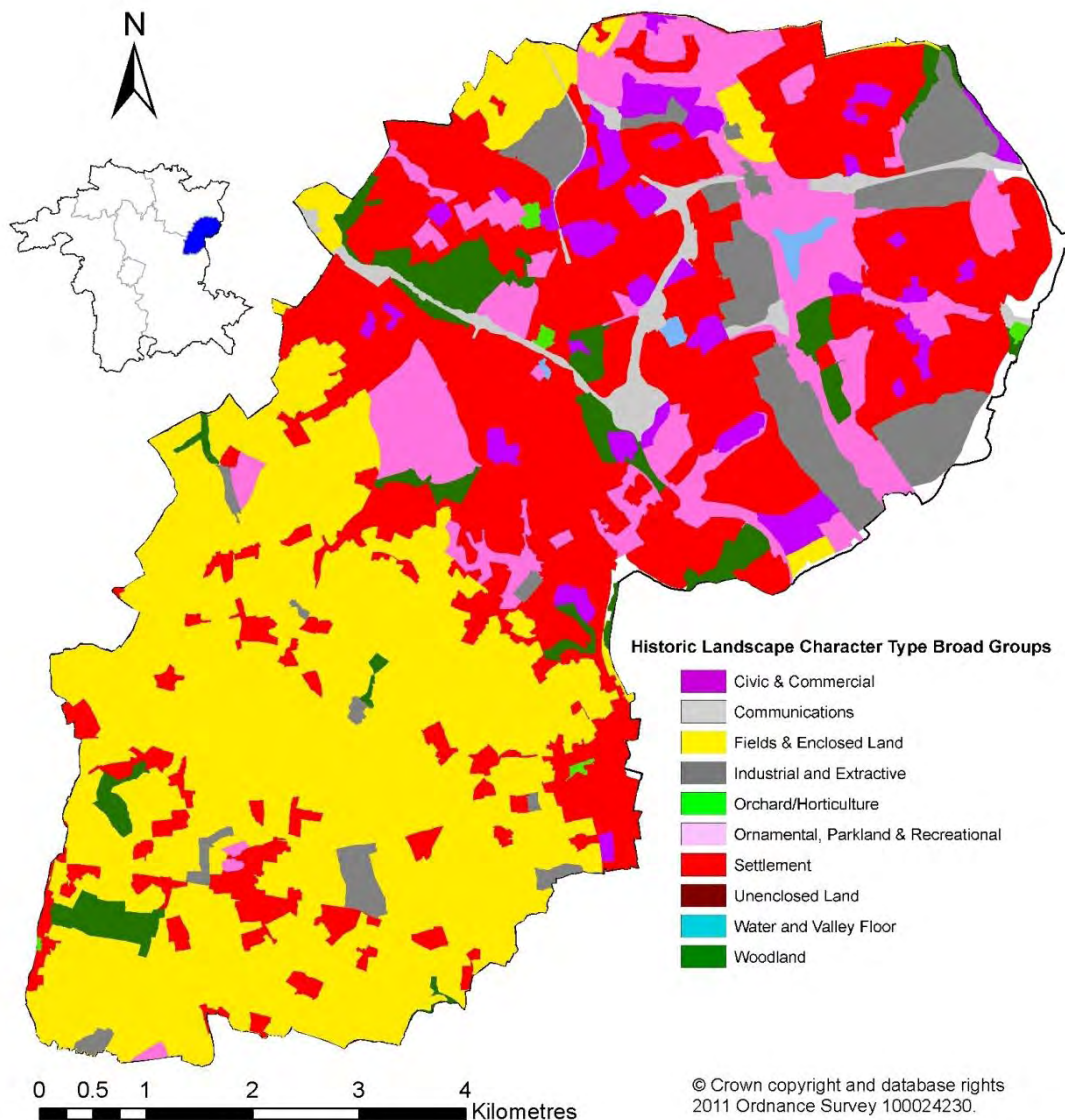
Table 18 shows the statistical breakdown of all the Landscape Character Types for Redditch Borough Council recorded in the present-day landscape, along with the percentage of the council area that each type represents.

- Despite the large urban settlement, Fields and Enclosed Land still comprise nearly 50% of the borough's total land area (Table 18 and Figures 45-46);
- Nearly 20% of the borough's total area consists of Field Amalgamation, being fields whose internal and/or external boundaries have been removed or truncated. However, irregularly shaped fields of piecemeal enclosure, whose origins probably pre-date AD1800, still make up nearly 15% of the borough's total area;
- Nearly 20% of the borough council area consists of Modern Expansion settlement, much of this change to the historic landscape character taking place after the Second World War;
- Industrial and Extractive landscape elements have a noticeable presence in the borough at over 5%, being a far greater proportion of total area than the four other local councils. This industrial activity is almost entirely focused within Redditch town, as evident in Figure 45



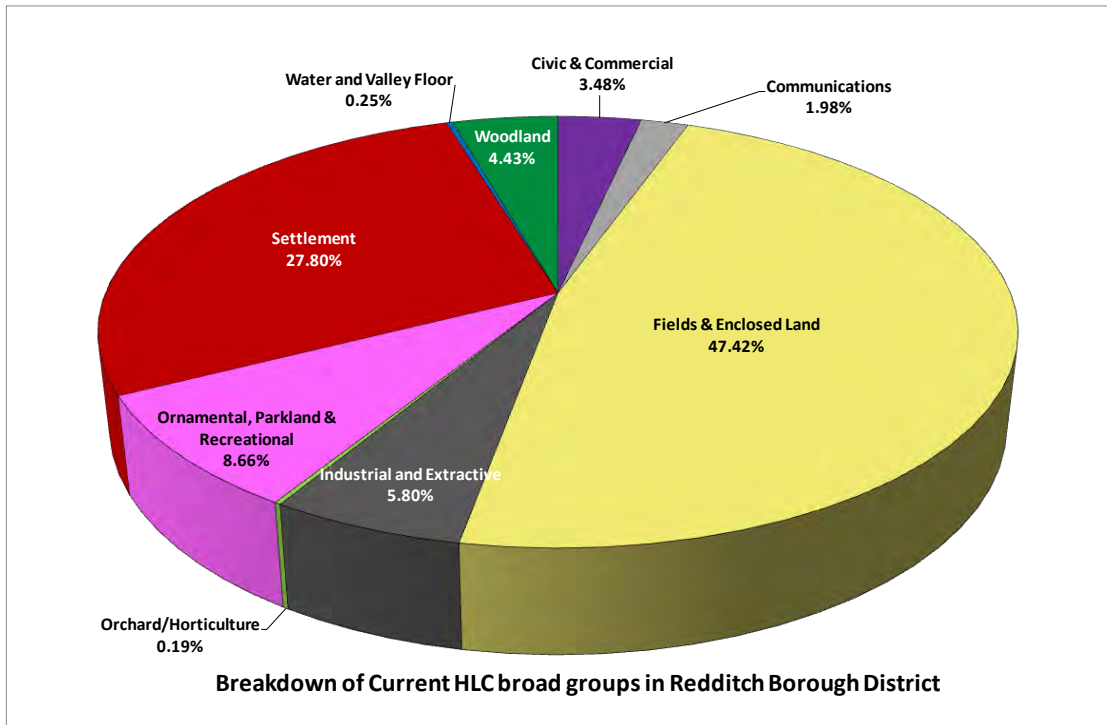
Redditch DC Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	173281	0.26	
Public Open Space	3065699	4.68	
Race Course	61631	0.09	
Golf Course	1415049	2.16	
Sports Ground	823809	1.26	
Cemetery	135154	0.21	8.66
Government & Civic Centres	48057	0.07	
Educational Establishment	917187	1.40	
Hospital	157321	0.24	
Religious Site	270831	0.41	
Hotel	44896	0.07	
Commercial and Retail	841125	1.28	3.48
Sand and Gravel Extraction Site	106297	0.16	
Industrial/Factory Complex	3084736	4.71	
Mill Complexes	318796	0.49	
Utilities	289186	0.44	5.80
Ancient-Semi-Natural Woodland	1266361	1.93	
Replanted Ancient Woodland	372771	0.57	
Recent Woodland (Secondary)	907492	1.39	
Woodland Plantation	271362	0.41	
Common Grazed Woodland	80550	0.12	4.43
Pre-1880's Orchard	13288	0.02	
Allotment	109290	0.17	0.19
Major Road Junctions	1122690	1.71	
Railways/Stations/Sidings	162575	0.25	
Bus Station/Park and Ride	11926	0.02	1.98
Historic Town	61725	0.09	
New Town	1520792	2.32	
Modern Expansion	12980764	19.82	
Modern Infill	1171063	1.79	
Nucleated Cluster	239281	0.37	
Nucleated Row	127202	0.19	
Interrupted Row	971201	1.48	
Isolated Farmstead	252696	0.39	
Clustered Settlement	798736	1.22	
Waste/Common/Green-edge Settlement	5959	0.01	
Country House	77306	0.12	27.80
Ancient Enclosure	192150	0.29	
Assarted Enclosure	134246	0.20	
Piecemeal Enclosure	9746571	14.88	
Small Irregular or Rectilinear Fields	808464	1.23	
Parliamentary Enclosure	3037267	4.64	
Planned Private Enclosure	77359	0.12	
Field Amalgamation	13063854	19.94	
Meadow	438697	0.67	
Paddock	271907	0.42	
Modern Subdivision	1925517	2.94	
Field Reorganisation	1362783	2.08	47.42
Reservoir	12608	0.02	
Artificial Lake/Pond	153646	0.23	0.25
Total Area (square metres)	65503154		

Table 18. The Current Historic Landscape Character types recorded in the Redditch Borough Council area.



*Figure 45. The Current HLC broad groups for the Redditch Borough Council area.*

- The Settlement, Civic and Commercial, Industrial and Extractive, Communications, Ornamental, Parkland and Recreational historic landscape character broad group polygons that combine to make up the Redditch new town area in the present-day, comprise 47.7% of the council's current total area (Figures 45 and 46).
- The high proportion of Sports Grounds, Golf Courses and Public Open Spaces within the Ornamental, Parkland and Recreation broad group, almost entirely located within the urban centre attest to the planned urban character of the borough;
- In fact, over 62% of the current HLC for the Redditch Borough Council total area is attributed to landscape character change in the post-war period (see Time-depth), much being related to the settlement expansion and consequent infrastructural alterations that took place and post-war changes to agricultural practices.



*Figure 46. A breakdown of the Current HLC broad groups for the Redditch Borough Council area.*

- As previously described, a primary purpose for the information contained within HLC is to provide relatively objective material to inform direction and guidance on how the different landscapes can be managed in respect of historic character and sustainability. In the light of such recent dramatic historic landscape character changes documented by the HLC, this is perhaps an example where proposed changes affecting surviving historic landscape elements might be given more weighted consideration by those bodies involved in spatial planning or land management.

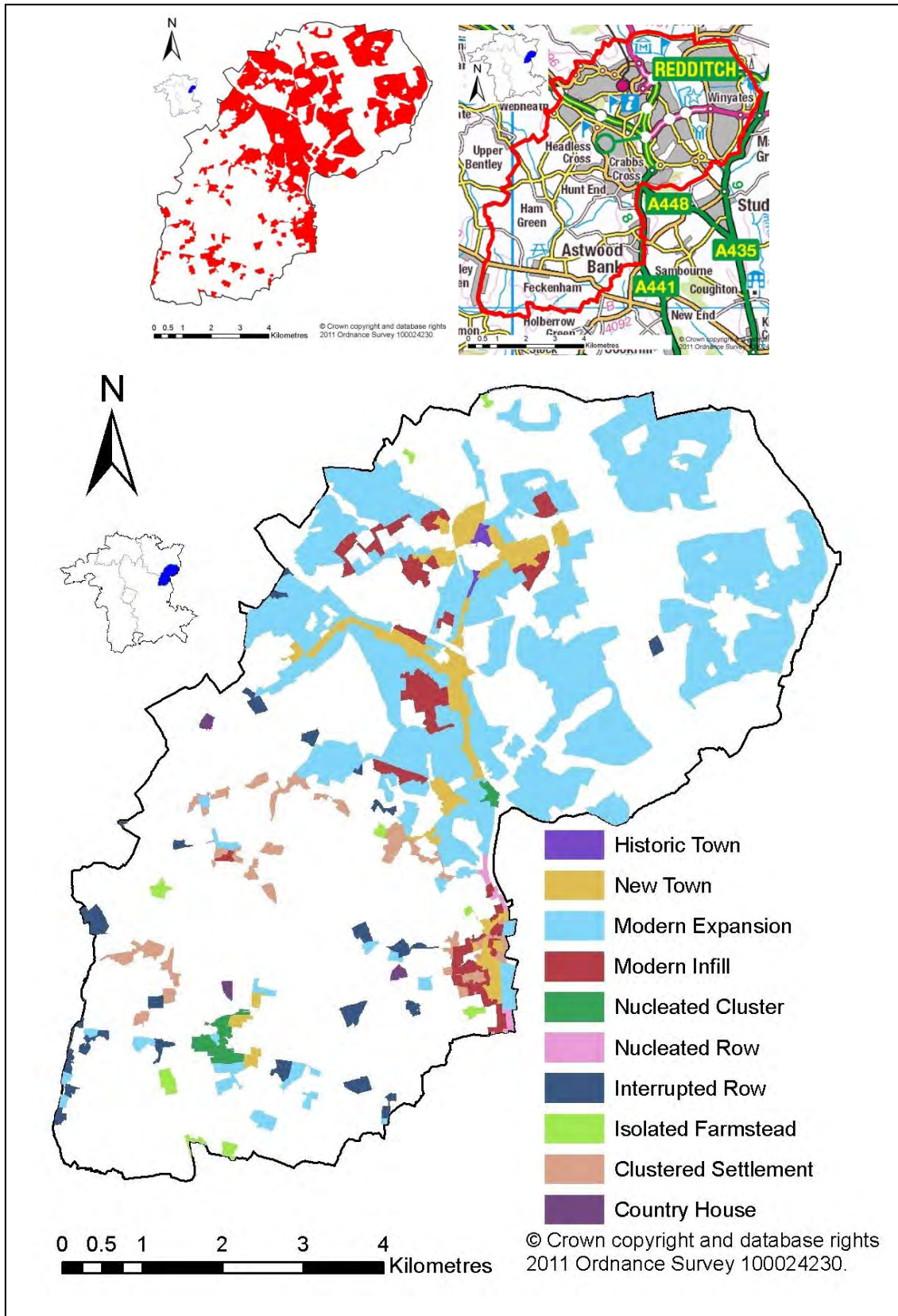


Figure 47. (top left) Cluster map of Settlement, (top right) Ordnance Survey map and (bottom) Settlement distribution in the Current HLC for the Redditch Borough Council area.

As with the HLC information for the whole County, GIS queries can be refined to extract a wide variety of information from the HLC database for each local

council. For example, in Redditch, settlement is a significant part of the area's historic character and the integral time-depth information that is attached to every HLC polygon can help to interpret historic settlement development and character. The distribution of HLC Types from the Settlement broad group is shown at Figure 47. The colour ramp shown is arbitrary and chosen only for the purpose of effective visual interpretation.

- As Figure 47 shows, the historic core of Redditch (top centre) is extremely small compared to the town's current scale. The New Town effectively documents the 19<sup>th</sup> century wayside expansion around and away from the historic core and then along the main routeways at that time. In the 20<sup>th</sup> century, Modern Expansion settlement in the form of large planned estates cover a large swathe of the north, into which Modern Infill is then inserted in a more piecemeal fashion;
- Astwood Bank is composed of a historic core formerly surrounding an area of open common land that is infilled by 19<sup>th</sup> century New Town expansion, with 20<sup>th</sup> century Modern Infill and Modern Expansion then occupying the remaining land;
- The undeveloped southern part of the council area shows that a range of settlement types survive in the current landscape. The Nucleated Cluster settlement of Feckenham dominates (centre bottom), the HLC information recording the New Town expansion in the 19<sup>th</sup> century out from its historic core, and again with Modern Expansion in the 20<sup>th</sup> century;
- There are only a few Isolated Farmsteads, even in the less developed southern part of the council area. The dominant characteristic for settlement appear to be the (probably pre-1800s) Clustered Settlement and the Interrupted Row types, many of which have also acquired elements of 20<sup>th</sup> century modern expansion and infill.

## Wyre Forest District Council

Wyre Forest District Council is 195.4 square kilometres (75.4 square miles) and has a population of approximately 98,100 (source: Wikipedia 2011). The district council administers part of the northern border of Worcestershire County (Figure 48) and is based in the town of Stourport-on-Severn, but the district also includes the towns of Kidderminster and Bewdley.

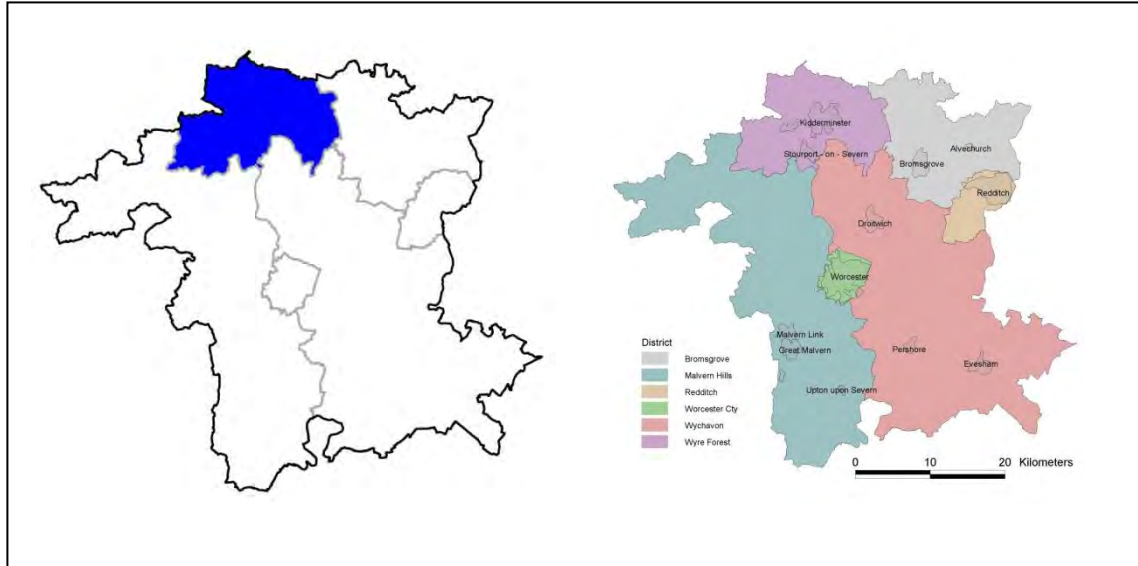


Figure 48. Wyre Forest District Council.

The historic landscape character of Wyre Forest District Council area is mapped with 2402 polygons, and has a varied landscape character that encompasses large tracts of enclosed fields, the Worcestershire elements of the Wyre Forest itself, scattered villages and settlements, as well as the nucleated settlements of Bewdley with its larger, more industrialised neighbours, Kidderminster and Stourport-on-Severn (Figure 49).

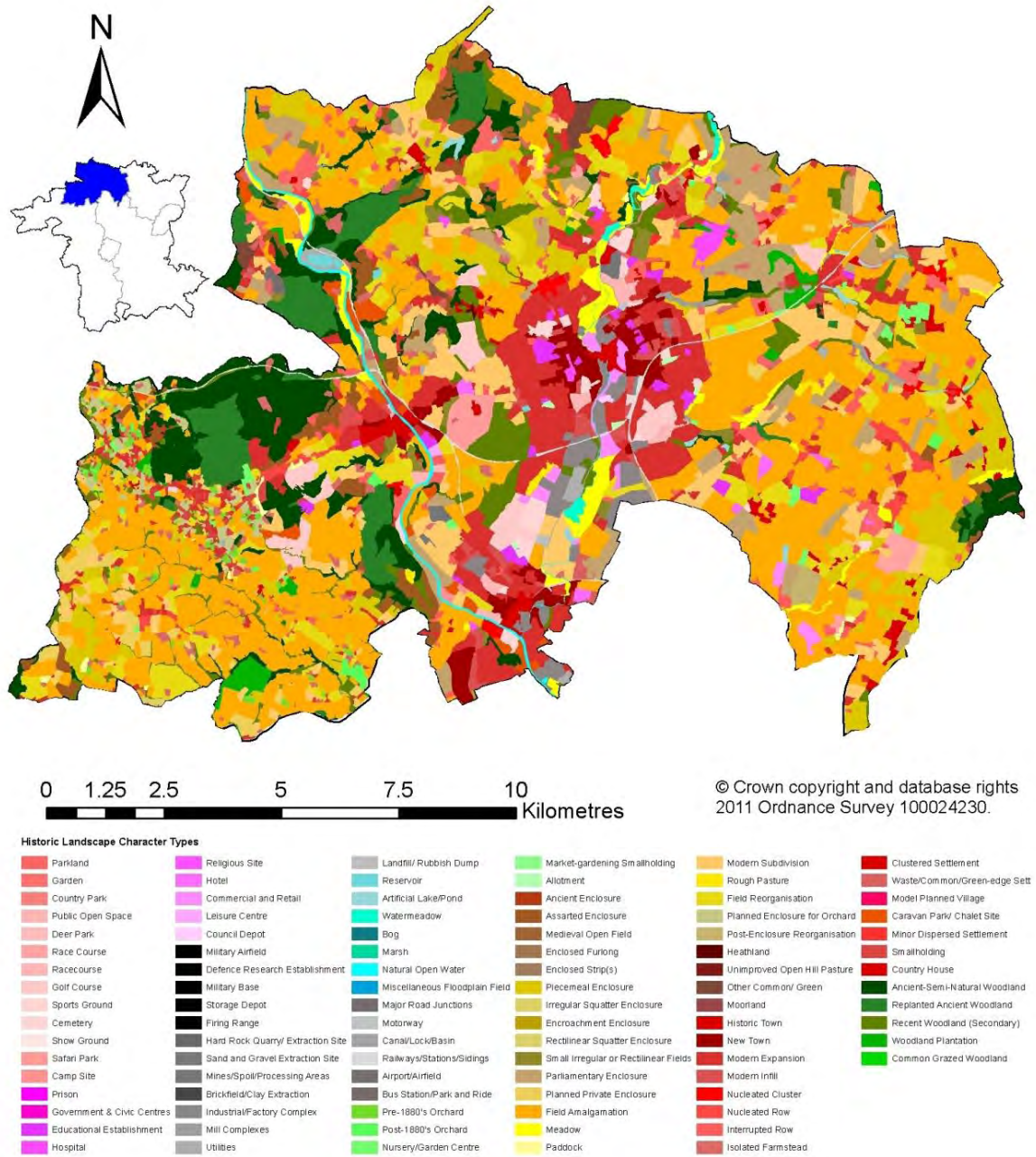


Figure 49. The Current HLC for the Wyre Forest District Council area.

Table 19 shows the statistical breakdown of all the Landscape Character Types for Redditch Borough Council recorded in the present-day landscape, along with the percentage of the council area that each type represents.

Wyre Forest DC Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	1621780	0.74	
Garden	10420	0.00	
Public Open Space	890544	0.40	
Race Course	619884	0.28	
Golf Course	2732623	1.24	
Sports Ground	1544471	0.70	
Safari Park	843583	0.38	
Camp Site	90132	0.04	
Cemetery	79542	0.04	3.83
Educational Establishment	1293045	0.59	
Hospital	501453	0.23	
Religious Site	39702	0.02	
Hotel	401274	0.18	
Commercial and Retail	1225688	0.56	
Leisure Centre	51810	0.02	
Council Depot	38682	0.02	1.61
Sand and Gravel Extraction Site	319498	0.15	
Industrial/Factory Complex	2927647	1.33	
Mill Complexes	521962	0.24	
Utilities	562376	0.26	
Landfill/ Rubbish Dump	59175	0.03	2.00
Ancient-Semi-Natural Woodland	14291845	6.49	
Replanted Ancient Woodland	6568729	2.99	
Recent Woodland (Secondary)	9379474	4.26	
Woodland Plantation	1511630	0.69	14.43
Pre-1880's Orchard	729753	0.33	
Post-1880's Orchard	423983	0.19	
Nursery/Garden Centre	758872	0.34	
Allotment	130003	0.06	0.93
Canal/Lock/Basin	227582	0.10	
Railways/Stations/Sidings	1595669	0.73	
Airport/Airfield	142175	0.06	0.89
Historic Town	932812	0.42	
New Town	3606002	1.64	
Modern Expansion	16675365	7.58	
Modern Infill	1807330	0.82	
Nucleated Cluster	1003557	0.46	
Nucleated Row	1704427	0.77	
Interrupted Row	3644336	1.66	
Isolated Farmstead	2899338	1.32	
Clustered Settlement	1640920	0.75	
Waste/Common/Green-edge Settlement	522920	0.24	
Caravan Park/ Chalet Site	1524168	0.69	
Minor Dispersed Settlement	121639	0.06	
Smallholding	931095	0.42	
Country House	426400	0.19	17.01
Assarted Enclosure	4329106	1.97	
Piecemeal Enclosure	17007283	7.73	
Irregular Squatter Enclosure	64010	0.03	
Encroachment Enclosure	410601	0.19	
Small Irregular or Rectilinear Fields	1600613	0.73	
Parliamentary Enclosure	10330155	4.69	
Planned Private Enclosure	2374553	1.08	
Field Amalgamation	62454934	28.38	
Meadow	3270386	1.49	
Paddock	377003	0.17	
Modern Subdivision	12254984	5.57	
Rough Pasture	361423	0.16	
Field Reorganisation	8828354	4.01	
Planned Enclosure for Orchard	1237785	0.56	
Post-Enclosure Reorganisation	393707	0.18	56.94
Heathland	28148	0.01	
Other Common/ Green	1703748	0.77	0.79
Reservoir	189130	0.09	
Artificial Lake/Pond	446212	0.20	
Watermeadow	349766	0.16	
Natural Open Water	2463041	1.12	1.57
Total Area (square metres)	220050257		

Table 19. The Historic Landscape Character types recorded currently in the Wyre Forest District Council area.



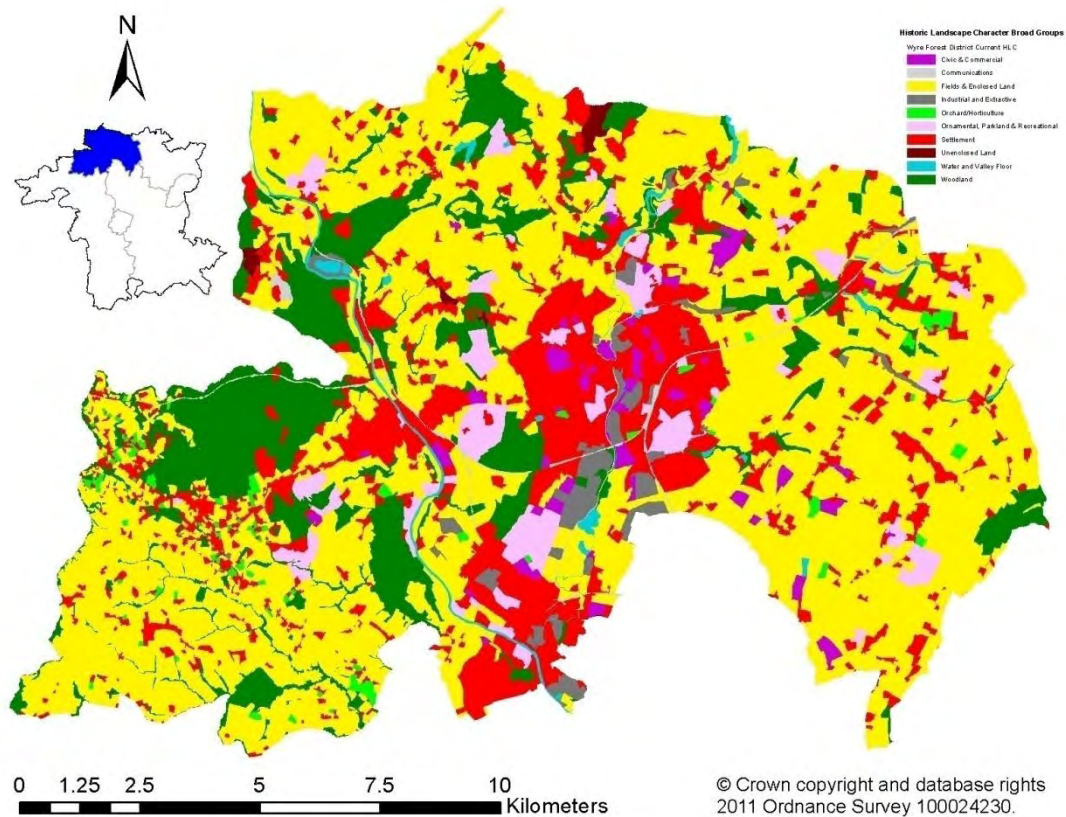


Figure 50. The Current HLC's broad groups for the Wyre Forest district.

- Over half of the district council's area consists of Field and Enclosed Land (Figures 50-51);
- The district's landscape character appears to be divided roughly between a wooded west and north, an urban centre and south and a more open fieldscape to the east;
- At 17%, settlement occupies a large part of the district's centre, modern expansion alone covering over 8% of the council's total land area;
- Over 14% of the district currently consists of woodland, though only 6% of that is ancient semi-natural woodland;
- Ornamental, Parkland and Recreational elements, mostly consisting of Golf Courses and Parkland, comprise nearly 4% of the total area, and they are mostly clustered around the periphery of Kidderminster, Stourport and Bewdley urban settlements.

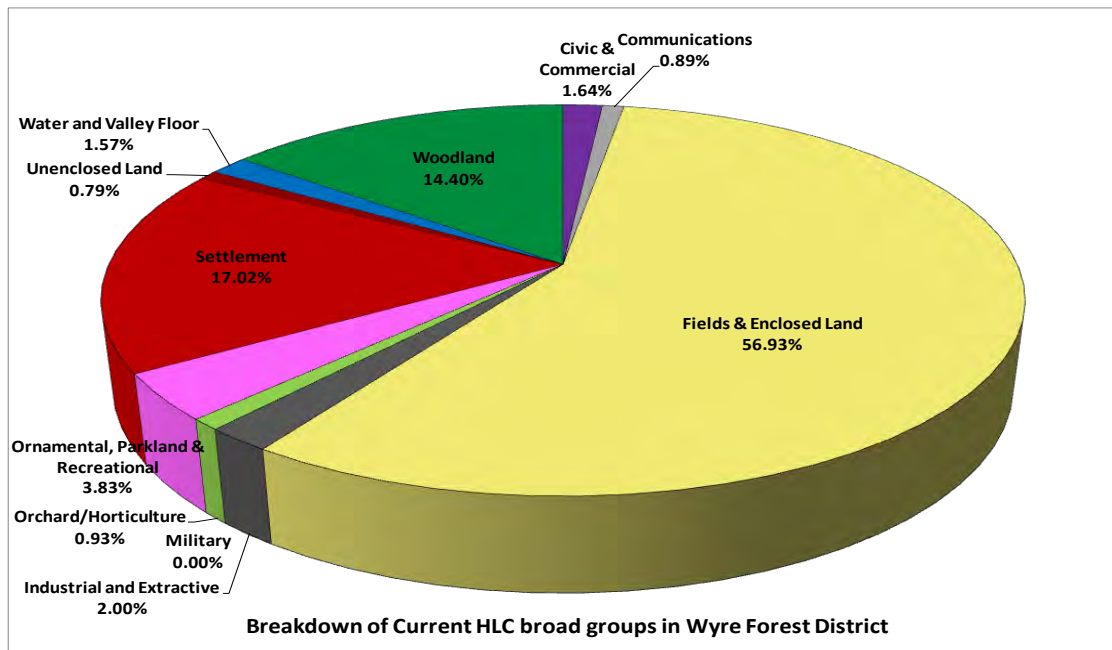


Figure 51. A breakdown of the Current HLC broad groups for the Wyre Forest District Council area.

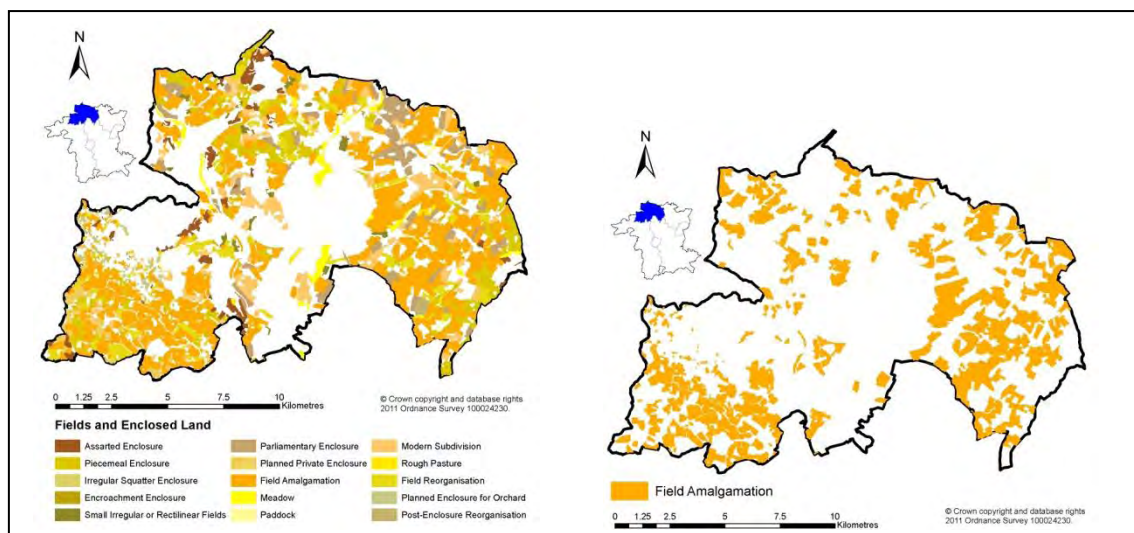
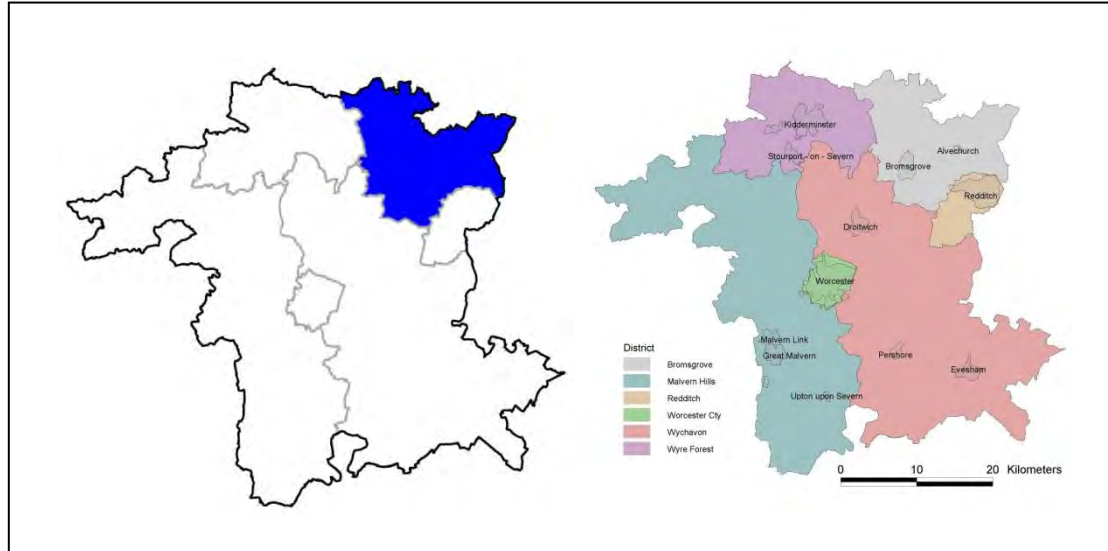


Figure 52. (top left) The distribution of Current HLC Field and Enclosed Lands for the Wyre Forest District Council area, (top right) with those polygons of post-war Field Amalgamation showing the extent of field boundary loss since 1945.

- Figure 52 shows the extent of Field and Enclosed Land within the Wyre Forest District Council area, being nearly 57% of the total area, 29% alone of which consists of Field Amalgamation, that being characterised as medium or large fields created by the removal of internal and adjoining field boundaries;
- Fields in parishes in the south-west and east of the district in particular have suffered from concentrations of boundary loss. Field patterns and hedgerows add greatly to diversity and a sense of local distinctiveness and widespread boundary removal can dramatically change historic landscape character.

## BROMSGROVE DISTRICT COUNCIL

Bromsgrove District Council has an area of 217 square kilometres (83.8 square miles) and has a population of approx 93,400 (source: Wikipedia 2011). The district council administers the northeastern corner of Worcestershire County (Figure 53) and is based in the town of Bromsgrove, but the district also includes many villages including Alvechurch and Belbroughton.



*Figure 53. Bromsgrove District Council.*

The historic landscape character of Bromsgrove District Council area is mapped with 2156 polygons (Figure 54). Its heartland is dominated by the extensive settlement of the Bromsgrove urban area.

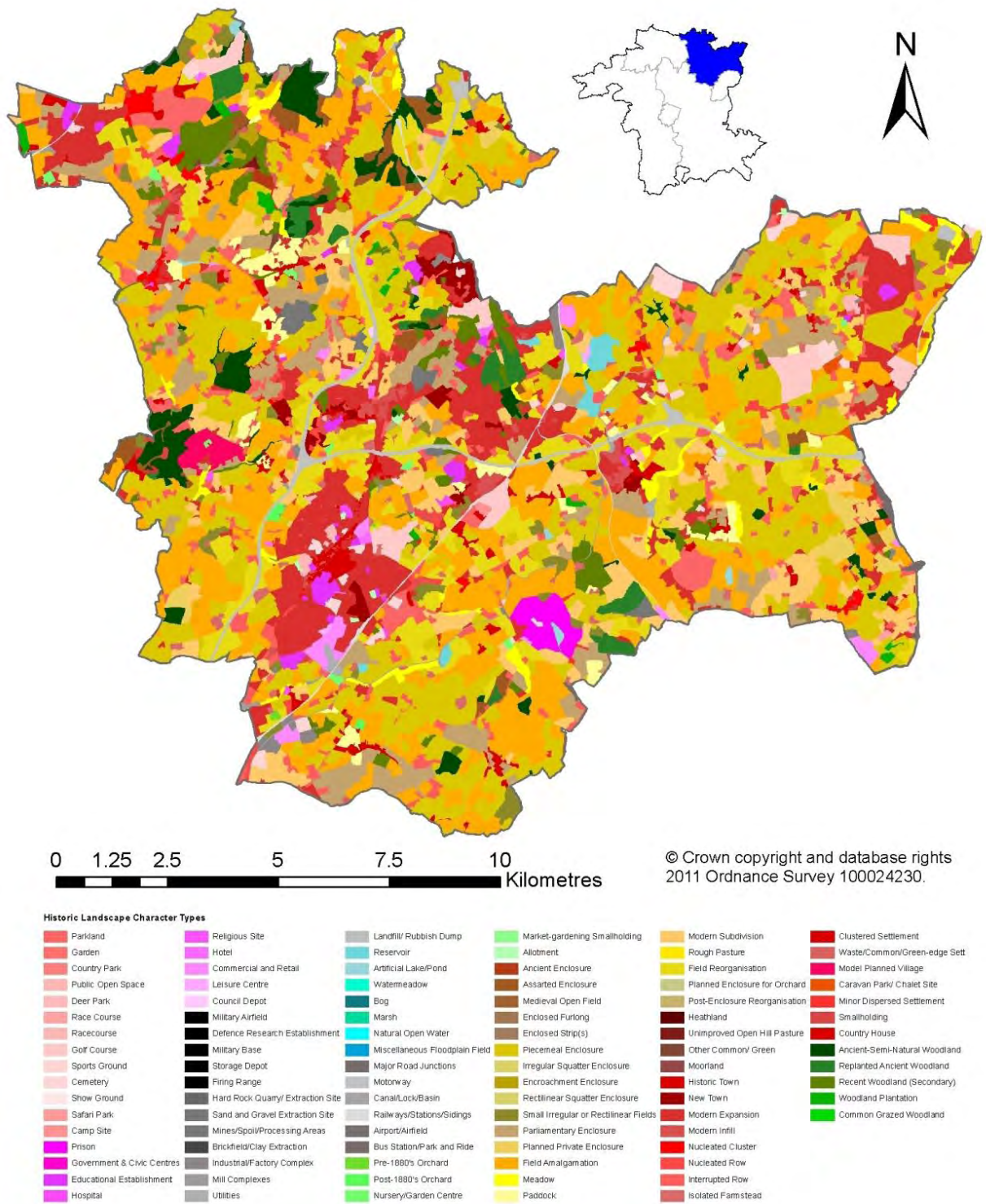


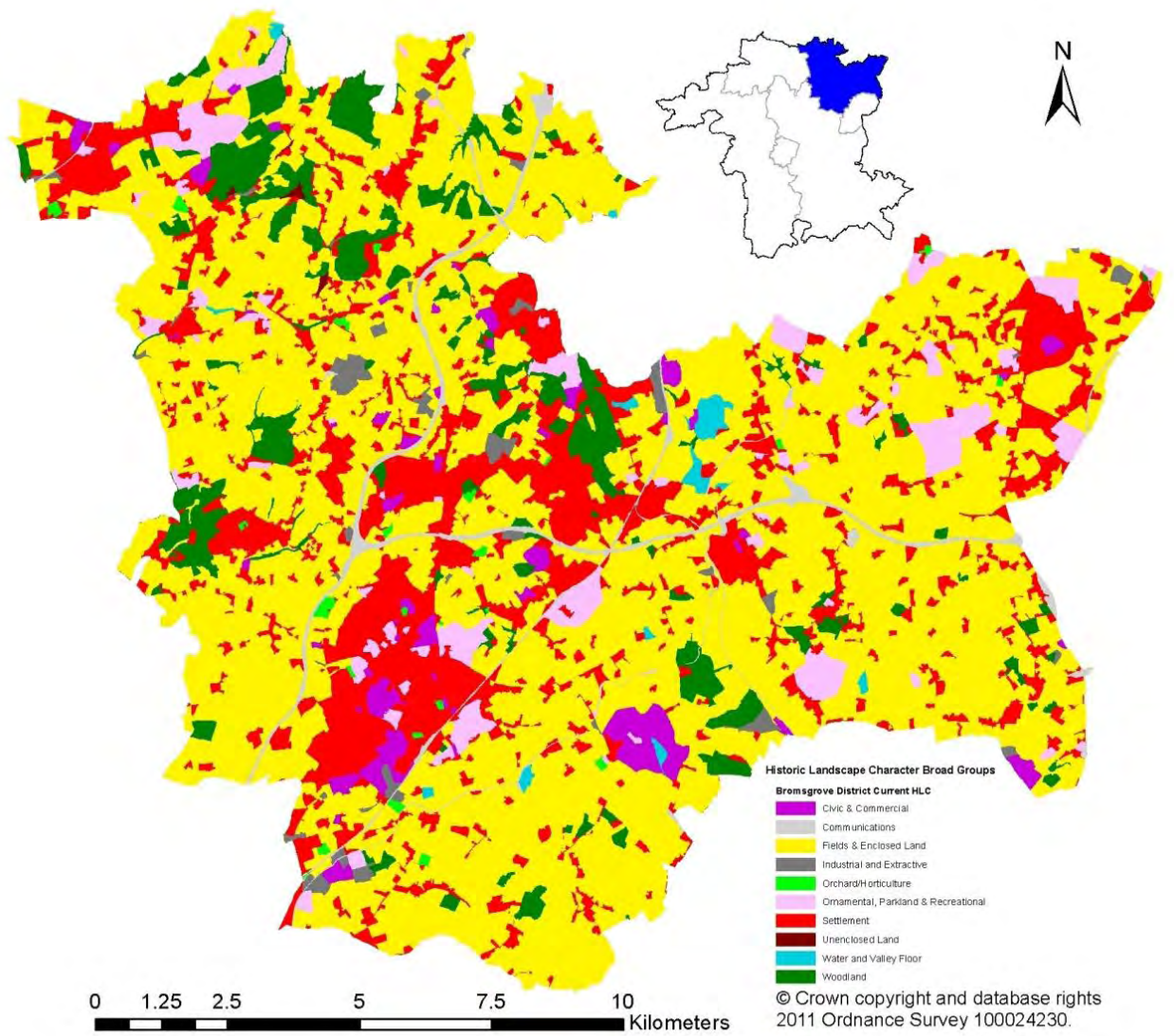
Figure 54. The Current HLC for the Bromsgrove District Council area.

- Bromsgrove formed part of the Worcestershire HLC pilot study and its development is described in the pilot study report at Appendix B.

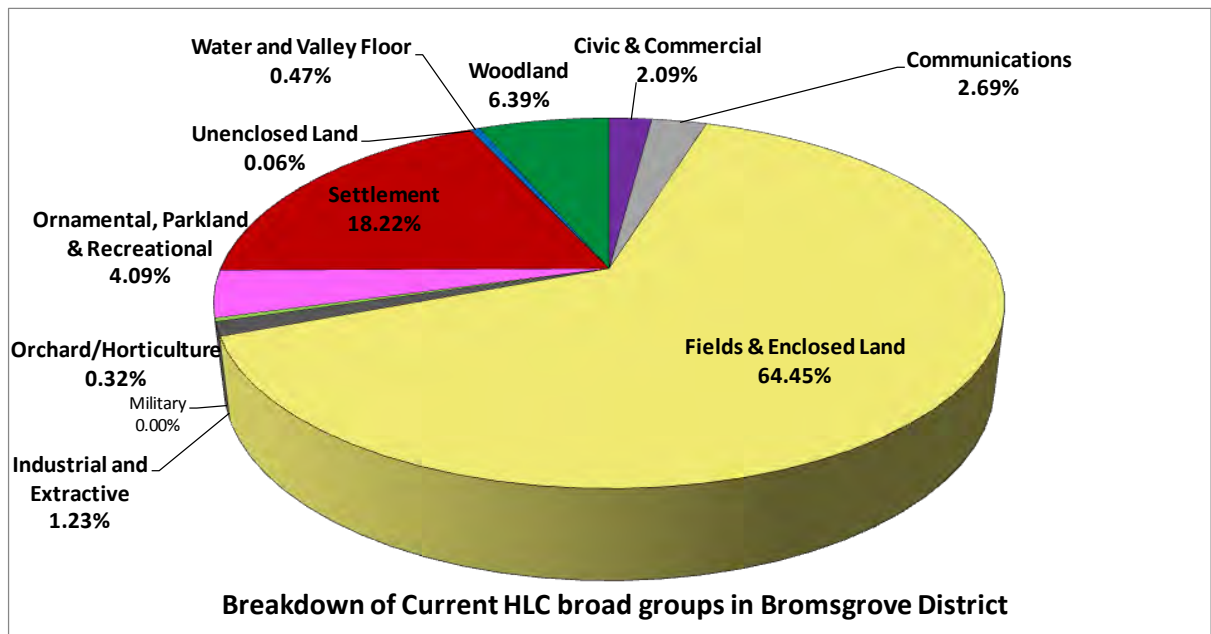
Bromsgrove DC Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	3301793	1.35	
Public Open Space	493566	0.20	
Race Course	117825	0.05	
Golf Course	3810731	1.56	
Sports Ground	2104821	0.86	
Camp Site	74268	0.03	
Cemetery	97066	0.04	4.09
Prison	1307881	0.54	
Educational Establishment	1830589	0.75	
Hospital	128267	0.05	
Religious Site	87167	0.04	
Hotel	218681	0.09	
Commercial and Retail	1371358	0.56	
Leisure Centre	113555	0.05	
Council Depot	25984	0.01	2.08
Sand and Gravel Extraction Site	866589	0.35	
Mines/Spoil/Processing Areas	182958	0.07	
Industrial/Factory Complex	832069	0.34	
Mill Complexes	275609	0.11	
Utilities	723176	0.30	
Landfill/ Rubbish Dump	129784	0.05	1.23
Ancient-Semi-Natural Woodland	6295843	2.58	
Replanted Ancient Woodland	2498129	1.02	
Recent Woodland (Secondary)	6102503	2.50	
Woodland Plantation	727827	0.30	6.39
Pre-1880's Orchard	55435	0.02	
Post-1880's Orchard	143611	0.06	
Nursery/Garden Centre	382644	0.16	
Allotment	197331	0.08	0.32
Major Road Junctions	263095	0.11	
Motorway	4682512	1.92	
Canal/Lock/Basin	457106	0.19	
Railways/Stations/Sidings	1159744	0.47	2.69
Historic Town	747180	0.31	
New Town	1773638	0.73	
Modern Expansion	23762888	9.72	
Modern Infill	1447844	0.59	
Nucleated Cluster	1053261	0.43	
Nucleated Row	1396920	0.57	
Interrupted Row	7995612	3.27	
Isolated Farmstead	1812481	0.74	
Clustered Settlement	2421821	0.99	
Waste/Common/Green-edge Settlement	239041	0.10	
Model Planned Village	430122	0.18	
Caravan Park/ Chalet Site	815687	0.33	
Minor Dispersed Settlement	190614	0.08	
Smallholding	94187	0.04	
Country House	522397	0.21	18.29
Ancient Enclosure	132001	0.05	
Assarted Enclosure	2520809	1.03	
Piecemeal Enclosure	48343876	19.78	
Encroachment Enclosure	278835	0.11	
Small Irregular or Rectilinear Fields	2754249	1.13	
Parliamentary Enclosure	14970312	6.13	
Planned Private Enclosure	2338944	0.96	
Field Amalgamation	47624894	19.49	
Meadow	2820750	1.15	
Paddock	3007435	1.23	
Modern Subdivision	13584525	5.56	
Rough Pasture	115274	0.05	
Field Reorganisation	18820597	7.70	64.38
Unimproved Open Hill Pasture	59144	0.02	
Other Common/ Green	84437	0.03	0.06
Reservoir	836989	0.34	
Artificial Lake/Pond	306912	0.13	0.47
Total Area (square metres)	244363193		

Table 20. The Historic Landscape Character types recorded currently in the Bromsgrove District Council area.

- 64.5% of the district comprises Field and Enclosed Lands, of which 20% is a pre-1800 Piecemeal Enclosure, with another 27% made up of post-war Field Amalgamation and Field Reorganisation (Table 20);
- Woodland cover, at 6.39%, matches the County average.



*Figure 55. The Current HLC's broad groups for the Bromsgrove District Council area.*

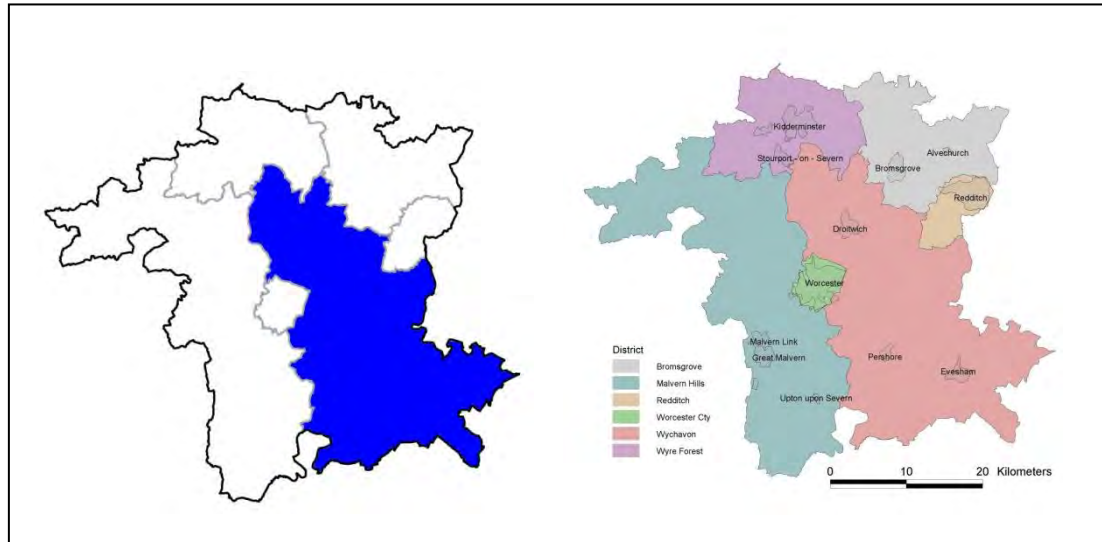


*Figure 56. A breakdown of the Current HLC's broad groups for the Bromsgrove District Council area.*

- Over 18% of the district's total area is taken up with Settlement, mainly focused around Bromsgrove, which includes the merging settlements of Catshill, Cofton Hackett, Lickey and Rubery (Figures 55 and 56);
- Nearly 10% of the district's settlement is composed of 20<sup>th</sup> century Modern Expansion, such as in Hollywod in the east;
- Uniquely in Worcestershire, the district also includes the 19<sup>th</sup> century Chartist Movement's Model Planned Village of Dodford;
- The dominant historic character of rural settlement is the Interrupted Row, at over 3% of the total area, defined by farms and other dwellings located intermittently along a road or highway (Figure 55), most likely of post-medieval or earlier in origin.

## WYCHAVON DISTRICT COUNCIL

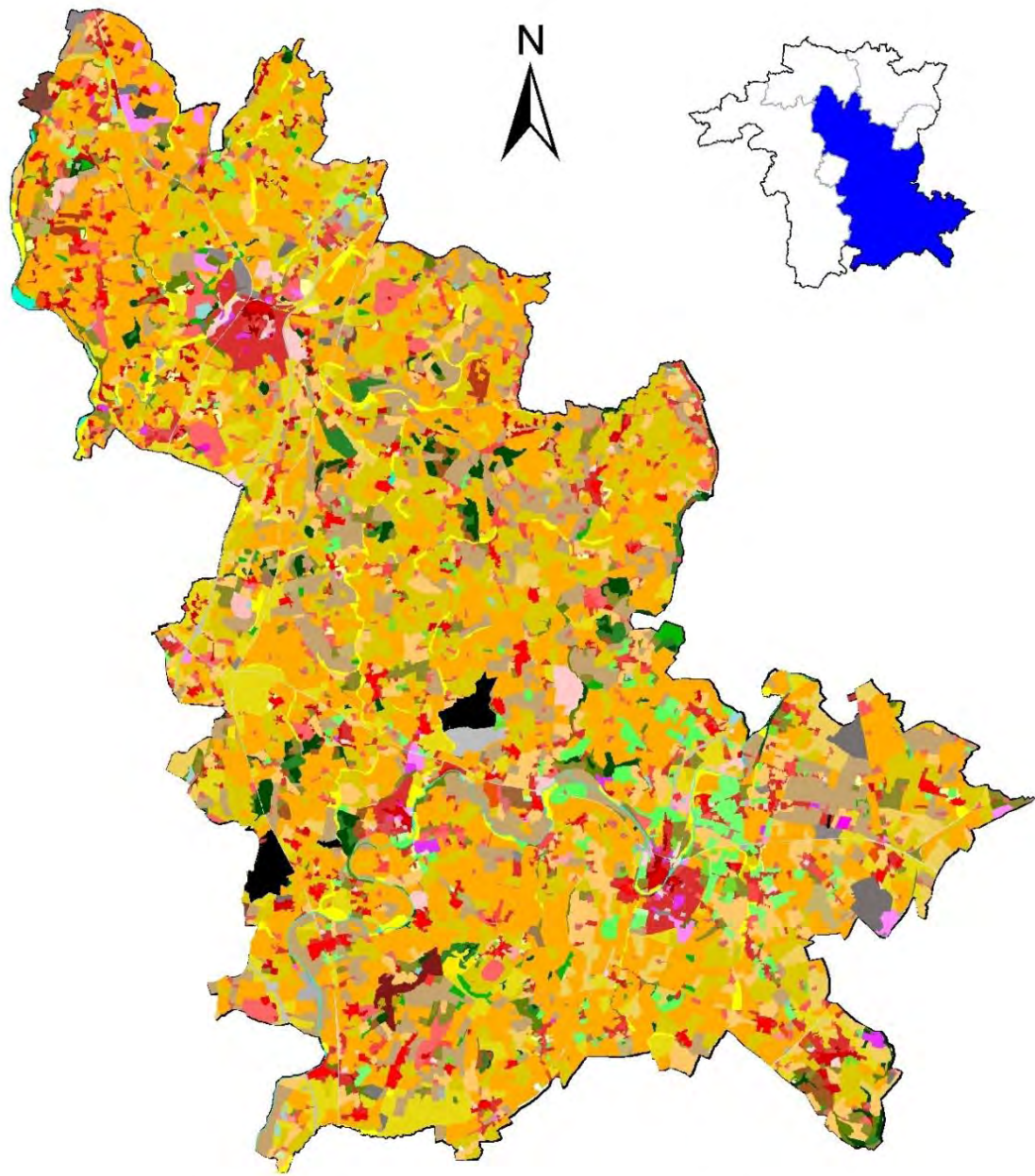
Wychavon is the largest of the County's District Councils at 663.5 square kilometres (252.6 square miles) and has a population of approx 117,000 (source: Wikipedia 2011). The district administers the southeast and much of east and central Worcestershire (Figure 57). The district council is based in the town of Pershore, but the district also includes the towns of Broadway, Evesham and Droitwich Spa.



*Figure 57. Wychavon District Council.*

The historic landscape character of Wychavon District Council area is mapped with 4,931 polygons (Figure 58). Wychavon district is mainly rural in character and has the greatest proportion of Field and Enclosed Land of all the local council areas. In the south-east, the Vale of Evesham is characterised by horticultural activity such as nurseries and orchards. Whilst Pershore is the district's administrative centre, Droitwich Spa and Evesham towns are the larger urban settlement areas.





0 1.25 2.5 5 7.5 10  
 Kilometres

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 2011 Ordnance Survey 100024230.

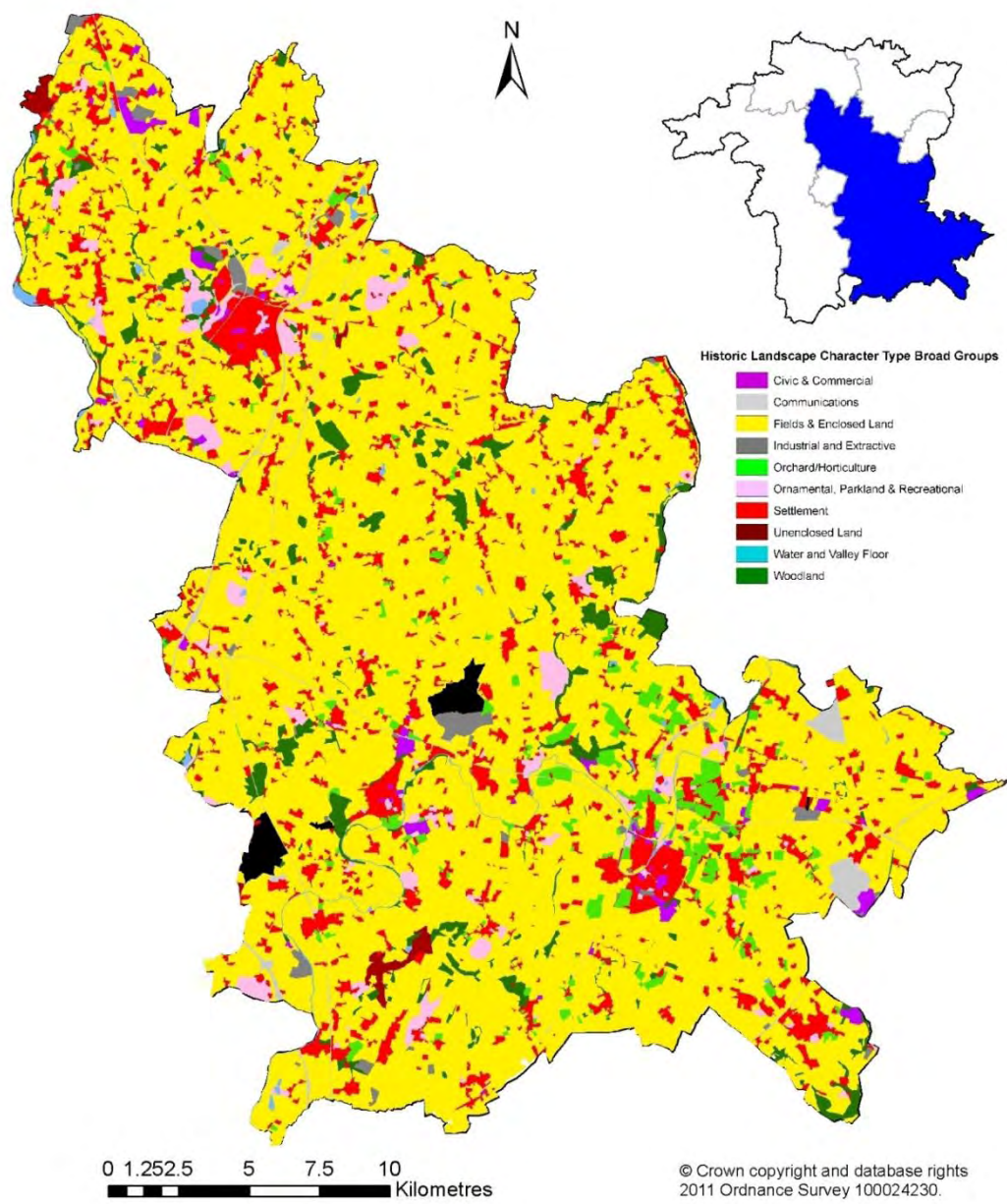
**Historic Landscape Character Types**

<ul style="list-style-type: none"> <li>Parkland</li> <li>Garden</li> <li>Country Park</li> <li>Public Open Space</li> <li>Deer Park</li> <li>Race Course</li> <li>Racecourse</li> <li>Golf Course</li> <li>Sports Ground</li> <li>Cemetery</li> <li>Showground</li> <li>Safari Park</li> <li>Camp Site</li> <li>Prison</li> <li>Government &amp; Civic Centres</li> <li>Educational Establishment</li> <li>Hospital</li> </ul>	<ul style="list-style-type: none"> <li>Religious Site</li> <li>Hotel</li> <li>Commercial and Retail</li> <li>Leisure Centre</li> <li>Council Depot</li> <li>Military Airfield</li> <li>Defence Research Establishment</li> <li>Military Base</li> <li>Storage Depot</li> <li>Firing Range</li> <li>Hard Rock Quarry/Extraction Site</li> <li>Sand and Gravel Extraction Site</li> <li>Mines/Spoil/Processing Areas</li> <li>Brickfield/Clay Extraction</li> <li>Industrial/Factory Complex</li> <li>Mill Complexes</li> <li>Utilities</li> </ul>	<ul style="list-style-type: none"> <li>Landfill/Rubbish Dump</li> <li>Reservoir</li> <li>Artificial Lake/Pond</li> <li>Watermeadow</li> <li>Bog</li> <li>Marsh</li> <li>Natural Open Water</li> <li>Miscellaneous Floodplain Field</li> <li>Major Road Junctions</li> <li>Motorway</li> <li>Canal/Lock/Basin</li> <li>Railways/Station/Sidings</li> <li>Alphabet/Airfield</li> <li>Bus Station/Park and Ride</li> <li>Pre-1880's Orchard</li> <li>Post-1880's Orchard</li> <li>Nursery/Garden Centre</li> </ul>	<ul style="list-style-type: none"> <li>Market-gardening Smallholding</li> <li>Allotment</li> <li>Ancient Enclosure</li> <li>Assorted Enclosure</li> <li>Medieval Open Field</li> <li>Enclosed Furlong</li> <li>Enclosed Strip(s)</li> <li>Piecemeal Enclosure</li> <li>Irregular Squatter Enclosure</li> <li>Encroachment Enclosure</li> <li>Rectilinear Squatter Enclosure</li> <li>Small Irregular or Rectilinear Fields</li> <li>Parliamentary Enclosure</li> <li>Planned Private Enclosure</li> <li>Field Amalgamation</li> <li>Meadow</li> <li>Paddock</li> </ul>	<ul style="list-style-type: none"> <li>Modern Subdivision</li> <li>Rough Pasture</li> <li>Field Reorganisation</li> <li>Planned Enclosure for Orchard</li> <li>Post-Enclosure Reorganisation</li> <li>Heathland</li> <li>Unimproved Open Hill Pasture</li> <li>Other Common/ Green</li> <li>Moorland</li> <li>Historic Town</li> <li>New Town</li> <li>Modern Expansion</li> <li>Modern Infill</li> <li>Nucleated Cluster</li> <li>Nucleated Row</li> <li>Interrupted Row</li> <li>Isolated Farmstead</li> </ul>	<ul style="list-style-type: none"> <li>Clustered Settlement</li> <li>Waste/Common/Green-edge Sett</li> <li>Model Planned Village</li> <li>Caravan Park/Chalet Site</li> <li>Minor Dispersed Settlement</li> <li>Smallholding</li> <li>Country House</li> <li>Ancient-Semi-Natural Woodland</li> <li>Replanted Ancient Woodland</li> <li>Recent Woodland (Secondary)</li> <li>Woodland Plantation</li> <li>Common Grazed Woodland</li> </ul>
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Figure 58. The Current HLC for the Wychavon District Council area.

Wychavon DC Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	12431629	1.75	
Garden	44356	0.01	
Public Open Space	865899	0.12	
Deer Park	459546	0.06	
Race Course	334365	0.05	
Golf Course	3677911	0.52	
Sports Ground	1985421	0.28	
Camp Site	223808	0.03	
Cemetery	79489	0.01	2.83
Prison	175805	0.02	
Government & Civic Centres	144598	0.02	
Educational Establishment	1823527	0.26	
Hospital	44347	0.01	
Religious Site	123438	0.02	
Hotel	153548	0.02	
Commercial and Retail	3712928	0.52	
Leisure Centre	59624	0.01	
Council Depot	87742	0.01	0.89
Military Airfield	4640743	0.65	
Storage Depot	49383	0.01	
Firing Range	173349	0.02	0.68
Sand and Gravel Extraction Site	756143	0.11	
Brickfield/Clay Extraction	319326	0.04	
Industrial/Factory Complex	2611804	0.37	
Mill Complexes	854680	0.12	
Utilities	1413467	0.20	
Landfill/ Rubbish Dump	1365461	0.19	1.03
Ancient-Semi-Natural Woodland	10375604	1.46	
Replanted Ancient Woodland	4171492	0.59	
Recent Woodland (Secondary)	8314492	1.17	
Woodland Plantation	3279643	0.46	3.67
Pre-1880's Orchard	2473907	0.35	
Post-1880's Orchard	7554659	1.06	
Nursery/Garden Centre	7130840	1.00	
Allotment	468737	0.07	2.48
Major Road Junctions	196438	0.03	
Motorway	5253332	0.74	
Canal/Lock/Basin	534552	0.08	
Railways/Stations/Sidings	3618751	0.51	
Airport/Airfield	3331061	0.47	1.82
Historic Town	1545626	0.22	
New Town	880957	0.12	
Modern Expansion	26427839	3.71	
Modern Infill	1490908	0.21	
Nucleated Cluster	11520025	1.62	
Nucleated Row	5571895	0.78	
Interrupted Row	12750871	1.79	
Isolated Farmstead	6061234	0.85	
Clustered Settlement	5895942	0.83	
Waste/Common/Green-edge Settlement	791314	0.11	
Caravan Park/ Chalet Site	1516868	0.21	
Minor Dispersed Settlement	407183	0.06	
Smallholding	43301	0.01	
Country House	1023197	0.14	10.67
Ancient Enclosure	1400096	0.20	
Assarted Enclosure	3590366	0.50	
Medieval Open Field	483314	0.07	
Enclosed Furlong	394342	0.06	
Enclosed Strip(s)	104819	0.01	
Piecemeal Enclosure	104273806	14.65	
Rectilinear Squatter Enclosure	116883	0.02	
Encroachment Enclosure	735230	0.10	
Small Irregular or Rectilinear Fields	15669804	2.20	
Parliamentary Enclosure	65047541	9.14	
Planned Private Enclosure	16142456	2.27	
Field Amalgamation	215427945	30.28	
Meadow	13167594	1.85	
Paddock	2366847	0.33	
Modern Subdivision	45445627	6.39	
Rough Pasture	1034626	0.15	
Field Reorganisation	42781201	6.01	
Post-Enclosure Reorganisation	2665194	0.37	74.60
Unimproved Open Hill Pasture	1659071	0.23	
Other Common/ Green	2182567	0.31	0.54
Reservoir	197801	0.03	
Artificial Lake/Pond	1550566	0.22	
Watermeadow	399695	0.06	
Natural Open Water	3483834	0.49	0.79
Total Area (square metres)	711564230		

Table 21. The Historic Landscape Character types recorded currently in the Wychavon District Council area.



*Figure 59. The Current HLC's broad groups for the Wychavon District Council area.*

- As can be seen in Table 21 and Figures 59-60, the current HLC shows that the Wychavon District is dominated by Fields and Enclosed Lands, which currently form over 74 per cent of its area;
- The horticultural and orchard elements in the district, much of which is concentrated to the east and north of Evesham, in fact only represents 2.5% of the total area, less than that of the Ornamental, Parkland and Recreational HLC broad group. Whilst Horticulture and Orchard is only a small part of the district's overall historic landscape character, in the Evesham area it defines its local distinctiveness;
- Nearly 11% of the district's total area consists of HLC Settlement broad type, of which 4% is 20<sup>th</sup> century Modern Expansion and Modern Infill. Much of this recent settlement growth is focused around Evesham and Droitwich Spa.

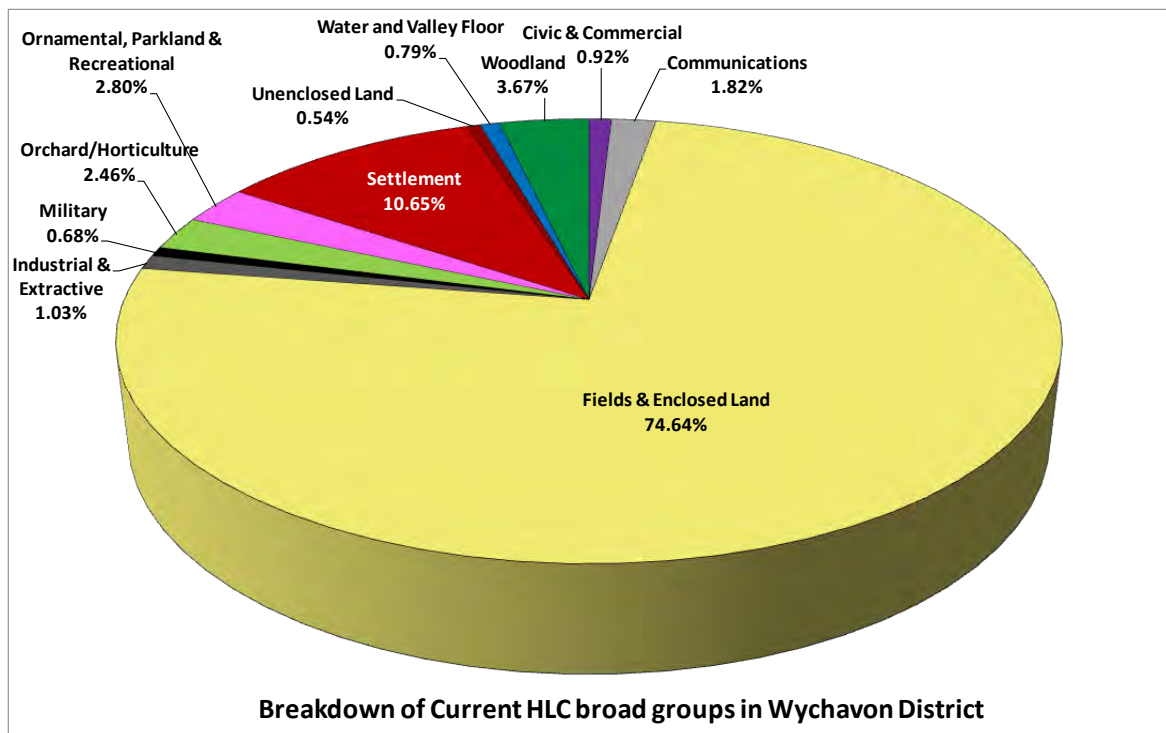
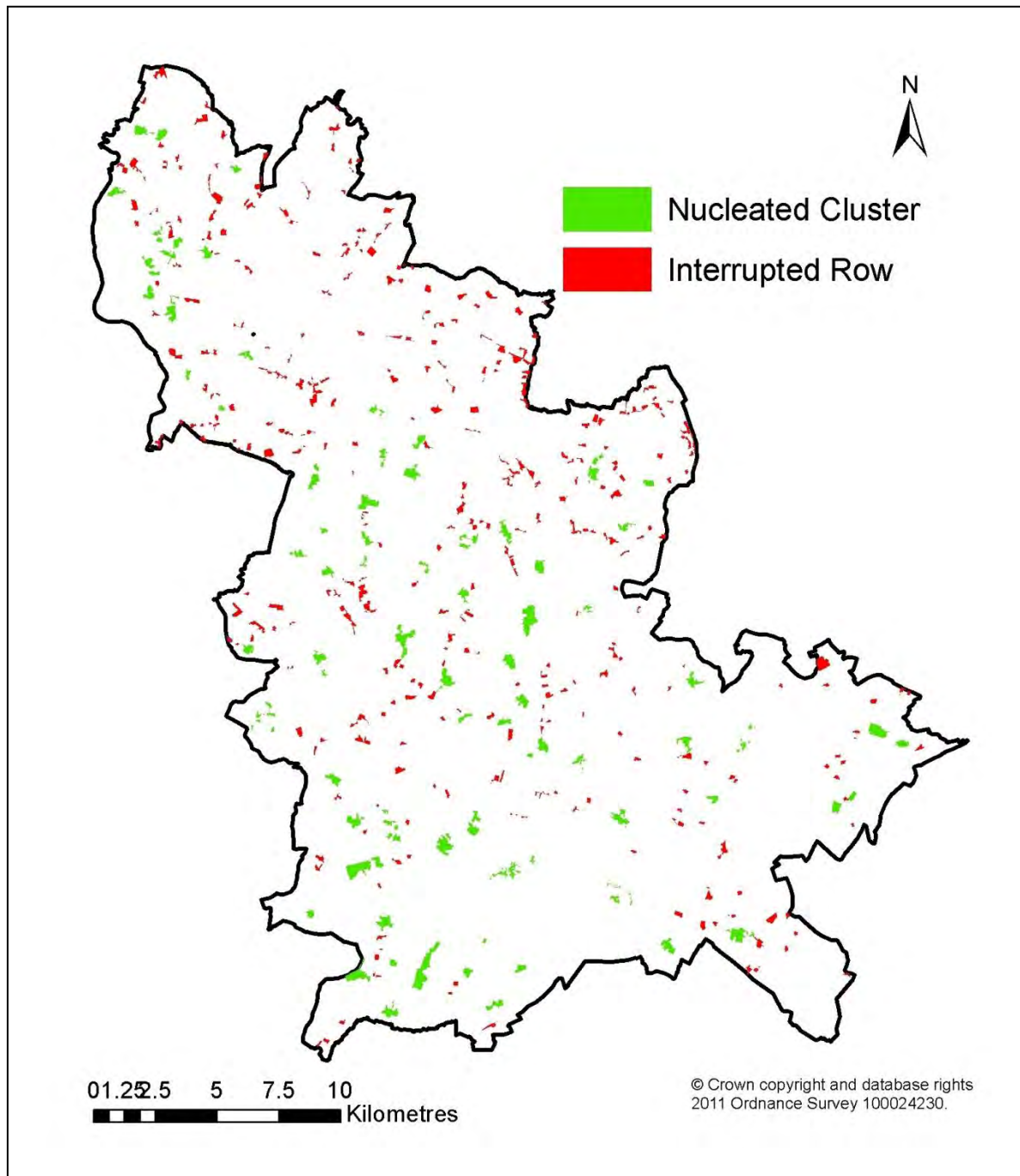


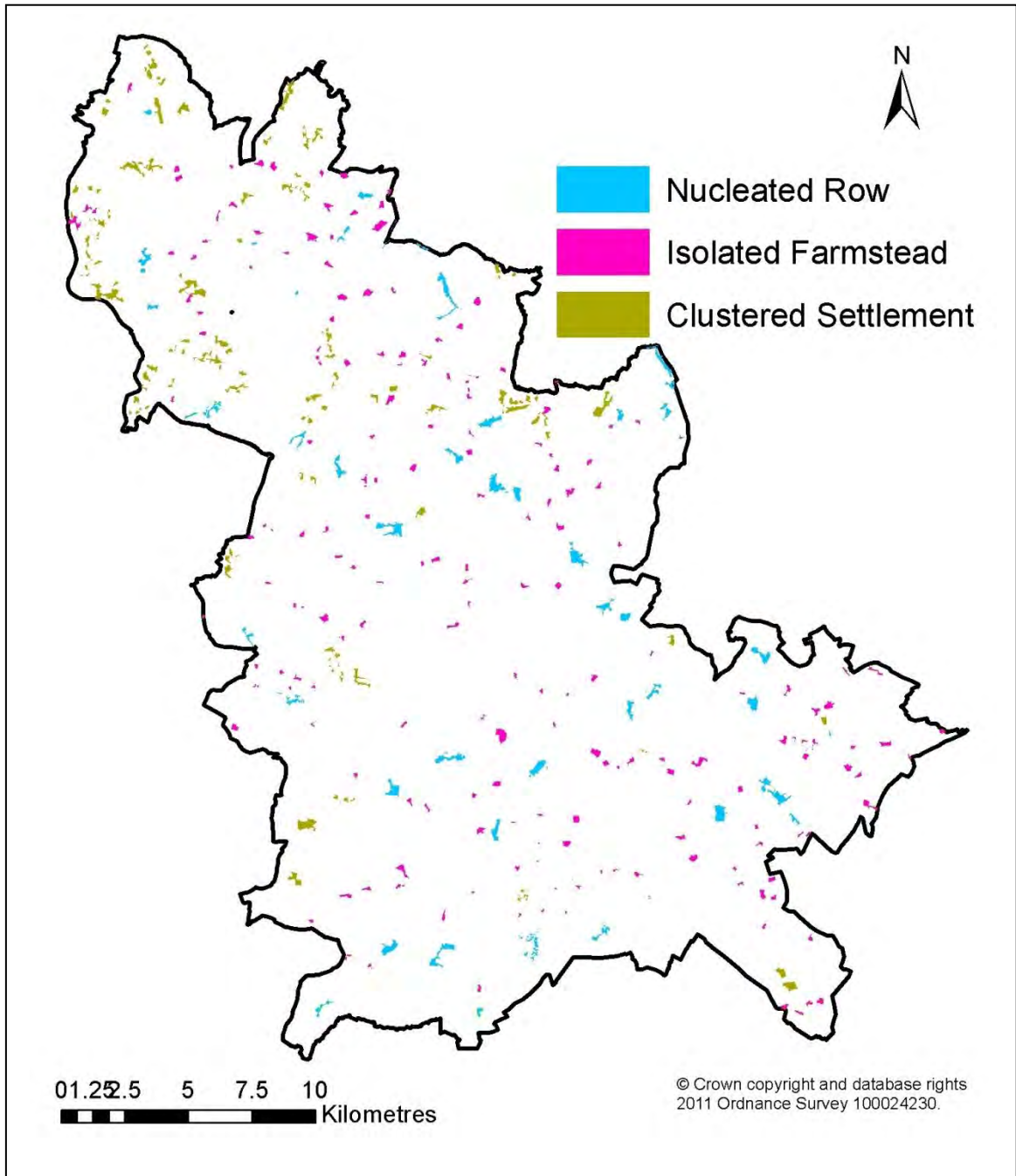
Figure 60. A breakdown of the Current HLC's broad groups for the Wychavon District Council area.

- The historic settlement pattern is divided equally between Nucleated Cluster settlement and Interrupted Row settlement. Nucleated cluster settlements are characteristically grouped around a single historic focus such as a green, a market place or church and whose origin is likely to be post-medieval or earlier. Interrupted Row settlements are characterised by farms and other dwellings located intermittently along a routeway, and also most likely to be of post-medieval or earlier origin. A distribution map at Figure 61 shows their distribution and suggests a focus of nucleated villages in the south and centre of the district, whilst the wayside villages and settlements are concentrated in the centre and the north of the district;



*Figure 61. Distribution map of Nucleated Cluster and Interrupted Row settlement in the Current HLC for Wychavon District Council area.*

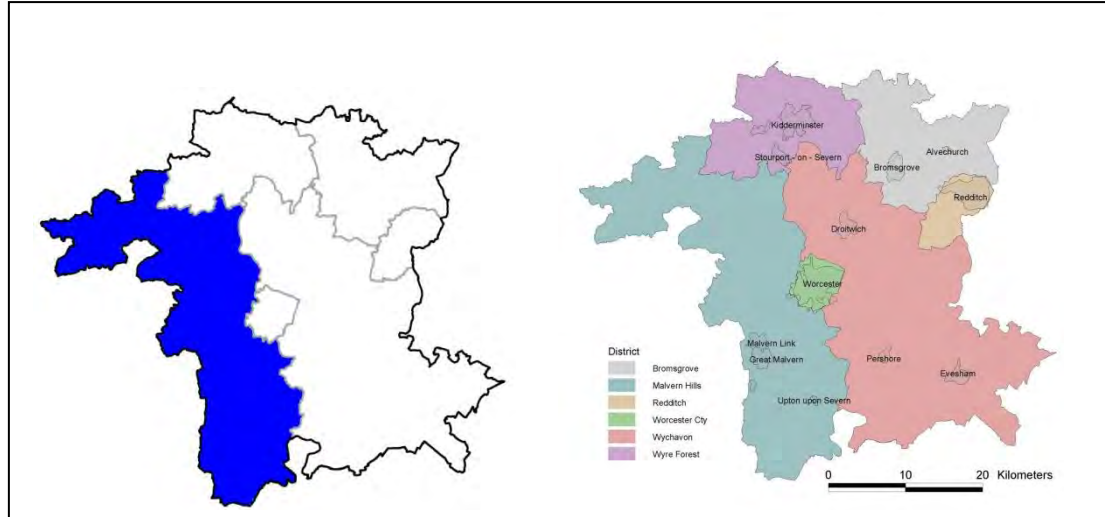
- Though less numerous, Clustered Settlements, Nucleated Row settlements and Isolated Farmsteads each comprise around just under 1% of the district's total area. A distribution map of these HLC Types at Figure 62 reveals that whilst nucleated Row settlements and Isolated Farmsteads appear to share a fairly even distribution across the district, Clustered Settlement distribution is focused more in the north.



*Figure 62. Distribution map of the historic settlement types in the Current HLC for Wychavon District Council area.*

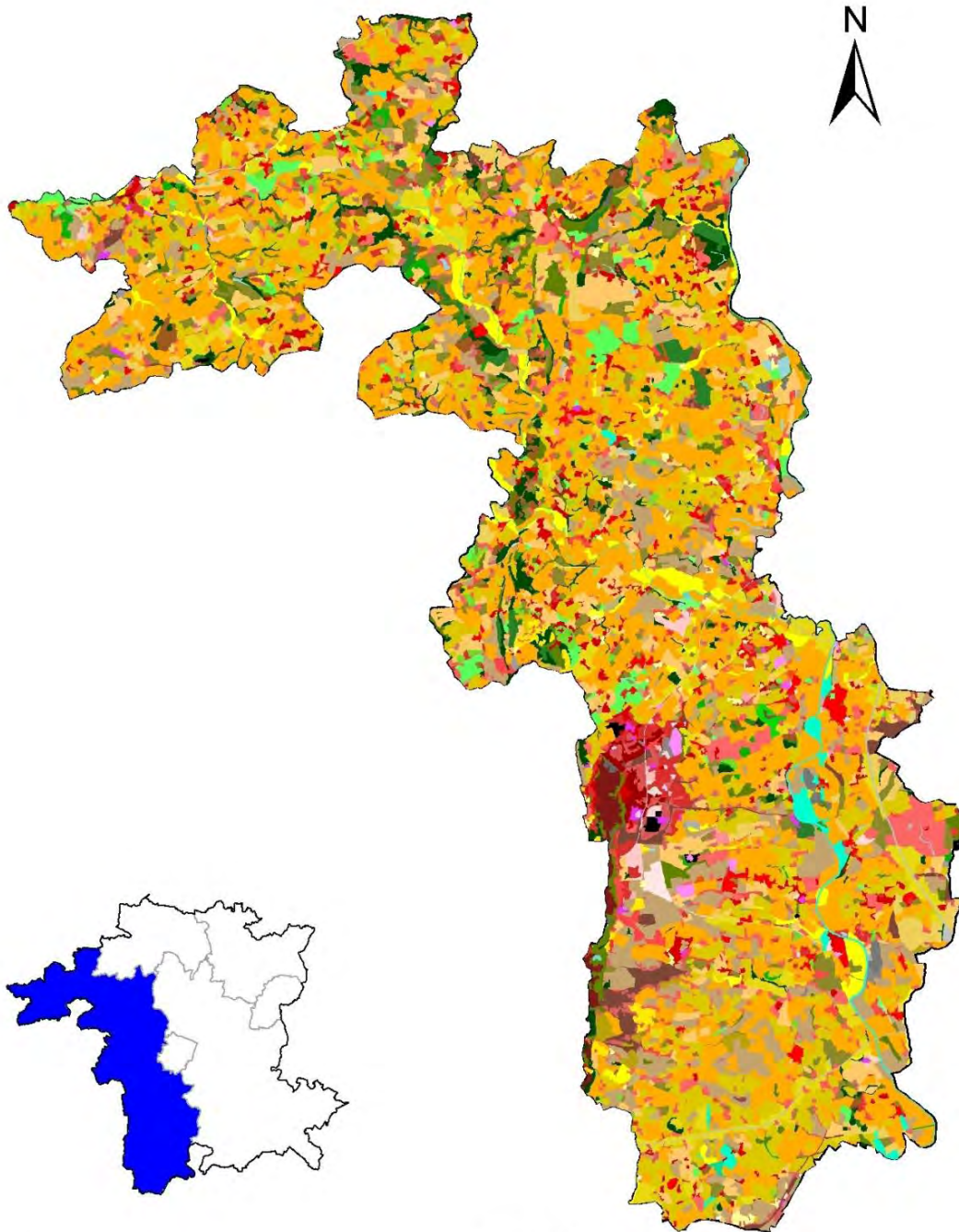
## MALVERN HILLS DISTRICT COUNCIL

The Malvern Hills District Council area is large at 577.1 square kilometres (222.8 square miles) and has a population of approx 75,000 (source: Wikipedia 2011). The district council administers the western side of Worcestershire County (Figure 63) and is based in the town of Malvern, but the district also includes the towns of Tenbury Wells, Upton upon Severn and many villages.



*Figure 63. Malvern Hills District Council area.*

The historic landscape character of Wychavon District Council area is mapped with 5,329 polygons (Figure 63). The area is topographically varied and includes part of the Malvern Hills range and the open common lands in the south-west, the River Teme and the wooded hills and valleys in the west and north, and with the more River Severn and the Severn Vale farmlands in the south and east. Table 22 and Figures 64-66 present the current HLC for the Wychavon District Council area.



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**Historic Landscape Character Types**

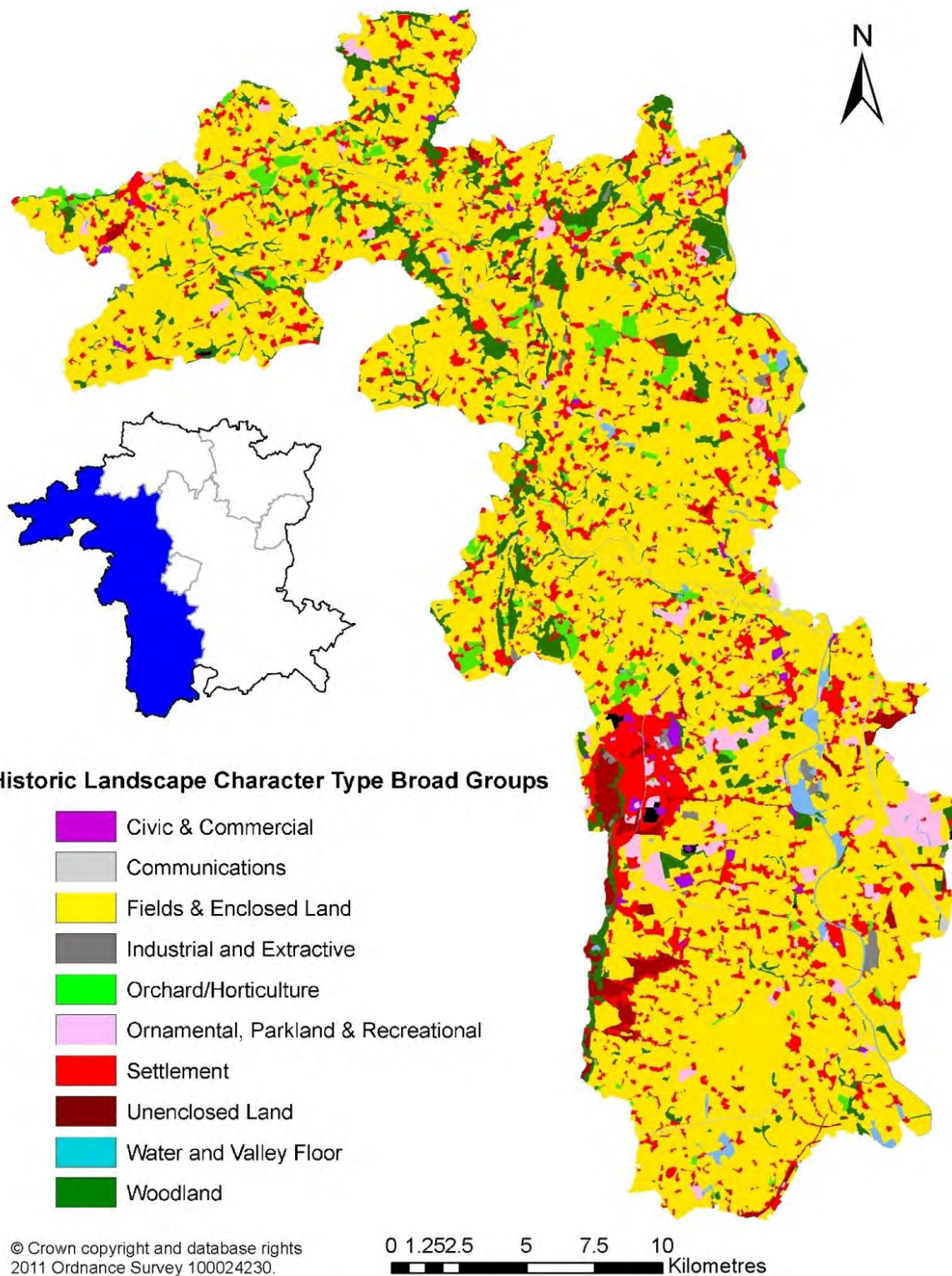
Parkland	Religious Site	Landfill/Rubbish Dump	Market-gardening Smallholding	Modern Subdivision	Clustered Settlement
Garden	Hotel	Reservoir	Allotment	Rough Pasture	Waste/Common/Green-edge Sett
Country Park	Commercial and Retail	Artificial Lake/Pond	Ancient Enclosure	Field Reorganisation	Model Planned Village
Public Open Space	Leisure Centre	Watermeadow	Assailed Enclosure	Planned Enclosure for Orchard	Caravan Park/Chalet Site
Deer Park	Council Depot	Bog	Medieval Open Field	Post-Enclosure Reorganisation	Minor Dispersed Settlement
Race Course	Military Airfield	Marsh	Enclosed Furlong	Heathland	Smallholding
Racecourse	Defence Research Establishment	Natural Open Water	Enclosed Strip(s)	Unimproved Open Hill Pasture	Country House
Golf Course	Military Base	Miscellaneous Floodplain Field	Piecemeal Enclosure	Other Common/ Green	Ancient-Semi-Natural Woodland
Sports Ground	Storage Depot	Major Road Junctions	Irregular Squatter Enclosure	Moorland	Replanted Ancient Woodland
Cemetery	Firing Range	Motorway	Rectilinear Squatter Enclosure	Historic Town	Recent Woodland (Secondary)
Show Ground	Hard Rock Quarry/ Extraction Site	Canal/Lock/Basin	Encroachment Enclosure	New Town	Woodland Plantation
Safari Park	Sand and Gravel Extraction Site	Railways/Stations/Sidings	Small Irregular or Rectilinear Fields	Modern Expansion	Common Grazed Woodland
Camp Site	Mines/Spill/Processing Areas	Airport/Airfield	Parliamentary Enclosure	Modern Infill	
Prison	Brickfield/Clay Extraction	Bus Station/Park and Ride	Planned Private Enclosure	Nucleated Cluster	
Government & Civic Centres	Industrial/Factory Complex	Pre-1880's Orchard	Field Amalgamation	Nucleated Row	
Educational Establishment	Mill Complexes	Post-1880's Orchard	Meadow	Interrupted Row	
Hospital	Utilities	Nursery/Garden Centre	Paddock	Isolated Farmstead	

Figure 64. The Current HLC for the Malvern Hills District Council area.



Malvern Hills DC Current HLC Type	Area (sq m)	Area (%)	Broad group Area (%)
Parkland	9962102	1.65	
Garden	97268	0.02	
Public Open Space	413886	0.07	
Race Course	163322	0.03	
Golf Course	1382924	0.23	
Sports Ground	1109436	0.18	
Show Ground	845378	0.14	
Camp Site	324372	0.05	
Cemetery	67111	0.01	2.38
Government & Civic Centres	37923	0.01	
Educational Establishment	1122270	0.19	
Religious Site	205505	0.03	
Hotel	55055	0.01	
Commercial and Retail	1256572	0.21	
Leisure Centre	19654	0.00	
Council Depot	82376	0.01	0.46
Military Airfield	1975601	0.33	
Defence Research Establishment	503802	0.08	
Military Base	184142	0.03	0.44
Hard Rock Quarry/ Extraction Site	473905	0.08	
Sand and Gravel Extraction Site	1214770	0.20	
Industrial/Factory Complex	702735	0.12	
Mill Complexes	623676	0.10	
Utilities	324947	0.05	
Landfill/ Rubbish Dump	80912	0.01	0.57
Ancient-Semi-Natural Woodland	17565930	2.91	
Replanted Ancient Woodland	5884379	0.98	
Recent Woodland (Secondary)	18690445	3.10	
Woodland Plantation	3171838	0.53	
Common Grazed Woodland	499499	0.08	7.59
Pre-1880's Orchard	5073086	0.84	
Post-1880's Orchard	8141865	1.35	
Nursery/Garden Centre	1134451	0.19	
Allotment	45089	0.01	2.39
Major Road Junctions	144642	0.02	
Motorway	5091514	0.84	
Railways/Stations/Sidings	1121354	0.19	1.05
Historic Town	664356	0.11	
New Town	2516777	0.42	
Modern Expansion	11429907	1.89	
Modern Infill	1838797	0.30	
Nucleated Cluster	8346961	1.38	
Nucleated Row	5353221	0.89	
Interrupted Row	14667637	2.43	
Isolated Farmstead	6335163	1.05	
Clustered Settlement	10206437	1.69	
Waste/Common/Green-edge Settlement	4514935	0.75	
Caravan Park/ Chalet Site	574573	0.10	
Minor Dispersed Settlement	1082439	0.18	
Smallholding	640505	0.11	
Country House	1270844	0.21	11.51
Assarted Enclosure	5268412	0.87	
Medieval Open Field	73583	0.01	
Irregular Squatter Enclosure	64010	0.01	
Piecemeal Enclosure	71356146	11.82	
Rectilinear Squatter Enclosure	233546	0.04	
Encroachment Enclosure	2204071	0.37	
Small Irregular or Rectilinear Fields	22026768	3.65	
Parliamentary Enclosure	50723763	8.41	
Planned Private Enclosure	14652015	2.43	
Field Amalgamation	177661984	29.44	
Meadow	12746909	2.11	
Paddock	2714272	0.45	
Modern Subdivision	35159379	5.83	
Rough Pasture	2809542	0.47	
Field Reorganisation	25597467	4.24	
Planned Enclosure for Orchard	7140	0.00	
Post-Enclosure Reorganisation	1240387	0.21	70.35
Unimproved Open Hill Pasture	3245053	0.54	
Other Common/ Green	7151304	1.19	
Moorland	60421	0.01	1.73
Reservoir	94744	0.02	
Artificial Lake/Pond	1464422	0.24	
Watermeadow	3238556	0.54	
Marsh	166631	0.03	
Natural Open Water	4250647	0.70	1.53
Total Area (square metres)	603447460		

Table 22. The Historic Landscape Character types recorded currently in the Malvern Hills District Council area.



*Figure 65. The Current HLC's broad groups for the Malvern Hills District Council area.*

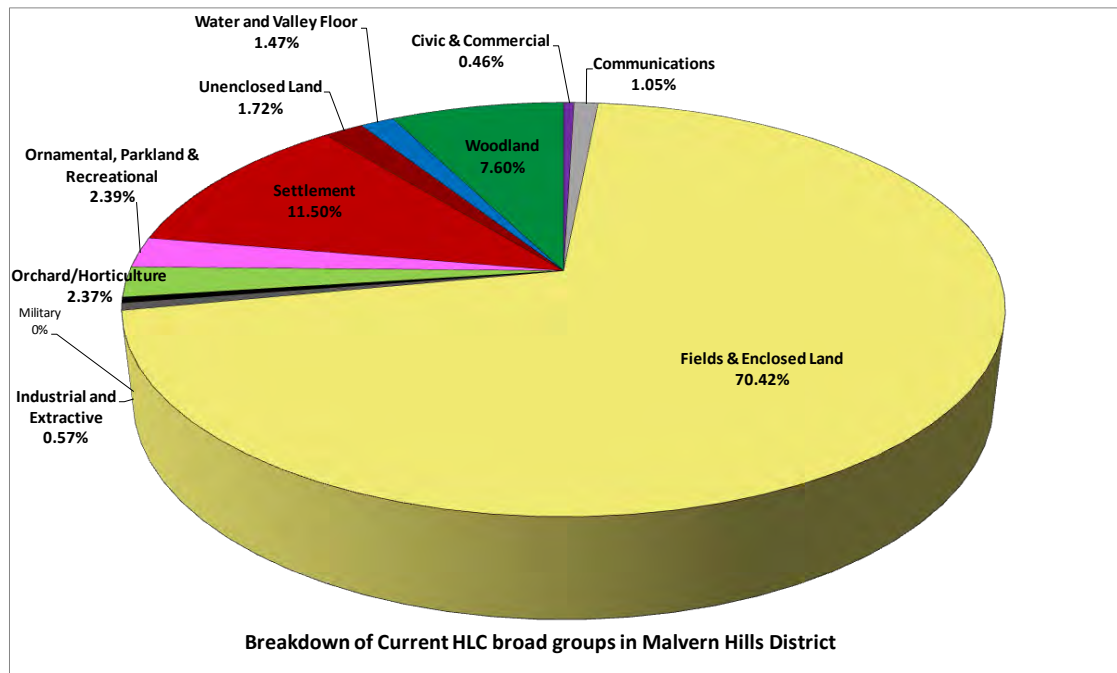


Figure 66. A breakdown of the Current HLC's broad groups for the Malvern Hills District Council area.

- Over 70% of the total area is Fields and Enclosed Lands of which 29% is Field Amalgamation, defined as medium or large fields created by the removal of internal and/or external field boundaries;
- A further 4% of the Current HLC for the district consists of Field Reorganisation, which means that almost half of the district's fields and enclosed land have been altered in some way in the 20<sup>th</sup> century, much of it following the Second World War;
- Just under 12% of the district area is made up of Piecemeal Enclosure, being small and irregular fields (usually of post-medieval origin or earlier) that have been created in an unplanned way for pasture hay, or enclosing former open field systems;
- Nearly 6% of Fields and Enclosed Land is Parliamentary Enclosure, part of planned enclosure under Acts of Parliament in the late 18<sup>th</sup> and 19<sup>th</sup> centuries, much of which relates to the enclosure of former tracts of common land east of The Malvern Hills and other heathland;
- Malvern Hills district contains the largest amount of extant commonland in the County, most of which lies within the Malvern Hills AONB. All these unenclosed lands are much reduced from their former extents;
- Like Redditch borough district, Malvern town is the only large urban settlement in the local authority area and has expanded from its historic core in phases through the 19<sup>th</sup> and 20<sup>th</sup> centuries;
- In the south, current parkland areas define the historic parks of Croome and Madresfield. These surviving parklands are only a small part of former parklands and deer parks that subsequently have been enclosed for agriculture.

## COMPARING LOCAL COUNCILS AND THE COUNTY

The Current HLC information recorded for each of the district councils can be compared with the whole County and other local councils (Table 23).

HLC Broad Group	County (%)	Wyre Forest (%)	Redditch (%)	Malvern Hills (%)	Wychavon (%)	Bromsgrove (%)
Ornamental, Parkland and Recreational	3.20	3.83	8.66	2.39	2.80	4.09
Civic and Commercial	1.14	1.64	3.48	0.46	0.92	2.09
Military	0.32	0.00	0.00	0.00	0.68	0.00
Industrial and Extractive	1.21	2.00	5.80	0.57	1.03	1.23
Woodland	6.72	14.40	4.43	7.60	3.67	6.39
Orchard/Horticulture	2.01	0.93	0.19	2.37	2.46	0.32
Communications	1.05	0.89	1.98	1.05	1.82	2.69
Settlement	13.82	17.02	27.80	11.50	10.65	18.22
Field and Enclosed Land	68.72	56.93	47.42	70.42	74.64	64.45
Unenclosed Land	0.82	0.79	0.00	1.72	0.54	0.06
Water and Valley Floor	0.98	1.57	0.25	1.47	0.79	0.47

Table 23. A comparison of the Current HLC broad groups in both the County and District Council areas.

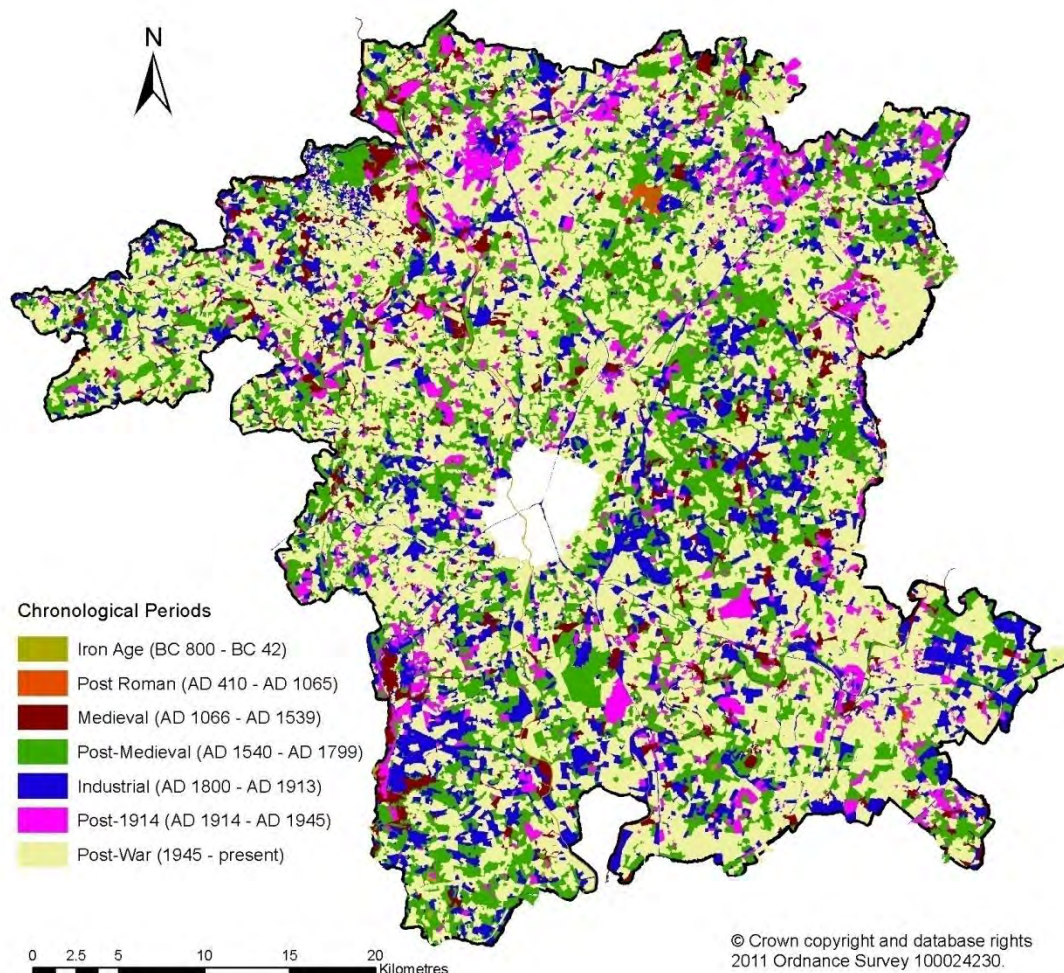
- Unsurprisingly, the Woodland broad group within Wyre Forest is the largest proportionately of the district councils, with twice as much woodland at over 14% than the next largest in Malvern Hills at over 7%;
- The proportion of Settlement in Redditch (nearly 28%) reflects the dominance of the new town in the landscape, but the borough council area also retains almost half its area as field and enclosed lands;
- At 5.8%, the proportion of Industrial and Extractive elements in Redditch council area is many times greater than in any other area, reflecting the early 20<sup>th</sup> century industrial base and the purpose-built industrial estate as part of the planned new town.

## 8. **THE HISTORIC DIMENSION OF THE PRESENT-DAY LANDSCAPE**

The flexibility of the HLC's digital information allows it to be interrogated in numerous ways. HLC recognises that the landscape is constantly evolving and is a mosaic of past human action, and the project's main aim is to record the legibility of that past activity in the current landscape. The result of the Worcestershire HLC project has been to generate a geographical database for analysing long-term historic land management trends in the county, illuminating those special historic characteristics that makes the County unique, identifies where they are found and how they have evolved over the past two hundred or more years. As part of the information gathering process, each HLC polygon is ascribed a chronological period during which that parcel of landscape components underwent some form of change as a result of human agency. With this temporal information in the database, it is possible to extract and separate the HLC polygons into their respective time periods. Possessing information such as this makes HLC a powerful tool for managing change in the future and has applications for spatial planning, as surviving areas of more historic landscape character can be compared to those areas in the County which have undergone more dynamic changes to its historic character.

This section examines historic landscape character in time periods, showing the contribution each age has made to the development of the present landscape of Worcestershire. Landscape development is divided into broad historical periods beginning with the Post-War (1945-Present) and then regressing back through historic periods to the Iron Age, as previously described. Each section contains maps depicting the surviving elements of the landscape from that time period, together with brief observations about the sensitivity, rarity or threats. However, these maps only provide a generalised representation of complex local landscape histories and are not intended to replace detailed local research that reveals more complex and long-term historical change. The statistics for each historic landscape type refers to its extent within Worcestershire.

The information and maps provided in this section are intended only to provide a flavour of the potential wealth of data contained within the Worcestershire HLC project. This section does not seek in any way to offer a fulsome landscape history analysis of the county, as HLC's main function is intended to provide fairly objective and robust evidence on the character of historic landscapes for informing landscape management strategies. Where detailed historic landscape character analysis of the information resulting from the HLC project is desired, it is recommended to consult the Historic Environment Record office, part of Worcestershire Archive and Archaeology Service.



*Figure 67. Recording time-depth information is integral to the Worcestershire HLC methodology.*

Time-depth is a fundamental tenet of HLC, being the visibility of the past in the present landscape. Figure 67 illustrates Worcestershire HLC's time-depth by chronological period, from Post-war to the Iron Age. The colour ramp was chosen for purposes of clarity only. HLC time-depth information has many applications, most particularly in landscape management policy decision-making as it gives a good indication of broad trends, identifying distinct areas of differential survival of recent or more historic landscape character components, such as pre-1800 landscapes.

- A swathe of 19<sup>th</sup> century and pre-1800 landscape features extends from the south-west through to the north-east of the County that represents a mix of industrial and post-medieval landscape components;
- In the south-west of the County, the Industrial period (19<sup>th</sup> century) historic landscape elements mostly represent the enclosure of the former extensive common, heath lands and wetlands, as well as the growth of Malvern as a spa town amidst an earlier pre-1800 landscape of parkland and irregular enclosure;
- In the east and north-east, the 19<sup>th</sup> century Industrial period features mainly represent the enclosure by Acts of Parliament of the former open fields and the enclosure of the large tracts of common, heath or moorland that existed prior to AD1800, leaving adjacent earlier fieldscapes intact. The areas that show a concentration of pre-1800

landscape components surviving into the modern landscape very generally appear to reflect the boundaries of the former Royal Forests of Feckenham and Malvern (Chase), both of which were not disafforested until the early 17<sup>th</sup> century and so there may be a causal relationship (Figure 83).

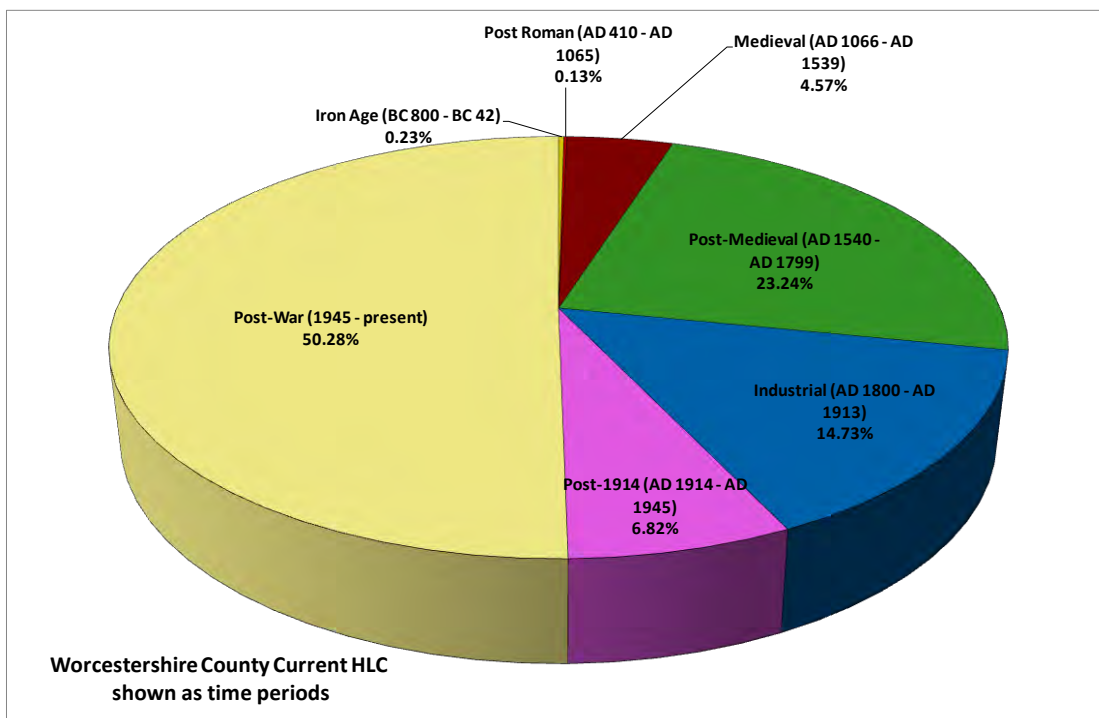


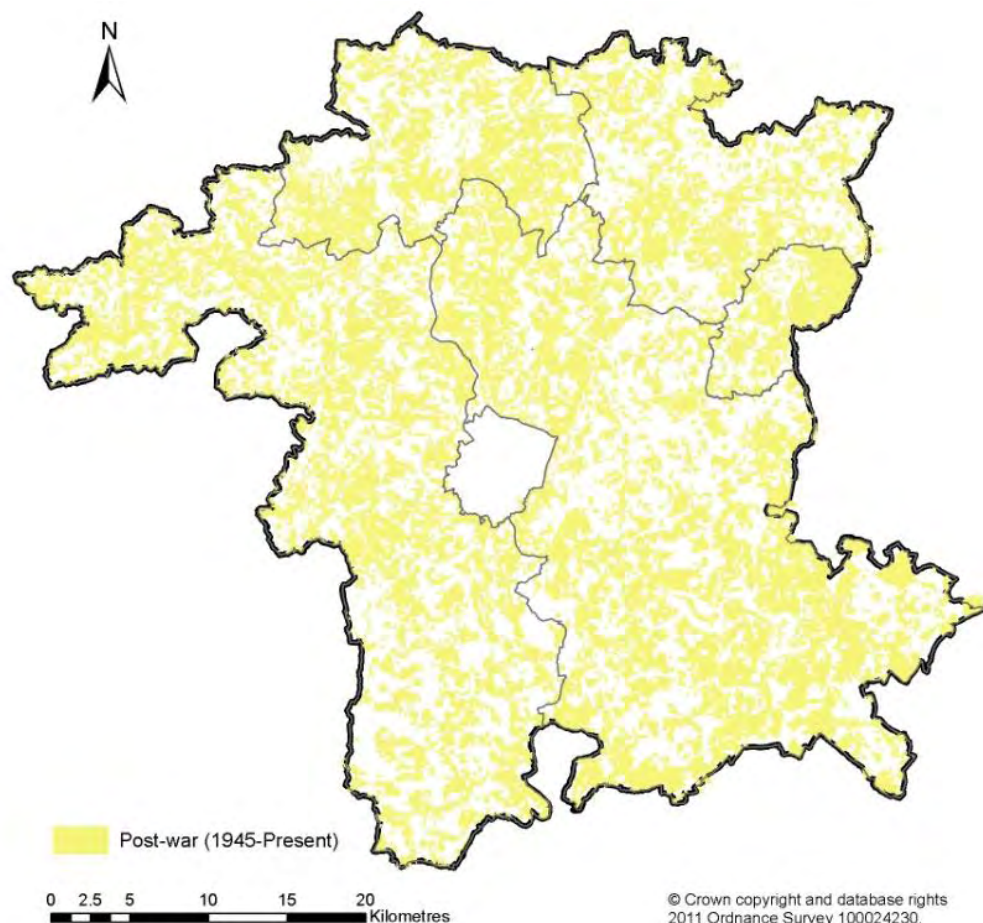
Figure 68. Worcestershire's present historic landscape and the surviving elements from various time periods.

Figure 68 provides an analysis (by percentage) of the County's time-depth (the legibility of the past in the current landscape), showing that over 50 percent of the County's current landscape represents some kind of historic landscape change since 1945. This is a significant statistic that highlights the recent changes to the County's landscape character and demonstrates how HLC information offers a powerful tool for those engaged in the future management of the historic landscape, especially perhaps where there is an implication for the 28 per cent of the historic character that represents surviving pre-1800 landscape components.

The HLC time-depth information for the County's current historic landscape character, shown at Figure 67, can be also queried, extracted and presented separately by chronological period.

8.1 **Post-War (1945-Present)**

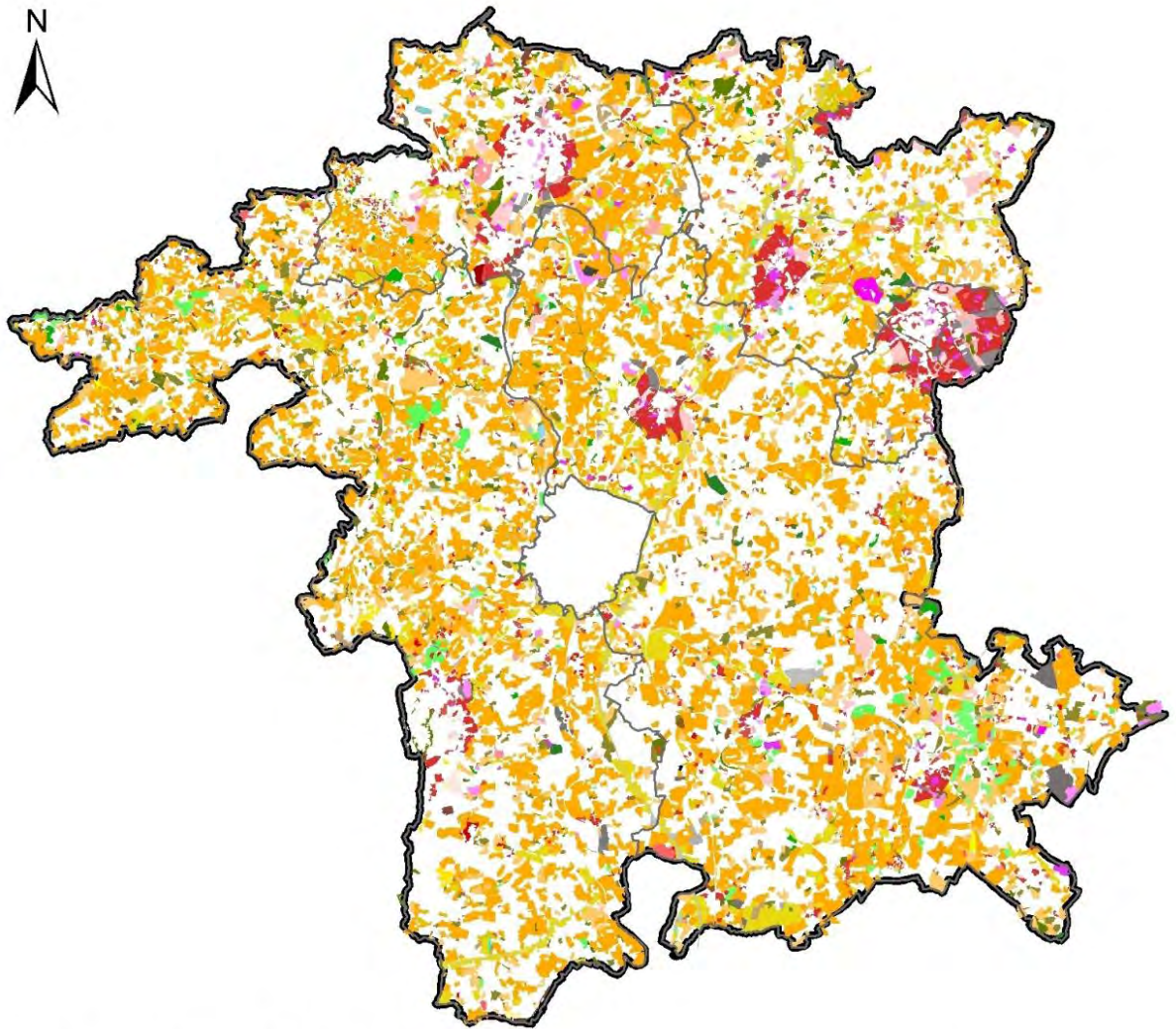
The Post-war period is one of the most active periods recorded by the HLC with regard to historic landscape change, especially with the County's fieldscape. By querying the HLC data, it is possible to identify those polygons whose historic character has changed in the period range 1945 to the present.



*Figure 69. HLC polygons that represent landscape components whose historic character have changed in some way since 1945 (1945-Present).*

- Figures 69-70 show the polygons that represent historic landscape change since 1945, being generally dispersed around the County, though there are fewer post-war landscape changes in the area to the east of the County;
- 50.28% of the current landscape of the County consists of landscape components whose historic character has changed in some way in the post-war period (1945-Present).





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**HLC Types**

<span style="color: red;">■</span> Parkland	<span style="color: magenta;">■</span> Religious Site	<span style="color: grey;">■</span> Landfill/ Rubbish Dump	<span style="color: lightgreen;">■</span> Market-gardening Smallholding	<span style="color: orange;">■</span> Modern Subdivision	<span style="color: red;">■</span> Clustered Settlement
<span style="color: red;">■</span> Garden	<span style="color: magenta;">■</span> Hotel	<span style="color: lightblue;">■</span> Reservoir	<span style="color: lightgreen;">■</span> Allotment	<span style="color: yellow;">■</span> Rough Pasture	<span style="color: red;">■</span> Waste/Common/Green-edge Sett
<span style="color: red;">■</span> Country Park	<span style="color: magenta;">■</span> Commercial and Retail	<span style="color: lightblue;">■</span> Artificial Lake/Pond	<span style="color: brown;">■</span> Ancient Enclosure	<span style="color: yellow;">■</span> Field Reorganisation	<span style="color: red;">■</span> Model Planned Village
<span style="color: red;">■</span> Public Open Space	<span style="color: magenta;">■</span> Leisure Centre	<span style="color: cyan;">■</span> Watermeadow	<span style="color: brown;">■</span> Assarted Enclosure	<span style="color: olive;">■</span> Planned Enclosure for Orchard	<span style="color: red;">■</span> Caravan Park/ Chalet Site
<span style="color: red;">■</span> Deer Park	<span style="color: magenta;">■</span> Council Depot	<span style="color: teal;">■</span> Bog	<span style="color: brown;">■</span> Medieval Open Field	<span style="color: olive;">■</span> Post-Enclosure Reorganisation	<span style="color: red;">■</span> Minor Dispersed Settlement
<span style="color: red;">■</span> Race Course	<span style="color: black;">■</span> Military Airfield	<span style="color: teal;">■</span> Marsh	<span style="color: brown;">■</span> Enclosed Furlong	<span style="color: darkred;">■</span> Heathland	<span style="color: red;">■</span> Smallholding
<span style="color: red;">■</span> Racecourse	<span style="color: black;">■</span> Defence Research Establishment	<span style="color: cyan;">■</span> Natural Open Water	<span style="color: brown;">■</span> Enclosed Strip(s)	<span style="color: darkred;">■</span> Unimproved Open Hill Pasture	<span style="color: red;">■</span> Country House
<span style="color: red;">■</span> Golf Course	<span style="color: black;">■</span> Military Base	<span style="color: blue;">■</span> Miscellaneous Floodplain Field	<span style="color: yellow;">■</span> Piecemeal Enclosure	<span style="color: darkred;">■</span> Other Common/ Green	<span style="color: darkgreen;">■</span> Ancient-Semi-Natural Woodland
<span style="color: red;">■</span> Sports Ground	<span style="color: black;">■</span> Storage Depot	<span style="color: blue;">■</span> Major Road Junctions	<span style="color: yellow;">■</span> Irregular Squatter Enclosure	<span style="color: darkred;">■</span> Moorland	<span style="color: darkgreen;">■</span> Replanted Ancient Woodland
<span style="color: red;">■</span> Cemetery	<span style="color: black;">■</span> Firing Range	<span style="color: grey;">■</span> Motorway	<span style="color: yellow;">■</span> Encroachment Enclosure	<span style="color: darkred;">■</span> Historic Town	<span style="color: darkgreen;">■</span> Recent Woodland (Secondary)
<span style="color: red;">■</span> Show Ground	<span style="color: grey;">■</span> Hard Rock Quarry/ Extraction Site	<span style="color: grey;">■</span> Canal/Lock/Basin	<span style="color: yellow;">■</span> Rectilinear Squatter Enclosure	<span style="color: darkred;">■</span> New Town	<span style="color: darkgreen;">■</span> Woodland Plantation
<span style="color: red;">■</span> Safari Park	<span style="color: grey;">■</span> Sand and Gravel Extraction Site	<span style="color: grey;">■</span> Railways/Stations/Sidings	<span style="color: yellow;">■</span> Small Irregular or Rectilinear Fields	<span style="color: darkred;">■</span> Modern Expansion	<span style="color: darkgreen;">■</span> Common Grazed Woodland
<span style="color: red;">■</span> Camp Site	<span style="color: grey;">■</span> Mines/Spoil/Processing Areas	<span style="color: grey;">■</span> Airport/Airfield	<span style="color: yellow;">■</span> Parliamentary Enclosure	<span style="color: darkred;">■</span> Modern Infill	
<span style="color: magenta;">■</span> Prison	<span style="color: grey;">■</span> Brickfield/Clay Extraction	<span style="color: grey;">■</span> Bus Station/Park and Ride	<span style="color: yellow;">■</span> Planned Private Enclosure	<span style="color: darkred;">■</span> Nucleated Cluster	
<span style="color: magenta;">■</span> Government & Civic Centres	<span style="color: grey;">■</span> Industrial/Factory Complex	<span style="color: grey;">■</span> Pre-1880's Orchard	<span style="color: yellow;">■</span> Field Amalgamation	<span style="color: darkred;">■</span> Nucleated Row	
<span style="color: magenta;">■</span> Educational Establishment	<span style="color: grey;">■</span> Mill Complexes	<span style="color: lightgreen;">■</span> Post-1880's Orchard	<span style="color: yellow;">■</span> Meadow	<span style="color: darkred;">■</span> Interrupted Row	
<span style="color: magenta;">■</span> Hospital	<span style="color: grey;">■</span> Utilities	<span style="color: lightgreen;">■</span> Nursery/Garden Centre	<span style="color: yellow;">■</span> Paddock	<span style="color: darkred;">■</span> Isolated Farmstead	

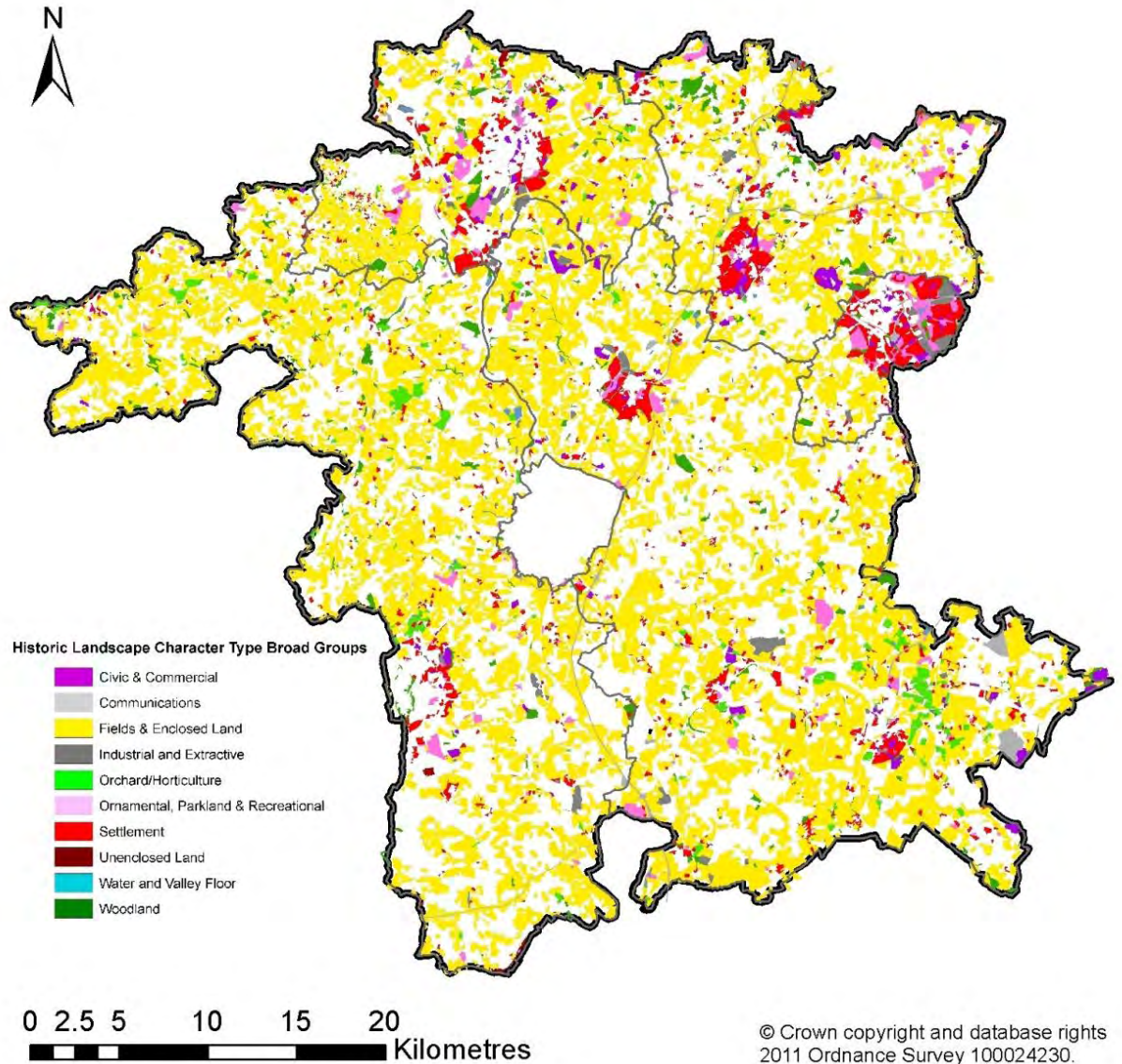
*Figure 70. HLC Type polygons that represent landscape components whose historic character have changed in some way since the Second World War (1945-Present).*

HLC Type	Area (sq m)	%
Parkland	2628920	0.153
Public Open Space	5163601	0.300
Race Course	1235396	0.072
Golf Course	9697679	0.563
Sports Ground	6044271	0.351
Show Ground	845378	0.049
Safari Park	843583	0.049
Camp Site	638312	0.037
Cemetery	61384	0.004
Prison	1483686	0.086
Government & Civic Centres	230578	0.013
Educational Establishment	4791812	0.278
Hospital	580516	0.034
Hotel	728099	0.042
Commercial and Retail	7748374	0.450
Leisure Centre	224989	0.013
Council Depot	234784	0.014
Military Airfield	52943	0.003
Hard Rock Quarry/ Extraction Site	100220	0.006
Sand and Gravel Extraction Site	2310857	0.134
Mines/Spoil/Processing Areas	182958	0.011
Brickfield/Clay Extraction	319326	0.019
Industrial/Factory Complex	6007073	0.349
Mill Complexes	110867	0.006
Utilities	2082264	0.121
Landfill/ Rubbish Dump	1635332	0.095
Replanted Ancient Woodland	3946239	0.229
Recent Woodland (Secondary)	20624939	1.197
Woodland Plantation	4260493	0.247
Pre-1880's Orchard	93518	0.005
Post-1880's Orchard	10075961	0.585
Nursery/Garden Centre	8783788	0.510
Allotment	462755	0.027
Major Road Junctions	1651682	0.096
Motorway	6089292	0.353
Canal/Lock/Basin	19546	0.001
Airport/Airfield	3473236	0.202
Bus Station/Park and Ride	11926	0.001
New Town	463952	0.027
Modern Expansion	49850736	2.893
Modern Infill	5529220	0.321
Nucleated Cluster	895955	0.052
Nucleated Row	548377	0.032
Interrupted Row	891518	0.052
Isolated Farmstead	674716	0.039
Clustered Settlement	957159	0.056
Waste/Common/Green-edge Sett	112356	0.007
Caravan Park/ Chalet Site	3386039	0.197
Minor Dispersed Settlement	622368	0.036
Smallholding	59911	0.003
Country House	96176	0.006
Assarted Enclosure	1200278	0.070
Piecemeal Enclosure	4475690	0.260
Rectilinear Squatter Enclosure	116883	0.007
Small Irregular or Rectilinear Fields	26914641	1.562
Parliamentary Enclosure	3621756	0.210
Planned Private Enclosure	591896	0.034
Field Amalgamation	460837618	26.746
Meadow	1557326	0.090
Paddock	6823789	0.396
Modern Subdivision	98469363	5.715
Rough Pasture	2131419	0.124
Field Reorganisation	75911451	4.406
Planned Enclosure for Orchard	21812	0.001
Post-Enclosure Reorganisation	147693	0.009
Other Common/ Green	875323	0.051
Reservoir	379575	0.022
Artificial Lake/Pond	2400148	0.139
Watermeadow	87933	0.005
Other Periods	856889985	49.732
Total County Area	1723019639	

Table 25. HLC Type polygons that represent landscape components whose historic character have changed in some way since the Second World War (1945-Present).

Table 25 shows the percentage of the County's total area for each HLC Type whose historic character has changed in some way since the Second World War (1945-Present).

- The presence of Parliamentary Enclosure and Piecemeal Enclosure, characteristic of 19<sup>th</sup> and pre-19<sup>th</sup> century field patterns respectively, is due to the fact that in the previous time-period they are likely to have been used for orchards that subsequently have been cleared post-war and their former historic landscape character restored;



*Figure 71. HLC broad group polygons that represent landscape components whose historic character have changed in some way since the Second World War (1945-Present).*

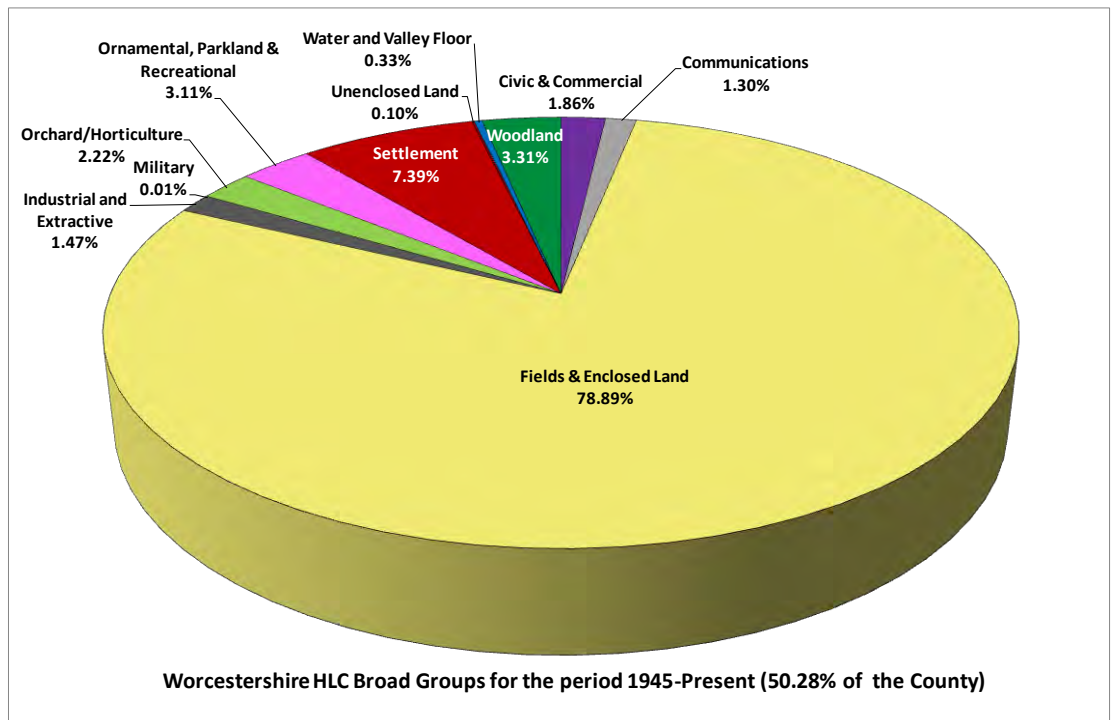
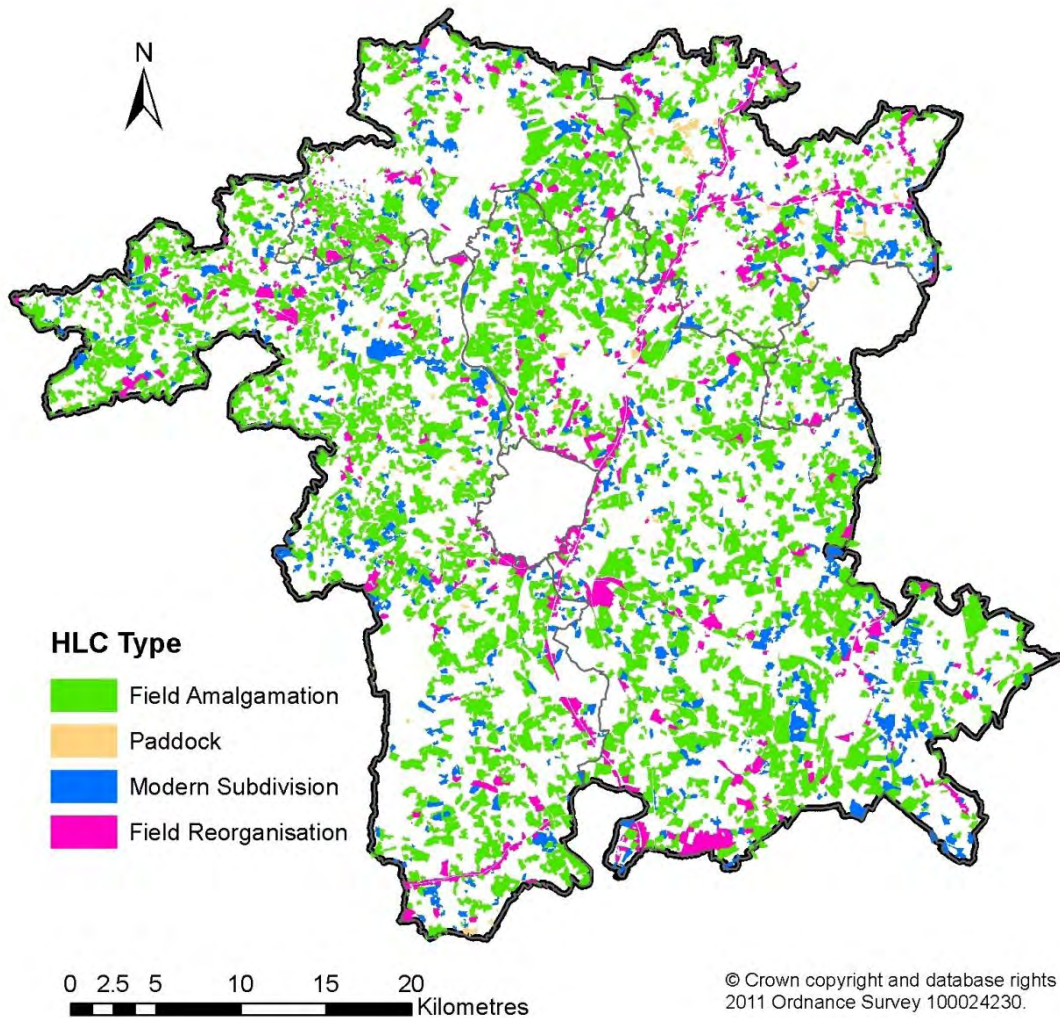


Figure 72. A statistical breakdown of the polygons that represent landscape components whose character have changed since 1945.

- Figures 71-72 quantify how post-war landscape change information is broken down by HLC broad group. Of the 50.28% of polygons that represent landscape character for the period 1945-Present, as shown in Figure 68, over three quarters (78.89%) is represented by components from the Fields and Enclosed Land broad HLC group.
- The post-war decades have witnessed a marked increase in housing development to the beginning of the 21st century, with development clustering around existing settlements (Figure 71).

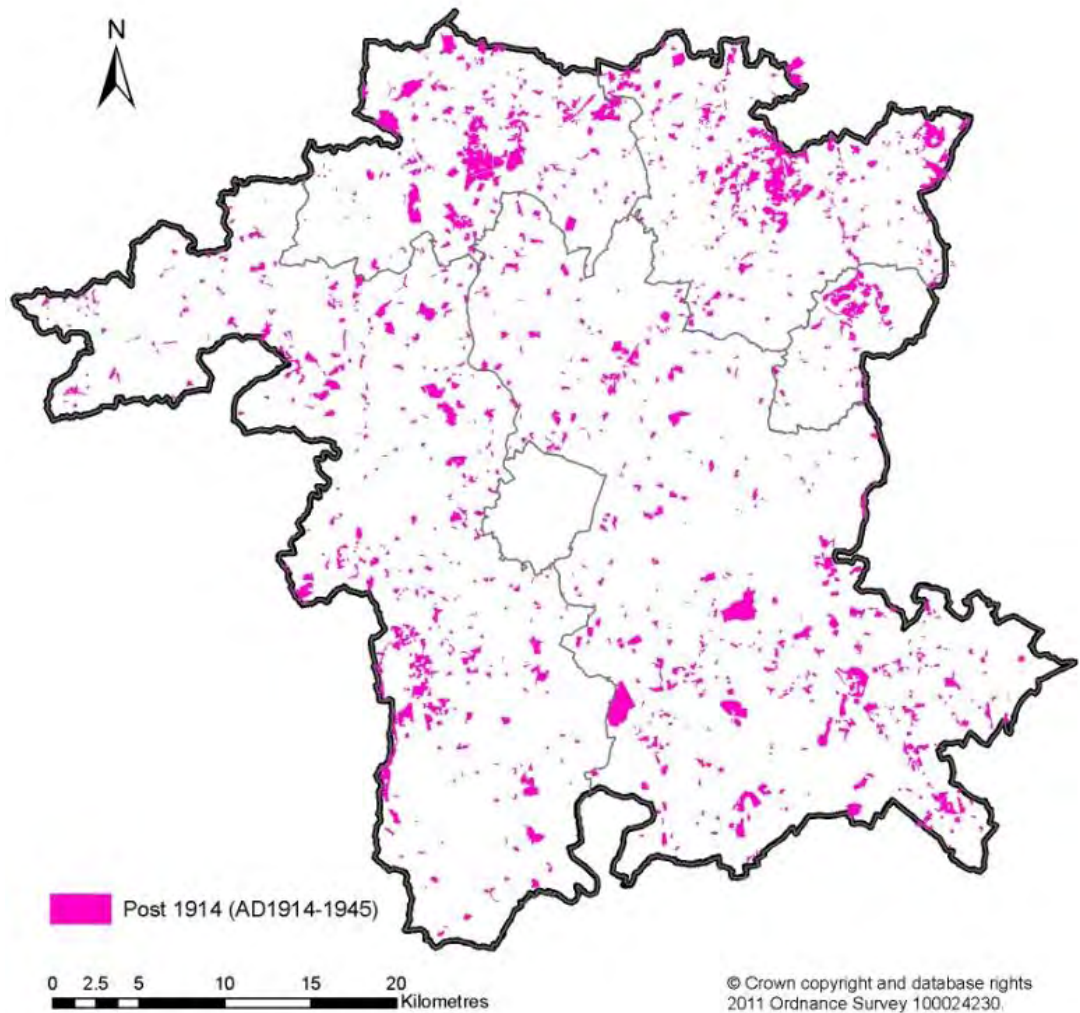


*Figure 73. Field Amalgamation and Field Reorganisation that has taken place since the Second World War.*

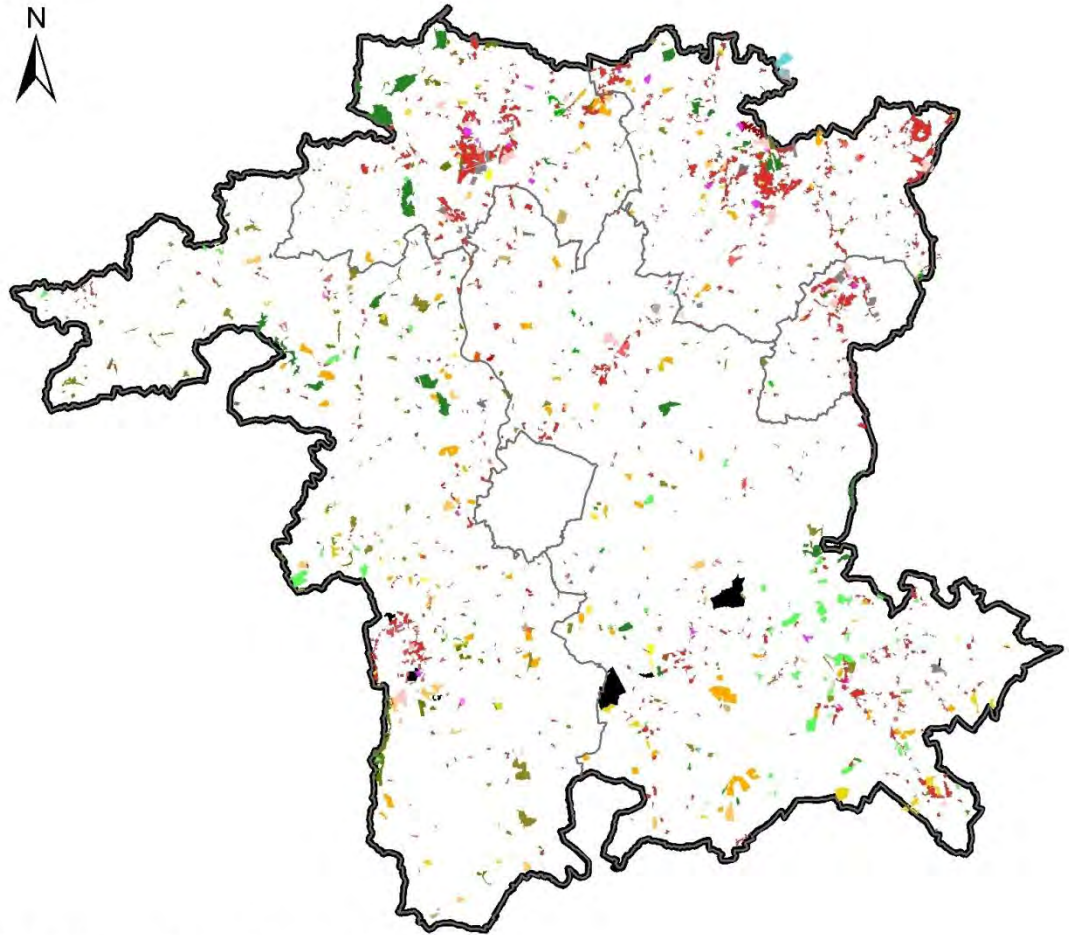
- Figure 73 shows the extent of Field Amalgamation, Field Reorganisation and Modern Sub-division that has only taken place since the Second World War. 26.76% of the total County area comprises fields that have been amalgamated since 1945, and 4.41% of the County comprises fields that have been reorganised;
- The paths of the M5, M42 and M50 motorways, built through the County following the Second World War, are clearly visible where Field Reorganisation has taken place.

**The Post-1914 period (AD1914-1945).**

- 6.82% of the current landscape of the County consists of landscape components whose historic character has changed in some way in the Post-1914 period (Figures 68, 74 and 75).



*Figure 74. HLC polygons in the current landscape attributed to the Post-1914 period (AD1914-1945).*



0 2.5 5 10 15 20  
Kilometres

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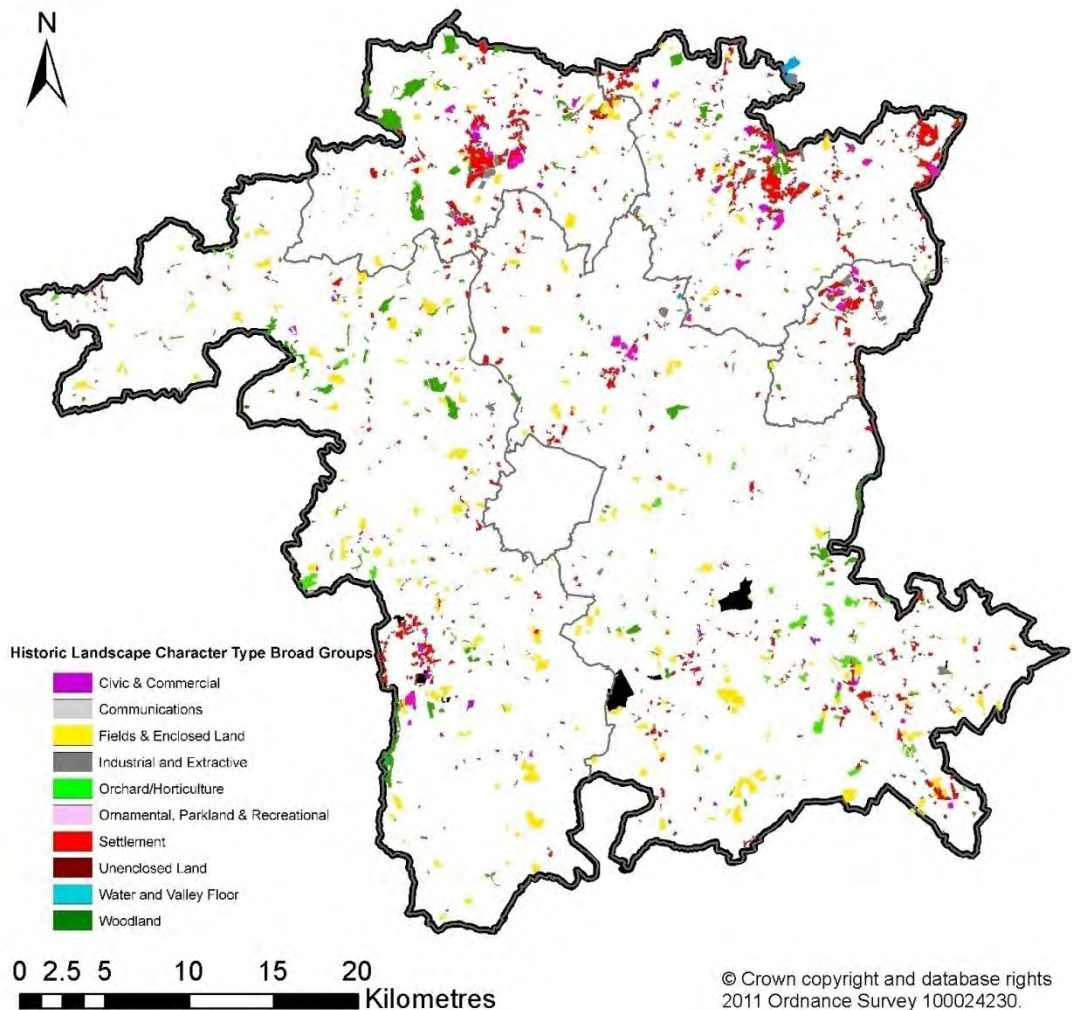
HLC Types					
Parkland	Religious Site	Landfill/Rubbish Dump	Market-gardening Smallholding	Modern Subdivision	Clustered Settlement
Garden	Hotels	Reservoir	Allotment	Rough Pasture	Waste/Common/Green-edge Sett
Country Park	Commercial and Retail	Artificial Lake/Pond	Ancient Enclosure	Field Reorganisation	Model Planned Village
Public Open Space	Leisure Centre	Watermeadow	Assarted Enclosure	Planned Enclosure for Orchard	Caravan Park/Chalet Site
Deer Park	Council Depot	Bog	Medieval Open Field	Post-Enclosure Reorganisation	Minor Dispersed Settlement
Race Course	Military Airfield	Marsh	Enclosed Furlong	Heathland	Smallholding
Racecourse	Defence Research Establishment	Natural Open Water	Enclosed Strip(s)	Unimproved Open Hill Pasture	Country House
Golf Course	Military Base	Miscellaneous Floodplain Field	Piecemeal Enclosure	Other Common/ Green	Ancient/Semi-Natural Woodland
Sports Ground	Storage Depot	Major Road Junctions	Irregular Squatter Enclosure	Moorland	Replanted Ancient Woodland
Cemetery	Firing Range	Motorway	Encroachment Enclosure	Historic Town	Recent Woodland (Secondary)
Show Ground	Hard Rock Quarry/ Extraction Site	Canal/Lock/Basin	Rectilinear Squatter Enclosure	New Town	Woodland Plantation
Safari Park	Sand and Gravel Extraction Site	Railways/Stations/Sidings	Small Irregular or Rectilinear Fields	Modern Expansion	Common Grazed Woodland
Camp Site	Mines/Spill/Processing Areas	Airport/Airfield	Parliamentary Enclosure	Modern Infill	
Prison	Brickfield/Clay Extraction	Bus Station/Park and Ride	Planned Private Enclosure	Nucleated Cluster	
Government & Civic Centres	Industrial/Factory Complex	Pre-1880's Orchard	Field Amalgamation	Nucleated Row	
Educational Establishment	Mill Complexes	Post-1880's Orchard	Meadow	Interrupted Row	
Hospital	Utilities	Nursery/Garden Centre	Paddock	Isolated Farmstead	

Figure 75. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Post-1914 period (AD1914-1945).

HLC Type	Area (sq m)	%
Parkland	1169695	0.068
Garden	17942	0.001
Public Open Space	546010	0.032
Golf Course	3025184	0.176
Sports Ground	1369709	0.079
Cemetery	133249	0.008
Educational Establishment	1694241	0.098
Hospital	234913	0.014
Religious Site	55925	0.003
Hotel	125897	0.007
Commercial and Retail	168537	0.010
Leisure Centre	19654	0.001
Military Airfield	4587800	0.266
Defence Research Establishment	503802	0.029
Military Base	98130	0.006
Storage Depot	49383	0.003
Firing Range	173349	0.010
Hard Rock Quarry/ Extraction Site	11514	0.001
Sand and Gravel Extraction Site	740172	0.043
Industrial/Factory Complex	2723433	0.158
Utilities	894517	0.052
Common Grazed Woodland	80550	0.005
Woodland Plantation	1314650	0.076
Recent Woodland (Secondary)	6308969	0.366
Replanted Ancient Woodland	11615434	0.674
Pre-1880's Orchard	19991	0.001
Post-1880's Orchard	5822382	0.338
Nursery/Garden Centre	370088	0.021
Allotment	485104	0.028
Railways/Stations/Sidings	152614	0.009
New Town	578199	0.034
Modern Expansion	37235164	2.161
Modern Infill	1995355	0.116
Nucleated Cluster	374943	0.022
Nucleated Row	330319	0.019
Interrupted Row	661752	0.038
Isolated Farmstead	292778	0.017
Clustered Settlement	236430	0.014
Waste/Common/Green-edge Sett	215589	0.013
Caravan Park/ Chalet Site	280371	0.016
Minor Dispersed Settlement	204061	0.012
Country House	58357	0.003
Assarted Enclosure	368485	0.021
Piecemeal Enclosure	542418	0.031
Small Irregular or Rectilinear Fields	7514216	0.436
Parliamentary Enclosure	245273	0.014
Planned Private Enclosure	152525	0.009
Field Amalgamation	11167438	0.648
Meadow	563692	0.033
Paddock	473020	0.027
Modern Subdivision	4238993	0.246
Rough Pasture	385593	0.022
Field Reorganisation	3106206	0.180
Planned Enclosure for Orchard	6979	0.000
Post-Enclosure Reorganisation	808894	0.047
Reservoir	807469	0.047
Artificial Lake/Pond	68639	0.004
Other Periods	1605593643	93.185
Total County area	1723019639	

Table 26. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Post-1914 period (AD1914-1945).



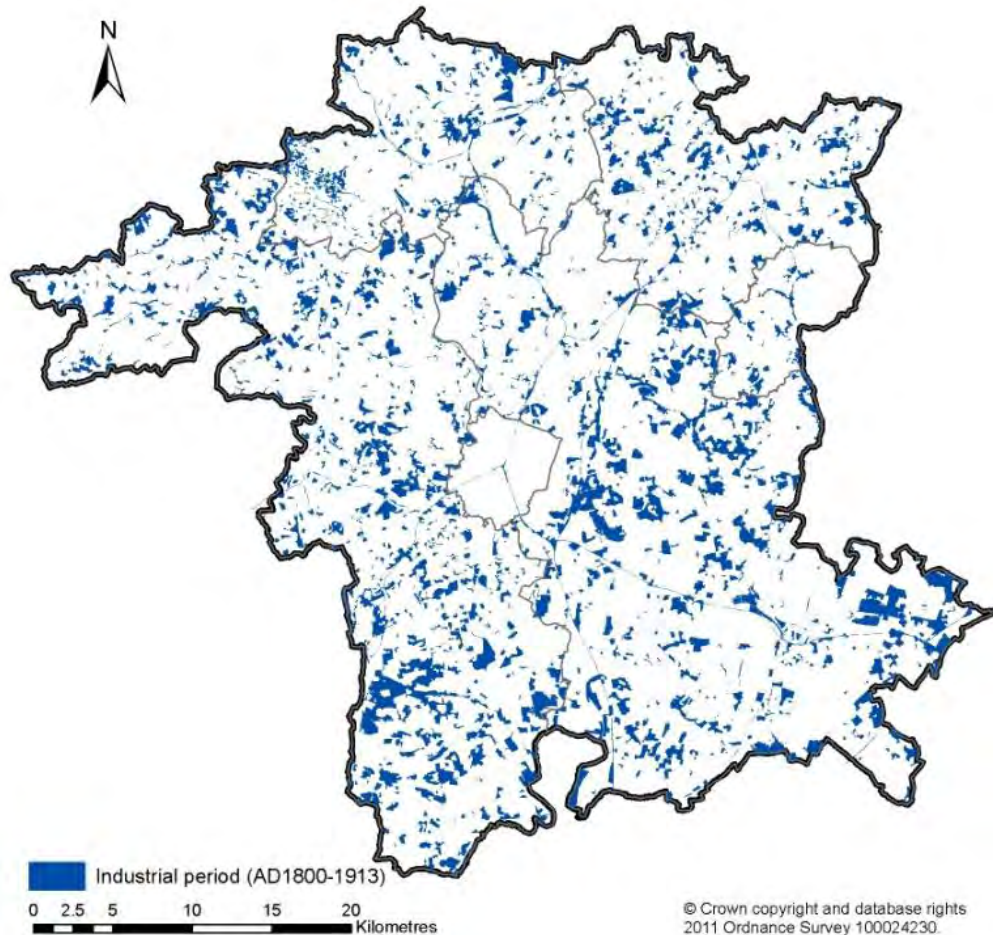


*Figure 76. HLC broad group polygons that represent landscape components whose Current historic landscape character is attributed to the Post-1914 period (AD1914-1945).*

- Figure 76 quantifies how Post-1914 (AD1914-1945) landscape change information is broken down by HLC broad group. There is a focus of landscape components whose historic character changed in some way in the Post-1914 period around the County's major urban areas of Kidderminster, Bromsgrove, Malvern, Redditch, Droitwich and Evesham. This mainly comprises early 20<sup>th</sup> century settlement and industrial expansion;
- A more scattered distribution of polygons in the south-east are land-use changes around Evesham, representing the spread of allotments as part of small-scale market gardening;
- Larger polygons in the south of the County represent the rise of Royal Air Force airfields at Honeybourne, Pershore and Defford, as well as other defence establishments.

### The Industrial period (AD1800-1913).

- 14.73% of the current landscape of the County consists of landscape components whose historic character has changed in some way in the Industrial period (Figures 68, 77 and 78).



*Figure 77. HLC polygons in the current landscape attributed to the Industrial period (AD1800-1913).*

- Much of the landscape character change attributed to the Industrial period represents planned redrawing of field patterns under the Acts of Parliament and enclosure of former unenclosed marsh, meadow, moor, heath and common;
- Settlement expansion of historic towns also took place, especially around Kidderminster and Stourport, where a focus of industrial activity (carpet and other mills) was created.

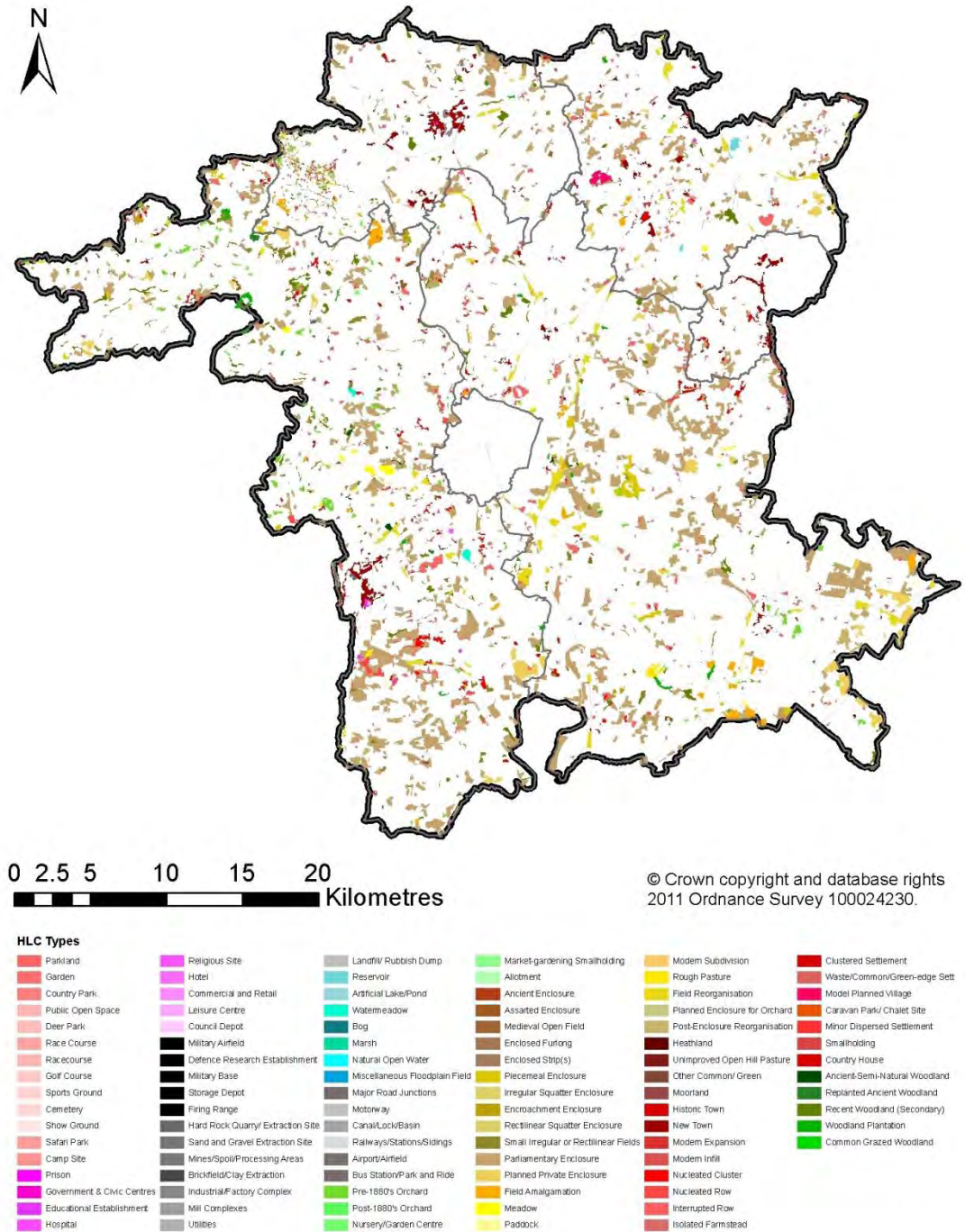
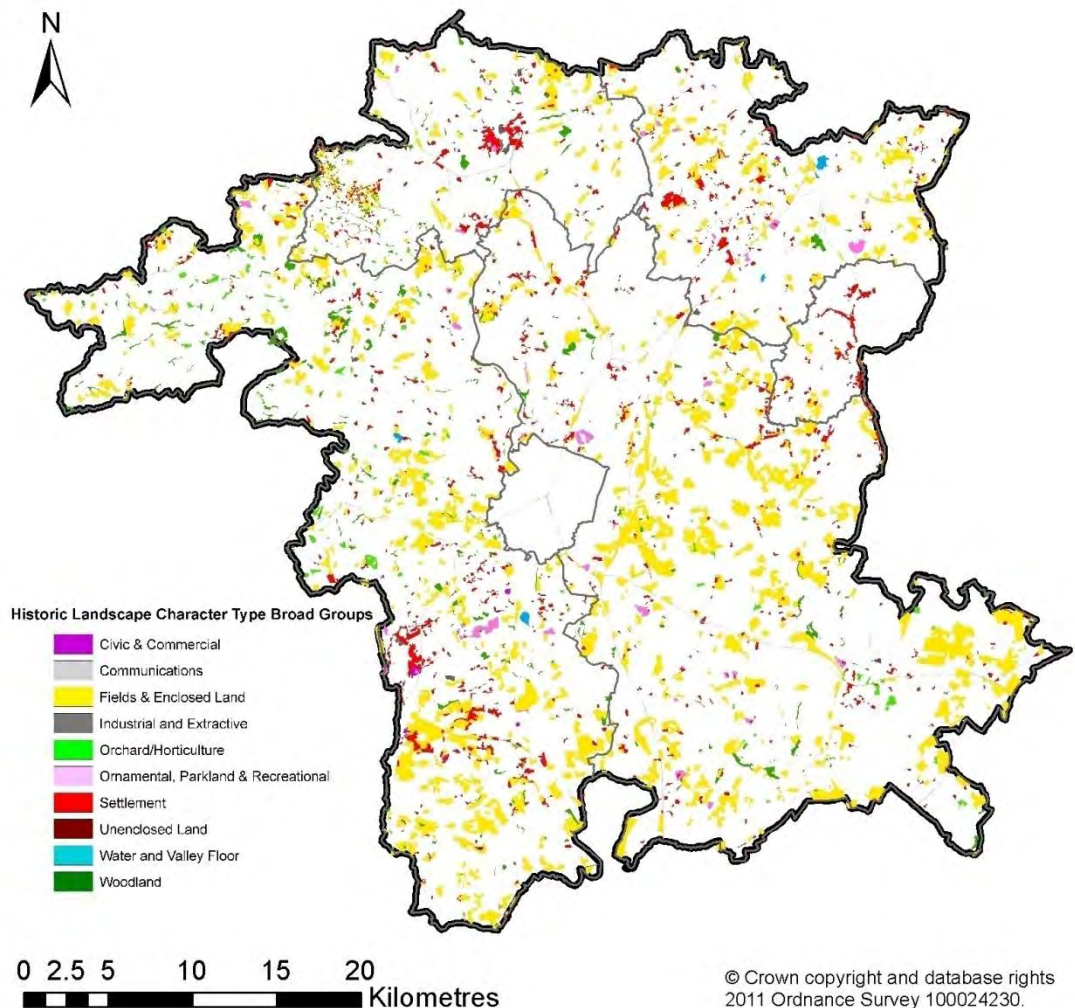


Figure 78. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Industrial period (AD1800-1913).

HLC Type	Area (sq m)	%
Parkland	5058952	0.294
Garden	64139	0.004
Public Open Space	84280	0.005
Sports Ground	42886	0.002
Camp Site	74268	0.004
Cemetery	263729	0.015
Educational Establishment	525127	0.030
Hospital	15959	0.001
Religious Site	137242	0.008
Hotel	19458	0.001
Hard Rock Quarry/ Extraction Site	362171	0.021
Industrial/Factory Complex	704956	0.041
Mill Complexes	21023	0.001
Utilities	214226	0.012
Ancient-Semi-Natural Woodland	536587	0.031
Replanted Ancient Woodland	425717	0.025
Recent Woodland (Secondary)	13600166	0.789
Woodland Plantation	2484955	0.144
Pre-1880's Orchard	6616261	0.384
Post-1880's Orchard	149880	0.009
Nursery/Garden Centre	127132	0.007
Canal/Lock/Basin	108942	0.006
Railways/Stations/Sidings	5688107	0.330
Historic Town	555432	0.032
New Town	8498095	0.493
Modern Expansion	321701	0.019
Modern Infill	59316	0.003
Nucleated Cluster	3371950	0.196
Nucleated Row	3979844	0.231
Interrupted Row	11094335	0.644
Isolated Farmstead	4613200	0.268
Clustered Settlement	5438749	0.316
Waste/Common/Green-edge Sett	668845	0.039
Model Planned Village	815687	0.047
Minor Dispersed Settlement	354190	0.021
Smallholding	996504	0.058
Country House	395875	0.023
Assarted Enclosure	1495070	0.087
Piecemeal Enclosure	3524625	0.205
Irregular Squatter Enclosure	64010	0.004
Encroachment Enclosure	802895	0.047
Small Irregular or Rectilinear Fields	5644013	0.328
Parliamentary Enclosure	124024809	7.198
Planned Private Enclosure	11058998	0.642
Field Amalgamation	6766920	0.393
Meadow	1652889	0.096
Paddock	660926	0.038
Modern Subdivision	156695	0.009
Rough Pasture	1098598	0.064
Field Reorganisation	12939441	0.751
Planned Enclosure for Orchard	1208994	0.070
Post-Enclosure Reorganisation	3251979	0.189
Unimproved Open Hill Pasture	59144	0.003
Other Common/ Green	77639	0.005
Moorland	60421	0.004
Reservoir	536581	0.031
Artificial Lake/Pond	38720	0.002
Watermeadow	500734	0.029
Other Periods	1468905652	85.252
Total County area	1723019639	

Table 27. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Industrial period (AD1800-1913).



*Figure 79. HLC broad group polygons that represent landscape components whose Current historic landscape character is attributed to the Industrial period (AD1800-1913).*

The 19<sup>th</sup> century was witness to the climax of a major enclosure movement of the County's fields and open lands land, through the mutual agreement of landowners that began during the 16<sup>th</sup> century. Enclosure, or Inclosure, was one of the most important formative processes in the evolution of the landscape of England and Worcestershire that we experience in the present-day and occurred as two movements: a reorganisation movement of field and meadow land property and a movement of common and waste reclamation.

Some agriculturalists in the 18<sup>th</sup> century regarded common land as a wasted resource whose reclamation was necessary to maximise resources in a period of increasing food and wool prices. Enclosure broadly took place through either „formal“ or „informal“ agreement.

During the 18<sup>th</sup> century, enclosures were regulated by Parliament. Inclosure not only resulted in the physical enclosure of a piece of land with a boundary such as a fence, hedge or wall, but it also meant severing communal rights or ownership over that piece of land, which is then converted into „severalty“. Severalty meant that the owner then had sole control over its use and access to it.

If a village wished to enclose its land 'formally', it required a separate Act of Enclosure, but in the 19<sup>th</sup> century, Parliament passed a General Enclosure Acts,

which enabled any village to enclose its land if three-quarters of the landowners agreed. The most straightforward informal enclosure was „unity of possession“, whereby if the whole of the land and common rights in a manor, township or parish had been acquired by an individual, then any communal rights or controls ceased to function, as no-one was able to exercise them. (Kain *et al.*, 2004).

In Worcestershire, inclosure of both fields and common are recorded in the HLC information. Much of the historic landscape character changes that the HLC records for the Industrial period relate to these large-scale landscape change movements. Both inclosure of fields and common lands, such as greens, heaths, meadowlands and marsh lands), take place across the county in the period.

### The Post-medieval period (AD1540-1799).

- 23.24% of the current landscape of the County consists of landscape components whose historic characters have changed in some way in the Post-medieval period (Figures 68, 80 and 81).

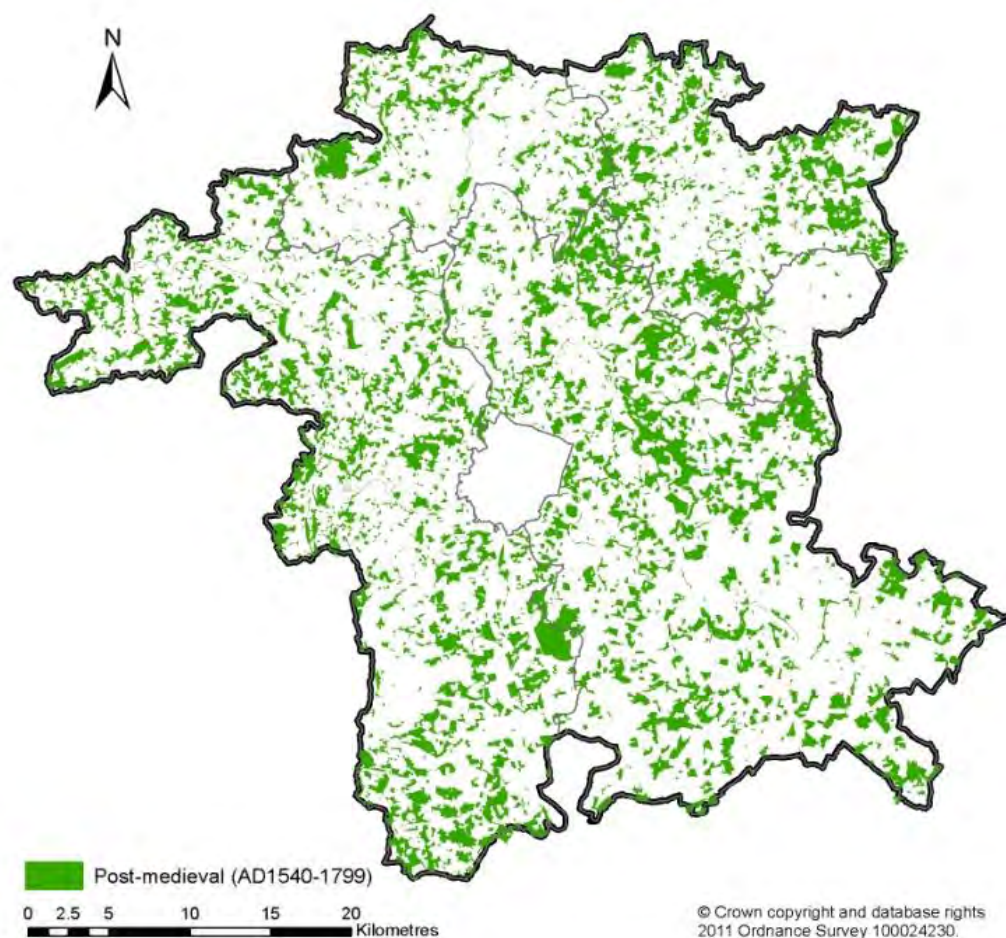


Figure 80. HLC polygons in the current landscape attributed to the Post-medieval period (AD1540-1799).

- Much of the post-medieval landscape components comprise irregular fields, either from the enclosure of former medieval open field systems, encroachment enclosure of former unenclosed lands, the *ad hoc* creation of closes for pasture and/or hay, or from assarting enclosures of former ancient woodland. It is difficult to determine how much of this fieldscape is actually of medieval date;
- Many parklands and deer parks date from this period, often associated with country houses;
- Many of the wayside and isolated settlements appear to date to the post-medieval period.

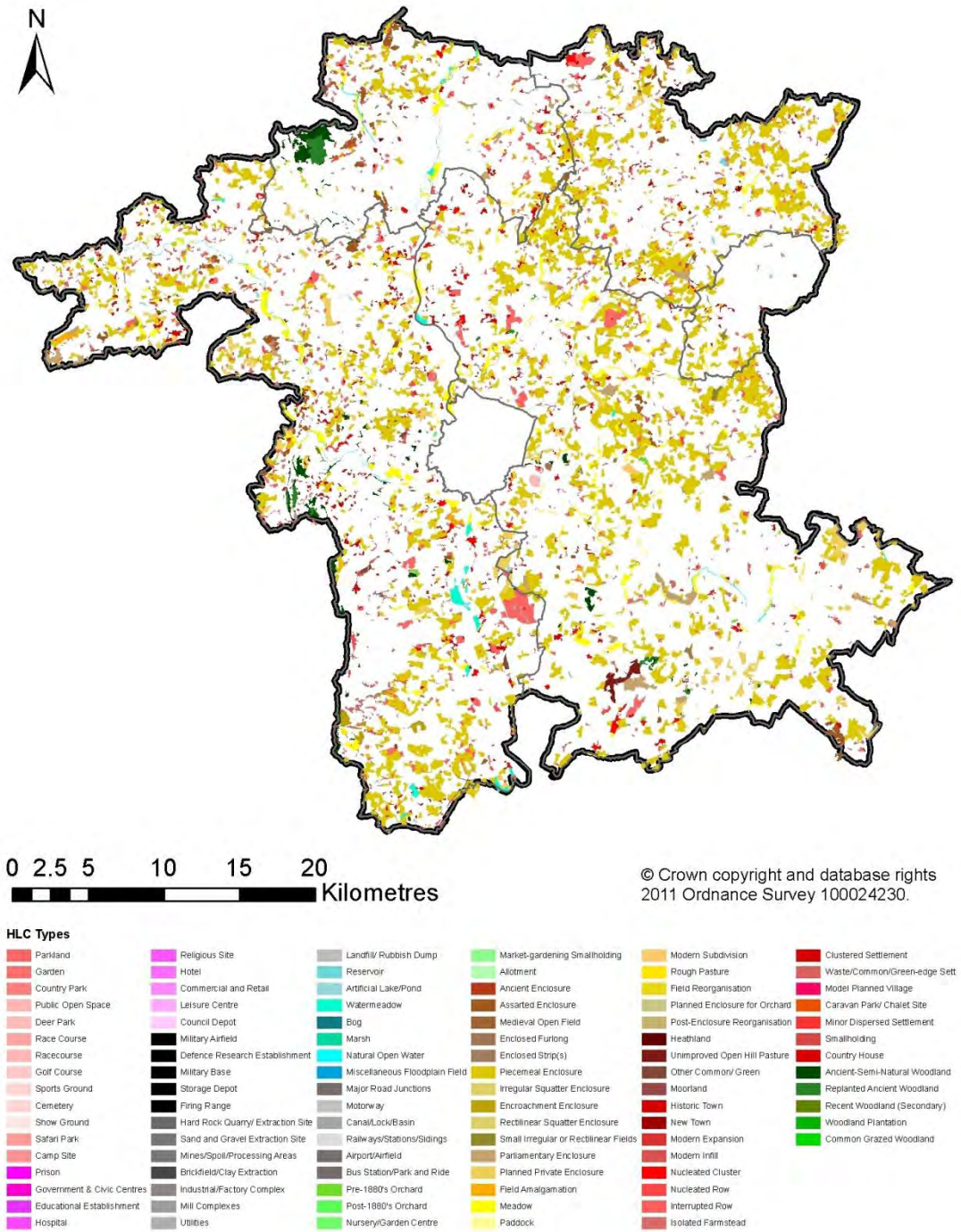
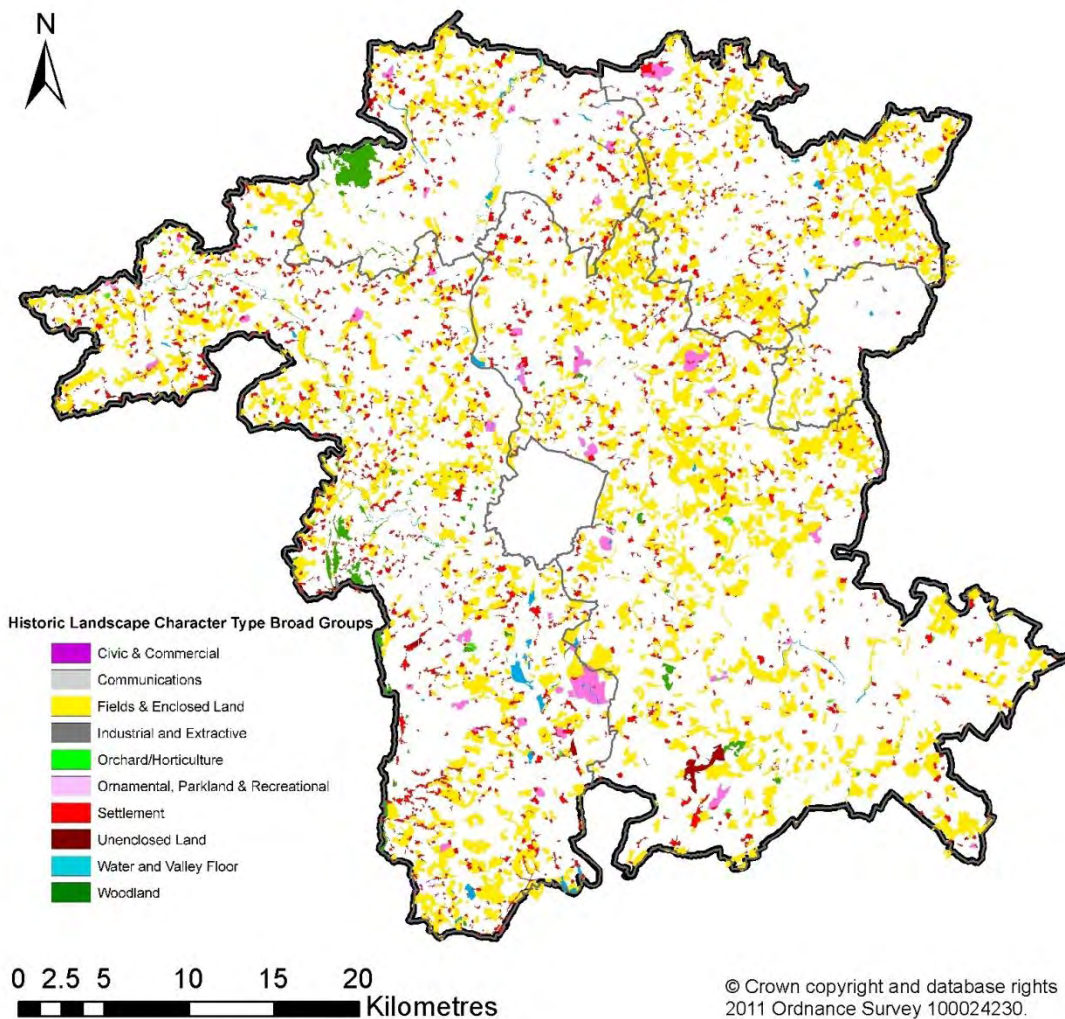


Figure 81. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Post-medieval period (AD1540-1799).

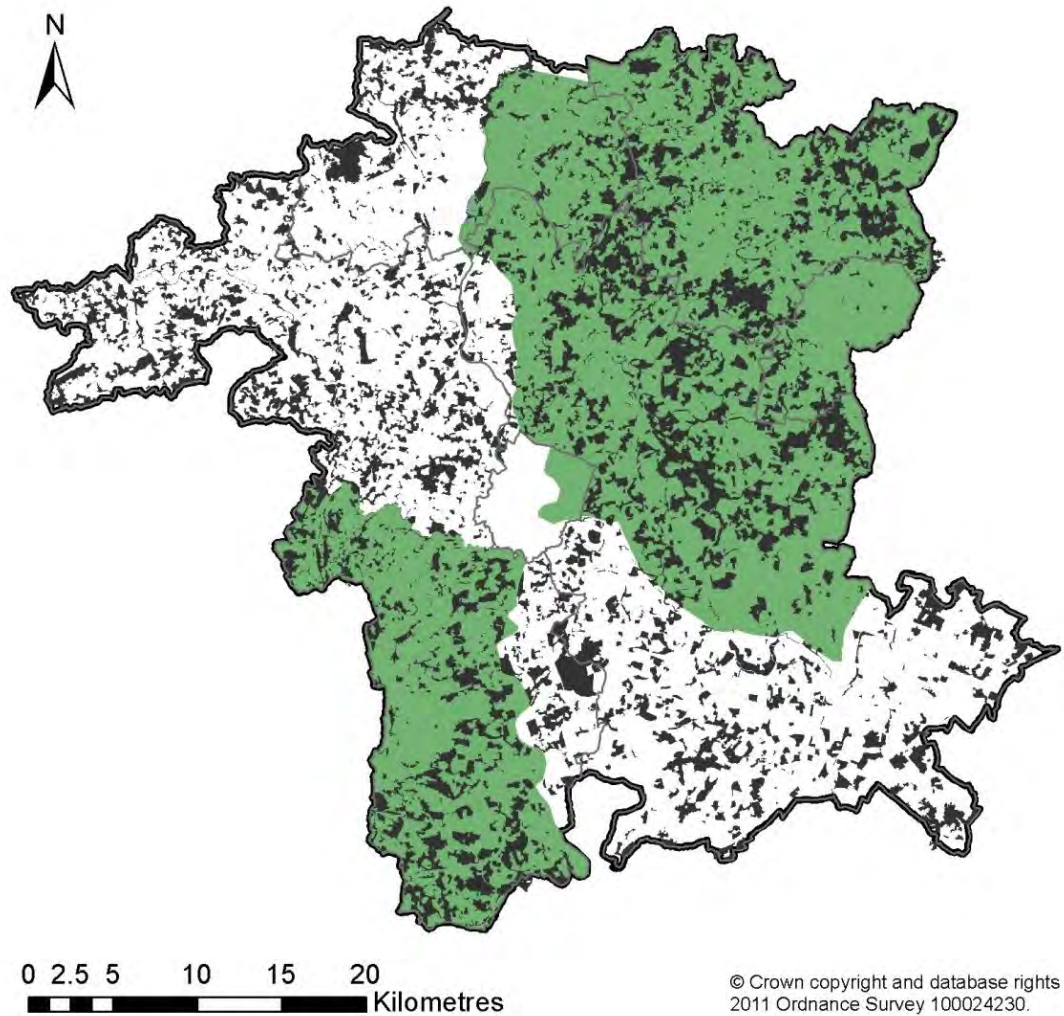


HLC Type	Area (sq m)	%
Parkland	14168320	0.822
Garden	69963	0.004
Deer Park	459546	0.027
Sports Ground	84678	0.005
Religious Site	7640	0.000
Sand and Gravel Extraction Site	105971	0.006
Mill Complexes	1956266	0.114
Ancient-Semi-Natural Woodland	8859017	0.514
Replanted Ancient Woodland	3150277	0.183
Recent Woodland (Secondary)	571568	0.033
Woodland Plantation	151626	0.009
Pre-1880's Orchard	1496497	0.087
Post-1880's Orchard	59327	0.003
Nursery/Garden Centre	38015	0.002
Canal/Lock/Basin	875922	0.051
Historic Town	335171	0.019
New Town	293968	0.017
Modern Expansion	189884	0.011
Nucleated Cluster	7385054	0.429
Nucleated Row	6044868	0.351
Interrupted Row	25108268	1.457
Isolated Farmstead	10877504	0.631
Clustered Settlement	12849400	0.746
Waste/Common/Green-edge Sett	4952437	0.287
Minor Dispersed Settlement	303741	0.018
Smallholding	612333	0.036
Country House	1892835	0.110
Assarted Enclosure	12035954	0.699
Enclosed Furlong	394342	0.023
Enclosed Strip(s)	104819	0.006
Piecemeal Enclosure	214705589	12.461
Rectilinear Squatter Enclosure	116663	0.007
Encroachment Enclosure	2306567	0.134
Small Irregular or Rectilinear Fields	1598802	0.093
Parliamentary Enclosure	8104812	0.470
Planned Private Enclosure	20330866	1.180
Field Amalgamation	1374062	0.080
Meadow	25323519	1.470
Paddock	525143	0.030
Modern Subdivision	531202	0.031
Rough Pasture	686089	0.040
Field Reorganisation	235765	0.014
Unimproved Open Hill Pasture	1659071	0.096
Other Common/ Green	1026650	0.060
Reservoir	234508	0.014
Artificial Lake/Pond	1026009	0.060
Watermeadow	3399350	0.197
Natural Open Water	1867721	0.108
Other Periods	1322532040	76.757
Total County area	1723019639	

Table 28. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Post-medieval period (AD1540-1799).



*Figure 82. HLC broad group polygons that represent landscape components whose Current historic landscape character is attributed to the Post-medieval period (AD1540-1799).*

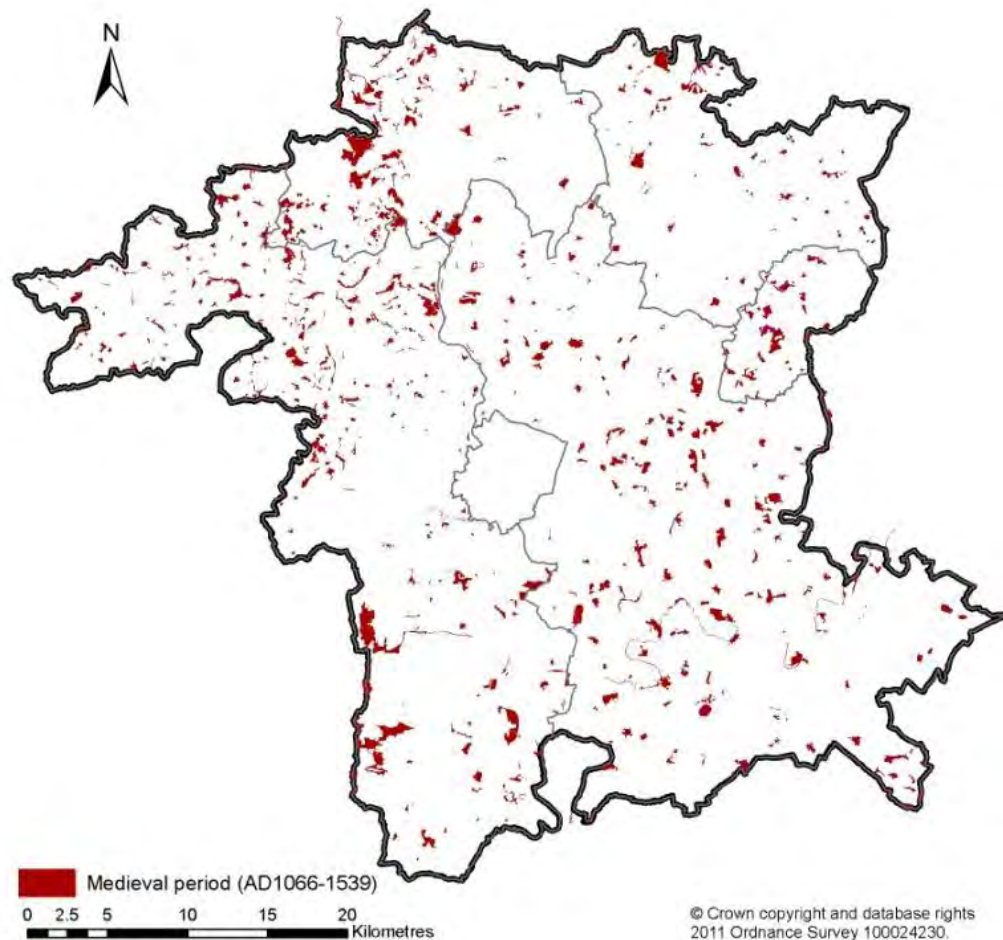


*Figure 83. Recording time-depth information is integral to the Worcestershire HLC methodology.*

Figure 83 shows those landscape components in the Current historic landscape character that are attributed to the Post-medieval period (AD1540-1799), along with the speculative former extents of the Royal Forests of Feckenham and Malvern. Malvern was, in fact, officially known as a Chase as it had passed into ownership of a member of the nobility rather than royalty, but 'forest law' still applied. These royal forests were subsequently disafforested in the first half of the 17<sup>th</sup> century. Whilst not definitive, there does appear to be a correlation with surviving post-medieval landscape components and the boundaries of the forest.

**The Medieval period (AD1066-1539).**

- 4.57% of the current landscape of the County consists of landscape components whose historic character has changed in some way in the Medieval period (Figures 68 and 84).



*Figure 84. HLC polygons in the current landscape attributed to the Medieval period (AD1066-1539).*

- The definition of ancient semi-natural woodland is that it contains species that indicate it was extant in AD1600, and so it is likely that much dates to the medieval period.

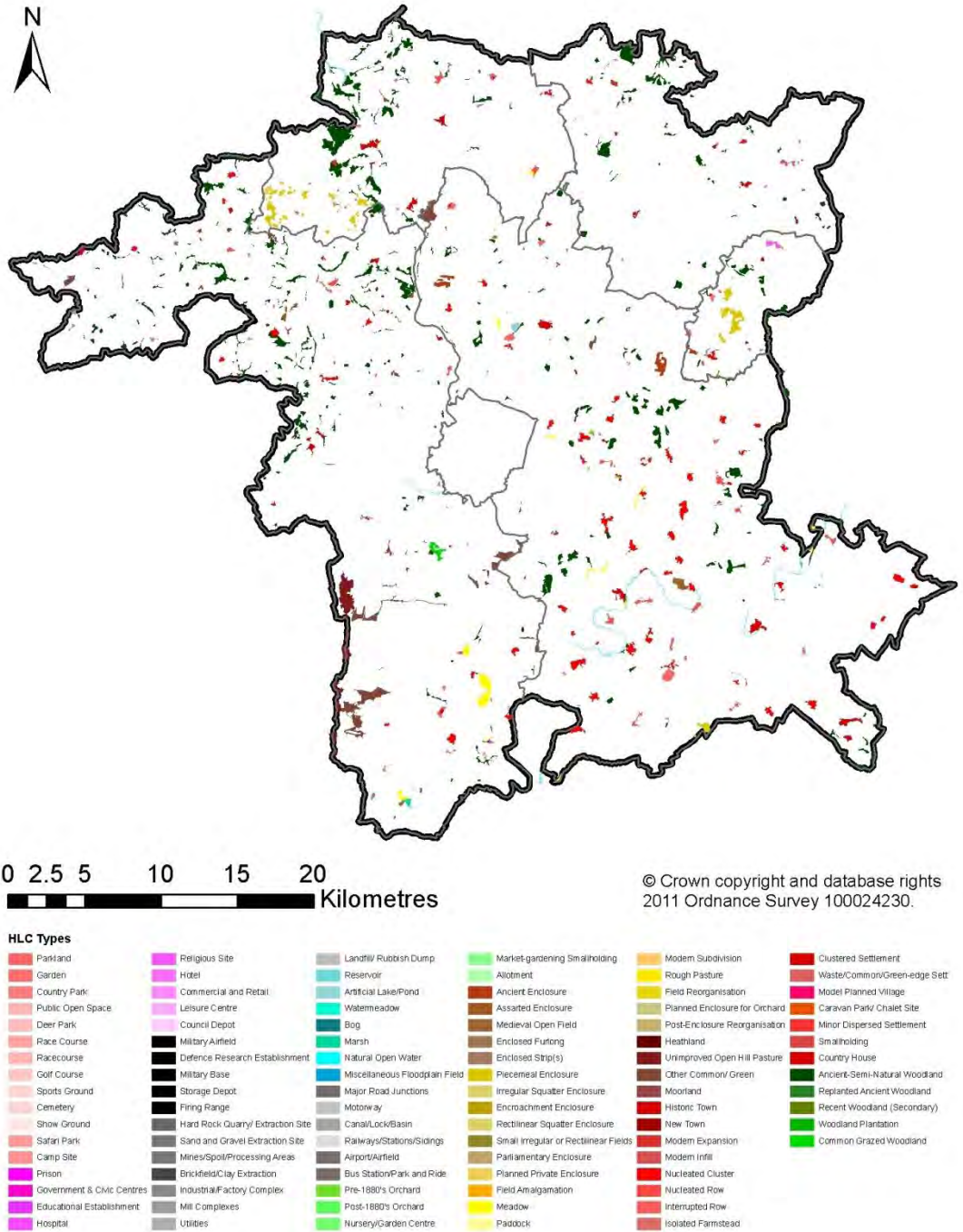
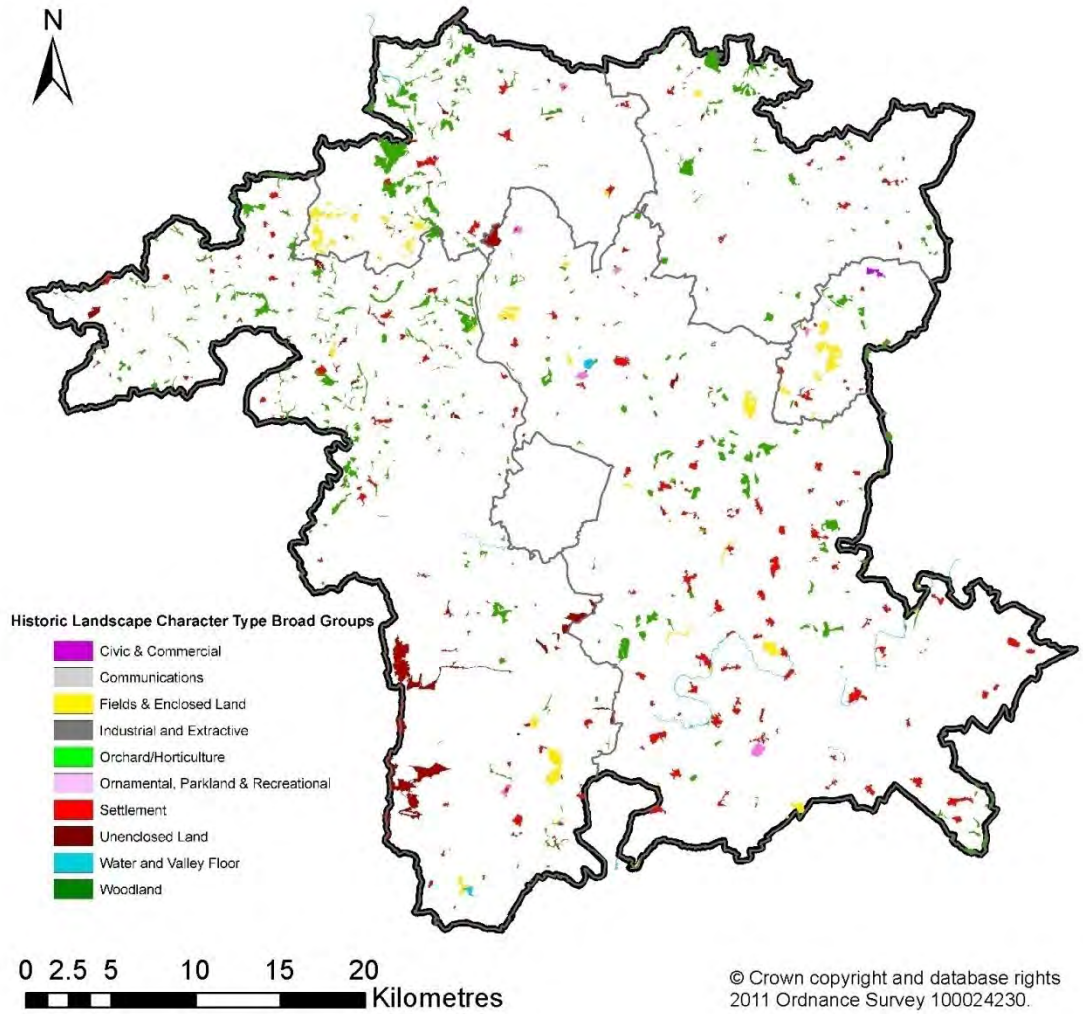


Figure 85. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Medieval period (AD1066-1539).

HLC Type	Area (sq m)	%
Parkland	1334712	0.077
Educational Establishment	49901	0.003
Religious Site	525836	0.031
Commercial and Retail	13584	0.001
Military Base	18877	0.001
Mill Complexes	328336	0.019
Ancient-Semi-Natural Woodland	35037460	2.033
Replanted Ancient Woodland	11534	0.001
Recent Woodland (Secondary)	103595	0.006
Common Grazed Woodland	499499	0.029
Pre-1880's Orchard	105914	0.006
Historic Town	3061096	0.178
Modern Expansion	120156	0.007
Nucleated Cluster	9558192	0.555
Nucleated Row	2770822	0.161
Interrupted Row	906680	0.053
Isolated Farmstead	609849	0.035
Clustered Settlement	870070	0.050
Waste/Common/Green-edge Sett	124222	0.007
Minor Dispersed Settlement	16697	0.001
Country House	876901	0.051
Ancient Enclosure	1532097	0.089
Assarted Enclosure	218113	0.013
Medieval Open Field	556897	0.032
Piecemeal Enclosure	3818589	0.222
Parliamentary Enclosure	23397	0.001
Planned Private Enclosure	230953	0.013
Field Amalgamation	45908	0.003
Small Irregular or Rectilinear Fields	104354	0.006
Meadow	2529227	0.147
Heathland	28148	0.002
Unimproved Open Hill Pasture	3245053	0.188
Other Common/ Green	7048130	0.409
Artificial Lake/Pond	284075	0.016
Marsh	166631	0.010
Natural Open Water	1754328	0.102
Other Periods	1644489806	95.442
Total	1723019639	

Table 29. HLC Type polygons that represent landscape components whose Current historic landscape character is attributed to the Medieval period (AD1066-1539).



*Figure 86. HLC broad group polygons that represent landscape components whose Current historic landscape character is attributed to the Medieval period (AD1066-1539).*

### The Post-Roman period (AD410-1065).

- 0.13% of the current landscape of the County consists of landscape components whose historic character has changed in some way in the Post-Roman period (Figures 68 and 87).



*Figure 87. HLC polygons in the current landscape attributed to the Post-Roman period (AD410-1065).*

- The area of ancient oak woodland known as Chaddesely Wood, formerly part of a once much larger Feckenham Forest, has been identified as possibly a „wood of two leagues” that is recorded in the Domesday Book, so would have been extant prior to the medieval period.



### Iron Age (BC800-BC42)

- 0.23% of the current historic landscape of the County consists of landscape components whose historic character has its origin in the Iron Age period (Figures 68 and 88).



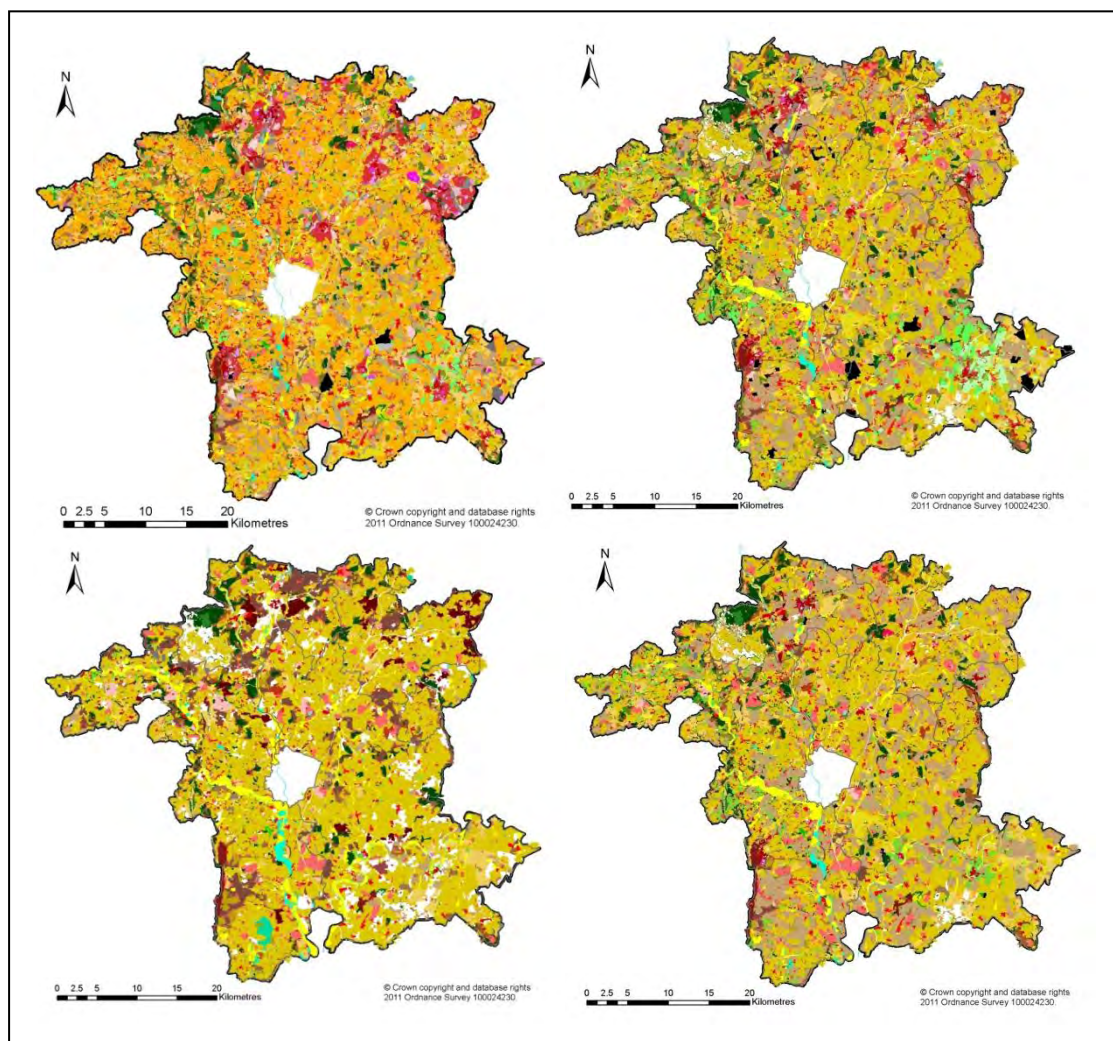
*Figure 88. HLC polygons in the current landscape attributed to the Iron Age period.*

- This very small group of landscape features represents historic monuments (over 2 hectares in area) of Iron Age date surviving in the modern landscape, such as the hillforts on Bredon Hill and The Malvern Hills. Other Iron Age monuments also survive in the County, but had an area smaller than the minimum polygon size set out in the HLC methodology.

9.

## Landscape Change Through Time

The Worcestershire HLC digital information records not only the time-depth information on the current historic landscape, but also records previous historic landscape characters for each polygon where they are identified from map and other sources as part of the HLC mapping process. Each previous character (to a maximum of 3) is also assigned a time period in which that landscape change relates to. Using the previous historic landscape character information gathered, therefore, it is possible to represent the County's historic landscape as it may have appeared in a number of past historic periods, from the present to the post-medieval, as shown in Figure 89.



*Figure 89. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.*

Using the broad HLC groups, Figure 90 documents well the broad-scale evolution of the County's landscape from the late 16<sup>th</sup> century to the present day.

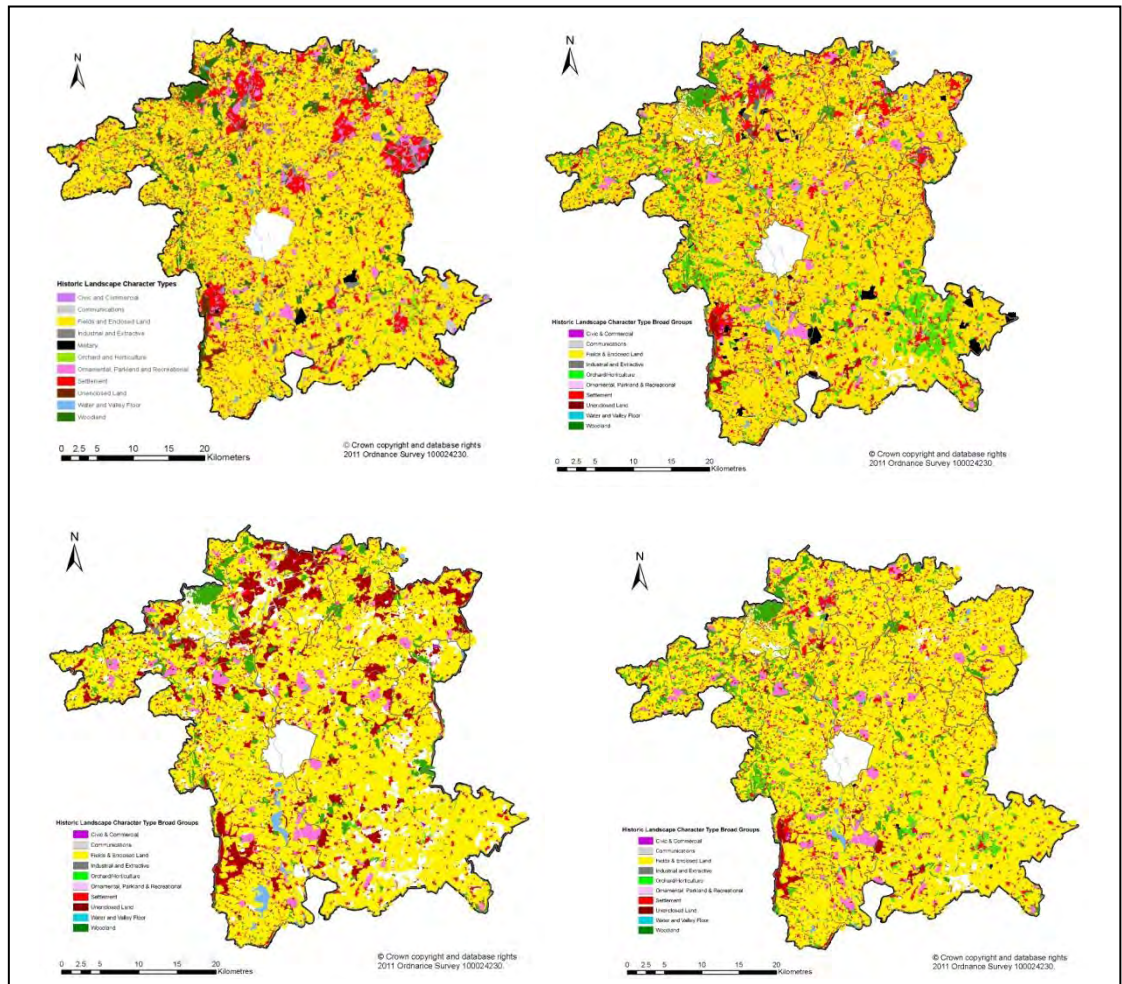
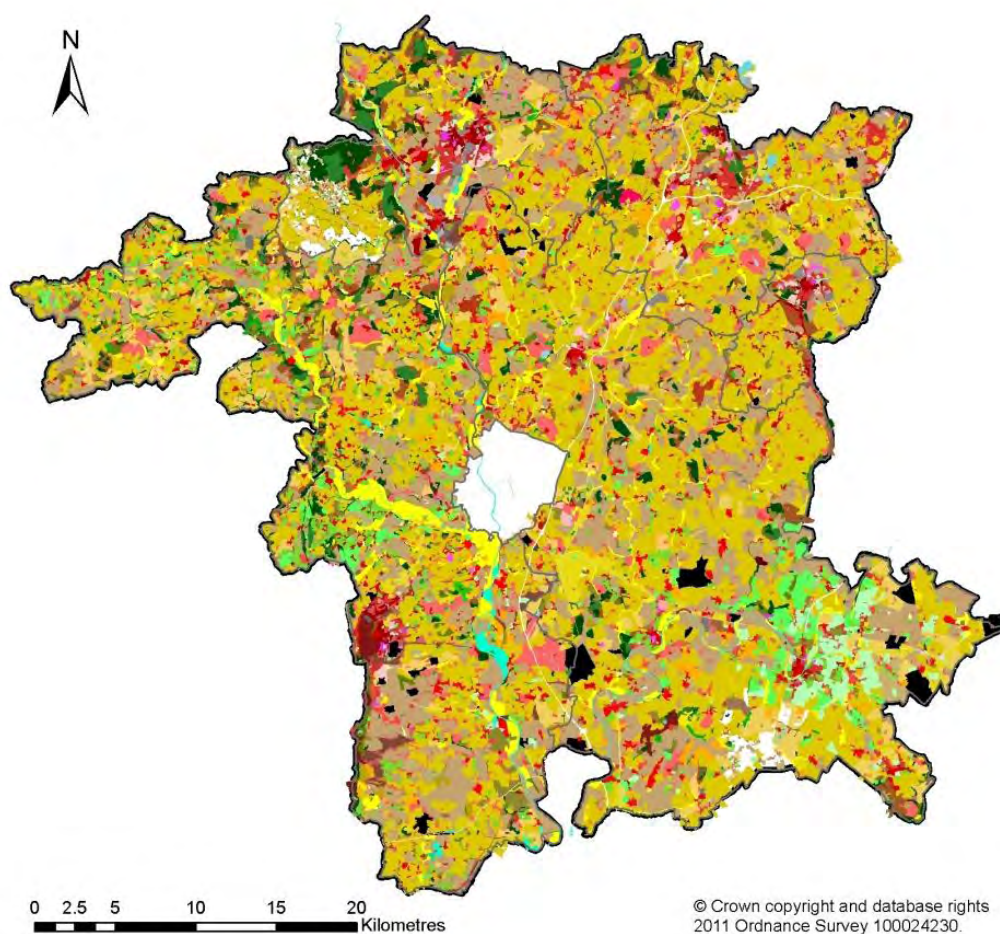


Figure 90. Clockwise from top left: The current HLC broad groups, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.

- In the Post-war period (1945-Present), there is significant urban expansion around historic towns, as well as the laying out of planned New Town settlement (Figures 89-90). The orchard industry in the west and south-east, that reached its zenith in the early 20<sup>th</sup> century, contracts but remains an integral part of the landscape character of those areas. Many historic parklands are turned over to agriculture or become recreational facilities;
- In the Post-1914 period (AD1914-1945), orchards and small-scale market gardening expands greatly in the south-east and west, the historic urban areas expand further and large military installations are created;
- The Industrial period (AD1800-1913) sees the rise of orcharding in the west and south-east, the enclosure of much of the unenclosed land in the north of the County, the contraction of the unenclosed and wet lands in the west, and urban expansion around newly industrialised areas;
- The post-medieval period (AD1540-1799) is characterised by a landscape of irregular fields, historic settlement, ancient woodland, parklands and large areas of unenclosed and wet lands.

## POST-1914 PERIOD (AD1914-1945)



*Figure 91. HLC 'previous character' polygons that represent the County's historic landscape character in the Post-1914 period (AD1914-1945).*

- Figure 91-93 show the historic landscape character for the Post 1914 period, (AD1914-1945). Fields and Enclosed Lands comprise 69.72% of the County's total land area, a 1% increase on the Fields and Enclosed Lands area in the current landscape. Much of this is either pre-1800 Piecemeal Enclosure or 19<sup>th</sup> century Parliamentary Enclosure;
- Settlement covers nearly 11% of the County, compared to nearly 14% today. Much of the area now occupied by Bromsgrove and Redditch towns is agricultural land at this time;

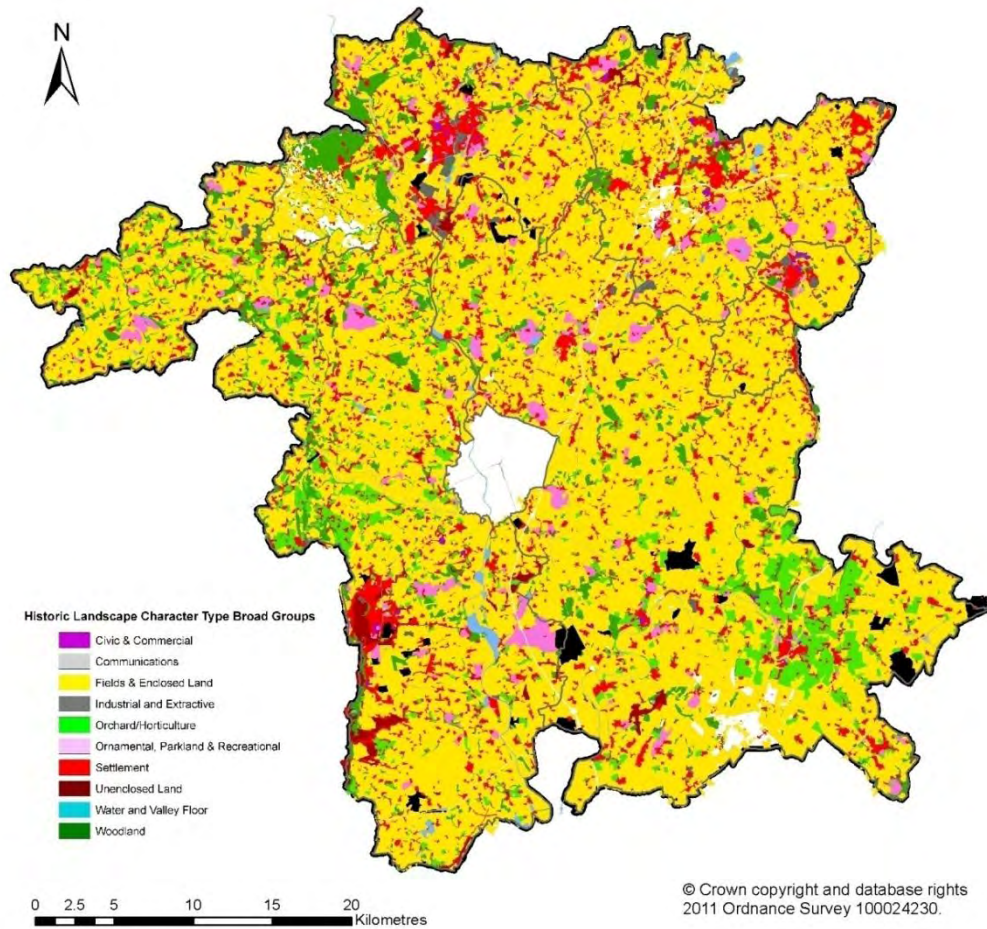


Figure 92. HLC broad group 'previous character' polygons that represent the County's historic landscape character in the Post-1914 period (AD1914-1945).

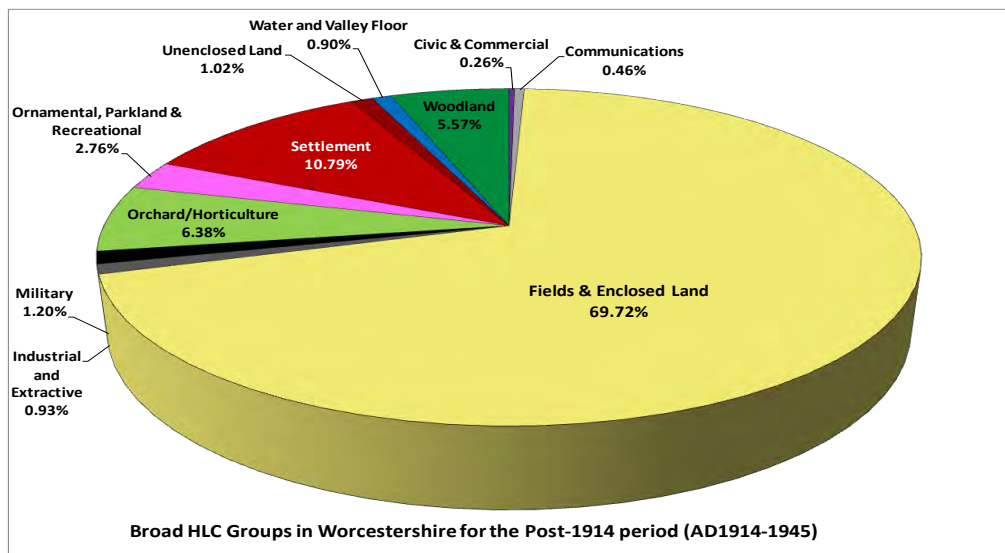
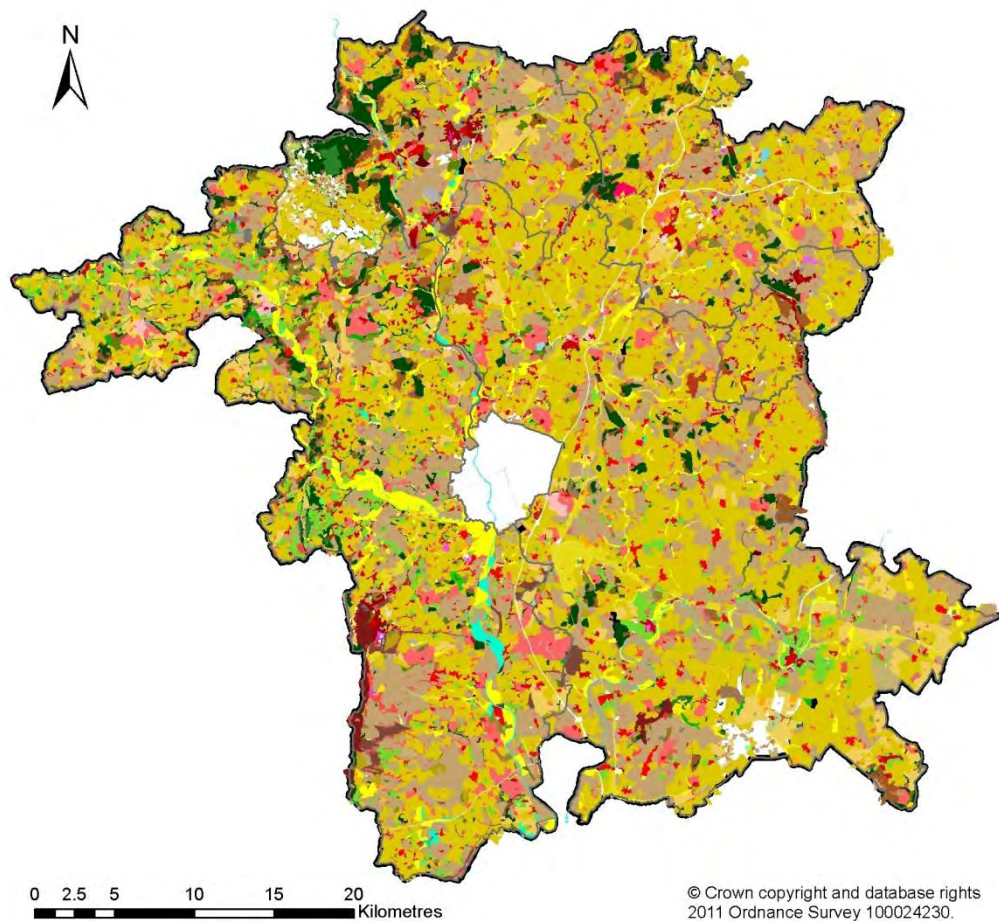


Figure 93. The breakdown of the broad HLC groups for the Post-1914 period (AD1914-1945).

- Swathes of semi-ancient natural woodland, especially in the Wyre Forest area, are cleared in the 20<sup>th</sup> century and replanted with a mixed deciduous and coniferous habitats as part of large-scale mechanised forestry policies;

- The south-eastern area around Evesham is dominated by small-scale market gardening allotments and orchards. These produced soft fruits such as plum, apples, strawberries and gooseberries, as well as vegetables such as asparagus. Many of the soft fruits were made straight into cheap jams and jellies, which the working classes favoured, at one of the four jam factories in the area (Haggard, 1902);
- The orchards in the centre-west of the County and along the Teme Valley represent mainly hop production at this time, the area popular for this industry due to its sandstone geology being favourable to hops, cheap land (thirty shillings to one pound an acre compared to three pounds in Kent), cheap labour from the Black Country at harvest and the fact that the Worcestershire growers paid no commission as they dealt direct with the merchant and brewer. Between 1878 and 1900, hop acreage in Worcestershire increased by 60 per cent (Haggard, 1902);
- 2.76% of the County is covered by Ornamental, Parkland & Recreational landscape components. Most of this is small Parks and Deer Parks, visible in an east-west band in the northern half of the County, but also in the larger estates of Croome, Blackmore and Madresfield in the south-west. Compare this to 1.44% in the modern landscape, when many of the smaller parklands have been enclosed for agriculture.



*Figure 94. HLC 'previous character' polygons that represent the County's historic landscape character in the Industrial period (AD1800-1913).*

Figures 94-96 show the County's historic landscape as it may have looked in the Industrial period of the 19<sup>th</sup> century.

- The amount of woodland in this period remains stable through into the Post-1914 period, but in the 19<sup>th</sup> century much of this 5.57% is still ancient woodland habitats and has not yet succumbed to modern large-scale forestry techniques.

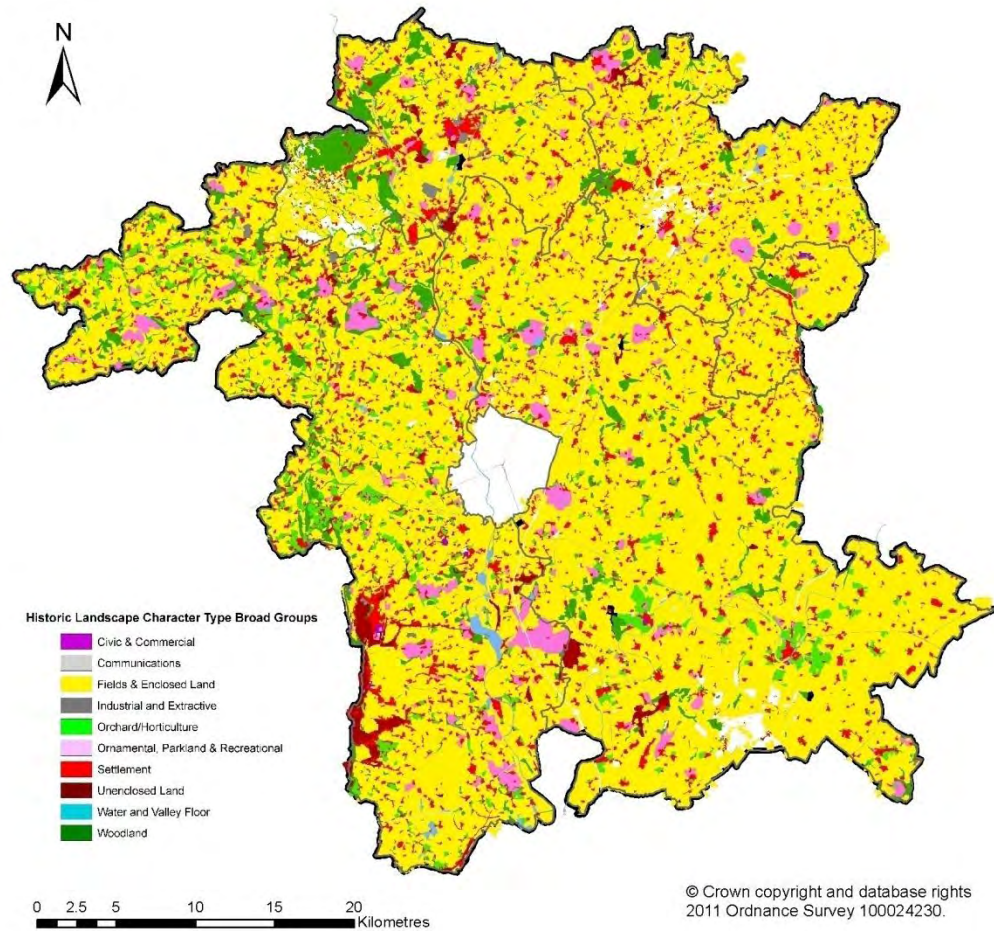


Figure 95. The County's historic landscape character shown as broad HLC groups for the Industrial period (AD1800-1913).

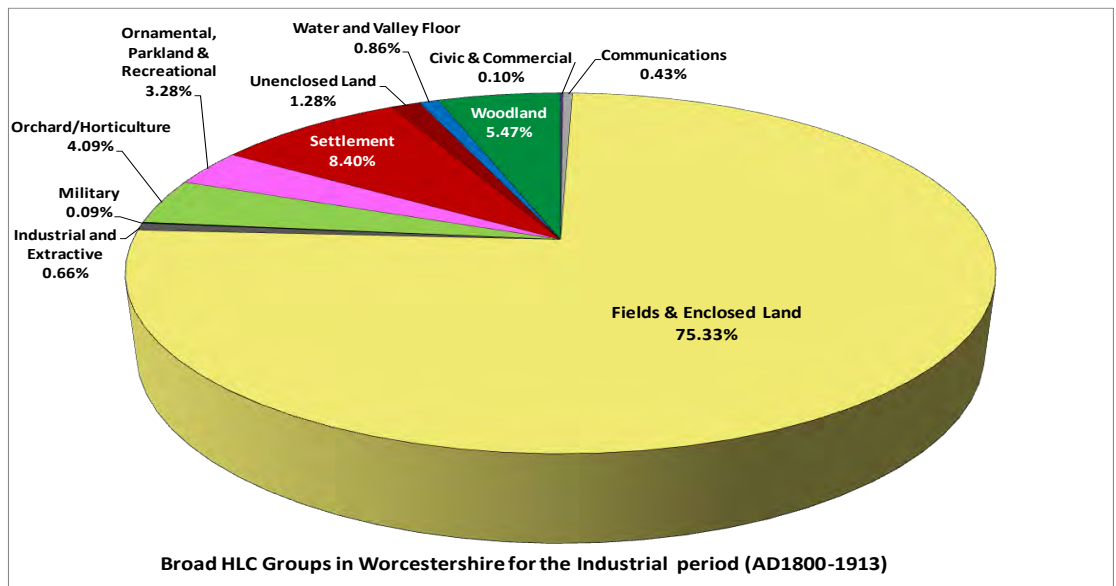


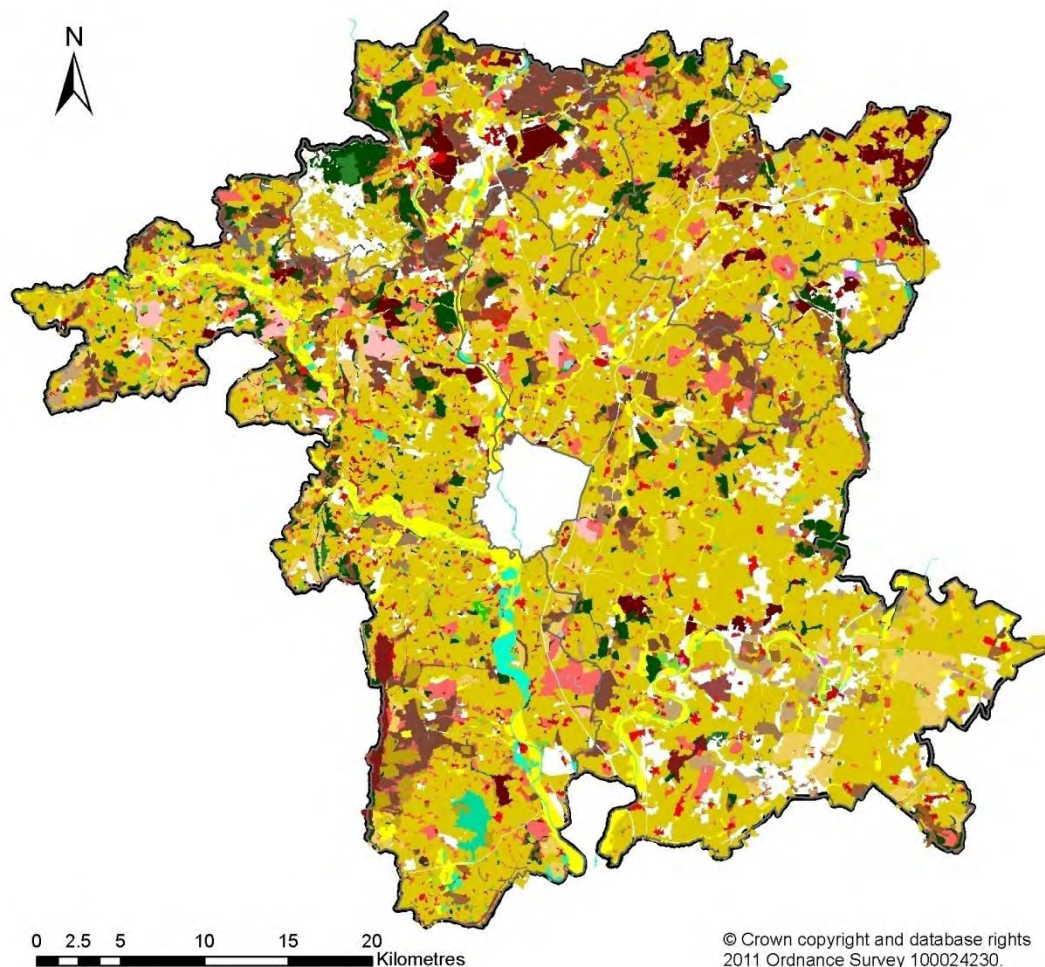
Figure 96. The breakdown of the broad HLC groups for the Industrial period (AD1800-1913).

- In the Industrial period (AD1800-1913), over 75% of the County was Field and Enclosed Land. The enclosure of formerly open lands, such



as commons and heaths, under the Inclosure Acts are evident in this period, with large tracts of such geometric and planned Parliamentary Enclosure, shown in light brown in Figure 94, occurring mainly in the mid and latter half of the 19<sup>th</sup> century. This geometric field pattern allows for the efficient use of by-then increasingly industrialised agricultural methods, such as steam-ploughing, thus maximising the return from the land.

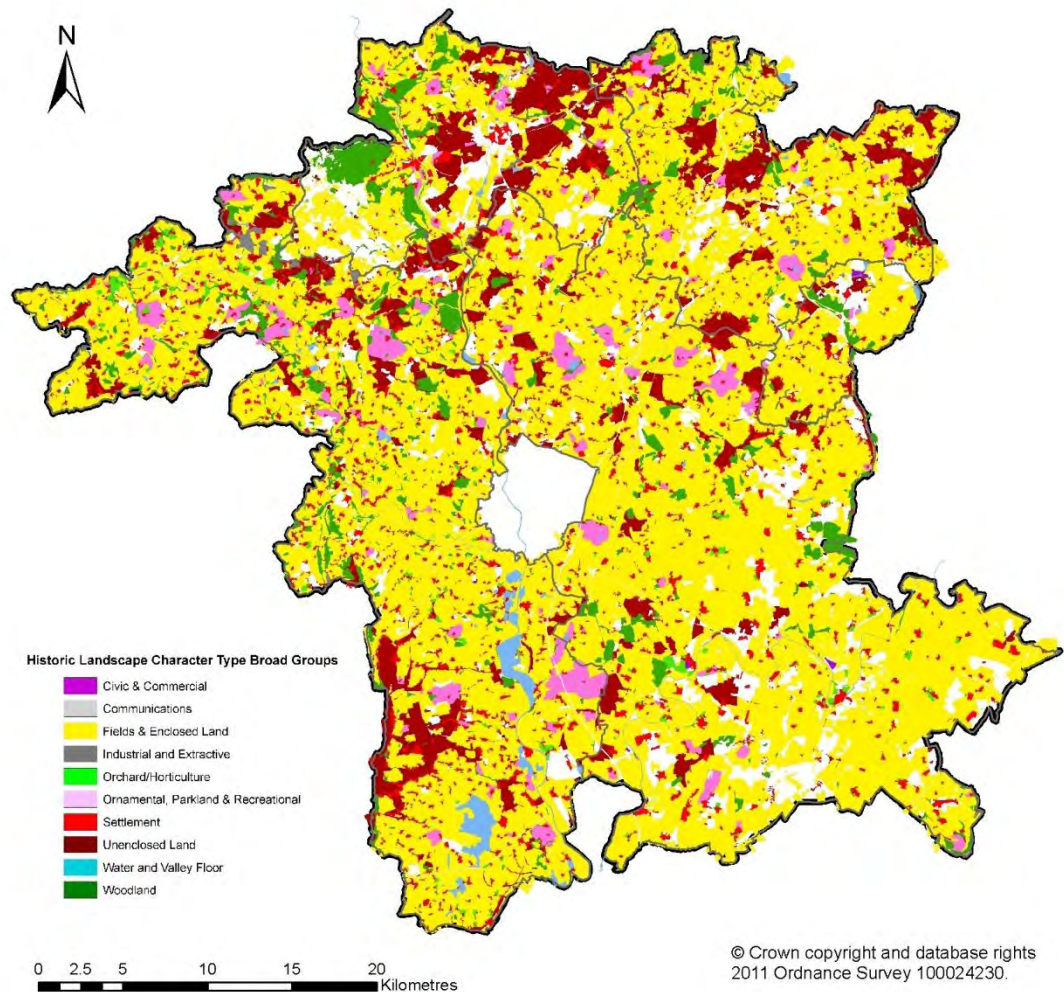
- Areas of contiguous former medieval open fields, mostly confined to the south-east and east of the County, are also enclosed under the Inclosure Acts, but inclosure occurs (early) during the 18<sup>th</sup> century and early 19<sup>th</sup> centuries in these areas and the Parliamentary Enclosure field pattern, although planned, is less geometric and takes a more organic and sinuous form for the use of pre-Industrial Revolution agricultural methods, such as horse or oxen-drawn ploughing.
- Settlement covers over 8% of Worcestershire, representing mostly historic settlement cores, with some expansion around the industrialising town of Kidderminster, reflecting the rise of carpet manufacturing. Settlement expansion also occurs at the spa town of Malvern as a result of the popular Victorian fashion for 'taking the waters', the hydrotherapy treatments offered there attracting visitors such as Queen Victoria, whose presence then ensured its popularity;



*Figure 97. The County's historic landscape character shown for the Post-medieval Period (AD1540-1799).*

Figures 97-99 show the County's historic landscape as it may have looked in the Post-medieval Period (AD1540-1799).

- The most noticeable feature of the County's post-medieval landscape is the amount of unenclosed land that was present at this time (Figure 98). This included greens, commons, heaths, lowland moors, bogs and marshes. The most contiguous tracts of commonland still present in the modern landscape are in the south-west of the County, around Castlemorton and Birtsmorton, but in the post-medieval period there were large swathes of unenclosed land in the northern half of Worcestershire. The antiquity of these open lands is uncertain, but it is certainly suggested from documentary evidence, such as John Leland's mid-16<sup>th</sup> century travels around England, that they existed in the medieval period ;
- There appears to be a general association between the presence of unenclosed land and the locations of Parkland or Deer Parks (Figure 98). Many are contiguous with each other and others are in close proximity. This is strong evidence to suggest that the historic origins of parklands and deer parks in the County are as former unenclosed lands, which was subsequently emparked in the post-medieval period.



*Figure 98. The County's historic landscape character shown as broad HLC groups for the Post-medieval Period (AD1540-1799).*

One of the surprising results arising from the HLC project has been the identification of large areas of former unenclosed land that was still extant at the end of the post-medieval period. In the County's present-day landscape, the Unenclosed Land HLC broad group only accounts for 0.82% of the total land area (Figure 99).

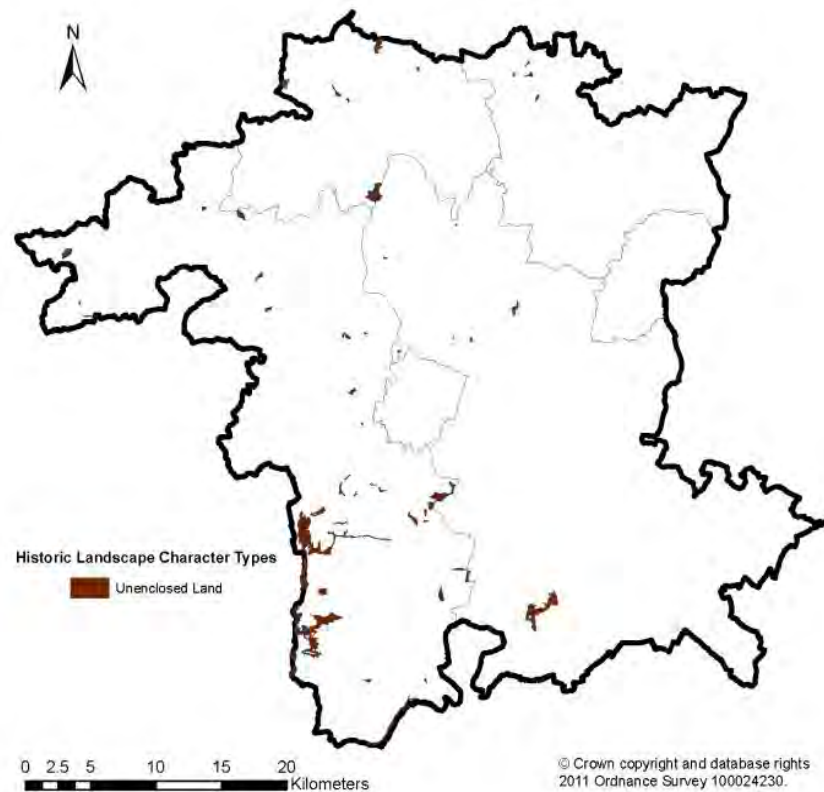


Figure 99. The Current HLC for Unenclosed Land, comprising 0.82% of the County's total area.

Although several small polygons were recorded for Heathland and Moorland on the current HLC, they were not large enough to appear statistically. As can be seen from Table 30 and Figures 99 to 104, the HLC information suggests that in the 19<sup>th</sup> century there is a significant reduction in the amount of unenclosed land across the County that had existed in the centuries before. The overall area of unenclosed land drops from 8.65% in the 18<sup>th</sup> century (HLC post-medieval period) to 1.28% in the 19<sup>th</sup> century (HLC Industrial period). Thereafter, there is a small but continuing decline to the 0.82% of County area in the current historic landscape.

HLC Unenclosed Land Type	Post-war (1945-Present)	Post-1914 (AD1914-1945)	Industrial (AD1800-1913)	Post-Medieval (AD1540-1799)
Heathland (sq km)	2.8148	7.28184	10.65697	39.323884
Unimproved Open Hill Pasture (sq km)	4.963268	6.135212	7.474916	9.364833
Other Common/Green (sq km)	9.027742	10.350534	13.079995	94.816049
Moorland (sq km)	0.060421	0.060421	0.060421	4.938750
<b>Total % of County</b>	<b>0.82%</b>	<b>1.02%</b>	<b>1.28%</b>	<b>8.65%</b>

Table 30. A comparison of the areas of Unenclosed Land in the County from the current landscape to the post-medieval period.

The HLC information for the Industrial Period (19<sup>th</sup> century) shows that much of this former open land is turned over to agricultural fields as part of planned enclosure under the Inclosure Acts.

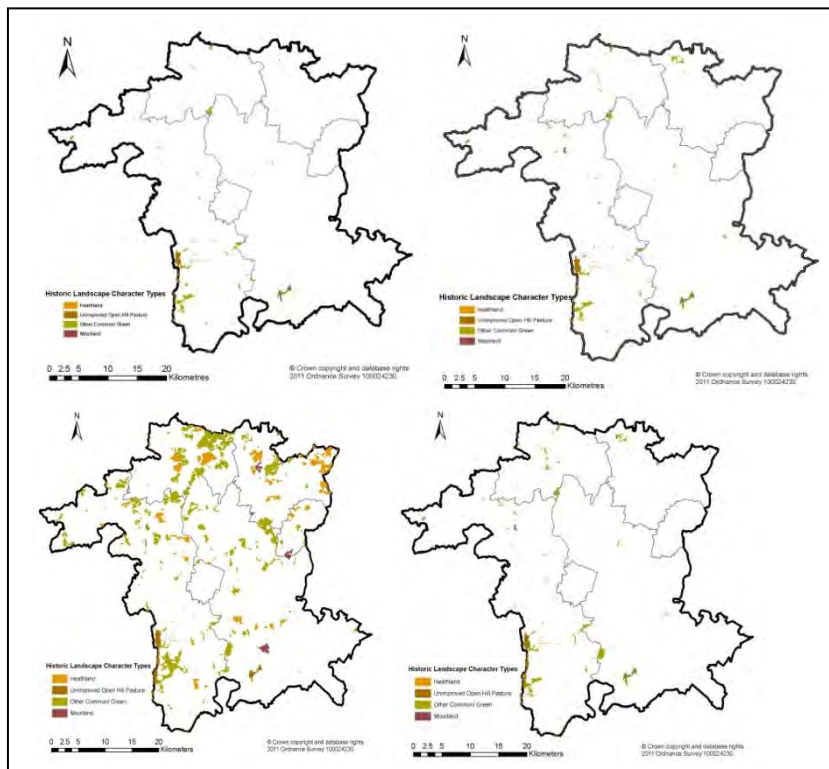


Figure 100. Clockwise from top left: The current HLC, AD1914-1945 period, AD1800-1913 period, and AD1540-1799 period, charting the enclosure of former open lands in the County.

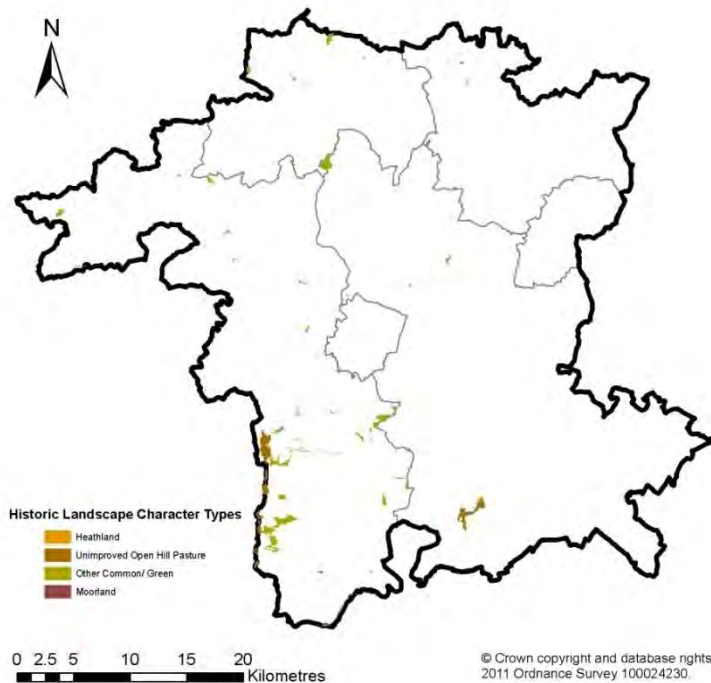
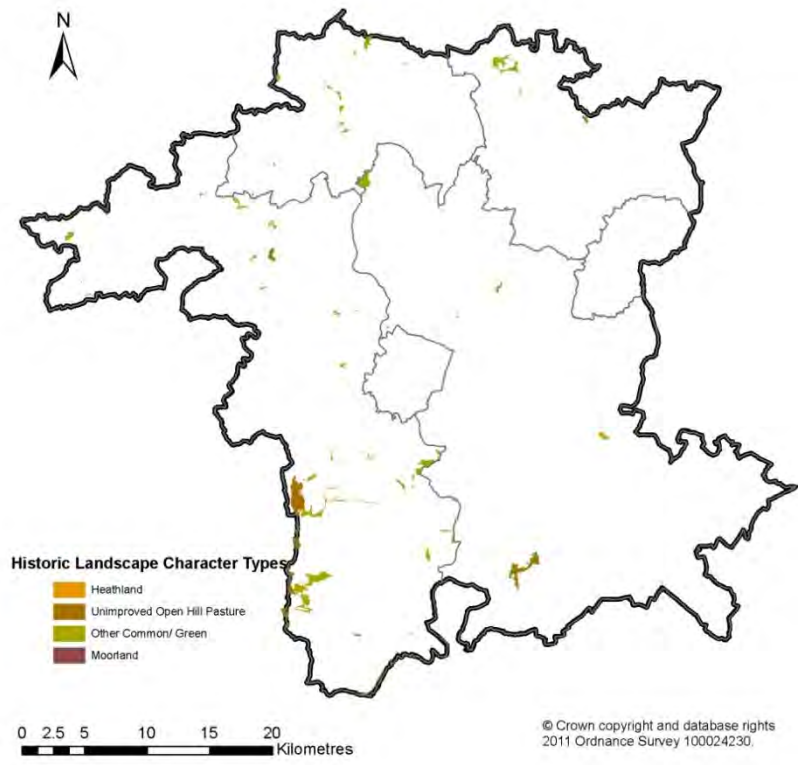
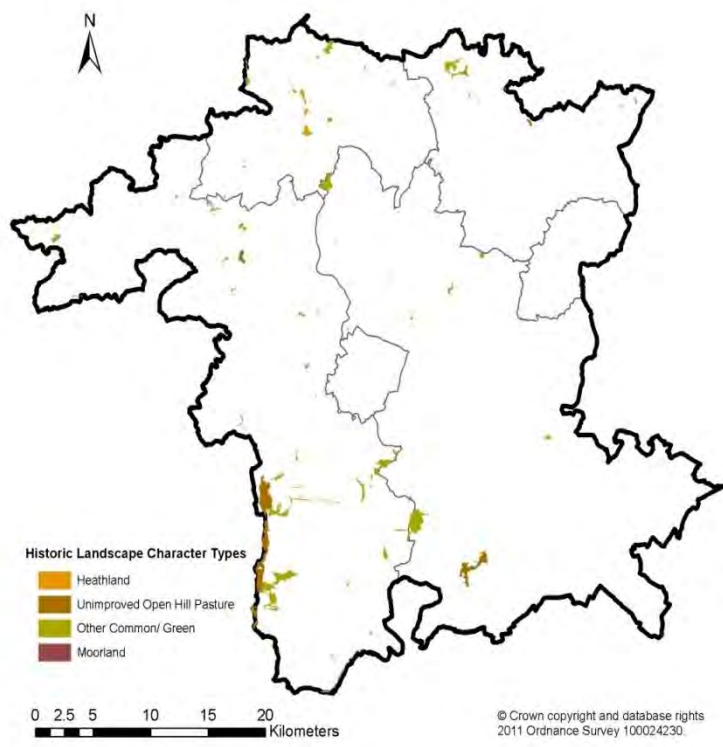


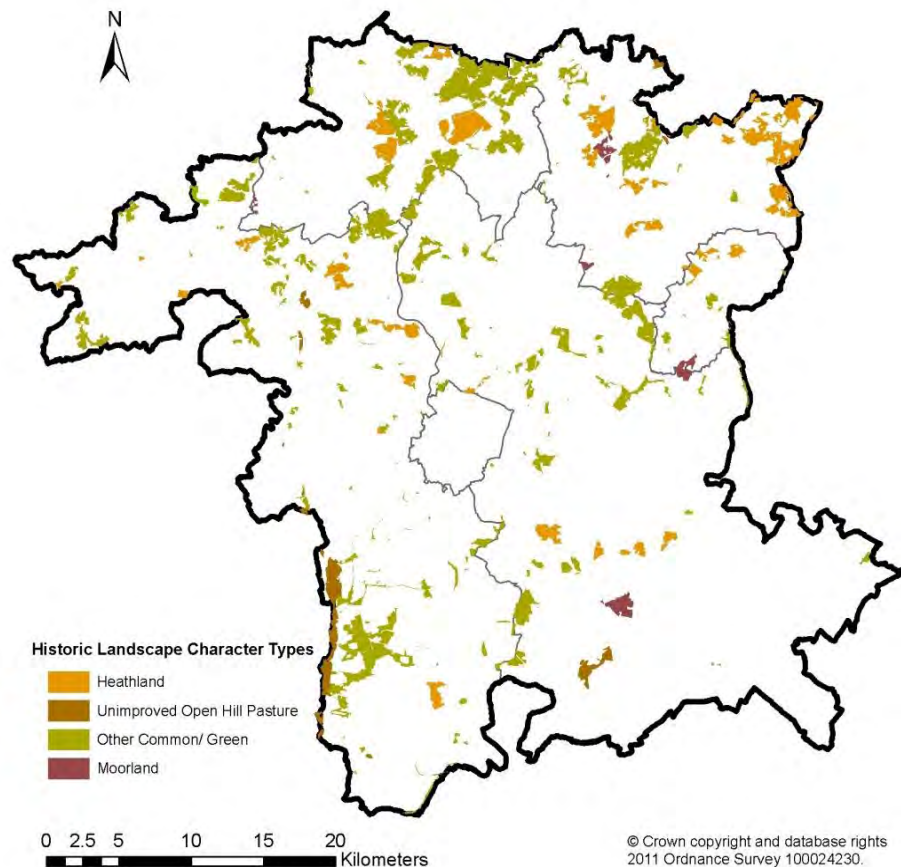
Figure 101. Unenclosed Land in the Post-war (1945-Present) period – 0.82% of the County's total area.



*Figure 102. Unenclosed Land in the Post-1914 Period (AD1914-1945) - 1.02% of the County's total area.*



*Figure 103. Unenclosed Land in the Industrial Period (1800-1913) - 1.25% of the County's total area.*



*Figure 104. Unenclosed Land in the Post-medieval Period (AD1540- 1799) - 8.65% of the County's total area.*

The extents of former unenclosed and uncultivated lands were not restricted to heath, moor, hill pasture, common and green however. In the County's landscape, other historic landscape character types are defined by the fact that they have a (usually) open character:

- Meadow lands – Meadow and Miscellaneous Floodplain Fields;
- Wetland – Marsh and Bog;
- Woodland - Ancient Semi-Natural Woodland, Replanted Ancient Woodland, Common Grazed Woodland, Woodland Plantations and Recent (Secondary) Woodland.

The HLC type Meadow is slightly problematic in that, where 19<sup>th</sup> century planned enclosure took place in parishes with rivers and large brooks, the open tracts of meadow land flanking these fluvial features were often simply subdivided by means of short, linear boundaries. This landscape character change is reflected in the HLC information, the Meadow then becoming Parliamentary Enclosure, but it is likely that the meadowland retained the same essential character of a floodplain meadow.

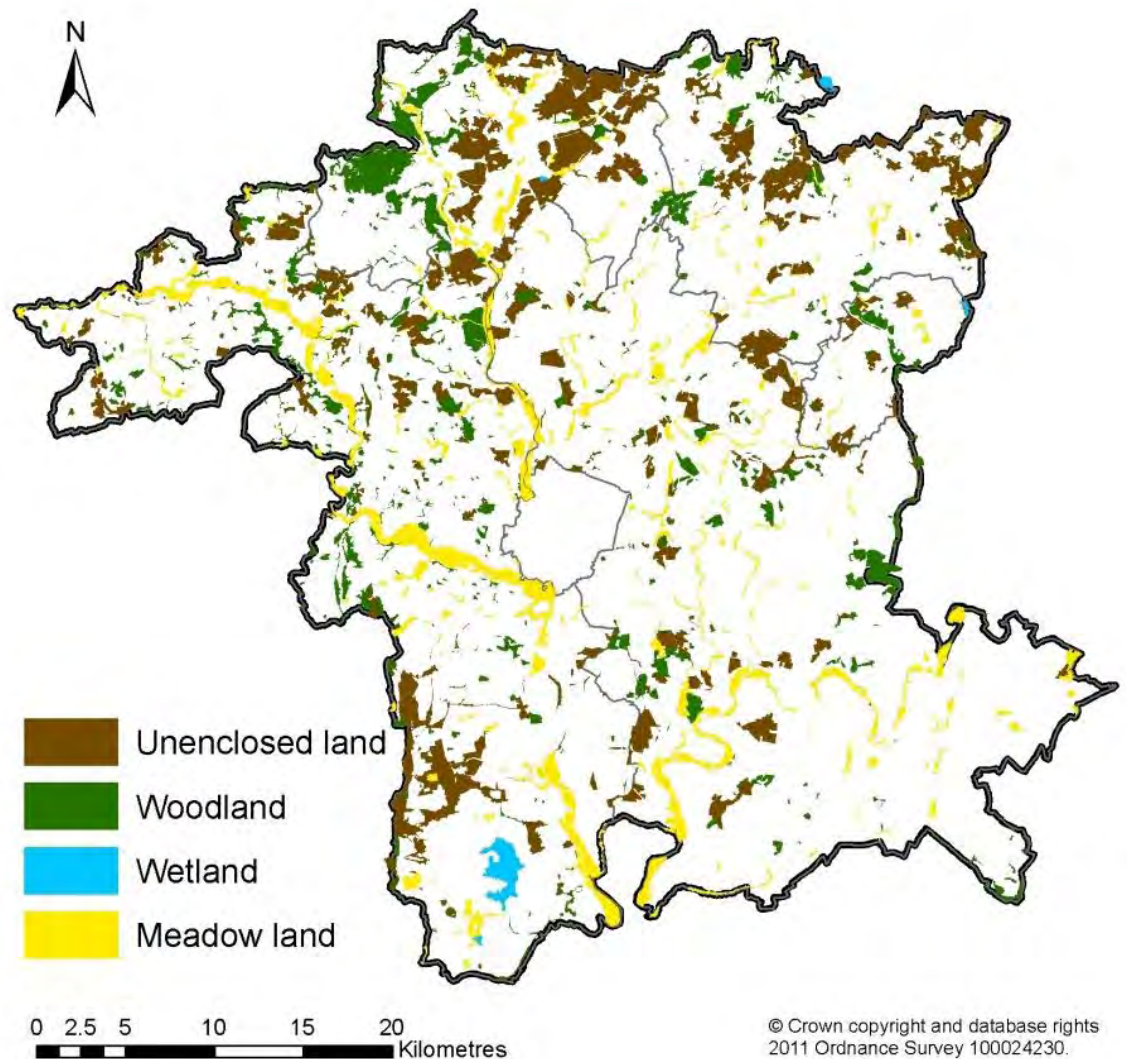


Figure 105. A cluster map showing the probable extent of 'open' type lands in the post-medieval period (AD1540- 1799).

Other historic landscape features that remain essentially open in character are parklands and deer parks, often associated with country houses and consisting of a mixture of wood, coverts and meadow-like parkland.

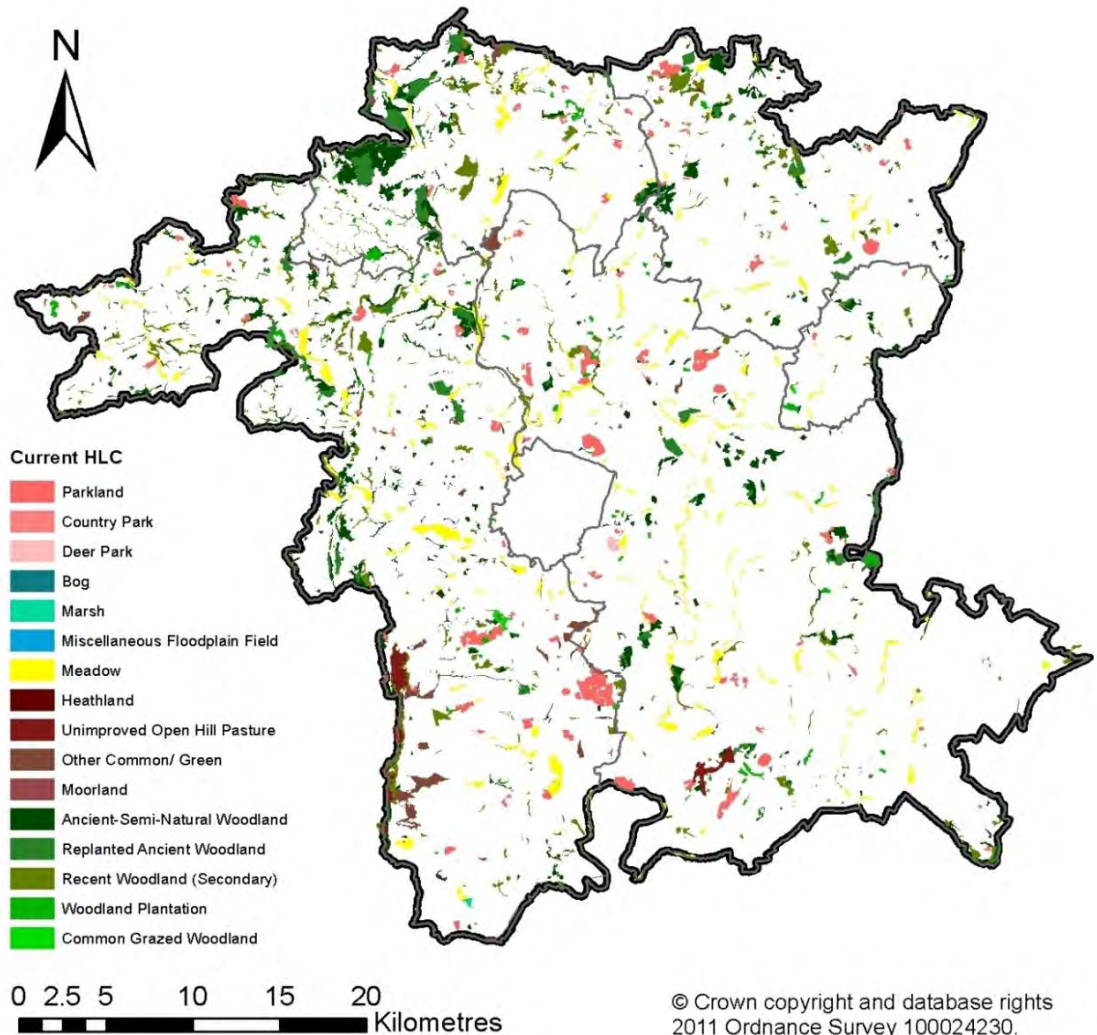
HLC Types	Area of County in Post-medieval (sq km)	% of County In Post-medieval	Area of County in Current HLC (sq km)	% of County In Current HLC
Unenclosed Land	149.005043	8.65%	14.079579	0.82%
Woodland	84.173769	4.89%	115.810215	6.72%
Wetland	5.566495	0.32%	1.66631	0.01%
Meadow	89.583736	5.19%	31.457739	1.83%
Parklands	52.818560	3.07%	24.820145	1.44%
<b>Total % of area</b>		<b>22.12%</b>		<b>10.82%</b>

Table 31. A comparison of the 'open' lands in the Post-medieval period HLC and the Current HLC.

(Table 31) A comparison of these HLC types recorded in the County's current historic landscape and as probably extant in the Post-medieval period (AD1540-1799) shows that:



- over half the area has changed landscape character since AD1800, from over 22% to nearly 11%;
- There has been a 2% rise in the amount of the County's woodland coverage since 1800. However, some of this increase may be anomalous because the mapping sources for the pre-1800 period are not as accurately recorded as the subsequent Ordnance Survey map editions and so smaller blocks of woodland may have been extant but not recorded at that time.



*Figure 106. The Current HLC showing unenclosed and other 'open' type historic landscape character types.*

- Figure 106 shows the range of unenclosed and open historic landscape character types (wood, park, heath, moor, common, meadow, unimproved hill pasture and, marsh lands) in the Current HLC, comprising 10.82% of the County's present total area.

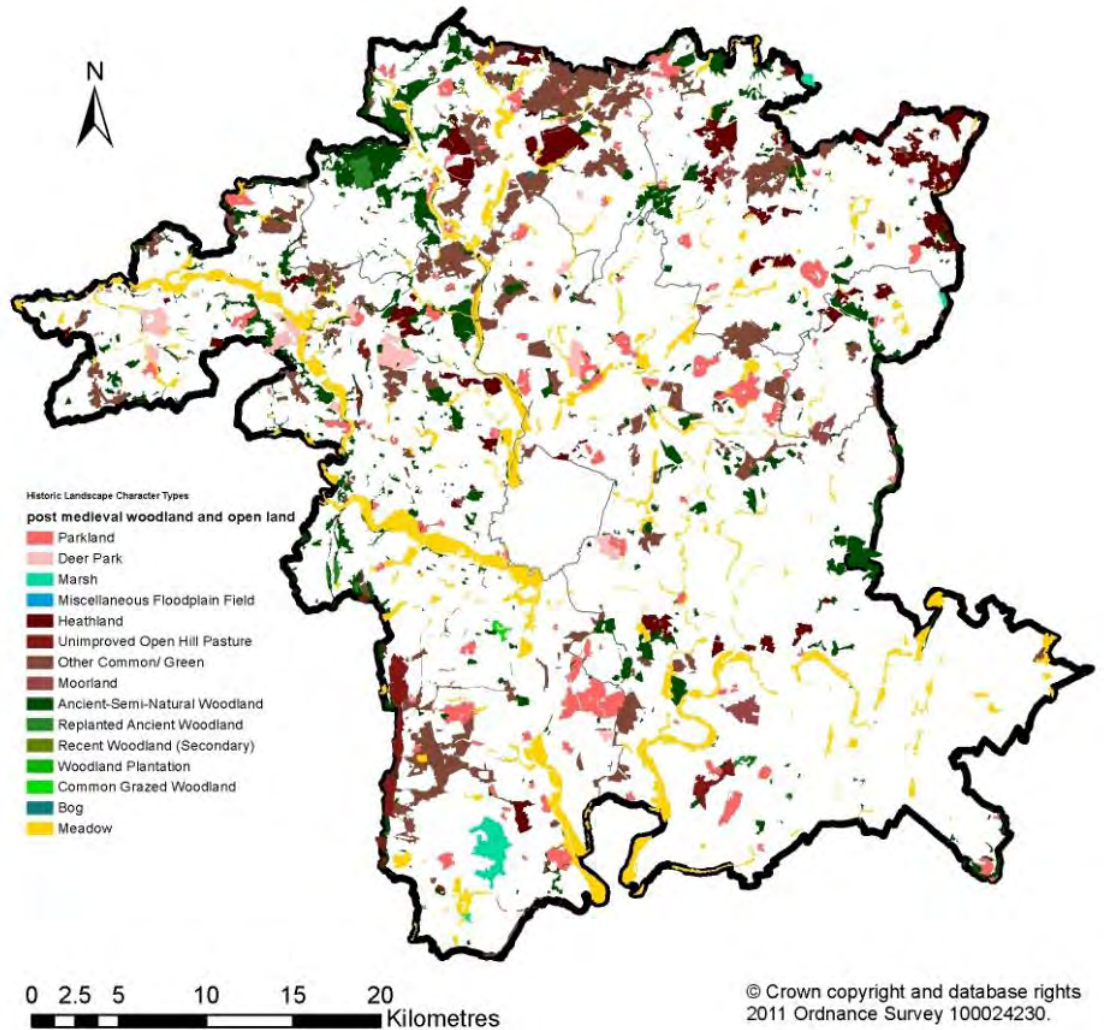
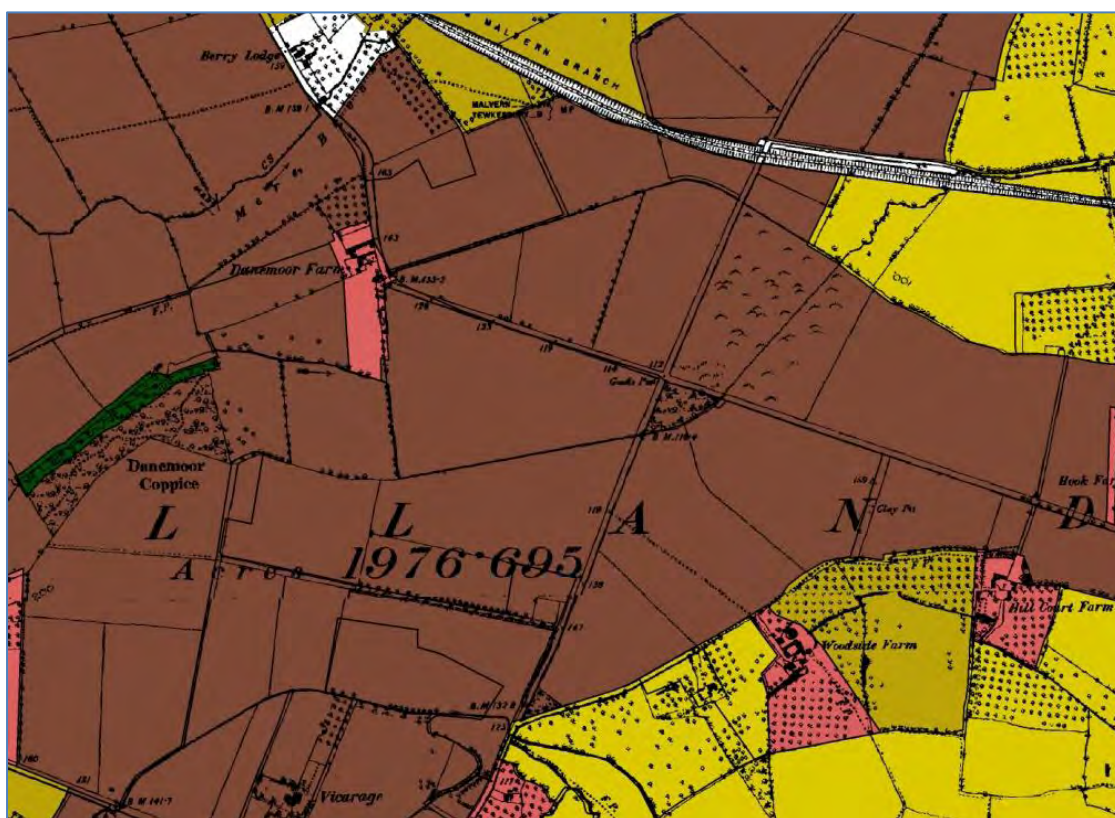


Figure 107. The HLC showing the probable extent of all 'open' lands in the post-medieval period (AD1540- 1799).

- When the same historic landscape character types are extracted from the HLC information for the post-medieval period (AD1540- 1799), the data suggests that at least 22.12% of the County at that time consisted of wood, park, heath, moor, common, meadow, unimproved hill pasture, marsh or bog lands, twice that of the present landscape (Figure 107).

There is little evidence of this significantly more open historic character in today's landscape. The evidence for this 18<sup>th</sup> to 19<sup>th</sup> century period of intensive landscape change is recorded in the historic mapping sources set out in the HLC project methodology, notably in the 2 inch to the mile scale Ordnance Surveyors' Drawings of the early 19<sup>th</sup> century and the Isaac Taylor map of the County dated 1772. Using these sources, both map symbology and place-name evidence identified significant tracts of formerly unenclosed land. The County Series (1<sup>st</sup> Edition) Ordnance Survey maps of the late 19<sup>th</sup> century also served to corroborate the identification of, by then, enclosed formerly open land. Characteristically, the landscape character for these areas tend to be tracts of contiguous geometric planned field enclosure, through which run linear sections of roadway, all features that appear to have been laid out on an otherwise empty landscape as one event (see Figure 108).



*Figure 108. An area of former common (in brown), enclosed as a planned landscape by Acts of Parliament in the mid-19<sup>th</sup> century, with geometric field boundaries and linear roads, leaving the adjacent irregular field pattern (olive green) and common-edge settlements (dark pink) intact.*

9.4 **HLC Time-depth in the District Councils**

In the same way that time-depth period information can be extracted from the HLC database for the whole County, the flexibility of the digital information allows that information to be provided separately for each District Council.

9.4.1 **Redditch Borough Council area**

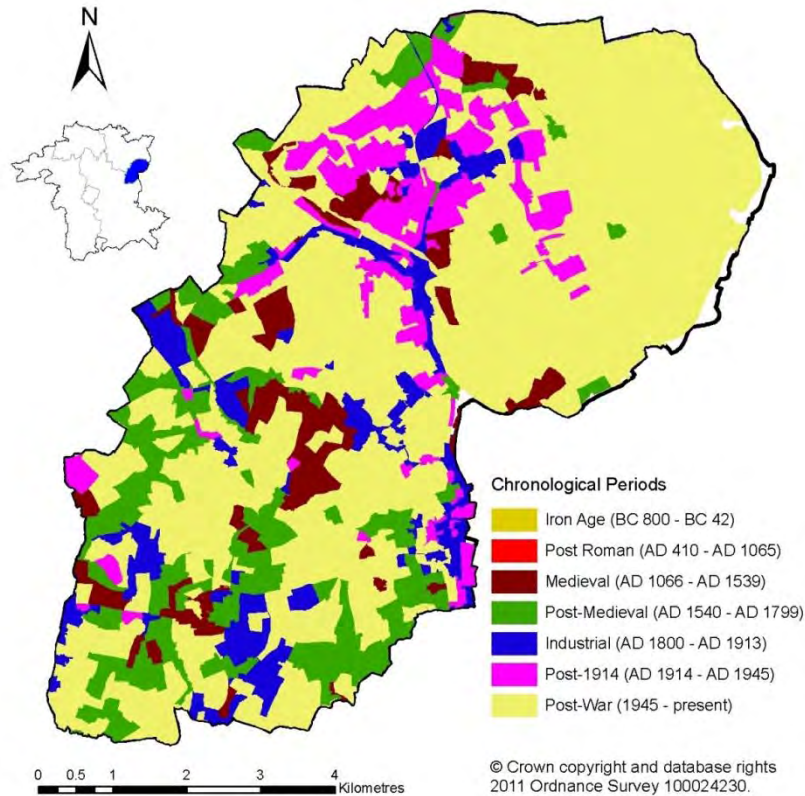


Figure 109. The Current Historic Landscape Character expressed as time periods in the Redditch Borough Council area.

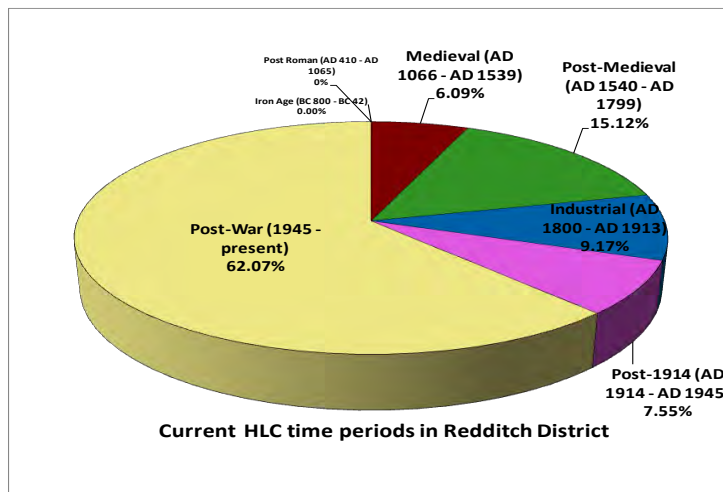
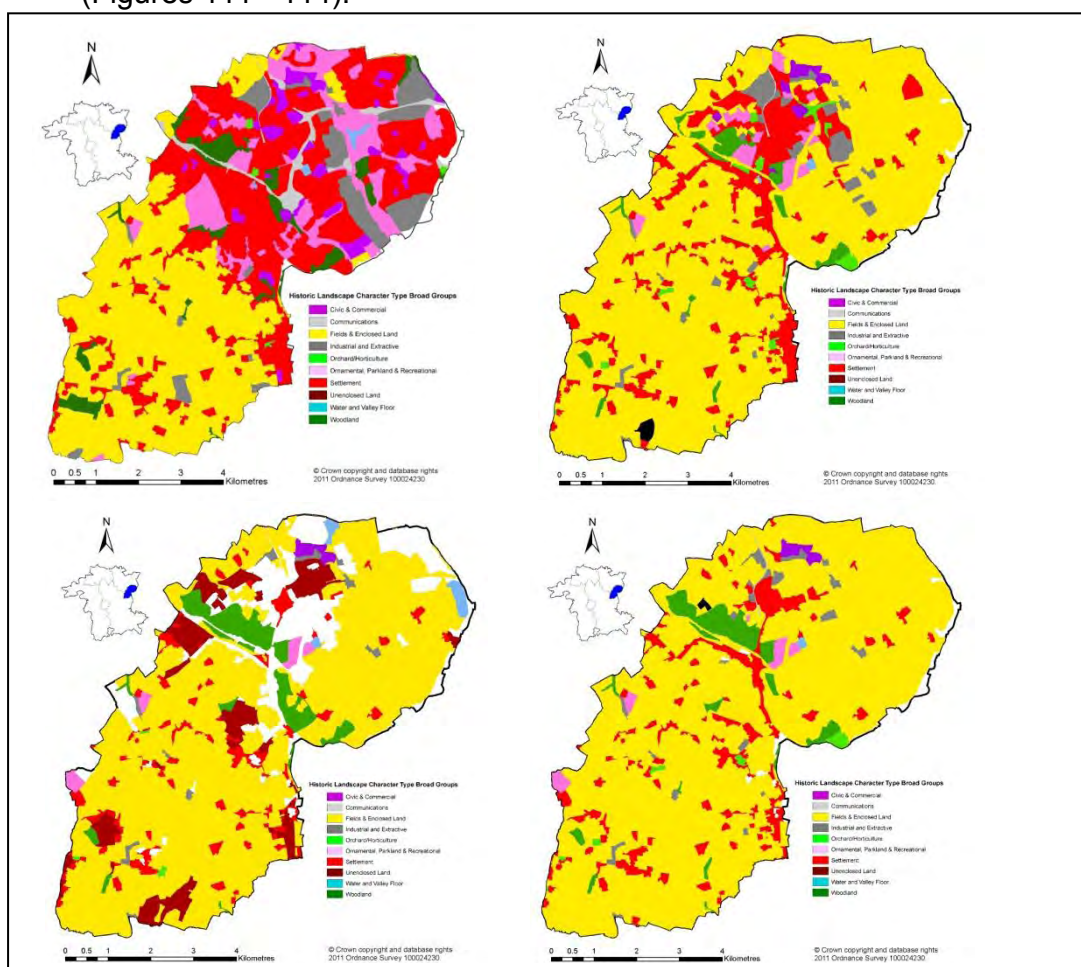


Figure 110. Composition of Redditch Borough Council's present historic landscape and the surviving elements from various time periods.

Figures 109 and 110 show the various historic landscape character elements from different time periods that survive in the present-day landscape of Redditch Borough Council.

- 62.07% of the district has undergone some change of landscape character since the Second World War. Distribution of post-war landscape character change is widespread through the district;
- Much of the Post-1914 historic landscape change is focussed around settlement expansion and the creation of industrial sites in Redditch
- 16.82% of the current recorded HLC dates between 1801 and 1913;
- 21.21% of the district's current historic character relates to historic landscape change that took place before 1800. Much of this is concentrated in the southern rural half of the district.

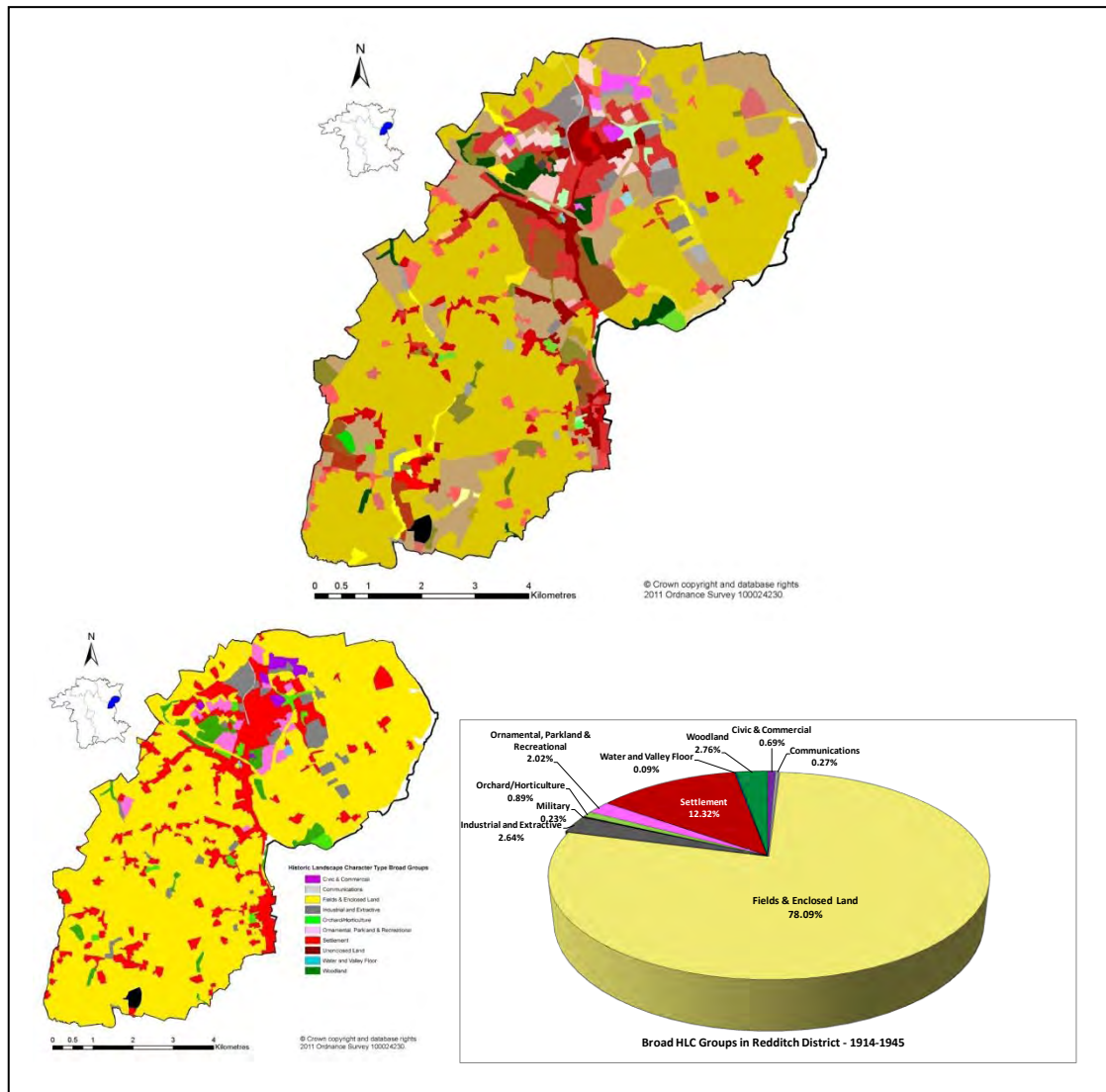
The Worcestershire HLC records not only time-depth information on the current landscape, but can also be used to reconstruct landscapes from previous periods. Previous character data was assigned to broad time periods. These can be extracted by time period and used to document landscape change (Figures 111 - 114).



*Figure 111. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time in Redditch Borough Council area.*

The regression through time of the HLC broad group types in Figures 111-114 graphically illustrates the overwhelming landscape character changes that the district has undergone, particularly in the 20<sup>th</sup> century. Redditch town dominates much of the present-day landscape, but using HLC to regress through time, the rapid expansion of Redditch is clearly visible, beginning in the 19<sup>th</sup> century. The Industrial period also sees the enclosure of surviving tracts of heathland that were extant in the post-medieval period.

**Post-1914 period (AD1914-1945)**



*Figure 112. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Redditch Borough Council area for the Post-1914 period (AD1914-1945).*

## The Industrial period (AD1800-1913)

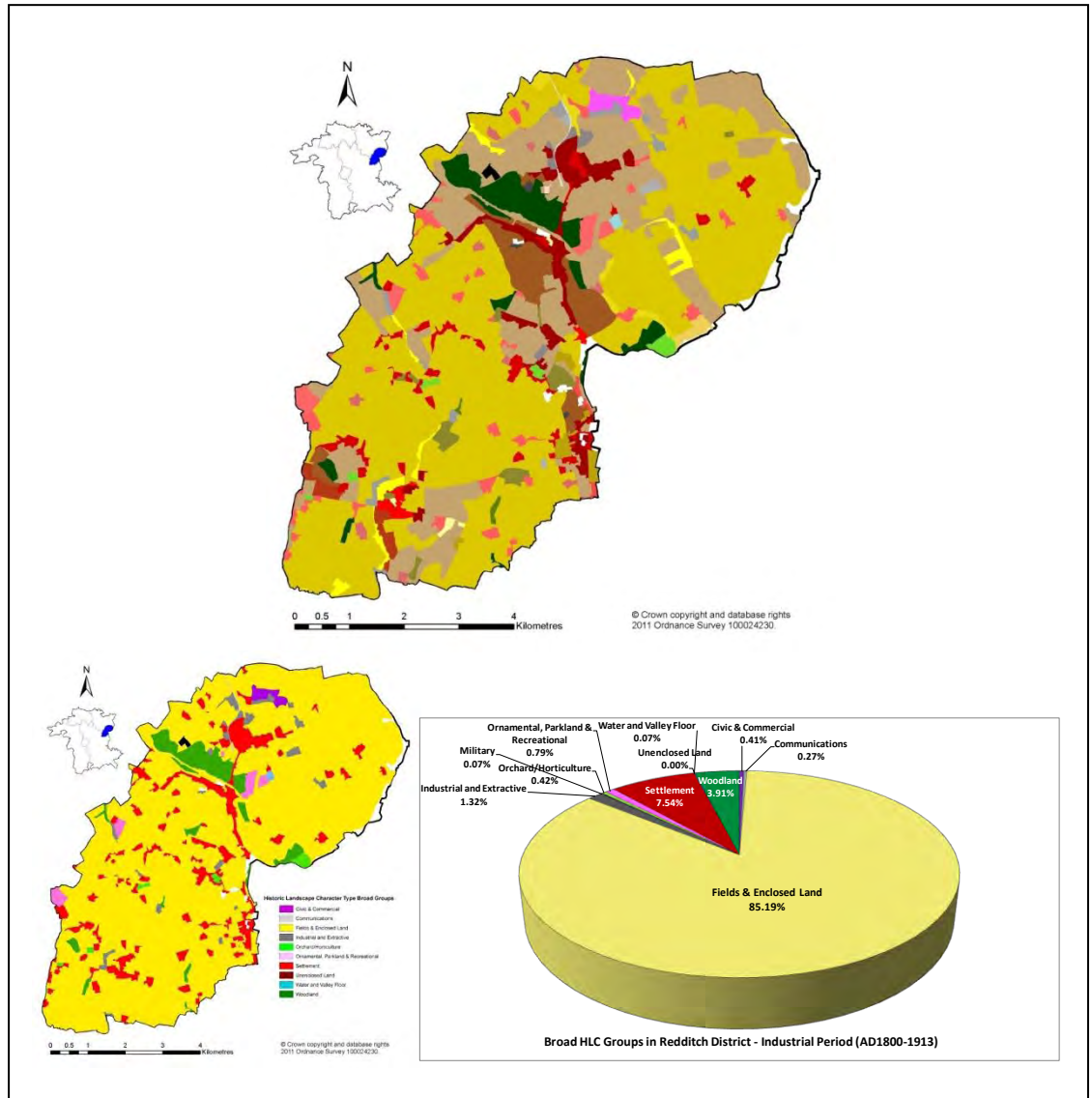


Figure 113. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Redditch Borough Council area for the Industrial period (AD1800-1913).

## The Post-Medieval period (AD1540-1799)

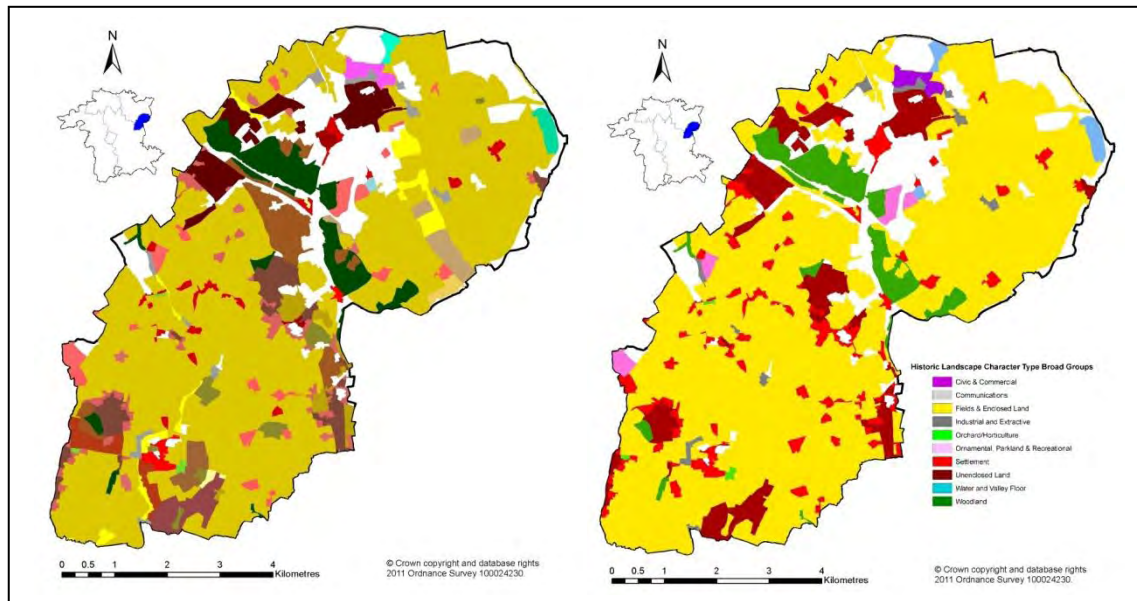


Figure 114. (left) The Historic Landscape Character and (right) the HLC broad groups in the Redditch Borough Council area for the Post-medieval period AD1540-1799.

- The Current HLC shows that Fields and Enclosed Land comprise 47.5% today (Figure 47). In the Post-1914 period (AD1914-1945), however, over 78% of the district consists of fields and that increases to 85% in the 19<sup>th</sup> century;
- In the post-medieval period, Settlement was primarily focused either around a number of heaths and commons, or as wayside villages strung out along highways. Once enclosure of these unenclosed commonlands took place in the 19<sup>th</sup> century, the historic character of settlement changed significantly, with new settlement coalescing around Redditch and the main routeways and also filling in the former open areas of the common and green villages. This new settlement pattern continued expanding until the creation of Redditch new town after the Second World War, when much of the historic settlement character merged into the new town plan.



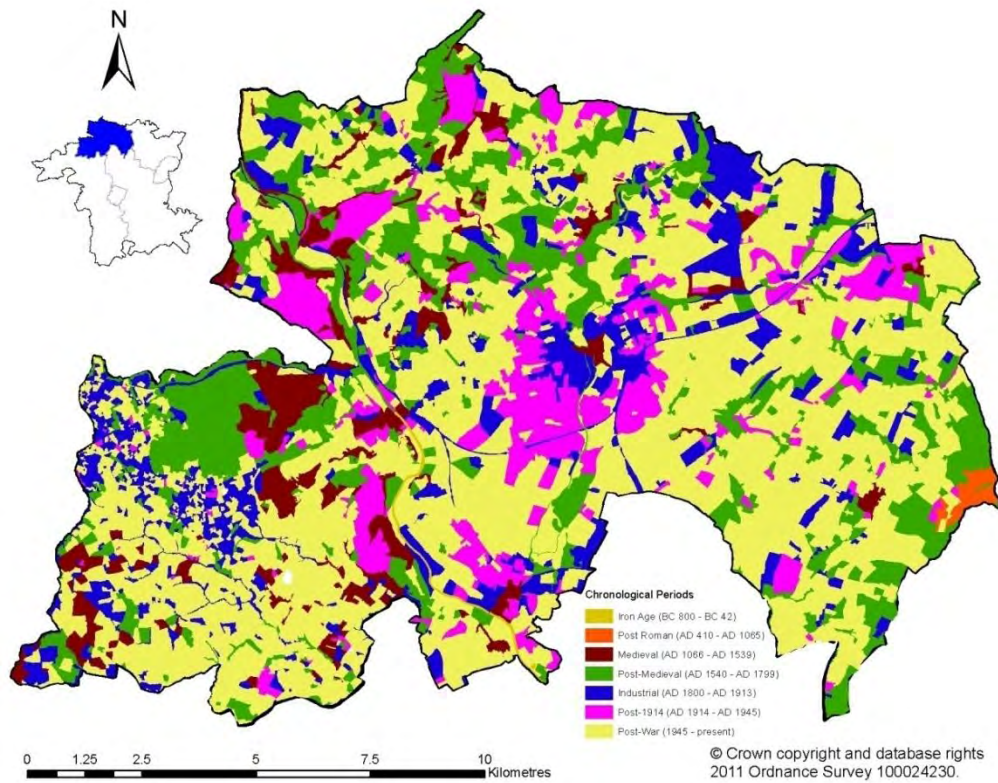


Figure 115. Historic Landscape Character expressed as time periods in the Wyre Forest District Council area.

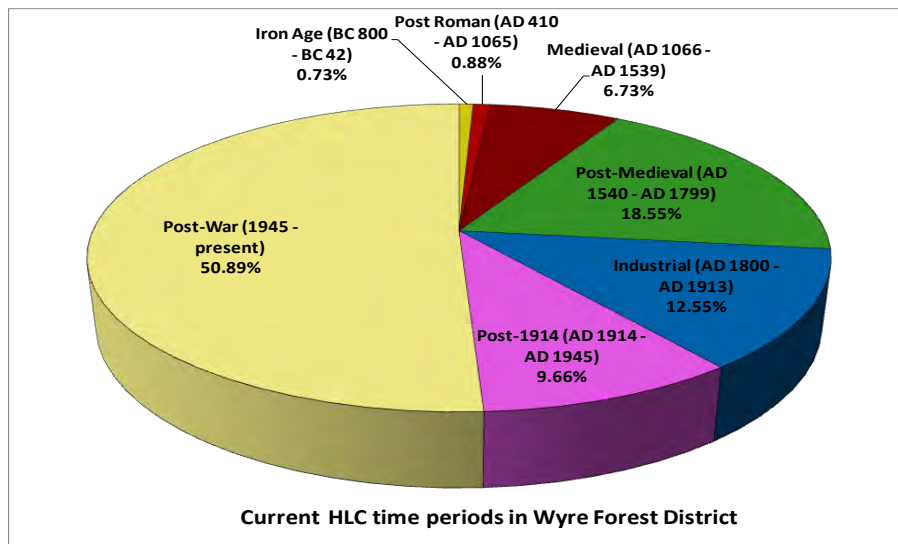
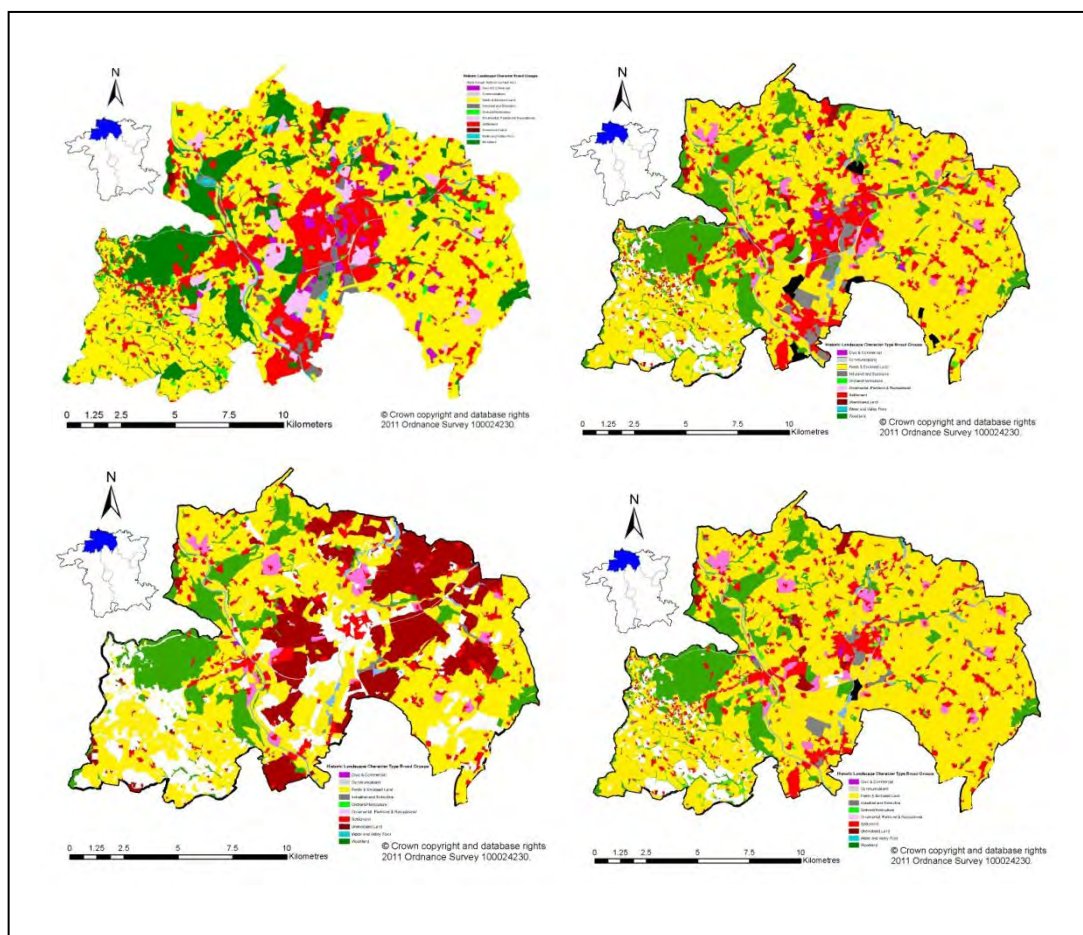


Figure 116. Composition of Wyre Forest District Council's present historic landscape and the surviving elements from various time periods.

Figures 115 and 116 show the various historic landscape character elements from different time periods that survive in the present-day landscape of Wyre Forest District Council.

- Half of the District Council has undergone some change of landscape character since the Second World War (Figure 116). Distribution of post-war changes are spread throughout the district;
- In the early 20<sup>th</sup> century, historic landscape change focuses around Kidderminster and Stourport (Figure 115);
- Nearly 27% of the district council area retains a historic landscape character that pre-dates 1800. Much of this is ancient woodland and historic settlement cores.



*Figure 117. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.*

The Worcestershire HLC information set records not only time-depth information on the current landscape, but can also be used to reconstruct landscapes from previous periods in time, as previous character data was assigned to broad time periods. These can be extracted by time period and used to document landscape change (Figures 117 - 120). Figure 117 reveals the extent of landscape character change within Bromsgrove District Council area since the 16th century.

## Post-1914 period (AD1914-1945)

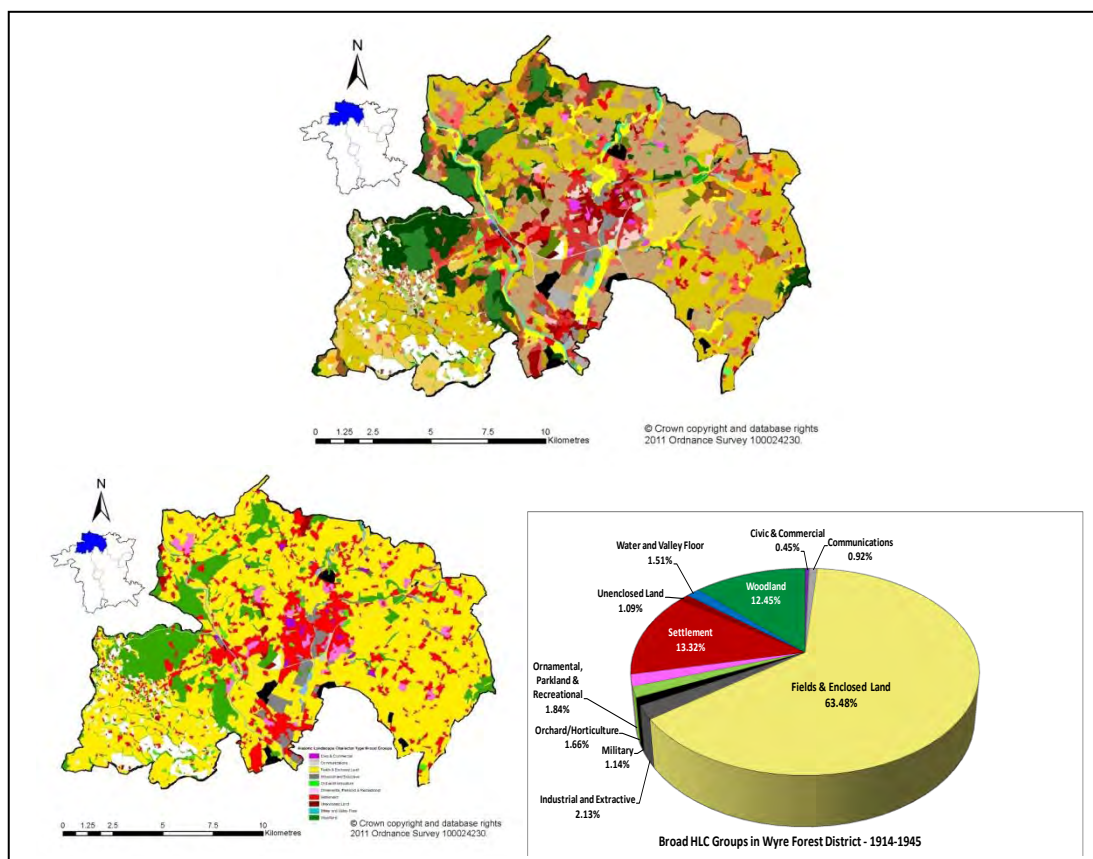


Figure 118. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the in the Wyre Forest District Council area for the period 1914-1945.

## The Industrial period (AD1800-1913)

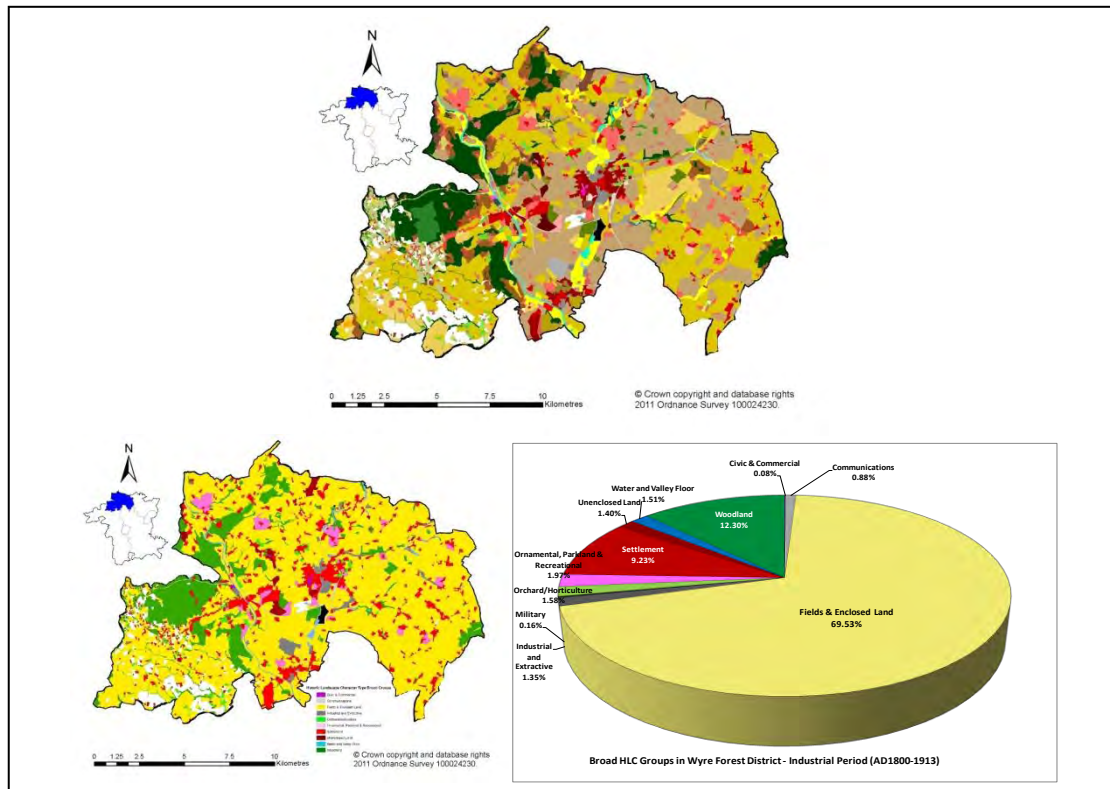
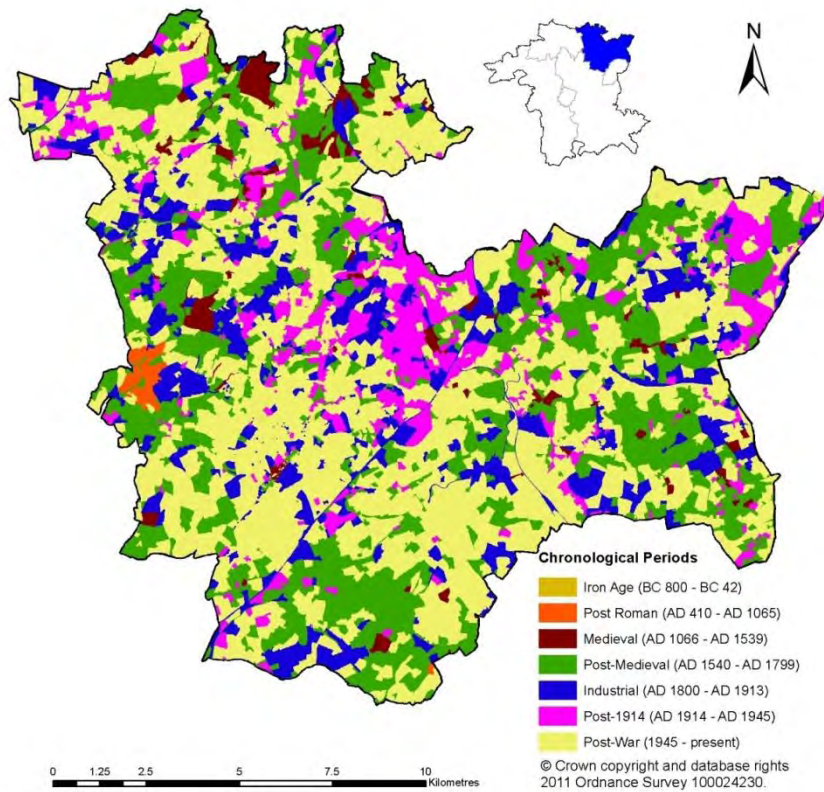
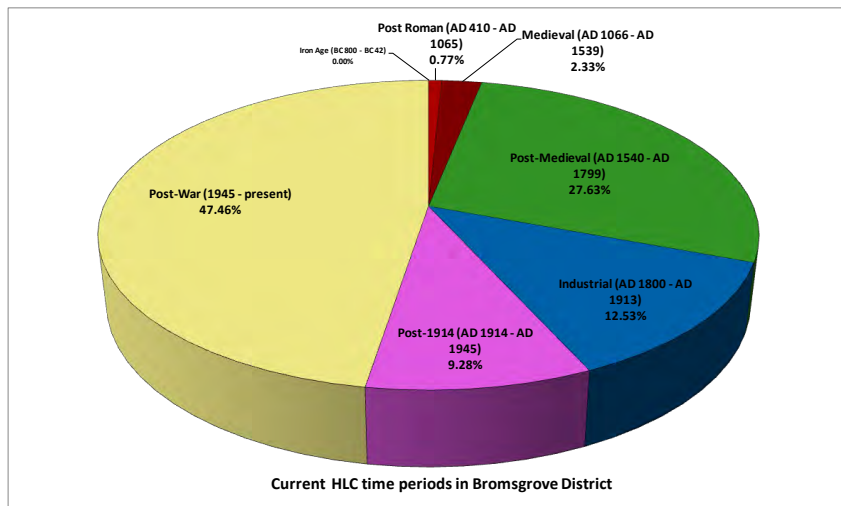


Figure 119. (top) The Historic Landscape Character and (bottom) the HLC broad groups in the Wyre Forest District Council area for the Industrial period AD1800-1913.





*Figure 121. Time-depth information for the Bromsgrove District Council area in the current landscape.*



*Figure 122. Composition of Bromsgrove District Council's present historic landscape and the surviving elements from various time periods.*

Figures 121 and 122 show the various historic landscape character elements from different time periods that survive in the present-day landscape of Bromsgrove District Council.

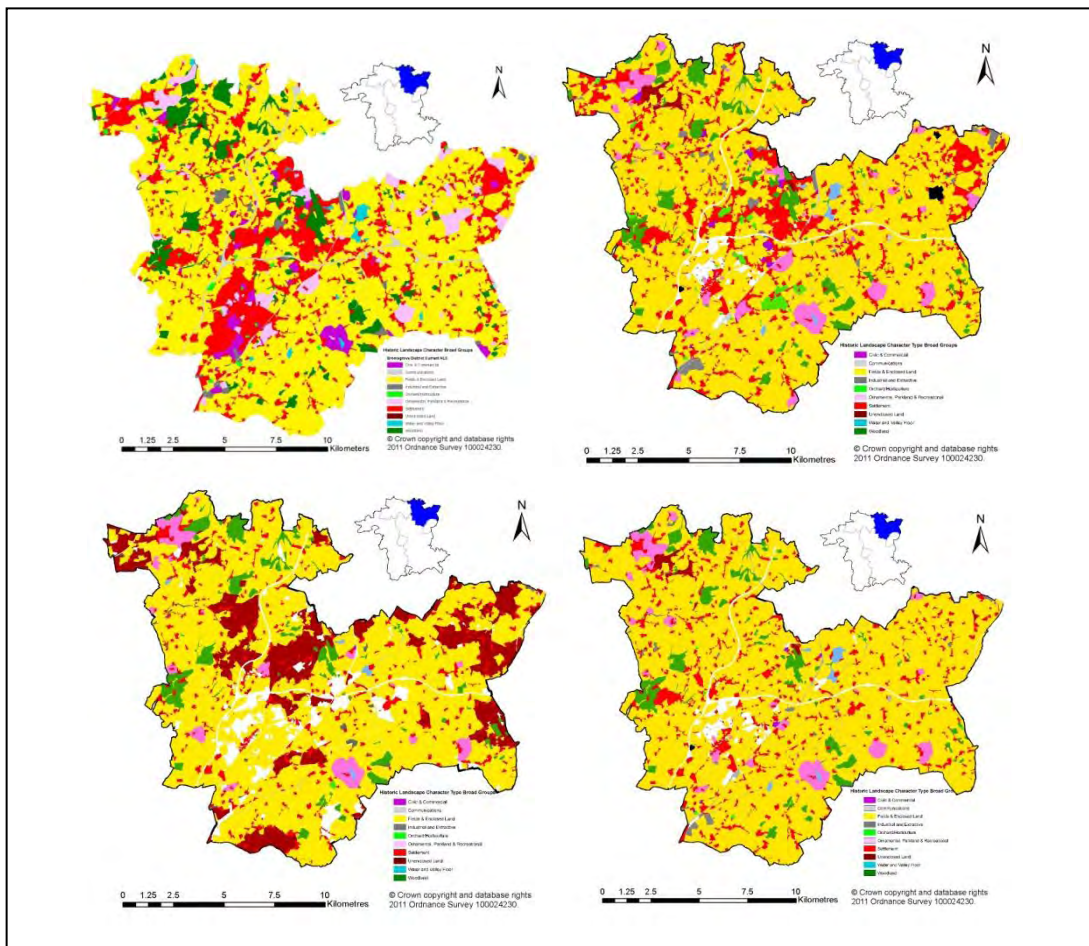


Figure 123. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.

- Nearly 47.5% of the district has undergone some change of landscape character since the Second World War (Figure 122). Distribution of post-war changes are spread throughout the district, but there is a notable concentration of post-war change in the south-west;
- Early 20<sup>th</sup> century landscape change is focused around Catshill, Barnt Green, Lickey Hills and Hollywood, much of which is settlement expansion;
- 30% of the district's current HLC represents landscape activity that pre-dates 1800;

The Worcestershire HLC information set records not only time-depth information on the current landscape, but can also be used to reconstruct landscapes from previous periods in time, as previous character data was assigned to broad time periods. These can be extracted by time period and used to interpret landscape change, as shown in Figure 123.

Post-1914 period (AD1914-1945)

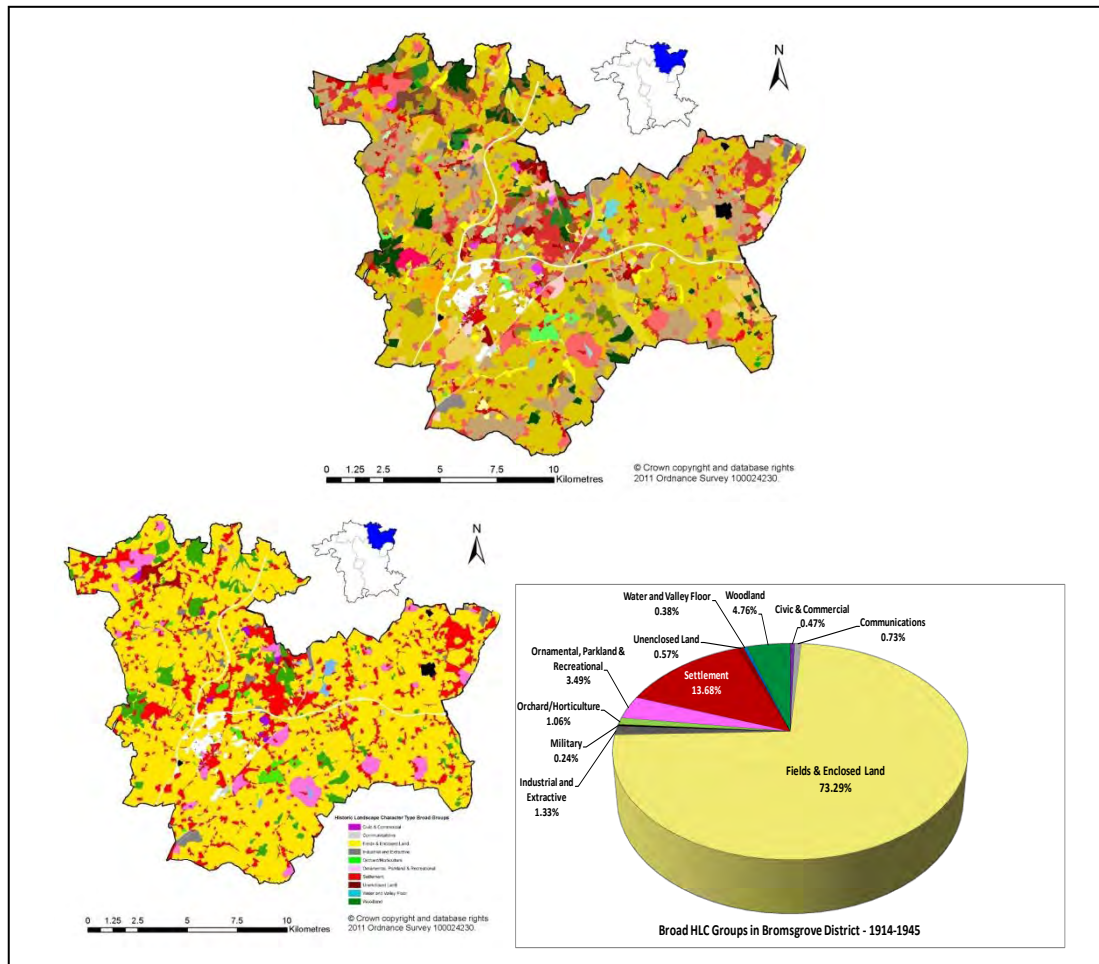


Figure 124. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Bromsgrove District Council area for the period 1914-1945.



## The Industrial period (AD1800-1913)

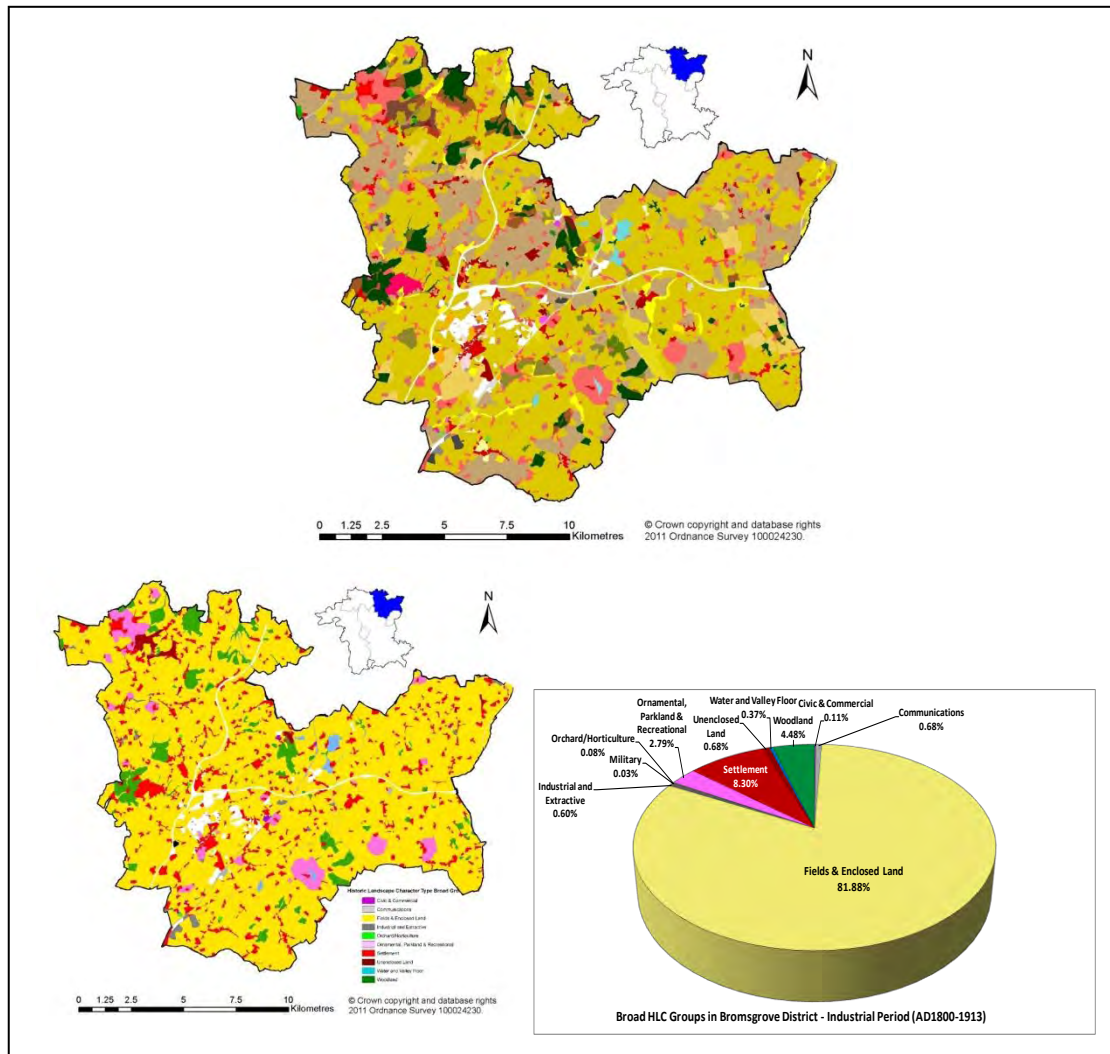


Figure 125. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Bromsgrove District Council area for the Industrial period AD1800-1913.

## The Post-medieval period (AD1540-1799)

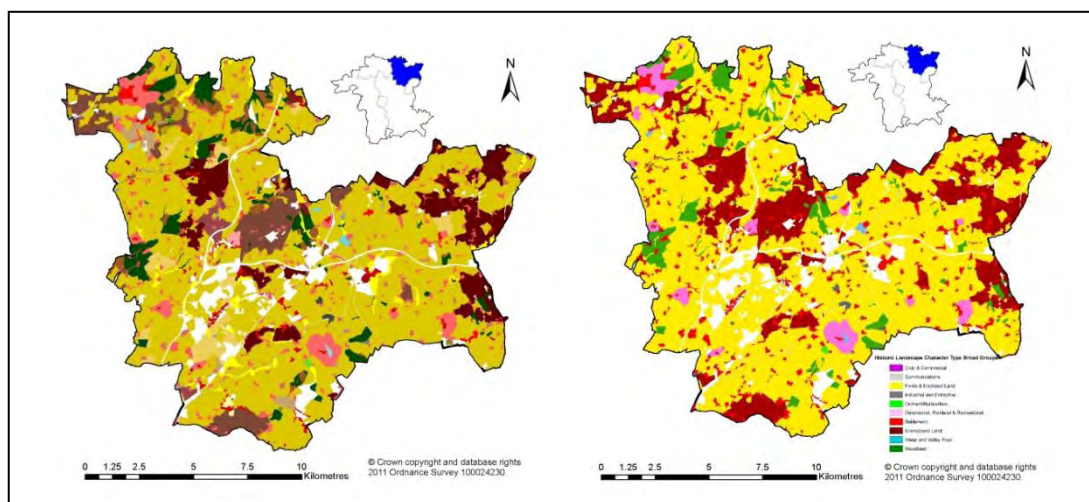


Figure 126. (left) The Historic Landscape Character and (right) the HLC broad groups in the Bromsgrove District Council area for the Post-medieval period AD1540-1799.

- In the Post-1914 period, 3.49% of the district's area is still Parkland, reflecting the presence of historic parks at Bordesley, Beoley, Hagley and Hewell Grange;
- The location of historic parkland and deer parks in association with former unenclosed land in the post-medieval period (Figure 126) is strong evidence for their origins as former unenclosed land;

**Wychavon District Council area**

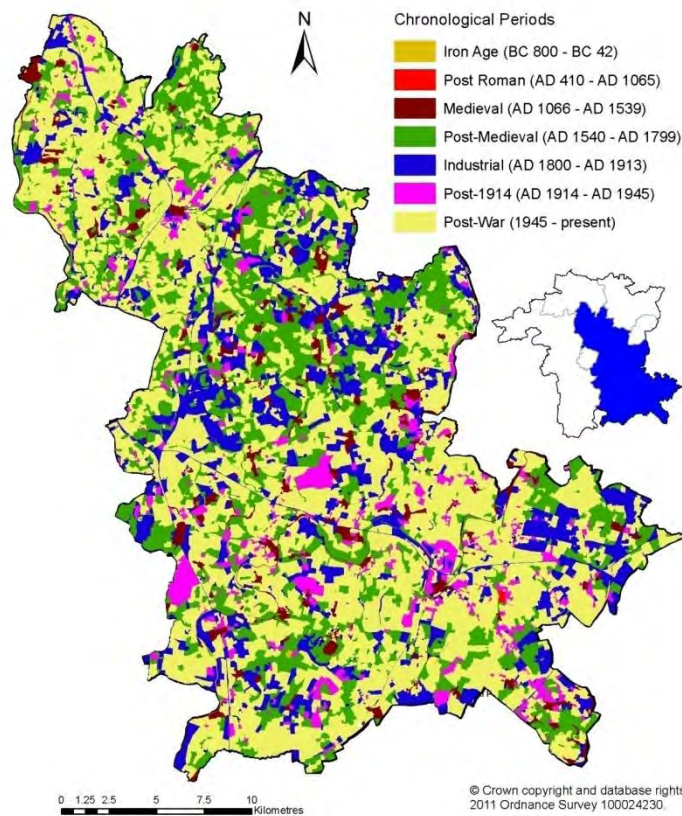


Figure 127. Historic Landscape Character expressed as time periods in the Wychavon District Council area.

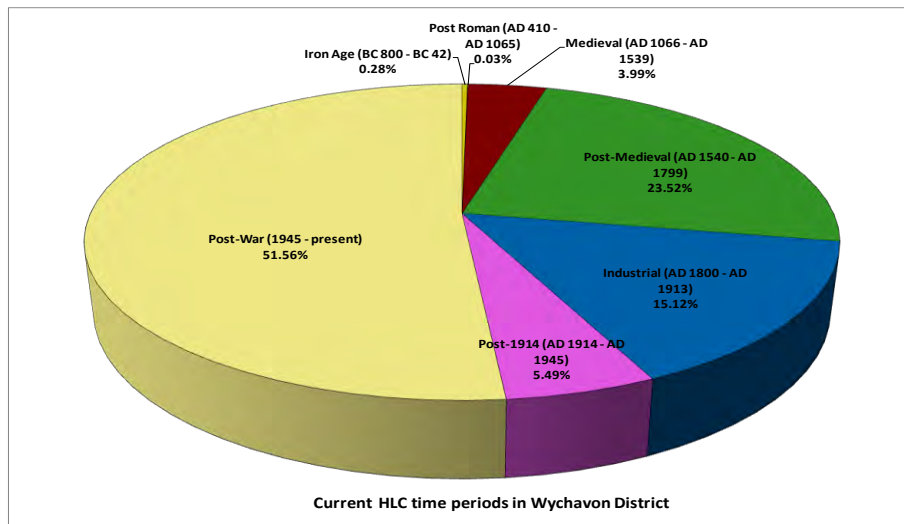


Figure 128. Composition of Wychavon District Council's present historic landscape and the surviving elements from various time periods.

- Over 50% of the District Council has undergone some change of landscape character since the Second World War (Figure 128). Distribution of post-war changes are spread throughout the district, but

are concentrated in the north-west and south-east of the district. Much of this is the consequence of post-war field amalgamation;

Figures 127 and 128 show the various historic landscape character elements from different time periods that survive in the present-day landscape of Wychavon District Council.

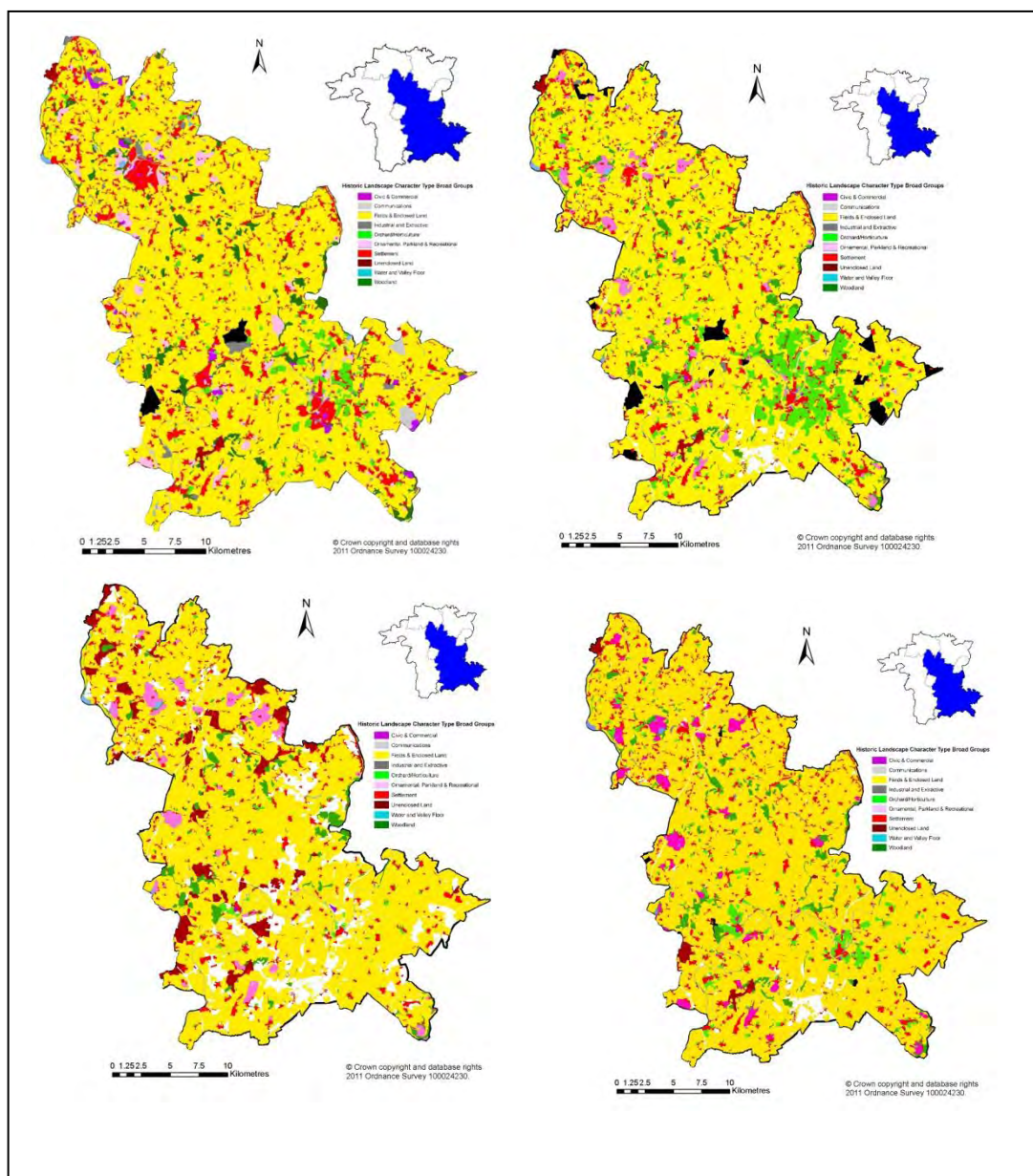


Figure 129. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.

The Worcestershire HLC information set records not only time-depth information on the current landscape, but can also be used to reconstruct landscapes from previous periods in time, as previous character data was assigned to broad time periods. These can be extracted by time period and used to interpret landscape change, as shown in Figures 129 - 132.

## Post-1914 period (AD1914-1945)

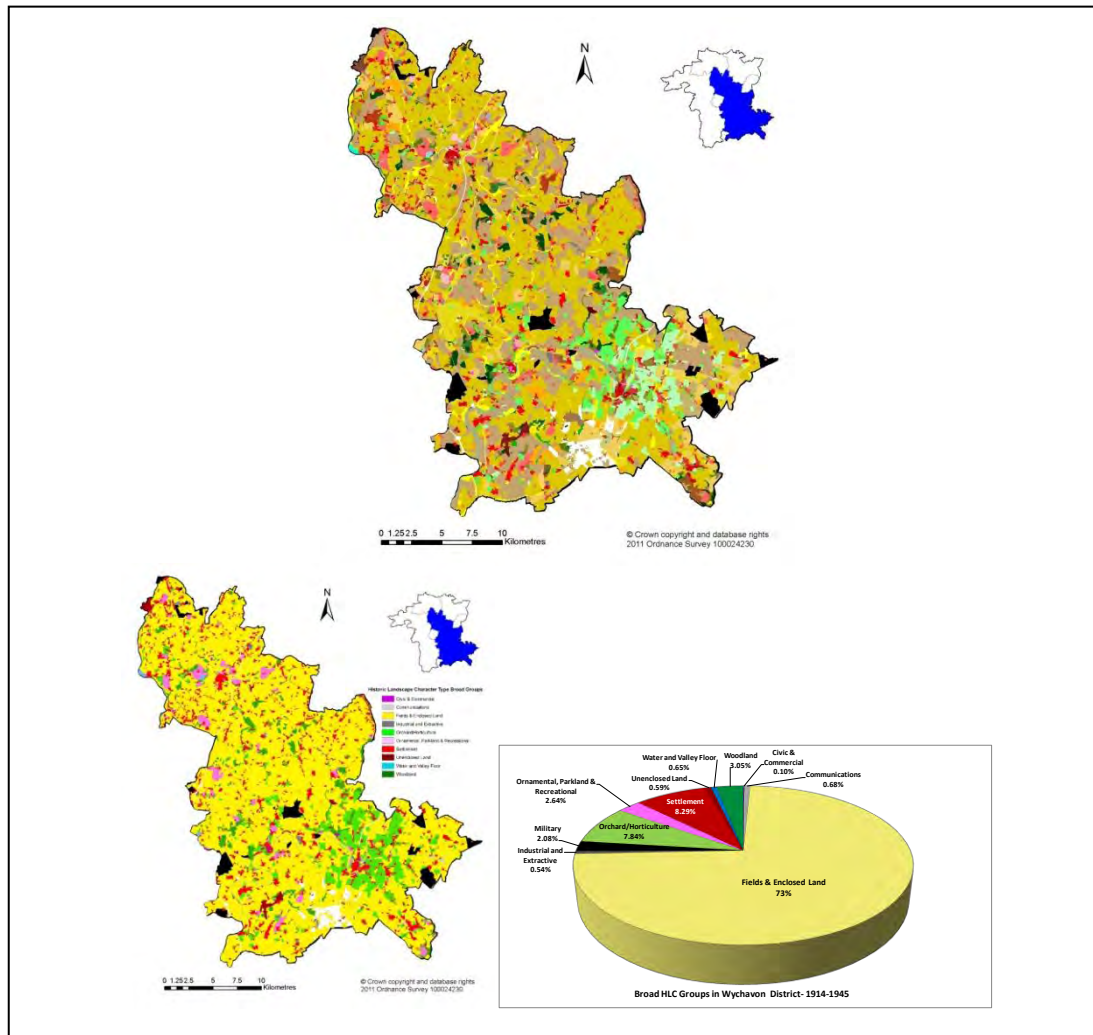


Figure 130. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Wychavon District Council area for the period 1914-1945.

The small scale market garden allotments around Evesham that functioned through the end of the 19<sup>th</sup> century and into the first half of the 20<sup>th</sup> century are clearly visible in the Post-1914 period;

## Industrial Period (AD1800-1913)

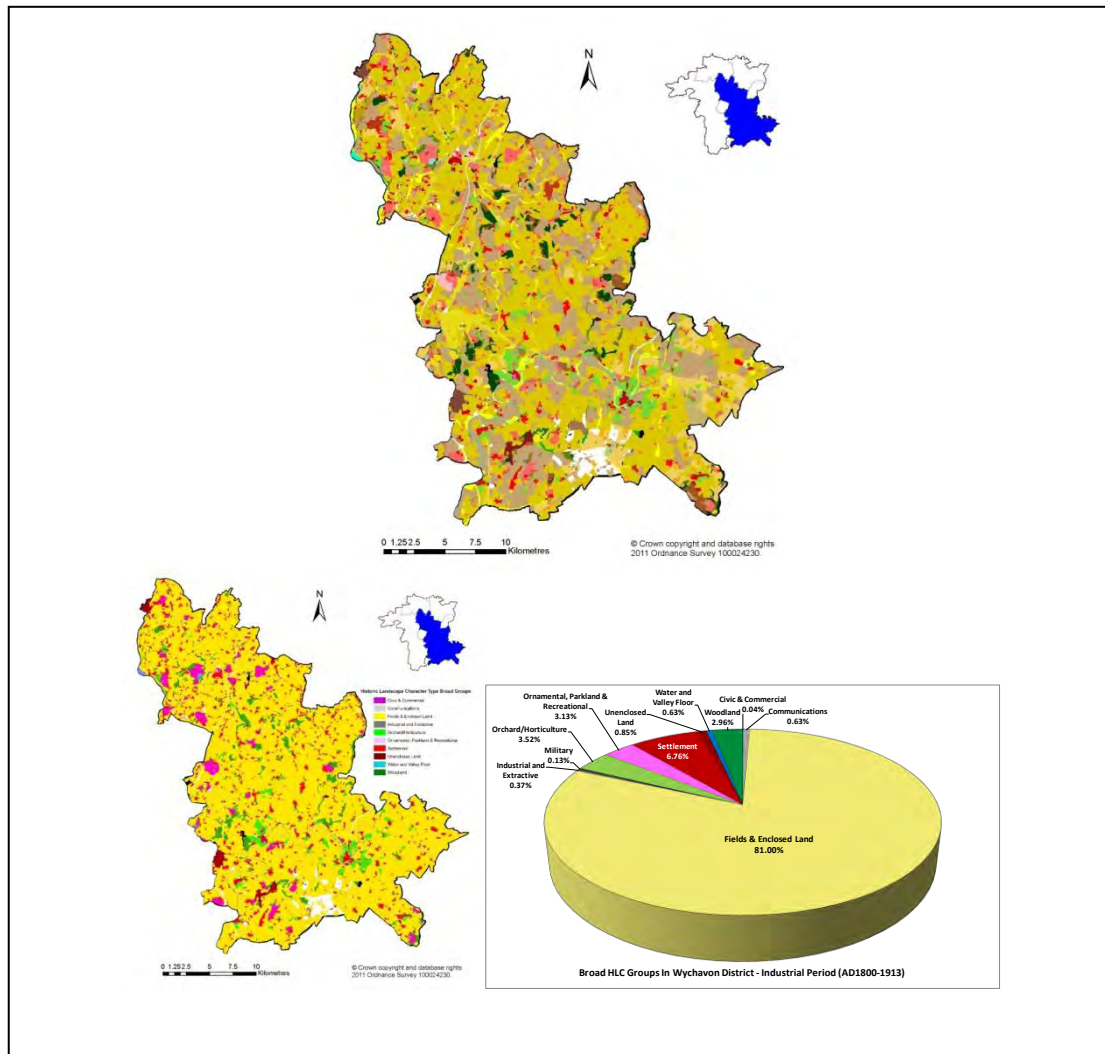


Figure 131. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Wychavon District Council area for the Industrial period AD1800-1913.

## Post-medieval period (AD1540-1799)

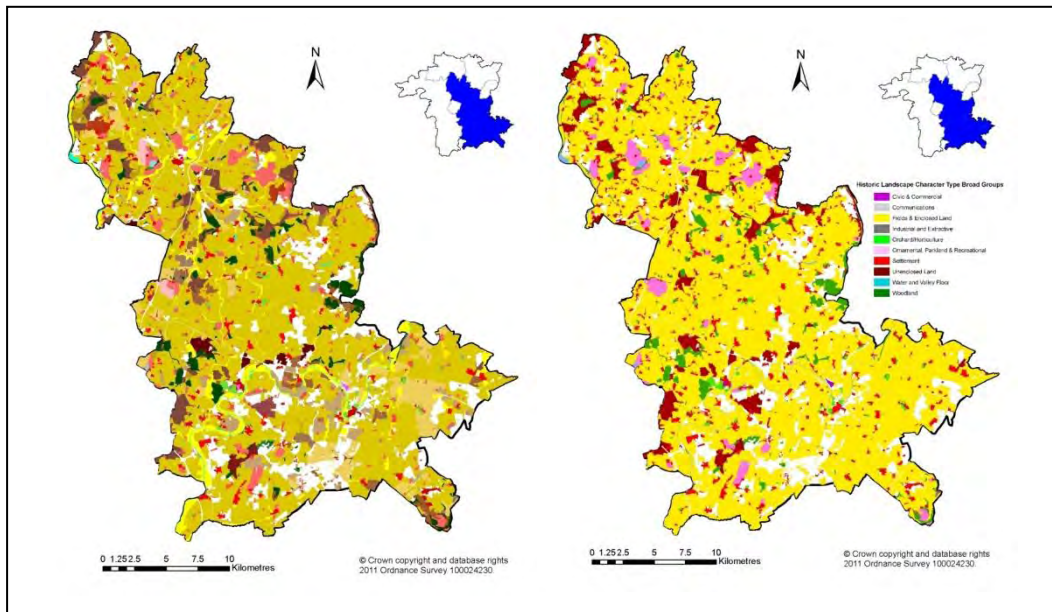


Figure 132. (left) The Historic Landscape Character and (right) the HLC broad groups in the Wychavon District Council area for the Post-medieval period AD1540-1799.

- In the post-medieval period there are numerous small areas of commonland, heathland and moorland, most of which are finally enclosed in the early 19<sup>th</sup> century. The military airfield RAF Defford created in the first half of the 20<sup>th</sup> century was laid out on the footprint of the remains of Defford Common at that time;
- As with other districts, there is an association with Parkland and the proximity of unenclosed lands in the post-medieval period, suggesting that most pre-park origins were as unenclosed land, possibly in the medieval period.

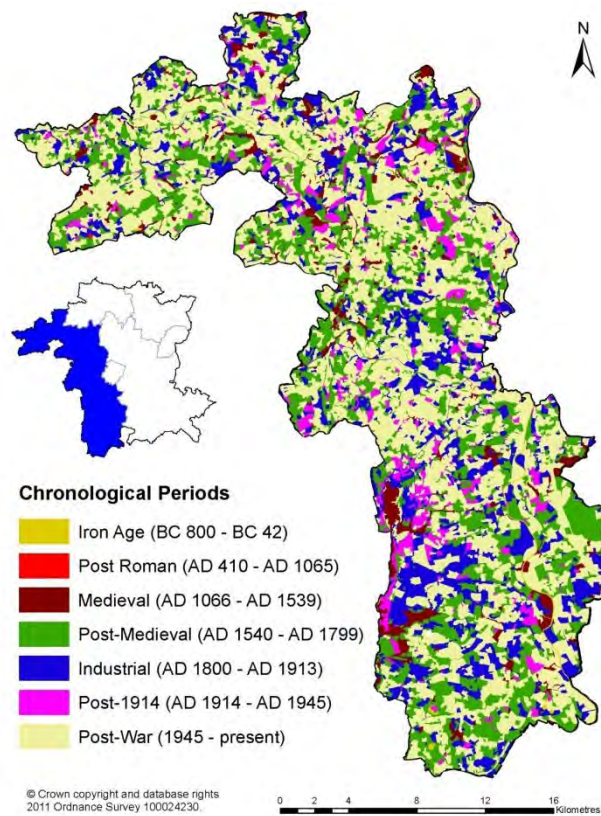


Figure 133. Composition of the Malvern Hills District Council's present historic landscape and the surviving elements from various time periods - time-depth.

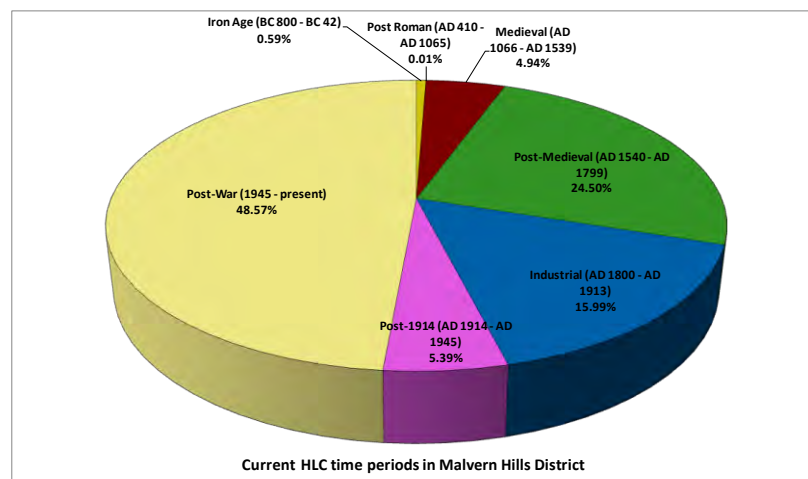


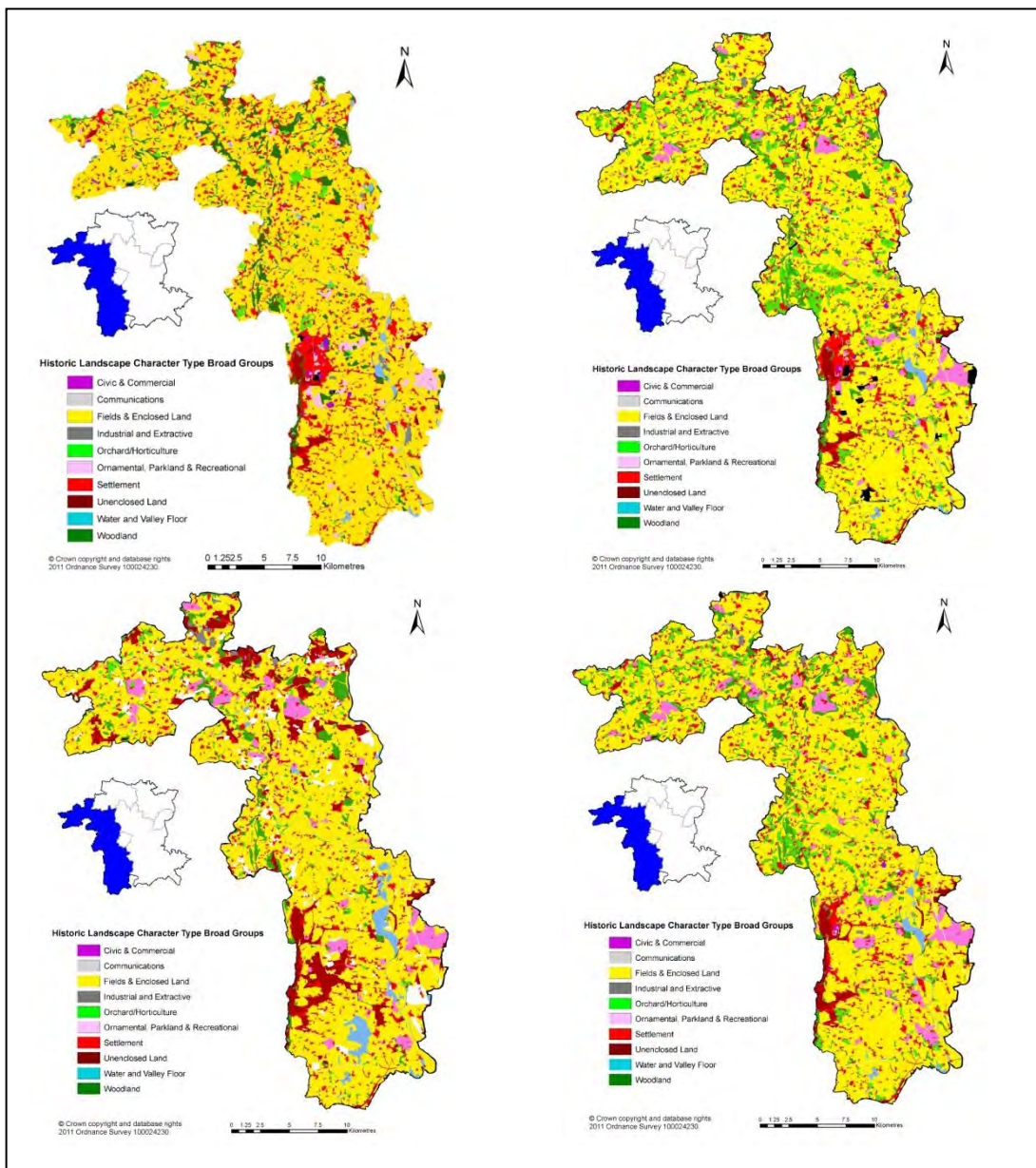
Figure 134. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.

Figures 133 and 134 show the various historic landscape character elements from different time periods that survive in the present-day landscape of Malvern Hills District Council.



- There is a focus of 19<sup>th</sup> century Industrial period landscape change in the south of the district. This represents the expansion of the Malvern urban area as a Victorian spa town and the enclosure of unenclosed common lands;
- Surviving post-medieval polygons are distributed throughout the district, but have a greater concentration in the south;
- Nearly 50% of the Malvern Hills District Council area's current character represents landscape components whose historic character have changed in some way since 1945 (1945-Present);
- The historic landscape character of nearly half of the Malvern Hills district has changed in some way since 1945;
- Thirty per cent of the district retains a landscape character whose origin pre-dates 1800;
- There is a focus of landscape change in the years AD1800 to AD1945 around Malvern town and outlying villages in the southern half of the district area;

The Worcestershire HLC information set records not only time-depth information on the current landscape, but can also be used to reconstruct landscapes from previous periods in time, as previous character data was assigned to broad time periods. These can be extracted by time period and used to interpret landscape change, as shown in Figures 135 -137.



*Figure 135. Clockwise from top left: The current HLC, 1914-1945 period, 1800-1913 period, and 1540-1799 period, showing broad changes in the historic landscape through time.*

Post-1914 period (AD1914-1945)

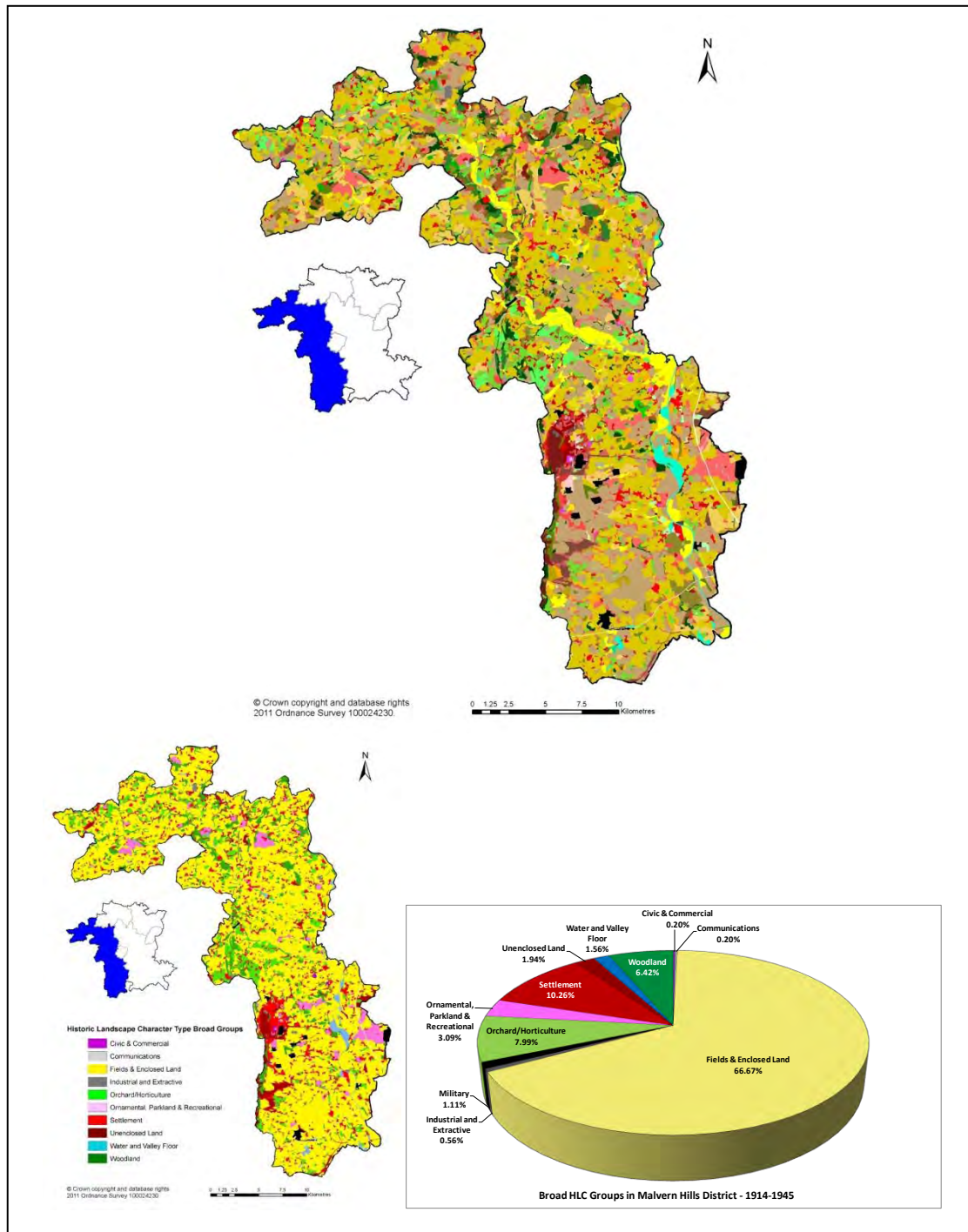


Figure 136. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Malvern Hills District Council area for the period 1914-1945.

## The Industrial period (AD1800-1913)

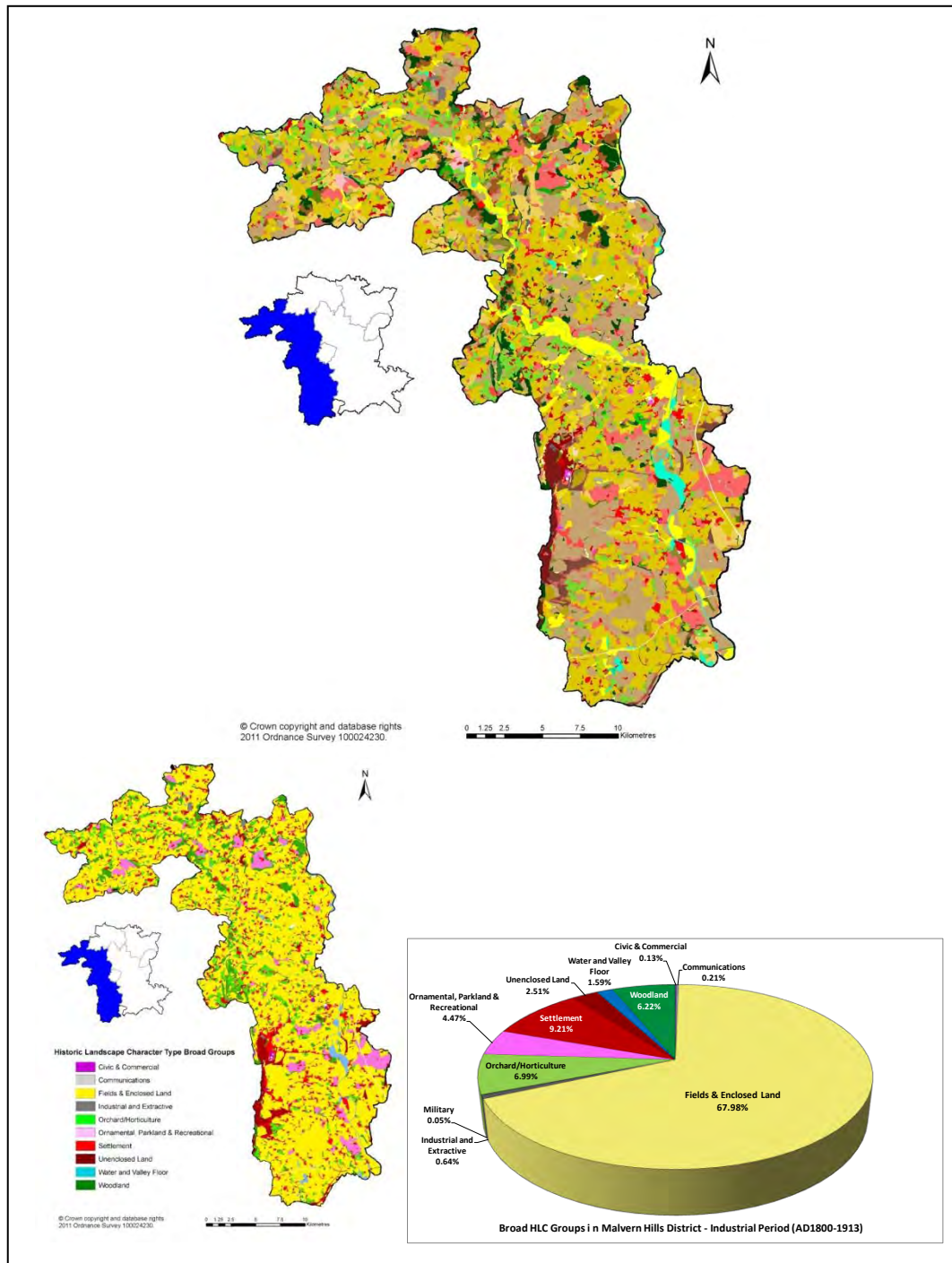


Figure 137. (top) The Historic Landscape Character and (bottom) the broad HLC groups in the Malvern Hills District Council area for the Industrial period AD1800-1913.

## The Post-medieval period (AD1540-1799)

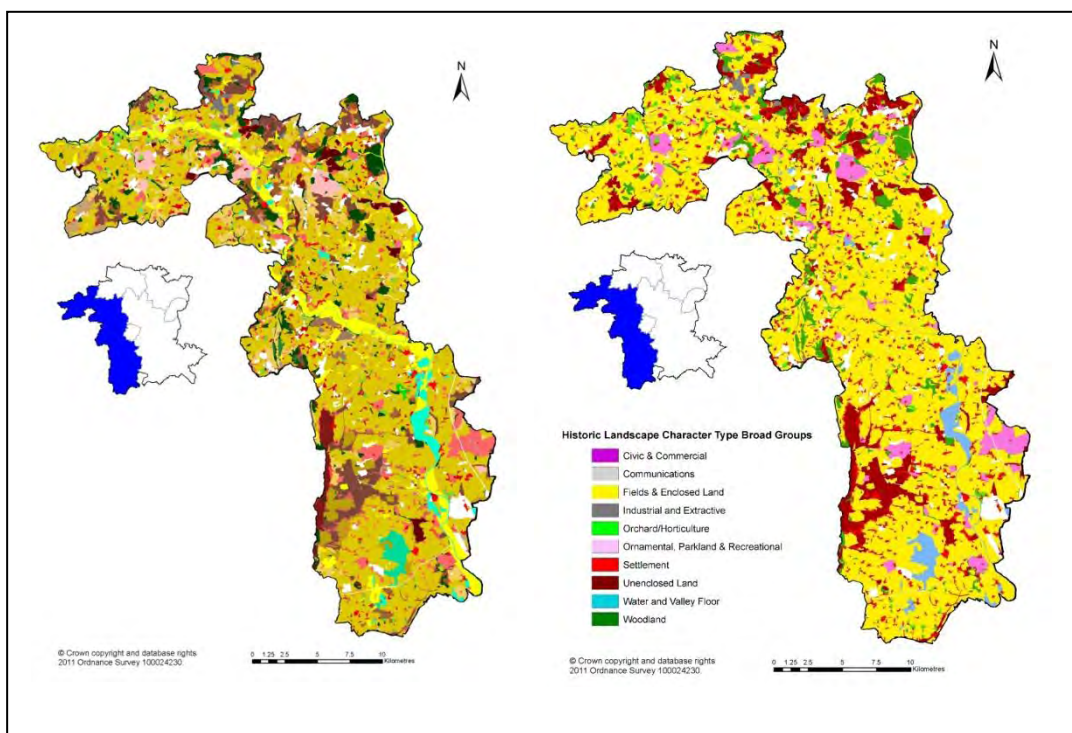


Figure 138. (left) The Historic Landscape Character and (right) the HLC broad groups in the Malvern Hills District Council area for the Post-medieval period AD1540-1799.

- It is evident that there was a significant amount of unenclosed land in the post-medieval period in the north and south of the district (Figure 138). Much of these commons and heaths were enclosed in the 19<sup>th</sup> century as part of the Enclosure Acts, with large areas of planned and geometric Parliamentary Fields set out on these open expanses. A significant contiguous area of common survives in the south of the district with Castlemorton and Birtsmorton commons;
- The large extent of the wilderness known as Longdon Marsh in the south was also finally enclosed in the late 19<sup>th</sup> century and then drained;
- The rise of hop orchards in the latter part of the 19<sup>th</sup> century and first half of the 20<sup>th</sup> century are visible along the Teme Valley in the Post-1914 period (Figure 136). Worcestershire hop orchards were profitable as land and labour were cheap and the soil suited the crop;
- Large historic estate parklands estates at Croome and Madresfield are still extant in the present-day landscape, but numerous other smaller parklands and deer parks in the south and the north of the district have been gradually enclosed for agriculture through the late 19<sup>th</sup> century and into the first half of the 20<sup>th</sup> century.

## County and District Councils Comparison

Using the time-depth information from each of the County's District Councils independently, the results can be compared with each other (Table 32).

- Over 62% of the current historic landscape character of the Redditch District Council area represents landscape components whose historic character has its origin in the post-war period (1945-present), which is over 10% greater than the other district councils and the county average. It is hoped that information such as this will inform future landscape management strategies at both county and district level.

HLC Time Periods	County (%)	Wyre Forest (%)	Redditch (%)	Malvern Hills (%)	Wychavon (%)	Bromsgrove (%)
Post-war (1945-Present)	<b>50.28</b>	<b>50.89</b>	<b>62.07</b>	<b>48.57</b>	<b>51.56</b>	<b>47.46</b>
Post-1914 (AD1914-1945)	<b>6.82</b>	<b>9.66</b>	<b>7.55</b>	<b>5.39</b>	<b>5.49</b>	<b>9.28</b>
Industrial (AD1800-1913)	<b>14.73</b>	<b>12.55</b>	<b>9.17</b>	<b>15.99</b>	<b>15.12</b>	<b>12.53</b>
Post-Medieval (AD1540-1799)	<b>23.24</b>	<b>18.55</b>	<b>15.12</b>	<b>24.50</b>	<b>23.52</b>	<b>27.63</b>
Medieval (AD1066-1539)	<b>4.57</b>	<b>6.73</b>	<b>6.09</b>	<b>4.94</b>	<b>3.99</b>	<b>2.33</b>
Post-Roman (AD410-1065)	<b>0.13</b>	<b>0.88</b>	<b>0.00</b>	<b>0.01</b>	<b>0.03</b>	<b>0.77</b>
Iron Age (BC800-BC42)	<b>0.23</b>	<b>0.73</b>	<b>0.00</b>	<b>0.59</b>	<b>0.28</b>	<b>0.00</b>

*Table 32. A comparison of the time-depth composition of the Current HLC in both the County and District Council areas.*

- HLC has recorded that 6.09% of Redditch Borough Council's total area has a historic landscape character that relates to the medieval period. This is a statistically anomalous figure because, uniquely for the HLC, a well-surveyed map that dates to the 16<sup>th</sup> century was available for the parish of Feckenham and from that, medieval elements in the present-day historic landscape of the parish could be identified for HLC mapping.

## 10. **Using HLC to observe change**

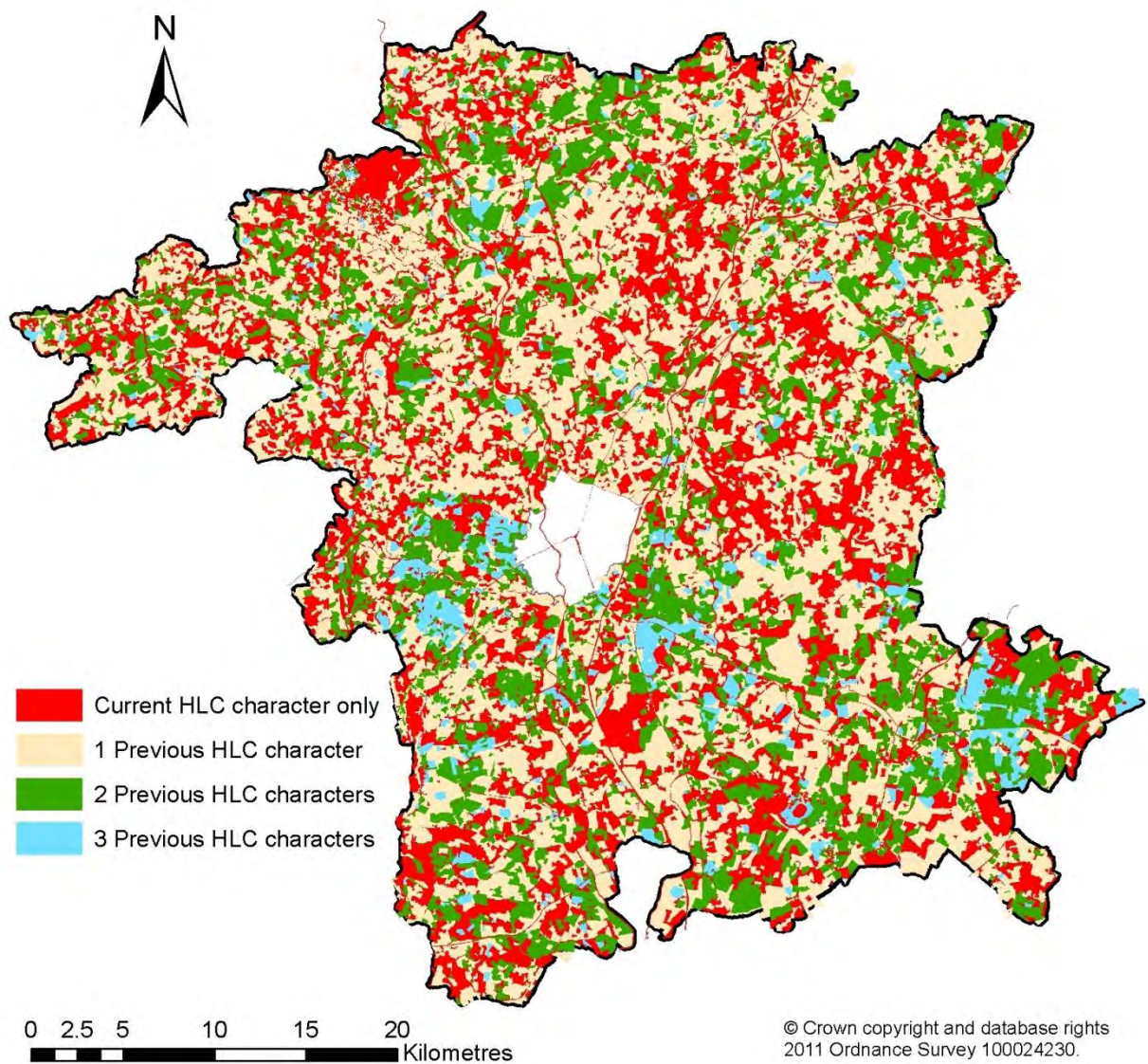
### 10.1 **Introduction**

The Worcestershire Historic Landscape Character information set can be digitally interrogated to observe change through time. The main aim of the HLC data is to record the legibility of the past in the present landscape. It is this focus on the historic dimension of today's landscape that makes HLC a strong tool for managing change in the future.

The HLC methodology, however, is structured in such a way that it permits each polygon to record not only the current historic landscape character, but also up to three previous landscape characters, identifying changes through time that particular polygon may have undergone (e.g. A Golf Course may have previously been Parkland in the 19<sup>th</sup> century that, in turn, may formerly have been a Deer Park in the 18<sup>th</sup> or 17<sup>th</sup> centuries). Some polygons may only have one historic landscape character recorded by the HLC, being the current one. An example of this would be surviving fields of piecemeal enclosure, which can be confidently dated to the post-medieval period at least. Similarly, ancient semi-natural woodland is defined as wood that has stood since at least AD1600 that, for HLC time-depth, places it in the medieval period with a confidence rating of 'probable'. Other HLC polygons may have one two or three previous characters in addition to the current character. For example, there are fields that have been amalgamated since World War Two, but were formerly part of 19<sup>th</sup> century Parliamentary Enclosure and prior to that were part of a Medieval Open Field prior to the 18<sup>th</sup> century.

### 10.2 **Dynamic and Conservative Landscapes**

With the flexibility of the digital HLC information, it is possible to order the HLC polygons in such a way as to group them according to the number of previous historic landscape characters they have (if any) and so identify areas of the County where historic landscape change has been dynamic and also those areas where change has been conservative. A practical application of this information might be in landscape management and spatial planning, or informing strategies for sensitivity and capacity (to change).



*Figure 139. A graphic representation of conservative and dynamic change in Worcestershire's current landscape.*

Figure 139 shows the Worcestershire HLC information expressed in terms of the number of previous characters for each polygon. In this image, the Current HLC character (in red) represents polygons that have no previous historic landscape characters. It is distributed across the whole county, but has a particularly visible concentration to the east and south-west. It would suggest that these areas have undergone a more conservative landscape history in respect of change. Conversely, areas in the centre of the County (to the west and south-east of Worcester city), as well as the south-east (around Evesham town), have undergone greater landscape change as evident by the green and blue polygons representing two or three previous historic landscape characters.



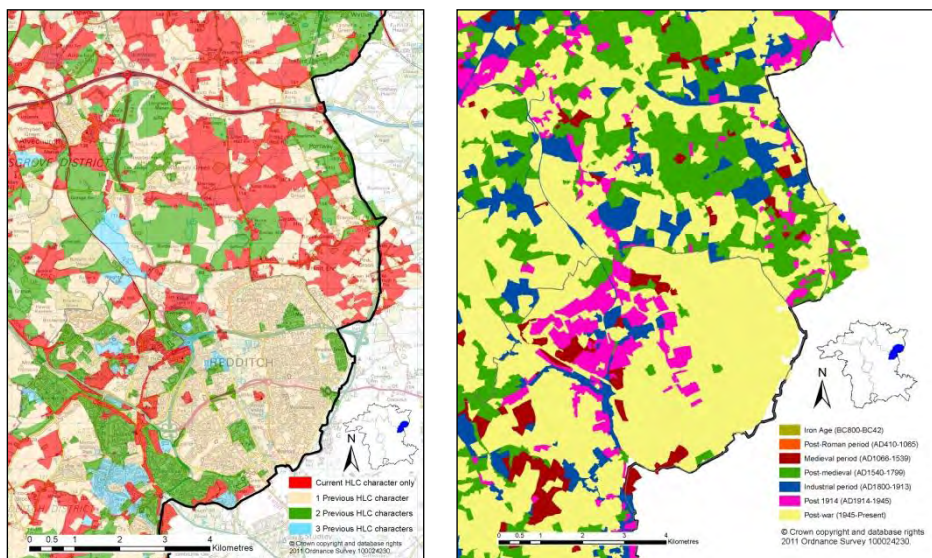


Figure 140. Left: The current HLC data manipulated to show dynamic and conservative landscape change in and around Redditch. Right: time-depth information showing landscape elements of a post-medieval date surviving in the current HLC in the same area.

It is notable that the area that Redditch now occupies appears to be a fairly conservative landscape in regards to change (Figure 140), much of the area recording only one previous historic landscape character. However, the change that has occurred, the setting out of the urban new town, has actually been a dramatic urban transformation of a formerly agricultural area. The area to the north of the town, does suggest an area of more conservative landscape change, and this is corroborated in the surviving landscape elements that date from the post-medieval and medieval periods.

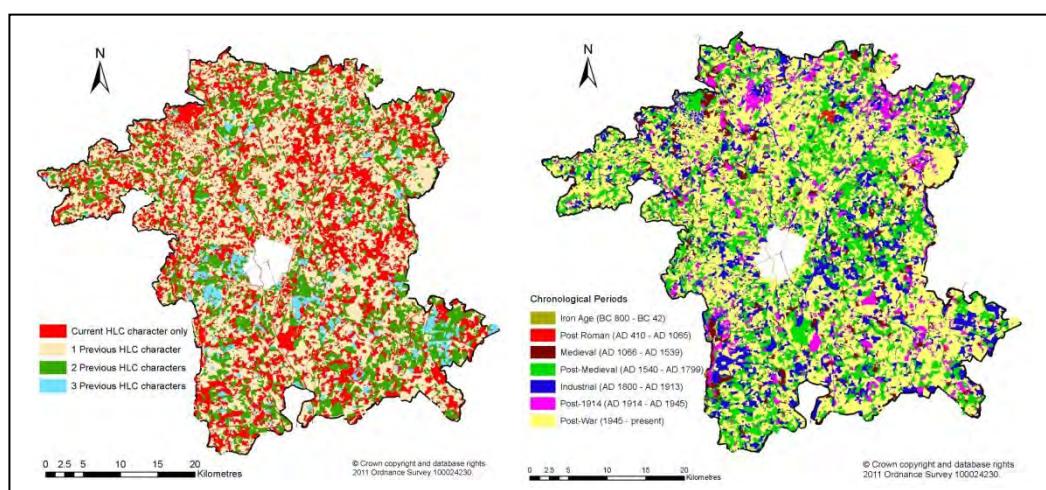
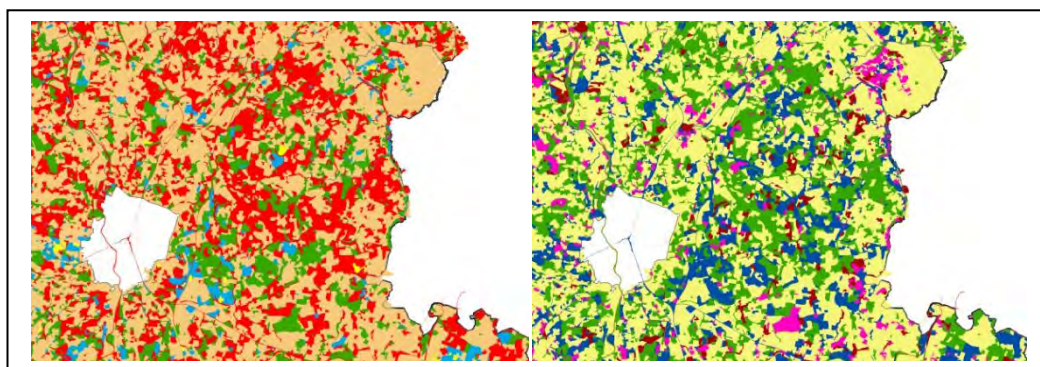


Figure 141. The Worcestershire HLC showing dynamic change (left) and time-depth (right) in the current landscape.

A comparison with the HLC information expressed as dynamic change and as time-depth (i.e. the historic dimension of today's landscape) (Figure 141) shows some concordance. To the east of the county, the area of least dynamic

historic landscape change appears to correlate with the focus of surviving post-medieval and industrial period (19<sup>th</sup> century) landscape features (Figure 142).



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*Figure 142. A comparison of more conservative landscape change (left) and greater historic time-depth (right) for the area to the east of the County (in Wychavon District Council). The trend of each correlates well.*

## 11. **The Application of HLC information**

Historic Landscape Characterisation (HLC) is holistic in its approach and is based upon the assertion that landscape is dynamic and ever-changing. Rather than focusing on any specific component of historic landscape character, it recognises all aspects of landscape character. This approach makes it particularly applicable to informing landscape management strategies, for example such as:

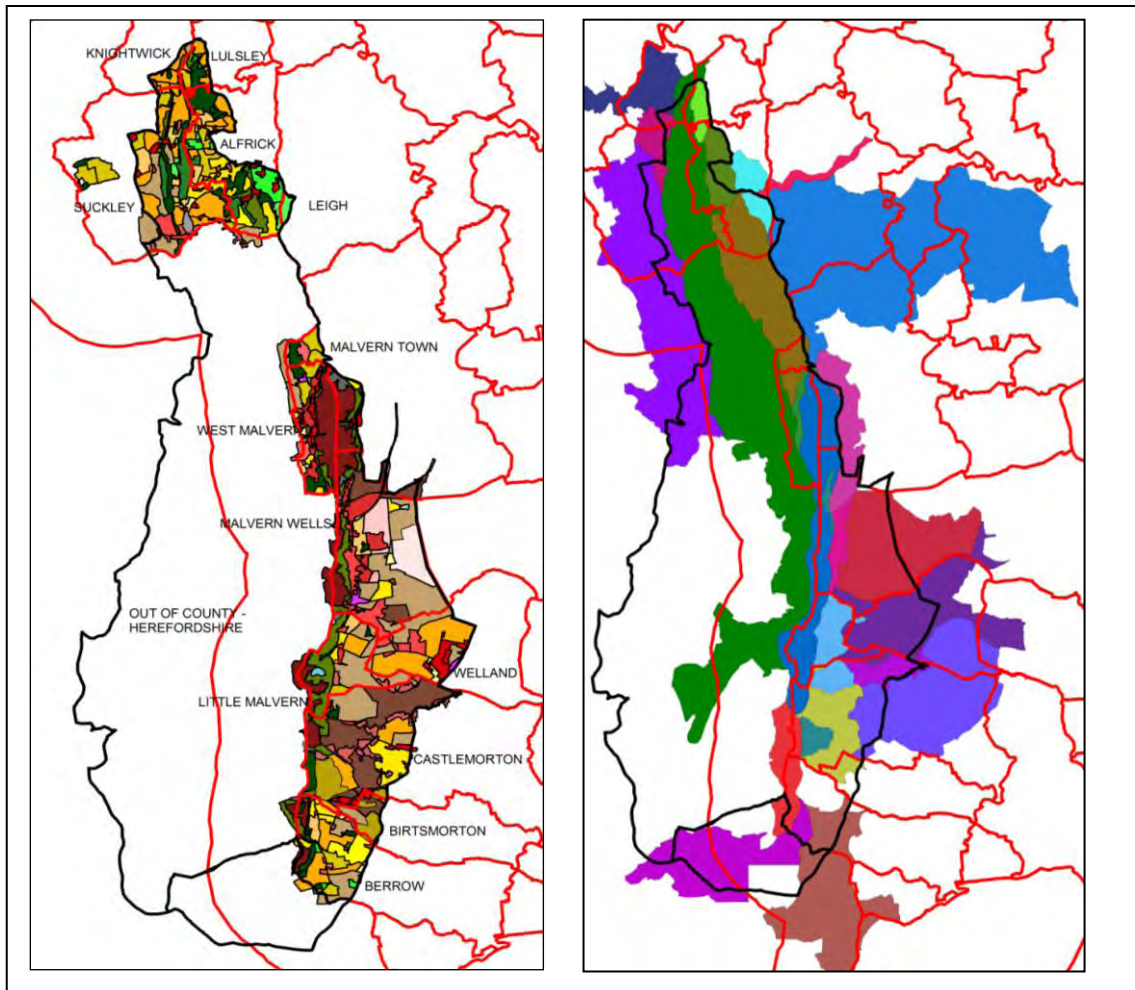
- to underpin historic environment advice given to district councils and other environmental or conservation agencies, such as Natural England's Higher Level Environmental Stewardship Scheme and the Forestry Commission's England Woodland Grant Scheme applications;
- to inform hedgerow removal applications;
- for the Local Development Framework (LDF), a suite of documents that together guide development within the County;
- for windfarm site applications;
- for new road and rail route projects;
- for route proposals for National Grid electricity pylons (over or underground);
- for identifying potential areas suitable for flood alleviation schemes;
- for Selected Heritage Inventory for Natural England (SHINE), a project to create a single, nationally consistent dataset of undesignated historic environment features that could benefit from management with the Environmental Stewardship agreements.

This chapter provides some examples where the Worcestershire HLC information has already been applied practically, or suggests how it might yet be applied to inform a wide variety of landscape management strategies.

## 11.1 HLC and Landscape Strategies

### 11.1.1 Malvern Hills Area of Outstanding Natural Beauty

Worcestershire's HLC information has already been used as part of landscape planning strategies in the Malvern Hills Area of Outstanding Natural Beauty (AONB). A short report on the historic landscape character of the AONB area, attached at Appendix C, was provided to the Malvern Hills Area of Outstanding Natural Beauty Partnership in 2009. The HLC report for the AONB focused its analysis on a comparison of the HLC polygons with the Worcestershire Landscape Character Assessment (LCA) data, specifically at the Landscape Description Units (LDU) level (Figure 143).



*Figure 143. A comparison of the Worcestershire HLC (left) and LCA mapping (right), undertaken for the Malvern Hills AONB).*

The report subsequently formed part of the evidence base that informed the Malvern Hills Area of Outstanding Natural Beauty Landscape Strategy and Guidelines, a document that assists public bodies operating within the AONB to meet statutory duties in regard to issues of landscape conservation and enhancement (Malvern Hills AONB 2010). The Landscape Strategy and Guidelines helped to implement a management document for the local authority, the Malvern Hills AONB Management Plan, a policy document that functions to inform development control and forward planning.

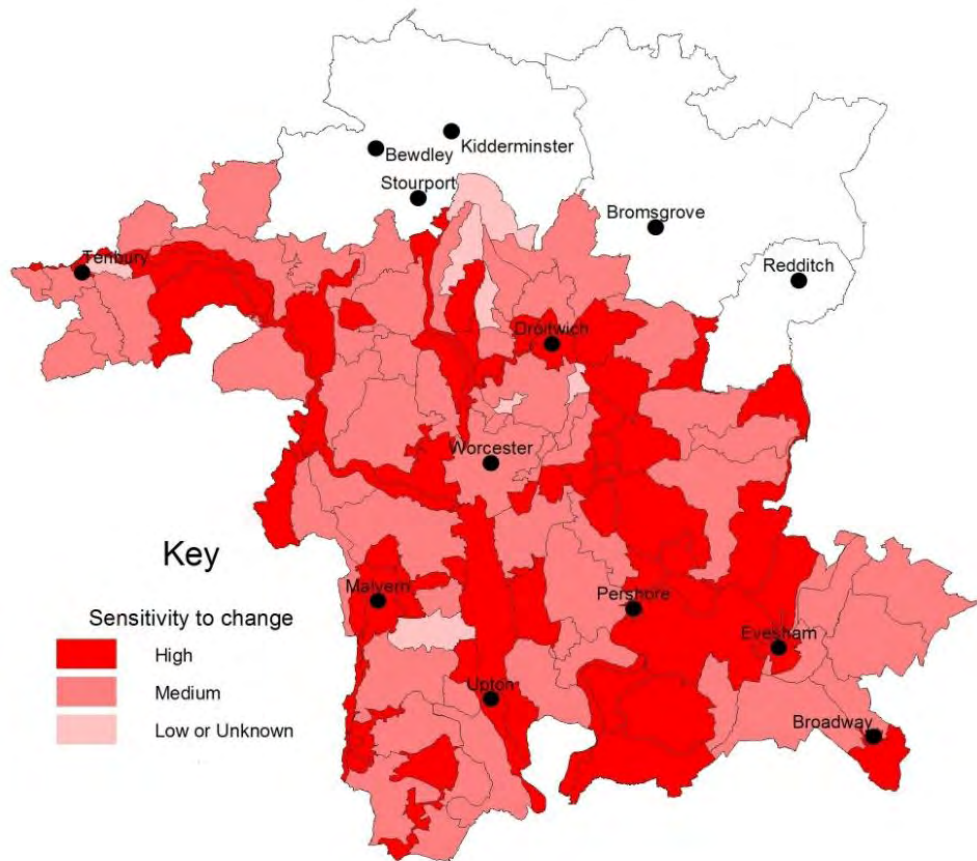
Worcestershire HLC information has also been consulted as part of a Malvern Hills AONB Hedgerow Survey, which aimed to gather data on hedgerow biodiversity with the AONB, identify how hedgerows are managed and how they contribute to local distinctiveness (Lashey, 2009).

#### 11.1.2 **HLC, Spatial Planning and Green Infrastructure**

In 2010, The South Worcestershire Joint Core Strategy Historic Environment Assessment (HEA) project was completed. Its aims was to provide a strategic level historic environment evidence base for the Joint Core Strategy site allocations and policy DPD and Green Infrastructure strategy (Mindykowski *et al.*, 2010).

The fundamental principle of Green Infrastructure (GI) is the multi-functionality of open space resources within rural and urban landscapes, such as woodlands, hedgerows, watercourses, nature reserves, playing fields and cemeteries. GI aims to connect these open space resources into networks, improving the attractiveness, use and enjoyment of areas for maximum public benefit (Worcestershire County Council, 2007).

By combining a range of County historic environment sources (Historic Environment Record, Historic Farmsteads Characterisation project, historic mapping, English Heritage and Worcestershire County Council's landscape and conservation data), areas of distinctive or related historic environment character were defined to create an integrated evidence base in the form of Historic Environment Character Zones (HECZ), which covered the entire Joint Core Strategy area. From each of the 128 HECZ created, character statements and thematic assessments of each character zone were prepared. As part of the HEA project analysis, the data was analysed to produce a 'sensitivity to change' map (Figure 144), with sensitivity ratings from low to high being an impact assessment that medium to large-scale development would have on the historic environment (Mindykowski *et al.*, 2010).



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*Figure 144. The South Worcestershire Joint Core Strategy Historic Environment Assessment data was used to produce a 'sensitivity to change' map.*

The combination of the SWJCS HEA results and the potential range of information contained within the completed HLC (dynamic or conservative change data, time-depth data, period-specific landscape change maps) should provide a powerful analysis source for producing a refined sensitivity and capacity to change map for the County's historic landscape (Figure 145). Such analysis would be a significant piece of work, however and is not within the scope of this report.

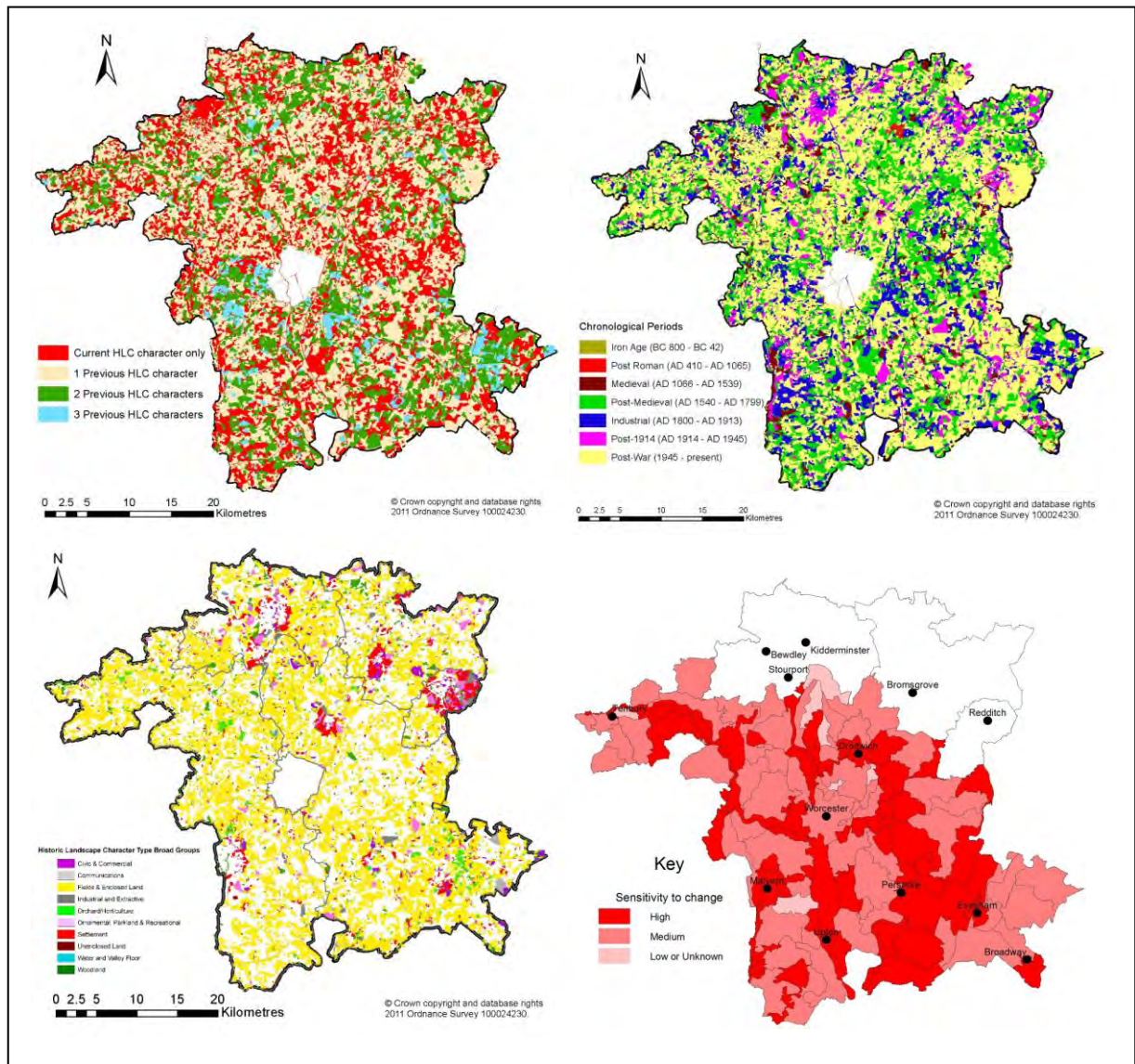


Figure 145. A comparison of the Worcestershire HLC dynamic change data (top left), time-depth data (top right), post-1945 landscape change data (bottom left) and the HEA sensitivity to change data (bottom right).

- In the HEA data map (Figure 145 bottom right) there is a large area of high sensitivity to change in the southeast, between Pershore and Evesham towns. It is notable that the HLC analysis information shows that same area to have been quite dynamic in historic landscape change (top left), and that HLC recorded significant 20<sup>th</sup> century historic landscape character changes (top right), much of it following the Second World War in the Fields and Enclosed Land HLC broad group (bottom left);
- The HEA statement and the HLC analysis would appear to be somewhat contradictory and is evidence of the complexity of the Worcestershire's historic landscape and historic environment.

### 11.1.3 HLC and Countryside Advice

Worcestershire's Historic Landscape Characterisation data can be provided to any individual, group or organisation with an active interest in the management of the landscape, from large government bodies or other autonomous organisations, to landowners, estate managers and farmers. It is an effective method for wedding the historic landscape with to the interests of the natural environment. As HLC has a holistic landscape approach rather being site-specific, it offers a perspective well suited to agricultural land management. With its capacity to provide information on landscape change and document the shaping effects of human actions over a considerable historic time period, HLC presents a positive and proactive starting point for land management strategies.

The information contained within the Worcestershire HLC dataset will be used by the Historic Environment Countryside Advisory Service (HECAS) within the Worcestershire Archive and Archaeology Service for to support a range of services that include the Natural England-led Environmental Stewardship Scheme.

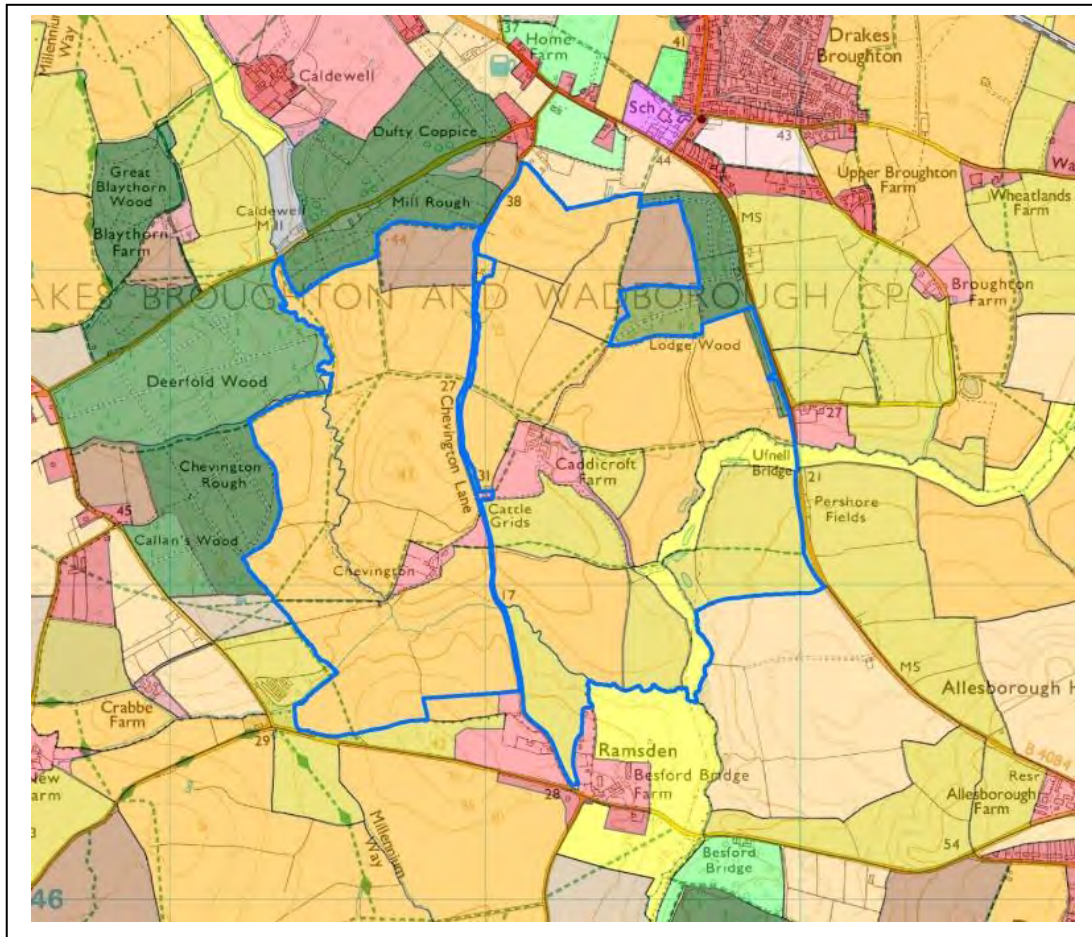
#### **Higher Level Stewardship consultations**

A consideration of HLC data is included as part of the HER consultation process that contribute towards the evidence base informing Farm Environment Plans (FEP). This reflects the landscape, or 'whole farm' approach applied in Environmental Stewardship agreements. In Worcestershire, the HLC has not been applied in every case to FEP consultations as a result of the project being in production. Also, the requirement to include a farm-specific HLC map as part of a FEP has recently been deleted by Natural England. However, there is still capacity to provide a text-based appraisal of a holding's HLC and, critically, list management and restoration objectives that can enhance selected landscape attributes. There is clearly an opportunity to exploit the potential offered by the now completed study, particularly in terms of informing recommendations. Objectives tend to focus on hedgerows, and by association, field boundaries. Hedgerow-focused recommendations are, of course, popular with both applicants and Natural England because they provide management targets that are relatively quick and cost-effective, and complement habitat restoration objectives.

HLC can, however, contribute in a less direct way because it provides a context for assessing the setting of heritage assets that can help to justify asset-specific targets, but also to recommend enhancement to the setting itself. To a lesser extent, perhaps, HLC mapping could provide a baseline target against which landscape-scale restoration objectives agreed in an HLC capital works programme could be measured.

Figure 146 shows the extent of field amalgamation (in orange) in relation to a holding in HLS. The previous character was a post-medieval, piecemeal field pattern. It would be possible to measure hedgerow replanting and restoration targets in terms of area restored as a percentage of the area affected by field amalgamation.





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*Figure 146. The extent of field amalgamation (in orange) in relation to a holding in HLS.*

### The Brown Hairstreak Butterfly

This recent use of Worcestershire's HLC information demonstrates its potential for use in a wide range of applications, in this case to assist in habitat mapping research. In 2011, members of the Butterfly Conservation Trust approached the Worcestershire Archive and Archaeology Service's' Countryside Advisory Team and the HLC with a request for data and assistance:

*"We are interested in discovering more about the extent of woodland cover south of the modern day A422 Worcester to Stratford road and also the total extent of the Forest area! We hope that greater understanding of the historical landscape of the area will help us to understand more about the current distribution of the Brown Hairstreak butterfly and why it should be geographically confined to a small area of east Worcestershire".*

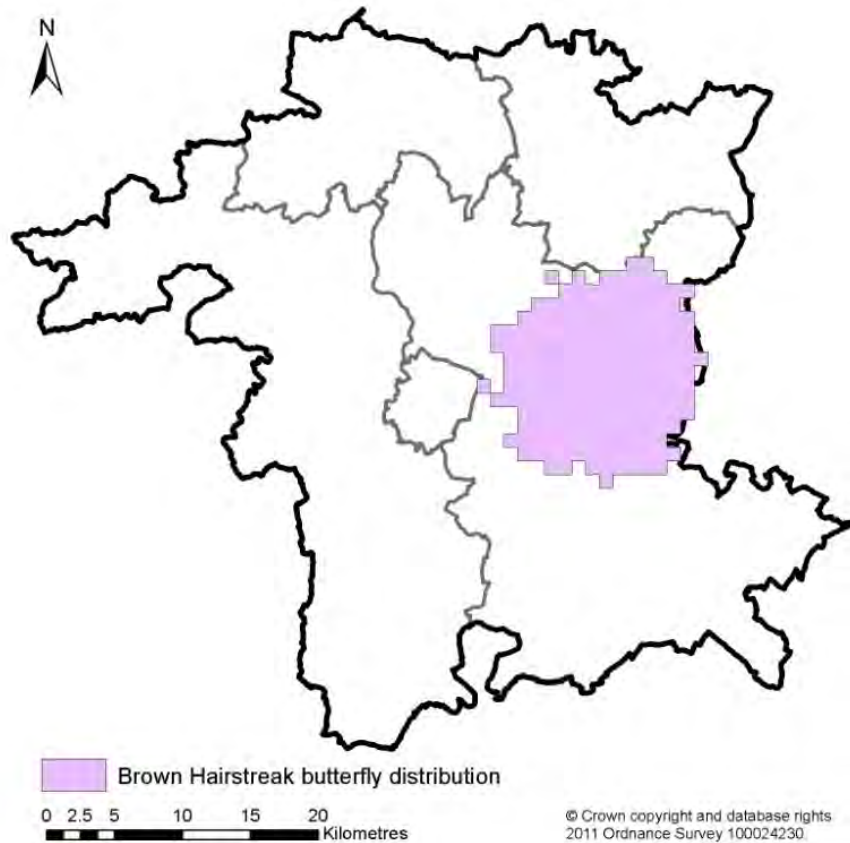


The Brown Hairstreak butterfly (*Thecla betulae*) is a shy and increasingly rare butterfly that spends most of its life-cycle either in the tree canopy or dispersed in hedgerows (Figure 147).

*Figure 147. The Brown Hairstreak butterfly (*Thecla betulae*). Reproduced with kind permission of Simon Primrose.*

Males of the species tend to congregate/assemble and live in the canopy at 'master trees', particularly ash, attracting females there for mating. Once fertilised, the females alone disperse to lay their eggs on blackthorn (*Prunus spinosa*). The Brown Hairstreak favours low-lying clay soils and extensive networks of wood and hedge, especially where the blackthorn is abundant and not too intensively managed (Mike Adams. Pers. Comm., 2011).

The Brown Hairstreak butterfly is found widely between southern Sweden and northern Spain but is only locally distributed in southern Britain. In the whole of the West Midlands, there are no recorded groups of Brown Hairstreak butterfly except within a discrete area of east Worcestershire (Figure 148). The Brown Hairstreak has undergone a substantial European decline due to the removal of hedgerows.



*Figure 148. The current known distribution of the brown hairstreak butterfly in East Worcestershire (data source: Butterfly Conservation Trust 2011).*

In an attempt to understand possible environmental, ecological or historical conditions that might restrict the distribution of the Brown Hairstreak butterfly to this particular area of the County, The Butterfly Conservation Trust consulted the Historic Landscape Characterisation dataset to ascertain whether there was a relationship between the brown hairstreak's distribution and areas of former/cleared semi-ancient natural woodland.

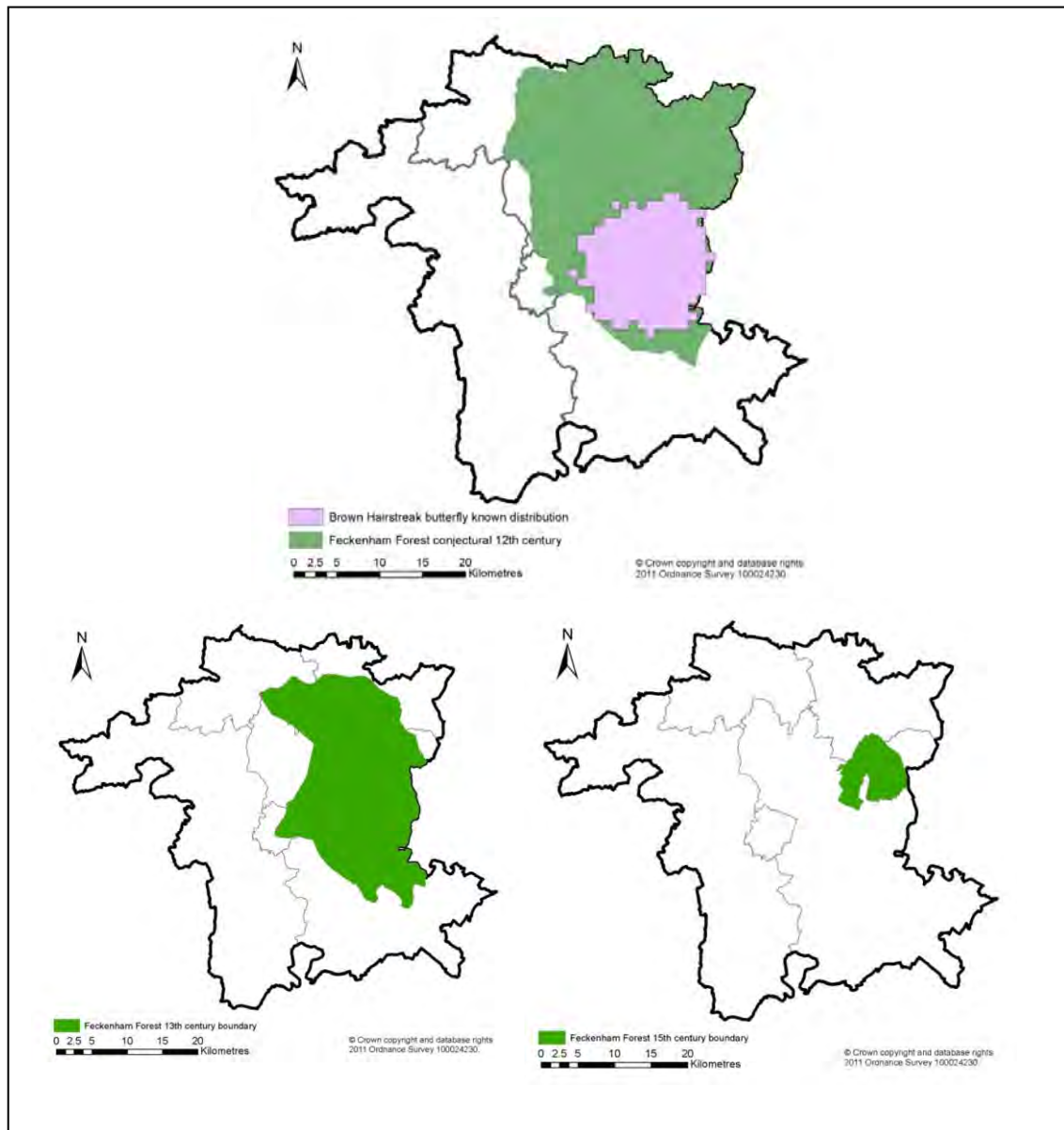
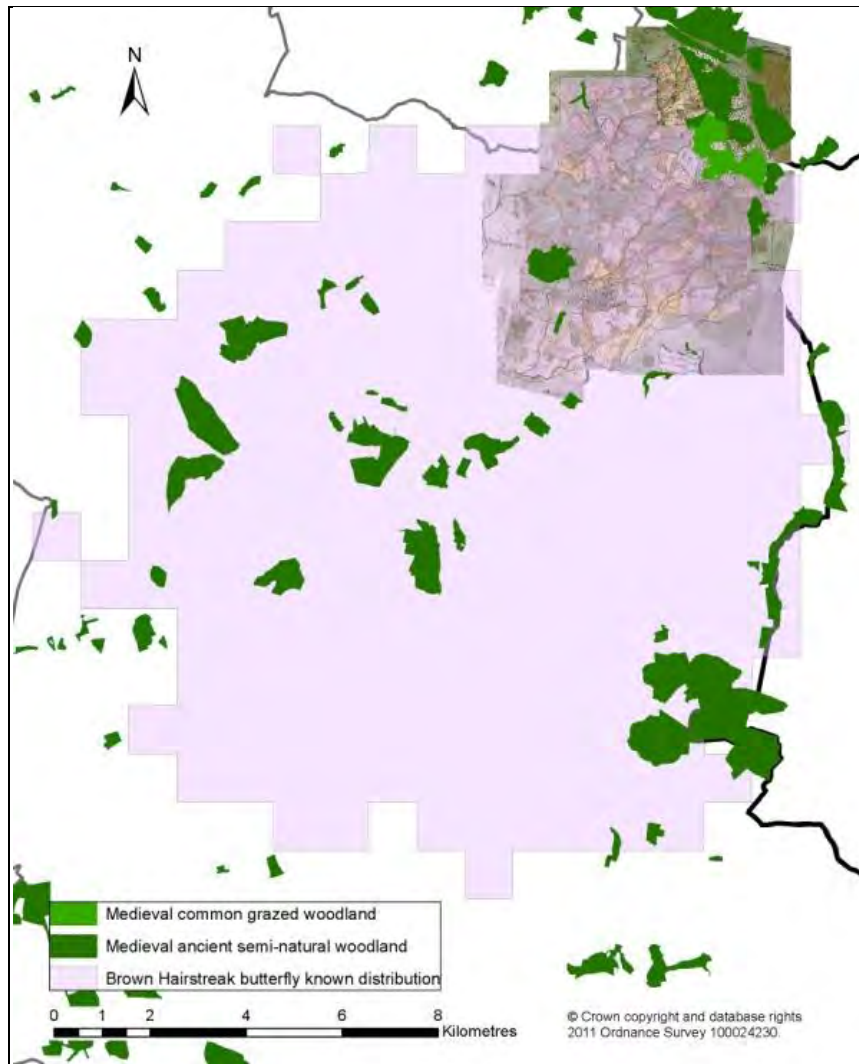


Figure 149. Conjectural extent of Feckenham Royal Forest in (top centre) the 12<sup>th</sup> century, (bottom left) the 13<sup>th</sup> century and (bottom right) in the 15<sup>th</sup> century.

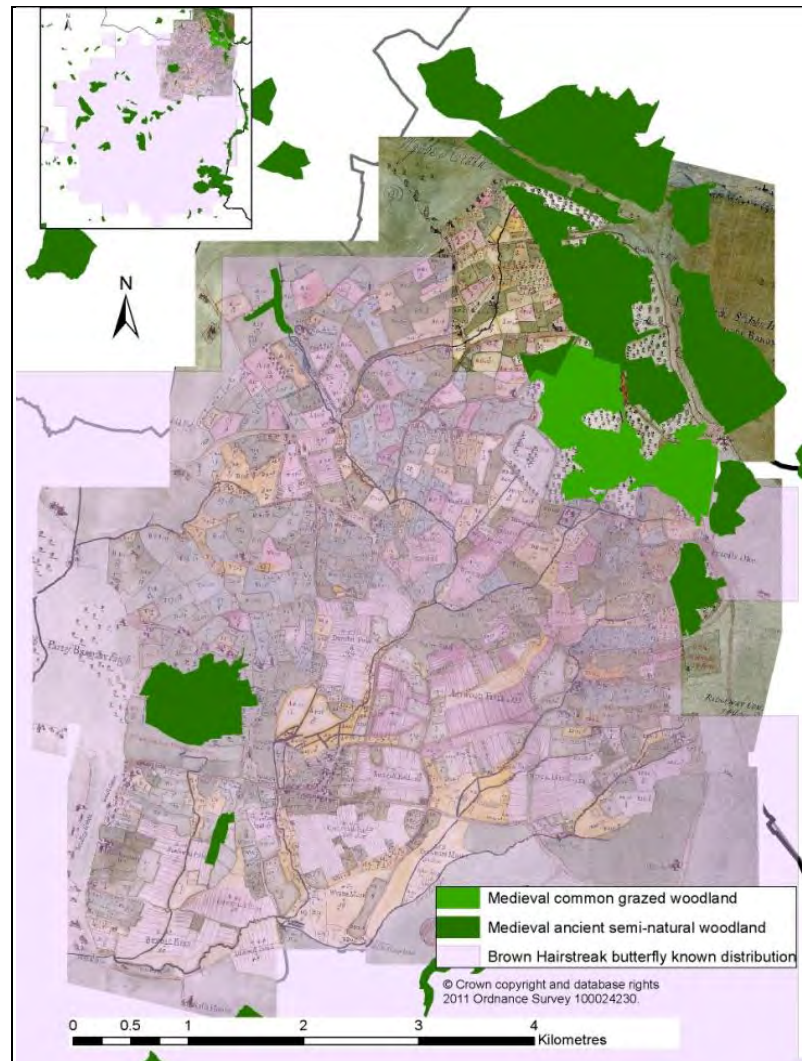
The area of known Brown Hairstreak distribution appears to fall within the former administrative bounds of Feckenham Forest, a royal hunting forest and therefore subject to Forest Law from the time of the Norman invasion until its disafforestation in AD1629 (Figure 149). Figure 149 (top) shows a conjectural extent of Feckenham Forest at its founding in the 12<sup>th</sup> century, digitally drawn from a brief narrative description of its boundaries (Gilpin and Lauder, 1834). Previous research conducted by Worcestershire Archive and Archaeology Service on the extent of woodland in Feckenham Forest have produced two conjectural maps that show the area of woodland contracting in the 13<sup>th</sup> and 15<sup>th</sup> centuries.

In the 1740s, surveyor John Doharty redrew a map originally commissioned by Queen Elizabeth I for the disafforestation of a small part of Feckenham Forest, originally drawn by John Blagrave, dated AD1591.



*Figure 150. The redrawn 1591 Blagrave map in the northeast corner of the Brown Hairstreak butterfly's current known distribution.*

Coincidentally, that map covers part of the Brown Hairstreak's known habitat area and clearly shows that the remaining woodland in that area in the late 16<sup>th</sup> century was already limited to a few small pockets (Figures 150 to 152), of which only a tiny portion of one remains extant in the Current HLC.



*Figure 151. The redrawn AD1591 Blagrave map, showing the few islands of woodland extant at the time that overlap the Brown Hairstreak butterfly's current known distribution.*

The relative paucity of woodland recorded by the HLC in the late medieval Feckenham Forest also seems to be borne out by a contemporary account. Over nine years (AD1533-42), John Leland used a commission by Henry VIII (to save monastery libraries from the Dissolution) to also visit and describe the nation in detail for a map of Great Britain. Leland travelled throughout Worcestershire and described the landscape in a volume of his 'Itineraries'. He interviewed the salt-makers of Droitwich, who exploited the nearby woodlands of Feckenham Forest for wood to fuel their furnaces for the industrial production of salt. In the mid-16<sup>th</sup> century there were 400 furnaces around Droitwich using around 6000 loads of young pole wood per year (Hearne, 1711. p.87). In fact, Leland goes on to state that the Droitwich salters only produced salt six months in every year, principally because of the need to ration the available wood.

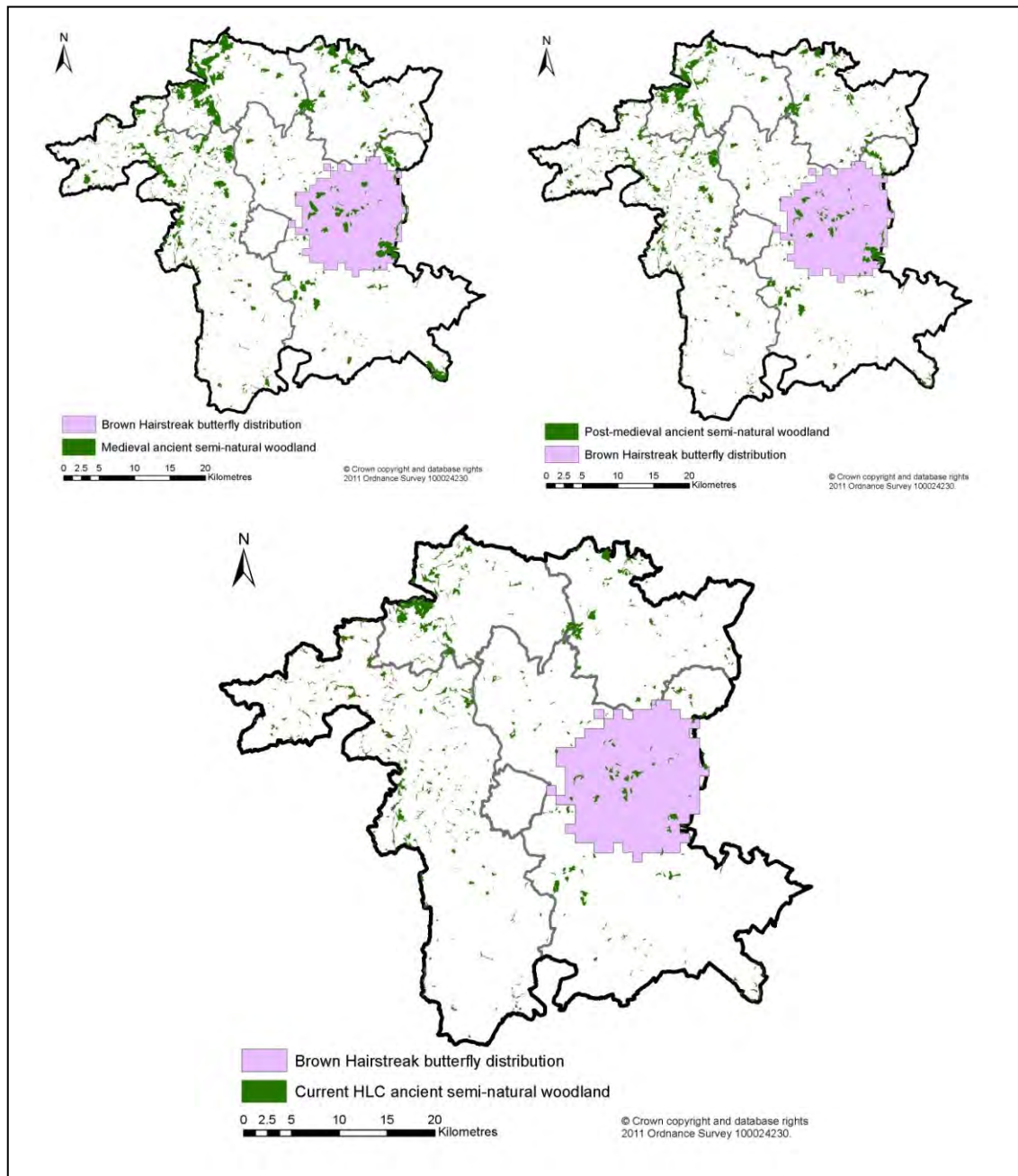
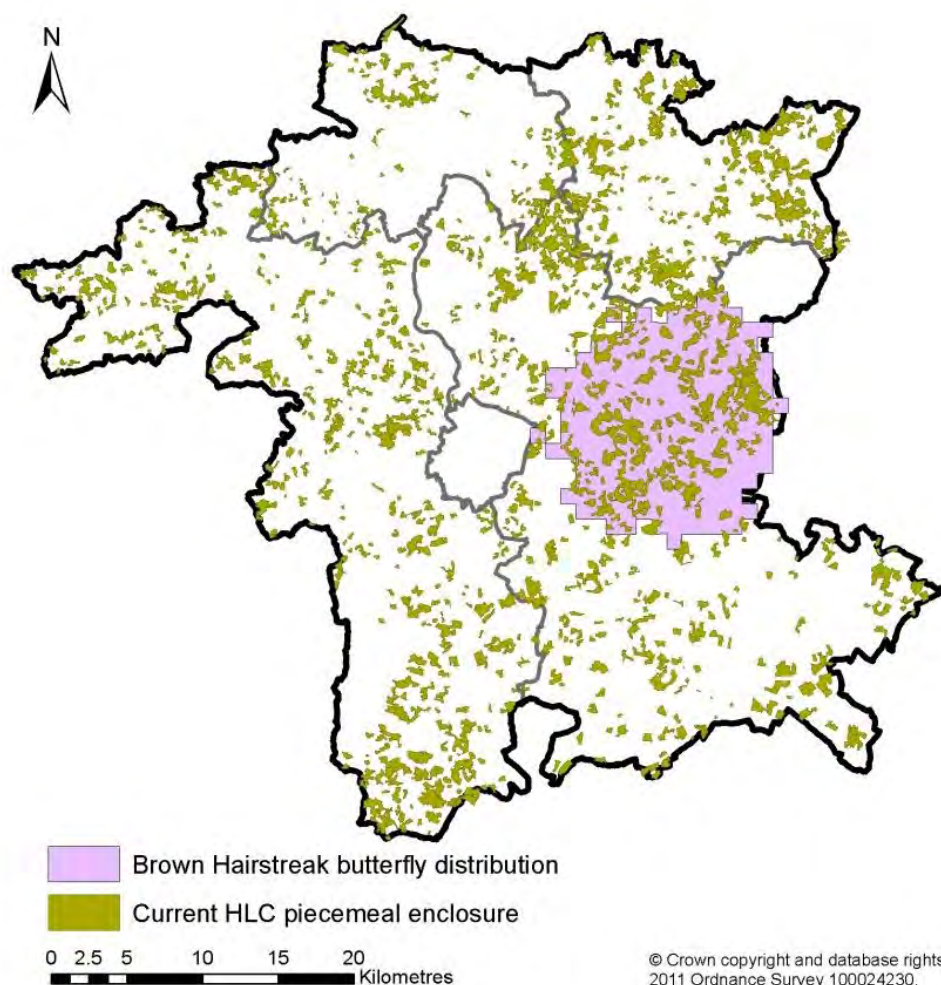


Figure 152. (top left) The possible extent of ancient semi-natural woodland in the later medieval period, (top right) in the post-medieval period, and (bottom centre) the extent of ancient semi-natural woodland period recorded in the Current HLC.

*"For making of salt is a great and notable destruction of wood, and hath been, and shall be hereafter, except men use much coppice of young wood. The lack of wood is now perceived in places near the Wyche (sic. Droitwich). For whereas in places near about they used to buy and take their wood the wonted places are now sore decayed in wood. They be forced to seek wood as far as Worcester, and all the parts about Bromsgrove, Alvechurch and Alcester."* (Hearne, 1711, p.87).

Given the HLC and other evidence about woodland contraction in Feckenham Forest, it seems unlikely that the Brown Hairstreak's distribution is linked to the

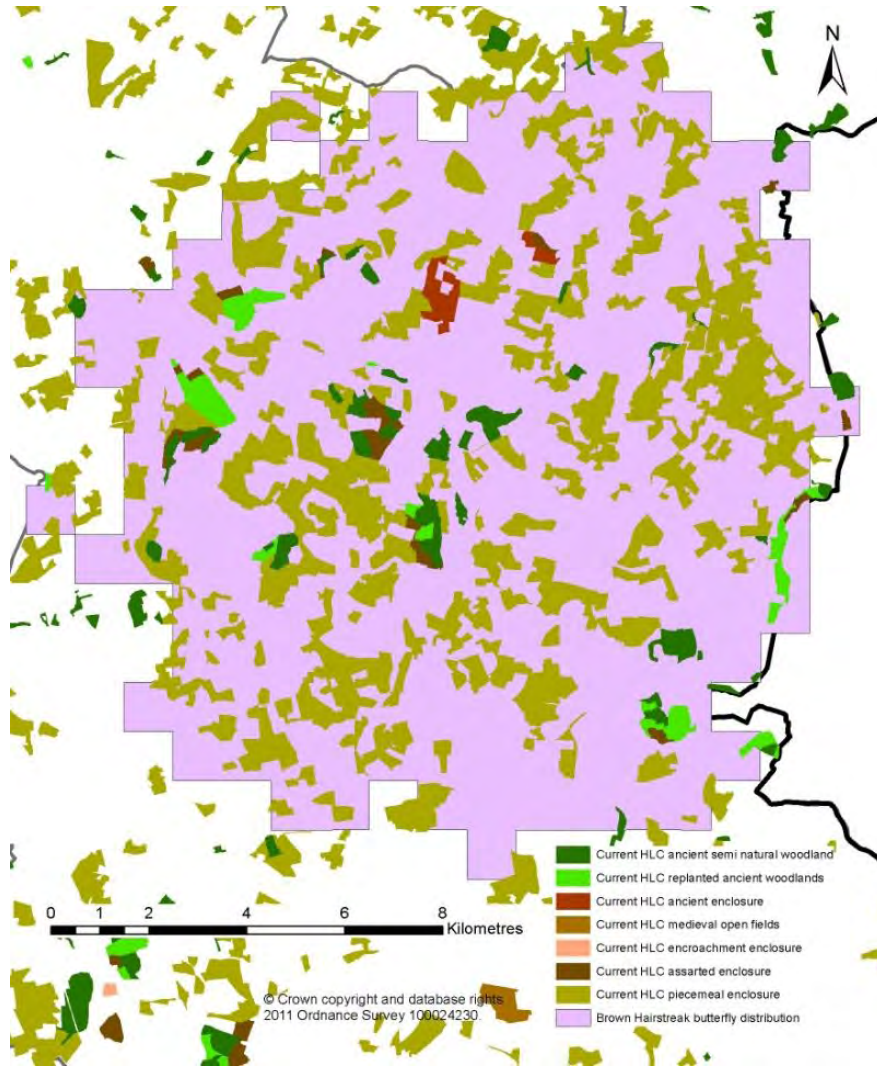
location of former ancient semi-natural woodland or common grazed woodland. Apart from woodland, the Brown Hairstreak also favours extensive networks of hedge, especially where the blackthorn is abundant and not too intensively managed. When the current HLC layer for extant pre-1800 piecemeal field enclosures is compared with the Brown Hairstreak's known distribution map, there appears to be a visible correlation (Figure 153).



*Figure 153. Piecemeal field enclosures recorded in the Current HLC shows a visible correlation between it and the known distribution of Brown Hairstreaks.*

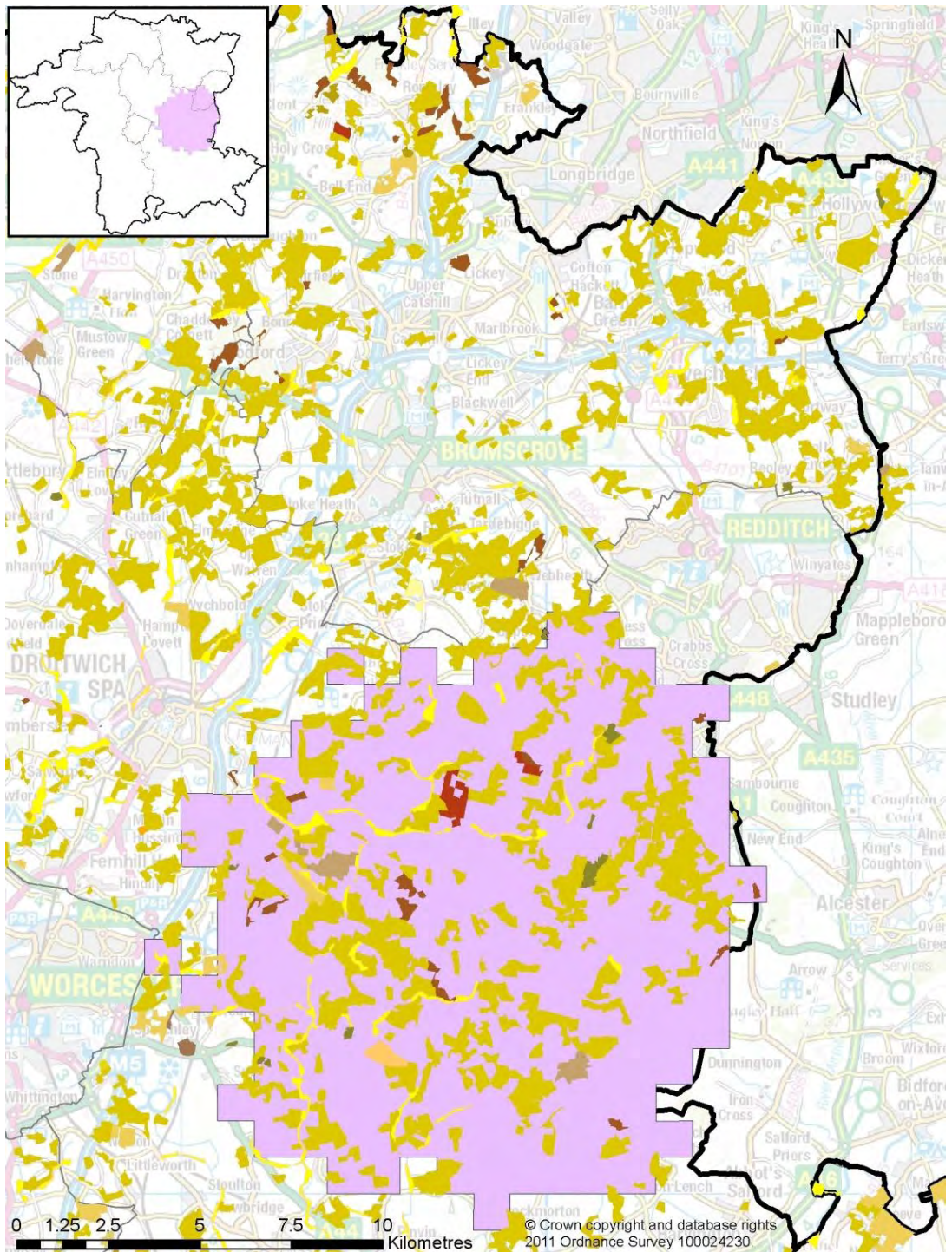
When the other surviving pre-1800 field types and woodland recorded on the Current HLC are overlaid onto the currently known Brown Hairstreak butterfly distribution map (Figure 154), the relationship appears to be with the surviving historic field pattern, rather than woodland.





*Figure 154. A general correlation between the brown hairstreak's distribution and surviving pre-1800 fields and woodland recorded on the Current HLC.*

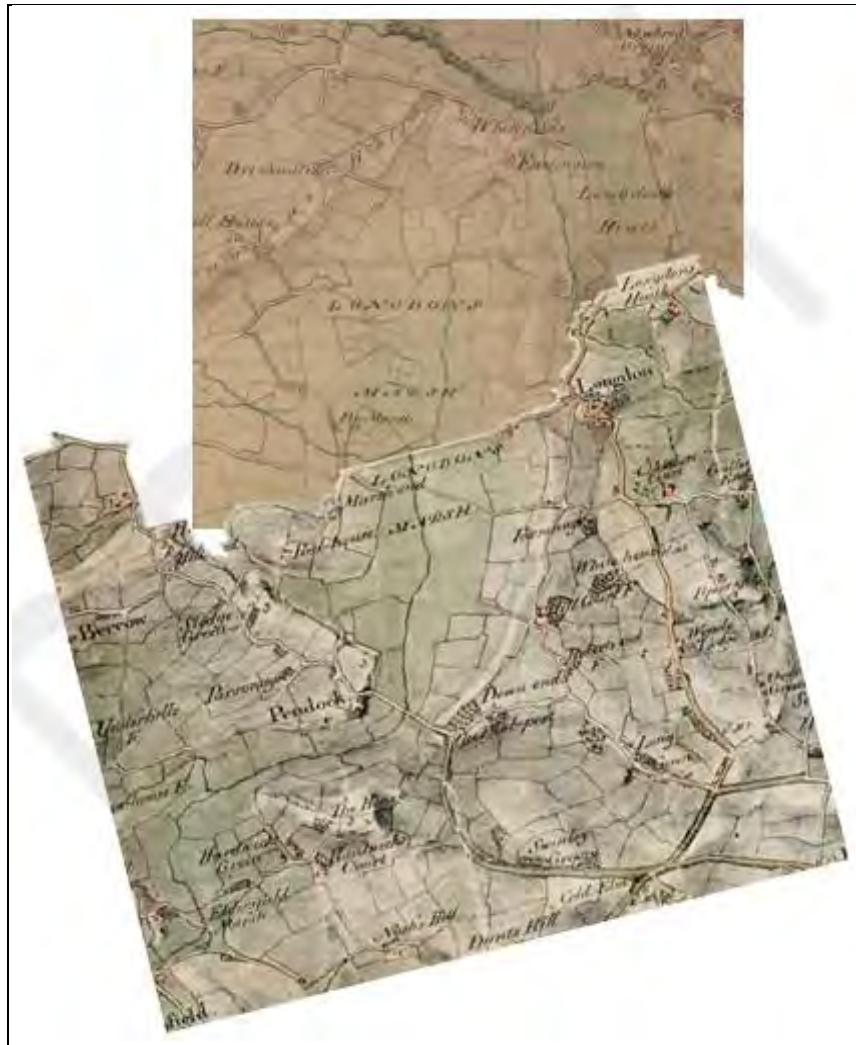
Although there would appear to be a relationship between surviving historic field systems and the butterfly's current known distribution, it does not explain its concentration in that particular area of the County alone, given that there are other similar areas of surviving pre-1800 field system within Worcestershire, the most significant of which abuts the known distribution of the butterfly (Figure 155). An area of a surviving contiguous pre-1800 field pattern exists west of Bromsgrove, and another lies north of Redditch. Notwithstanding any changes in soil types, it is possible that these adjacent areas of historic field pattern might provide potential new habitat sites for the Butterfly Conservation Trust to investigate.



*Figure 155. Areas of surviving pre-1800 field enclosures recorded by the HLC north of the known current distribution of the Brown hairstreak, whose historic character potentially may offer suitable habitat sites.*

11.1.5 **HLC and the Environment**

Worcestershire HLC information has the potential to inform environmental issues, such as the Worcestershire Biodiversity Action Plans (BAP). The 1999 Worcestershire Biodiversity Action Plan sets out targets for protection and enhancement for key habitat sites in 17 Species and Habitat Action Plans, of which two are the (H10) Wet Grassland Habitat Action Plan (Worcestershire County Council 2008b) and the (H9) Fen and Marsh Habitat Action Plan. In Worcestershire, wetland habitats such as fen and marsh have declined seriously in extent, becoming generally small in size and fragmented and under threat (Worcestershire County Council 2008a).

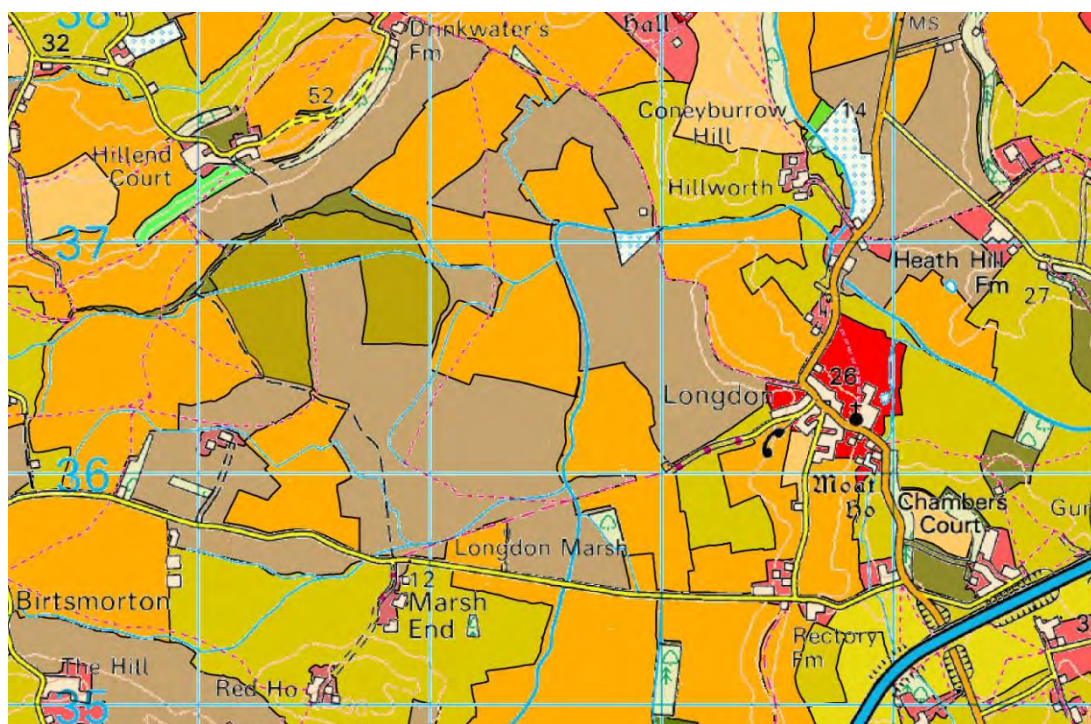


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Figure 156. *The early 19<sup>th</sup> century extent of Longdon Marsh, as surveyed in the 2 inch to the mile scale Ordnance Surveyors' Drawings (extracts from Great Malvern (1812) and Tewkesbury (1811)).*

The HLC methodology not only records moorland, marsh and bog in both the present-day landscape, but also maps the extents of wetland areas in the past. For example, an extensive area of former wetland known as Longdon Marsh, in the county's south-west, has been identified and defined. Historically, the largest wetland complex in the county, it would have supported large areas of

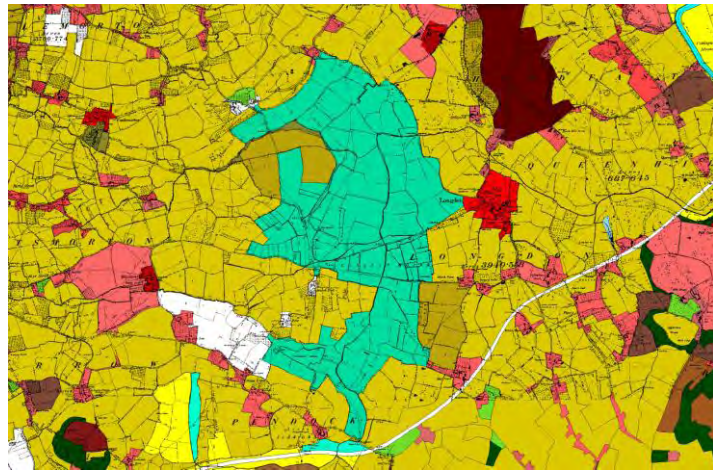
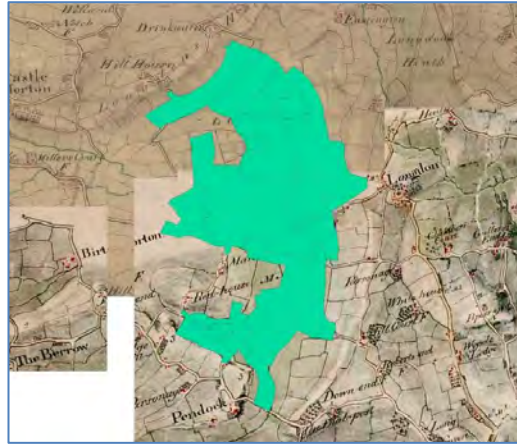
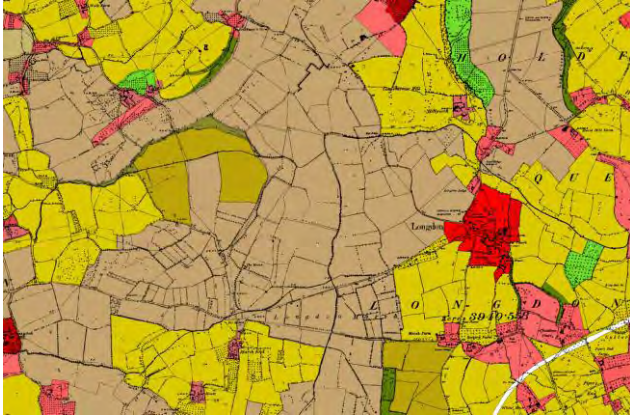
fen, marsh and swamp. Known to have been about 10,000 acres in area (Figure 156), draining was proposed in the mid-18<sup>th</sup> century but was not attempted until the 1860s. The marsh was only finally enclosed in 1872 and then later drained (Page and Willis-Bund, 1924). Little semi-natural habitat now remains (Worcestershire County Council 2008a).



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Figure 157. *The Current HLC in the Longdon Marsh area.*

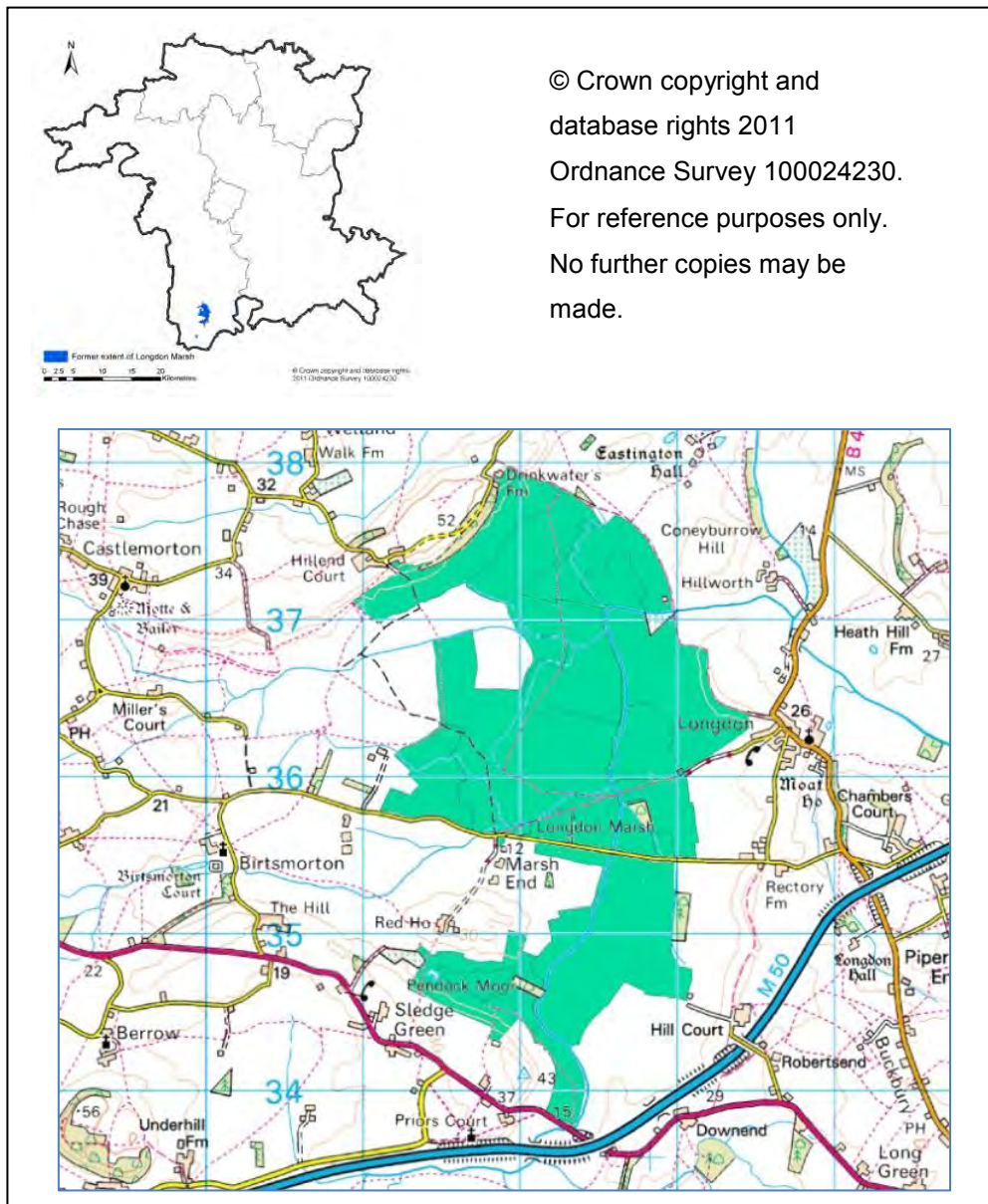
Figure 157 shows the Current HLC for the area shown on the modern map as Longdon Marsh and nothing but place-name evidence remains of the former wetland. The Current HLC records an area of mixed time-depth, with the village of Longdon (red) surrounded by post-war Field Amalgamation (in orange), 19<sup>th</sup> century planned Parliamentary Enclosure (in chocolate) and likely areas of pre-1800 irregular Piecemeal Enclosure (light olive).



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*Figure 158. (top) the HLC previous character information for the 19<sup>th</sup> century, (middle) the 1811/1812 OS Drawings and (bottom) the 18<sup>th</sup> century HLC character.*

Using the previous character information contained within the HLC database, the historic landscape character can be regressed through two hundred years of change. Figure 158 (top) shows the landscape in the 19<sup>th</sup> century, with a large contiguous area of planned Parliamentary Enclosure (in chocolate) west of Longdon village, around which are islands of pre-1800 Encroachment Enclosure (dark olive) into the former marsh and irregularly shaped pre-1800 Piecemeal Enclosure (light olive).



*.Figure 159. The extent of Longdon Marsh at the end of the 18<sup>th</sup> century.*

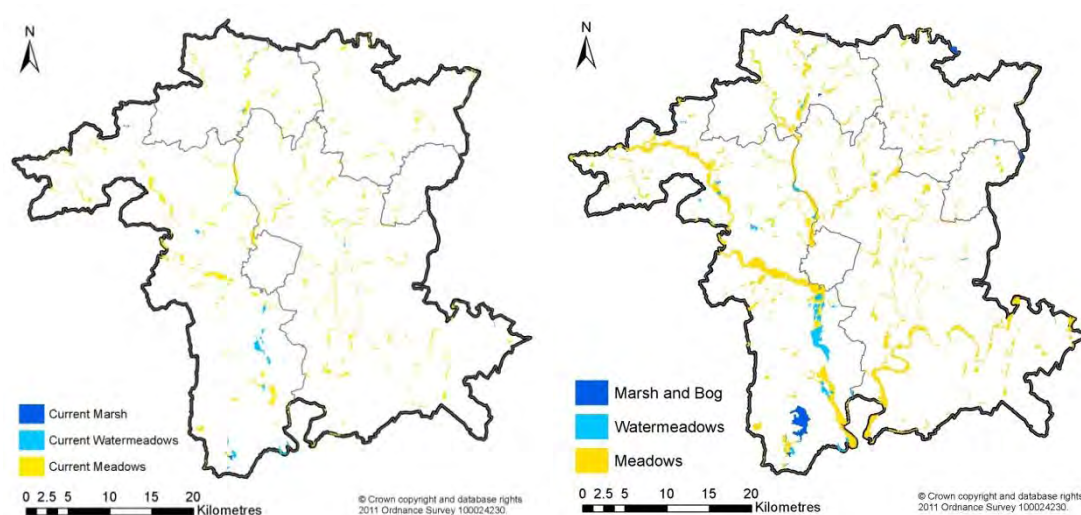
Using georeferenced excerpts from the 2 inch to the mile scale Ordnance Surveyors' Drawings dated 1811 and 1812 (Figure 158 middle and bottom), the HLC can be regressed to the end of the 18<sup>th</sup> century, revealing the extensive marshland extant at that time. This former expanse of post-medieval marshland can be overlaid onto modern mapping (Figure 159). The vision statement for the BAP states that it wishes to create and restore additional fen and marsh sites to enhance ecological resilience in view of climate change and other environmental pressures (Worcestershire County Council 2008a). The historic dimension of HLC information has great potential to provide robust and fairly objective evidence for such strategy planning.

The Wet Grassland Habitat Action Plan (Worcestershire County Council 2008b, p.3) has a vision *"to conserve and enhance the quality and extent of all current wet grassland sites and create and restore additional sites in order to enhance ecological resilience (particularly in floodplains by restoring more natural hydrological regimes) in the light of climate change and other environmental*

*pressures.*" HLC information has an application as part of the evidence base to enable this vision, as meadows and managed watermeadows are recorded both in the current historic landscape character and in previous periods.

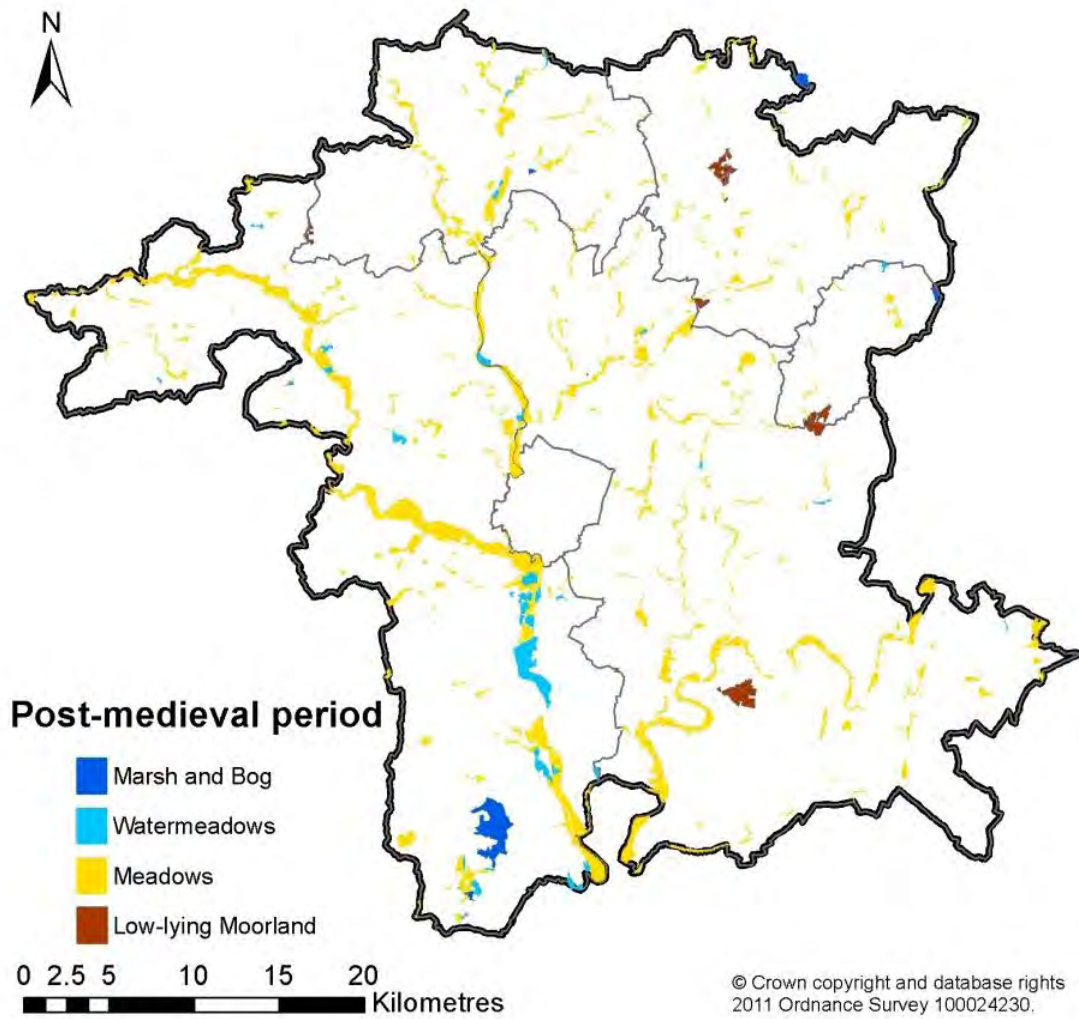
Mostly found on the floodplains of the Severn, Avon and Teme rivers, meadows are enclosures covered in short grasses, usually grazed or cut for hay, which are periodically flooded or waterlogged by freshwater. Of mainly pre-19<sup>th</sup> century date, managed watermeadows were deliberately flooded via a complex system of sluices and drains in order to raise hay yields or provide early grass growth for livestock. A few extant examples of these features have been recorded by the HLC, such as on the River Severn at Kempsey. Wet grasslands are a habitat for a range of native plants, birds and animals, but agriculturally improved meadowland has reduced value to wildlife (Worcestershire County Council 2008b).

Figure 160 is a distribution map of Current wetland HLC Types in the county.



*Figure 160. (top) The Current HLC shows areas of Eldersfield Marsh, Kempsey watermeadows and meadows in the present-day and (bottom) the probable extents of marshes, watermeadows and riverside meadows in the late 18<sup>th</sup> century.*

The Severn Catchment Flood Management Plan (CFMP) sets policies for managing flood risks within the River Severn catchment and offers a plan for long-term sustainable flood risk management in the coming century (Environment Agency, 2009). The information derived from the Worcestershire HLC project will be of interest to such policy and strategy bodies as the Environment Agency. The Severn CFMP states that its role is *"to establish flood risk management policies which will deliver sustainable flood risk management for the long term"* (Environment Agency, 2009, p.1). With this long-term sustainable strategy in mind, HLC data can provide fairly objective evidence for the location and extent of former areas of historic natural wetland and low-lying moorland in the county (Figure 161), which may have potential for 'rewilding'. HLC may also provide information to assist The Environment Agency's stated aim to restore sustainable natural storage of floodwater on undeveloped floodplains and identify suitable flood-compatible areas for the creation of 'blue corridors' (Environment Agency, 2009).



*Figure 161. The HLC can provide evidence of historic wetland areas that might be suitable for future sustainable flood management schemes.*



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13. **Glossary**

- AONB**      **Area of Outstanding Natural Beauty**  
A national designation to conserve the natural beauty of particular landscapes of nationally recognised importance.
- CMHTS**      **Central Marches Historic Town Survey**  
A mostly desk-based assessment in the 1990s of the historic towns of the modern counties of Hereford and Worcester and Shropshire, from the Roman to the post-medieval period, using a wide range of documentary sources and some field visits.
- EUS**      **Extensive Urban Survey**  
A detailed analysis of England's historic small towns intended to provide an up-to-date view of the archaeological resource in each town, enabling present and future planning policy to make recommendations.
- GIS**      **Geographic Information System**  
A computer software package that captures, stores, analyzes, manages, and presents data and spatial information such as maps that refers to or is linked to location (e.g. ESRI ArcView).
- HER**      **Historic Environment Record**  
A County maintained database of information on archaeological sites, monuments and buildings, representing the physical remains of past human activity within that county.
- HLC**      **Historic Landscape Characterisation**  
HLC provides an over-arching view of the whole historic landscape and a better appreciation of separate places. HLC records components of the landscape that are „natural“ but the product of centuries of human action, such as hedgerows, woodland, ponds and modified watercourses. It also takes account of more intangible factors such as time-depth, and patterns such as settlement, land-use, land enclosure, non-enclosed land, arable and grazing, woodland and parkland.
- HLF**      **Heritage Lottery Fund**  
The body that distributes a share of the income from the National Lottery to projects aimed at preserving and making accessible the nation's heritage.
- LCA**      **Landscape Characterisation Assessment**  
An approach to understanding the unique differences of particular landscapes and how distinctive elements contribute to sense of place, which can serve as a framework for decision-making, planning and managing landscape change that respects local distinctiveness.
- LDU**      **Land Description Unit**  
The fundamental landscape building block, LDUs are relatively homogenous units of land, each defined using a series of definitive attributes.

<b>Lidar</b>	<b>Light Detection And Ranging</b> An airborne remote sensing technique that uses a laser scanner to measure the distance between the laser sensor and the ground, the resulting dataset producing a highly detailed surface "map" which, when suitably processed, can filter out tree cover to produce contour maps of woodland floors.
<b>NGR</b>	<b>National Grid Reference</b> A unique map reference system that can be applied to all Ordnance Survey maps of Great Britain.
<b>OS</b>	<b>Ordnance Survey</b> Great Britain's national mapping agency, providing accurate and up-to-date geographic data since the mid-19 <sup>th</sup> century.
<b>WCC</b>	<b>Worcestershire County Council</b>
<b>WAAS</b>	<b>Worcestershire Archive &amp; Archaeology Service</b> Provides a comprehensive information and advisory service on the Historic Environment for the County of Worcestershire, and a field service for the region.

## Appendix A

### Historic Landscape Character Types

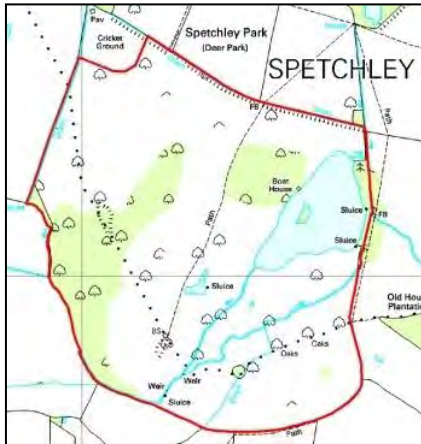
 Parkland	 Utilities	 Meadow
 Garden	 Landfill/ Rubbish Dump	 Paddock
 Country Park	 Reservoir	 Modern Subdivision
 Public Open Space	 Artificial Lake/Pond	 Rough Pasture
 Deer Park	 Watermeadow	 Field Reorganisation
 Race Course	 Bog	 Planned Enclosure for Orchard
 Racecourse	 Marsh	 Post-Enclosure Reorganisation
 Golf Course	 Natural Open Water	 Heathland
 Sports Ground	 Miscellaneous Floodplain Field	 Unimproved Open Hill Pasture
 Cemetery	 Major Road Junctions	 Other Common/ Green
 Show Ground	 Motorway	 Moorland
 Safari Park	 Canal/Lock/Basin	 Historic Town
 Camp Site	 Railways/Stations/Sidings	 New Town
 Prison	 Airport/Airfield	 Modern Expansion
 Government & Civic Centres	 Bus Station/Park and Ride	 Modern Infill
 Educational Establishment	 Pre-1880's Orchard	 Nucleated Cluster
 Hospital	 Post-1880's Orchard	 Nucleated Row
 Religious Site	 Nursery/Garden Centre	 Interrupted Row
 Hotel	 Market-gardening Smallholding	 Isolated Farmstead
 Commercial and Retail	 Allotment	 Clustered Settlement
 Leisure Centre	 Ancient Enclosure	 Waste/Common/Green-edge Sett
 Council Depot	 Assarted Enclosure	 Model Planned Village
 Military Airfield	 Medieval Open Field	 Caravan Park/ Chalet Site
 Defence Research Establishment	 Enclosed Furlong	 Minor Dispersed Settlement
 Military Base	 Enclosed Strip(s)	 Smallholding
 Storage Depot	 Piecemeal Enclosure	 Country House
 Firing Range	 Irregular Squatter Enclosure	 Ancient-Semi-Natural Woodland
 Hard Rock Quarry/ Extraction Site	 Encroachment Enclosure	 Replanted Ancient Woodland
 Sand and Gravel Extraction Site	 Rectilinear Squatter Enclosure	 Recent Woodland (Secondary)
 Mines/Spoil/Processing Areas	 Small Irregular or Rectilinear Fields	 Woodland Plantation
 Brickfield/Clay Extraction	 Parliamentary Enclosure	 Common Grazed Woodland
 Industrial/Factory Complex	 Planned Private Enclosure	
 Mill Complexes	 Field Amalgamation	

### *The Worcestershire Historic Landscape Character Types legend*





## **OPR4 Deer Park**



Identifies those areas known to have been medieval or later deer parks (as recorded on the HER), whose boundaries can still be distinguished on the modern or 1<sup>st</sup> Edition Ordnance Survey map. Deer parks are most likely to have originated in the medieval and post-medieval periods, although there may be some later examples. As they are often representative of an early landscape type, most will have changed in use to parkland at a later period or have been enclosed with fields and subsumed into the farming landscape. Where these parklands are still managed for the keeping of deer, they are recorded as a „Current Type“. Most historic deer parks are known from boundary

features only and have lost their parkland nature. The original distribution of deer parks may be established by cross-reference to the HER, though the extents of these can be speculative. Where former deer parks can be identified, they are recorded as a „Previous Type“.

## **OPR5 Race Course**



Areas identified as animal racecourses (particularly horse racing tracks) from current and previous Ordnance Survey mapping. This 'horsiculture' group will also include gallops and associated stables. These will mostly be current but former racecourses whose character has now changed are identified from the 1<sup>st</sup> Edition Ordnance Survey mapping.

## **OPR6 Golf Course**



Areas identified as golf courses are symbolised or annotated on Ordnance Survey mapping. Golf courses may be identified by their distinctive morphology of links, with bunkers and associated woodland strips. The majority have been created in the late 20<sup>th</sup> century reflecting the increase in leisure and recreation, although some may have earlier origins, i.e. converting existing Parks and Gardens for the purposes of leisure. A few golf courses date back to the late 19<sup>th</sup> century.

### **OPR7 Sports Ground**



Areas where one or more sports may be played e.g. tennis courts, bowling greens and also includes land defined as „Playing Field“ or stadiums where sport is played professionally. Modern sports grounds, fields and stadia identified as such from current Ordnance Survey mapping but will be restricted to those of an area greater than 1 hectare. Smaller sports fields and areas associated with schools are not recorded but instead form part of that associated feature. Sports grounds will mostly be identifiable from Ordnance Survey mapping but may also be recorded from aerial photography.

### **OPR8 Showground**



An arena for indoor and outdoor events: e.g. The Malvern's Three Counties Showground. Marked on current Ordnance Survey mapping.

### **OPR9 Safari Park**



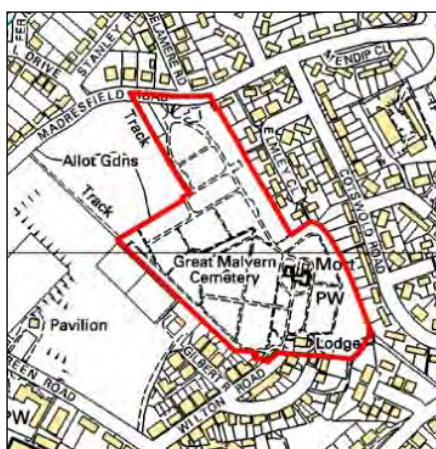
An area of parkland where wild animals are kept and viewed by visitors driving through it: e.g. West Midlands Safari Park. Marked on current Ordnance Survey mapping.

## OPR10 Camp Site



Camping sites as indicated on Ordnance Survey mapping by a tent symbol or name. Typically these sites are located close to natural and/or tourist attractions.

## OPR11 Cemetery



Areas identified as formally laid-out cemeteries from the current and previous Ordnance Survey mapping. This will generally include the larger municipal cemeteries, though not small church cemeteries due to their size. They will typically date to the 19<sup>th</sup> and 20<sup>th</sup> centuries.

14.2

### **BROAD TYPE: CIVIC AND COMMERCIAL**

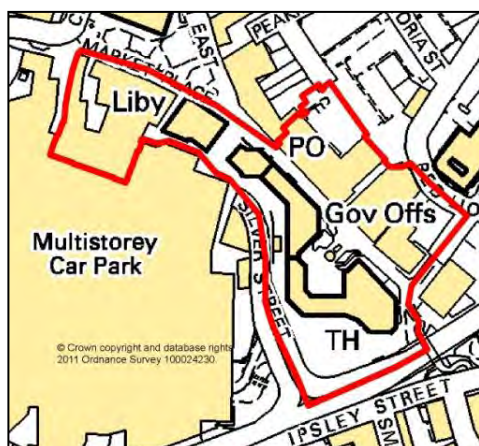
Areas of land that have a predominantly civil or commercial use and are distinct on a landscape scale, i.e. large contiguous areas which form characteristic units that have a distinct impact on and have clearly influenced the landscape, forming patterns perceptible at a broad scale (greater than 2 hectares).

## CVL1 Prison



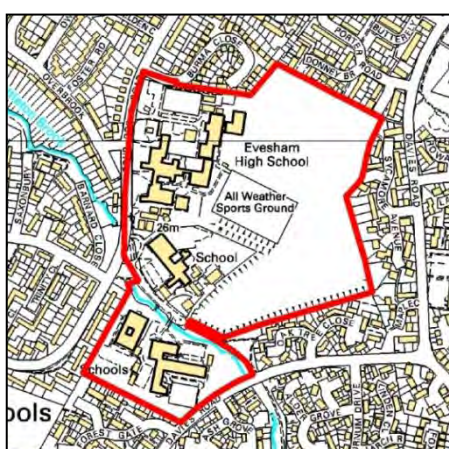
A building complex and probably grounds for the confinement of persons in lawful detention, especially persons convicted of crimes. Prisons are annotated on the current Ordnance Survey maps: e.g. Long Lartin, South Littleton.

## **CVL2 Government & Civic Centres**



For all local government and central government offices including civic centres e.g. town halls, libraries, museums and their grounds, which are distinct on a landscape scale and greater in area than 2 hectares. If smaller, then these features are subsumed into more general Settlement character types where applicable.

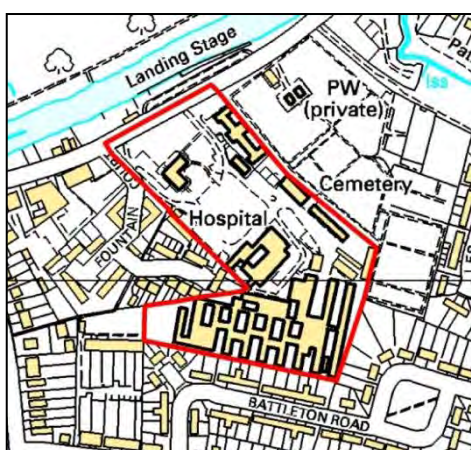
## **CVL3 Educational Establishment**



Building complex and possibly grounds used as a place for state and public education, including schools, colleges, universities, preparatory schools, faith schools and also for outdoor education centres, as marked on the 1<sup>st</sup> Edition and/or modern Ordnance Survey mapping, usually named and annotated as such. Some modern schools may be a reuse of former Parkland. Schools of historic origin may be reused, for example as private dwellings or commercial premises. Many will be modern buildings dating from the 1950's onwards, but many other schools have their origins in the 19<sup>th</sup> century as local schools and workhouses though, if smaller in area

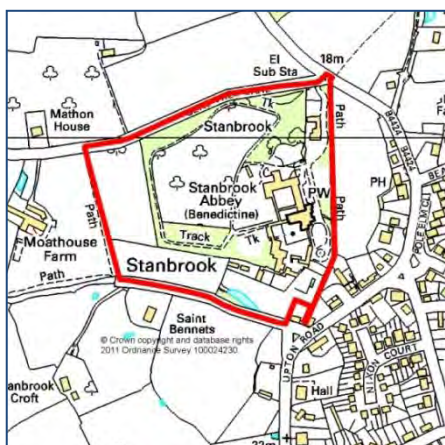
than 2 hectares, are subsumed into more general Settlement historic landscape character types where applicable.

## **CVL4 Hospital**



This HLC type only includes areas of large hospital complexes as marked on the 1<sup>st</sup> Edition and/ or modern Ordnance Survey maps, usually named and annotated as such. Some modern hospitals may be a reuse of former Parkland.

### **CVL5 Religious Site**



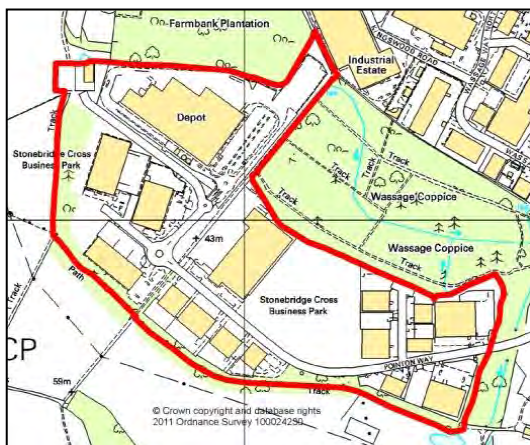
Religious institutions annotated 1<sup>st</sup> Edition Ordnance Survey and later modern Ordnance Survey maps as monasteries, retreats etc. These may be medieval monastic, post-Dissolution or modern in origin. Modern institutions may be based on former parklands, whereas conversely former religious institutions may be used as recreation areas. Only those which form a significant element within the landscape, are mapped (i.e. not small-scale sites that fall within settlement areas).

### **CVL6 Hotel**



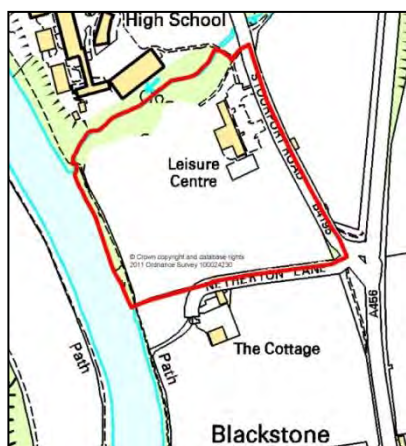
Generally, large hotel complexes, that are clearly marked on current Ordnance Survey mapping. These are often found outside or on the edge of major settlements.

### **CVL7 Commercial and Retail**



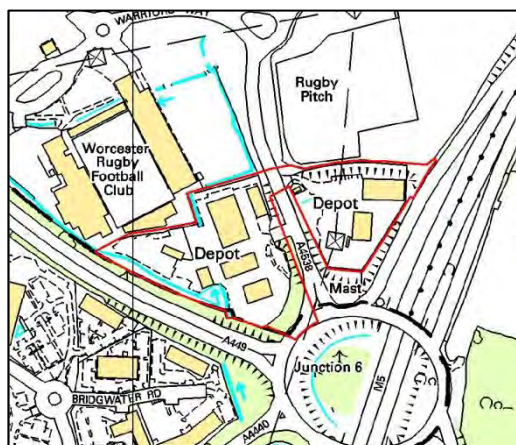
Areas of large warehouse stores, commercial areas, business and retail parks marked as such on the Ordnance Survey mapping. These areas may be found on the edge of urban areas and have large car parks.

### **CVL8 Leisure Centre**



Areas marked as leisure centres, swimming pools or other leisure activity areas on current Ordnance Survey mapping.

### **CVL9 Council Depot**



Storage depot for council equipment including vehicles. Usually marked as such on modern and historic Ordnance Survey maps.

## 14.3 **BROAD TYPE: MILITARY**

Areas of land that is sufficiently large and distinctive to make or to have left a distinct impact on the landscape. This broad group includes 19<sup>th</sup> and 20<sup>th</sup> century military sites e.g. ordnance factories, airfields, barracks and other large-scale surface remains related to military activity from the Napoleonic period to the present. Very small features such as pillboxes have not been mapped, even where forming parts of large-scale defence systems. Most major installations, especially airfields will be of known dates of origin (as specified in secondary literature, HER records and Defence of Worcestershire digital data). A drop-down menu for military types will also record the specific period of military activity i.e. WW1, SECOND WORLD WAR, post-SECOND WORLD WAR that the installation is associated with.

### **MIL1 Military Airfield**



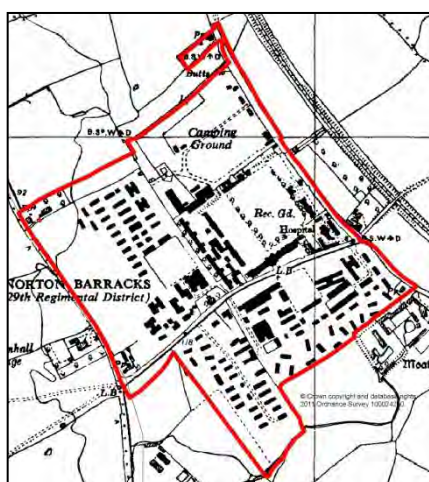
Military airfield or airbase identified from Ordnance Survey maps (and may be named as such). This includes both active and disused airfields. Many airfields date from the Second World War and served the duration of the conflict and then during the Cold War period.

### **MIL2 Defence Research Establishment**



Military research establishments as identified from the Ordnance Survey maps and the Historic Environment Record.

### **MIL3 Military Base**



Military bases comprising barracks and training grounds identified from Ordnance Survey maps (and named as such) and aerial photos. Most of these will have been built during the 20<sup>th</sup> century.



### **MIL4 Storage Depot**



Military storage facilities identified from Ordnance Survey maps and the Historic Environment Record. Most of these will have

### **MIL5 Firing Range**



Rifle range identified from Ordnance Survey maps. These may be of 19<sup>th</sup> century date and used by local volunteer militia and yeomanry units, or from the Second World War or modern in origin.

## 14.4 **BROAD TYPE: INDUSTRIAL AND EXTRACTIVE**

Areas of land that have been identified as having a predominantly industrial component or are related to the extractive industries. The latter usually have a greater impact upon the landscape than the former. Modern large-scale industry is mostly distinguished from smaller industrial complexes and factories by being named on current Ordnance Survey mapping as oil refineries, power stations etc and by their large scale. Industrial complexes and factories situated within urban contexts, if smaller in area than 2 hectares, are subsumed into more general Settlement historic landscape character types where applicable.

The extractive sites are mapped directly from the current and previous Ordnance Survey maps. Those landscape features which represent the after-use of quarries i.e. landfill sites or recreational lakes (e.g. WVF2), are mapped as such within their respective Broad Groups and not as „filled-in quarries“ etc.

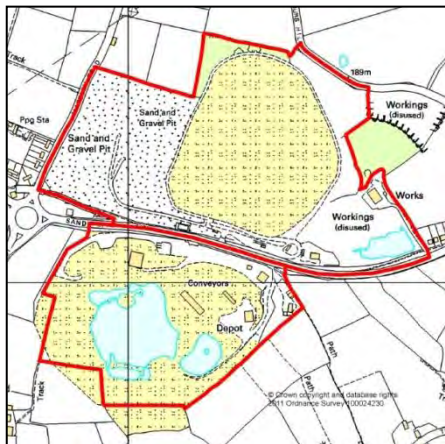
### **IND1 Hard Rock Quarry/Extraction Site**



Hard rock extraction sites in Worcestershire, i.e. limestone and usually identified by symbology and annotation as marked on the 1<sup>st</sup> Edition and/or modern Ordnance Survey maps. This tends to be a transient category and subject to rapid change. For example, in the case of modern quarrying, the lifespan may be so short that a site may have completed a full life-cycle from inception, extraction, and then temporary use as landfill to full restoration between the publication dates of the map sources used. The distribution of sites is determined by the county's geology. These usually comprise very large modern quarries and associated works run by aggregates and construction

companies. However, they may also consist of disused larger quarries created during the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Many of the County's historic hard-rock quarries that feature on 1<sup>st</sup> Edition Ordnance Survey maps, however, are small in area and fall below the 2 hectare threshold for HLC mapping.

### **IND2 Sand and Gravel Extraction Site**



Mineral extraction sites in Worcestershire i.e. sand and gravel and usually identified by symbology and annotation as marked on the 1<sup>st</sup> Edition and/or modern Ordnance Survey maps. This tends to be a transient category and subject to rapid change. For example, in the case of modern quarrying, the lifespan may be so short that a site may have completed a full life-cycle from inception, extraction, and then temporary use as landfill to full restoration between the publication dates of the map sources used.

The distribution of sites is determined by the county's geology. These will be identified by symbology and annotation as marked on the 1<sup>st</sup> Edition and/or modern Ordnance Survey maps. Many of the County's historic sand and gravel extraction sites that feature on 1<sup>st</sup> Edition Ordnance Survey maps, however, are small in area and fall below the 2 hectare threshold for HLC mapping. Current examples of sand and gravel extraction sites are usually the modern open-cast system of mineral extraction.

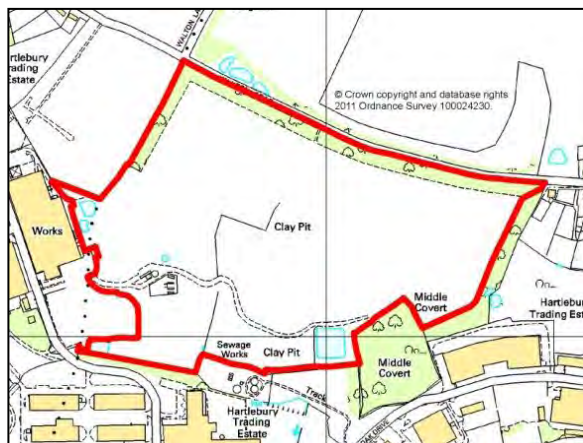
### **IND3 Mines/Spoil/Processing area**



Used for all kinds of mining, but particularly coal-mines historically located in North Worcestershire, as marked on current or 1<sup>st</sup> Edition Ordnance Survey maps. On the modern Ordnance Survey maps, old shafts or disused collieries are marked. Sites marked on the 1<sup>st</sup> Edition Ordnance Survey maps as disused or „Old Shafts“ suggest that these may be quite early bell shafts or areas of very small-scale coal mining. However, many of the historic mine shafts that feature on 1<sup>st</sup> Edition Ordnance Survey maps are small in area and therefore, in isolation, fall below the 2 hectare threshold for HLC mapping. Where these single shaft features are aggregated, however, they form an HLC landscape area. The majority of the activity

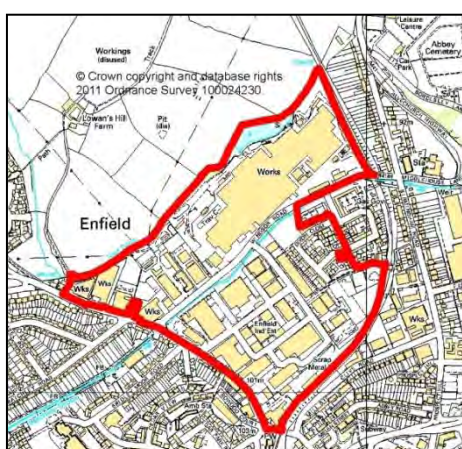
associated with this period is likely to date to the post-medieval (1540–1799AD), industrial (1800 – 1913AD) or later periods, although it may include some medieval activity that cannot be identified by HLC.

### **IND4 Brickfield/Clay Extraction**



Brickworks, tileworks and clay pits recorded on the HER, current and/ or the 1<sup>st</sup> Edition Ordnance Survey maps. Sites measuring less than 1 hectare will not be recorded

### **IND5 Industrial/ Factory Complexes**



A wide variety of industrial sites including current or historic works, foundries, large factories and modern industrial estates on the outskirts of large settlements. These areas of industrial activity will be recorded (and named) on current and 1<sup>st</sup> Edition Ordnance Survey maps, e.g. Foundry, with modern industrial estates being distinguished also by morphology. The majority of the County's industrial sites date to the 19<sup>th</sup> and particularly to the late 20<sup>th</sup> centuries. A small number of sites will date to the late 18<sup>th</sup> century, particularly around Kidderminster. Most pre-modern industry was small-scale and is therefore not captured at this level of broad

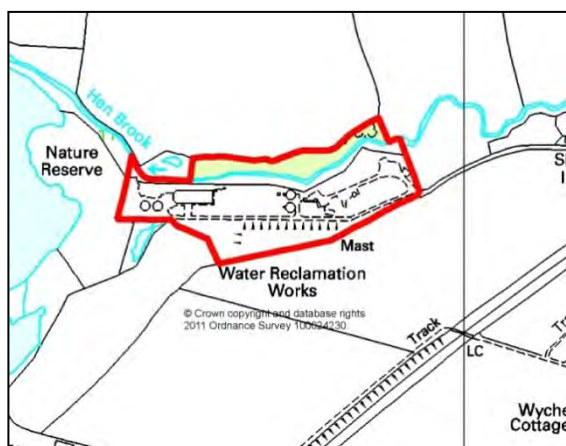
landscape scale analysis.

### **IND6 Mill Complexes**



Mill complexes situated along a watercourse. These will be identifiable from current and previous Ordnance Survey maps and the HER, though may have been converted to modern domestic residences. The mill complex area mapped by HLC may include both the leats, mill pools and associated mill buildings. Mills situated within urban contexts, if smaller in area than 2 hectares, are subsumed into more general Settlement historic landscape character types where applicable.

## **IND7 Utilities**



Industrial areas, which can be identified as related to the utility industry. This type generally includes electricity power stations, large sewage and water treatment works to smaller utilities such as Gas Works. However, features in this category smaller in area than 1 hectare are not mapped and are subsumed into a contiguous HLC area. Most of this modern large-scale industry features are named on the current Ordnance Survey maps as power stations etc. and identified by their large scale. Most of the utility infrastructure was constructed in the

mid to late 20<sup>th</sup> century but include features dating from the 19<sup>th</sup> century and early 20<sup>th</sup> century, such as sewage fields or farms near larger urban areas.

## **IND8 Landfill/ Rubbish Dump**



These are sites where local authorities and industry can take waste to be buried and compacted with other wastes. This type will include landfill sites and large domestic rubbish dumps. However, features in this category smaller in area than 1 hectare will not be mapped and subsumed into a contiguous HLC polygon.

### 14.5 **BROAD TYPE: WOODLAND**

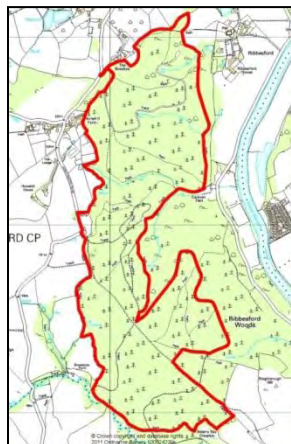
Areas of land that are predominantly covered by trees.

## **WDL1 Ancient Semi-Natural Woodland**



This category has been mostly derived from the English Nature classification that defines ancient woodland as being continuously wooded for at least 400 years. Woodland designated by English Nature (1999) as „Ancient Semi-Natural“ (an area of land that has had continuous woodland cover since at least as far back as 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally). These woodlands are also identified by Ordnance Survey maps (symbology) and the Worcestershire Phase 1 Habitat Mapping project as either broad-leaved or mixed woodland. This category also includes areas of ancient woodland that are less than 2 hectares on the 1920’s base maps and consequently were

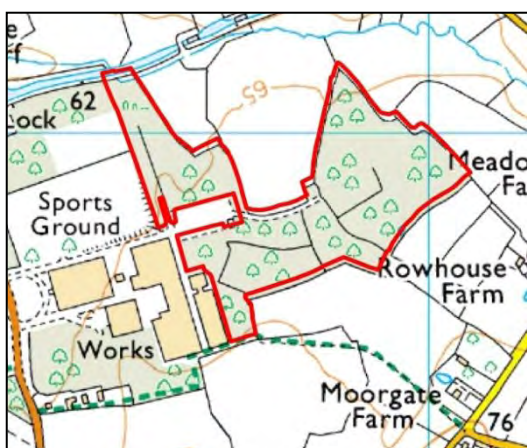
not recorded by English Nature, but are identified in the „Worcestershire Ancient Woodland Catalogue“ (Day, 1983) used by the Worcestershire Phase 1 Habitat Mapping dataset. Although for the purposes of this survey the earliest map evidence used is the 1<sup>st</sup> Ordnance Survey Edition, the consideration of the woodland morphology, extent and place names e.g. holt, thrift, frith, grove is used to further estimate, whether the woodland is ancient or not, particularly in those cases where the surviving woodland has not been previously identified by English Nature.



### **WDL2 Replanted Ancient Woodlands (renamed from Plantation on Ancient Woodland Sites)**

Woodland designated by English Nature as „Ancient Replanted“ (land that has had continuous woodland cover since at least 1600AD where the original native tree cover has been felled and replaced by planting, usually conifers for the purposes of the forestry industry) and identified by the Ordnance Survey maps and Worcestershire Phase 1 Habitat Mapping as containing conifers. These areas were probably replanted during the 19<sup>th</sup> or 20<sup>th</sup> century and particularly between the 1930s and 1980s when hundreds of thousands of hectares of ancient woodland were replanted.

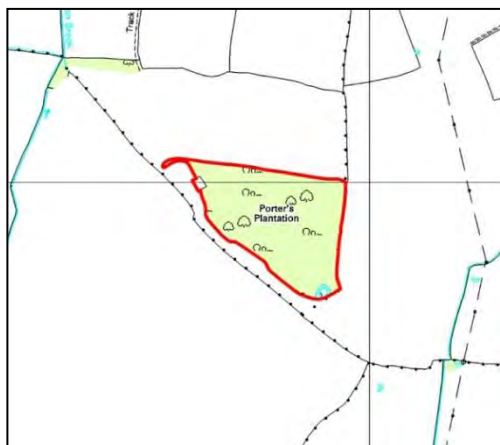
### **WDL3 Recent Woodland (Secondary)**



Woodland identified by the Ordnance Survey mapping and Worcestershire Phase 1 Habitat Mapping as being broad-leaved, mixed or coniferous and which have predominantly sinuous boundaries but is not designated as „Ancient“ by either the English Nature or Day Survey. These are either planted or semi-natural woods with sinuous boundaries that have not been continuously wooded since the year 1600AD but have acquired a tree cover on sites thought to have been former heathland, open fields or grazing land. Such woodland may arise by planting or by natural development of woodland on abandoned or ungrazed land.

These sites may show similarities to ancient woodland depending on their age, their proximity to ancient sites and the presence of natural features (streams, ponds etc), although generally speaking their biological diversity is not as great as that of ancient woodland. Broad-leaved woodland with sinuous boundaries, whilst not being designated as „Ancient“ woodland, may potentially contain fragments of older woodland. Mixed woods whilst also not being designated as „Ancient“ woodland may represent stands of older woodland colonised by or partially planted with conifers. Coniferous woodlands with predominantly sinuous boundaries are likely to represent plantations. This category includes scrub woodland, such as areas of scrub regenerating in urban contexts.

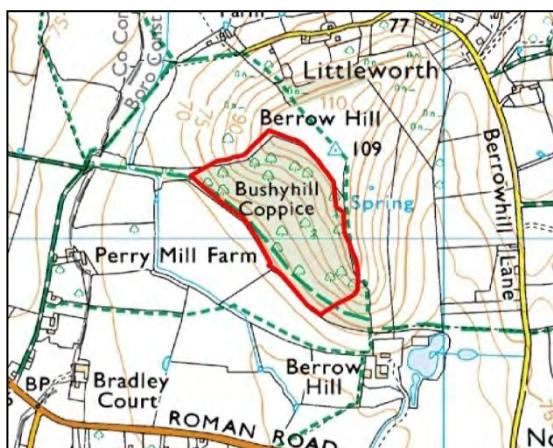
## **WDL4 Woodland Plantation**



Managed and planted woodlands greater in area than 1 hectare, often identified with a rectilinear form and straight boundaries, which post-date and lie outside the boundaries of the Ancient Woodlands (as identified by English Nature). Woodland plantations are often planted as commercial concerns or as ornamental woodlands (in association with informal parklands) or maybe fox coverts; the latter may be associated with Planned Enclosure fields. Woodland plantations include shelterbelts, a linear stand of trees, planted to provide a windbreak for settlement, livestock or crops.

Woodland plantations can also represent either replanting of cleared woodlands, or inter-planting within existing woodland or new planting within pre-existing fields, or new shelterbelts, or new areas of woodland with no prior antecedent (i.e. not replanted ancient woodlands). Where less than 1 hectare in size, such woodland plantations are subsumed into a contiguous HLC type. Commercial plantations (i.e. planted to generate income) are characterised by blocks of trees of one age, often consisting of only one or two species of tree within each regular block of planting. Very often the species planted were non-native species and in particular conifer, but many plantations were of broadleaves such as oak or beech and often plantations were a mix of conifer and broadleaves. They are usually felled and replaced by a new plantation. This forms the basis of modern forestry and most have been planted in the 20<sup>th</sup> century and thus are absent from the 1<sup>st</sup> Edition Ordnance Survey mapping. Deliberately planted woodland plantations were rare before the 17<sup>th</sup> century. Smaller sized woodland plantations with a rectilinear form are noted in foxhunting country from the 18<sup>th</sup> century onwards, where the numbers of woodland coverts proliferate and were commonly placed on commons, waste and heaths. These formed an important part of a hunting landscape and are mostly distinguished from other commercial plantations by their appearance on 1<sup>st</sup> Edition Ordnance Survey maps.

## **WDL5 Common Grazed Woodland**



An area of woodland that appears from documentary evidence to have been used for common grazing and woodland pasture. Common grazed woodland is characterised by open glades and other areas within the woodland. Typically these have been identified as medieval in date but may be later. By the 11<sup>th</sup> century many parishes held rights to detached woodlands, which would have been used for common grazing. It is therefore likely that many of the woodlands interpreted as ancient semi-natural or ancient replanted have been used as wood pasture

for much of their history. This HLC type is therefore difficult to identify and is used only where it is clearly recorded.

## BROAD TYPE: ORCHARDS AND ALLOTMENTS

Areas of land that can be identified as some form of small-scale horticulture, i.e. for the production of small fruit, vegetables, mushrooms, hardy nursery stock, container-grown plants, bulbs and flowers grown in the open and glasshouse area. This type includes non-commercial and commercial orchards and market-garden smallholdings as well as modern nurseries and garden centres.

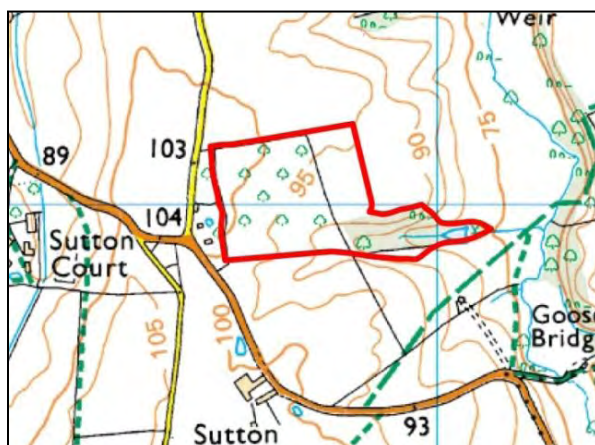
### ORC1 Pre-1880's Orchards



This HLC type defines orchards that are marked on both the 1<sup>st</sup> Edition and the modern Ordnance Survey maps using cartographic symbology or annotation (as above).

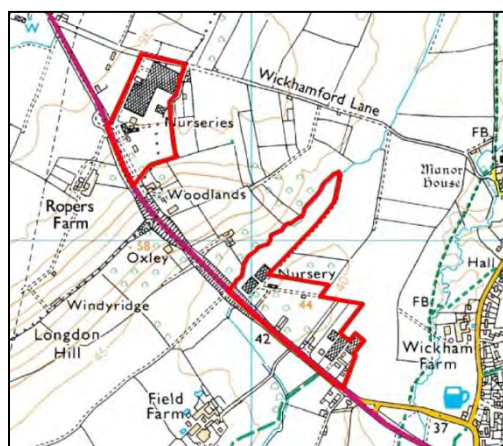
Orchards are either large commercial concerns or smaller features attached to farmsteads, larger homes or estates. In the case of the latter, the field edge may remain consistent through time, but use within can vary e.g. may start as an orchard, then be cleared, then be replanted as an orchard. The earlier commercial orchards appear to be defined by the pre-existing field systems in which they are planted. Later commercial orchards often remove existing boundaries and redefine field edges with new boundaries. Orchards were a common feature of the medieval landscape (Rackham, 1990) although the earliest map evidence for orchards in Worcestershire is likely to be estate maps dating from the 17<sup>th</sup> and 18<sup>th</sup> centuries, but these primary evidence sources are outside the scope of the Worcestershire HLC.

### ORC2 Post 1880's Orchards



Orchards that are mapped directly from the current Ordnance Survey mapping (identifiable by the presence of orchard or glasshouse symbols) but absent from the 1<sup>st</sup> edition Ordnance Survey maps, identifying a modern origin.

### **ORC3 Nurseries/ Garden Centre**



Modern nurseries with glasshouses and garden centres. These are identified from modern Ordnance Survey maps by glasshouse symbols and are often named. The area mapped includes the associated glasshouses and grounds. These sites are usually large commercial areas of market gardening. In Worcestershire many nurseries and garden centres occur within the Vale of Evesham.

### **ORC4 Allotment**



Allotments represent more a form of land use rather than a specific morphological type and are small parcels of land rented or leased by individuals to grow crops, vegetables etc. Their mapped form may differ according to period of map, either by symbology and/ or annotation. Although allotments are generally regarded as 20<sup>th</sup> century in date, the 19<sup>th</sup> century saw the creation of allotments for communal gardening, as the pressure for urban allotment provision increased as a result of the spread of closely packed housing with small gardens. On the 1<sup>st</sup> Edition Ordnance Survey maps they are identified by characteristic small parcels often with diagonal markings, at times making a „herringbone“ pattern and may also be annotated as

„allotments“ or „gardens“. Large-scale allotments were also created during and following World War Two to assist in the feeding of the nation and also as part of new 20<sup>th</sup> century settlements. Forms and shapes may differ according to the period they were created and may be relatively small strips or large areas. The outline of these allotment areas may be defined by prior or possibly contemporary field systems. However, allotments that are smaller in area than 1 hectare will not be recorded separately, but will be subsumed into a contiguous HLC area.

### **ORC5 Market Gardening Smallholding**

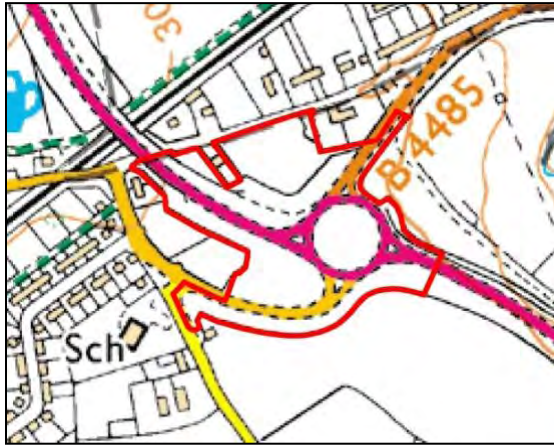
This HLC type is particularly characteristic of the southeast of the County around the Vale of Evesham and is used for the actual „strip fields“ growing fruit and vegetable produce. The Vale of Evesham has a traditional association with horticulture and market gardening. Following the repeal of the Corns Laws in 1846, the predicted slump in the price of wheat did not immediately take place, but by the early 1870s farming had become unprofitable. Some farms became vacant and landlords were happy to split them into small market garden holdings, often let to former farm labourers. Markets for garden produce were already accessible, the railway network having reached Evesham in 1852. It can be mistaken for earlier medieval strip fields on historic mapping as the fields are often divided into strips for market-gardening purposes and include „huts“ or „hovels“. This type is distinct from smallholdings found in other areas. It may be problematic to identify market gardening smallholdings from Ordnance Survey map evidence alone, which may identify it as 'allotments', especially in the the Vale of Evesham.



## BROAD TYPE: COMMUNICATIONS

Areas of land that are related to some form of transportation. Most major transport systems will be of known dates of origin.

### COM1 Major Road Junctions



Areas of major road junctions and roundabouts that is greater than 1 hectare in size. This type also includes associated infrastructure such as Service Stations where in close proximity to major road junctions.

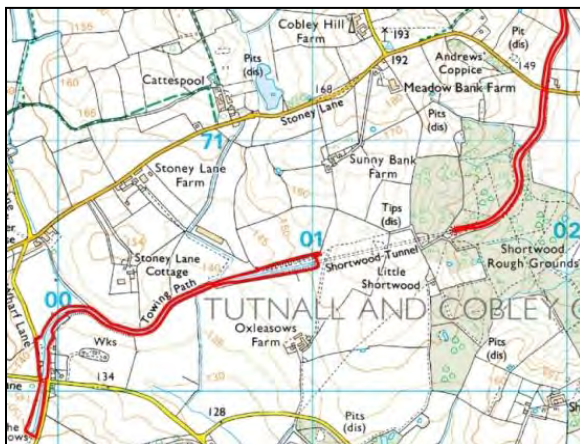
### COM2 Motorways



Motorways as marked on modern Ordnance Survey mapping. These have occurred post-1960 and often dramatically alter and impact the landscape. This type also includes associated infrastructure such as Service Stations, usually comprising restaurant and sometimes a hotel. The M5, M42 and M50 motorways form significant landscape features, running north to south and east to west through Worcestershire, not

only in how they dissect the landscape but also in terms of their impact on the surrounding area and historic field patterns.

### COM3 Canals/Locks/Basins



Areas developed and used as artificial waterways (i.e. canals, canal arms, locks, basins and wharfs), as marked and annotated on modern and previous Ordnance Survey maps. This HLC type will also include canals features that have become abandoned and disused but still dominate the current landscape. These are likely to date from the 18<sup>th</sup> to 20<sup>th</sup> century.

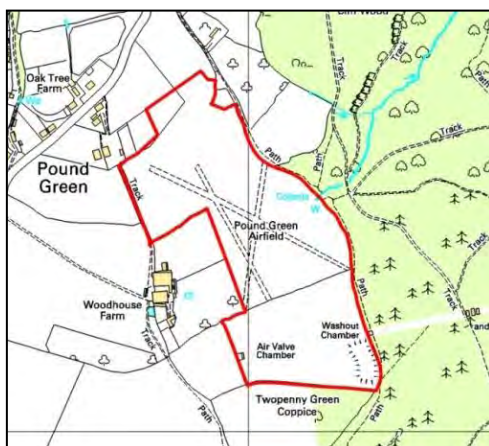
## **COM4 Railways/Stations/Sidings**



Modern railways, stations and sidings on Ordnance Survey maps that date from the 19<sup>th</sup> to the 20<sup>th</sup> century. These will often include large areas either side of the railway that was formed as part of the construction process such as cuttings and embankments. This HLC type will also include areas of land identifiable as a previously active railway line. These disused railway lines are often marked on current and previous Ordnance Survey mapping as

„dismantled“/„disused“ and when not redeveloped retain a specific landscape character.

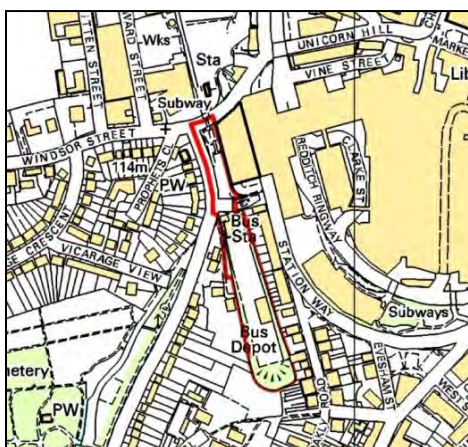
## **COM5 Airport/Airfield**



Airports and airfields that are in civil or private use. These may have been developed for military use and given over to civil use after the Second World War. Private airfields are often less substantial, where the runway and airfield is simply a grassed enclosure. They will be as defined on Ordnance Survey mapping, characterised by their morphology i.e. runways and associated hangars and buildings, but very often with a distinct margin, as the runways and areas around are cleared from prior field systems. Therefore there is not a specifically defined edge, but rather the edge is defined by

surviving field systems around them, thus forming a „negative edge“. For former military airfields this was done probably to assist in their camouflage within the surrounding countryside.

## **COM5 Park and Ride/Bus Station**



This HLC type, usually dating to the later part of the 20<sup>th</sup> century, is marked on modern Ordnance Survey maps as 'park and ride' schemes or 'bus station'. These will often be large areas for parking and associated buildings.

Areas of land that have a predominantly populated and settled character; this also includes farms and farmsteads. The methodology of the Worcestershire HLC project demarcates settlement into two broad categories: modern settlement (mostly 20<sup>th</sup> century) and then historic nucleated and dispersed settlement that comprise the old centres of villages and towns, isolated farmsteads, dwellings and hamlets etc depicted on the 19<sup>th</sup> century, 1<sup>st</sup> edition, 6-inch (1:10560) series (1843-1893) Ordnance Survey maps. Most of the modern settlement is expected to be growth and expansion around the cores of historic towns and will be recorded as Modern Expansion and Modern Infill. It may also be focussed on other historic cores such as a farm building, hamlet or small village.

A classification of different settlement types has been created to define rural settlement morphology within Worcestershire (with an additional two HLC types based on function); this has been based upon the successful Buckinghamshire methodology that has been used to produce a distinct distribution map of settlement (originally devised by Lewis, Dyer and Fox (1995)).

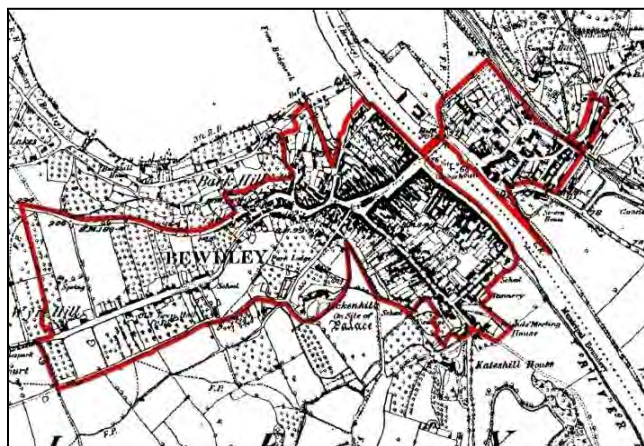
The Worcestershire HLC project's pilot study phase recorded settlement types that fell beneath the minimum of 1 hectare in area used for other HLC types, but in the subsequent main body of the HLC, this minimum 1 hectare area was observed. This variation in mapping methodology is most visible in the pilot study parish of Rock, where a very finely grained historic landscape characterisation is evident.

The vast majority of Worcestershire's historic settlements originated between the 8<sup>th</sup> and the 13<sup>th</sup> centuries, from which they gradually developed their 19<sup>th</sup> century form. Many retain late medieval and post-medieval historic building stocks.

Nucleated settlement is a settlement pattern consisting mainly of villages with relatively few isolated farmsteads or hamlets. Large, nucleated villages are concentrated in a central band running from Northumberland into Somerset and Dorset. The communally managed farming strips around them, grouped into blocks of 2 or more common fields, were typically subject – at varying rates – to amalgamation and enclosure by tenants and landlords from the 14<sup>th</sup> century. The enclosure of remaining common fields and grazing land from the 18<sup>th</sup> century typically produced more large-scale and regular fields. This process of enclosure was often associated with the creation of new holdings and farmsteads.

A dispersed settlement pattern predominantly consists of scattered, isolated farmsteads and small hamlets (small settlement with no ecclesiastical or lay administrative function) with few village centres. Dispersed settlement is typically associated with small and irregular fields, and the creation of farms in the medieval or earlier period from wood, marsh and moor. These landscapes are concentrated in the western part of the West Midlands.

### **SET1 Historic Town**



Areas that can be identified as the historic core of a town either through morphology (i.e. High Street and survival of narrow plots), identified from the Ordnance Survey maps, or information from the Worcestershire HER, or by the EUS Central Marches Historic Town Surveys (CMHTS). In most cases of the latter, they represent the extent of settlement, either by the end of the medieval period or by the beginning of the 19<sup>th</sup> century, providing detail of medieval and earlier urban

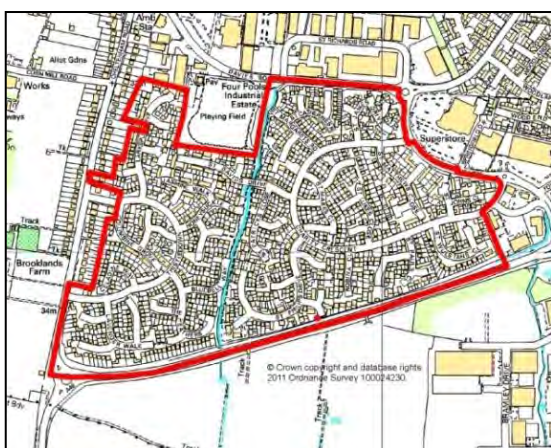
settlement. Most historic cores show a degree of planning.

### **SET2 New Town**



New Town records planned expansion of towns and villages from their historic cores, usually in the 19<sup>th</sup> century and characterised by geometric street of terraced housing, or more grandiose mansions and their associated gardens. A comparison between the 1<sup>st</sup> Edition Ordnance Survey maps and the 2 inch to the mile Ordnance Surveyors' Drawing (1810-1817) identifies areas of such urban growth. Redditch, which was designated a New Town in 1964, is a planned urban community created in a rural and undeveloped area and designed to be self-sufficient with its own housing and education and commerce and recreation.

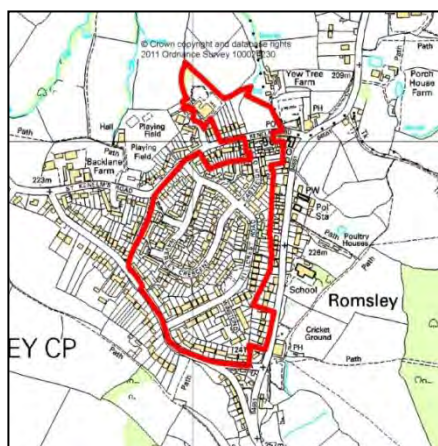
### **SET3 Modern Expansion**



Modern Expansion is defined as the 20<sup>th</sup> century expansion of settlement areas on the edge of historic settlements that appear on the 1<sup>st</sup> Edition Ordnance Survey mapping, comprising an historic town, farm building, hamlet or small village. Although this settlement type could be regarded as devoid of any historical character or value, modern settlement can possess complex urban character and as such is worthy of more detailed study at a later date.

Some urban development disregards the earlier landscape pattern, particularly where such development took place on a large scale. In other areas, where the release of land occurred piecemeal, it is possible to recognise the pattern of the earlier agricultural landscape in the streets and boundaries of the modern settlement.

### **SET4 Modern Infill**



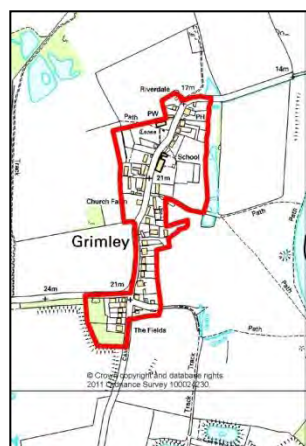
Defined as the recent infill of settlement areas. Some of the EUS's give an indication of 20<sup>th</sup> century settlement infill within the historic core e.g. Redditch. Otherwise, comparison between the 1<sup>st</sup> Edition, 5<sup>th</sup> Edition and current Ordnance Survey maps will highlight areas of infill.

### **SET5 Nucleated Cluster**



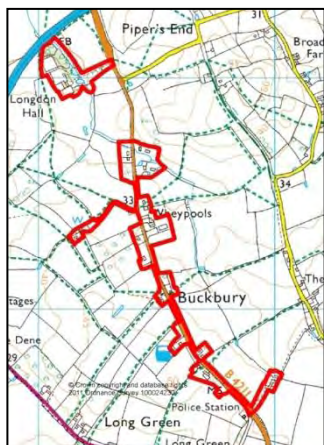
Nucleated Clusters are agglomerated settlements grouped at single point or cluster plan, sometimes around an historic focus such as a green, a market place or church and can be identified from the 1<sup>st</sup> Edition and current Ordnance Survey maps.

### **SET6 Nucleated Row**



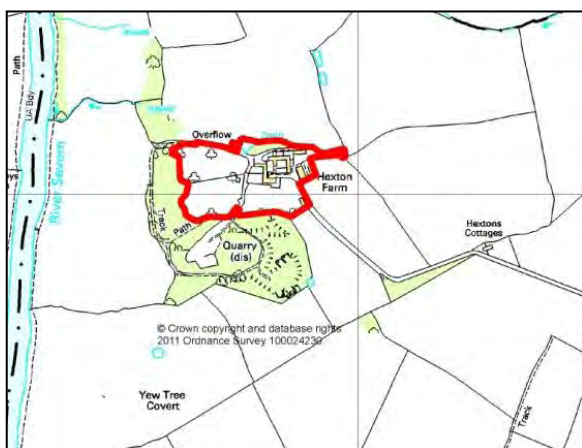
A concentrated settlement that has properties focused along a road, sometimes displaying signs of regular planning. The nucleated village row is thought of as a classic medieval form, often relating properties to the open fields surrounding the settlement.

### **SET7 Interrupted Row**



Interrupted Row settlement normally takes the form of farms and other dwellings that occur intermittently along a road or highway.

### **SET8 Isolated Farmstead**



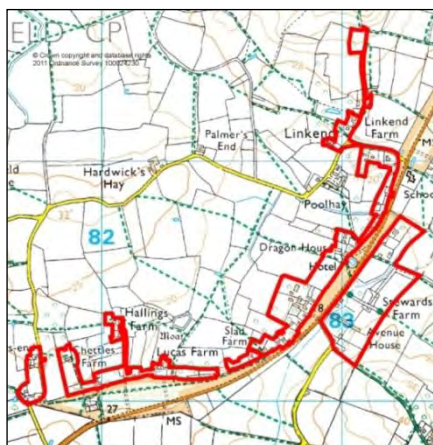
Isolated Farmsteads are characterised by dwellings and associated farm buildings situated away from any distinct settlement and are often marked with a farm name. Many have origins in the medieval period. These will be identified from the 1<sup>st</sup> Edition, 5<sup>th</sup> Edition and current Ordnance Survey maps, as well as the 2 inch to the mile scale Ordnance Surveyors' Drawing (1810-1817), the existence on the latter suggesting at least a post-medieval origin.

### **SET9 Clustered Settlement**



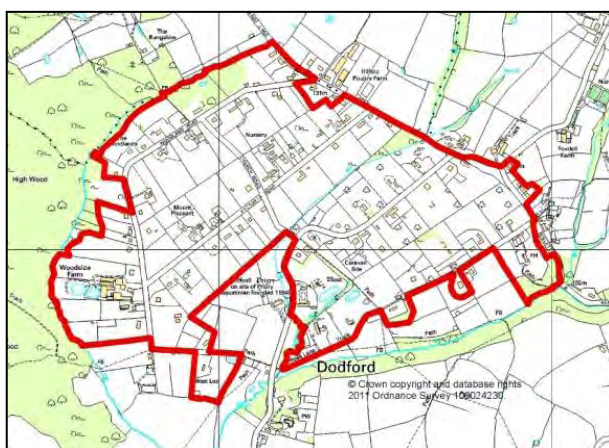
Clustered settlements are defined as groups of farms and other dwellings that form a dispersed but discernably cohesive settlement pattern. The village or hamlet itself has no recognisable focus point, e.g. Shrawley. Some of these clustered settlements appear to have „End“ or „Green“ place names.

## **SET10 Waste/Common/Green-Edge Settlement**



These settlements are identified where clearly related to extant or former greens, commons lands, waste, heath or moorland. Historically, they will be represented by detached or small rows of houses dispersed between fields or small paddocks with little trackways connecting them and encroaching onto open, common grazing, often considered to be „squatter settlement“. These reflect some of the difference in settlement morphology between areas dominated by heath and woodlands and with more open countryside. The former area of paddock will often have been infilled with housing, but are still laid out in an irregular way.

## **SET11 Model Planned Village**



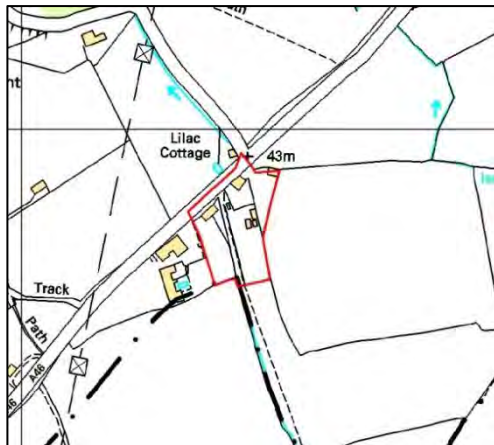
A planned village or settlement. In Worcestershire this would be represented by the Chartist Colony at Dodford, but other such model planned settlements would be at Bourneville in the West Midlands.

## **SET12 Caravan Park/ Chalet**



Although in legal terms, these sites are not considered permanent, in landscape terms they include parks with permanent features (surfaced roads & static caravans etc.) as indicated on the current Ordnance Survey maps. Camping sites are not included where they are annotated by a tent symbol alone and do not consist of a network of roads. These sites typically are located close to natural and tourist attractions flanking the County's main rivers.

### **SET13 Minor Dispersed Settlement**



For those areas of minor dispersed settlement which do not fall into either the Interrupted Row, Isolated Farmstead or Smallholding settlement types.

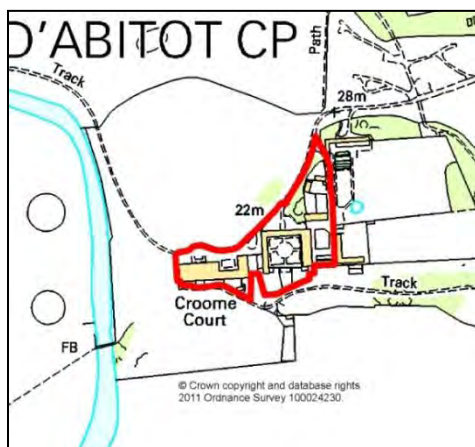
### **SET14 Smallholding**



These small farms occur frequently as a result of the enclosure of former common land near to woodland in the 18<sup>th</sup> and 19<sup>th</sup> centuries or are carved out of the woodland itself, particularly in the north of the County. The smallholdings, usually no bigger than 2 hectares, consist principally of self-built cottages on holdings either owned outright or leased from the landowner, together with a subsistence husbandry that brings a degree of self-sufficiency to the smallholder. Some have been amalgamated into larger farms but the survival of large areas of small fields, with their associated hedge banks and scattered cottages, is a reminder of the historical and cultural significance of

the smallholding within the Worcestershire landscape.

### **SET15 Country House**



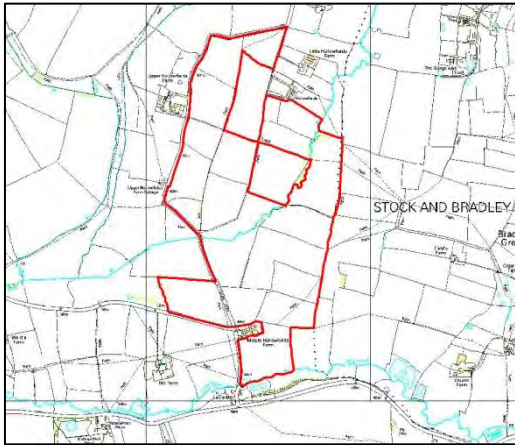
The County has numerous grand houses and halls, country houses, hunting lodges and old manorial house sites. Many of these are pre-1800 in origin and may be located on the site of earlier medieval manorial buildings. Other large country houses were built during the 19<sup>th</sup> century partly as a consequence of the County's industrial expansion.



Areas of field that are identified as being used as some form of agriculture. This will be predominantly enclosed land but includes previous medieval open fields. Enclosure of land may have occurred at an early date, possibly medieval and in rare cases, in the prehistoric period. In other areas open fields or common land was enclosed either by agreement, or in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries, by Act of Parliament. There is likely to be a close association with open field systems and areas of nucleated settlement.

The HLC types take account of the physical character (morphology: patterning and composition) of boundary features and also time depth in terms of the extent, coherence and origins of these patterns within the present landscape.

### **FEL1 Ancient Enclosure – co-axial fields**



Co-axial enclosure is a descriptive term for an extensive field system that shares the same orientation, often extending over several kilometres, which may reflect a deliberate act of landscape reorganisation. In date they are likely to be medieval or possibly prehistoric in origin. Examples of this type are found on Dartmoor, the Hertfordshire Chilterns and elsewhere have been dated to the Bronze Age.

Morphologically this category of enclosure exhibits a distinctive boundary pattern of fields with roughly parallel boundaries, being sinuous

in form with irregular subdivisions, forming an irregular brick-like sequence and often defined by ancient lanes. These cover large areas, often running up from a watercourse, across valleys. However, they are not always dependent on or reflective of topography. Woodlands may be a significant feature within the field pattern. It is thought that these are predominantly grazing areas, hence their greater survival than arable fields. Ancient enclosures are identified by morphology on modern and previous editions of Ordnance Survey maps.

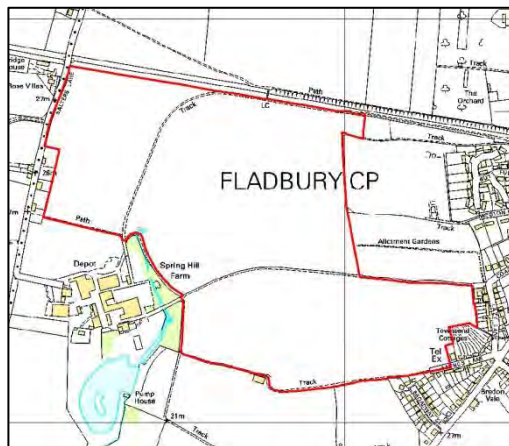
### **FEL2 Assarted Enclosure**



The term „assart“ as used here refers to the enclosure and clearance of woodland to create enclosed private farmland and/or settlement, usually reflecting land grants and tenancy arrangements in the medieval period. It results in patterns of small, very irregular enclosures interspersed with/ woodland or on the edge of ancient woodland. They form an irregular field pattern with no discernible major common boundaries within the pattern and usually contain scattered small woods and copses.

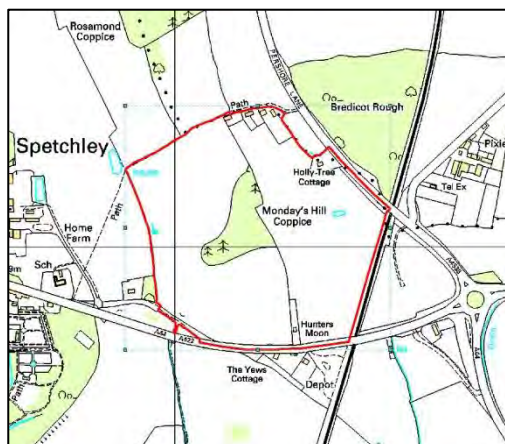
Assarting in the strictest sense of the word is a medieval phenomenon occurring mainly in the 11<sup>th</sup> and 12<sup>th</sup> centuries (Rackham, 1986); however, clearance of woodland for farmland in this piecemeal manor seems to occur right up to the 19<sup>th</sup> century.

### **FEL3 Medieval Open Fields**



Areas, which are likely to have formed part of medieval open fields i.e. arable held in common, traditionally farmed in strips with multi-ownership or tenancy on a rotational system, usually associated with nucleated settlement and suggested through the presence of ridge and furrow earthworks or piecemeal enclosure. The relicts of this type of cultivation are principally long ridges and lands, often formed in a reversed „S“ shape or aratral curve, characteristic of medieval common arable fields and more rarely associated with other types of land use. Large areas of post-medieval and modern field systems in this area will have open fields recorded as an antecedent type. Parish Boundaries may echo lost field strips. They are sometimes marked on the 1<sup>st</sup> Edition Ordnance Survey maps as Common Fields, or named. Open fields are a medieval form of land management, which originated in the Late Saxon period. It reached its maximum extent in the 13<sup>th</sup> century and declined thereafter, becoming extinct as a land use in Worcestershire by the end of the 19<sup>th</sup> century.

### **FEL4 Enclosed Furlongs**



This HLC type represents a field system, which has replaced former medieval open fields/ ridge and furrow by enclosing and establishing boundaries around what were formerly individual furlongs – effectively retaining the same shape and area but being bounded by hedges, dry stone walls etc.

This field type represents a distinct form of piecemeal enclosure, albeit a specific type established in the medieval or early post-medieval periods. However, use of this HLC type is restricted to the Worcestershire HLC pilot study areas. In the main body of the

Worcestershire HLC project mapping, any examples of this field type are included within the Piecemeal Enclosure type.

### **FEL5 Enclosed Strip(s)**



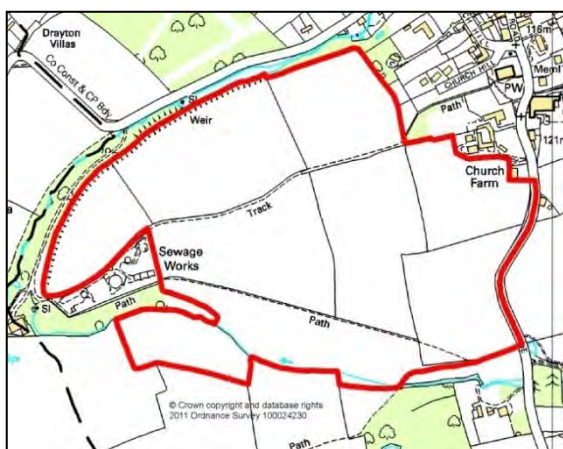
This category is a direct indicator of former open field farming, representing the shape of previous cultivation strips. Common arable fields were cultivated in strips in order to distribute good and bad soils equally amongst the various tenants farming the fields. When single strips or small groups of strips have been enclosed, they result in long thin enclosures, which have, parallel-curling (wavy) boundaries usually formed by hedges. Occasionally, they have been subdivided by cross-boundaries producing

rectangular wavy-edged enclosures. There can be small steps in the field boundaries, which correspond to the width of individual or small groups of strips.

Many of these enclosures are found adjacent to settlement and have been incorporated (or form part of) tenurial properties boundaries or „tofts“ and crofts“. The distribution of this type is mainly in the southeast of the County where the majority of open field farming took place.

This field type represents a distinct form of piecemeal enclosure, albeit a specific type established in the medieval or early post-medieval periods. However, use of this HLC type is restricted to the Worcestershire HLC pilot study areas. In the main body of the Worcestershire HLC project mapping, any examples of this field type are included within the Piecemeal Enclosure type.

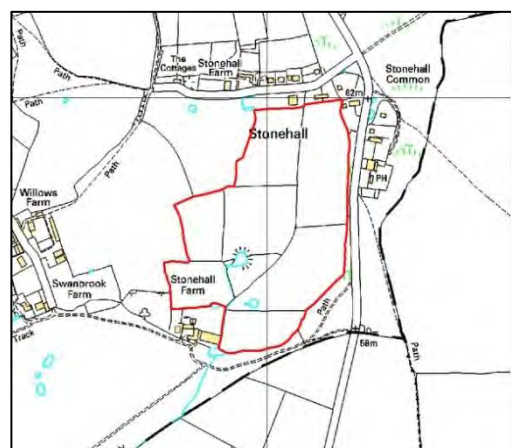
### **FEL6 Piecemeal Enclosure (pre 18<sup>th</sup> century irregular field system)**



Piecemeal enclosures are defined as field systems that have been created by informal verbal agreement between farmers seeking to consolidate their holdings and also sales (Johnson, 1996). They originate from the gradual, piecemeal enclosure of medieval open fields or on a field-by-field basis for use as enclosures for the production of hay and pasture. Many take the form of small irregular fields with at least two boundaries of a reverse „s“ curve, or have evidence for ridge and furrow, suggesting that they follow the boundaries of former medieval field strips. They can be of variable size and

morphology, reflecting their erratic creation and the lacking of any overall planning. Piecemeal Enclosure can also be confused with woodland assarts or woodland intakes that generally have a similar appearance. However, they are usually larger and often slightly more regular than assarts and are further distinguished from them by the lack of scattered small woods and copses typical of assart field patterns. Some irregular piecemeal enclosure may be of medieval origin but where it overlies medieval ridge and furrow, it was most probably created between the 14<sup>th</sup> and 17<sup>th</sup> centuries, either by enforced clearance of the open fields or by agreement.

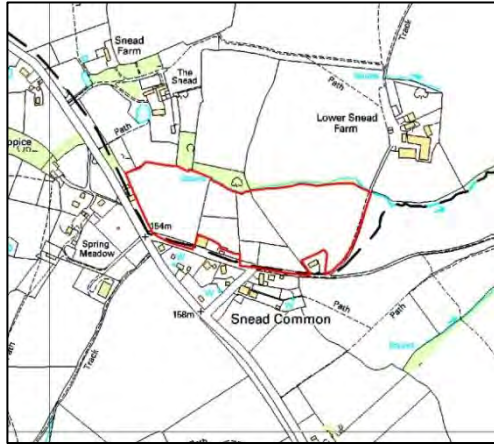
### **FEL7 Rectilinear squatter enclosure**



Small, rectilinear fields usually with a more ordered appearance than „Irregular Squatter Enclosure“ and predominantly with straight boundaries. Mostly Post-Medieval or Industrial in date, the overall field pattern has a more planned appearance than in areas of „irregular squatter enclosure“. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity and are indicative of mostly illicit encroachment onto common land in the post-medieval and industrial periods (although there may be some examples which were legal).

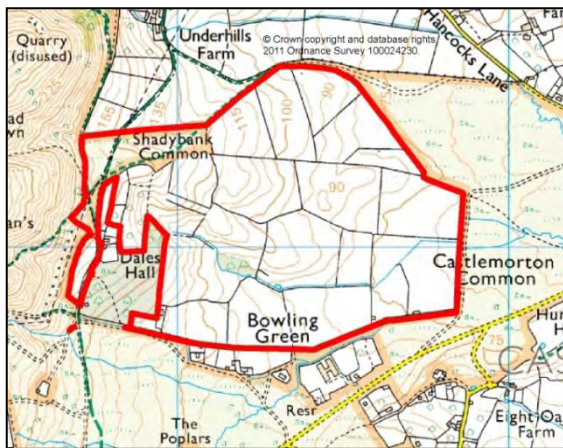
Identified by morphology apparent on modern and previous OS mapping.

### **FEL8 Irregular squatter enclosure**



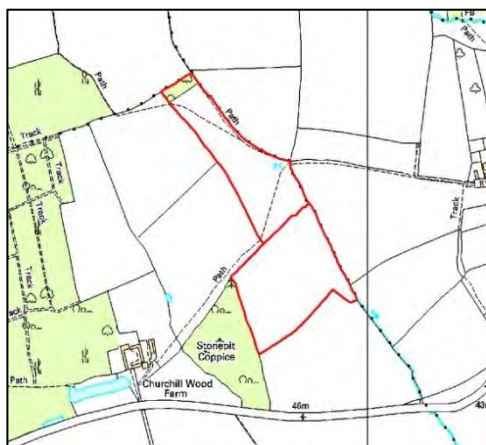
Small irregular fields, usually with an unordered appearance predominantly, with sinuous or curvilinear boundaries. The overall field pattern has an unordered, „organic“, often amorphous appearance. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity. Irregular squatter enclosures are indicative of mostly illicit encroachment onto common land in the post- medieval and industrial periods.

### **FEL9 Encroachment Enclosure**



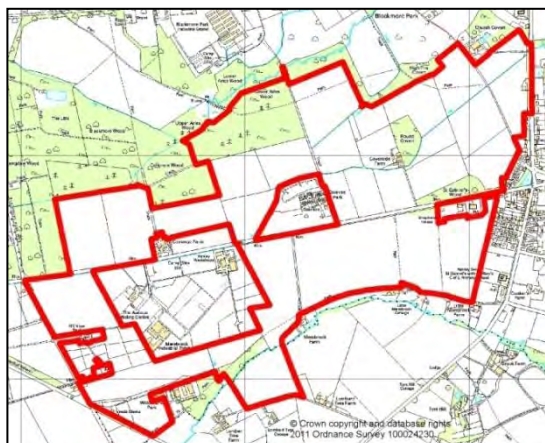
Small rectilinear or irregular fields that appear to have been encroachment onto common land in the post-medieval or later periods, however, they are not in close proximity to any settlement or industry.

### **FEL10 Small Irregular or Rectilinear Fields**



Small irregular or rectilinear fields, which cannot be assigned to one of the other historic, landscape character types.

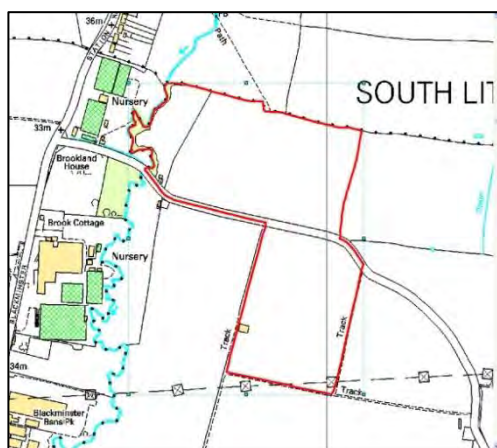
## **FEL11 Parliamentary Enclosure**



Parliamentary enclosure is characterised by regular, small and large rectangular fields with „ruler straight“ boundaries and often with contemporaneous tracks and roadways. This reflects the planned nature of enclosure undertaken by surveyors during the 18<sup>th</sup> and 19<sup>th</sup> centuries. This will have overwritten any prior landscape enclosure pattern, but may also be incorporated into the existing field pattern with the addition of linear internal field boundaries to subdivide irregular fields, such as meadow adjacent river courses.

Parliamentary Enclosures may divide former common arable field or former heath and common lands. Parliamentary enclosure can be identified by morphology on modern and previous Ordnance Survey mapping and has been gazetted in the Tate and Turner list of Parliamentary Enclosure Maps and Awards for Worcestershire (Tate and Turner, 1978). Enclosure awards and maps provide specific date of origin and original form for the fields. These can then be compared with the modern Ordnance Survey mapping. Generally the process of Parliamentary enclosure occurs throughout Worcestershire from the early 18<sup>th</sup> century but may be divided into two phases: the large-scale enclosure of open fields on a parish by parish basis and the later piecemeal enclosure of commons and wastes from the early to mid-19<sup>th</sup> century. It is clear that some fields that belong to this HLC type in Worcestershire do not fall into the „classic“ Parliamentary Enclosure group seen in the southeast of England and elsewhere. It seems that many Parliamentary Enclosure fields were modifications of earlier existing „piecemeal enclosure“ and therefore were far more irregular in shape and patterning that might be expected for Parliamentary Enclosure. In fact, it is difficult to differentiate between „Piecemeal Enclosure, modified Parliamentary Enclosure and Planned Private Enclosure.

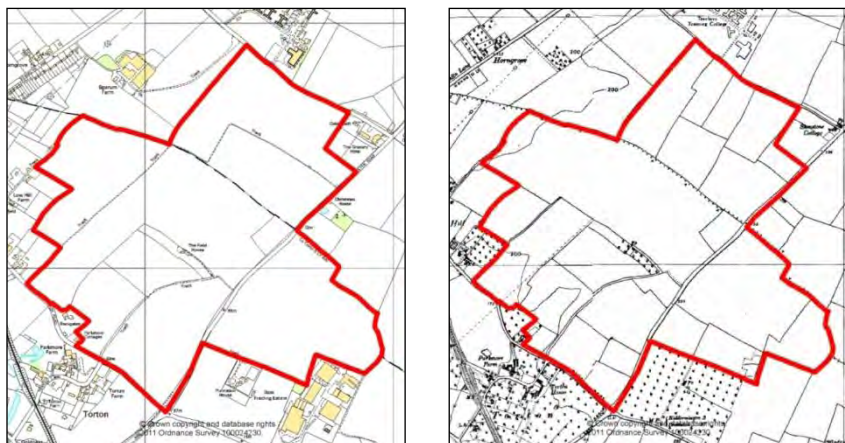
## **FEL12 Planned Private Enclosure (Estate Fields)**



Small to large fields with very straight boundaries and a rectilinear form, which gives them a geometric planned appearance, presumably deriving from planned but mostly often unrecorded episodes of enclosure, although a small number of private agreements survive. This field pattern is often associated with very straight roads and dispersed farmsteads and frequently contains the remnants of medieval strip fields. In most cases this HLC type results from a process of enclosure by formal agreement between landowners during the late 17<sup>th</sup> to 19<sup>th</sup> centuries.

This entailed one or more proprietors acting together, with lawyers and surveyors establishing each parties rights and/or the extent of their property. The land in question was then re-allotted, either as consolidated holdings or in proportion to the rights exercised over them, and then enclosed. Morphologically, planned private enclosure is similar to Parliamentary enclosure, although is not always laid out with quite the same geometric precision. Planned private enclosure of wastes and former open fields will be more readily identified in areas where the extents of parliamentary enclosure are already known by reference to Tate and Turner's inclosure list (1978).

### **FEL13 Field Amalgamation (boundary loss)**



Field amalgamation is characterised by the formation of medium or large fields by the removal of internal and adjoining field boundaries. Amalgamation can apply to any field type of any antiquity. Some fieldscapes have suffered only little boundary loss but others have undergone severe boundary loss. The amalgamation of fields mostly represents field boundary loss since the 1950's due to mechanisation and changes in agricultural practices, often as a result of the Common Agricultural Policy (CAP). This may range from the loss of a single boundary (i.e. two fields merged into one) or may field boundaries being removed to form a single field. The resultant field is a hybrid and palimpsest, with edges that may have several periods of origin. This system may also contain relict elements of former boundaries within the field e.g. a field edge that does not connect to form a fully enclosed field enclosure.

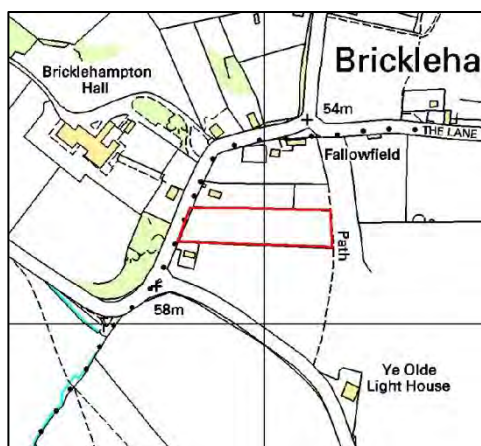
### **FEL14 Meadows (non-irrigated)**



Meadows are areas of grassland, often near a river, brook or stream, permanently covered with grass, which is mown for use as hay in the summer months. The grass is dried and used for livestock fodder in the winter. They are also used for grazing. Although practice of saving hay has generally ceased in modern farming (though silage and haylage are still pretty important), meadows are still discernable in the landscape by their long, thin sinuous shape and are usually found on low-lying ground on damp valley bottoms adjacent to the course of a river (on the floodplain). Water meadows form a separate Historic Landscape Type. Previous types may be indicated also by fieldname evidence e.g. use of „ham“ or whose use may be recorded on tithe maps.

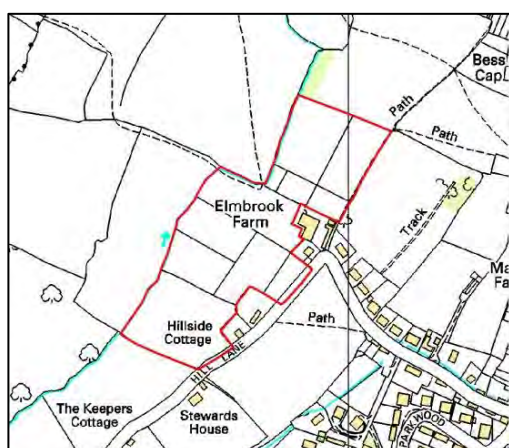
Meadows were well established by the 11<sup>th</sup> century and remained important throughout the medieval period. The origins of organised management of water courses is not closely dated but may be a medieval phenomenon continuing into the 19<sup>th</sup> century.

### **FEL15 Paddock**



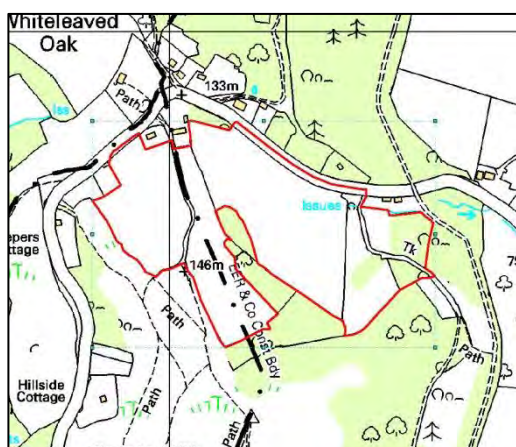
Small and generally irregular fields located on the edge of settlements usually representing small closes of varying dates, sometimes associated with equine pursuits or modern settlement and often characterised by having linear fenced internal and possibly external boundaries rather than hedges, though this is not always the case

### **FEL16 Modern Subdivision**



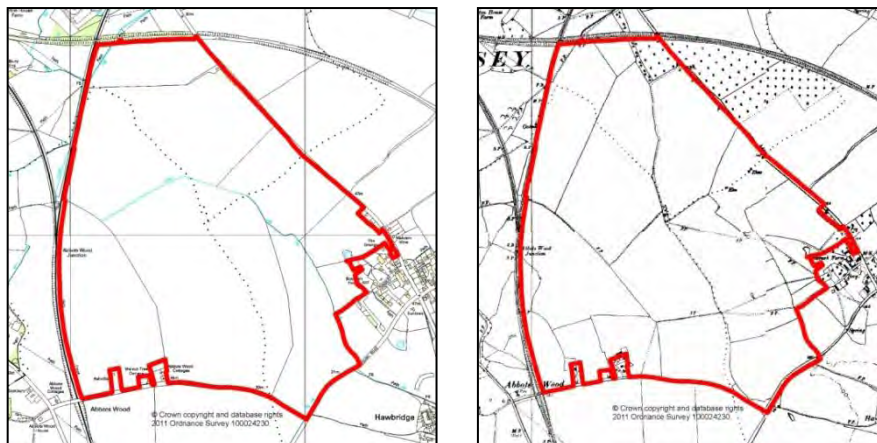
This 20<sup>th</sup> century landscape type can vary in morphology. Usually these enclosures have been created as a consequence of subdividing an older landscape type into smaller allotments for personal ownership. This type is usually found mostly in proximity to settlements and more urbanised areas.

### **FEL17 Rough Pasture**



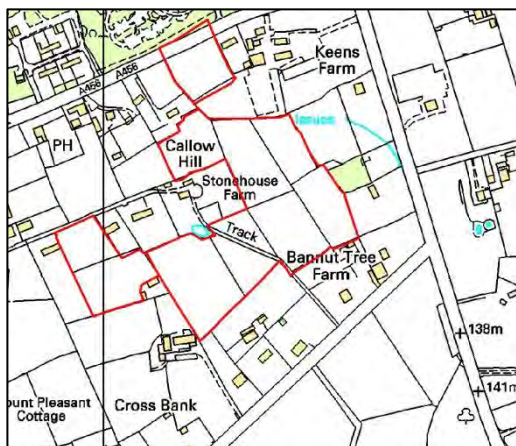
Normally unenclosed and unimproved land in rural areas including that which has been enclosed and then reverted to rough grazing, especially on escarpments and hillsides. Rough pasture can be identified by symbology on modern and historic Ordnance Survey maps, as well as aerial photos.

## **FEL18 Field Reorganisation**



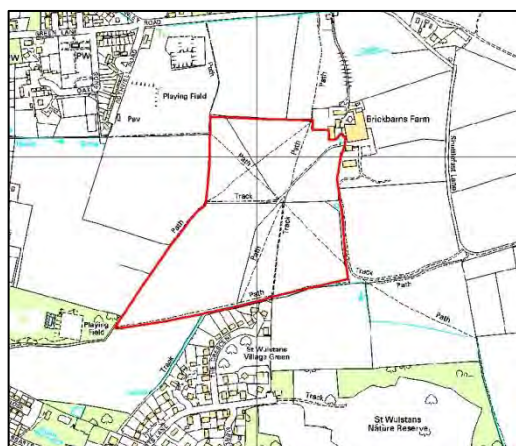
This field type is characterised by modern adaptation and substantial reorganisation of existing field boundaries, overwriting earlier field systems. It frequently occurs next to railways and modern infrastructure development such as motorways, roadways and bypasses where older field patterns have been disrupted and reorganised, e.g. a modern motorway bisecting pre-existing field systems.

## **FEL19 Planned Enclosure for Orchard**



Particular to the Wyre Forest area, Planned Enclosure for Orchard has been used to describe small fields associated with smallholdings which have been created by modifying Parliamentary Enclosure fields which themselves result from the enclosure of former common land. This HLC type has only been used during the Worcestershire HLC Pilot Study Phase.

## **FEL20 Post-Enclosure Reorganisation**



This HLC type represents the reorganisation of Parliamentary Enclosure fields. This usually occurs prior to the 1<sup>st</sup> Edition Ordnance Survey maps and therefore its use is restricted to the Worcestershire HLC Pilot Study Phase, which used the HER's 1840s dated tithe and inclosure maps transcriptions. These did not form part of the main body of the Worcestershire HLC.



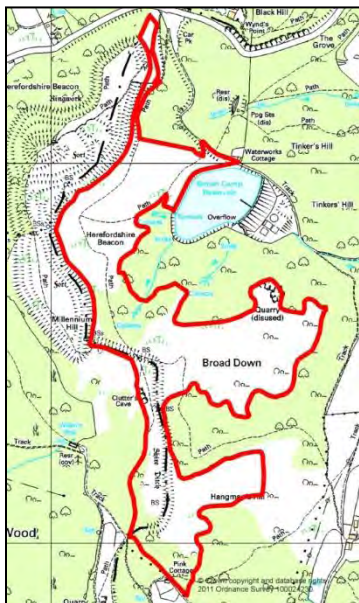
## BROAD TYPE: UNENCLOSED LAND

Areas of land that have remained largely unimproved and unenclosed over a period of time. This includes heathland and unimproved grassland in the form of open hill pasture and other commons. These areas exhibit an overlap between historic landscape types and areas perceived as having special significance for biodiversity or rare species survival.

### UEL1 Heathland



Open land on the current or previous Ordnance Survey mapping marked by symbology and annotation e.g. „Whitchurch Heath“. Heathland occurs often on areas of light well-drained acid soils and is mainly used for grazing. It is generally situated below the 244m contour line and is distinguished from moorland by the absence of peaty soil. In most cases this land was subject to common rights during the medieval and post-medieval periods traditionally used as rough grazing, for collecting fuel and for certain industries. Open heathlands in the County are now enclosed and become improved arable or is being proactively maintained as improved grassland for grazing fields.

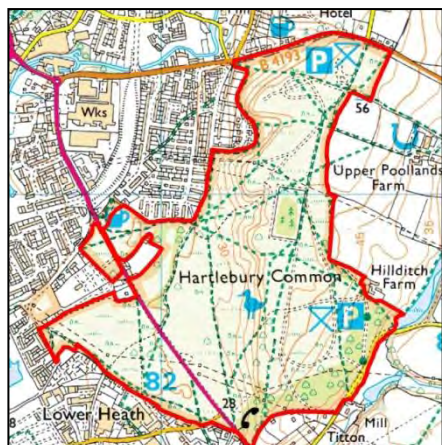


### UEL2 Unimproved Open Hill Pasture

Areas of unimproved grassland on hillside, which in most cases, were subject to common rights during the medieval and early post-medieval periods. Unimproved open hill pasture may contain preserved monuments and landscapes dating to the medieval, Roman and prehistoric periods as extant features, e.g. The Malvern Hills.

Unimproved open hill pasture is recognisable on current and historic Ordnance Survey mapping as bracken or rough grassland). It is impossible to put a specific date of origin on this landscape type, but can be considered „Ancient“.

## UEL3 Other Commons/Greens



Commons and Greens are open land traditionally used for rough grazing, collecting fuel and for certain industries. Morphologically they vary in form, from ribbons along a road to extensive areas of common land. In many places settlements coalesced on and around commons during the medieval and post-medieval periods in a process akin to assarting of woodlands. Manorial lords regulated rights on commons, which were an important part of the medieval economy. Few are still in use as traditional grazing commons but remain as valued areas. They were probably at their most extensive in pre-medieval times but only coalesced into the documented form in

the medieval period. Commons and Greens can be recognised from the modern, the 1<sup>st</sup> Edition Ordnance Survey maps, often being annotated as a „common“ or „green“ or maybe symbolised as rough grassland. The 2 inch to the mile scale Ordnance Surveyors' Drawings (1810-1817) also provide data for the pre-enclosure landscape. Commons and Greens may have a built margin (fringe of settlement) or open margin (with a few houses/farms at road/track/entrances/exits). Commons and Greens are distinguished from heathland on the basis of place-name evidence, though this can be contradictory, e.g. Broadheath Common, and are identifiable from other HLC types of common land i.e. „Open Hill Pasture“ in that they cover areas of lower-lying ground.

## UEL3 Moorland



Open land on the current or previous Ordnance Survey mapping marked as moorland by symbology and/or annotation e.g. „Sidemoor and Wylde Moor“. Moorland occurs often on areas of low-lying, poorly drained, heavy soils. In Worcestershire it is situated below the 244m contour line. In most cases this land was subject to common rights during the medieval and post-medieval periods traditionally used as rough grazing. Open moorlands in the County are now enclosed and become improved arable or is being proactively maintained as improved grassland for grazing fields.

## BROAD TYPE: WATER AND VALLEY FLOOR

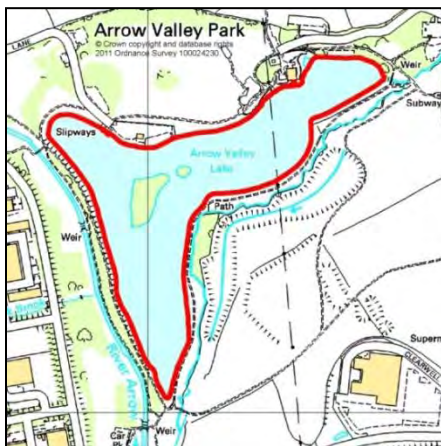
Areas of land that are dominated by water or water related features.

### WVF1 Reservoir



Artificial bodies of water created specifically for the purposes of water supply and which are marked as such on current Ordnance Survey mapping (named as Reservoir/Resr. in blue). In Worcestershire these will generally date to the 20<sup>th</sup> century but some date to an earlier period.

### WVF2 Artificial Lake/ Pond



Generally, bodies of water that can be recognised as man-made and artificial through the presence of retaining earthworks and /or dams, or which occupy former minerals or aggregates workings but are not recognised as reservoirs. This category includes ornamental lakes, recreational facilities (e.g. modern fish ponds), hatchery complexes and flooded restored quarries and ponds associated with former industrial activity. The features can be identified from modern and 1<sup>st</sup> Edition Ordnance Survey maps. On the 19<sup>th</sup> century maps, they will often be duck ponds, millponds and fishponds etc. On later maps the smaller water bodies are often small water reservoirs for livestock and larger water bodies are reservoirs for potable water.

### WVF3 Watermeadow (irrigated meadow)

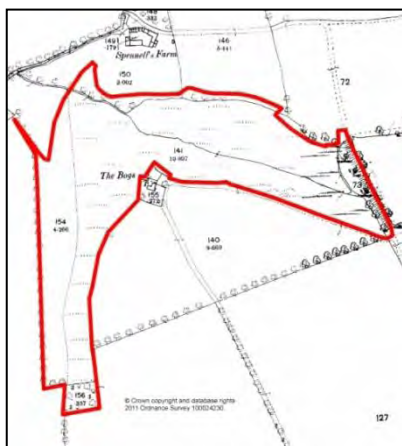


7A Water Meadow is area of grassland next to a watercourse, which is artificially flooded at certain times of the year, by means of a network of ridges and channels, (usually at right-angles to one another), to produce early (springtime), good quality pasture while in the later summer to produce a hay crop. The flooding brought nutrients onto the land, improving hay crops. This can be distinguished from a flood meadow, which is naturally flooded whenever a river is in spate. The techniques of draining and flooding the water meadows grew from the 17<sup>th</sup> century onwards although their use declined

dramatically in the 19<sup>th</sup> century when, owing to high labour costs, water meadows became uneconomical to maintain. The main components include head main, carriers,

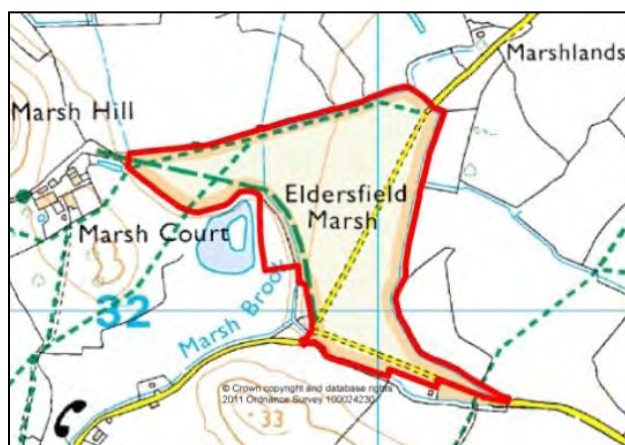
weirs, hatches and drains. They are characterised by the morphology of a distinctive, regular network of water channels for flooding and draining of water onto meadows, sometimes recorded on the modern and historic Ordnance Survey maps, but more readily identified from aerial photographs.

### **WVF4 Bog**



Areas of unimproved peat that are identified as bog on the modern or historic Ordnance Survey maps by symbology or name. In most cases peat formation will have begun in the prehistoric period. The acidic conditions in these environments favour the preservation of organic remains and, as a result, these areas often preserve high-quality palaeoenvironmental and archaeological evidence. Truncation of the uppermost layers may have occurred due to peat cutting in the historic period. These also sustain ecologically rich wetland habitats.

### **WVF5 Marsh**



Areas of poorly drained, marshy ground in floodplain locations and that do not fit into any other categories and have been identified as marsh on the modern or historic Ordnance Survey maps by symbology or name.

### **WVF6 Natural Open Water**



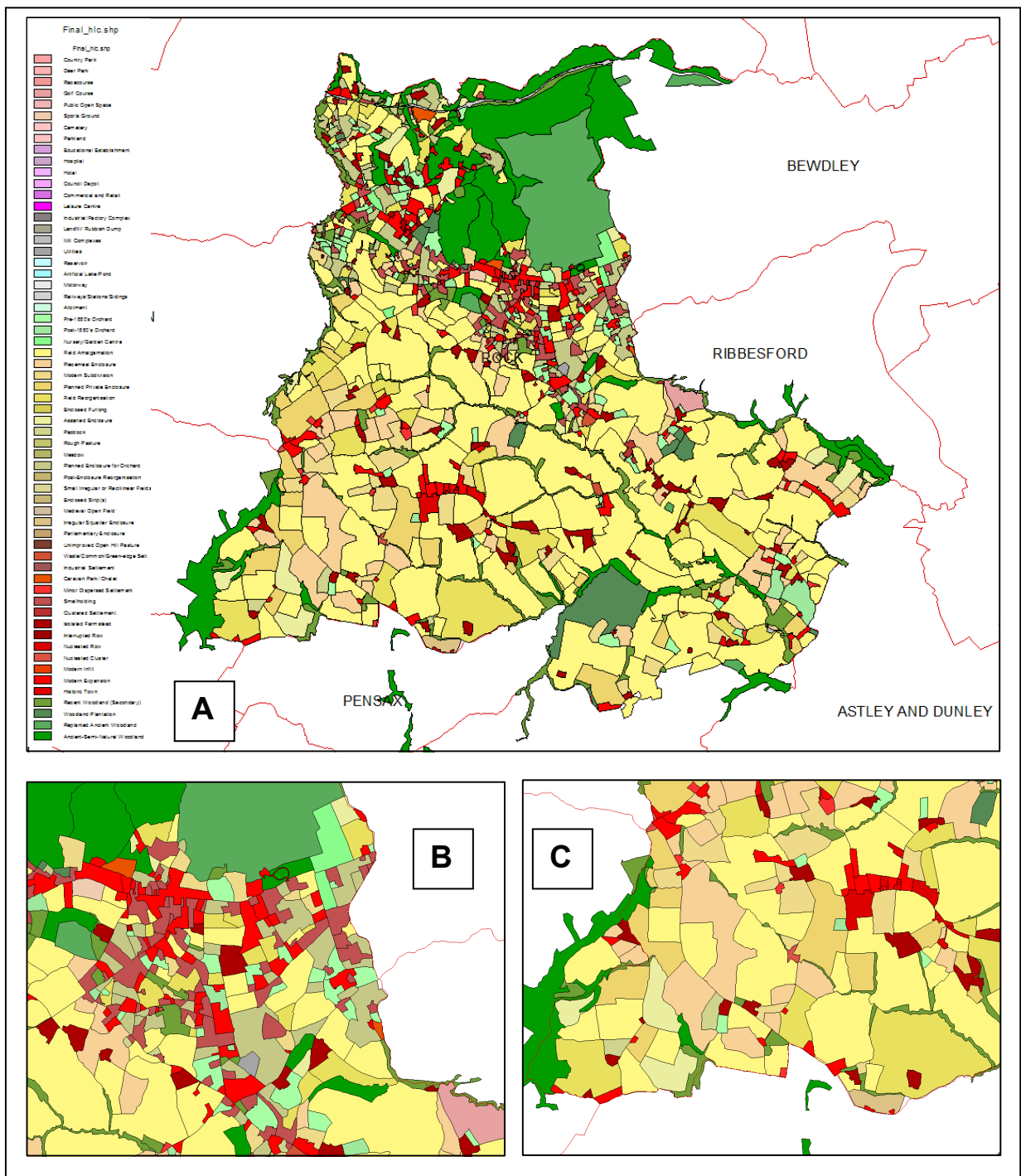
Bodies of open water generally over 1ha, which have natural origin, including rivers. In most cases they will occupy basins that were formed during the last glaciation, although water levels may well have fluctuated over the course of the Holocene period. Their morphology and/or names on both modern and historic Ordnance Survey maps suggest that they were natural ponds, lakes and meres e.g. „pool“.

### **WVF7 Miscellaneous floodplain fields**

Areas of land that can be identified as river floodplain, but do not fall into one of the „Fields and Enclosed Land“ HLC types. These enclosures tend to vary considerably in their morphology of field shape and boundaries. During the early medieval period many of these areas were probably used as common rough pasture and grazing marsh but this is not certain.

15. **APPENDIX B: Worcestershire HLC Pilot Study results**

15.1 **Pilot study area A: Rock parish**



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Figure 10. Rock parish. A - current Historic Landscape Character: B - settlement and field pattern in northern part of pilot study area: C - settlement types in southern part of pilot study area A.

Rock is the largest parish in the County at nearly 3700 hectares (ha), bordering Shropshire to the north. Situated on the right bank of the Dowles Brook it is crossed east-west by the Tenbury and Bewdley branch of the Great Western Railway and the main road from Cleobury Mortimer to Bewdley further to the south. The north of the parish is very well wooded, being part of Wyre Forest and is very hilly. The highest point is at Clows Top at 700ft. The local geology is broadly Old Red Sandstone in the east and Coal Measures in the north and west. Figure 10A illustrates the current historic landscape character of Rock, with a broad north-south divide in HLC Types.

#### 15.1.1 **Current historic landscape - pilot study area A south**

In the southern part of pilot study area A (Figure 10C), the landscape is generally a mostly dispersed settlement pattern within an extensive area of mostly recent field amalgamation and some woodland. There is:

- A dominance of Field Amalgamation in the south and mostly of 20<sup>th</sup> century date, mixed with a moderate amount of Piecemeal Enclosure of late medieval to post-medieval date. There is roughly the same amount of post-medieval Planned Enclosure surviving;
- Scattered survival of mostly pre-1880s orchard;
- Moderate amounts of Ancient Woodland, with an isolated area of modern plantation and recent secondary woodland adjacent to the various tributaries that replaces earlier orchard. There is also recent clearance of former woodland around Stildon Manor;
- A variety of different settlement types shown in Figure 10C, comprising isolated farmsteads, often post-medieval and possibly some as early as medieval in date. There is also a medieval nucleated row settlement at Rock, a rare type in this area that is surrounded by largely 20<sup>th</sup> century modern expansion with some earlier late 19<sup>th</sup> century components.

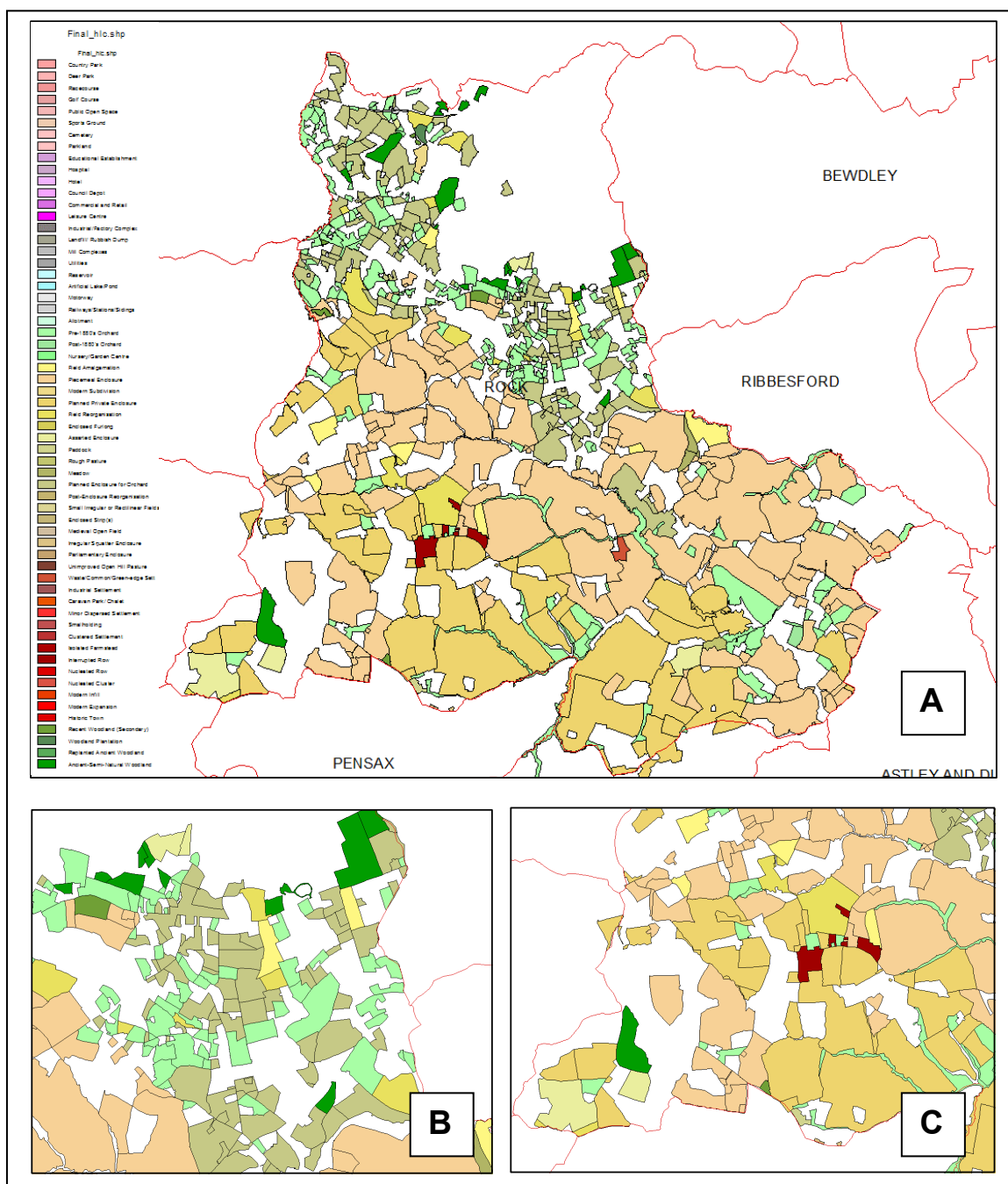
#### 15.1.2 **Current historic landscape - pilot study area A north**

In contrast to the south, the northern part of pilot study area A (Figure 10B) is dominated by much smaller HLC polygons to the immediate south and west of Wyre Forest.

- Settlement pattern is predominantly clusters of smallholdings, largely 19<sup>th</sup> century in date surrounded by modern expansion, mostly 20<sup>th</sup> century in date;
- Settlements are surrounded by large amounts of orchard, mostly pre-1880 (OS 1<sup>st</sup> Edition 1:2500 County Series mapping) in origin;
- A significant amount of small pasture fields associated with the smallholdings survives, again mostly originating in the 19<sup>th</sup> century;
- Where the original enclosed pasture fields have not survived, this is largely due to 20<sup>th</sup> century field amalgamation with some earlier field boundary losses. However, the fine grain of the landscape in this area still dominates, created by the 19<sup>th</sup> century enclosure of common and wasteland to create smallholdings and associated pasture and orchard.

Pilot study area A demonstrates particularly well the potential for varying time-depth of the broad historic landscape patterns in Worcestershire.

Previous Historic Landscape Character derived from 1<sup>st</sup> Edition OS map (1:2500 County Series 1884) - pilot study area A south



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Figure 11. Rock parish at the time of 1<sup>st</sup> Edition OS (1:2500 County Series 1884) map. A - HLC Types in Rock; B - Settlement and field pattern in northern part of pilot study area A; C - Settlement types in southern part of pilot study area A.

By querying the data held in the Access database and GIS metadata we can create a map projection showing the previous historic landscape of pilot study area A at around the date of the 1<sup>st</sup> edition OS mapping (1:2500 County Series 1884) (Figure 11A & 11C). The HLC Previous Character types identified from this source comprises:

- A mix of late medieval and post-medieval piecemeal enclosure and planned enclosure, at that time not yet subject to the extensive field amalgamation visible on the current HLC map that occurred mainly post 1950s and 1960s;
- Very little modern expansion around the medieval nucleated settlement of Rock at this date;
- Much more orchard is apparent, especially alongside various tributaries and clustered in the southeast of Rock. On current HLC mapping these orchards are either destroyed or have regenerated into secondary woodland through lack of management.

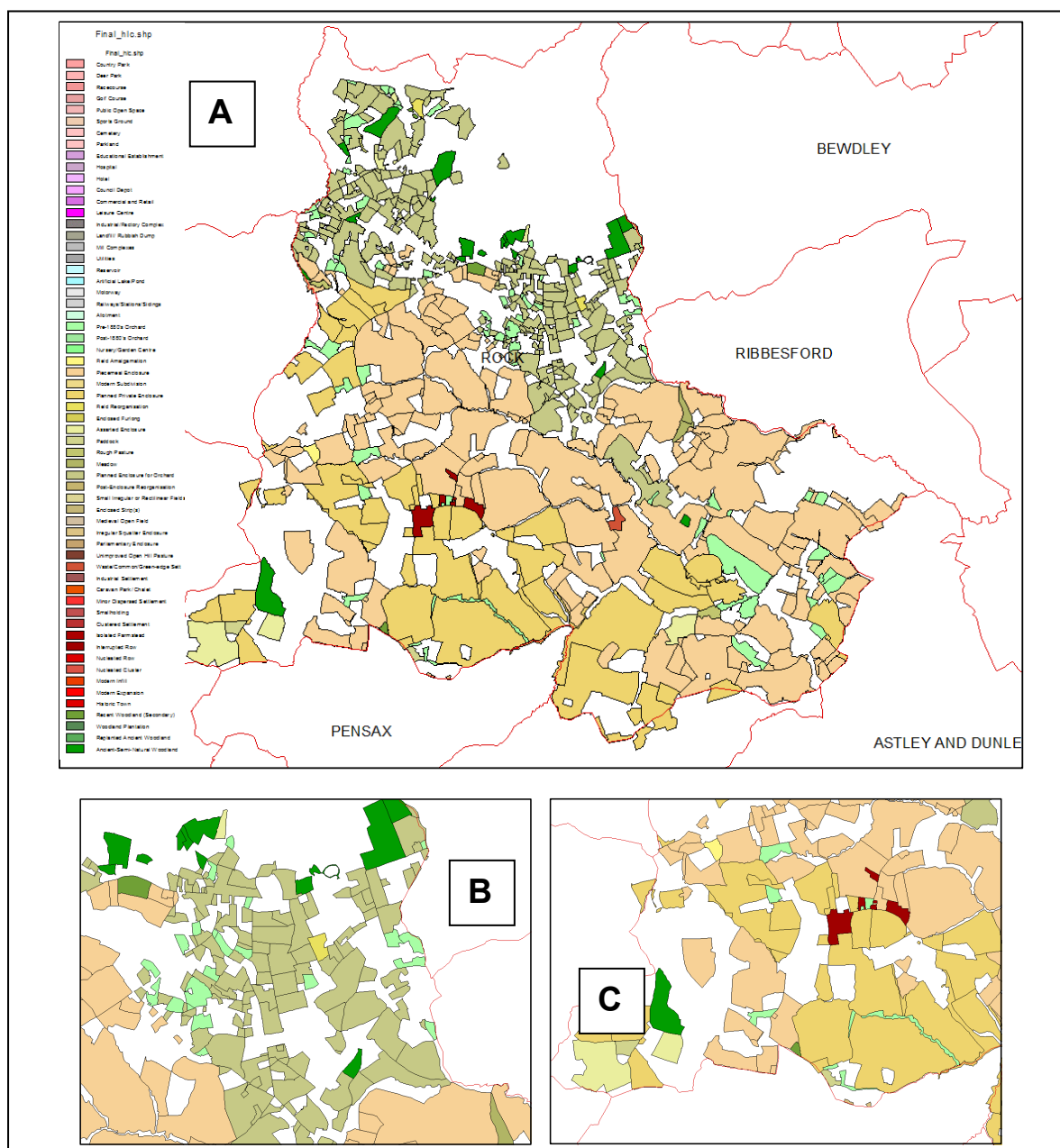
15.1.3 **Previous Historic Landscape Character derived from 1<sup>st</sup> Edition OS map (1:2500 County Series 1884) - pilot study area A north.**

The HLC Previous Character types identified from the 1<sup>st</sup> edition OS mapping (1:2500 County Series 1884) (Figure 11B) reveals that:

- The distinct pattern of smallholdings with associated pasture fields is in place at this date (not shown as forms part of current type);
- A much larger amount of orchard existed than survives currently, although it still remains a strong characteristic of this area into the present day;
- There was a limited amount of field amalgamation by the late 19<sup>th</sup> century but far less than on current HLC mapping.



15.1.4 Previous Historic Landscape Character derived from Tithe mapping (c.1843) - pilot study area A.



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Figure 12. HLC data derived from Rock parish Tithe map (c.1843). A - HLC Types at time of 1843 Tithe map; B - settlement and field pattern in northern part of pilot study area A; C - settlement types in southern part of pilot study area A.

Using HLC data drawn from a c.1843 tithe map (WRO BA 1572 x760/531) of the parish, the distribution of Previous Character types (Figure 12) demonstrates that there is only a small amount of change in the 40 years between this earlier source and the 1<sup>st</sup> edition OS map (1:2500 County Series 1884) (Figure 11). The locally distinctive pattern of smallholdings and associated fields is already in place. There is significantly less orchard, however, than is recorded on the 1<sup>st</sup> edition OS mapping (1:2500 County Series 1884). This broadly ties in with documentary evidence that suggests there was a rise in the planting of fruit trees locally in the late 19<sup>th</sup> century to supply the

growing demand for supply of food from the urban markets of Birmingham and the Black Country.

15.1.5 **Distinct pattern of smallholdings and the Inclosure mapping of 1816.**

Analysis of the Rock Inclosure Map of 1816 (WRO AP f143/53(307)) (Figure 16), the Worcestershire HLC pilot study has recorded the origins of the locally distinctive pattern of smallholdings and associated small pasture fields immediately to the south and west of Wyre Forest. This landscape pattern clearly has its origins in the Parliamentary Enclosure of Alton and Buckeridge Common. The current pattern visible on recent aerial photography (Figures 13 and 14), however, shows modification of the original enclosure system through a moderate amount of subdivision and reorganisation that the historic mapping suggests took place between the 1816 Inclosure (Figure 16) and 1843 Tithe Map. The surviving road pattern in today's landscape appears to largely pre-date the Parliamentary Enclosure and may have originated as tracks across the former Alton and Buckeridge Common (Figure 15).



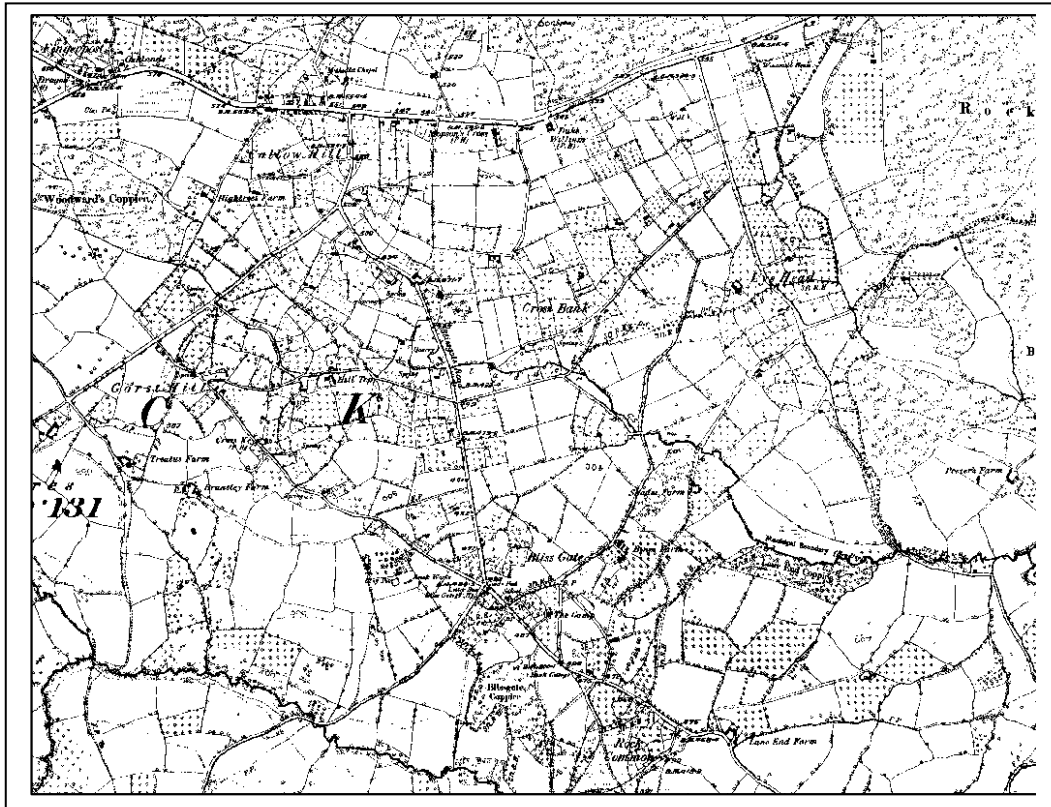
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AND © 2007  
Intermap ©  
Getmapping plc

Figure 13. Modern aerial photograph of former Buckeridge Common.



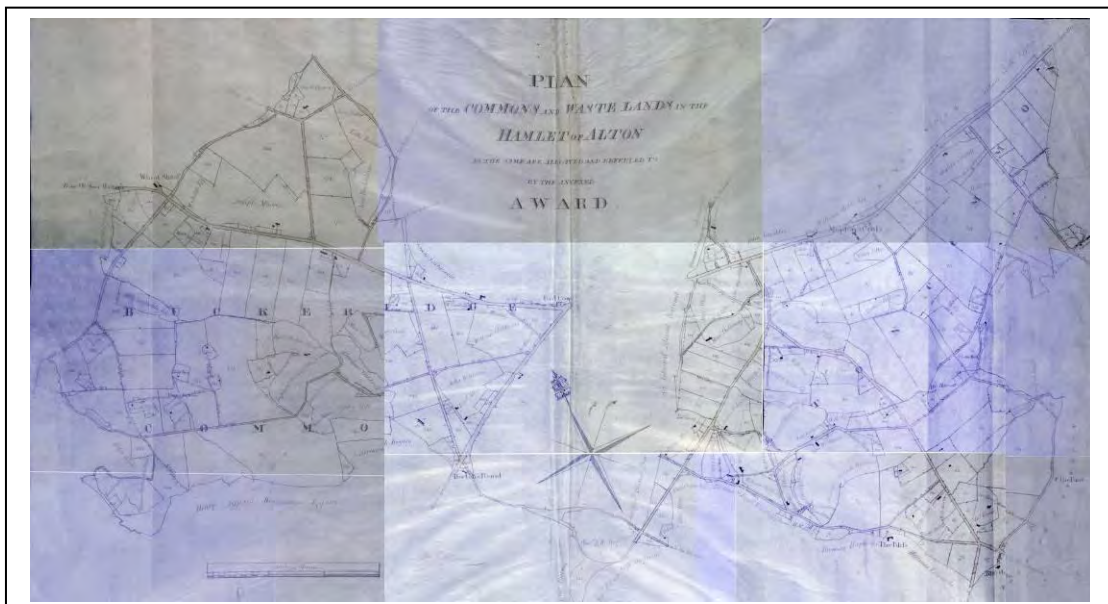
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Figure 14. Modern aerial photograph of former Alton Common, encompassing Callow Hill, Gorst Hill, Cross Bank & Bliss Gate.



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Figure 15. 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping of area of former Alton Common.



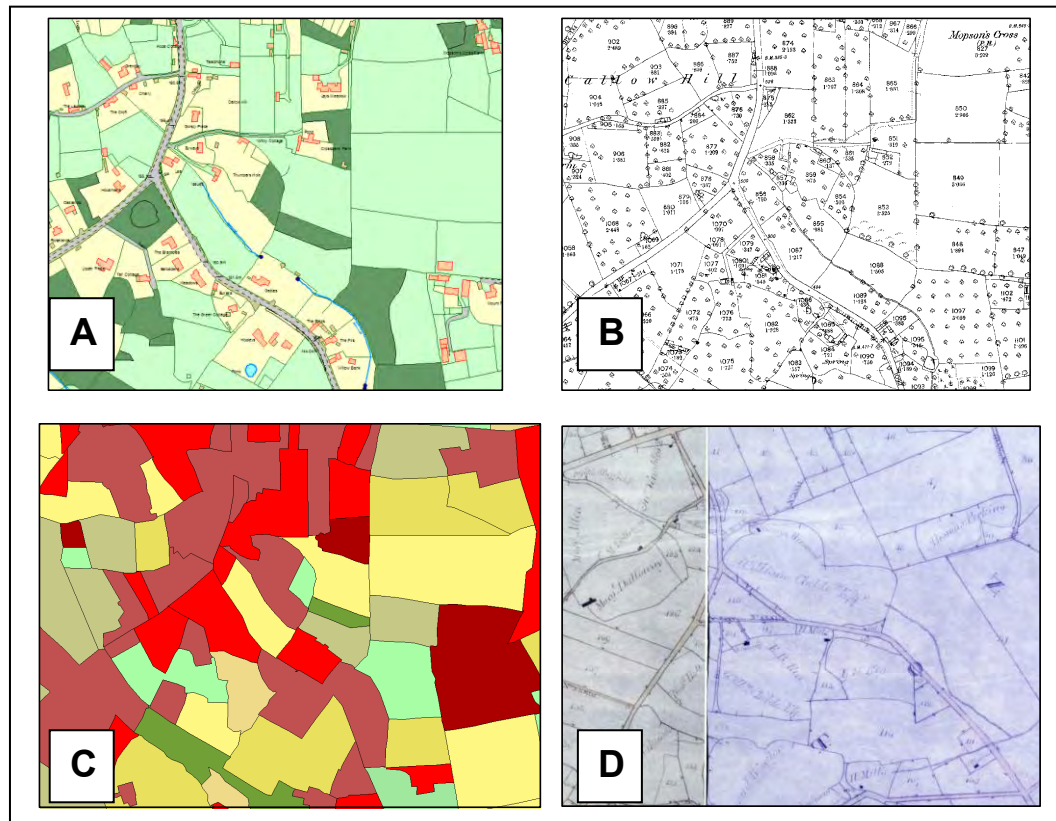
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Figure 16: Rock Inclosure Map, 1816 (WRO AP f143/53(307)). Buckeridge Common is shown on the left and Alton Common on the right.



**Potential origins of other patterns identified:**

There are a number of other, more subtle patterns picked out as part of the HLC process within pilot study area A. Examination of the modern aerial photographic coverage, OS Mastermap and HLC Current Character suggests that there are frequent examples of farmsteads enclosed within distinct oval boundaries, all sharing similar characteristics, which appear to be fossilised remnants of an earlier feature within a later field pattern (Figure 18).

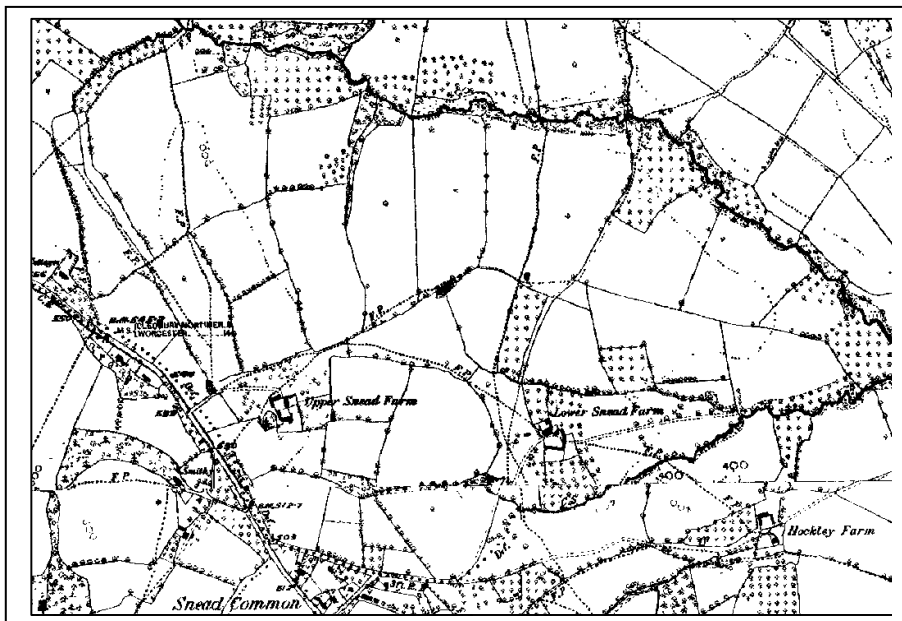


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*Figure 18. Alton Common. A - OS Mastermap; B – 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping; C – Current HLC mapping; D – Inclosure map of 1816. Note the curvilinear boundary in the centre of each image.*

The evidence seems to suggest that this distinct patterning results from encroachment (legal or otherwise) on to what would have been common land in the post-medieval period, or possibly even the medieval period. The characteristics of small, irregular fields, radiating out from a farmstead, with an overall curvilinear boundary to the entity are typical of settlement encroachment. The example given in Figure 18 falls within the area of former Alton Common that was enclosed in 1816, suggesting that the existing farmstead may pre-date this.

There are further examples within Rock parish. Figure 19 shows Upper Snead Farm in the south of pilot study area A.



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*Figure 19. Upper Snead Farm as recorded on the 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping.*

**Loss of small greens/ commons:**

The HLC of pilot study area A has also demonstrated the loss of several small pieces of former green/ common land that were until relatively recently characteristic of this part of Worcestershire. The example in Figure 15 below is that of the small, former Rock Common, built over from the 1950s-1960s onwards.

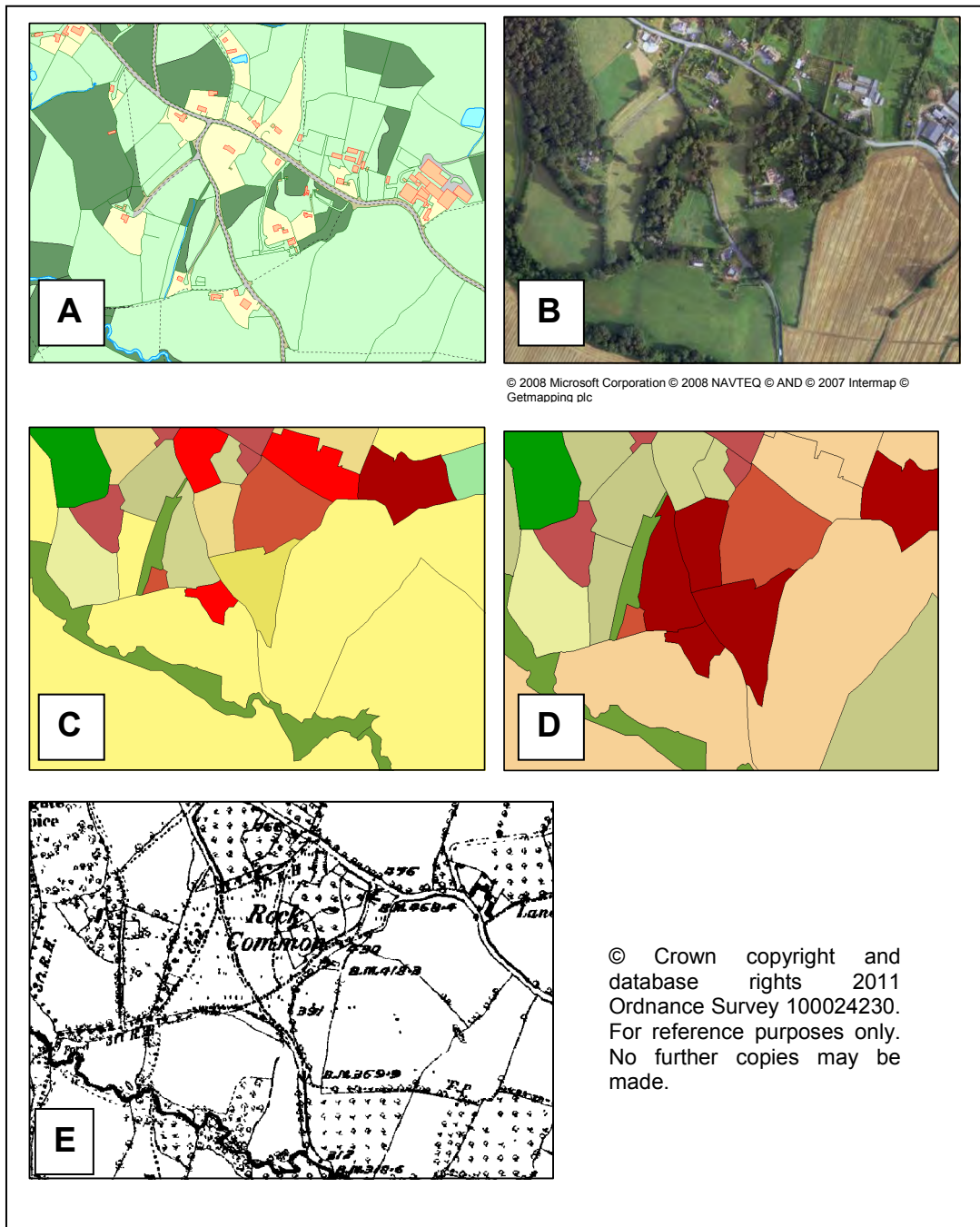
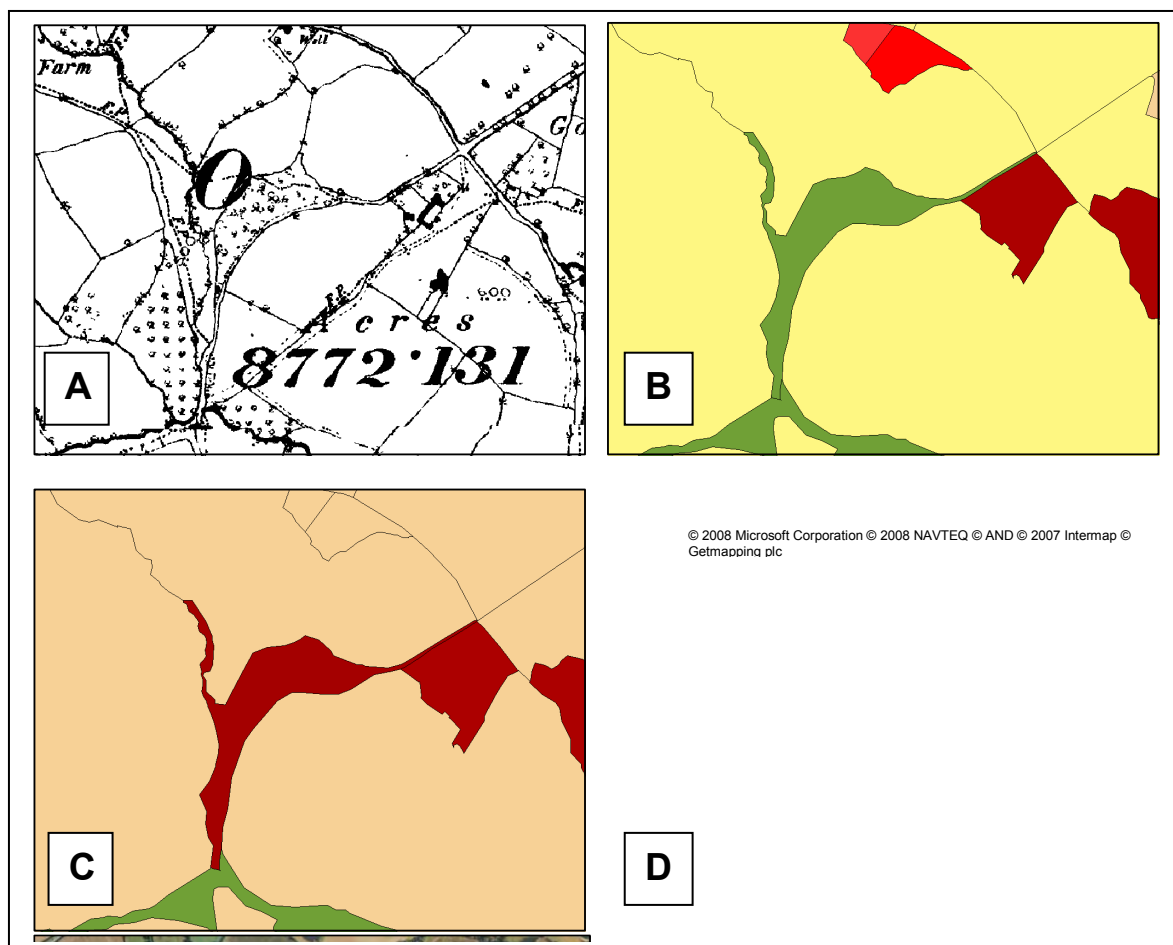


Figure 20. Rock Common. A - OS Mastermap: B – modern aerial photographic coverage: C – Current HLC mapping: D – previous HLC based on 1843 tithe and 1<sup>st</sup> Edition OS (1:2500 County Series 1884): E - 1<sup>st</sup> Edition OS (1:2500 County Series 1884).

The current HLC map shows a variety of types including modern sub-division of fields and modern settlement expansion, whereas the previous historic landscape character (based on the 1843 Tithe map and 1<sup>st</sup> Edition OS map (1:2500 County Series 1884)) was „Other Common/Green“ for the unenclosed Rock Common.

Another example is that at Moorgreen Farm, Rock (Figure 21) where a small green, represented on the HLC Previous Character (2) mapping based on the c.1843 Tithe map, appears to have been colonised by woodland at the start of the late 19<sup>th</sup> century, which remains to the present day.



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Figure 21. Moorgreen Farm. A – 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping: B – current HLC mapping: C – HLC previous character #2 based on 1843 tithe map: D – modern aerial photographic coverage.



15.1.9 **Earlier Landholdings and Manors**

Worcestershire HLC has identified discrete blocks of fields within the current historic landscape of Rock parish that have origins in earlier landholdings and vanished medieval manors.

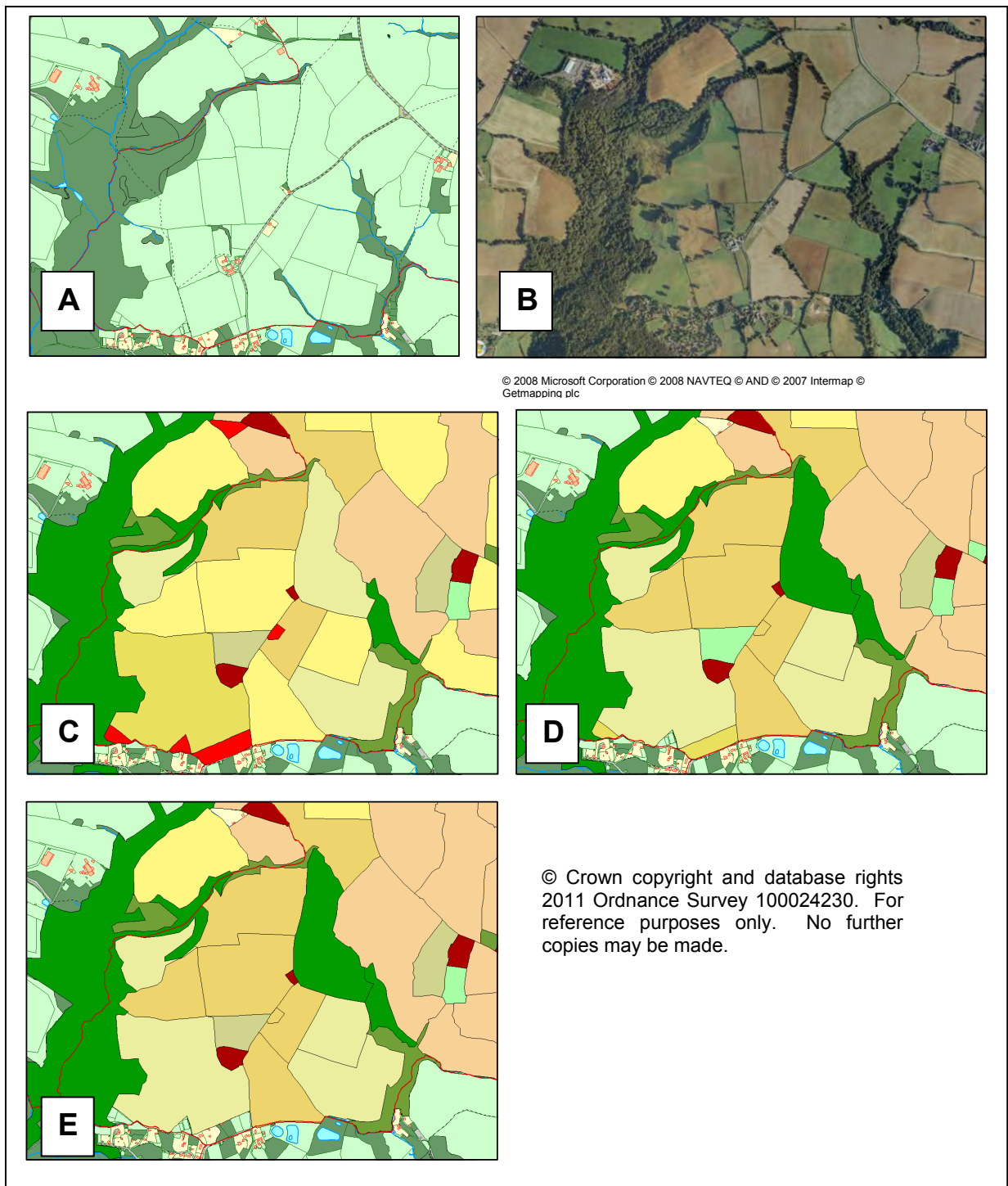


Figure 22. The surviving boundaries of medieval Stildon Manor? A - current OS Mastermap: B - modern aerial photograph: C - HLC Current Character mapping: D - HLC Previous Character based on 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping: E - HLC Previous Character based on the 1843 Tithe map.

Figure 22 shows a discrete parcel of land bounded by woodland to the west and fragmentary woodland to the east, between which is a distinctive planned enclosure field system. There is very little difference between the HLC types on the 1843 Tithe map (Figure 22E) and the 1<sup>st</sup> Edition OS map (1:2500 County Series 1884) (Figure 22D). On the HLC Current Character map (Figure 23C), however, some of the woodland that is recorded as Stildon Wood on the tithe has been assarted, and some of the planned enclosure fields become amalgamated.

The 18<sup>th</sup> century farm at the centre of this area replaces an earlier medieval building and the 1843 tithe records a „graveyard“ in the field immediately adjacent to the farm, although under plough by that date. This combination of documentary evidence, earlier cartographic sources and strong patterning within the landscape at this location suggests the possibility that the woodland represents the boundaries of the medieval manor of Stildon.

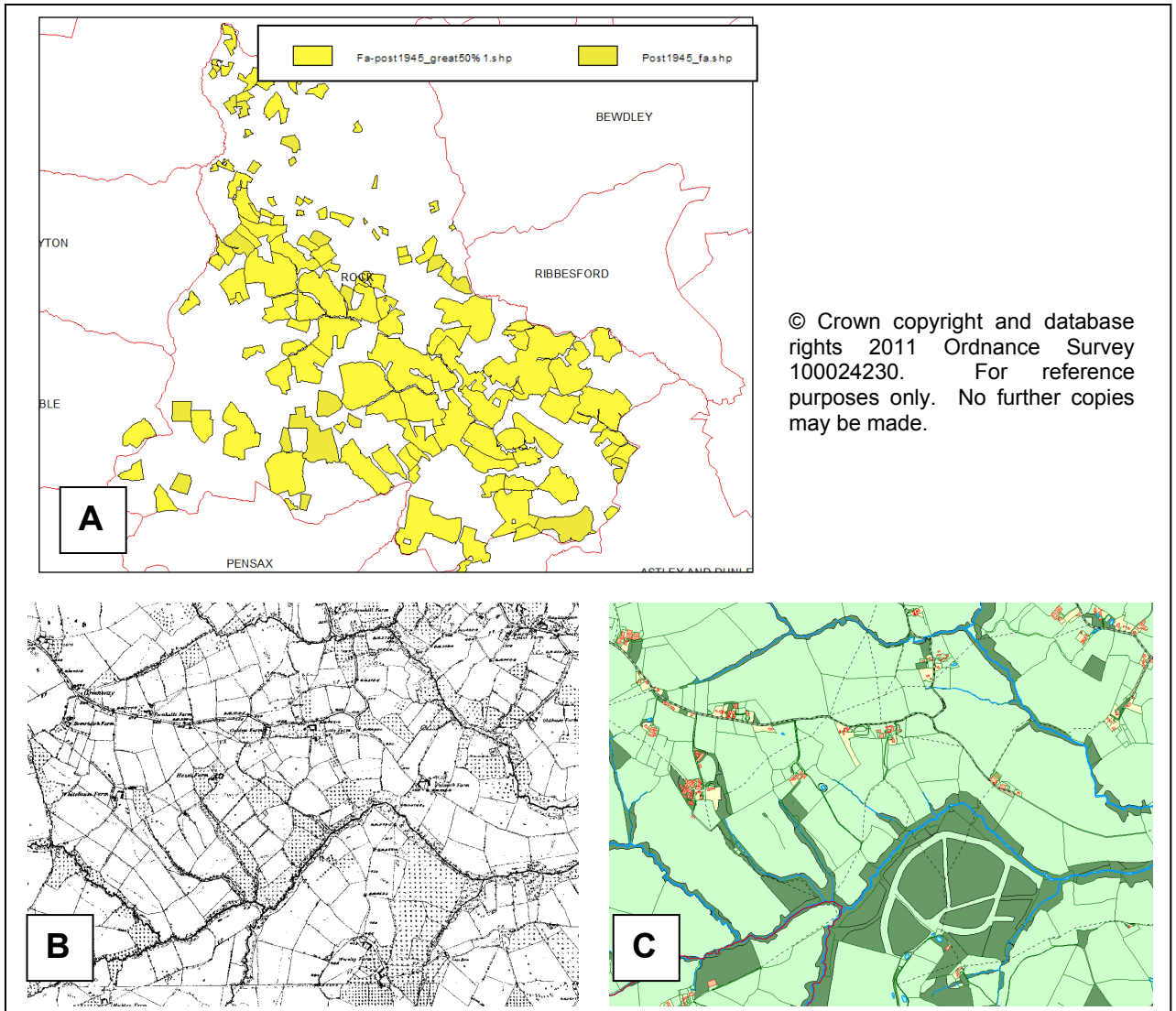
A similar story may apply to Castle Farm, Rock (Figure 23). The 1<sup>st</sup> Edition OS (1:2500 County Series 1884) mapping records a notable block of piecemeal enclosure (Figures 23C and 23E). The tithe map of 1843 (Figure 23A) similarly records this area, divided into three by roads and tracks and detailing field names suggestive of former settlement. The Worcestershire HER records that Castle Farm, at the centre of this block of land, is thought to have been the site of a medieval castle. Examination of the modern and HLC Current Character mapping (Figure 23B and 23D) confirms that much of this distinct and potentially quite ancient pattern of landholding has been lost to field amalgamation since 1904, with a dramatic increase following the 1950s and 1960s. Only a handful of boundaries recorded on the Tithe map and 1<sup>st</sup> Edition OS map (1:2500 County Series 1884) survive.

These examples demonstrate the potential use of HLC for both past-orientated research and future management of the historic landscape.



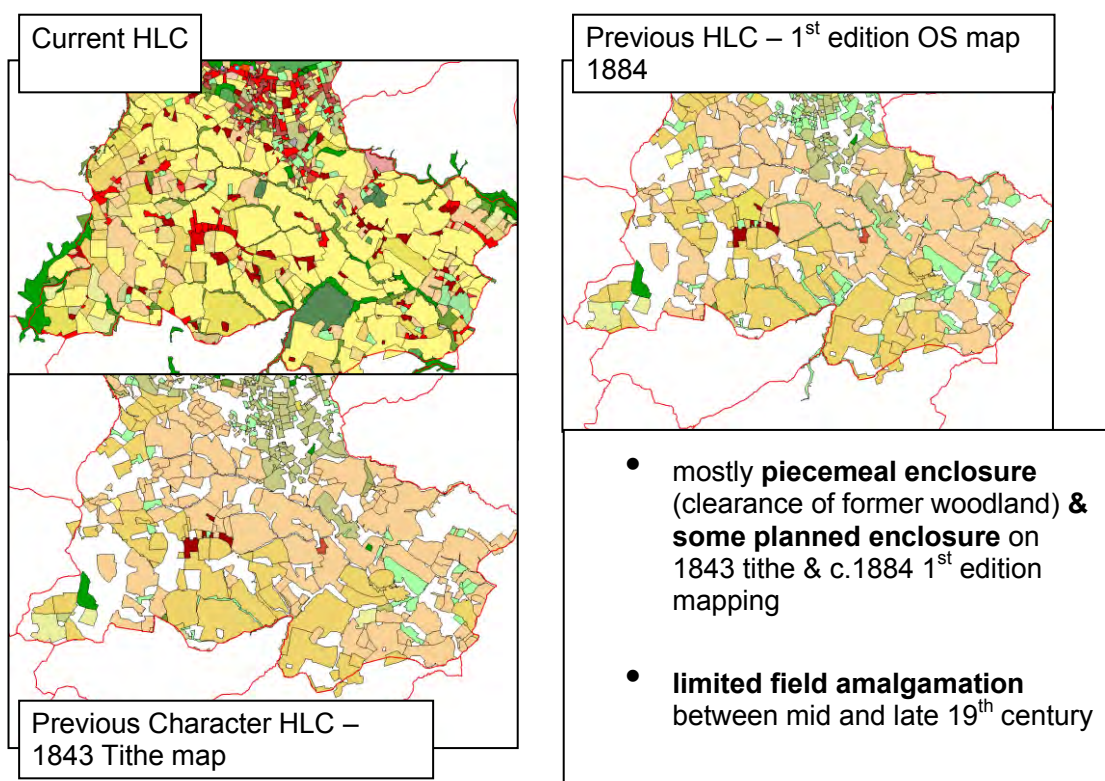
Figure 23. Castle Farm. A – 1843 Tithe Map: B – HLC Current Character mapping: C – 1<sup>st</sup> Edition OS (1:2500 County Series 1884) map extract: D – modern aerial photograph: E – HLC Previous Character mapping based on 1<sup>st</sup> Edition OS (1:2500 County Series 1884).

As previously discussed, substantial amounts of medieval and post-medieval piecemeal and planned enclosure in Rock parish has been lost to 20<sup>th</sup> century field amalgamation and reorganisation (Figure 24). With HLC, it is possible not only to visually demonstrate this change over time through mapping of current and previous historic landscape character, but to show the amount of field loss at different dates.



*Figure 24. Field Amalgamation in Rock parish (A). The difference is clear between the extract from the 1<sup>st</sup> Edition OS (1:2500 County Series 1884) map (B) and current OS mapping (C).*

It is possible to query data imported from the Access database into the GIS metadata, to provide mapping for different dates (according to source) at which field amalgamation can be seen to have occurred by. Figure 25 illustrates the mostly piecemeal enclosure, with some planned enclosure, on the 1843 Tithe map in the southern half of Rock parish. A small degree of field amalgamation had occurred by the 1<sup>st</sup> Edition OS (1:2500 County Series 1884) map. Most field amalgamation was undertaken post-1945 with most areas having seen greater than 50% loss.



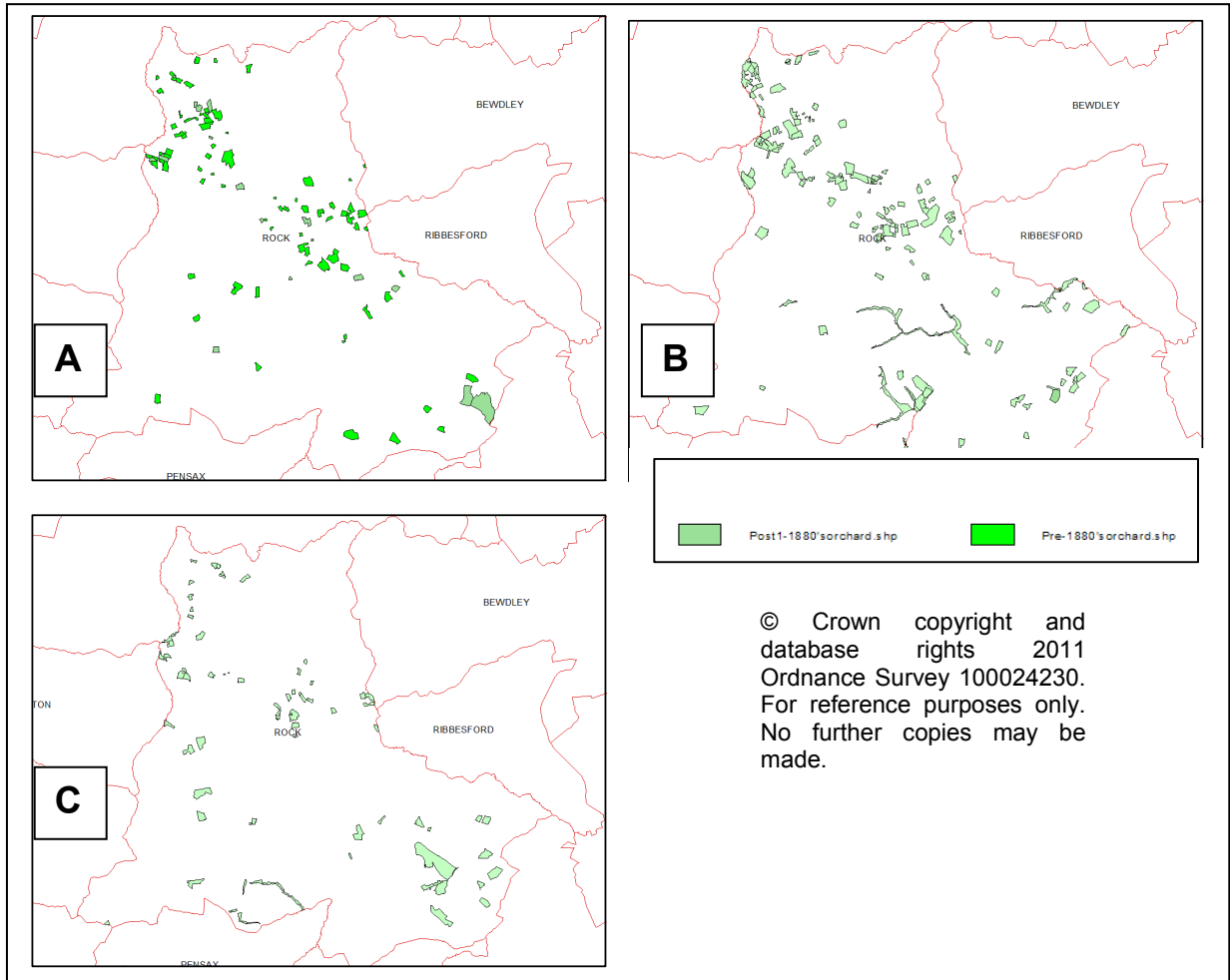
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*Figure 25. 20<sup>th</sup> century Field Amalgamation in the southern half of Rock parish.*

Upon completion of the Worcestershire HLC project, it will be possible to interrogate the data to determine whether most field amalgamation is recent in date. Initial results suggest that this is the case for pilot study area A.

15.1.11 **The rise and decline of orchards**

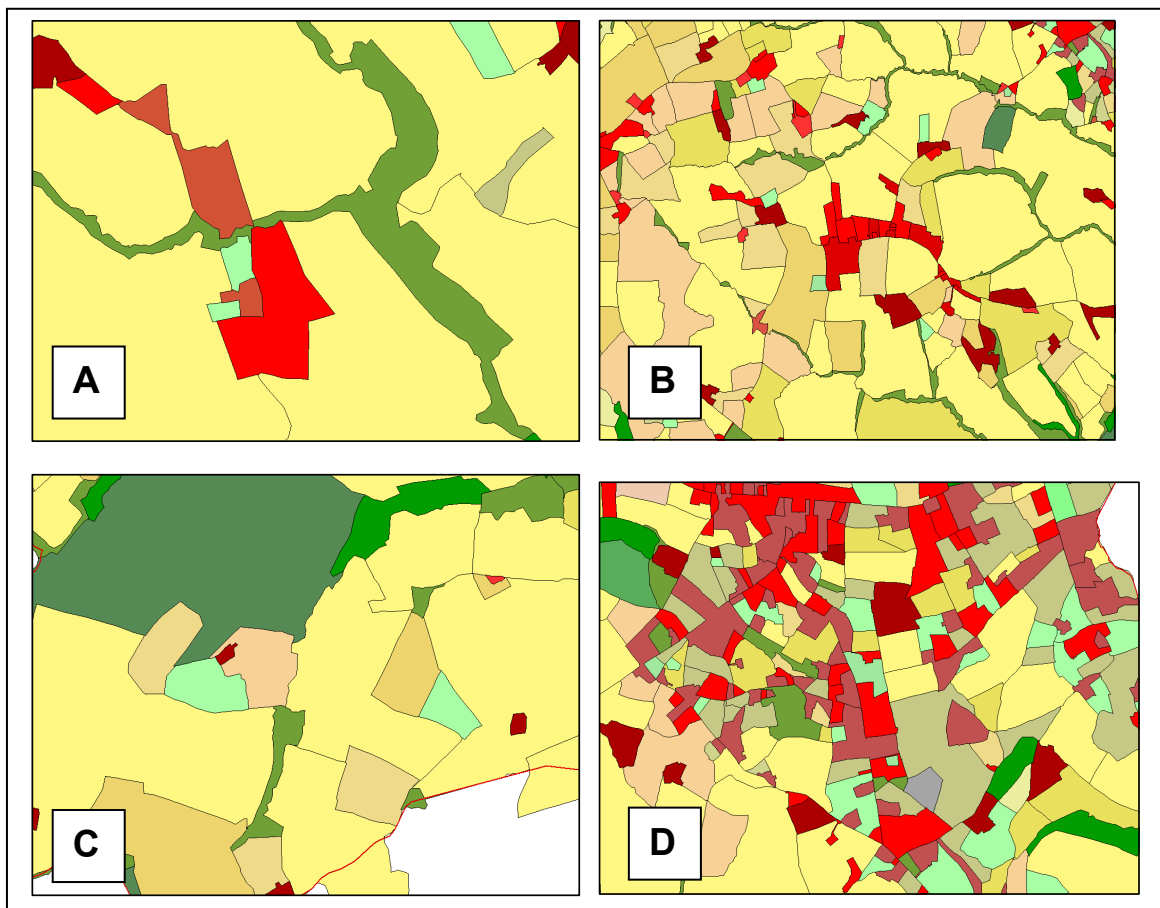
The Worcestershire HLC documents the rise and fall of orchards over the remainder of Rock parish through HLC. Figure 26A records the amount and location of orchard on the 1843 Tithe map. Figure 26B shows the increase in orchard by the late 19<sup>th</sup> century and Figure 26C identifies the pre-1880's orchard and post 1880s orchard sites surviving in today's landscape. There has been a decline in orchard numbers since 1884, but most of what survives today in the current historic landscape is pre-1880 in date.



### Settlement HLC Types

The HLC pilot study area A has recorded at least 5 of the 14 HLC settlement types within Rock parish. Polygons are ascribed to these types on the basis of morphological differences and likely period of origin. The HLC settlement types identified are:

- Predominantly dispersed settlement pattern of isolated farmsteads – many are post-medieval or earlier in origin;
- A nucleated row settlement at Rock that has medieval origins and has expanded in the 20<sup>th</sup> century;
- Mostly 19<sup>th</sup> century smallholdings around Wyre Forest created from enclosure of former common land;
- Some green/common-edge settlement, probably post-medieval in origin or earlier;
- A handful of farms which originated as encroachment on common, again post-medieval or earlier;
- Forest smallholdings created by the clearance of woodland, mostly around Wyre Forest and of uncertain date;
- Modern expansion.



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*Figure 27. Current HLC Settlement patterns in Rock parish. A – green-edge settlement: B – nucleated row settlement surrounded by modern expansion: C*

– *encroachment on common land: D – smallholdings created from former common ('smallholdings' and 'planned enclosure for orchard' types).*

The HLC mapping extracts from Rock parish (Figure 27) illustrate well how the HLC process can provide a strong visual representation of the various types of settlement morphology

#### 15.1.13 **Thoughts on Orchards & Smallholdings within Rock Parish**

##### **Orchards:**

Most orchards in Rock parish seem to be farm orchards, many of which appear derelict in the present day. In 1923, the Census of Fruit Trees recorded 1,834,621 fruit trees in Worcestershire, comprising 766100 apples, 136327 pears, 53065 cherries and 857144 plums. In 1936, 6.8% of the agricultural land of the county was under fruit trees and 5.8% of these 23937 acres was recorded as cherry trees (Stamp, 1944; p.451–452). Analysis of the HLC reveals that many orchards survive in pilot study area A and it is notable that the majority are located in the north of the parish (with the exception of one other group, discussed below), falling within the area centred around Callow Hill, Bliss Gate and Far Forest where smallholdings predominate. The orchards are primarily located next to small farms and cottage smallholdings, being „farm orchards“. Many are recorded as cherry orchard as part of the Worcestershire habitat mapping project and are also recorded as such in the free text box of the Worcestershire HLC database.

A database query of both „cherry orchard“ and „Rock“ parish provides all individual areas of surviving cherry orchards within the parish boundary. As to a likely date of origin, the „period of origin“ box offers a date range based on whether or not orchards appear on the earliest map source (in most cases, the 1843 tithe map) or on the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> Editions OS mapping. A database search query based on the two HLC types of „Pre-1880's Orchard“ (appears on the 1<sup>st</sup> Edition OS map) & „Post -1880's Orchard“ (appears after the 1<sup>st</sup> Edition OS map), combined with the other elements of the query, provides a similar result. There are numerous other ways to query the dataset in order to provide information on the likely date ranges for different types of orchard in this area. When viewed using the GIS package, this data can produce maps of Rock parish showing the previous HLC types at the time of the 1<sup>st</sup> Edition OS that can be compare the extent of surviving orchard in the present day.

As in pilot study area C, much of the orchard in pilot study area A appears to have been planted in the period between the 1840's tithe maps and the 1<sup>st</sup> Edition OS mapping of the 1880's. The orchards thereafter appear in reduced numbers and although still recorded on many small farms on the 2<sup>nd</sup> and 3<sup>rd</sup> Editions OS mapping, their distribution is reduced, steadily declining between the 1<sup>st</sup> Edition and the 3<sup>rd</sup> Edition. However, a small number of the surviving cherry orchards do actually appear on the 1843 tithe map in this area.

The Worcestershire habitat mapping project records the majority of surviving orchards within Rock parish. Not all are cherry orchards, a small number being



recorded as apple or just „traditional orchard“, where the particular species has not been identifiable. However, it is probable that a greater number of orchards do „survive“ than the habitat mapping records, and this can be seen by comparing those orchards recorded on the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Edition OS mapping with modern aerial photography, the latter showing a handful of remnant trees. Where this is the case, these „remnant orchards“ have been recorded as such on the Worcestershire HLC database and recorded as „remnant“ in the database’s free text box. These sites would probably not be recorded using the modern aerials photographs alone, without the suggestive evidence of the historic mapping. Where possible, therefore, it is suggested that their presence will require ground truthing through field survey.

On the whole, surviving orchards in the south of Rock Parish are more widely dispersed and generally larger in size than in northern Rock. The 1<sup>st</sup> Edition OS mapping shows a cluster in the southeast and a distinct group lining watercourses. The former may be explained by a different set of variants affecting survival to that in the north – there has been much field amalgamation and reorganisation in the south whereas the very distinctive field pattern of smallholdings in the north has survived very well.

Historically, there is a very distinct orchard pattern in the south of Rock Parish. The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Edition OS maps record much orchard as lining the banks of watercourses. Since the 3<sup>rd</sup> Edition OS mapping, these have been much neglected and are recorded by the Worcestershire habitat mapping project and are evident in the modern aerial photos as regenerated/ secondary woodland. Although the „linear pattern“ of the former orchards has survived, the orchards have been supplanted by woodland. In the 19<sup>th</sup> century it would appear that watercourse margins were a favoured location for orchards, which may be due to ease of irrigation although many other orchards aren’t sited in similar locations, or a use for otherwise marginal land. Only upon completion of the wider Worcestershire HLC project will it be possible to determine whether this land use pattern appears elsewhere in the County.

The County’s 21<sup>st</sup> century landscape appears to retain remnants of the regional specialisation in the fruit growing that appears to have reached its peak in the late 19<sup>th</sup> century as a result of the growing demand from Birmingham and the Black Country, which could be supplied using the newly opened railway. However, it is suggested that growing cherries as part of a smallholding was a traditional characteristic of this area and that some of the surviving orchards recorded on the 1843 tithe map may contain trees originally planted to supply the smallholding itself and the local market. L. Dudley Stamp (1944; p.453) claimed that:

“Cherry Cultivation is one of the distinctive features of the Wyre Forest region and almost every small-holding has a small patch of cherries. The main producing area extends on shallow “rotchy” soils of Carboniferous derivation from Bewdley westwards up the Long Bank, to the County Boundary beyond Far Forest and links up to the south with the cherry land on the dissected Old Red Sandstone of the Heightington area”.

This pattern broadly concurs with the surviving cherry orchards as demonstrated by the HLC. The Worcestershire habitat mapping project records many of the orchards within Rock Parish as „derelict“. This is also predominantly the case with those orchards not recorded by the habitat mapping project, but identified from a combination of the historic mapping and modern aerials. Many of the orchard trees are likely to be of considerable age, allowing for some later replanting of orchards on the same spot. It is hoped that the Worcestershire HLC project, in conjunction with the habitat mapping data, will enable more informed management decisions regarding the value of the locally distinctive but dwindling resource of traditional orchard sites. This will allow a growing number of orchards to be targeted for restoration and improved management, particularly as part of schemes such as the Higher Level Stewardship Scheme, operated by Natural England.

### **Smallholdings:**

One of the most striking features of Rock parish is the broad north-south division between the existing and the historical field and settlement patterns that characterise the parish. To the north, particularly concentrated in the area around Callow Hill, Far Forest and BlissGate, the dominant pattern is one of smallholdings, both on modern and historic mapping. One of the earliest map sources used for this parish, the 1843 tithe map, shows what appears to be an „intact“ pattern of smallholdings that generally survives very well to the present day, albeit with some field amalgamation and boundary loss.

Stamp (1944; p.517) noted this strong characteristic as part of his summary of the Wyre Forest region, in the work carried out for the Land Utilisation Survey in the 1930's and suggested that “the predominantly seasonal i.e. winter, nature of work in the forest... is closely bound up with ...its smallholdings. The majority of these holdings would appear to have been created by squatters on the edge of the Crown Forest and today the economy to which they give rise is perhaps unique in the country. The holdings are in general small, the largest farm in the old ecclesiastical parish of Far Forest being 40 acres, while 20 acres is about the average size. They are made up of numerous small fields, often no more than 2 or 3 acres, and they are predominantly under grass or grass orchard”.

The Worcestershire HLC records that this pattern of smallholdings, which also appear on the 1843 tithe map for Rock parish, survives fairly intact into the present day. It seems likely that some fields are the result of assarting of former Forest at some point in the past, and in some areas this is more apparent than in others, the fields being surrounded on all sides by woodland. Historic maps for the area record mostly dispersed settlement, suggesting that woodland has already been cleared for smallholdings by the early 19<sup>th</sup> century. The distinctive group around Buckeridge and Callow Hill were created from the Parliamentary Enclosure of both Buckeridge Common and Alton Common in 1816.

Both the modern OS map and tithe map suggest that there may be some phasing to different parts of the area around the former Alton Common, and it is possible to pick out what appear to be distinct blocks on both map sources. To the west of the main road this area seems to be broadly characterised by less regular fields than to the east, which appear slightly larger, more rectangular, with generally straighter boundaries and are possibly later in date and a result

of planning over a larger area. The former seems to be the earlier and possibly of a more organic evolution. These two areas can be further broken down using geomatics (patterning) into what may have been original holdings and these areas would roughly comply with Stamp's suggestion of between 20 and 40 acres.

The tithe map records a more mixed degree of land use, being of grass with hops, pasture, common, arable and orchard, for the holdings than Stamp's 1930s predominantly grass and grass orchard characterisation. The 1<sup>st</sup> edition OS maps record a much larger area covered with orchard than on the earlier tithe map, the reasons for which have already been discussed elsewhere. A large amount of this orchard has survived, albeit in various states of management and neglect.

Pre-Second World War, Stamp (1944; p.518) records "the fair head of stock carried by most holdings..., some devoted to dairying, milk being collected for Kidderminster..., the breeding of Ewes..., specialization in pigs and poultry ..., the making of cider, but cherry the typical tree, a useful cash crop (although, little is being done to replace the rapidly ageing orchards, thanks to increased mobility..., the younger men seeking work elsewhere) and so on...".

Exactly why this distinct pattern of smallholdings developed within and around Wyre Forest is again suggested by Stamp (1944; p.518): "difficult topography and the existence of a scattered woodland cover tend to favour the survival of a small unit in this area, ...careful integration of part time i.e. seasonal holdings, especially fruit holdings, with other seasonal work such as forestry would seem to offer considerable possibilities and ...the dairy holdings have held their own and compare in production or stock carried per acre, very favourably with larger farms".

Exactly when this general pattern of smallholdings emerged, with the exception of the enclosure of the two former Commons, is unclear. There is no earlier map evidence that depicts individual fields available and requires further research of documentary sources to be undertaken. However, within Rock, there is morphological evidence to suggest a partly surviving settlement pattern of dispersed isolated farmsteads that appears to pre-date the pattern of smallholdings and with a distinct character of their own, perhaps suggesting a medieval origin. On this basis, the smallholding pattern broadly suggests a post-medieval origin.

In summary, it is evident from the Worcestershire HLC mapping from pilot study area A that there is a north-south divide in the key characteristics of Rock's historic landscape. In the north of Rock parish, the HLC Current Character is characterised by dense tree cover, being predominantly woodland of ancient character, with some areas of replanting. Settlement pattern is typically dispersed, reflecting the influence of the woodland environment and ready availability of water. There are occasional wayside cottages, often with adjacent small, assarted fields. Most of the older farms and cottages lie off the main road, by brookside or woodland fringe and are linked by a network of narrow lanes.

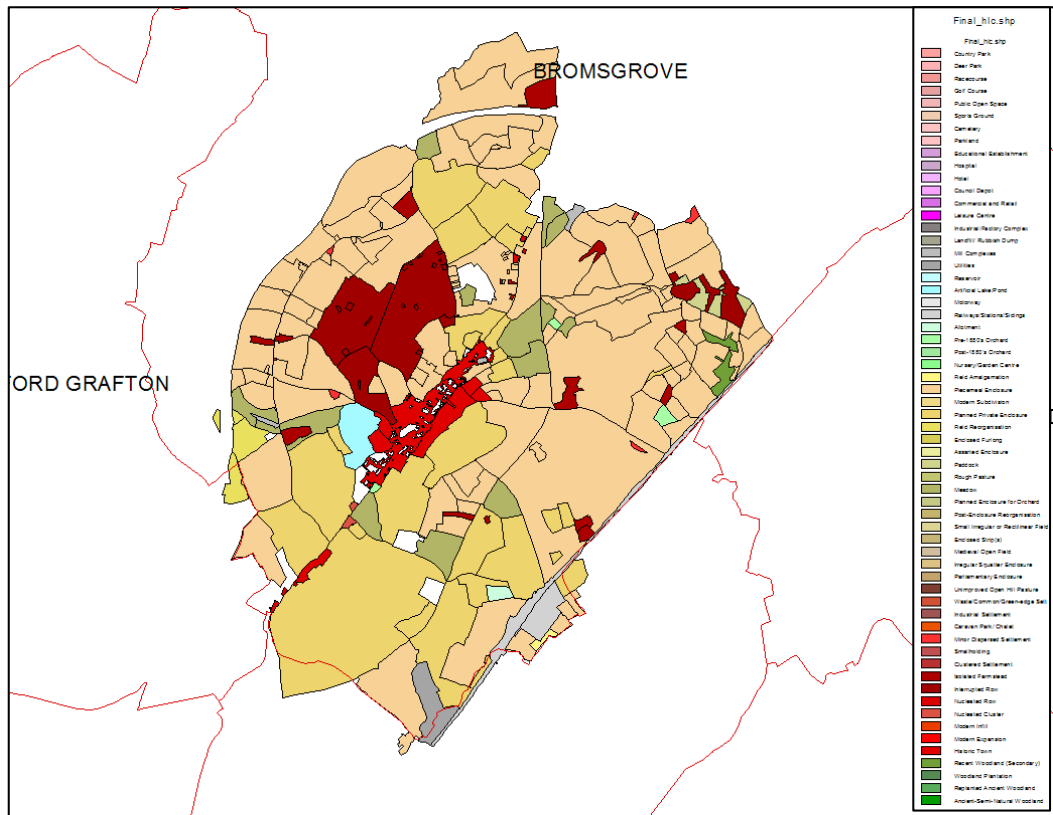
Two distinct areas of predominantly mid-19<sup>th</sup> century smallholdings to the south and west of Wyre Forest focussed on Callow Hill (including Gorst Hill, Bliss Gate and Cross Bank) and Buckridge (including Far Forest). This pattern evolved from the Parliamentary Enclosure of Buckridge & Alton Common in 1816 and the subsequent sub-division and reorganisation of fields over the next thirty years. The road pattern is post-medieval or earlier in origin. A distinctive pattern of smallholdings surrounds a small number of earlier isolated farmsteads, perhaps as early as medieval in origin. Some of the latter appear to be encroachment onto common land. Some Field Amalgamation in the 20<sup>th</sup> century surrounding these smallholdings has occurred, but the overall grain of landscape pattern survives largely intact. The modern expansion of settlement is mostly post-war and is focussed mainly along the Cleobury Mortimer to Bewdley road. This recent ribbon development contrasts with the earlier pattern of smallholdings. There are some surviving orchard, mostly cherry, in areas which was recorded on the 1st Edition OS mapping next to smallholdings with pre-1880's orchard. In the mid-19<sup>th</sup> century there was a significant increase in orchard plant to supply demand from Birmingham and the Black Country. This subsequently declines and many of the surviving orchards are unmanaged and in poor condition.

In the south of Rock parish, settlement is mostly post-medieval or earlier, being mainly dispersed isolated farmsteads, with the exceptions of Rock medieval nucleated row settlement, a handful of green-edge settlement and some post-medieval encroachment onto former common land. A moderate amount of infill and expansion has occurred since the 1843 Tithe map and the 1<sup>st</sup> Edition OS map (1:2500 County Series 1884). There are significant amounts of 20<sup>th</sup> century field amalgamation of former piecemeal enclosure (originally cleared from woodland) and planned enclosure. Some late re-planning of piecemeal enclosure appears to have taken place between 1843 and 1884 that has been amalgamated subsequently. Regenerated woodland is located along line of watercourses but the south of the parish was predominantly an area of orchard in late 19<sup>th</sup> century. At that time, there was an expansion of orchard, typically cherry as it was a useful cash crop, although these subsequently declined and in the present day the surviving orchards are gene really in an unmanaged and poor condition. The HLC mapping identified some boundaries of former medieval and/or post-medieval manors and landholdings that have potentially survived.

## Pilot study area B: Bromsgrove parish

The area chosen for pilot study area B was reduced in size from that originally proposed in the Worcestershire HLC Project Design (Historic Environment and Archaeology Service, 2006; p.18-19). The urban area of Bromsgrove comprises a large area of 20<sup>th</sup> century housing and industrial development around the medieval and post-medieval core of the old town. The latter lies at a height of between 95m and 80m OD in the valley of the Spadesbourne Brook, which runs from the Lickey Hills to the north-east of the town eventually joining the River Salwarpe to the southwest. The underlying geology consists of Triassic Bromsgrove Sandstone (Hereford and Worcester County Council, 1996).

### Bromsgrove's HLC Previous Character based on the 1840 Tithe map



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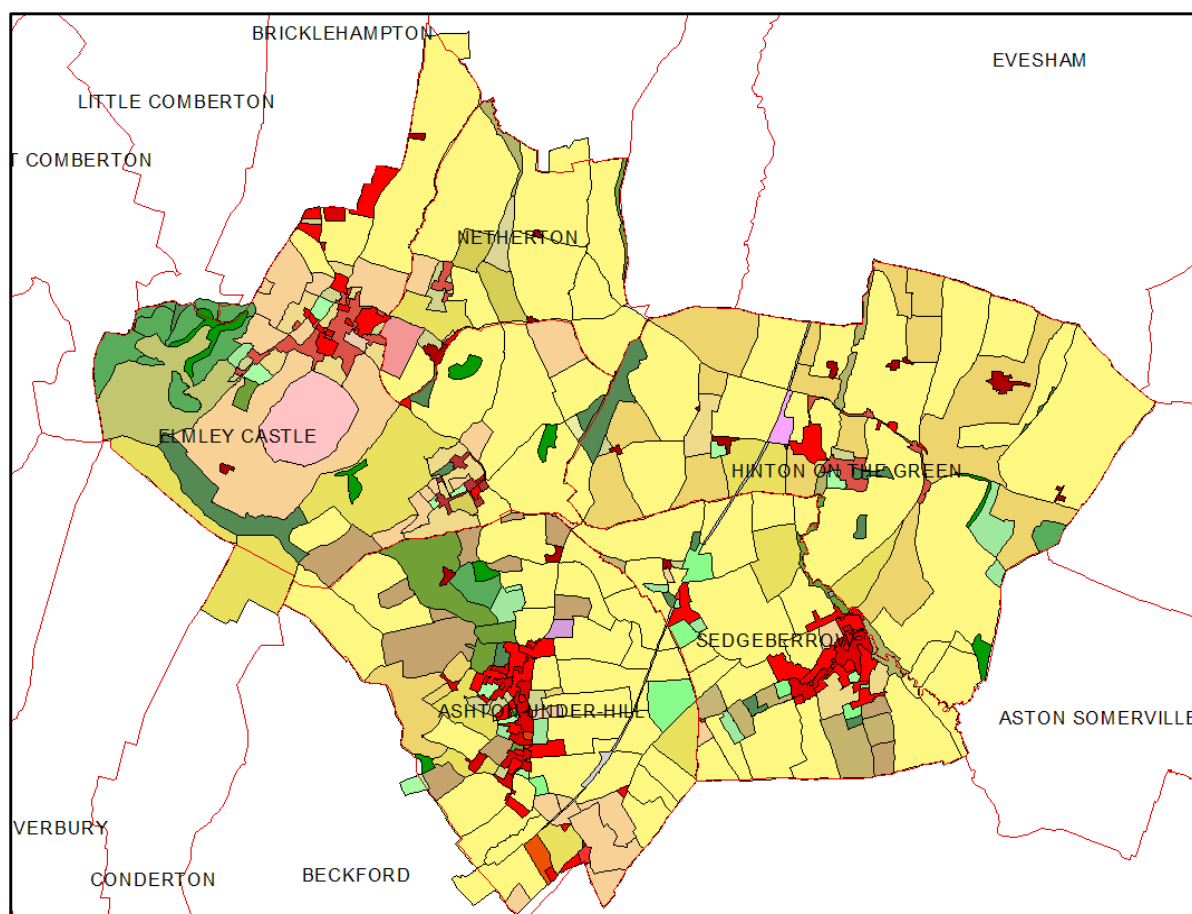
*Figure 28. Previous HLC Character of Bromsgrove based on the 1840 Tithe Map.*

The HLC Previous Character of Bromsgrove based on the 1840 Tithe Map (WR 6378/WR 6372 from WRO BA1572 X760/46) (Figure 28) documents field systems at that time consisting of mainly post-medieval piecemeal enclosure, possibly of the former medieval open field system. There are also possible areas of Parliamentary Enclosure, but this is tentative as the 1802 Parliamentary Enclosure map no longer survives and areas of meadow survive adjacent to watercourses. In 1840, Sidemoor village is still physically separated from Bromsgrove and the remaining settlement pattern is predominantly one of isolated farms and clusters of wayside dwellings.





15.3 **Pilot study area C: Ashton-under-Hill, Elmley Castle, Hinton-on-the-Green, Netherton & Sedgeberrow Parishes.**



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*Figure 31. The 5 parishes that comprise pilot study area C.*

Pilot study area C comprises the five parishes of Ashton-under-Hill, Elmley Castle, Hinton-on-the-Green, Netherton & Sedgeberrow (Figure 31). This section will focus particularly on Sedgeberrow parish, as its historic landscape character is largely representative of the historic landscape character in the remaining parishes within pilot study area C.



### Sedgeberrow's HLC Previous Character map, based on Medieval Open Strip Field Map of 1776.

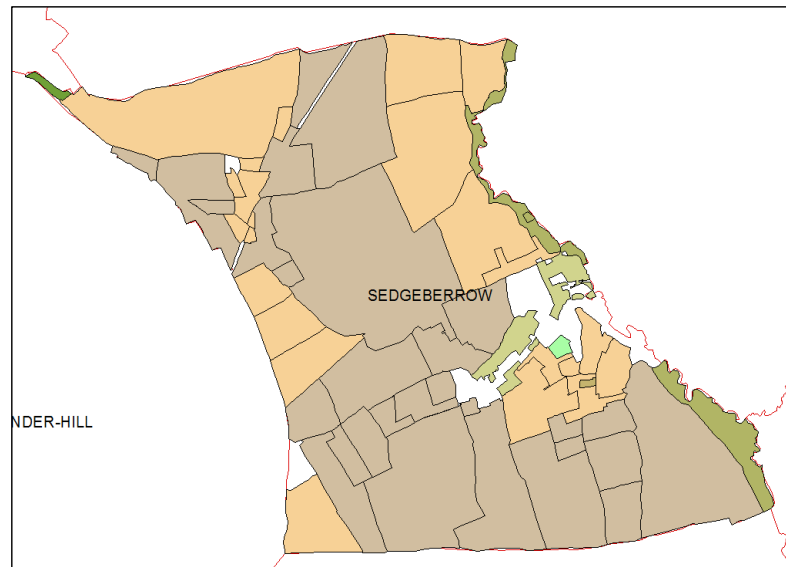
For pilot study area C the Worcestershire HLC had been presented the opportunity by the owner to view, record and assess the information on J. Snape's parish map of Sedgeberrow dated 1776 (Figure 32), which had recorded the parish's medieval open strip field system in considerable detail.



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Figure 32. Medieval Open Strip Field Map of Sedgeberrow dated 1776.

The HLC Previous Character mapping of Sedgeberrow based on Snape's 1776 medieval open strip field system map shows that, at the end of the 18<sup>th</sup> century, Sedgeberrow parish consisted of mostly medieval open fields surrounded by „old piecemeal enclosure“ (Figure 33). A strip of meadow land remains next to the River Isbourne and paddocks surround the nucleated village.

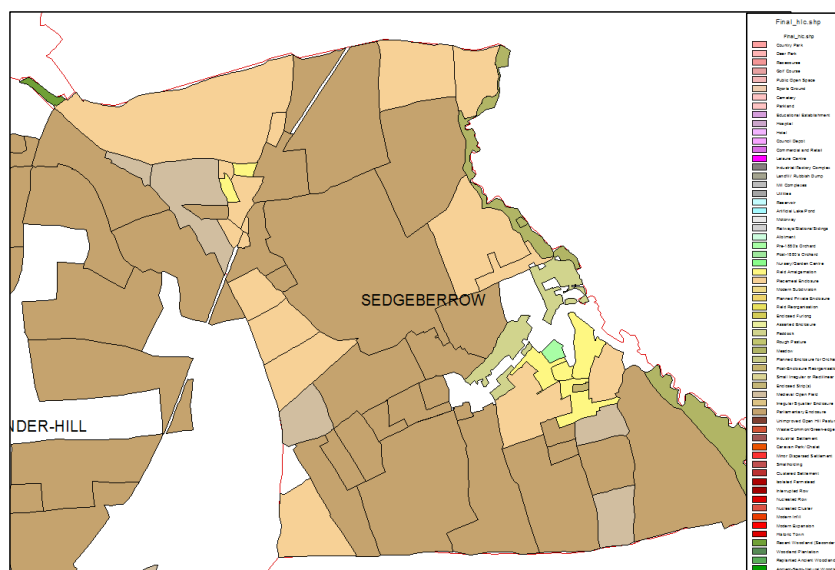


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Figure 33. Previous HLC mapping of Sedgeberrow parish based on Snape's Medieval Open Strip Field Map of 1776.

15.3.2 Previous HLC mapping of Sedgeberrow parish based on Inclosure mapping of 1813.

The HLC Previous Character of Sedgeberrow based on the Inclosure mapping of 1813 (WR 7433 BA345) (Figure 34) records the inclosure of the former medieval open fields under Act of Parliament. Between 1776 (Figure 33) and 1813 there has been only limited field amalgamation of the old „Piecemeal Enclosure“ fields and limited field amalgamation close to the nucleated village.

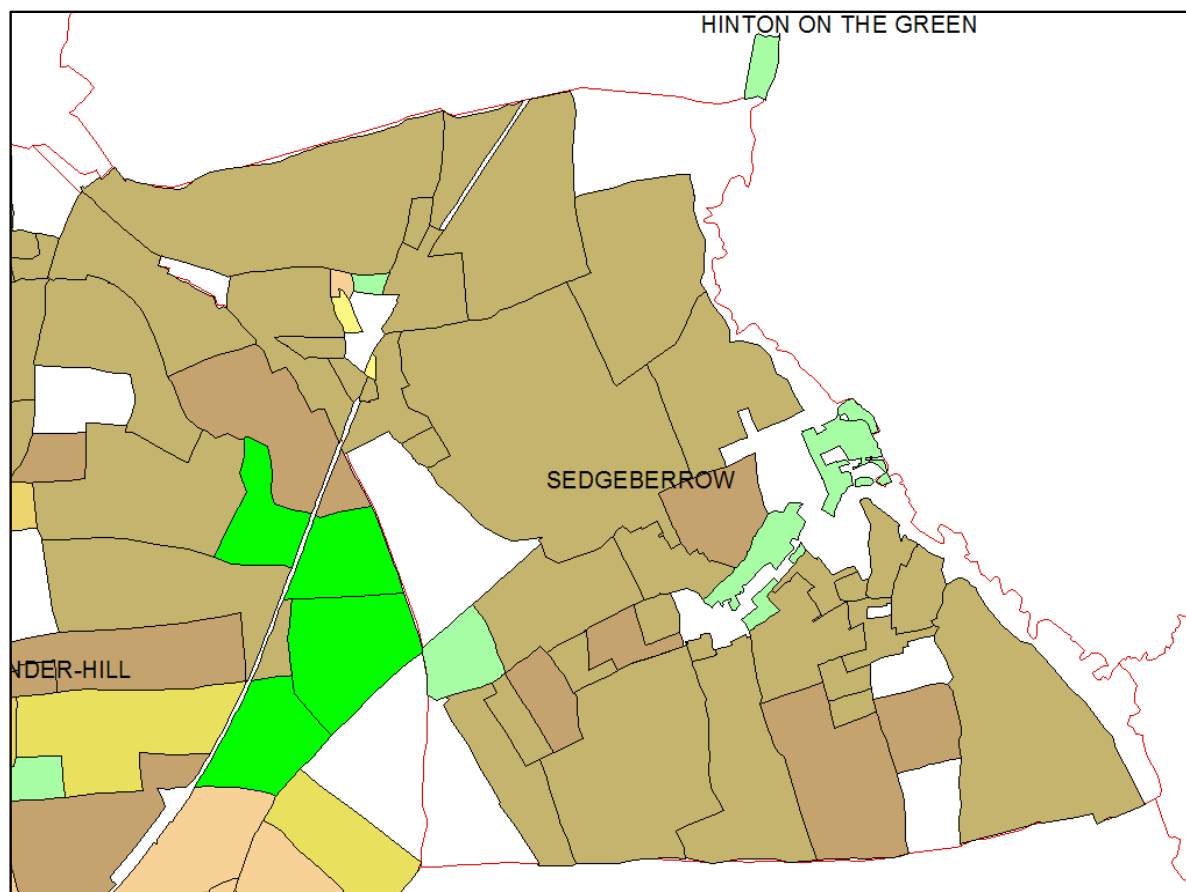


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Figure 34. Previous HLC mapping of Sedgeberrow parish based on Inclosure mapping of 1813.

15.3.3 **Sedgeberrow's HLC Previous Character based on the 1<sup>st</sup> edition OS map (1:2500 County Series c. 1891)**

Analysis of the 1<sup>st</sup> edition OS map (1:2500 County Series c. 1891), however, documents the landscape change that has taken place within pilot study area C in the 19<sup>th</sup> century (Figure 35). The field system by c.1891 is composed mainly of reorganised parliamentary enclosure fields around the still nucleated village, although some Parliamentary Enclosure Fields Survive. Orchards have now been planted in paddocks adjacent to the settlement.



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*Figure 35. HLC Previous Character based on the 1<sup>st</sup> edition OS map (1:2500 County Series c. 1891)*



## **Worcestershire HLC pilot study conclusion**

The Worcestershire HLC pilot study presented some interesting preliminary results, with the historic landscape characterisation mapping demonstrating the distinct and localised identities of the three pilot study areas. HLC has also recognised some common trends, such as the huge loss of field boundaries since the Second World War, and the growth of orchards between the 1840s and 1880s and their subsequent decline thereafter. It is envisaged that further analysis will reveal other subtle landscape patterns and changes not readily recognisable, especially when used in conjunction with other sources.

By the end of 2010, the completed Worcestershire Historic Landscape Character Assessment will be able to contribute to the management of the historical identity of places in the County. It is anticipated that the final HLC report will include a series of management recommendations for each HLC type and character area, with a guide to their sensitivities to and capacities for change, including what would constitute appropriate and/or inappropriate development and land management.

HLC provides an accessible platform for assessing sensitivities to and capacities for change in the human dimension of landscape. With increasing frequency, HLC is being used as one of the main evidential sources in Historic Environment Characterisation projects that are informing long-term planning for management and conservation of the historic environment, with particular regards to assessing Housing Growth Points, the creation of Local Development Frameworks and feeding into planning policy.

It is hoped that the completed HLC will provide a significant tool for land managers, advisors and policy makers and for those individuals or groups who are simply interested in furthering understanding the development of the historic landscape.

16.

**APPENDIX C Malvern Hills Area of Outstanding Natural Beauty (AONB) HLC**

## Summary

This document is a preliminary analysis for the Historic Landscape Characterisation (HLC) project of that part of the Malvern Hills Area of Outstanding Natural Beauty (AONB) (<http://www.malvernhillsaonb.org.uk/>) that falls within the administrative boundary of Worcestershire. The Worcestershire HLC is being carried out by the Worcestershire Archive and Archaeology Service of the Culture, Commissioning and Community Directorate, Worcestershire County Council (WCC).

The Worcestershire HLC project collates data from mapping, its analysis and interpretation, and results are presented via the final report and digital media (Worcestershire Archive and Archaeology Service, 2006). This interim report aims to provide preliminary results for the historic landscape characterisation of the Malvern Hills AONB in the context of the Landscape Character Assessment (LCA) Landscape Description Units (LDUs). A wider analysis of the Malvern Hills area will be presented in the final Worcestershire HLC report upon completion of the project in 2010.

The County's entire landscape is divided into parcels of land (polygons) that share similarities through time. Information sources include physiographic data, modern maps, historic maps, aerial photographs, the Worcestershire Historic Environment Record (HER), Landscape Character Assessments and habitat mapping data, building a picture of how places have developed over time and identifying how the past is present in today's landscape. The collated data sets are analysed through a framework of 11 historic landscape character Broad Groups (Appendix 1). Landscape attributes are ascribed to these Broad Groups, which are further subdivided into 95 Historic Landscape Character types, and in this way the landscape is defined and mapped as individual polygons in a seamless map layer using Worcestershire County Council's Geographic Information System (GIS), ESRI's Arcview. Information for each polygon is entered into a Historic Landscape Character database, recording not only the current historic landscape character for an area, but also up to three previous historic landscape characters. The succession of landscape characters enables assessment and analysis of both past and present landscapes and provides visual, dynamic mapping that demonstrates landscape change. The HLC methodology provides a means by which the landscape's historic origin and evolution can be better understood.

The application of Historic Landscape Characterisation of the Malvern Hills AONB has produced some interesting results, many of which underline the diverse nature and complex evolution of Worcestershire's landscapes, even within relatively discrete areas:

- The HLC charts the increase of fruit, hop and walnut orcharding to an industrial scale in the middle years of the 19<sup>th</sup> century within the County in the Malvern Hills AONB, and the subsequent decline of orchards around the time of the Second World War;

- Since the 1950s, there has also been also a notable increase in secondary woodland on the flanks and upper slopes of the Malvern Hills;
- In the industrial period of the 19<sup>th</sup> century, there was significant establishment and expansion of settlements along the Malvern Hills eastern and western slopes;
- The HLC also records the lack of expansion onto the common land and greens east of the Malvern Hills following Acts of Parliament to halt post-medieval encroachment from both settlement and field systems;
- The large-scale changes following the 19<sup>th</sup> century Acts of Enclosure on the eastern side of the AONB, from a post-medieval period landscape composed of both piecemeal enclosure and planned private enclosure to a more regularised and sub-divided pattern of parliamentary fields.

Further detailed analysis of the GIS spatial mapping and database entries will identify more subtle patterns in historic landscape change, which may be understood through additional research.

This approach has many applications but its greatest potential is as a powerful and flexible tool to manage and enhance Worcestershire's historic landscape character. The County's historic environment resource is rich, complex and irreplaceable, and the historic landscape provides a highly visible record of millennia of agriculture, industry, and commerce forming an integral part of people's daily lives. The overall resource is central to modern life with a strong influence on people's sense of identity and civic pride.

As a fundamental aspect of the County's environmental infrastructure, the historic landscape has a major role to play in Worcestershire's and the Malvern Hills AONB future. The historic landscape is sensitive to change and needs to be properly understood before change is planned, to ensure its effective management and enhancement, so that it can make its full contribution in shaping sustainable communities.



## 16.2 **3. The Malvern Hills AONB HLC**

### 16.2.1 **Introduction**

At the request of the Malvern Hills AONB authority, the following HLC analysis for Worcestershire's part of the AONB is presented with particular reference to the boundaries of the twenty-five LCA LDUs of which the County's part of the AONB is comprised. In this format, it is envisaged that the HLC description will ultimately form part of character guidelines for the AONB. The guidelines will be derived mainly from LCA LDU and HLC data, but may also incorporate data from other sources such as the English Heritage/RDA funded Historic Farmstead Characterisation project.

### 16.2.2 **Potential bias in the HLC assessment**

The process of HLC inherently takes a wider view of the historic landscape, identifying and characterising broader patterns of landscape change. In providing an HLC assessment of the Malvern Hills AONB based upon the LCA LDUs, some of which are very small in area, there are cautionary factors that should be noted.

The Malvern Hills AONB boundary is an administrative construct. To assess the historic landscape characterisation within this administrative area without reference to the countryside outside the AONB boundary whose HLC has yet to be completed (the end of 2010), is therefore somewhat problematic. In providing an HLC description of such discreet LDUs, it is possible that the resulting narrative will not reflect the wider historic landscape trends of the immediate surrounding landscape, parish and area. The following HLC descriptions, therefore, should be regarded as preliminary assessments and only with the completion of the Worcestershire HLC project will a fuller analysis be available, which potentially may result in some amendment of the following interpretations.

### 16.2.3 **Historic Landscape Character time periods**

The HLC images in the following analysis show the historic landscape characterisation through a number of time periods:

- The current HLC as seen today, characterised using the OS 1:25,000 and 1:10,000 scale mapping, 2005 vertical aerial photographic layer, and reflecting changes which occurred since the Second World War;
- The period post-1914 to 1945, characterised using the 5<sup>th</sup> Edition OS 1:10,560 scale map (AD1954-1963), and through comparison with the 1<sup>st</sup> edition OS mapping;
- The „Industrial“ period (AD1800-1913), characterised using the 1<sup>st</sup> Edition OS 1:2500 scale series (AD1884-1889) and 1:10,560 scale series

(AD1843-1893), and through comparison with the AD1812 Ordnance Survey Drawing;

- The „post-medieval“ period, characterised using the 2 inch to the mile Great Malvern Ordnance Survey Drawing (1812) (OSD216), as well as documentary evidence;
- The „medieval“ period, characterised using evidence on the 2 inch to the mile Great Malvern Ordnance Survey Drawing (AD1812) (OSD216) that suggests an earlier landscape (e.g. common land and open hill pasture), as well as documentary evidence;
- In addition, there is also provision in the HLC for landscape characterisation which pertains to the Roman (BC43 - AD409), Post Roman (AD410 - AD1065), Iron Age (BC800 - BC42), Bronze Age (BC2350 - BC801), Neolithic (BC4000 - BC2351), Mesolithic (BC 10000 - BC 4001) and Palaeolithic (BC500000 - BC10001) periods. In this Worcestershire HLC analysis of the Malvern Hills AONB, the only landscape feature that falls within these periods is British Camp, the Iron Age (BC800 - BC42) hillfort on Herefordshire Beacon.

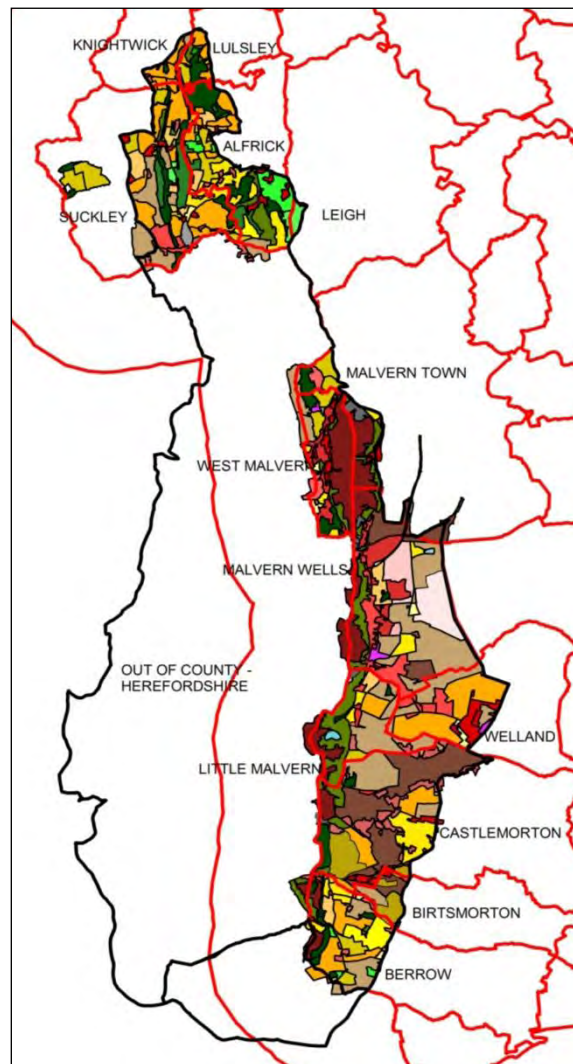
It should be noted that the map sources used by the HLC only provide surveyed mapping from AD1812 for which a period dating confidence rating of „certain“ can be attributed to any polygon. Any HLC polygon that has a previous character date prior to AD1812 has been given a „probable“ or „possible“ period dating confidence rating, unless evidence exists to provide accurate dating, in which case a „certain“ confidence rating is given. For example, documentary evidence records the history of Little Malvern Priory from AD1171- AD1537, and the morphological evidence from British Camp’s earthworks indicates an Iron Age hillfort. In the absence of other documentary evidence, the confidence rating of „probable“ has been given to the previous historic landscape characters of polygons identified as Post-Medieval (AD1540 - AD1799), whose dating has been derived from the 2 inch AD1812 OS Drawings.

#### 16.2.4 **3.4 Historic Landscape Character analysis**

The following HLC analysis is in the form of HLC statements with specific reference to the individual Malvern Hills AONB LCA LDUs. Jane Patton, Conservation and Landscape Officer at Worcestershire County Council, has kindly provided revised LCA LDU descriptions for the Malvern Hills AONB. Only included in this HLC report are those LDUs from the Malvern Hills AONB that pertain to Worcestershire in whole or in part. The County LCA LDU number is provided for each LDU description and the County LDU numbers are used in the HLC illustrations throughout.

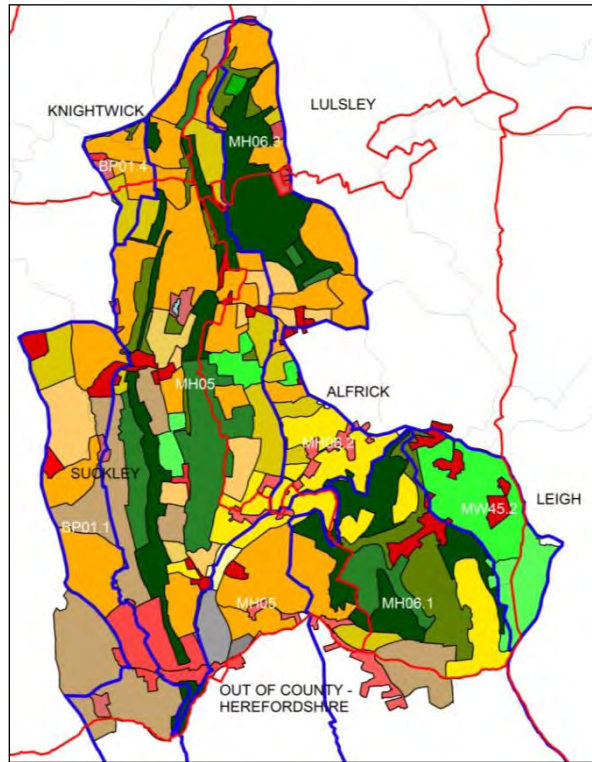
To assist interpretation of the following Malvern Hills AONB HLC mapping, an A3 page fold-out colour legend is provided at Appendix 3 of Historic Landscape Character Types that were identified for the Malvern Hills AONB. Before reading the following analysis, open Appendix 6 out fully to access the HLC Type legend.

The Malvern Hills AONB has been presented below in four areas. The areas have no significance other than to provide a clear visual presentation of the HLC data for a geographically large area.



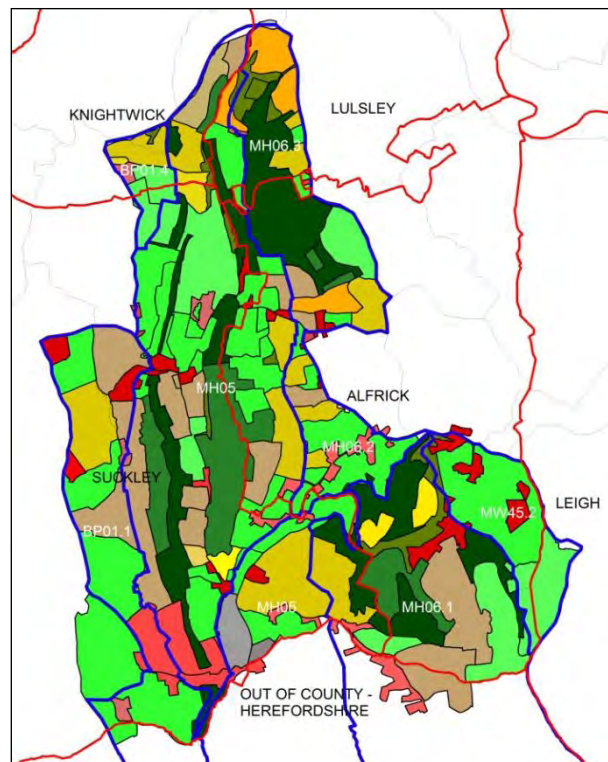
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*Figure 5. Mapping of the Worcestershire HLC for the Malvern Hills AONB (black outline), with parish boundaries in red.*



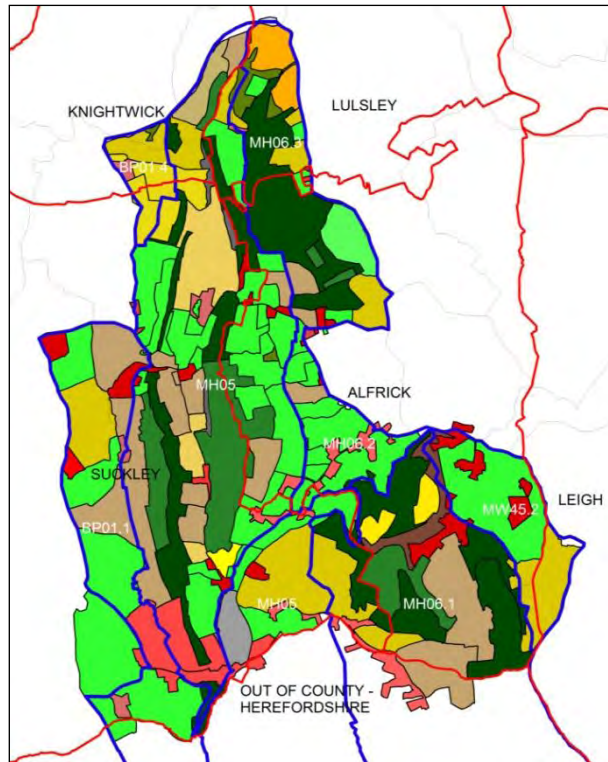
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*Figure 6. Current HLC for Malvern Hills AONB area 1 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



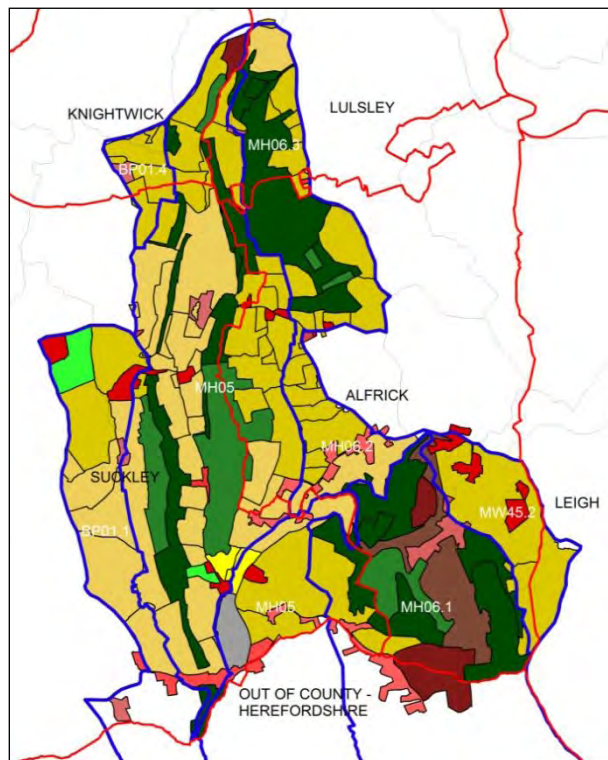
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*Figure 7. Post-1914 to 1945 period HLC for Malvern Hills AONB area 1 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



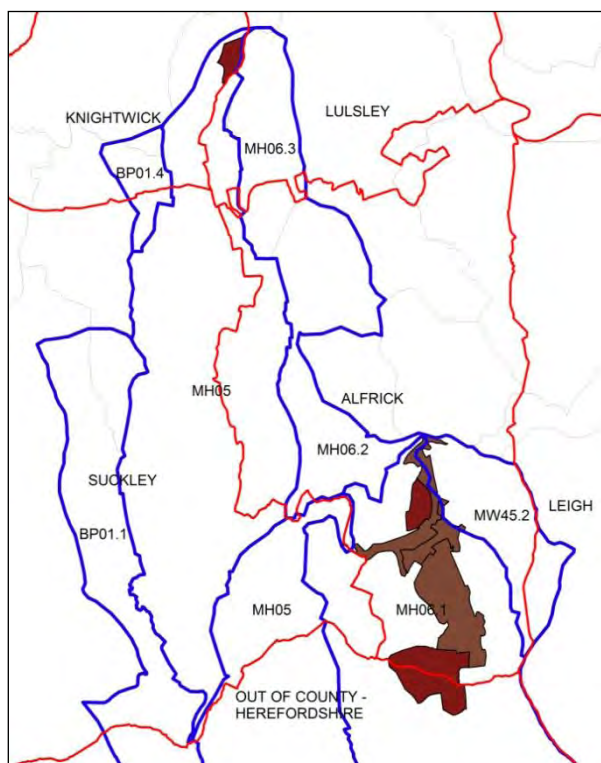
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*Figure 8. Industrial HLC period for Malvern Hills AONB area 1 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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Figure 9. Post-medieval period HLC for Malvern Hills AONB area 1 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.



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Figure 10. Medieval period HLC for Malvern

(County LDU no. MH06.3 [Worcs], part MH06.2 [Worcs])

An area of steeply sloping hills and ridges, of mixed shales and sandstones, with poorly drained gleyed soils. The land use is pastoral and the tree cover comprises interlocking, or frequent, usually large, discrete blocks of ancient woodland. The settlement pattern is one of scattered farmsteads and rural dwellings associated with a piecemeal enclosure pattern.

- pasture farming and forestry
- hazel prominent in hedgerows

**Condition:**

- mix of high and low intensity farming
- loss of organic field pattern
- woodland cover well represented but few hedgerow trees
- neglected boundaries

**Historic Landscape Characterisation:**

A much-changed landscape in which four main characteristics dominate:

- Significant field amalgamation, much of which has occurred since the Second World War, prior to which the field pattern was dominated by post-medieval piecemeal enclosure, though this may in fact be an example of private planned enclosure, a similar field pattern resulting from private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries.
- Fields of rough pasture, many of which represent the site of former orchards that were extant until after the Second World War. Numerous orchards appeared between Alfrick and Alfrick Pound in the late 19<sup>th</sup> century, producing various kinds of fruits, including apples, pears, plums, damsons, other soft fruit, cherries and apples (for cider production), as well as hops (Scott, 2002: p.77). These key crops were then transported to destinations such as Worcester market and Birmingham, and as far away as Yorkshire and Lancashire (Pitt, 1969: p148-9). In 1812, mapping shows little evidence of industrial scale orcharding, being restricted to providing farms" and cottage smallholders" own needs. Field names on the Lulsley 1839 tithe map suggest that orchards existed at that time. By the 1880s the orchards have reached their zenith, then contracting in the first half of the 20<sup>th</sup> century and virtually disappearing in the current historic landscape character.
- A mix of ancient semi-natural woodland, replanted ancient woodland, woodland plantation and recent secondary woodland. Ravenshill Wood, Ravenhill Wood and The Warren cover a large part of the area, and the ancient semi-natural woodlands and replanted ancient woodlands have been ascribed a date of around AD1600 (pers comm. Rose Parker).

However, some of the woodlands may well date to the medieval period. At Ravenshill Wood, the ridge and furrow cultivation therein is evidence of historical boundary changes between woodland and cultivated land, the cultivation of marginal lands possibly a response to population increase in the medieval period (Bowden, 2005: p.42). The Warren in particular appears to have undergone changes, with Monks Brockhill moving from ancient semi-natural woodland in the post-medieval, orchard in the industrial period, secondary woodland in the first half of the 20<sup>th</sup> century to woodland plantation in the current landscape.

- The settlement pattern in this LDU suggests a dispersed pattern of farmsteads and cottages indicative of medieval woodland and common land encroachment (Bowden, 2005: p.40; Mindykowski and Bretherton, 2003: p.8). Ravenshill Wood is bordered with dispersed farms with mostly pasture and some arable fields, and there is dispersed roadside settlement (Mindykowski and Bretherton, 2003: p.9). Alfrick Pound is an interrupted row strung out along Stocks Road whose general pattern appears unchanged since the post-medieval period.

#### 16.2.6 **MH05 Suckley Hills Principal Wooded Hills**

(County LDU no. part MH05 [Worcs])

An area of steeply undulating hills and ridges, of mixed shales and limestones, with free draining base rich soils. The land use is pastoral and the tree cover comprises interlocking, or frequent, usually large, discrete blocks of ancient woodland. The settlement pattern is one of scattered farmsteads and rural dwellings associated with a piecemeal enclosure pattern.

- strong identity of different building material at a localised scale
- mixed species hedgerows
- localised oast houses

#### **Condition:**

- good woodland representation on higher slopes, substantial loss elsewhere
- presence of conifer blocks in ancient woodland sites throughout the area reduces visual unity of the inherent character through the impact of their form in an otherwise broadleaved pattern
- generally pasture land use of low to moderate intensity with a mostly intact field pattern declining in places
- modern residential development has localised impact with fences replacing hedges and gardens and orchards adding a suburban character
- locally poor age structure of hedgerow trees



### Historic Landscape Characterisation:

A mixed historic landscape pattern, with the blocks of ancient woodland that form the Suckley Hills but agricultural land that has undergone significant changes:

- Field amalgamation, much of which has occurred since the end of the Second World War, and which were the site of former orchards that were extant during the 19<sup>th</sup> century and the first half of the 20<sup>th</sup> century. In 1812, the OS map shows little evidence in the post-medieval landscape of industrial-scale orcharding, orchards being restricted to providing estates", farms" and cottage smallholders" own needs. Field names on the 1841 Alfrick and 1839 Suckley tithe maps suggest that many orchards and hopyards existed at that time. Numerous orchards appeared in the mid-late 19<sup>th</sup> century, producing various kinds of fruits, including apples, pears, plums, damsons, other soft fruit, cherries and apples (for cider production), as well as hops (Scott, 2002: p.77). These key crops were then transported to destinations such as Worcester market and Birmingham, and as far away as Yorkshire and Lancashire (Pitt, 1969: p148-9). In the first half of the 20<sup>th</sup> century, the extent of orchards has increased since the 19<sup>th</sup> century, but these have virtually disappeared in the current historic landscape character;
- In the post-medieval period, there appears to have been a landscape of both piecemeal enclosure and private planned enclosure, the latter resulting from private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. Much of this pattern is no longer extant, though several private planned enclosure fields remain intact around Duggans House and Basten Hall. The private planned enclosure pattern is strongly associated with large farms/estate houses such as Hall House, Blackhouse, Baston Hall, Crews Court, Duggan"s House and Upper Tundridge House, many of which date to the early 17<sup>th</sup> century and possibly earlier manorial estates (Page, 1924: p.354-361);
- A mix of ancient semi-natural woodland, replanted ancient woodland, and recent secondary woodland make up the Suckley Hills. The ancient semi-natural woodlands and replanted ancient woodlands have been ascribed a date of around AD1600 (pers comm. Rose Parker). Many of the woodlands" place names on the 1839 Suckley and 1841 Alfrick tithe maps relate to coppicing;
- The post-medieval nucleated row settlement of Longley Green increased in size in the industrial period, but its historic core remains essentially unchanged. The main settlement features within the LDU are the number of farms dating to the post-medieval period that survive to the present day. Many of these structures have listed building status: the Hall House was a manorial estate in 1647 that resulted from the granting in 1544 of an estate at Suckley to Thomas Hall (and John Fox) that, since the 14<sup>th</sup> century, had belonged to the priory of Little Malvern (Page, 1971: p.357): Baston Hall (LBS 151389) dates to c. AD1620: Lower Tundridge farmhouse (LBS Number: 151376). Dates to c. AD1650: Crews Court (LBS 151373) (shown on the OS map as Blackhouse Farmhouse), Duggans House and The Cottage (LBS No 151385) similarly date to the early 17<sup>th</sup> century: Upper Tundridge House (LBS 151388) (and shown on OS map as Upper Tundridge Farmhouse) is an early 19<sup>th</sup> century building sited on an earlier house (Listed Buildings Online, 2009; Page, 1924).



(County LDU no. part MW40.2 [Worcs], part MW45.2 [Worcs])

An area of intermediate, undulating topography, derived from a soft rock mixture of mudstones and sandstones, with free draining, brown soils. The land use is predominantly pastoral with a settlement pattern of farmsteads and wayside dwellings associated with a moderate to high level of dispersal and a small to medium scale field pattern. The tree cover comprises relic patches of ancient woodland often in association with densely scattered hedgerow oaks and streamside tree cover.

- sunken winding lanes
- high density dispersal notably of wayside cottages of brick and timber creating a small scale landscape
- wooded streams
- local derelict traditional orchards – damson and cherry
- notable hedgerow tree cover
- primarily pasture farming

**Condition:**

- pasture of low intensity with an intact field pattern
- neglected boundaries
- good representation of tree cover
- shift to bush orchards
- good wildlife corridors
- good age structure of hedgerow and stream side trees

**Historic Landscape Characterisation:**

- Recent aerial photography shows that the LDU is currently dominated by orchards and hop and fruit production, interspersed with pasture. This reflects a historic orchard industry, producing various kinds of fruits, including apples, pears, plums, damsons, other soft fruit, cherries and apples (for cider production), as well as hops (Scott, 2002: p.77; Page, 1924: p.101-111). The fruit was then transported to destinations such as Worcester market and Birmingham, and as far away as Yorkshire and Lancashire (Pitt, 1969: p148-9). In 1812, a landscape of piecemeal enclosure suggests little evidence of industrial scale orcharding, these being restricted to providing farms' and cottage smallholders' own needs. However, by 1841 Field names on the Alfrick tithe map suggest that orchards existed at that time. By the 1880s the orchards have increased in area, reaching their zenith in the first half of the 20<sup>th</sup> century.

- A mix of ancient semi-natural woodland, replanted ancient woodland, woodland plantation and recent secondary woodland. Ravenshill Wood, Ravenhill Wood and The Warren cover a large part of the area, and the ancient semi-natural woodlands and replanted ancient woodlands have been ascribed a date of around AD1600 (pers comm. Rose Parker). However, some of the woodlands may well date to the medieval period. At Ravenshill Wood, the ridge and furrow cultivation therein is evidence of historical boundary changes between woodland and cultivated land, the cultivation of marginal lands possibly a response to population increase in the medieval period (Bowden, 2005: p.42). The Warren in particular appears to have undergone changes, with Monks Brockhill moving from ancient semi-natural woodland in the post-medieval, orchard in the industrial period, secondary woodland in the first half of the 20<sup>th</sup> century to woodland plantation in the current landscape.
- The cluster of dispersed roadside farms and cottages that forms the hamlet of Stinchin's Hill in this LDU represents a subtle settlement pattern which was already mostly established by the end of the post-medieval period.

#### 16.2.8 **MH06.1 Storrige Principal Wooded Hills**

(County LDU no. part MH06.1 [Worcs], part MV-WHW-01 [Heref])

An area of steeply sloping hills and ridges, of mixed shales and sandstones, with poorly drained gleyed soils. The land use is pastoral and the tree cover comprises interlocking, or frequent, usually large, discrete blocks of ancient woodland. The settlement pattern is one of scattered farmsteads and rural dwellings associated with a piecemeal enclosure pattern.

- localised orchards along lower eastern margins
- strong identity of different building material at a localised scale - white-washed at Storrige, red brick elsewhere
- mixed species hedgerows
- hazel prominent in hedgerows
- area of two adjacent enclosed former commons (Old Storrige Common and Birchwood), with moderate dispersal of wayside cottages, smaller scale fields and notable dense tree cover, creates locally distinctive sub-area
- pasture farming with forestry land use

#### **Condition:**

- very good woodland representation, although some woodland cover has been lost
- localised moderate impact of forestry planting on ancient woodland sites

- generally pasture land use of low to moderate intensity with a mostly intact field pattern, declining in places
- the distinctive character of the Birchwood and Old Storrige Common area is becoming diluted by infill development
- boundaries often neglected with consequent loss of hedgerow trees

### Historic Landscape Characterisation:

- A mixed historic landscape, whose dominant current historic landscape character is a mix of ancient semi-natural woodland, replanted ancient woodland, and recent secondary woodland. The ancient semi-natural woodlands and replanted ancient woodlands have been ascribed a date of around AD1600 (pers comm. Rose Parker). Many of the woodlands' place names both currently and on the 1839 Suckley and 1841 Alfrick tithe maps relate to coppicing and indicated woodland management. At Coneygore Coppice, there is evidence of quarrying, the small size and isolated nature of which suggests a medieval date (Bowden, 2005: p.44). Coneygore Coppice was previously part of medieval Old Storrige Common, and was turned to warren in the late medieval or early post-medieval, becoming woodland in turn (Mindykowski and Bretherton, 2003: p.8).
- By the end of the post-medieval period, the 1812 OS Drawing shows that the woodland flanking Old Storrige Common, of which Coneygore Coppice forms part, was extant. In the historic landscape, however, between the medieval period and up to the industrial period, it was Old Storrige Common that formed the larger part of this LDU (Figure 11). In the industrial period the common was enclosed as part of the Acts of Inclosure, though then appears to have been set over to plantation woodland until the middle of the 20<sup>th</sup> century.

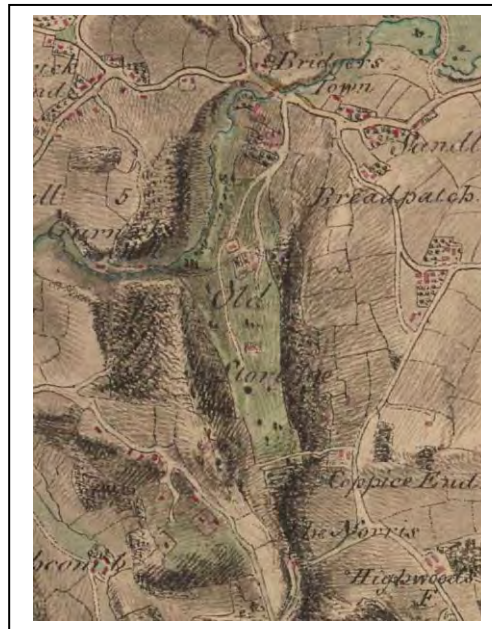


Figure 11. Old Storrige Common as surveyed in 1812 (OSD216 Great Malvern).

- The fields of 19<sup>th</sup> century parliamentary enclosure immediately east of Birchwood at The Beck, which reaches nearly 600 feet, appear to have been an enclosed area of open hill pasture in the post-medieval.

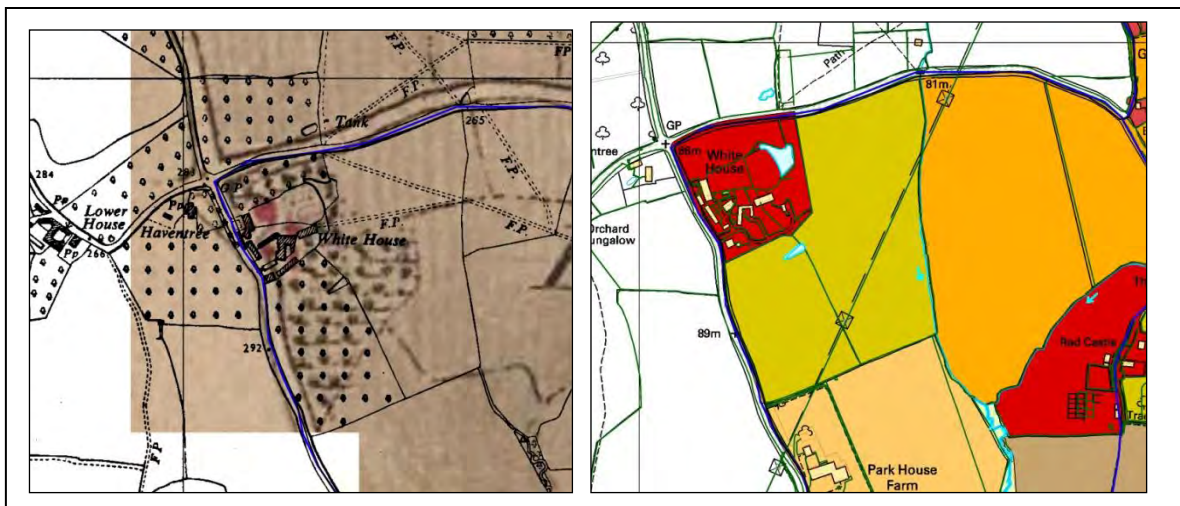
- Bowden (2005: p.40) observes that a dispersed pattern of discreet farmsteads and isolated cottages, such as at Old Storrige (Coneygore) may be indicative of woodland and common land encroachment and the 1812 OS Drawing would appear to corroborate this, showing the common settlement of Old Storrige Common.

(County LDU no. BP01.1)

### Historic Landscape Characterisation:

The LDU extends from White House to Rough Leasow, and encompasses land directly east of Suckley village.

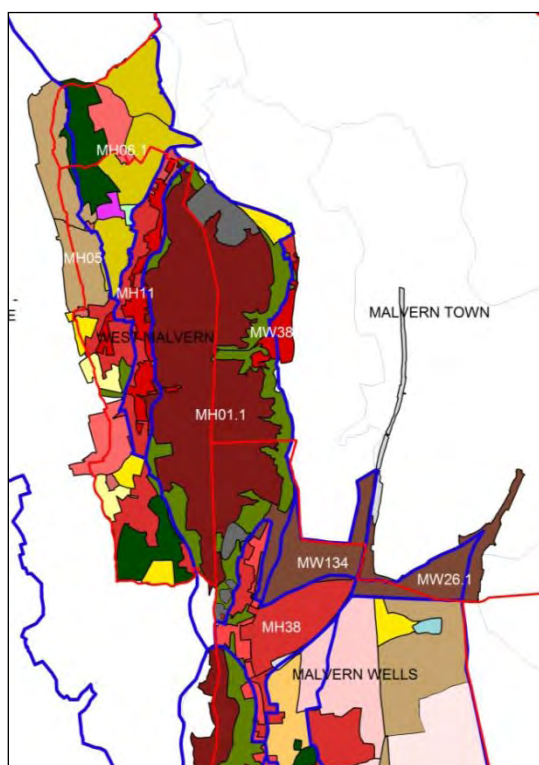
- Fields of rough pasture mix with arable fields in the current landscape, some fields being the remains of parliamentary enclosure in the 19<sup>th</sup> century but most having undergone amalgamation or sub-division following the Second World War. However, much of this land was under fruit orchards from the 19<sup>th</sup> century until after the Second World War, although only one patch of hops appear to remain around Park House Farm now remain. Numerous orchards appeared throughout the area in the late 19<sup>th</sup> century, producing various kinds of fruits, including apples, pears, plums, damsons, other soft fruit, cherries and apples (for cider production), as well as hops (Scott, 2002: p.77). These key crops were then transported to destinations such as Worcester market and Birmingham, and as far away as Yorkshire and Lancashire (Pitt, 1969: p148-9). In 1812, mapping shows little evidence of industrial scale orcharding, being restricted to providing farms" and cottage smallholders" own needs. Field names on the Suckley 1839 tithe map suggest that fruit orchards and hop yards existed at that time. By the 1880s the orchards have expanded and continue through the first half of the 20<sup>th</sup> century. At The White House, the adjacent post-medieval orchard remained until after the Second World War mostly unchanged, though the orchard no longer exists (Figure 12).



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*Figure 12. (Left) The White House orchard as surveyed on the 1812 OS Drawing, with the 5<sup>th</sup> Edition (1954-1963) OS map overlaid, though the orchard has now been destroyed. (Right) The current HLC mapping.*

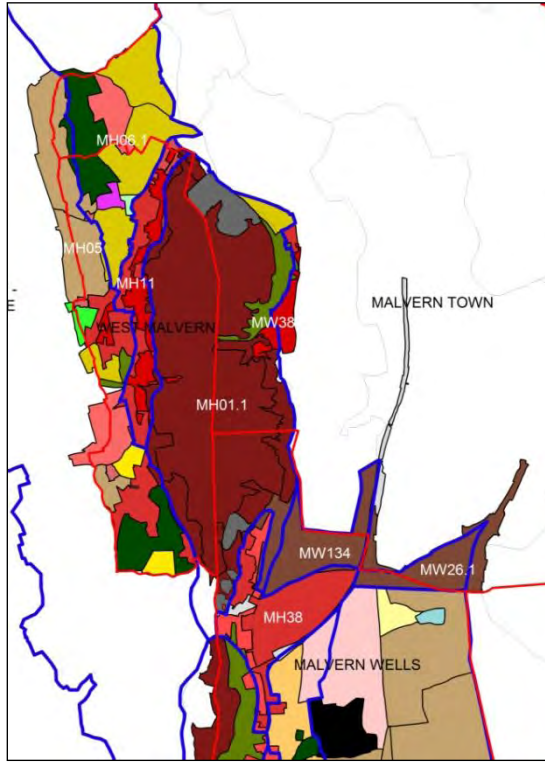
- No longer visible in the current historic landscape character, the post-medieval landscape in this LDU appears to have consisted of mainly private planned enclosure, resulting from private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries, along with some piecemeal enclosure. The private planned enclosure pattern is strongly associated with large farms/estate houses such as the early 18<sup>th</sup> century The White House (LBS No 151384), Upper Court (LBS 151382) and Hall House, and this is reflected in the proximity of these farms to the blocks of private planned enclosure.
- The historic settlement pattern has remained mostly unchanged since the 19<sup>th</sup> century, consisting primarily of a number of isolated but significant farmhouses, most of which date to the post-medieval. Hall House was a manorial estate in 1647 that resulted from the granting in 1544 of an estate at Suckley to Thomas Hall (and John Fox) that, since the 14<sup>th</sup> century, had belonged to the priory of Little Malvern (Page, 1971: p.357). The White House (LBS No 151384) dates to the early 18<sup>th</sup> century, and just falling outside this LDU is sited Lower Court, now a farm-house but formerly a manor belonging to the Coke family (Page, 1924: p.354-361). To the south Rough Leasow (LBS 151393) also dates to the 17<sup>th</sup> century.



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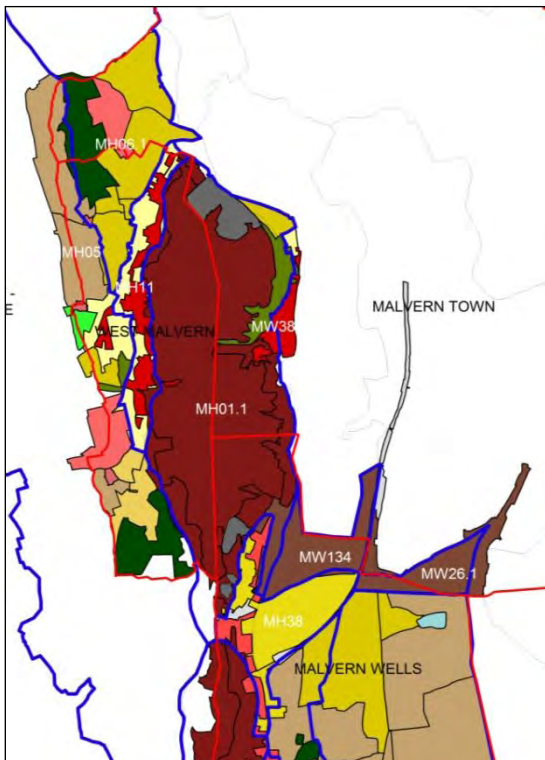
*Figure 13. Current HLC for Malvern Hills AONB area 2 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*





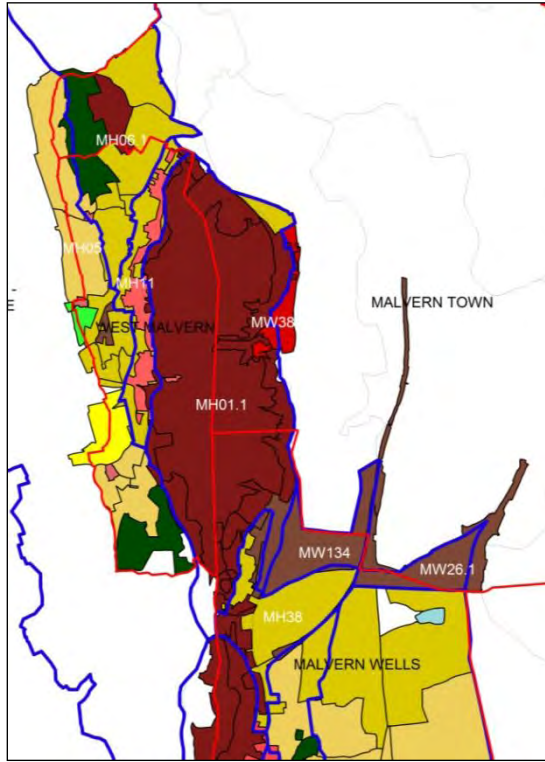
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*Figure 14. Post-1914 to 1945 period HLC for Malvern Hills AONB area 2 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



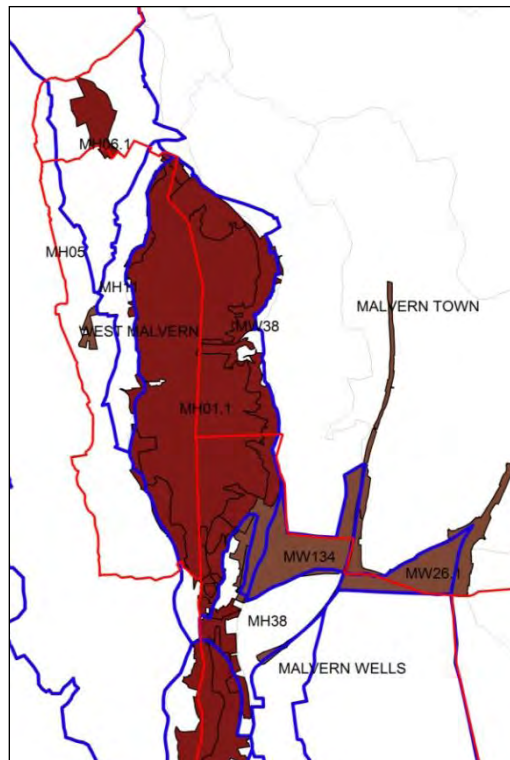
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*Figure 15. Industrial period HLC for Malvern Hills AONB area 2 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 16. Post-medieval period HLC for Malvern Hills AONB area 2 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 17. Medieval period HLC for Malvern Hills AONB area 2 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*

(County LDU no. part MH05 [Worcs], part MV-WHW-02 [Heref])

An area of steeply undulating hills and ridges, of mixed shales and limestones, with free draining base rich soils. The land use is pastoral and the tree cover comprises interlocking, or frequent, usually large, discrete blocks of ancient woodland. The settlement pattern is one of scattered farmsteads and rural dwellings associated with a piecemeal enclosure pattern.

- contains part of the urban area of West Malvern
- localised unenclosed common (Bearswood)
- strong identity of different building material at a localised scale
- mixed species hedgerows
- localised oast houses

Jubilee Drive, a Victorian carriage drive with its associated big houses and ornamental tree planting introduces a designed element along the eastern boundary

#### **Condition:**

- good woodland representation although there has been loss in places
- presence of conifer blocks in ancient woodland sites throughout the area reduces visual unity of the inherent character through the impact of their form in an otherwise broadleaved pattern
- generally pasture land use of low to moderate intensity with a mostly intact field pattern, declining in places
- modern residential development has localised impact
- locally poor age structure of hedgerow trees
- □ scrub encroachment on unenclosed common

#### **Historic Landscape Characterisation:**

The LDU encompasses a large area along the western flanks of the Malvern Hills:

- The current historic landscape character reflects 19<sup>th</sup> century parliamentary enclosure, sandwiched between Six-acre Wood and High Wood and associated with Cowleigh Gate Farm, Croft Farm and Birches Farm: the significant expansion in the first half of the 20<sup>th</sup> century of West Malvern village: the creation of Mathon Park some time shortly after AD1812: and the remains of ancient semi-natural woodland Park Wood which, along with nearby Park Farm, pre-date nearby 19<sup>th</sup> century Mathon Park and potentially suggest the former site of a medieval park.
- In the 19<sup>th</sup> century West Malvern village is greatly contracted, its historic core limited mainly to roadside dwellings, but in the post-medieval period West Malvern is an interrupted row settlement, consisting of a handful of

isolated cottages. In the post-medieval the land later to become Mathon Court (LBS151505) and Mathon Park appears to be predominantly meadow land, with the land around Park Farm being blocks of private planned enclosure.

16.2.11 **MH01.1 Malvern Hills North High Hills & Slopes**

(County LDU no. part MH01.1 [Worcs], part MV-MLS-01 [Heref])

This is an unenclosed, steeply sloping landscape of highland character with shallow, impoverished soils over igneous rock where roughly grazed, acid grassland and heath dominate. The landscape has a large scale, open and exposed spatial character with panoramic views. The area is unsettled with the only signs of human habitation concentrated along the few roads. Woodland is not characteristic

- ornamental planting and conifers on the east slope are a legacy of Victorian development
- localised earthwork of Shire Ditch
- disused quarries are a significant feature
- locally distinctive leisure features associated with the Victorian/Edwardian eras: carriage drives, footpath networks, style of seating, wells associated with spring water, clock tower at North Hill
- this is the most prominent part of the Malvern Hills range with Worcestershire Beacon the highest point at 425m. AOD

**Condition:**

- gradual colonisation of disused quarries by vegetation
- reduction in grazing has led to a significant encroachment of scrub and secondary woodland, particularly on the eastern slopes above Great Malvern
- impact of visitor pressure, visually in terms of human presence and in associated features – car parks, hard surfaced pathways and steps on upper slopes
- erosion of pathways and vegetation cover due to visitor pressure

**Historic Landscape Characterisation:**

The LDU is dominated by four main historic landscape features:

- Unimproved open hill pasture of the Malvern Hills uplands, which has probably remained unchanged since the medieval period, though possibly even earlier;
- A notable amount of secondary woodland which appears to have developed since the Second World War and encroached upon the flanks

of the hills. From the industrial period the woodland was restricted to the area directly above Great Malvern.

- The remains of quarrying amongst which are Tank Quarry, North Malvern Quarries, Earnslaw Quarry and Wyche Quarry. Tank Quarry and North Malvern Quarries date to the industrial period (c.AD1872) and were still working until the 1960s and run by the Pyx Granite Co Ltd for the extraction of Malvern stone.
- Link Top, a small area of pasture that appears unchanged since the post-medieval.

#### 16.2.12 **MW26.1 Malvern Common East Unenclosed Commons**

(County LDU no. MW26.1 [Worcs])

An area of rolling lowland topography, derived from fluvio-glacial drift, with poorly draining soils and rough grazing. A large scale, unenclosed area of open common.

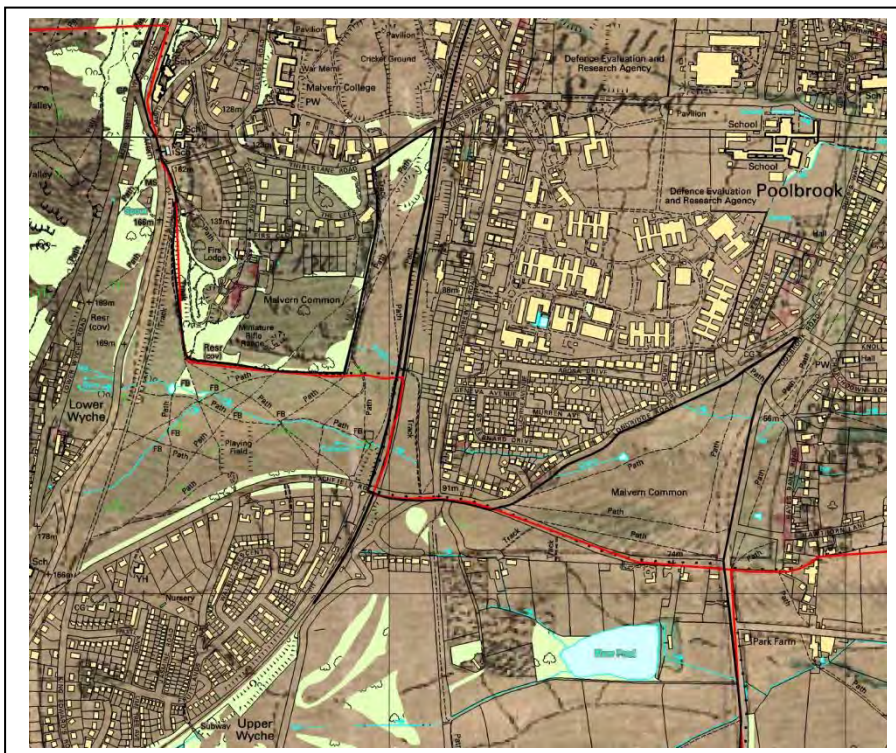
- grassland is managed by grazing and seasonal cutting
- localised scrub and damp grassland
- localised amenity planting
- localised wayside dwellings
- located on Malvern urban fringe

#### **Condition:**

- localised intrusion by neighbouring golf course
- some erosion evident from car parking
- heavily trodden paths
- degraded grassland

#### **Historic Landscape Characterisation:**

Although several new roads now cross the common in addition to the post-medieval road (B4208 Poolbrook Road), the historic landscape character of this part of Malvern Common has remained unchanged since the medieval period, and possibly earlier (Figure 18). The common is open land traditionally used for rough grazing, collecting fuel and for certain industries and can vary in form, from ribbon-like along a road, to vast areas of common land.



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*Figure 18. Malvern Common in 1812 (OSD216 Great Malvern) overlaid with the modern OS 1:10,000 map.*

#### 16.2.13 **MW134 Malvern Common West Unenclosed Commons**

(County LDU no. MW134 [Worcs])

An area of rolling lowland topography, derived from fluvio-glacial drift, with poorly draining soils and rough grazing. A large scale, unenclosed area of open common.

- grassland is managed by grazing and seasonal cutting
- localised scrub and damp grassland
- localised amenity planting
- localised wayside dwellings
- located on Malvern urban fringe

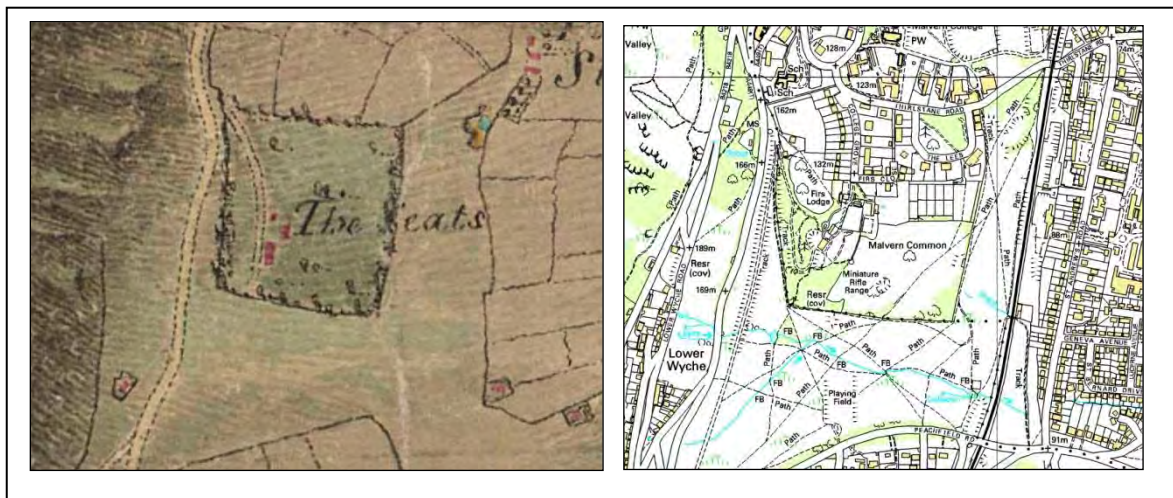
#### **Condition:**

- peripheral formal tree planting has introduced an urban element
- some scrub encroachment

- heavy recreational use has resulted in well trodden paths and some ground erosion
- degraded grassland

### Historic Landscape Characterisation:

Although several new roads now cross the common in addition to the post-medieval road (now the A449(T)), the historic landscape character of this part of Malvern Common has remained unchanged since the medieval period, and possibly earlier (Figure 18). The common is open land traditionally used for rough grazing, collecting fuel and for certain industries and can vary in form, from ribbon-like along a road, to vast areas of common land. The rectilinear hedged boundary to the north of the LDU relates to the encroachment onto the common, probably in the post-medieval period, of the apparently high status property and parkland known as The Seats in AD1812 (Figure 19), and may therefore be of some antiquity.



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Figure 19. Malvern Common and the post-medieval encroachment enclosure called 'The Seats' (left), with the modern OS 1:10,000 scale map (right). The boundary can still be clearly seen.

16.2.14 **MH11 Urban West Malvern**

(County LDU no. MW11 [Worcs])

**Historic Landscape Characterisation:**

The LDU is entirely related to the evolution of West Malvern, which expands from its origins as an interrupted row settlement in the post-medieval period, being a few isolated and scattered cottages along the B4232 West Malvern Road, surrounded by piecemeal enclosure. In the industrial period the village has expanded, infilling along the B4232 West Malvern Road to form its historic core. The piecemeal enclosure was sub-divided into paddocks in the late 19<sup>th</sup> century, and then covered by the village expansion in the first half of the 20<sup>th</sup> century.

16.2.15 **MH06.1 Storridge Principal Wooded Hills (south)**

(County LDU no. MW134 [Worcs])

**Historic Landscape Characterisation:**

The current historic landscape character of this LDU is mixed:

- Cowleigh Park, High Wood, the outdoor education centre, and blocks of what appears to be a mix of piecemeal enclosure and planned private enclosure whose boundaries have changed little since the post-medieval period. Private planned enclosure resulted from private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries, and morphologically shares some characteristics with parliamentary enclosure, though less formal. The private planned enclosure pattern is strongly associated with large farms/estate houses such as Cowleigh Park Farm, which dates to the 17<sup>th</sup> century, and the former medieval manor on the same site (Page, 1924: p.139-142). Cowleigh Park dates to AD1625 (Page, 1924: p.139-142).



*Figure 20. Post-medieval piecemeal enclosure and later road on the site of Outdoor Education Centre, West Malvern.*



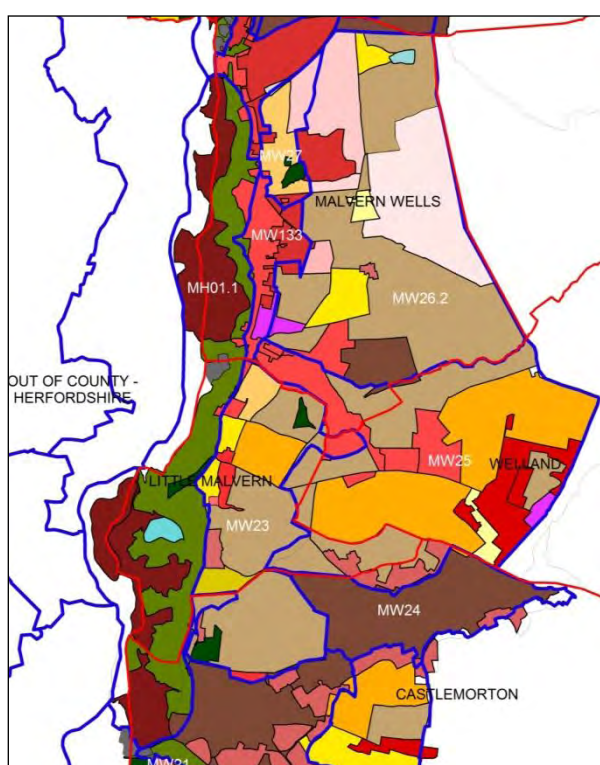
- The Outdoor Education Centre at West Malvern is based at the former site of the residential Open Air School, which was opened in 1914 and reflected a national movement to provide open-air education and hygiene management to sickly children, in the main from urban environments, for the restoration of their physical health. In the post-medieval and industrial period, however, the land was piecemeal enclosure that apparently pre-existed the post-medieval road, which now the centre's access road forms a small part of, which linked West Malvern with Lower Vinesend Farm (Vines End at that time) (Figure 20).

16.2.16 **MH38 Urban Malvern**

(County LDU no. MH38/MH27 [Worcs])

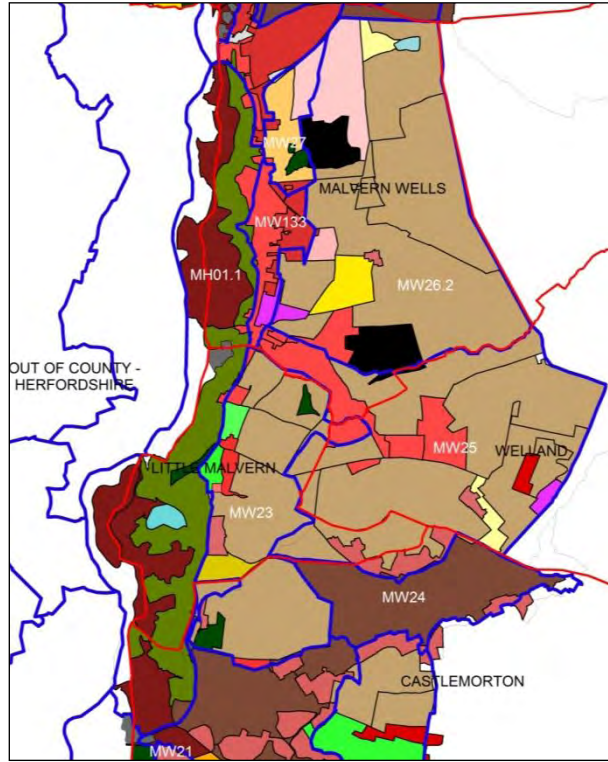
**Historic Landscape Characterisation:**

The current historic landscape character of the LDU is based upon phases of urban expansion of Wyche and Upper Wyche into agricultural land, firstly in the first half of the 20<sup>th</sup> century and then more significantly following the Second World War. Any evidence of the piecemeal enclosure that encroaches onto Malvern Common in the post-medieval period and the reorganisation of those fields in the industrial period are entirely absent, having since been built upon.



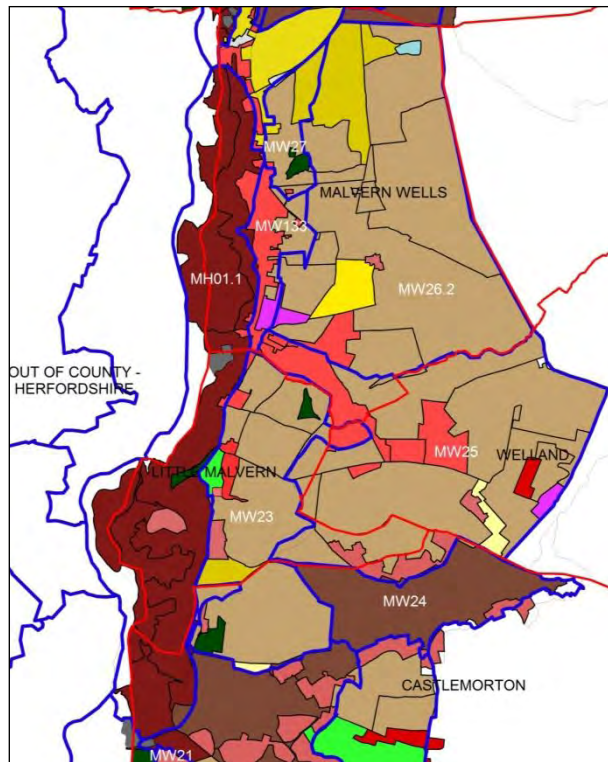
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*Figure 21. Current HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



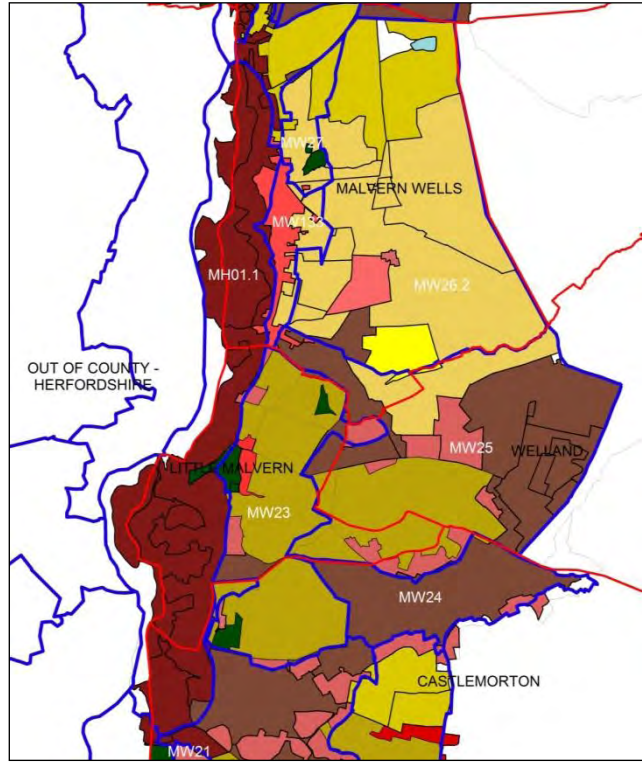
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*Figure 22. Post-1914 to 1945 period HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



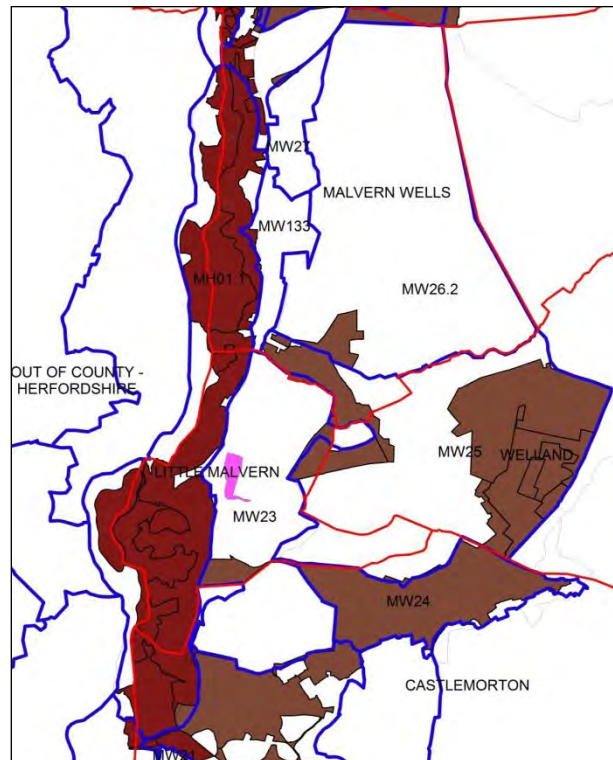
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*Figure 22. Industrial period HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



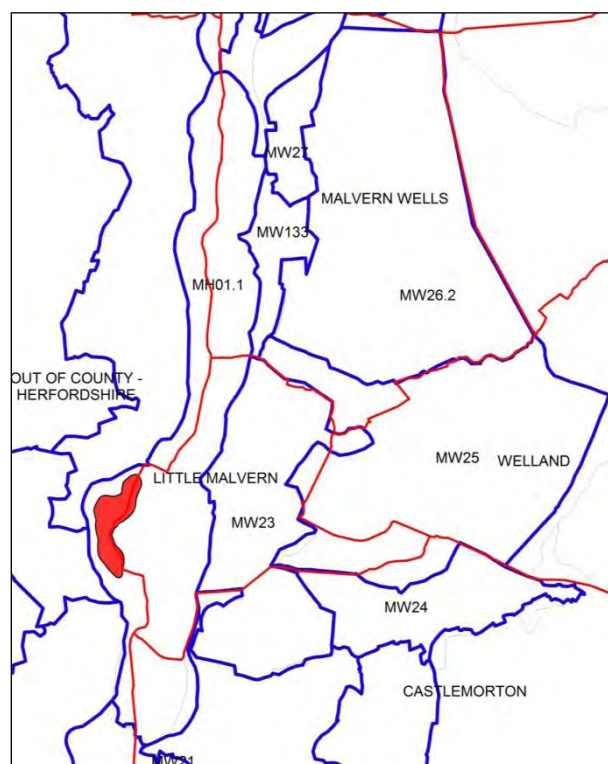
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*Figure 24. Post-medieval period HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 25. Medieval period HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 26. Iron Age period HLC for Malvern Hills AONB area 3 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*

16.2.17 **MW26.2 Three Counties Showground Enclosed Commons**

(County LDU no. MW26.2 [Worcs])

A landscape of very similar character to the Sandstone Estatelands, with the same ordered pattern of large fields of regular outline, straight roads and estate plantations. It is an open, formal landscape with a visual clarity primarily defined by the straightness of the field boundaries, patterns that have arisen as a result of late enclosure from former waste and woodland.

- area of former common
- large scale in places due to field size
- predominately thorn hedges
- red brick building style

**Condition:**

- localised high impact in several places of urban residential development

- moderate intensity farming with field pattern becoming fragmented due to amenity land uses
- widespread moderate impact of amenity and non-agricultural land uses
- poor representation of tree cover

### Historic Landscape Characterisation:

- The current historic landscape character of the LDU reflects a mixture of urban expansion and public amenities of Malvern Wells, large-scale 19<sup>th</sup> century parliamentary enclosure, and the creation of the Three Counties Showground following the Second World War. The rectilinear field patterns are predominantly the result of the Acts of Enclosure in the 19<sup>th</sup> century. Prior to enclosure, in the post-medieval period, the landscape appears to have been one of some piecemeal enclosure but mostly that of private planned enclosure, the latter resulting from private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern is strongly associated with the two large farms identified within the LDU at that time, Brickbarns Farm and Wood Farm;
- The rough pasture land to the south-west of Brickbarns farm is interesting and reflects the creation of an area of post-medieval parkland and a long curving road/track, providing an ornamental ride/drive to the farm from the south via a road (now merely field boundaries) that joined the A449(T) road at what is now The Abbey (Figure 27). The shortest and most direct access to the farm then (and now) is actually the B4209 road to the north. This is perhaps an aspirational attempt to emulate the sort of ornamental parkland and access associated with large estates of the time, such as nearby Blackmore Park;



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*Figure 27. The Brickbarns Farm parkland and ornamental type drive in AD1812, perhaps an attempt to emulate the parkland of the gentry.*

- New Pool has remained virtually unchanged since the post-medieval period. Similarly, the boundary hedges around the L-shaped boundary

immediately to the left, represents the former perimeter of an unnamed block of woodland which was mapped in 1812 but which has been destroyed by the 1<sup>st</sup> edition OS map, and so may be of some antiquity;

- The site of two former Second World War US military hospitals are still visible as boundaries but the land has been reused: one (55<sup>th</sup> General Hospital) is now residential housing and part of Worcestershire Golf Club, whilst the other (96<sup>th</sup> General Hospital) is a nature reserve at Upper Welland.

#### 16.2.18 **MW25 Marlbank Enclosed Commons**

(County LDU no. part MW25 [Worcs])

An area of rolling lowland topography with poorly draining soils derived from fluvio-glacial drift. The settlement pattern is one of isolated red brick farms, associated with a geometric pattern of fields and roads. It is an area of pastoral land use with tree cover represented by thinly scattered hedgerow and stream side trees, together with groups of trees associated with settlement

- area of former common
- large scale in places due to field size
- predominately thorn hedges
- red brick building style

#### **Condition:**

- localised high impact in several places of urban residential development
- moderate intensity farming with field pattern becoming fragmented due to arable land uses
- poor representation of tree cover
- hedgerows over-managed and gappy

#### **Historic Landscape Characterisation:**

- The current historic landscape character is dominated by large areas of modern field amalgamation of 19<sup>th</sup> century parliamentary enclosure, surviving parliamentary enclosure and the expansion of settlements at Welland and Upper Welland that dates from the 19<sup>th</sup> century. However, the arc of farming settlement on the edge of Castlemorton Common, taking in Grounds Farm, Boulter's Farm, North Farm and Marlbrook Farm, has survived unchanged since the post-medieval period;
- In the industrial period of the 19<sup>th</sup> century, the loosely grouped isolated farmsteads around Welland and Upper Welland are subsumed by expanding settlement that then changes little prior to the Second World War, remaining entirely surrounded by parliamentary enclosure;

- The historic landscape character of the post-medieval period, however, shows a landscape which is in a state of flux. Large agricultural encroachment enclosures onto the common lands are fringed by numerous isolated farmsteads or smallholdings. The nucleated row settlement of Upper Welland has not yet expanded and the land upon which it will be built is common land. The encroachment block between Little Malvern and Welland appears to be composed of piecemeal enclosure, whereas to the north, the much larger encroachment appears to be planned private enclosure, the result of private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern is associated with two large farms nearby, Danemoor and Brickbarns.

16.2.19 **MW23 Little Malvern Enclosed Commons**

(County LDU no. MW23 [Worcs])

An area of fluvio-glacial drift with poorly draining soils and an intermediate, undulating topography. The land use is pastoral and is associated with isolated red brick farms, and a surveyor enclosed pattern of fields and roads. Tree cover is represented by thinly scattered hedgerow and streamside trees together with tree groups associated with settlement.

- area of former common
- geometric and regular field enclosure
- elm prominent in hedgerows

**Condition:**

- low intensity pasture farming with field pattern intact in southern third, more intensive arable farming has led to boundary and field pattern loss in the northern two thirds
- tree cover locally poorly represented
- woodland presence is uncharacteristic of landscape type and in the more wooded southern third this is a smaller scale, more intimate landscape than typical for this landscape type with a greater density of hedgerow trees

**Historic Landscape Characterisation:**

- The current historic landscape character is dominated by modern field amalgamation or sub-division of 19<sup>th</sup> century parliamentary enclosure, along with large blocks of surviving 19<sup>th</sup> century parliamentary enclosure. The dispersed settlement pattern of isolated farmsteads around Little Malvern remains virtually unchanged since the post-medieval period. Two small blocks of semi-natural ancient woodland survive, dating to the post-medieval period or possibly earlier;

- The historic landscape character of the post-medieval period, however, reveals a different landscape. Two large agricultural encroachment enclosures onto the common lands are dotted with isolated farmsteads or smallholdings. The encroachment blocks appear to be an organised field pattern of planned private enclosure, the result of private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern appears associated with the large farmsteads nearby: Dales Farm, Undermills Farm, The Court and North Farm. The encroachment enclosure between Shadybank Common and Castlemorton Common is still clearly visible in the modern historic landscape character.

16.2.20 **MH01.1 Malvern Hills Central High Hills & Slopes**

(County LDU no. part MH01.1 [Worcs], part MV-MLS-01 [Heref])

A steeply sloping highland ridge, of igneous rock, with shallow, impoverished soils. This unsettled, unwooded area is unenclosed, with a land use of rough grazing.

- ornamental planting and conifers on the east slope are a legacy of Victorian development
- localised earthworks: Shire Ditch and British Camp (Herefordshire Beacon) Iron age hillfort
- disused quarries
- locally distinctive leisure features associated with the Victorian/Edwardian eras: Jubilee Drive (carriage drive), footpath networks, style of seating, wells associated with spring water

**Condition:**

- conifer block with notable visual impact on west slope
- gradual colonisation of disused quarries by vegetation
- reduction in grazing has led to a significant encroachment of scrub and secondary woodland, particularly Hangman's Hill, in the vicinity of British Camp reservoir, Black Hill and the eastern slopes above Little Malvern and Malvern Wells
- impact of visitor pressure, visually in terms of human presence and in associated features – car parks, hard surfaced pathways and steps on upper slopes
- erosion of pathways and vegetation cover due to visitor pressure
- localised large body of water on the eastern side at British Camp reservoir



### **Historic Landscape Characterisation:**

The LDU is currently dominated by five main historic landscape character features:

- Unimproved open hill pasture of the Malvern Hills uplands, which has probably remained unchanged since the medieval period, though possibly even earlier;
- A notable amount of secondary woodland which appears to have developed since the beginning of the 20<sup>th</sup> century and encroached upon the flanks of the hills;
- The remains of quarrying for the extraction of Malvern stone that appears to date to the industrial period. However, a (now) disused quarry north-east of Gullet Quarry appears to have been worked in the post-medieval period, appearing as the only marked „quarry“ on the Malvern Hills on the 1812 OS Drawing;
- A block of semi-natural ancient woodland called The Grove that probably dates to the post-medieval period;
- The presence of a large reservoir. This is established in the first half of the 20<sup>th</sup> century, before which it was the site of an isolated smallholding or farmstead called Warren House, recorded on the 1<sup>st</sup> edition OS mapping and also marked, though unnamed, on the 1812 OS Drawing. Its name possibly suggests medieval origins.

#### 16.2.21 **MW24 Castlemorton Common Unenclosed Commons**

(County LDU no. MW24 [Worcs])

An area of fluvio-glacial drift with a rolling lowland topography, poorly draining soils and a land use of rough grazing. This is an unsettled, unwooded landscape.

- marked combination of extensive areas of rough grazing together with frequent enclosure of settlement – wayside cottages – notably around the perimeter
- small scale pastoral fields associated with settlement
- localised scrub, gorse and bracken
- large scale
- localised streams, pools and wet grassland
- localised tree cover along streams and associated with settlement

#### **Condition:**

- a lack of grazing is leading to scrub encroachment

### Historic Landscape Characterisation:

- The historic landscape character of this part of Castlemorton Common has remained essentially unchanged since the medieval period, and possibly earlier (Figure 28). The common is open land traditionally used for rough grazing, collecting fuel and for certain industries and can vary in form, from ribbon-like along a road, to vast areas of common land;



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*Figure 28. Castlemorton Common in 1812 (OSD216 Great Malvern) overlaid with the modern OS Mastermap.*

#### 16.2.22 MW133 Urban Malvern South

(County LDU no. MW133 [Worcs])

### Historic Landscape Characterisation:

This is a mainly urban LDU whose current historic landscape character is almost wholly one of settlement:

- The historic core of the village is a nucleated row settlement that was focused almost entirely to the west of the (A449(T)) road in the post-medieval period. Periods of expansion of the village occurred in the first half of the 20th century and then again following the Second World War, building upon fields of 19th century parliamentary enclosure. Prior to the Act of Enclosure, the historic landscape character of the post-medieval period suggests an organised field pattern of planned private enclosure, the result of private enclosure agreements between local landowners in the 17th to 19th centuries. The private planned enclosure pattern

appears associated with the large farmsteads of nearby Sherborne and Brickbarns Farm;

- The Abbey College, established in 1874, and most probably constructed on fields of 19th century parliamentary enclosure that the 1812 OS Drawing suggests had formerly been part of planned private enclosure dating to the post-medieval period.#

#### 16.2.23 **MW27 Malvern Wells Enclosed Commons**

(County LDU no. MW27 [Worcs])

A landscape of very similar character to the Sandstone Estatelands, with the same ordered pattern of large fields of regular outline, straight roads and estate plantations. It is an open, formal landscape with a visual clarity primarily defined by the straightness of the field boundaries, patterns that have arisen as a result of late enclosure from former waste and woodland.

- area of former common
- contains a substantial urban area : Malvern Wells
- prominent woodland
- localised bracken
- elm prominent in hedgerows

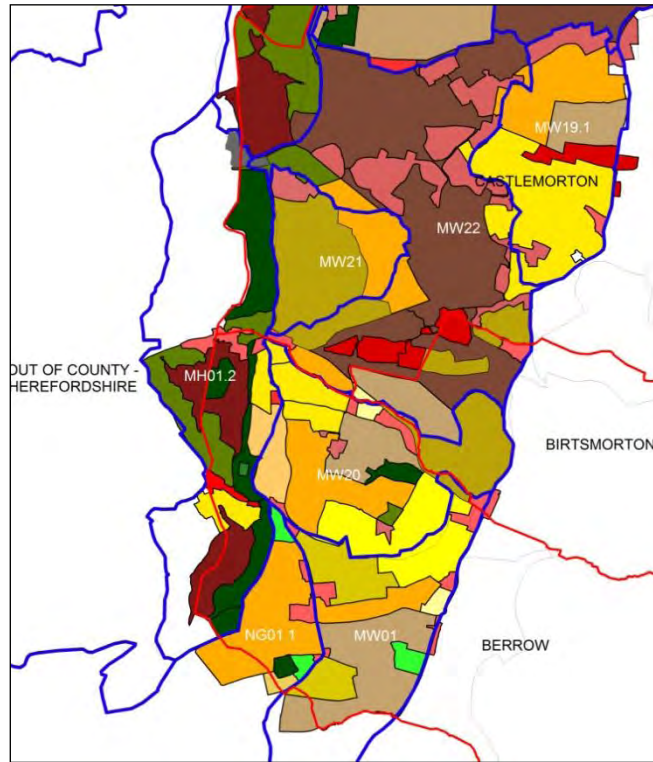
#### **Condition:**

- localised high impact in several places of urban residential development
- eastern part now occupied by golf course
- low intensity pasture farming
- loss of hedgerows and hedgerow trees

#### **Historic Landscape Characterisation:**

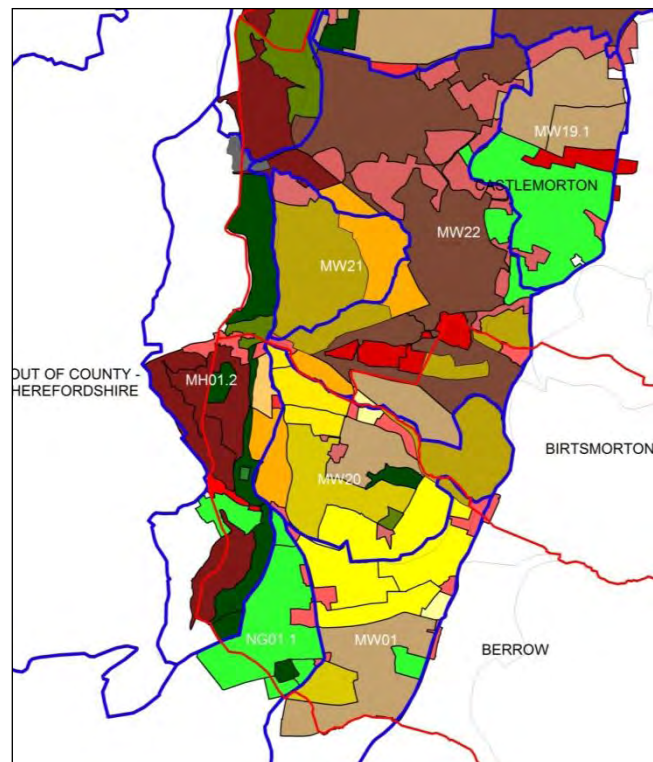
A small LDU whose main current historic landscape character is:

- the sub-division of fields that took place in the first half of the 20<sup>th</sup> century, dividing the previous parliamentary enclosure blocks of the 19<sup>th</sup> century. Prior to the Act of Enclosure, the historic landscape character of the post-medieval period suggests an organised field pattern of planned private enclosure, the result of private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern appears associated with the large farmsteads of nearby Sherborne and Wood Farm;
- The small block of semi-natural ancient woodland called Hornyold Wood, and formerly known as Admiral's Covert, which probably dates to the post-medieval period;



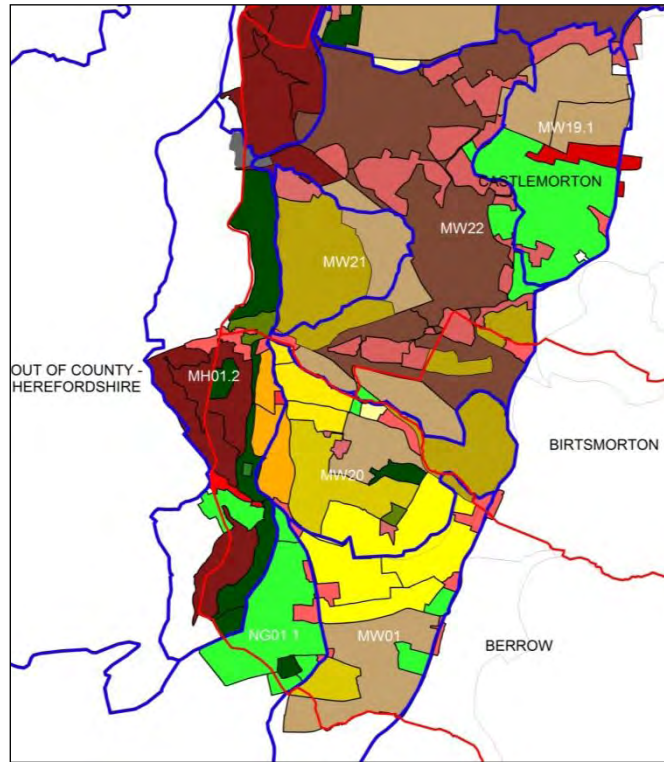
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*Figure 29. Current HLC for Malvern Hills AONB area 4 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



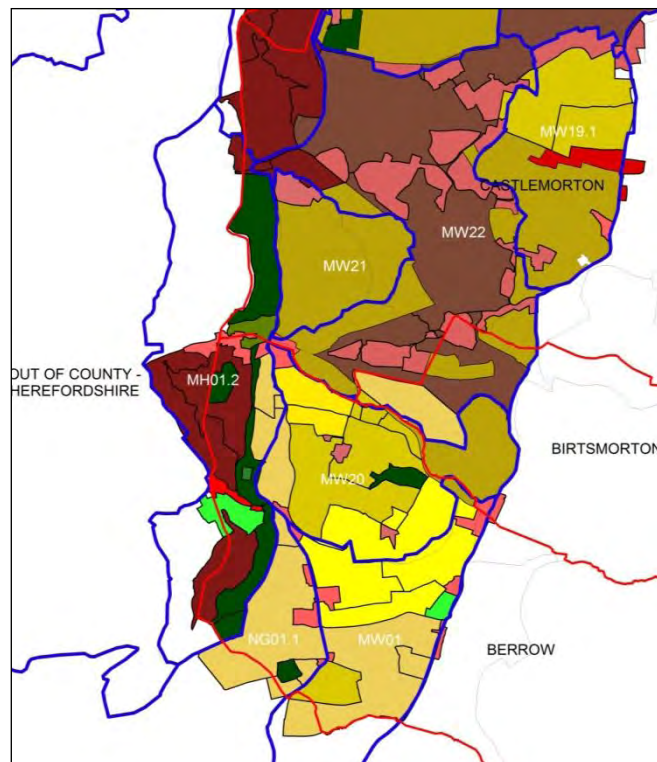
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*Figure 30. Post-1914 to 1945 period HLC for Malvern Hills AONB area 4 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



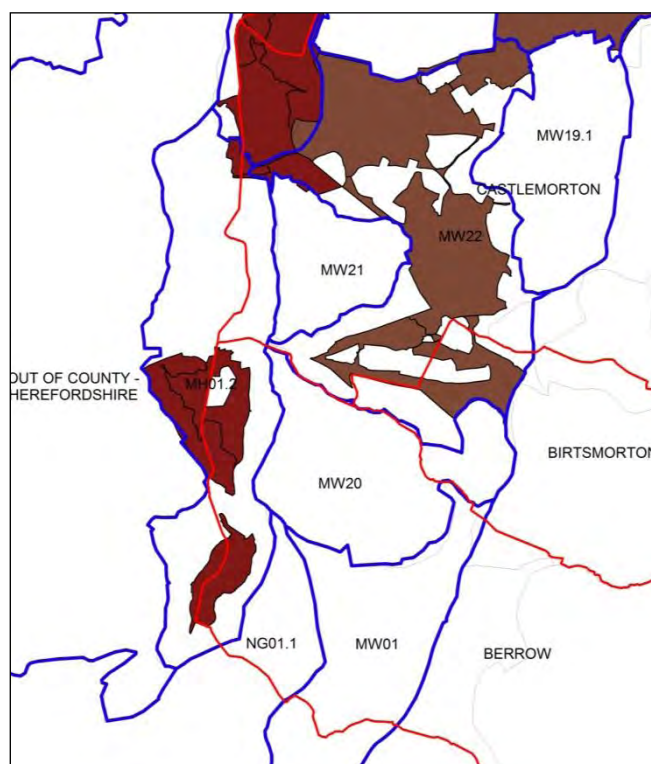
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*Figure 31. Post-1914 to 1945 period HLC for Malvern Hills AONB area 4 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 32. Post-medieval period HLC for Malvern Hills AONB area 4 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*



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*Figure 33. Medieval period HLC for Malvern Hills AONB area 4 with LCA LDUs. Parish boundaries are in red and LCA LDU boundaries in blue.*

#### 16.2.24 **MH01.2 Malvern Hills South High Hills & Slopes**

(County LDU no. MH01.2 [Worcs], part MV-MLS-01 [Heref])

This is an unenclosed, steeply sloping highland ridge of hard igneous rock, with shallow, impoverished soils where roughly grazed, acid grassland and heath dominate. The landscape has a large scale, open and exposed spatial character with panoramic views. The area is unsettled with the only signs of human habitation concentrated along the few roads. Woodland is not characteristic

- localised earthworks of Shire Ditch and Midsummer Hill Iron age hillfort
- disused quarries are a significant feature
- localised dwellings concentrated along roadsides in cuttings
- the exposed summits of the three lower hills of the range (Midsummer, Ragged Stone and Chase End Hills) are particularly visually prominent above the surrounding secondary woodland

**Condition:**

- partial enclosure of common land on lower slopes
- gradual colonisation of disused quarries by vegetation
- localised large bodies of water within quarries
- reduction in grazing has led to a significant encroachment of scrub and secondary woodland throughout, together with loss of botanical interest of grassland
- impact of visitor pressure, visually in terms of human presence and in associated features – car parks, hard surfaced pathways and steps on upper slopes
- erosion of pathways and vegetation cover due to visitor pressure
- neglected hedgerows

### **Historic Landscape Characterisation:**

A large LDU of which roughly half is within the Worcestershire county boundary. The LDU is currently dominated by five main historic landscape character features:

- Unimproved open hill pasture of the Malvern Hills uplands, including Chase End Hill, Ragged Stone Hill and Hollybush Hill, which has probably remained unchanged since the medieval period, though possibly even earlier;
- The small area of farming land within the LDU reflects the modern sub-division of land parcels which had themselves been amalgamated in the 19<sup>th</sup> century from the earlier post-medieval field pattern of private planned enclosure, which were private enclosure agreements that existed between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern appears associated with the large farmstead of nearby Whitehouse Farm. The irregular parcels of pasture immediately south of Whiteleaved Oak were, prior to the 19<sup>th</sup> century, orchards associated with the hamlet;
- Several blocks of semi-natural ancient woodland that probably dates to the post-medieval period: Hollybush Roughs, Ladywell Coppice, Winter Coombe, and New Covert. There is a notable amount of secondary woodland which appears to have developed since the 19<sup>th</sup> century and encroached upon the flanks of the hills. Recent secondary woodland on Ragged Stone Hill has developed since the Second World War;
- The remains of Gullet Quarry, worked for the extraction of granite used in road-making. The quarry appears to date from the 19<sup>th</sup> century and quarrying only ceased in 1977;
- The interrupted row settlement of Hollybush and nucleated cluster of Whiteleaved Oak hamlet, both which date to the post-medieval period. At Hollybush Roughs there is evidence of assarting and enclosure of the woodland (Mindykowski and Bretherton, 2003: p.8).

(County LDU no. part MW19.1 [Worcs])

A soft rock area of mudstones, with a low lying, gently rolling topography and poorly draining soils. The settlement pattern is one of farmsteads and wayside dwellings associated with a moderate to high level of dispersal and a small to medium scale of field pattern. This is an area of pastoral land use with tree cover comprising thinly scattered hedgerow and streamside trees, together with groups of trees around settlements.

- notably small scale
- pasture land use
- high density settlement
- localised small field ponds
- small orchards next to dwellings
- stream side trees notable in eastern half of area

**Condition:**

- neglected orchards
- localised poor condition hedges and loss of hedgerow trees
- localised impact of modern dwellings
- some loss of pasture to intensive agriculture

**Historic Landscape Characterisation:**

An interesting LDU whose current historic landscape character reflects diverse land usage:

- The area is dominated by a large area of rough pasture in small rectilinear and curvilinear paddocks between Hollybed Street, Chandler's Cross and Castlemorton. This field pattern is the remnant of a block of an orcharding industry that existed from the 19<sup>th</sup> century to after the Second World War. The 1812 2-inch OS Drawing clearly identifies The Bannut Tree in this same area (Figure 34). Bannut is another name for a walnut which, along with the late 16<sup>th</sup> century Walnut Tree Cottage (LBS 153184), and Bannut Tree House (LBS 153185) (aka Walnut Tree Farm), suggests that the orchards were producing walnuts. Prior to the (walnut) orchards, in the post-medieval period the piecemeal field pattern reflected encroachment enclosures onto Hollybed and Castlemorton Commons.





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*Figure 34. Common land encroachment enclosure with The Bannut Tree marked on the 1812 OS Drawing (left), and the creation of orchards on the encroachment enclosure by the 1880s (right).*

- Much of the field pattern in the current HLC results from field amalgamation following the Second World War of 19<sup>th</sup> century parliamentary enclosure, a small block of which still survives. However, prior to the Act of Enclosure, the LDU block was part of a post-medieval encroachment enclosure onto Castlemorton Common, with settlement around its periphery, and this event is still visible in the landscape, though the piecemeal field pattern had been replaced in the 19<sup>th</sup> century.
- The settlement pattern in the modern landscape reflects the post-medieval common land settlement that accompanied agricultural encroachment as detailed above, with Hollybed Street, Hunter's Hall and Fairfield. A large building and orchard on the site of Bannut Tree House (LBS 153185) (aka Walnut Tree Farm and, in the 1<sup>st</sup> Edition OS map Bannut Tree Farm) appears to have existed in 1812 (The Bannut Tree?) (Figure 34) and its location may represent a previous episode of common encroachment.

(County LDU no. MW22 [Worcs])

An area of intermediate, undulating topography with poorly draining soils derived from fluvio-glacial drift. This is an unsettled, unwooded landscape with a land use of rough grazing.

- marked combination of extensive areas of rough grazing together with frequent enclosure of settlement – wayside cottages – notably around the perimeter
- small scale pasture fields associated with settlement
- localised scrub, gorse and bracken
- large scale
- localised streams, pools and wet grassland

**Condition:**

- localised moderate impact of farm buildings (chicken houses)
- localised horse culture
- scrub encroachment due to insufficient grazing
- recreational pressure is creating trodden paths across the unimproved grassland

**Historic Landscape Characterisation:**

An extremely large area whose current historic landscape character has changed little since the post-medieval period, consisting of large tracts of intact common land and scattered encroachment settlement and enclosure:

- Castlemorton Common, Berrow Downs, Hollybed Common and Coombegreen Common are large contiguous areas of common land and the modern historic landscape character has probably remained fairly unchanged since the medieval period. An Act of Parliament in 1664 ensured that the remaining commons (at that time) were to remain open and free for use by everyone from lord to commoner. The common is open land traditionally used for rough grazing, collecting fuel and for certain industries and can vary in form, from ribbon-like along a road, to vast areas of common land.
- The current historic settlement pattern is effectively the post-medieval pattern of encroachment onto the common land. Such illegal settlement ate away at the commons but was accepted by the manorial family The Foleys because it provided rentable income. Wider concerns at this encroachment led to the passing of the first Malvern Hills Act in 1884, with the subsequent creation of the Malvern Hills Conservators.

- Also bordering Coombegreen Common to the north of Glenberrow hamlet, is a block of 19<sup>th</sup> century parliamentary enclosure that is visible in the modern historic landscape but which supplanted a regular and organised post-medieval field pattern of planned private enclosure. This earlier field pattern was the result of private enclosure agreements between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries and appears to be associated with the large White House Farm and Rye Court nearby.
- The arc of farming settlement on the edge of the commons, taking in Huntsbridge (Figure 35), Eight Oaks, Hollybed Street and the Golden Valley, has survived virtually unchanged since the post-medieval period, though some infill settlement in the area of The Golden Valley took place in the first half of the twentieth century.



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*Figure 35. A landscape frozen by Act of Parliament: post-medieval common edge settlement and encroachment enclosures at Huntsbridge as surveyed in 1812, alongside the modern OS Mastermap.*

#### 16.2.27 **MW21 Fairoaks Farm Principal Timbered Farmlands**

(County LDU no. MW21 [Worcs])

An area of intermediate, undulating topography, derived from a soft rock mixture of mudstones and sandstones, with free draining, brown soils. The land use is predominantly pastoral with a settlement pattern of farmsteads and wayside dwellings associated with a moderate to high level of dispersal and a small to medium scale field pattern. The tree cover comprises relic patches of ancient woodland often in association with densely scattered hedgerow oaks and streamside tree cover.

- low density dispersal of farmsteads
- located at the base of the Malvern Ridge

**Condition:**

- arable cultivation is intensifying with consequent field re-organisation
- some hedgerows in good condition but a substantial proportion have been lost in the eastern part
- good representation of stream side tree cover, lacking elsewhere
- woodland representation concentrated in one area

### **Historic Landscape Characterisation:**

The current historic landscape character of this LDU is focused on Fairoaks Farm and the land contiguous with it:

- Fairoaks Farm appears substantial on the 2 inch 1812 OS Drawing and the farm's cider mill dates from the 17<sup>th</sup> century. Around AD1825 the OS map suggests that the farm, once part of the Eastnor Estate, was re-sited as part of an architect-designed Victorian model farm, with the construction of a cow parlour, bull pen and standing stalls, built of hand-made bricks and decorative tiles. In 1886 Fairoaks Farm was producing „Ramping Taurus“ cider apples;
- Enclosure of the common land in the post-medieval period was undertaken by landowners like the Hornyolds. Large agricultural encroachment enclosures onto the common lands are fringed by numerous isolated farmsteads or smallholdings. Much of the Hollybed Common encroachment enclosure between Fairoaks Farm and Hollybush appears to be unchanged since the post-medieval period, being what appears to be a mix of piecemeal and planned enclosure associated with Fairoaks Farm. There is also a modern block of field amalgamation of former 19<sup>th</sup> century parliamentary enclosure that was, in turn, former piecemeal enclosure.

#### 16.2.28 **MW20 Whitehouse Farm Principal Timbered Farmlands**

(County LDU no. MW20 [Worcs])

An area of intermediate, undulating topography, derived from a soft rock mixture of mudstones and sandstones, with free draining, brown soils. The land use is predominantly pastoral with a settlement pattern of farmsteads and wayside dwellings associated with a moderate to high level of dispersal and a small to medium scale field pattern. The tree cover comprises relic patches of ancient woodland often in association with densely scattered hedgerow oaks and streamside tree cover.

- low density dispersal of farmsteads
- located at the base of the Malvern ridge

### **Condition:**

- pasture farming of low intensity

- some hedgerows in good condition but many have been replaced with fences
- progressive loss of small scale enclosure pattern
- good representation of hedgerow and stream side trees but with a poor age structure and much evidence of neglect
- good woodland representation

### **Historic Landscape Characterisation:**

The current historic landscape character of the LDU reflects various phases of landscape change from the post-medieval to the post-Second World War:

- Adjacent to Coombegreen Common, a block of encroachment enclosure north of Rye Court has changed little since the post-medieval period. Although many of the internal post-medieval piecemeal enclosure field boundaries have been removed from the field pattern visible today, some of the earlier field boundaries remain;
- Another block of 19<sup>th</sup> century parliamentary enclosure east of White House Farm had replaced post-medieval piecemeal enclosure. Around White House Farm, a large block of post-Second World War field amalgamation replaced post-medieval piecemeal enclosure. Also visible in the current historic landscape is a large block of post-medieval meadow land, determined by field morphology and field names on Berrow parish's 1845 tithe map;
- There is one small block of semi-natural ancient woodland, Dingle Wood, which probably dates to the post-medieval period, and possibly earlier;
- The settlement pattern within the LDU is very similar from that surveyed for the 2 inch 1812 OS Drawing, with isolated farmsteads such as White House Farm, 17<sup>th</sup> century Perrin's Court (LBS No 153159) and Graffridge the most notable examples. The hamlet of Glenberrow arose in the 19<sup>th</sup> century and expanded in the first half of the 20<sup>th</sup> century.

#### 16.2.29 **MW01 King's Green Settled Farmlands with Pastoral Land Use**

(County LDU no. part MW01 [Worcs])

A soft rock area of mudstones, with a low lying, gently rolling topography and poorly draining soils. The settlement pattern is one of farmsteads and wayside dwellings associated with a moderate to high level of dispersal and a small to medium scale of field pattern. This is an area of pastoral land use with tree cover comprising thinly scattered hedgerow and streamside trees, together with groups of trees around settlements.

- red brick wayside cottages
- thorn hedges

- good representation of hedgerow trees including pollarded willow and oak
- relic roadside common (now enclosed)
- frequent ponds
- localised deer park

**Condition:**

- decline in hedgerow management
- increase in area of arable land use

**Historic Landscape Characterisation:**

The current historic landscape character of the LDU reflects various phases of landscape change from the post-medieval to the post-Second World War:

- A block of field amalgamation in the post-war period replaced post-medieval meadow land, determined by field morphology from the 1812 OS Drawing and field names on Berrow parish's 1845 tithe map;
- A field of piecemeal enclosure adjacent to Hawthorne Cottage and a block of piecemeal enclosure adjacent to Gate House are now under arable cultivation since the Second World War, but had formerly been meadow since the post-medieval period, determined by field morphology from the 1812 OS Drawing and field names on Berrow parish's 1845 tithe map;
- A block of meadow land, determined by field morphology from the 1812 OS Drawing and field names on Berrow parish's 1845 tithe map, adjacent to Berrow House, has not changed significantly since the post-medieval period;
- A large block of 19<sup>th</sup> century parliamentary enclosure west of Camer's Green replaced post-medieval regular and irregular piecemeal enclosure;
- The settlement pattern reflects the scattered roadside farms and dwellings associated with the post-medieval interrupted row settlement, and there has been virtually no settlement expansion since that period. The most significant properties are the 17<sup>th</sup> century Rye Court (LBS No 153157), formerly a seat of the Thackwell family, the 17<sup>th</sup> century farm Gate House (LBS No 153146) and the early 19<sup>th</sup> century Berrow House (LBS No 153156).

16.2.30 **NG01.1 Bromesberrow Sandstone Estatelands**

(County LDU no. part NG01.1 [Worcs], part NG-EFD-02 [Heref])

An area of soft rock sandstone, with impoverished sandy soils and relic heathy vegetation. This is an open, rolling landscape characterised by a pattern of

large arable fields, straight roads and estate plantations, coverts and tree groups. The settlement pattern is one of farmsteads, strings of wayside dwellings and occasional estate villages, associated with a moderate to high level of dispersal.

- localised tree groups in association with large farmsteads
- conifers, poplars and other quick growing species are prominent
- elm prominent in hedgerows
- Iron age hillfort on the Hafford estate to the west

**Condition:**

- mixed farming of high intensity with some arable reversion to pasture
- declining relic heathy vegetation
- declining field pattern
- poor condition hedgerows with some replaced by post and wire fencing
- poor age structure of hedgerow trees
- non-hedgerow tree cover well represented
- moderate impact of farm buildings

**Historic Landscape Characterisation:**

The current historic landscape character of the LDU mainly reflects landscape changes that have taken place since the Second World War, though the settlement pattern remains little changed from the post-medieval period:

- A large block of post-war field amalgamation dominates the LDU in the current landscape, replacing widespread orcharding that existed from the 19<sup>th</sup> century industrial period until the Second World War. Two blocks of orchard only now remain, one opposite Perrin's Court (LBS No 153159) and the other adjacent to Lyce's Coppice. Also, there is one small block of semi-natural ancient woodland, Lyce's Coppice, which probably dates to the post-medieval period. In the post-medieval period, the field pattern appears to have been private planned enclosure, the result of private enclosure agreements that existed between local landowners in the 17<sup>th</sup> to 19<sup>th</sup> centuries. The private planned enclosure pattern appears associated with the large properties of nearby The Court (now Bromsberrow Place), 17<sup>th</sup> century Gate House (LBS No 153146) and 17<sup>th</sup> century Perrin's Court (LBS No 153159). Although many of these field boundaries were removed in the 19<sup>th</sup> century, some of the orchards have boundaries that respect the earlier field pattern;
- The settlement pattern has remained virtually unchanged since the post-medieval period, with the interrupted row settlement of Chase End Street (formerly Keys End) straggling along the main road.

**Worcestershire HLC Malvern Hills AONB conclusion**

The Worcestershire HLC study of the Malvern Hills AONB presented some interesting preliminary results, with the historic landscape characterisation mapping demonstrating distinct and localised identities within the AONB area. HLC has also recognised some commons trends, such as the loss of field boundaries since the Second World War and the growth of orchards in the late 19<sup>th</sup> century and their subsequent decline during the early 20<sup>th</sup> century. The HLC has also identified the surviving medieval (or earlier) common lands of Castlemorton, Birtsmorton and Berrow parishes and the post-medieval encroachment onto these lands for settlement and cultivation.

However, this report represents a preliminary assessment of the historic environment. It is only with the completion of HLC mapping for those areas of the Worcestershire landscape that abut the Malvern Hills AONB that a fuller interpretation of the landscape's historic character will be possible. It is envisaged that further analysis will reveal other wider landscape patterns and changes not already identified, especially when used in conjunction with other sources.

By the end of 2010, the completed Worcestershire Historic Landscape Character Assessment will be able to contribute to the management of the historical identity of places in the County. It is anticipated that the final HLC report will include a series of management recommendations for each HLC type and character area, with a guide to their sensitivities to and capacities for change, including what would constitute appropriate and/or inappropriate development and land management.

HLC provides an accessible platform for assessing sensitivities to and capacities for change in the human dimension of landscape. With increasing frequency, HLC is being used as one of the main evidential sources in Historic Environment Characterisation projects that are informing long-term planning for management and conservation of the historic environment, with particular regards to assessing Housing Growth Points, the creation of Local Development Frameworks and feeding into planning policy.

It is hoped that the completed HLC will provide a significant tool for land managers, advisors and policy makers and for those individuals or groups who are simply interested in furthering understanding the development of the historic landscape.



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## Glossary

### **AONB                    Area of Outstanding Natural Beauty**

A national designation to conserve the natural beauty of particular landscapes of nationally recognised importance.

### **CMHTS                    Central Marches Historic Town Survey**

A mostly desk-based assessment in the 1990s of the historic towns of the modern counties of Hereford and Worcester and Shropshire, from the Roman to the post-medieval period, using a wide range of documentary sources and some field visits.

### **EUS                    Extensive Urban Survey**

A detailed analysis of England's historic small towns intended to provide an up-to-date view of the archaeological resource in each town, enabling present and future planning policy to make recommendations.

### **GIS                    Geographic Information System**

A computer software package that captures, stores, analyzes, manages, and presents data and spatial information such as maps that refers to or is linked to location (e.g. ESRI ArcView).

### **HER                    Historic Environment Record**

a County maintained database of information on archaeological sites, monuments and buildings, representing the physical remains of past human activity within that county.

### **HLC                    Historic Landscape Characterisation**

HLC provides an over-arching view of the whole historic landscape and a better appreciation of separate places. HLC records components of the landscape that are „natural“ but the product of centuries of human action, such as hedgerows, woodland, ponds and modified watercourses. It also takes account of more intangible factors such as time-depth, and patterns such as settlement, land-use, land enclosure, non-enclosed land, arable and grazing, woodland and parkland.

### **HLF                    Heritage Lottery Fund**

The body that distributes a share of the income from the National Lottery to projects aimed at preserving and making accessible the nation's heritage.

### **LCA                    Landscape Characterisation Assessment**

An approach to understanding the unique differences of particular landscapes and how distinctive elements contribute to sense of place, which can serve as a framework for decision-making, planning and managing landscape change that respects local distinctiveness.

**LDU            Land Description Unit**

The fundamental landscape building block, LDUs are relatively homogenous units of land, each defined using a series of definitive attributes.

**NGR            National Grid Reference**

A unique map reference system that can be applied to all Ordnance Survey maps of Great Britain.

**OS            Ordnance Survey**

Great Britain's national mapping agency, providing accurate and up-to-date geographic data since the mid-19th century.

**WCC            Worcestershire County Council**

**WAAS            Worcestershire Archive and Archaeology Service**

Provides a comprehensive information and advisory service on the Historic Environment for the County of Worcestershire, and a field service for the region.

Appendix 1. HLC Broad Groups sub-divided into Types

Historic Landscape Character Types

Ornamental, Parkland and Recreational	OPR
OPR1	Parkland
OPR2	Garden
OPR3	Public Open Space
OPR4	Deer Park
OPR6	Race Course
OPR8	Golf Course
OPR7	Sports Ground
OPR8	Show Ground
OPR9	Safari Park
OPR10	Camp Site
OPR11	Cemetery
OPR12	Country Park
Civic	CVL
CVL1	Prison
CVL2	Government & Civic Centres
CVL3	Educational Establishment
CVL4	Hospital
CVL5	Religious Site
CVL6	Hotel
CVL7	Commercial and Retail
CVL8	Leisure Centre
CVL9	Council Depot
Military	MIL
MIL1	Airfield
MIL2	Defence Research Establishment
MIL3	Military Base
MIL4	Storage Depot
MIL5	Firing Range
Industrial and Extractive	IND
IND1	Hard Rock Quarry/Extraction Site
IND2	Sand and Gravel Extraction Site
IND3	Mines/Spoil/Processing Areas
IND4	Brickfield/Clay Extraction
IND5	Industrial/Factory Complexes
IND6	Mill Complexes
IND7	Utilities
IND9	Landfill/Rubbish Dump
Woodland	WDL
WDL1	Ancient Semi-Natural Woodland
WDL2	Replanted Ancient Woodlands
WDL3	Recent Woodland (Secondary)
WDL4	Woodland Plantation
WDL5	Common Grazed Woodland
Orchards/Horticulture	ORC
ORC1	Pre-1880's Orchard
ORC2	Post-1880's Orchard
ORC3	Nursery/Garden Centres
ORC4	Allotment
Communications	COM
COM1	Major Road Junctions
COM2	Motorways
COM3	Canals/Locks/Basins
COM4	Railways/Stations/Slings

Settlement	SET
SET1	Historic Town
SET2	New Town
SET3	Modern Expansion
SET4	Modern Infill
SET5	Nucleated Cluster
SET6	Nucleated Row
SET7	Interrupted Row
SET8	Isolated Farmstead
SET9	Clustered Settlement
SET10	Waste/Common/Green-edge Sett
SET11	Model Planned Village
SET12	Caravan Park/Chalet site
SET13	Minor Dispersed Settlement
SET14	Smallholding
SET15	Industrial Settlement
Fields and Enclosed Land	FEL
FEL1	Ancient Enclosure - co-axial fields
FEL2	Assented Enclosure
FEL3	Medieval Open Fields
FEL4	Enclosed Furlongs
FEL5	Enclosed Strip(s)
FEL6	Piecemeal Enclosure
FEL7	Rectilinear Squatter Enclosure
FEL8	Irregular Squatter Enclosure
FEL9	Encroachment Enclosure
FEL10	Small Irregular or Rectilinear Fields
FEL11	Parliamentary Enclosure
FEL12	Planned Private Enclosure
FEL13	Field Amalgamation
FEL14	Meadows
FEL15	Paddock
FEL16	Modern sub-division
FEL17	Rough Pasture
FEL18	Field Reorganisation
FEL19	Planned Enclosed for Orchard
FEL20	Post-Enclosure Reorganisation
Water and Valley Floor	WVF
WVF1	Reservoir
WVF2	Artificial Lake/Pond
WVF3	Watermeadow
WVF4	Bog
WVF5	Marsh
WVF6	Natural Open Water
WVF7	Miscellaneous Floodplain Fields

## Appendix 2. Broad Group and HLC Type Definitions

### **BROAD TYPE: DESIGNED LANDSCAPE (ORNAMENTAL, PARKLAND AND RECREATIONAL)**

Areas of land that can be identified as having a predominantly designed aspect to them.

#### **OPR1 Parkland**

Parklands associated with the „great“ or „grand“ house. Initially the HER and/ or English Heritage Register of Historic Parks and Gardens will be used and incorporated into the HLC, but these may only form the core group of parklands and others are expected to be identified. Reference will also be made to the current OS mapping and extent will be checked against the County Council vertical aerial photography. In addition, a final check can be made against the Worcestershire Phase 1 Habitat Mapping data, which records Parkland and Wood Pasture within the management field (search on WM5, WM51 & WM52) and the Parkland Study.

They are usually marked on the OS 1<sup>st</sup> Edition survey and earlier maps by symbology or are annotated. The house, gardens, kitchen gardens, follies, outbuildings and areas of woodland etc define the parkland. The fields or farmlands that may be associated with the estate or landholding have not been included (as HLC does not map landholdings or ownership).

Time-depth: Current &/or previous type

Those which still appear to be in use as parkland will be recorded as „Current“; however, those which have been re-used as schools, golf courses, farmland etc. are „Previous types“. Thus, Parkland can appear in any time horizon within the database. Pre-1<sup>st</sup> Edition Parkland will be distinguished from Post-1<sup>st</sup> Edition Parkland by a tick-box in the Access database.

Check Register and Parklands Study for periods of origin (this will also be recorded via a drop down box within the Access database).

#### **OPR2 Garden**

Designed formal gardens (e.g. formal parterres and symmetrical gardens of highly stylised form) laid out around country houses in the post-medieval period, many by known designers of national and international repute and that can still be identified in the present day landscape. These include gardens that have recognition by inclusion on English Heritage’s Register of Parks and Gardens and/ or are in the ownership of large organisations such as the National Trust who conserve and provide access for the public. They may fall within large areas of informal parkland but will be recorded separately along with the accompanying house.

Time-depth: Current &/or previous type



Those, which still appear to be in use as formal gardens, will be recorded as „Current“; however, those, which appear to have been „swept away“, will be recorded as a „Previous type“. Thus, Gardens can appear in any time horizon within the database.

Check Register and HER for periods of origin (this information will be recorded via a drop –down box within the Access database and a tick-box will indicate whether or not the „garden“ appears on the 1<sup>st</sup> Edition OS mapping.).

### **OPR3 Public Open Space**

Areas of land that generally have some degree of formal landscaping and are managed for public recreation or sport, usually in an urban context comprising amenity areas such as playing fields and public parks and may include ornamental lakes, flower beds, tennis courts and play areas etc. Also includes land termed „Recreation Area“.

These will mostly be identifiable from Ordnance Survey mapping and from the Worcestershire Phase 1 Habitat Mapping (search on management code GL12 which identifies urban parks and sports fields and GL1 –amenity grassland).

Time-depth: Current &/or previous type

Those which still appear to be used as public open space will be recorded as „Current“; however a number may have been given over to housing and the built environment and thus will be recorded as „Previous types“.

Most likely to have originated in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries (period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the area of „public open space“ appears on the 1<sup>st</sup> Edition OS mapping).

### **OPR4 Deer Park**

Identifies those areas known to have been medieval or later deer parks (recorded on the HER) whose boundaries can still be distinguished on the modern or 1<sup>st</sup> OS Edition map. These are a very early landscape type and hence it is unlikely that any deer parks survive still in use as such. Many will have been changed in use to Parklands or enclosed with fields and subsumed into the farming landscape.

Cantor’s list of Deer Parks (1983) will act as a basic tool to identify the location and period of origin of historic deer parks within Worcestershire. A drop-down box within the Access database will record period of origin (i.e. Medieval, Post-Medieval, Industrial and so on...).

Time-depth: Current &/or previous type

Where these parklands are still managed for the keeping of deer, they will be recorded as a „Current Type“ (although, this is likely to be very rare). Most historic deer parks are known from boundary features only and have lost their parkland nature. The original distribution of deer parks may be established by cross-reference to the HER and the Cantor study. Where they can be identified, they will be recorded as a „Previous Type“.

Deer parks are most likely to have originated in the medieval and post-Medieval periods, although there may be some later examples.

### **OPR5 Race Course**

Areas identified as animal racecourses (particularly horse racing tracks) from current and previous Ordnance Survey mapping. This group will also include gallops and associated stables.

Time-depth: Current &/or previous type

These will mostly be current but former racecourses whose character has now changed will be identified from the 1<sup>st</sup> Edition OS mapping. Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the „racecourse“ appears on the 1<sup>st</sup> Edition OS mapping.

### **OPR6 Golf Course**

Areas identified as golf courses as symbolised or annotated on current Ordnance Survey mapping. Golf courses may be identified by their distinctive morphology of links, with bunkers and associated woodland strips. In addition, a check can be made against the Worcestershire Phase 1 Habitat Mapping data (search on management field using codes GL11 – Golf Course)

The majority have been created in the late 20<sup>th</sup> century reflecting the increase in leisure and recreation, although some may have earlier origins i.e. converting existing Parks and Gardens for the purposes of leisure.

Time-depth: Current &/or previous type

The majority have been created in the late 20<sup>th</sup> century reflecting the increase in leisure and recreation, although some may have earlier origins i.e. converting existing Parks and Gardens for the purposes of leisure. A few golf courses will date back to the late 19<sup>th</sup> century and the map source will indicate the date of the golf course. Period of origin will also be recorded via a drop down box in the Access database and a tick-box will signify whether or not the „golf course“ appears on the 1<sup>st</sup> Edition OS mapping.

### **OPR7 Sports Ground**

Modern sports ground/field and stadia identified as such from current Ordnance Survey mapping but will be restricted to those of a larger size (>1 hectare). The mapping of smaller sports fields/ areas associated with schools will not be recorded. Sports grounds are where one or more sports may be played e.g. tennis courts, bowling greens and also includes land defined as „Playing Field“ or stadiums where sport is played professionally.

These will mostly be identifiable from Ordnance Survey mapping and from the Worcestershire Phase 1 Habitat Mapping (search on management code GL12 – identifies urban parks and sports fields).

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the „Sports Ground“ appears on the 1<sup>st</sup> Edition OS mapping).

### **OPR8 Showground**

An arena for indoor and outdoor events e.g. The Malvern’s Three Counties Showground. Will be marked on current OS mapping.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database.

### **OPR9 Safari Park**

An area of parkland where wild animals are kept and viewed by visitors driving through it. Will be identifiable from current Ordnance Survey mapping.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database.

### **OPR10 Camp Site**

Camping sites as indicated on the current OS mapping by a tent symbol alone. These sites typically are located close to natural and tourist attractions and offer the relaxed opportunity to socialise in pleasant surrounds

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database.

### **OPR11 Cemetery**

Areas identified as formally laid out cemeteries from the current and previous Ordnance Survey mapping; these will generally include the larger municipal cemeteries and not small church cemeteries. They will typically date to the 19<sup>th</sup> and 20<sup>th</sup> centuries.

OS mapping can be checked against the Worcestershire Phase 1 Habitat Mapping data (search under management code UA41 – „Churchyards and Cemeteries“).

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the area of „cemetery“ appears on the 1<sup>st</sup> Edition OS mapping.

### **BROAD TYPE: CIVIC AND COMMERCIAL**

Areas of land that have a predominantly civil or commercial use and are distinct on a landscape scale i.e. large contiguous areas which form characteristic units that have a distinct impact on and have clearly influenced the landscape, forming patterns perceptible at a broad scale (>1 hectare).

### **CVL1 Prison**

Building complex used as a prison and will be annotated as such on the current OS mapping e.g. Long Lartin, South Littleton.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the “prison” appears on the 1<sup>st</sup> Edition OS mapping.

### **CVL2 Government & Civic Centres**

For all local government and central government offices including civic centres e.g. town halls, libraries, museums and their grounds, which are distinct on a landscape scale.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the “government and civic centre” appears on the 1<sup>st</sup> Edition OS mapping.

### **CVL3 Educational Establishment**

Building complex used as a place for public education, including schools, colleges and universities as marked on the OS 1<sup>st</sup> Edition and/or modern mapping, usually named and annotated as such. Some modern schools may be a reuse of former Parkland. Schools of historic origin may be reused for example as private dwellings, commercial etc.

Time-depth: Current &/or previous type

Most will be modern buildings dating from the 1950"s onwards but many schools have their origins in the 19<sup>th</sup> century as local schools and workhouses (however, the majority of these will not be visible at a landscape scale).

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the "school" appears on the 1<sup>st</sup> Edition OS mapping

#### **CVL4 Hospital**

This HLC type will only include areas of large hospital complexes as marked on the OS 1<sup>st</sup> Edition and/ or modern mapping, usually named and annotated as such. Some modern hospitals may be a reuse of former Parkland.

Time-depth: Current &/or previous type

Thus may occur in any time horizon within the database.

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the "hospital" appears on the 1<sup>st</sup> Edition OS mapping.

#### **CVL5 Religious Site**

Religious institutions annotated 1<sup>st</sup> Edition OS and later modern OS mapping as monasteries, retreats etc. These may be medieval monastic, post dissolution or modern in origin. Modern institutions may be based on former parklands, whereas former religious institutions may conversely be used as recreation areas. Only those, which form a significant element within the landscape, are mapped (i.e. not small scale sites that fall within settlement areas).

Time-depth: Current &/or previous type

Can be a new building or a reused former type i.e. „Current" or reused i.e. „Previous type". Thus this HLC type may occur in any time horizon within the database.

#### **CVL6 Hotel**

Generally, large hotel complexes, that are clearly marked on current Ordnance Survey mapping. These are often found outside or on the edge of major settlements.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box will signify whether or not the "hotel" appears on the 1<sup>st</sup> Edition OS mapping

### **CVL7 Commercial and Retail**

Areas of large warehouse stores, commercial areas and retail parks marked as such on the Ordnance Survey mapping. These areas may be found on the edge of urban areas and have large car parks.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database and a tick-box.

### **CVL8 Leisure Centre**

Areas marked as leisure centres, swimming pools or other leisure activity areas on current Ordnance Survey mapping.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database.

### **CVL9 Council Depot**

Storage depot for council equipment including vehicles. Usually marked as such on modern and historic Ordnance Survey maps.

Time-depth: Current &/or previous type

Period of origin will be recorded via a drop down box in the Access database.

## **BROAD TYPE: MILITARY**

Areas of land that are sufficiently large and distinctive to make, or to have left a distinct impact on and clearly influenced the landscape. This broad group includes 19<sup>th</sup> and 20<sup>th</sup> century military sites e.g. ordnance factories, airfields, barracks and other large-scale surface remains related to Napoleonic activity, the two World Wars and the Cold War. Very small features such as pillboxes have not been mapped, even where forming parts of large-scale defence systems.

Most major installations, especially airfields will be of known dates of origin (as specified in secondary literature, HER records and Defence of Worcestershire digital data). A drop-down menu for military types will also record the specific period of military activity i.e. WW1, SECOND WORLD WAR, post-SECOND WORLD WAR that the installation is associated with.

Sites are recorded as active or inactive within the Access database via a drop down box and as to whether they appear on the OS 1<sup>st</sup> Edition mapping..

### **MIL1 Airfield**

Military airfield or airbase identified from Ordnance Survey mapping (and may be named as such). This includes both active and disused airfields (recorded as active or inactive in the Access database). For areas known to be military airfields, there will probably be no 4<sup>th</sup> Edition OS mapping.

Time-depth: Current &/or previous type

Military airfields still in use are „Current“ whereas those now under civilian use or re-use e.g. reverted to agricultural use are a „Previous type“. Thus may occur in any time horizon within the database.

Many airfields date from the Second World War and served the duration of the conflict.

### **MIL2 Defence Research Establishment**

Military research establishment as identified from the Ordnance Survey mapping.

Time-depth: Current &/or previous type

Military installations still in use are „Current“ whereas those now under civilian use or re-use are „Previous Types“. Thus may occur in any time horizon within the database.

### **MIL3 Military Base**

Military bases comprising barracks and training grounds identified from Ordnance Survey mapping (and named as such) and aerial photos.

Time-depth: Current &/or previous type

Most of these will have been built during the 20<sup>th</sup> century.

Military installations still in use are „Current“ whereas those now under civilian use or re-use are „Previous Types“. Thus may occur in any time horizon within the database.

#### **MIL4 Storage Depot**

Military storage facilities identified from Ordnance Survey mapping.

Time-depth: Current &/or previous type

Military installations still in use are „Current“ whereas those now under civilian use or re-use are „Previous Types“. Thus may occur in any time horizon within the database.

Most of these will have been built during the 20<sup>th</sup> century.

#### **MIL5 Firing Range**

Rifle range identified from Ordnance Survey mapping

Time-depth: Current &/or previous type

Military installations still in use are „Current“ whereas those now under civilian use or re-use are „Previous Types“. Thus may occur in any time horizon within the database.



## **BROAD TYPE: INDUSTRIAL AND EXTRACTIVE**

Areas of land that have been identified as having a predominantly industrial component or are related to the extractive industries. The latter usually have a greater impact upon the landscape than the former.

The extractive sites are mapped directly from the current and previous OS mapping and using the Aggregates Sustainability Levy Funded (ASLF) project data. Those landscape features which represent the after-use of quarries i.e. landfill sites or recreational lakes (e.g. WVF2), are mapped as such within their respective Broad Groups and not as „filled-in quarries“ etc. Their origin/former use as an extractive site will be flagged up using the „Previous type“. The status of the site i.e. inactive or active etc. and whether it is pre or post 1<sup>st</sup> Edition OS mapping and period of origin will also be recorded via drop-down boxes within the Access database.

Modern large-scale industry is mostly distinguished from smaller industrial complexes and factories by being named on OS current mapping as oil refineries, power stations etc and by their large scale. Industrial complexes and factories situated within urban areas are recorded as modern expansion of settlements.

### **IND1 Hard Rock Quarry/Extraction Site**

This type accounts for hard rock extraction in Worcestershire, i.e. limestone. This tends to be a transient category, for example, in the case of modern quarrying, the time periods are so relatively narrow that a site may have completed a full life-cycle from inception, extraction, and then temporary use as landfill to full restoration between the map sources used. Thus, this is amongst the least static of HLC types, subject to rapid change and if the project were to be repeated within a few years time, it is likely that the sites in question would have shifted through a number of HLC types by then.

The distribution of sites is determined by the county's geology. These will usually comprise very large modern quarries and associated works run by aggregates/ construction companies. However, they may also consist of disused larger quarries created during the 19<sup>th</sup> and early 20<sup>th</sup> centuries.

They will be identified by symbology and annotation as marked on the 1<sup>st</sup> Edition OS map and/or modern OS maps and the ALSF data. Check against the Worcestershire Phase 1 Habitat Mapping data (search under habitat code „RE21 – quarry“). The „Current“ examples are usually large modern stone quarries. Where a „Previous type“ the mapping source indicates date, which may range from 19<sup>th</sup> century or earlier, to 20<sup>th</sup> century in date.

Time-depth: Current &/or previous type

If currently still in operation or abandoned/disused with no subsequent use then „Current“ and if restored or reused a „Previous type“ e.g. public park. Thus may occur in any time horizon within the database.

### **IND2 Sand and Gravel Extraction Site**

This type accounts for mineral extraction sites in Worcestershire i.e. sand and gravel. This also tends to be a transient category (see above). The distribution of sites is determined by the county's geology.

These will be identified by symbology and annotation as marked on the 1<sup>st</sup> Edition OS map and/or modern OS maps and the ALSF data. Check against the Worcestershire Phase 1 Habitat Mapping data (search under habitat code „RE21 –quarry“). The „Current“ examples are usually the modern opencast systems of mineral extraction. Where a „Previous type“ the mapping source indicates date, which may range from 19<sup>th</sup> century or earlier, to 20<sup>th</sup> century in date. However, in the case of modern mining the time periods are so relatively narrow that an area of mineral extraction may have completed a full life-cycle from inception, extraction, and then temporary use as landfill to full restoration between the map sources used.

Time-depth: Current &/or previous type

If currently still in operation or abandoned/disused with no subsequent use then „Current“ or if restored or reused a „Previous type“. Thus may occur in any time horizon within the database.

### **IND3 Mines/Spoil/Processing area**

Used for all kinds of mine, but particularly coalmines as marked on current OS mapping or the 1<sup>st</sup> Edition OS map as found in North Worcestershire. Check against the Worcestershire Phase 1 Habitat Mapping data (search under habitat code „RE23 –mine“ and management codes P10 and PIZ).

For „Previous types“, on the modern OS mapping, old shafts or disused colliery will be marked. For those sites marked on the OS 1<sup>st</sup> Edition mapping as disused or „Old Shafts“, it is indicated that these may be quite early bell shafts or areas of very small scale coal mining – these will not necessarily be recorded as a HLC type unless on a broad landscape scale but their presence within a field system will be noted (see notes box).

Time-depth: Current &/or previous type

The majority of the activity associated with this period will date to the post medieval (1500AD – 1799AD), industrial (AD1800 – 1913AD) or later periods, although it may include some medieval activity.

### **IND4 Brickfield/Clay Extraction**

Brickworks/tileworks and clay pits recorded on the HER, current OS mapping and/ or the 1<sup>st</sup> Edition OS map. Sites measuring less than 1 hectare will not be recorded

Time-depth: Current &/or previous type

### **IND5 Industrial/ Factory Complexes**

This type encompasses a wide variety of industrial sites from former works, foundries and large factories to more modern industrial estates on the outskirts of large settlements. These areas of industrial activity will be recorded (and named) on current and 1<sup>st</sup> Edition OS mapping e.g. Foundry, with modern industrial estates being distinguished also by morphology. Check on any Industrial Surveys for the County? Check against the Worcestershire Phase 1 Habitat Mapping data (search under management code „JA2 – Industrial/Commercial“)

Time-depth: Current &/or previous type

The majority of sites date to the 19<sup>th</sup> and particularly to the late 20<sup>th</sup> centuries. A small number of sites will date to the late 18<sup>th</sup> century. Most pre-modern industry was small scale and is therefore not captured at this level of broad landscape scale analysis.

### **IND7 Mill Complexes**

Groups of mill complexes situated along a rivers edge. These will be identifiable from current and previous OS mapping and the HER.

Time-depth: Current &/or previous type

### **IND6 Utilities**

Industrial areas, which can be identified as related to the utility industry. This type will generally include electricity power stations, large sewage and water treatment works to smaller utilities such as Gas Works and Water Towers.

Most of this modern large-scale industry will be named on the current OS mapping as power stations etc. and be identified by their large scale. Check against the Worcestershire Phase 1 Habitat Mapping data (search under management code „JA2 –Industrial/Commercial“)

Time-depth: Current &/or previous type

Most of the utility infrastructure was constructed in the mid to late 20<sup>th</sup> century but will include earlier survivals dating from the Victorian period and early 20<sup>th</sup> century.

### **IND7 Landfill/ Rubbish Dump**

These are sites where local authorities and industry can take waste to be buried and compacted with other wastes. This type will include landfill sites and large domestic rubbish dumps. These will be marked on current OS mapping. Check against the Worcestershire Phase 1 Habitat Mapping data (search under management code „RE24 – Refuse tip“)

Time-depth: Current &/or previous type

## **BROAD TYPE: WOODLAND**

Areas of land that are predominantly covered by trees. Morphology e.g. sinuous and woodland type e.g. will be recorded via drop-down boxes within the Access database.

### **WDL1 Ancient Semi-Natural Woodland**

Woodland designated by English Nature (1999) as „Ancient Semi-Natural“ (an area of land that has had continuous woodland cover since at least as far back as 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally) and also identified by Ordnance Survey mapping (symbology) and the Worcestershire Phase 1 Habitat Mapping project as either broad-leaved or mixed woodland (search on habitat codes WB1 & WB3; a drop-down box within the Access database will indicate whether broad-leaved or mixed). This will include some of the oldest woodland in the county probably dating back to the medieval period however, it may have some replanting with conifers (i.e. mixed).

Also includes areas of ancient woodland that being less than 2 hectares on the 1920's base maps were not recorded by English Nature but are identified in the „Worcestershire Ancient Woodland Catalogue“ (Day, 1983) used by the Worcestershire Phase 1 Habitat Mapping dataset and which provides countywide coverage - search under habitat complex AW1 – „Ancient Woodland“.

This category has been mostly derived from the English Nature classification that defines ancient woodland as being continuously wooded for at least 400 years. Although for the purposes of this survey the earliest map evidence used is the 1<sup>st</sup> OS Edition, the consideration of the woodland morphology, extent and place names e.g. holt, thrift, frith, grove is used to further estimate, whether the woodland is ancient or not, particularly in those cases where the surviving woodland has not been previously identified by English Nature.

Time-depth: Current &/or previous type

Although by definition Ancient Woodland is an historic landscape type, as they are all theoretically still in existence they should occur within the Current Field; however, in reality in some cases they may have been cleared, re-used or replanted.

Thus they may occur in any time horizon within the database – though usually mostly in „Current“ as theoretically they should have survived. However, there

may be a number of examples that if for example were cleared in 1800AD still would have been ancient woods if they were documented in 1600AD.

### **WDL2 Replanted Ancient Woodlands (renamed from Plantation on Ancient Woodland Sites)**

Woodland designated by English Nature as „Ancient Replanted“ (land that has had continuous woodland cover since at least 1600AD where the original native tree cover has been felled and replaced by planting, usually conifers for the purposes of the forestry industry) and identified by the Ordnance Survey mapping and Worcestershire Phase 1 Habitat Mapping as containing conifers (search on– habitat code WC0). These areas were probably replanted during the 19<sup>th</sup> or 20<sup>th</sup> century and particularly between the 1930<sup>s</sup> and 1980<sup>s</sup> when hundreds of thousands of hectares of ancient woodland were replanted.

Time-depth: Current &/or previous type

### **WDL3 Recent Woodland (Secondary)**

These are either planted or semi-natural woods with sinuous boundaries, which have not been continuously wooded since the year 1600AD but have acquired a tree cover on sites thought to have been former heathland, open fields or grazing land. Such woodland may arise by planting or through natural development of woodland on abandoned or ungrazed land. These sites may show similarities to ancient woodland depending on their age, their proximity to ancient sites and the presence of natural features (streams, ponds etc), although generally speaking their biological diversity is not as great as that of ancient woodland.

Woodland identified by the Ordnance Survey mapping and Worcestershire Phase 1 Habitat Mapping as being broad-leaved, mixed or coniferous and which have predominantly sinuous boundaries but is not designated as „Ancient“ by either the English Nature or Day Survey. The different woodland types will be recorded in a drop down menu within the Access database i.e. broadleaved, mixed or coniferous. Broad-leaved woodland with sinuous boundaries, whilst not being designated as „Ancient“ woodland may potentially contain fragments of older woodland. Mixed woods whilst also not being designated as „Ancient“ woodland may represent stands of older woodland colonised by or partially planted with conifers. Coniferous woodlands with predominantly sinuous boundaries are likely to represent plantations.

Time-depth: Current &/or previous type

Will be identified as a previous type where felled since the OS 1<sup>st</sup> Edition map.

### **WDL6 Woodland Plantation**

All managed and planted woodlands (>1ha) mostly with a rectilinear form and straight boundaries, which post-date and lie outside the boundaries of the Ancient Woodlands (as identified by English Nature), they are often planted as commercial concerns or as ornamental woodlands (in association with informal

parklands) or maybe fox coverts; the latter may be associated with Planned Enclosure fields. Where less than 1 hectare in size, these will be recorded as part of the dominant field system or other broad group e.g. Parkland using a tick-box. Tree-type will be recorded via a drop down box.

Check against the Worcestershire Phase 1 Habitat Mapping (search on management code WF2- „Plantation“).

The commercial plantations (i.e. planted to generate income) are characterised by blocks of trees that are all of one age often consisting of only one or two species of tree, within each regular block of planting, very often the species planted were non-native species and in particular conifer, but many plantations were of broadleaves such as oak or beech and often plantations were a of mix conifer and broadleaves. They usually die when felled and are replaced by a new plantation. This forms the basis of modern forestry and most have been planted in the 20th century and thus will be absent from the 1<sup>st</sup> Edition OS mapping (recorded via a tick box in the Access database).

Growth in earlier and usually smaller sized woodland plantation with a rectilinear form is noted in foxhunting country from the 18<sup>th</sup> century onwards where a number of woodland coverts proliferate and were also commonly placed on commons, waste and heaths. These form an important part of hunting landscape and will mostly be distinguished from commercial plantation by their appearance on 1<sup>st</sup> Edition OS mapping (via a tick box) and period.

This category also provides for shelterbelts, a linear stand of trees, planted to provide a windbreak for settlement, livestock or crops.

This group is of variable date, so mapping sources will indicate this. These woodlands are of either replanting of cleared woodlands, or inter-planting within existing woodland or new planting within pre-existing fields, or new shelterbelts, or new areas of woodland with no prior antecedent (i.e. not replanted ancient woodlands). They may also have been planted and felled between First Edition to modern mapping.

Time – depth: Current &/or previous type

Woodlands, still surviving are „Current“ whereas those felled are a „Previous type“. Thus may occur in any time horizon within the database.

Normally date from the 18<sup>th</sup> to 20<sup>th</sup> century. Deliberate plantations were very rare before the 17<sup>th</sup> century.

### **WDL7 Common Grazed Woodland**

An area of woodland that appears from documentary evidence to have been used for common grazing/ woodland pasture previously e.g. Pipers Hill and Dodderhill Common and Monkwood. This may have meant opening glades and other areas within the woodland without destroying all the woodland itself.

Typically these have been identified as a medieval use of woodland but may have been later.

Time – depth: Previous type only

The origins of wood pasture land use almost certainly stretch back into prehistory. By the 11<sup>th</sup> century many parishes held rights to detached woodlands, which would have been used in this way. It is therefore likely that many of the woodlands interpreted as ancient semi-natural or ancient replanted have been used as wood pasture for much of their history.

Notes post-pilot study: „Common Grazed Woodland“ has not yet been used and may prove to be a not very useful HLC type.

### **BROAD TYPE: ORCHARDS AND ALLOTMENTS**

Areas of land that can be identified as some form of small-scale horticulture i.e. for the production of small fruit, vegetables, mushrooms, hardy nursery stock, container-grown plants, bulbs and flowers grown in the open and glasshouse area. This type includes non-commercial and commercial orchards and market-garden smallholdings as well as modern nurseries and garden centres.

There may well be more extensive areas of horticulture in small fields but is not readily identifiable as such. Thus this general category is very likely to be under-represented.

Whether present or not on the 1<sup>st</sup> Edition OS mapping and Post-War mapping is recorded in the Access database via drop-down boxes.

### **ORC1 Pre-1880's Orchards**

This HLC type defines orchards that are marked on both the 1<sup>st</sup> Edition OS mapping and the modern base map using cartographic symbology or annotation.

Orchards are either large commercial concerns or small orchards attached to larger homes or estates. In the case of the latter, the field edge may remain consistent through time, but use within can vary e.g. may start as an orchard, then be cleared, then be replanted as an orchard.

The earlier commercial orchards appear to be defined by the pre-existing field systems in which they are planted. Later commercial orchards often remove existing boundaries and redefine field edges with new boundaries.

Time-depth: Current &/or previous type

As a land use may be current or a „Previous type“ and may be defined by a prior or contemporary enclosure pattern. If a „Previous type“, will be recorded on the 1<sup>st</sup> Edition OS mapping, but will have been grubbed up since then. Check by searching on Worcestershire Phase 1 Habitat Mapping management code WG6 – „Old Orchard grassland“ to potentially indicate a „Previous type“ where the unimproved grassland but not the orchard survives and using keyword „Orchard Remnant“ within grassland category.

Thus may occur in any time horizon within the database.

Orchards were a common feature of the medieval landscape (Rackham, 1990) although the earliest map evidence for orchards in Worcestershire is likely to be estate maps dating from the 17<sup>th</sup> and 18<sup>th</sup> centuries. However, there is unlikely to be sufficient and consistent map evidence from before the 19<sup>th</sup> century.

### **ORC2 Post 1880's Orchards**

Orchards that are mapped directly from the current OS mapping (identifiable by the presence of orchard or glasshouse symbols) but absent from the 1<sup>st</sup> edition suggest potentially a more modern origin. It can be demonstrated that the orchard must have been planted over the last 120 years, albeit possibly as replanting on the site of a former orchard after a gap.

Check against using the Worcestershire Phase 1 Habitat Mapping (search under habitat code „Orchard – FT0, FT1, FT11, FT12, FT13, FT14, FT15, FT1Z, FT2, FT21“ or management using codes CL3, CL31, OM1-4)

Time-depth: Current &/or previous type

### **ORC3 Nurseries/ Garden Centre**

Modern nurseries with glasshouses and garden centres. These are identified from modern Ordnance Survey mapping by glasshouse symbols and are often named. The area mapped includes the associated curtilage of the glasshouse and grounds. Check against the Worcestershire Phase 1 Habitat Mapping (search under management code using CL2 „Market Garden and Horticulture“). These sites are usually large commercial areas of market gardening, with associated glasshouses. In Worcestershire they mostly occur within the Vale of Evesham.

Time-depth: Current &/or previous type

Survives as „Current“ type or the glass houses have been demolished with the reuse of the land parcels i.e. a „Previous type“. Thus they may occur in any time horizon within the database.

### **ORC4 Allotment**



Small parcels of land rented/ leased by individuals to grow crops/ vegetables etc. Their mapped form may differ according to period of map, either by symbology and/ or annotation. On the 1<sup>st</sup> Edition OS mapping they are identified by characteristic small parcels often with diagonal markings, at times making a „herringbone“ pattern and may also be annotated as „allotments“ or „gardens“. At this date they are often close to settlement. Check against the Worcestershire Phase 1 Habitat Mapping (search under management using code UA33 – „Allotments“).

Forms and shapes may differ according to the period they were set out, and they may be relatively small strips or large areas. The outline of these allotment areas may be defined by prior or possibly contemporary field systems.

Allotments represent more a form of land use rather than a specific morphological type. A drop down box in the Access database will record those allotments laid out prior to the 1<sup>st</sup> Edition OS mapping and those which were laid out during or post Second World War.

Time-depth: Current &/or previous type

Allotments may date from prior to the First Edition to 20<sup>th</sup> century in date. Their form may be dictated by a prior or contemporary enclosure pattern, as given on 1st Edition OS mapping.

The 19<sup>th</sup> century saw the creation of allotments for communal gardening. Although generally regarded as 20<sup>th</sup> century in date, the pressure for urban allotment provision increased as a result of the spread of closely packed housing with small gardens. New Allotments were also created by wartime provisions and as part of new 20<sup>th</sup> century settlements.

### **ORC5 Market Gardening Smallholding**

This HLC type is particularly characteristic of the southeast of the County around the Vale of Evesham and is used for the actual „strip fields“ growing fruit and vegetable produce. Can be mistaken for earlier medieval strip fields on historic mapping as the fields are/were often divided into strips for market-gardening purposes and include „huts“ or „hovels“. This type is distinct from smallholdings found in other areas.

Time-depth: Current &/or previous type

The Vale of Evesham has had a traditional association with agriculture horticulture, and market gardening. Following the repeal of the Corns Laws in 1846, the predicted slump in the price of wheat did not immediately take place, but by the early 1870s farming had become unprofitable. Some farms became vacant and landlords were happy to split them into small market garden holdings, often let to former farm labourers. Markets for garden produce were already accessible, the railway network having reached Evesham in 1852.

## **BROAD TYPE: COMMUNICATIONS**

Areas of land that are related to some form of transportation.

Most major transport systems will be of known dates of origin (as specified in secondary literature and HER records). A drop-down menu, as for all other HLC types will record period of origin

### **COM1 Major Road Junctions**

Areas of major road junctions and roundabouts, that are greater than 1ha in size. This type also includes associated infrastructure such as Service Stations where in close proximity.

Time-depth: Current type only

### **COM2 Motorways**

Motorways as marked on modern Ordnance Survey mapping. These will have occurred post 1960 and often dramatically alter the landscape, having a large impact. This type also includes associated infrastructure such as Service Stations, usually comprising restaurant and garage, sometimes a hotel. The M5 & M42 form significant landscape features running north to south and east to west respectively through Worcestershire, not only in how they dissect the landscape but also in terms of their impact on the surrounding area.

Time-depth: Current type only

Motorways were created from the early 1960s (M5).

### **COM3 Canals/Locks/Basins**

Areas developed and used as artificial waterways i.e. canals, as well as locks, basins and wharfs as marked and annotated on modern and previous Ordnance Survey mapping. This type will also include old canals, canal arms, locks, wharfs and basins that have become abandoned and disused but still dominate the current landscape. A drop-down box within the Access database will indicate status i.e. active and inactive and a tick box will indicate whether pre or post 1<sup>st</sup> Edition OS mapping.

Time-depth: Current &/or previous type

For a canal that is no longer visible on the ground, this will be recorded as a „Previous type“. For those canals that are disused but still dominate the landscape, will be recorded as Current. Those lines of canals and branch canals, wharfs and basins that are still obviously part of the canal network will also be recorded as Current.

These are likely to date from the 18<sup>th</sup> to 20<sup>th</sup> century.

#### **COM4 Railways/Stations/Sidings**

Modern railways, stations and sidings on Ordnance Survey mapping. These will often include large areas either side of the railway that was formed as part of the construction process such as cuttings and embankments. This type will also include areas of land identifiable as a previously active railway line. These disused railway lines are often marked on current and previous Ordnance Survey mapping as „dismantled“/disused“ and when not redeveloped retain a specific landscape character.

A drop-down box within the Access database will indicate status i.e. active, and inactive and a tick box will indicate whether pre or post 1<sup>st</sup> Edition OS mapping.

Time-depth: Current &/or previous type

For a railway that is no longer visible on the ground, this will be recorded as a „Previous type“. For those railways that are disused but still dominate the landscape, will be recorded as Current. Those lines that are still obviously part of the railway network will be recorded also as Current.

This type dates from the 19<sup>th</sup> to 20<sup>th</sup> century.

#### **COM5 Airport/Airfield**

Airports and airfields that are of civil use. A number of these will have been developed for military use and given over to civil use after the Second World War. Although there are some that are less substantial, where the runway and airfield is simply a grass enclosure. This type will also include helipads over 1 hectare in size.

They will be as defined on Ordnance Survey mapping, characterised by their morphology i.e. runways and associated hangers and buildings, but very often with a distinct margin, as the runways and areas around are cleared from prior field systems. Therefore there is not a specifically defined edge, but rather the edge is defined by surviving field systems around them, thus forming a „negative edge“. For former military airfields this was done probably to assist in their camouflage within the surrounding countryside.

Airfields may be military or civil in origin and the current use may have changed from military to civilian. A drop-down box within the Access database will indicate status i.e. active, inactive.

Time-depth: Current &/or previous type

This type dates from the 20<sup>th</sup> century. If reused i.e. the runways forming the basis for a new field system, or providing the form for a forest plantation and the buildings reused as industrial/commercial buildings or areas, then will be

recorded as a „Previous type“. If simply abandoned or inactive but still dominating the landscape or still in use, will be recorded as Current.

### **COM5 Park and Ride**

Areas marked on modern Ordnance Survey mapping as park and ride schemes. These will often be large car parks and associated areas close to out of town railways.

Time-depth: Current type only

Usually dating from the 1990's onwards.

### **BROAD ATTRIBUTE GROUP – SETTLEMENT**

Areas of land that have a predominantly populated and settled character; this also includes farms and farmsteads.

The methodology of the Worcestershire HLC project demarcates settlement into two broad categories, modern (mostly 20<sup>th</sup> century) and then historic nucleated and dispersed settlement, which comprise the old centres of villages and towns, isolated farmsteads and hamlets etc depicted on the 19<sup>th</sup> century, 1<sup>st</sup> edition, 6-inch (1:10560) series (1843-1893). Most of the modern settlement is expected to be growth and expansion around the cores of historic towns and will be recorded as expansion and infill. It may also be focussed on other historic cores such as a farm building, hamlet or small village.

A classification of different settlement types has been created to define rural settlement morphology within Worcestershire (with an additional two HLC types based on function); this has been based upon the successful Buckinghamshire methodology which has been used to produce a distinct distribution map of settlement (originally devised by Lewis, Dyer and Fox (1995)). The HLC settlement types will often fall beneath the 1ha min used for other HLC types, but settlements do contribute so much to landscape character that it is very important to record them.

All settlement types will be recorded as to whether they appear on the 1<sup>st</sup> Edition Ordnance Survey mapping via a tick box in the Access database.

### **SET1 Historic Town**

Areas that can be identified as the historic core of a town either through morphology (i.e. High Street and survival of narrow plots) identified from the Ordnance Survey mapping, information from the Worcestershire HER or by the EUS Central Marches Historic Town Surveys (CMHTS). In most cases of the latter they represent the extent of settlement either by the end of the medieval period or by the beginning of the 19<sup>th</sup> century, providing detail of medieval and earlier urban settlement. The distinction between the two is made via the period category in the current historic landscape character component of the database. Most historic cores show a degree of planning.

Time-depth: Current type only

This type is consistently a Current type; however its earlier origins maybe alluded to i.e. if a village is mapped on the 1<sup>st</sup> OS Edition or any earlier maps are consulted.

The vast majority of Worcestershire's towns originated between .... XXXXXXXX from which they gradually developed their 19<sup>th</sup> century form. Many retain substantial medieval and post-medieval historic building stocks.

### **SET2 New Town**

A planned urban community created in a rural or undeveloped area and designed to be self-sufficient with its own housing and education and commerce and recreation e.g. Redditch.

Time-depth: Current type only

Redditch was designated a New Town in 1964.

### **SET3 Modern Expansion**

Defined as the post-industrial expansion of settlement areas on the edge of an historic town. Usually defined by the limit of a settlement as marked on the current OS mapping compared to its historic core suggested by the 1<sup>st</sup> Ed. 6" map or EUS. It provides a measure of settlement growth over the past 120 years.

This type usually focuses on an historic settlement that appears on the 1<sup>st</sup> Edition OS Mapping comprising an historic town, farm building, hamlet or small village. Although this type could be regarded as devoid of any historical character or value, modern settlement can possess complex urban character and as such is worthy of more detailed study at a later date.

Some urban development disregards the earlier landscape pattern, particularly where such development took place on a large scale. In other areas, where the release of land occurred piecemeal, it is possible to recognise the pattern of the earlier agricultural landscape in the streets and boundaries of the modern settlement.

Time-depth: Current type only

Mostly 20<sup>th</sup> century.

### **SET4 Modern Infill**

Defined as the recent infill of settlement areas. Some of the EUS's give an indication of 19<sup>th</sup>/20<sup>th</sup> century infill within the historic core e.g. Redditch. Otherwise, comparison between the OS 1<sup>st</sup> edition 6" mapping and current OS mapping will highlight areas of infill.

Time-depth: Current type only

Mostly 19<sup>th</sup>/20<sup>th</sup> century

Notes: post-pilot study – modern expansion and modern infill could become a combined HLC type. Sometimes quite time-consuming to separate out the two.

### **RURAL:**

Nucleated-

A settlement pattern consisting mainly of villages with relatively few isolated farmsteads or hamlets. Large, nucleated villages are concentrated in a central band running from Northumberland into Somerset and Dorset. The communally managed farming strips around them, grouped into blocks of 2 or more common fields, were typically subject – at varying rates – to amalgamation and enclosure by tenants and landlords from the 14<sup>th</sup> century. The enclosure of remaining common fields and grazing land from the 18<sup>th</sup> century typically produced more large-scale and regular fields. This process of enclosure was often associated with the creation of new holdings and farmsteads.

### **SET5 Nucleated Cluster**

These are agglomerated settlements grouped at single point or cluster plan, sometimes around a focus such as a green, a market place or church. Identified from the 1<sup>st</sup> Edition OS Mapping and current OS mapping.

Time-depth: Current &/or previous type

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

The vast majority of Worcestershire's historic settlements originated between the 8<sup>th</sup> and the 13<sup>th</sup> centuries from which they gradually developed their 19<sup>th</sup> century form. Many retain late medieval and post-medieval historic building stocks.

### **SET6 Nucleated Row**

A concentrated settlement that has properties focused along a road, sometimes displaying signs of regular planning. The nucleated village row is thought of as a classic medieval form, often relating properties to the open fields surrounding the settlement.

Time-depth: Current &/or previous type

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

The vast majority of Worcestershire’s historic settlements originated between the 8<sup>th</sup> and the 13<sup>th</sup> centuries from which they gradually developed their 19<sup>th</sup> century form. Many retain late medieval and post-medieval historic building stocks.

Dispersed settlement –

Settlement predominantly consists of scattered, isolated farmsteads and small hamlets (small settlement with no ecclesiastical or lay administrative function) with few village centres. Dispersed settlement is typically associated with small and irregular fields, and the creation of farms in the medieval or earlier period from wood, marsh and moor. These landscapes are concentrated in the western part of the West Midlands.

#### **SET7 Interrupted Row**

This form of settlement normally takes the form of farms and dwellings that occur intermittently along a road or highway.

Time-depth: Current &/or previous type

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

The vast majority of Worcestershire’s historic settlements originated between the 8<sup>th</sup> and the 13<sup>th</sup> centuries from which they gradually developed their 19<sup>th</sup> century form. Many retain late medieval and post-medieval historic building stocks.

#### **SET8 Isolated Farmstead**

Single farmsteads and associated buildings situated away from any distinct settlement. They are often marked with a farm name. These will be identified from both the modern OS mapping and previous OS mapping and from the Historic Farmsteads shape file (point data only).

Time-depth: Current &/or previous type

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

Many have origins in the medieval period.

### **SET9 Clustered Settlement**

Groups of farms, which form a subtle, but discernable settlement pattern. Many coincide with „End“ or „Green“ place names.

Time-depth: Current &/or previous type

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

More information is required on the origin of these settlements.

### **SET10 Waste/Common/Green-Edge Settlement**

Historically, detached or small rows of houses dispersed between fields or small paddocks with little trackways connecting them encroaching onto open, common grazing, a quintessential feature of ancient countryside. Identified where clearly related to extant or former commons/ waste or greens. These reflect some of the difference in settlement morphology between areas dominated by heathland and woods and more open countryside. Is identifiable from the current and previous OS mapping and aerial photography.

Time-depth: Current &/or previous type

If a Current type will appear on the modern OS mapping; however the paddocks will often have been infilled with houses, but are still laid out in an irregular way. Some of the older houses have been redeveloped – but the overall layout is still discernable. Often considered to be „squatter settlement“.

### **SET11 Model Planned Village**

A planned village or settlement. Includes Chartist Colony at Dodford.

Time-depth: Current type only

### **SET12 Caravan Park/ Chalet**

Although in legal terms, these sites are not considered permanent, in landscape terms they include parks with permanent features (surfaced roads & static caravans etc.) as indicated on the current OS mapping. Camping sites are not included where they are annotated by a tent symbol alone and do not consist of a network of roads. These sites typically are located close to natural and tourist attractions and offer the relaxed opportunity to socialise in pleasant surrounds. Check with Worcestershire Phase 1 Habitat Mapping (search on management code UA34 – „Caravan Park“).



Time-depth: Current &/or previous type.

### **SET13 Minor Dispersed Settlement**

For those areas of minor dispersed settlement which do not fall into either the „isolated farmstead“ or „smallholding category“. Mostly wayside cottages.

Time-depth: Current &/or previous type.

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

### **SET14 Smallholding**

These small farms occur frequently as a result of the enclosure of former common land near to woodland in the 18<sup>th</sup> and 19<sup>th</sup> centuries or are carved out of the woodland itself, particularly in the north of the County. The smallholdings, usually no bigger than 2 hectares, consist principally of self-built cottages on holdings either owned outright or leased from the landowner, together with a subsistence husbandry that brings a degree of self-sufficiency to the smallholder.

Some have been amalgamated into larger farms but the survival of large areas of small fields, with their associated hedge banks and scattered cottages, is a reminder of the historical and cultural significance of the smallholding within the Worcestershire landscape.

Time-depth: Current &/or previous type.

Current types will be those on the modern OS mapping and if a „Previous type“ will appear on the 1<sup>st</sup> Edition OS mapping but not on the modern OS Mapping.

\*\*\*Notes on smallholdings post-pilot study: the two HLC types that deal with smallholdings – „Market Gardening Smallholdings“ and „Smallholdings“ should probably be kept separate to distinguish the smallholdings that were carved out of woodland and former common land in the north of the county from the very distinctive market-gardening smallholdings in the south-east of the county, typical of the Vale of Evesham. However, as the project progresses their definitions should be refined and the way in which both types are digitised, resolved. As part of the pilot study, the cottages and small fields that comprised the smallholdings in the north were digitised separately from each other with the former being recorded as the smallholding and the latter „Planned Enclosure for Orchard“. In contrast, in the southeast of the county, the distinctive strip fields were recorded as „market-gardening smallholdings“, whilst no buildings survived. It is suggested that these HLC types cover both properties and fields in the future.

### **BROAD TYPE: FIELDS AND ENCLOSED LAND**

Areas of field that are identified as being used as some form of agriculture. This will be predominantly enclosed land but includes previous medieval open fields. Enclosure of land may have occurred at an early date – possibly medieval and

in a few rare cases, in the prehistoric period. In other areas open fields or common land was enclosed either by agreement, or in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries, by act of parliament. There is a close association of open fields with areas of nucleated settlement.

The HLC types take account of the physical character (morphology: patterning and composition) of boundary features and also time depth in terms of the extent, coherence and origins of these patterns within the present landscape.

Where field systems contain areas of plantation and copses e.g. used for fox coverts (smaller than 1 hectare) this will be recorded in the database.

### **FEL1 Ancient Enclosure – co-axial fields**

Co-axial enclosure is a descriptive term for an extensive field system that shares the same orientation, often extending over several kilometres, which may reflect a deliberate act of landscape reorganisation.

Morphologically this category of enclosure exhibits a distinctive boundary pattern of fields with roughly parallel boundaries, being sinuous in form with irregular subdivisions, forming an irregular brick-like sequence and often defined by ancient lanes. These cover large areas, often running up from a watercourse, across valleys. However, they are not always dependent on or reflective of topography. Woodlands may be a significant feature within the field pattern. It is thought that these are predominantly grazing areas, hence their greater survival than arable fields. Identified by morphology apparent on modern and previous OS mapping.

Time-depth: Current &/or previous type.

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

All local examples pre-date the earliest maps and are likely to be medieval or prehistoric in origin. Examples of this type are found on Dartmoor, the Hertfordshire Chilterns and elsewhere have been dated to the Bronze Age.

### **FEL2 Assarted Enclosure**

The term „assart“ as used here refers to the enclosure and clearance of woodland to create enclosed private farmland and/or settlement, usually reflecting land grants and tenancy arrangements in the medieval period. It results in patterns of small, very irregular enclosures interspersed with/ on the edge of ancient woodland. They form an irregular field pattern with no discernible major common boundaries within the pattern. Assart fields usually contain scattered small woods and copses.

Time-depth: Current &/or previous type.

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Assarting in the strictest sense of the word is a medieval phenomenon occurring mainly in the 11<sup>th</sup> and 12<sup>th</sup> centuries (Rackham, 1986); however, clearance of woodland for farmland in this piecemeal manor seems to occur right up to the 19<sup>th</sup> century.

Notes: post-pilot study - would suggest that this HLC type is kept purely for what appear to be medieval assarts. The pilot study results for the north-east of the county demonstrate that it is not always easy to prove that a group of fields have resulted from medieval assarting and hence this type may be under represented. Any later clearance of woodland should be recorded as „Late Clearance of Woodland“ as it is clear that the medieval phenomenon of assarting is a different beast to late clearance of woodland.

### **FEL3 Medieval Open Fields**

Areas, which are likely to have formed part of medieval open fields i.e. arable held in common, traditionally farmed in strips with multi-ownership or tenancy on a rotational system, usually associated with nucleated settlement and suggested through the presence of ridge and furrow earthworks or piecemeal enclosure.

The relicts of this type of cultivation are principally long ridges and lands, often formed in a reversed „S“ shape or aratral curve, characteristic of medieval common arable fields and more rarely associated with other types of land use. Large areas of post-medieval and modern field systems in this area will have open fields recorded as an antecedent type. Parish Boundaries may echo lost field strips.

They are sometimes marked on the 1<sup>st</sup> Edition OS mapping with pecked strips or annotated on earlier maps as Common Fields, or named.

Time-depth: „Previous type“ only.

Open fields are a medieval form of land management, which originated in the Late Saxon period, reached its maximum extent in the 13<sup>th</sup> century and declined thereafter becoming extinct as a land use in Worcestershire by the end of the 19<sup>th</sup> century.

Notes: post-pilot study – only recorded where evidence of ridge and furrow or recorded on open field strip maps.

### **FEL4 Enclosed Furlongs**

This HLC type represents a field system, which has replaced former medieval open fields/ ridge and furrow by enclosing and establishing boundaries around what were formerly individual furlongs – effectively retaining the same shape and area but being bounded by hedges, dry stone walls etc.

Time-depth: Current &/or previous type.

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

It is hard to establish a firm date for this type, as it represents a distinct form of piecemeal enclosure, albeit established in the medieval or early post-medieval periods. Probably dates from the medieval period to the 17<sup>th</sup> century.

### **SET5 Enclosed Strip(s)**

Common arable fields were cultivated in strips in order to distribute good and bad soils equally amongst the various tenants farming the fields. When single strips or small groups of strips have been enclosed, they result in long thin enclosures, which have, parallel-curving (wavy) boundaries usually formed by hedges. Occasionally, they have been sub-divided by cross-boundaries producing rectangular wavy-edged enclosures. There can be small steps in the field boundaries, which correspond to the width of individual or small groups of strips.

This category is a direct indicator of former open field farming, representing the shape of previous cultivation strips. Many of these enclosures are found adjacent to settlement and have been incorporated (or form part of) tenurial properties boundaries or „tofts“ and crofts“. The distribution of this type is mainly in the southeast of the County where the majority of open field farming took place. Identified by morphology apparent on modern and previous OS mapping.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

It is hard to establish a firm date for this type, as it represents a distinct form of piecemeal enclosure, albeit a specific type established in the medieval or early post-medieval periods. Probably dates from the medieval period to the 17<sup>th</sup> century.

### **FEL6 Piecemeal Enclosure (pre 18th century irregular field system)**

Field systems that have been created out of the gradual, piecemeal enclosure of medieval open fields by informal verbal agreement between farmers seeking to consolidate their holdings and also sales (Johnson, 1996). They tend to take a less regular and structured form than HLC types FEL4 & 5.

Evidentially, established on a field-by-field basis and often are small irregular fields with at least two boundaries of a reverse „s“ curve and/or dog-leg morphology and/or evidence for ridge and furrow, suggesting that they follow the boundaries of former medieval field strips. However, they can be of variable size and form, typically lacking any overall planning and generally reflecting their erratic creation and can be confused with woodland assarts or woodland intakes that generally have a similar appearance. However, they are usually larger and often slightly more regular than assarts and are further distinguished from them by the lack of scattered small woods and copses typical of assart field patterns.

They are often associated with dispersed settlement, commons and greens. Identified by morphology apparent on modern and previous OS mapping.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered in any way e.g. with later enclosure within or subsequent boundary loss, they are a „Previous type“.

Some irregular piecemeal enclosure may be of medieval origin but where it overlies medieval ridge and furrow was most probably created between the 14<sup>th</sup> and 17<sup>th</sup> centuries either by enforced clearance of the open fields or by agreement.

### **FEL7 Rectilinear squatter enclosure**

Small, rectilinear fields usually with a more ordered appearance than „Irregular Squatter Enclosure“ and predominantly with straight boundaries. The overall field pattern has a more planned appearance than in areas of „irregular squatter enclosure“. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity and are indicative of mostly illicit encroachment onto common land in the post-medieval and industrial periods (although there may be some examples which were legal). Identified by morphology apparent on modern and previous OS mapping.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Mostly Post-Medieval or Industrial in date.

### **FEL8 Irregular squatter enclosure**

Small irregular fields, usually with an unordered appearance predominantly, with sinuous or curvilinear boundaries. The overall field pattern has an unordered, „organic“, often amorphous appearance. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity. Are indicative of mostly illicit encroachment onto common land in the post-medieval and industrial periods (although there may be some examples which were legal).

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Mostly post-medieval to industrial in date.

### **FEL9 Encroachment Enclosure**

Small rectilinear or irregular fields that appear to have been encroachment onto common land in the post-medieval or later periods, however, they are not in close proximity to any settlement or industry.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Mostly post-medieval to industrial in date.

### **FEL10 Small Irregular or Rectilinear Fields**

Small irregular or rectilinear fields, which cannot be assigned to one of the other historic, landscape character types. Includes small fields on the floodplain probably used as meadows and closes not occurring next to settlements. This should catch all the misfits and stimulate further research.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Regular fields: Rigorous rectilinear field system introduced over previously unenclosed land or to supersede earlier irregular enclosures. Mainly associated with the period of agricultural improvements 1700-1820 and the Parliamentary Enclosure Acts but may be earlier.

### **FEL11 Parliamentary Enclosure**

Parliamentary enclosure is characterised by regular, small and large rectangular fields with „ruler straight“ boundaries and often with contemporaneous tracks and roadways. This reflects the planned nature of enclosure undertaken by surveyors during the 18<sup>th</sup> and 19<sup>th</sup> centuries. This will have overwritten any prior landscape enclosure pattern. Enclosing either prior common arable field, or former heath lands, or wastes, field boundaries & associated infrastructure being removed with new ones being established.

This HLC type includes both those areas of parliamentary enclosures that have been further subdivided after the initial enclosure award but have not been greatly altered in the 20<sup>th</sup> century and those, which appear in the present landscape as they did on the original enclosure award.

Most parliamentary enclosure is found within the southeast of the County. It can be identified by morphology apparent on modern and previous OS mapping and the Tate and Turner list of Parliamentary Enclosure Maps and Awards for Worcestershire (Tate and Turner, 1978).

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered e.g. boundary loss, will be a „Previous type“.

Enclosure awards and maps provide specific date of origin and original form for the fields. These can then be compared with the modern OS mapping. Generally the process of Parliamentary enclosure occurs throughout Worcestershire from the early 18<sup>th</sup> century but may be divided into two phases a) the large-scale enclosure of open fields on a parish by parish basis and b) the later piecemeal enclosure of commons and wastes from the early to mid 19<sup>th</sup> century.

\*\*\*Notes: post-pilot study – clear that at least some fields that belong to this HLC type in Worcestershire do not fall into the „classic“ Parliamentary Enclosure group seen in the southeast of England and elsewhere. It seems that many Parliamentary Enclosure fields in the pilot study area were adaptations/modifications of earlier existing „piecemeal enclosure“ and therefore were far more irregular in shape and patterning that might be expected for Parliamentary Enclosure. In fact, it is very often difficult without a decent Parliamentary Enclosure map to differentiate between „Piecemeal Enclosure“, Parliamentary Enclosure“ and „Planned Private Enclosure“.

### **FEL12 Planned Private Enclosure (Estate Fields)**

Small to large fields with very straight boundaries and a rectilinear form, which gives them a geometric planned appearance, presumably deriving from planned but mostly often unrecorded episodes of enclosure, although a small number of private agreements survive. This field pattern is often associated with very straight roads and dispersed farmsteads and frequently contains the remnants of medieval strip fields, both respecting and ignoring the layout of the open field furlongs. In most cases this HLC type results from a process of enclosure by

formal agreement during the late 17<sup>th</sup> to 19<sup>th</sup> centuries. This entailed one or more proprietors acting together, with lawyers and surveyors establishing each party's rights and/or the extent of their property. The land in question was then re-allotted, either as consolidated holdings or in proportion to the rights exercised over them, and then enclosed.

Morphologically, planned private enclosure is similar to parliamentary enclosure, although is not always laid out with quite the same precision. Planned private enclosure of wastes and open field will be identifiable particularly in areas where the extents of parliamentary enclosure are already known and will be identified by morphology apparent on modern and previous OS mapping (any data on Parliamentary enclosure should help identify this type, by default).

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

Most will be 18<sup>th</sup> to 19<sup>th</sup> century in date but some will pre-date the 18<sup>th</sup> century and may be contemporary with piecemeal enclosure.

### **FEL13 Field Amalgamation (boundary loss)**

Large irregular fields often with sinuous boundaries where field amalgamation has occurred since the OS 1<sup>st</sup> edition map. Will have a drop down box within the attributes table to indicate the legibility of the previous type e.g. if has a high legibility will have suffered little boundary loss and if it has a low legibility it will have suffered a high degree of boundary loss. This will allow the degree of boundary loss from a historic field pattern to be recorded and will aid management decisions. At the extreme will include regular fields, greater than 8 hectares in size, dating to the Post-War period with low legibility of the previous type i.e. 20<sup>th</sup> century prairie fields.

Time-depth: Current type only

This mostly represents field boundary loss since the 1950's due to mechanisation, changes in agricultural practices, often as a result of the Common Agricultural Policy (CAP). This may range from the loss of a single boundary (i.e. two fields merged into one) or may field boundaries being removed to form a single field. The resultant field is a hybrid and palimpsest, with edges that may have several periods of origin. This system may also contain relict elements of former boundaries within the field e.g. a field edge that does not connect to form a fully enclosed field enclosure.

### **FEL14 Meadows (non-irrigated)**

Meadows are areas of grassland, often near a river, brook or stream, permanently covered with grass, which is mown for use as hay in the summer



months. The grass is dried and used for livestock fodder in the winter. They are also used for grazing. Although practice of saving hay has generally ceased in modern farming (though silage and haylage are still pretty important), meadows are still discernable in the landscape by their long, thin sinuous shape and are usually found on low-lying ground on damp valley bottoms adjacent to the course of a river (on the floodplain). Water meadows form a separate Historic Landscape Type.

Identified by morphology apparent on modern and previous OS mapping and for current types from the Worcestershire Phase 1 Habitat Mapping data (search using habitat codes GN1, GN11, GN12 & GN1Z). Previous types may be indicated also by fieldname evidence e.g. use of „ham“ or whose use may be recorded on tithe maps.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered e.g. by boundary removal, will be a „Previous type“.

Meadows were well established by the 11<sup>th</sup> century and remained important throughout the medieval period. The origins of organised management of water courses is not closely dated but may be a medieval phenomenon continuing into the 19<sup>th</sup> century.

### **FEL15 Paddock**

Small and generally irregular fields located on the edge of settlements usually representing small paddocks/closes of varying dates.

Time-depth: Current &/or previous type

### **FEL16 Modern Subdivision**

This landscape type can vary but is usually regular in morphology. Usually these enclosures have been created as a consequence of subdividing an older landscape type into smaller allotments for personal ownership and pony paddocks. This type is found mostly in ...with greater concentration found next to settlements and more urbanised areas. Other locations are next to modern infrastructure development such as roadways and bypasses where older field patterns have been disrupted and reorganised e.g. a modern roadway subdividing pre-existing field systems.

Time-depth: Current &/or previous type

Where they have survived relatively untouched will be recorded as „Current“ or if adapted and altered, a „Previous type“.

20<sup>th</sup> century in date.

### **FEL17 Rough Pasture**

Normally unenclosed and unimproved land in rural areas including, that which has been enclosed and then reverted to rough grazing. Identified from modern aerial photos and habitat mapping.

Time-depth: Current &/or previous type

### **FEL18 Field Reorganisation**

Modern adaption and substantial reorganisation of existing field boundaries, rewriting earlier field system. More than modern subdivision or field amalgamation and frequently occur next to railways and motorways.

Time-depth: Current &/or previous type

Can be identified from modern or historic OS mapping.

### **FEL19 Planned Enclosure for Orchard**

Particular to Wyre Forest area and has been used to describe small fields associated with smallholdings which have been created by modifying Parliamentary Enclosure fields which themselves result from the enclosure of former common land.

Time-depth: Current &/or previous type

Can be identified from modern or historic OS mapping.

\*\*\*Notes: post-pilot study – in the future these groups of fields should probably be placed in one of the other HLC types but needs careful consideration as you are effectively dealing with modified Parliamentary Enclosure fields to create smallholdings.

### **FEL20 Post-Enclosure Reorganisation**

Reorganisation of Parliamentary Enclosure fields. Usually occurs prior to 1<sup>st</sup> edition mapping.

Time-depth: Current &/or previous type

Can be identified from modern or historic OS mapping.

### **BROAD TYPE: UNENCLOSED LAND**

Areas of land that have remained largely unimproved and unenclosed over a period of time. This includes Heathland and Unimproved Grassland in the form

of open Hill Pasture and other Commons. These areas exhibit an overlap between historic landscape types and areas perceived as having special significance for biodiversity or rare species survival.

### **UEL1 Heathland**

Open land on the current or previous OS mapping marked by symbology and annotation e.g. „Whitchurch Heath“. Heathland occurs often on areas of light well-drained acid soils and is mainly used for grazing. It is generally situated below the 244m contour line and is distinguished from moorland by the absence of peaty soil. In most cases this land was subject to common rights during the medieval and post-medieval periods traditionally used as rough grazing, for collecting fuel and for certain industries. A tick-box within the Access database will indicate whether common or not.

Heathlands are now mostly enclosed and improved arable or being proactively maintained as improved grassland for grazing fields, to conserve the resulting ecology.

Current types can be identified as heathland by both English Nature’s Lowland Heathland Inventory and by the Worcestershire Phase 1 Habitat Biodiversity Mapping -search on habitat code HE0, HE1, HE2, HE21, HE22, HE2Z, HE3 and HEZ). The UK Biodiversity Action Plan further defines heathland and it is recorded on modern OS mapping (as bracken, heath or rough grassland). Current types can also be recognised from a combination of historic mapping showing areas of heathland and the presence of bracken or scrub which can indicate an unmanaged and degraded heath – search on habitat codes BR0, BR1 and BRZ & SC0, WB2 etc.

Time-depth: Current &/or previous type

If still being used as unenclosed heathland, then is recorded as „Current“, or if now enclosed is considered a „Previous type“ as the field system will be the dominant landscape type in this instance.

Thus may occur in any time horizon within the database.

### **UEL2 Unimproved Open Hill Pasture**

Areas of unimproved grassland above 244m, which in most cases, were subject to common rights during the medieval and early post-medieval periods. Will be recorded on current and previous OS mapping (as bracken, heath or rough grassland). May contain preserved monuments and landscapes dating to the medieval, Roman and prehistoric periods as extant features.

For „Current types“ may be identifiable/indicated from the Worcestershire Phase 1 Mapping (search on GU0 „Grassland, possibly unimproved or semi-improved“), elevation and symbology on current OS mapping.

Time-depth: Current &/or previous type

If still being used as unenclosed hill pasture, then is recorded as „Current“, or if now enclosed is considered a „Previous type“ as the field system will be the dominant landscape type in this instance.

Thus may occur in any time horizon within the database.

Is impossible to put a specific date of origin on but can be considered „Ancient“.

### **UEL3 Other Commons/Greens**

Commons and Greens are open land traditionally used for rough grazing, collecting fuel and for certain industries. Morphologically they vary in form, from ribbon like along a road to vast areas of common land. In many places settlements coalesced on and around commons during the medieval and post-medieval periods in a process akin to assarting of woodlands. Manorial lords regulated rights on commons, which were an important part of the medieval economy. Few are still in use, as traditional grazing commons but remain as valued areas.

They can be recognised from the modern and 1<sup>st</sup> Edition OS mapping, often being annotated as a „common“ or „green“ or maybe symbolised as rough grassland. They may have a built (fringe of settlement) or open margin (with a few houses/farms at road/track/entrances/exits). For „current types“ this can be checked against areas of common land identified on the Countryside Agency’s National Registered Common Land map (available as a GIS shape file on the corporate server).

They are distinguished from heathland on the basis of place name evidence and by reference to the Habitat Mapping (if a current type, heathland will be recorded as a Heathland type versus „unimproved grassland“ for areas of Unenclosed Common) and are identifiable from other HLC types of common land i.e. „Open Hill Pasture“ in that they cover areas of lower lying ground.

Time-depth: Current &/or previous type

This type is mostly relict as common grazing rights are no longer exercised, it has been enclosed or the land is now under different management or use e.g. a golf course. Thus may occur in any time horizon within the database – although mostly a „Previous type“.

They were probably at their most extensive in pre-medieval times but only coalesced into the documented form in the medieval period.

### **BROAD TYPE: WATER AND VALLEY FLOOR**

Areas of land that are dominated by water or water related features.

### **WVF1 Reservoir**

Artificial bodies of water created specifically for the purposes of water supply and which are marked as such on current OS mapping (named as Reservoir/Resr. in blue). In Worcestershire these will generally date to the latter half of the 20<sup>th</sup> century. Check the Worcestershire Phase 1 Habitat mapping data (search on management code AO11 – „Reservoir“ although for uncovered types only).

Reservoirs are/ are not a major feature of the Worcestershire landscape although where they are found the chief reason for their existence is to provide a water supply to urban areas.

Time-depth: Current &/or previous type

The majority of reservoirs have been created in the 20<sup>th</sup> century but there are rare examples that date to an earlier period (check to see whether these are recorded on the HER).

### **WVF2 Artificial Lake/ Pond**

Generally, bodies of water that can be recognised as man-made and artificial through the presence of retaining earthworks and /or dams, or which occupy former minerals or aggregates workings but are not recognised as reservoirs. This category includes ornamental lakes, recreational facilities (e.g. modern fish ponds), hatchery complexes and flooded restored quarries and ponds associated with former industrial activity.

Can be identified from modern and 1<sup>st</sup> Edition OS mapping. On the latter will often be duck ponds, millponds and fishponds etc. On later maps the smaller water bodies are often small water reservoirs for livestock – reflecting the lowering water table and scarce water resources, whereas the larger water bodies are reservoirs for potable water (see WVF2 type). The mapping source is indicative of date. Check against the Worcestershire Phase 1 Habitat Mapping (search on management code AO1 – „Artificial Open Water Areas“, „AO12, AO13 and AO16).

Time-depth: Current &/or previous type

They are mostly „Current“ as still in use and visible as a water feature – though the early fishponds will no longer be used as such.

### **WVF3 Watermeadow (irrigated meadow)**

A Water Meadow is an area of grassland next to a river, which is artificially flooded at certain times of the year, by means of a network of ridges and channels, (usually at right-angles to one another), to produce early (springtime), good quality pasture while in the later summer to produce a hay crop. The flooding brought nutrients onto the land, improving hay crops. This can be

distinguished from a flood meadow, which is naturally flooded whenever a river is in spate. The techniques of draining and flooding the water meadows differ from one place to another, but it is clear that Water Meadows were a form of irrigation. The main components include head main, carriers, weirs, hatches and drains. Owing to high labour costs, water meadows became uneconomical to maintain and hence only a few are still operational.

They are characterised by the morphology of a distinctive, regular network of water channels for flooding and draining of water onto meadows – this may be seen on the modern and previous OS mapping. Water meadows are also recorded on the GIS shapefile of water meadows for Worcestershire.

Time-depth: Current &/or previous type

Where still operational will be recorded as „Current“ or if no longer operational, will be a „Previous type“. The GIS Water meadows shape file mostly records relict water meadows.

Water meadows were in general use from the 17<sup>th</sup> century onwards although their use declined dramatically in the 19<sup>th</sup> century.

#### **WVF4 Bog**

Areas of unimproved peat. In most cases peat formation will have begun in the prehistoric period. The acidic conditions in these environments favour the preservation of organic remains and, as a result, these areas often preserve high-quality palaeoenvironmental and archaeological evidence. Truncation of the uppermost layers may have occurred due to peat cutting in the historic period. These also sustain ecologically rich wetland habitats. Can be identified from the Worcestershire Phase 1 Habitat Mapping data, (search on habitat codes, E00, E01, E02, E021, E022, E02Z and E0Z).

Time-depth: Current &/or previous type

#### **WVF5 Marsh**

Areas of poorly drained, marshy ground in floodplain locations and that do not fit into any other categories and have been identified as marsh on the modern Ordnance Survey mapping by symbology and the Worcestershire Phase 1 Habitat Mapping data (search on habitat code for fen, marsh and swamp - EM0).

If a previous type, will be symbolised and annotated as such on the 1<sup>st</sup> ed. 6” map only (in which case the marsh has only been drained over the last 120 years) or whose existence can be inferred from intensive floodplain drainage.

Time-depth: Current &/or previous type

### **WVF6 Natural Open Water**

Bodies of open water generally over 1ha, which have natural origin. In most cases they will occupy basins that were formed during the last glaciation, although water levels may well have fluctuated over the course of the Holocene period. Their morphology and/or names on both modern and previous OS mapping suggest that they were natural ponds, lakes and meres e.g. „pool“. These are also identified in the Worcestershire Phase 1 Habitat Mapping data (search on management code AO0- „Open water of unknown origin“ and AO2.

Time-depth: Current &/or previous type

Ancient origin.

### **WVF7 Miscellaneous floodplain fields**

Areas of land that can be identified as river floodplain, but do not fall into one of the „Fields and Enclosed Land“ HLC types. These enclosures tend to vary considerably in their morphology of field shape and boundaries. During the early medieval period many of these areas were probably used as common rough pasture and grazing marsh but this is not certain. Will be used as „Previous type“ to signify possible areas of meadow.

### Appendix 3. HLC Types for Malvern Hills AONB





## Appendix D. Data Sources for the Worcestershire HLC

Data Set	Format	Description and use for HLC
Modern OS 1:10,000 map	Digital Raster Map; ArcView .shp file	Base map data for HLC
OS Master Map 1:2,500	Digital Vector Map; ArcView .shp file	Base map data for HLC
BGS Drift Geology map	Digital Vector Map; ArcView .shp file	Shows units of drift geology for the county. Useful for indicating how historical patterns of land use are constrained by geology.
BGS Solid Geology map	Digital Vector Map; ArcView .shp file	Shows units of solid geology for the county. Useful for indicating how historical patterns of land use are constrained by geology.
BGS sand and gravel quarry sites	Digital Vector Map; ArcView .shp file	Shows areas of the county that have been quarried. Useful for indicating changes in landuse and historic character.
Worcestershire HER	An SQL database supported by ArcView 3.3 GIS software	Shows known sites of archaeological and historic interest.
English Nature's Ancient Woodland Habitat Inventory	Digital Vector Map; ArcView .shp file	Shows areas of woodland likely to have had continuous woodland cover since at least 1600 areas of former ancient woodland which have been felled and replanted, often with conifers.
Forestry Commission's National Inventory of Woodland and Trees	Digital Vector Map; ArcView .shp file	Digital Woodland Map showing woodland by broad interpreted forest types. Useful for HLC woodland character types.
Countryside Agency, Forestry Commission and English Heritage Joint Character Areas Map	Digital Vector Map; ArcView .shp file	Areas mapped at a scale of 1:200,000 describing physiographic, landuse, historical and cultural attributes of areas.
Environment Agency, Flood Zone map	Digital Vector Map; ArcView .shp file	Useful for identifying areas of enclosed land falling within areas of floodplain.
Landmark Epoch 1. 1 <sup>st</sup> County Series Survey	Digital Raster Map; ArcView .shp file	OS 1:10,560 series publication date 1843-1893. Principal data set for identifying historic land use and settlement and for the identification of previous Historic Landscape Character.
Landmark Epoch 2. 1 <sup>st</sup> County Series Revision	Digital Raster Map; ArcView .shp file	OS 1:10,560 series publication date 1891-1912. Data set for identifying changes in historic land

<b>Data Set</b>	<b>Format</b>	<b>Description and use for HLC</b>
		use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 3. 2 <sup>nd</sup> County Series Revision	Digital Raster Map; ArcView .shp file	OS 1:10,560 series publication date 1904-1939. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 4. 3 <sup>rd</sup> County Series Revision	Digital Raster Map; ArcView .shp file	OS 1:10,560 series publication date 1919-1943. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 1. 1 <sup>st</sup> County Series Survey	Digital Raster Map; ArcView .shp file	OS 1:2500 series publication date 1884-1889. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 1. 2 <sup>nd</sup> County Series Survey	Digital Raster Map; ArcView .shp file	OS 1:2500 series publication date 1902-1910. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 1. 3 <sup>rd</sup> County Series Survey	Digital Raster Map; ArcView .shp file	OS 1:2500 series publication date 19*. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Landmark Epoch 1. 4 <sup>th</sup> County Series Survey	Digital Raster Map; ArcView .shp file	OS 1:2500 series publication date 19*. Data set for identifying changes in historic land use and settlement since the previous epoch and for the identification of previous Historic Landscape Character.
Modern Air Photo layer 1999	Digital Raster data set; ArcView .dbf file	Seamless rectified vertical coverage of the county, useful as an indicator of modern landuse and for the identification of significant earthwork features such as ridge and furrow.
Modern Air Photo layer 2005	Digital Raster data set; ArcView .dbf file	Seamless rectified vertical coverage of the county, useful as an indicator of modern landuse and for the identification of significant

<b>Data Set</b>	<b>Format</b>	<b>Description and use for HLC</b>
		earthwork features such as ridge and furrow.
1963- 1970 Air Photo layer	Digital Raster data set; ArcView .dbf file	Vertical coverage of the county, in the process of being rectified. Useful for the identification of significant earthwork features such as ridge and furrow and landuse changes over past 40 years.
Mineral Resources; Brickclay	Digital Raster Map; ArcView .shp file	County Dataset showing areas of Brickclay extraction.
Mineral Resources; Gypsum	Digital Raster Map; ArcView .shp file	County Dataset showing areas of gypsum extraction.
Mineral Resources; Igneous	Digital Raster Map; ArcView .shp file	County Dataset showing areas of igneous rock extraction.
Mineral Resources; Limestone	Digital Raster Map; ArcView .shp file	County Dataset showing areas of limestone extraction.
Mineral Resources; Sand and Gravel	Digital Raster Map; ArcView .shp file	County Dataset showing areas of sand and gravel extraction.
Mineral Resources; Surface Coal	Digital Raster Map; ArcView .shp file	County Dataset showing areas of surface coal extraction.
Water Meadow Layer	Digital GIS theme; ArcView .shp file	Dataset of known and mapped water meadows existing in the county.
Register of Historic Parks and Gardens	Digital GIS theme; ArcView .shp file	Dataset showing parks and gardens appearing on English Heritage's register of Parks and Gardens of Special Historic Interest.
Register of Historic Battlefields	Digital GIS theme; ArcView .shp file	Dataset showing battlefields appearing on English Heritage's register of Battlefields of Special Historic Interest.
Defence of Worcestershire	Digital GIS theme; ArcView .shp file	Dataset of all the known Second World War sites and installations in the County.
Tithe Maps	Digital GIS theme; ArcView .shp file	Digitised versions of the Tithe maps, fully rectified but without apportionment data in the attributes table.
NMR cropmarks	Digital Raster map; ArcView .shp file	Rectified cropmarks drawn by the NMR in the 1980s from oblique aerial photographs.
Cropmarks in the Vale of Evesham	Digital GIS theme; ArcView .shp file	Arcview theme showing all the rectified cropmarks identified from Mike Glyde's oblique aerial photographs.
Feckenham Forest	Digital GIS	An interpretation of Feckenham

<b>Data Set</b>	<b>Format</b>	<b>Description and use for HLC</b>
interpretation layer	theme; ArcView .shp file	Forest in the 13 <sup>th</sup> century.
Woodland Opportunities	Digital GIS theme; ArcView .shp file	
Tithe Maps Transcriptions	Paper copies stored in a map cabinet at Worcestershire HER	David Guyatt's transcriptions of the Tithe and Enclosure maps for Worcestershire including field names and building data from the apportionments
Oblique Aerial Coverage	Printed copies stored at Worcestershire HER	Over 4000 oblique images of Worcestershire mostly from 1956 onwards, but dating back to the 1930s.