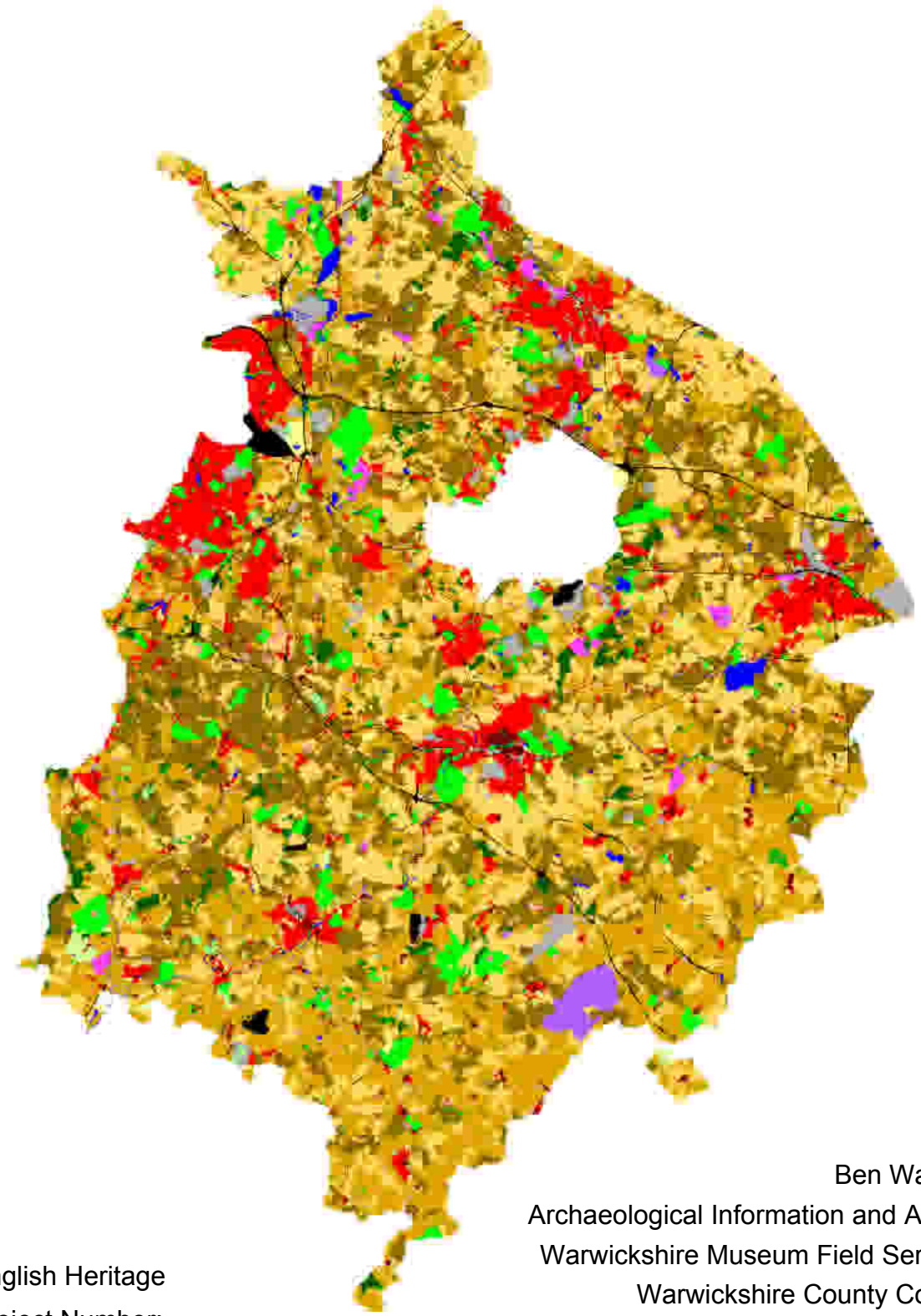
Warwickshire Historic Landscape Characterisation Project



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English Heritage
Project Number:
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ENGLISH HERITAGE

Working for Warwickshire

Warwickshire County Council

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Acknowledgments

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Finally the author would like to thank his wife for patiently putting up with all those polygons!

Abbreviations

AONB	Area of Outstanding Natural Beauty
BGS	British Geological Survey
CAA	Conservation Area Appraisal
DM	Defence Munitions
EA	Environment Agency
EH	English Heritage
ELC	European Landscape Convention
ELS	Entry Level Scheme
EUS	Extensive Urban Survey
FEP	Farm Environment Plan
GI	Green Infrastructure
GIS	Geographic Information System
HBA	Habitat Biodiversity Audit
HECA	Historic Environment Character Areas
HECZ	Historic Environment Character Zones
HER	Historic Environment Record
HLC	Historic Landscape Character
HLS	Higher Level Scheme
JCA	Join Character Areas
LPA	Local Planning Authority
LDF	Local Development Framework
LDU	Landscape Description Unit
MB	Metropolitan Borough
MSRG	Medieval Settlement Research Group
NBBC	Nuneaton and Bedworth Borough Council
NCA	National Character Areas
NE	Natural England
NMP	National Mapping Programme
NWDC	North Warwickshire District Council
OD	Ordnance Datum

PAI	Positional Accuracy Improvement
PPS	Planning Policy Statement
RAF	Royal Air Force
RBC	Rugby Borough Council
RSPB	Royal Society for the Protection of Birds
RSS	Regional Spatial Strategy
SDC	Stratford-on-Avon District Council
SHINE	Selected Heritage Inventory for Natural England
SOAs	Super Output Areas
SMBC	Solihull Metropolitan Borough Council
OS	Ordnance Survey
WCC	Warwickshire County Council
WDC	Warwick District Council
WLG	Warwickshire Landscape Guidelines
WOM	Woodland Opportunity Map
WOMBAT	Warwickshire Online Mapping Browser and Toolkit
WWT	Warwickshire Wildlife Trust

Executive Summary

This report summarises the results of the Warwickshire Historic Landscape Characterisation Project carried out by Warwickshire County Council Museum Field Services between May 2006 and March 2010.

The project forms part of a national programme of Historic Landscape Characterisation funded and administered by English Heritage over the last 15 years. For the most part they have been undertaken by Local Authority based Historic Environment Services, covering individual counties or similar sized units. They aim to achieve an archaeologist's understanding of the historic and cultural origins and development of the present day landscape through a desk-based programme of digital mapping, description and analysis, by the identification of the physical remains visible within the landscape that demonstrate the processes by which it has reached its present form.

Like the other members of the family of landscape characterisation studies to which it belongs, HLC provides a broad-brush overview of complex aspects of the historic environment in order to provide new and wide-ranging information for conservation, management and development decisions. The objective of HLC is to promote better management and understanding of the historic landscape resource, and of the accommodation of continued change within it, and to establish an integrated approach to its sustainable management in partnership with other organisations.

The Warwickshire HLC uses a complex database with linked GIS mapping capability to record discrete parcels of individual historic landscape character. Sources such as historic maps, aerial photographs and other types of information were used to assign each area to one of a number of HLC Types.

This report summarises the results of detailed analysis of the HLC material including analysis at a county and local planning authority level. A range of practical applications of the dataset are outlined along with recommendations for the future of HLC in Warwickshire.

The Warwickshire HLC helps us understand an essential aspect of the county; there is no doubt that it has great potential to inform management, conservation and understanding at local, county, regional and national levels.

The results of the Warwickshire HLC project have been integrated into the Warwickshire and Solihull Historic Environment Records and as such the information and data is available to anyone wishing to know more about the Historic Landscape Character in their area.

This report is also available online at: www.warwickshire.gov.uk/hlc

Chapter 1 - Introduction

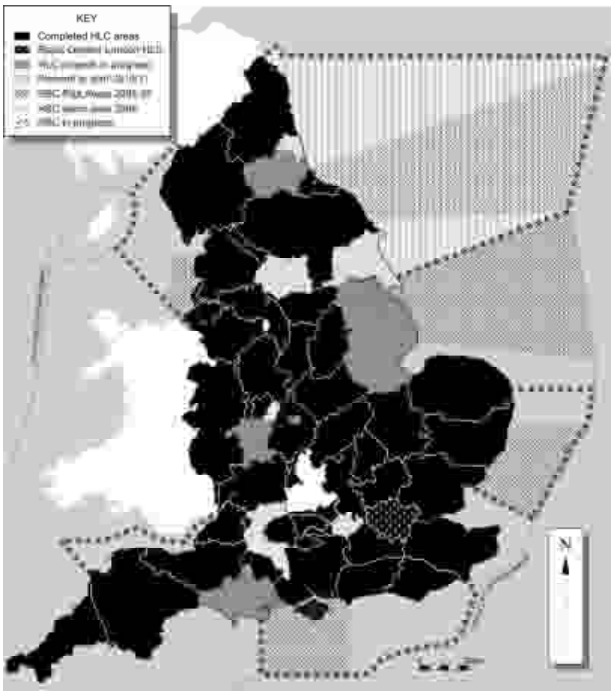
Historic Landscape Characterisation

In September 1991, the UK Government White Paper 'This Common Inheritance' suggested that English Heritage prepare a list of landscapes of historic importance in England for the purposes of conserving and managing England's 'historic landscapes'. However, it was concluded, after a number of pilot projects aimed at assessing historic landscapes, that a selective register would not meet the conservation needs of the historic landscape in its widest sense. Instead English Heritage turned to characterisation as a way of better understanding and managing historic landscape.

Over the past twenty years the concept of 'characterisation' has become accepted as the preferred approach to landscape management. The idea of 'character' for the historic environment was first mentioned in the 1967 Conservation Area legislation. Since then it has been endorsed by a number of national policies such as *PPG7* (now *PPS7*) and *PPG15 (*now PPS5*)*, and also at a regional and local level, often being referenced in Regional Spatial Strategies and Local Development Frameworks.

HLC has been endorsed by the government in *A Force For Our Future (2001)* as an emerging tool for managing change in the historic environment. It also has relevance in the context of the *European Landscape Convention* (ELC), which came into force in the UK in 2007. The ELC supports the holistic character-based approach to landscape defining it as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (ELC 2000).

English Heritage started a national programme of Historic Landscape Characterisation in 1994 with the first county-wide HLC in Cornwall. Currently there is almost complete national coverage of HLCs in England with around 90% of the country having carried out or in the process of carrying out an HLC (see map below).



Map of HLC Progress in England (Drawn by Vince Griffin, © English Heritage 2010)

In the West Midlands region most areas are covered by HLC (see table below); only Birmingham and parts of Coventry lack coverage although Birmingham is due to start an HLC project in 2010 and Coventry are looking to carry out characterisation for the urban area.

Once all the HLCs are complete in the West Midlands the next process would be to develop some form of Regional HLC. This will help provide an overview of the historic landscape at an appropriate scale for inclusion in outputs such as the Regional Spatial Strategy.

HLC Projects in the West Midlands Region:

Area	Status (as of March 2010)
Herefordshire	Complete
Warwickshire (including Solihull, part of Coventry and part of Birmingham)	Complete
Black Country (Dudley, Sandwell, Walsall and Wolverhampton)	Mapping complete, some reports complete, project due to finish in Spring 2010
Shropshire	Complete
Staffordshire	Complete, report yet to be produced
Worcestershire	Characterisation in progress
Birmingham	Due to commence in 2010
Coventry	Rural north western part covered by Warwickshire HLC. Considering a characterisation project for the remaining predominantly urban area.

HLC works at a landscape scale. It recognises that the present day landscape is a human construction. The fabric of the land that individuals and groups use to create their own notion of landscape is the product of thousands of years of human activity, although much of what remains to be seen today may be very recent, and has undergone successive periods of change and modification.

All landscape within England can be said to be historic – there are no areas, even apparently ‘natural’ ones, which humans have not used or affected. The term ’historic landscape’ encompasses not just archaeological monuments and historic sites and buildings, but also roads and open spaces, fields, hedgerows, woodland and other habitats.

Over the past 15 years, HLC has evolved; there have been several ‘waves’ of the programme, each project developing and adapting the method to its own area. After the first county-wide HLC in Cornwall, the methodology developed to include more sophisticated databases and GIS with the most recent approaches defining HLC areas on a much more detailed level than was first conceived. This has been especially true in more urban areas where developments of the methodology in Liverpool and The Black Country have produced datasets and maps showing a huge variety of character types at quite a fine level.

Despite this growing sophistication of GIS, HLC is still a relatively generalised characterisation designed to serve primarily as a resource management tool. The overall characterisation of the country provides an inclusive, comprehensive

framework for conservation and management – there are no ‘white areas’ on a map where the historical dimension is omitted. This broad approach is repeatable and updatable and the framework produced enables more detailed assessment to be carried out when required.

HLC has helped to redefine how the historic environment is perceived and managed, allowing a shift from the traditional designation of sites, to an appreciation of both the landscape context of sites, as well as the value of the historic landscape as a whole.

The Warwickshire HLC Project

Location and Description of the Project Area

The project area (see map) consists of the following four components:

The present day administrative county of Warwickshire

There are five Local Planning Authorities within this area: North Warwickshire Borough, Nuneaton and Bedworth Borough, Rugby Borough, Warwick District and Stratford-upon-Avon district. The small part of the County lying within the Cotswolds AONB was the subject of an earlier HLC programme (Hoyle 1999) and was therefore excluded from the Warwickshire HLC Project.

The administrative area of the Metropolitan Borough of Solihull

This was historically part of Warwickshire until the 1974 local government re-organisation. Archaeological planning advice is provided to Solihull MBC by Warwickshire Museum Services, who also maintain the Solihull Historic Environment Record.

The North Western rural part of Coventry City Council

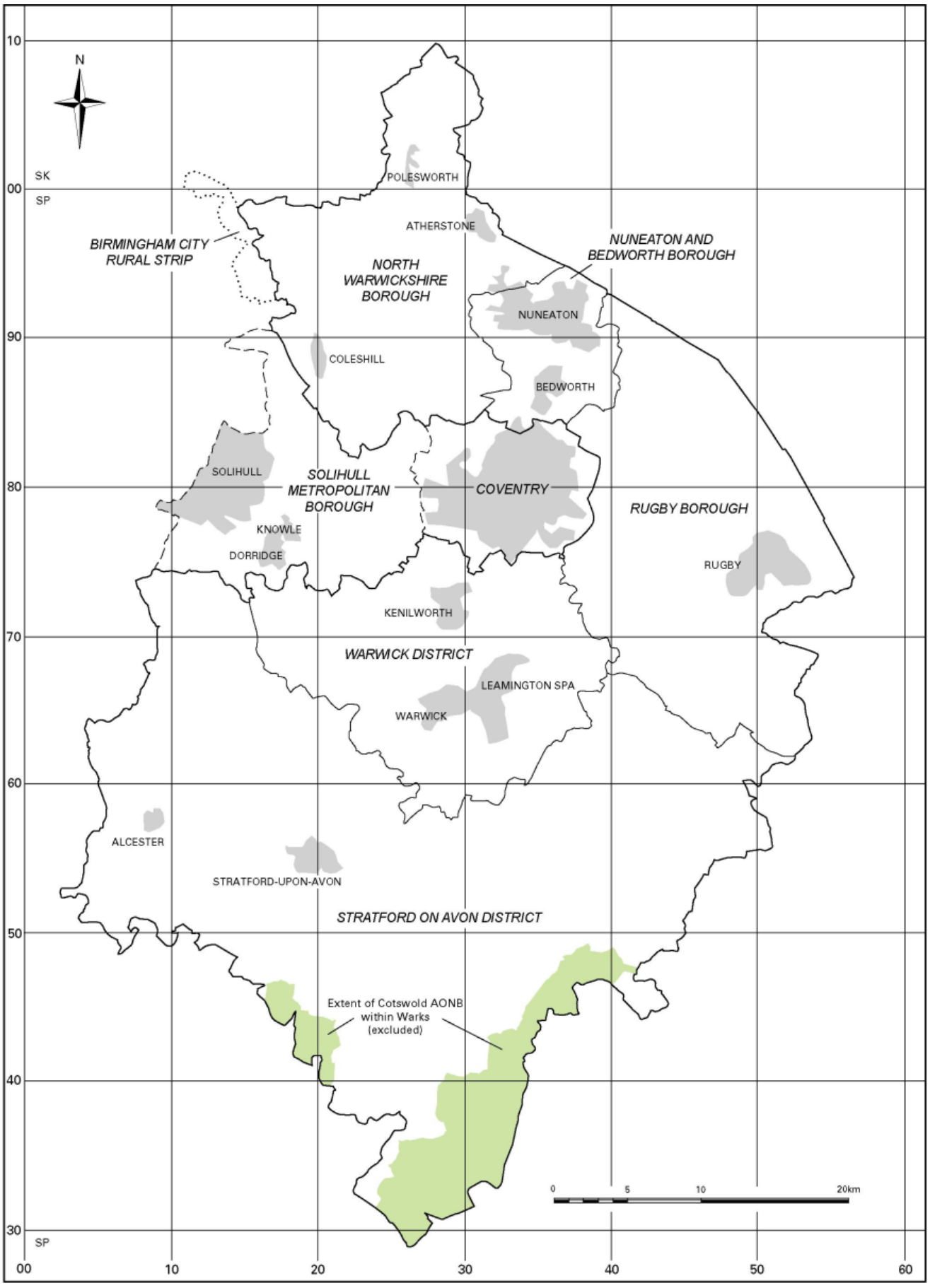
Following discussion with the Conservation and Archaeology Team at Coventry City Council it was agreed that the northwestern, predominantly rural, part of Coventry should be included in the Warwickshire HLC project where it was felt that the overall character of the landscape was similar to the rest of the Warwickshire HLC project area.

Part of the administrative area of Birmingham City Council

The rural strip within Birmingham to the east of Sutton Coldfield, roughly between Curdworth and Watford Gap was included as part of the Warwickshire HLC project; this too was part of Warwickshire until 1974.

Summary Table of Project Area:

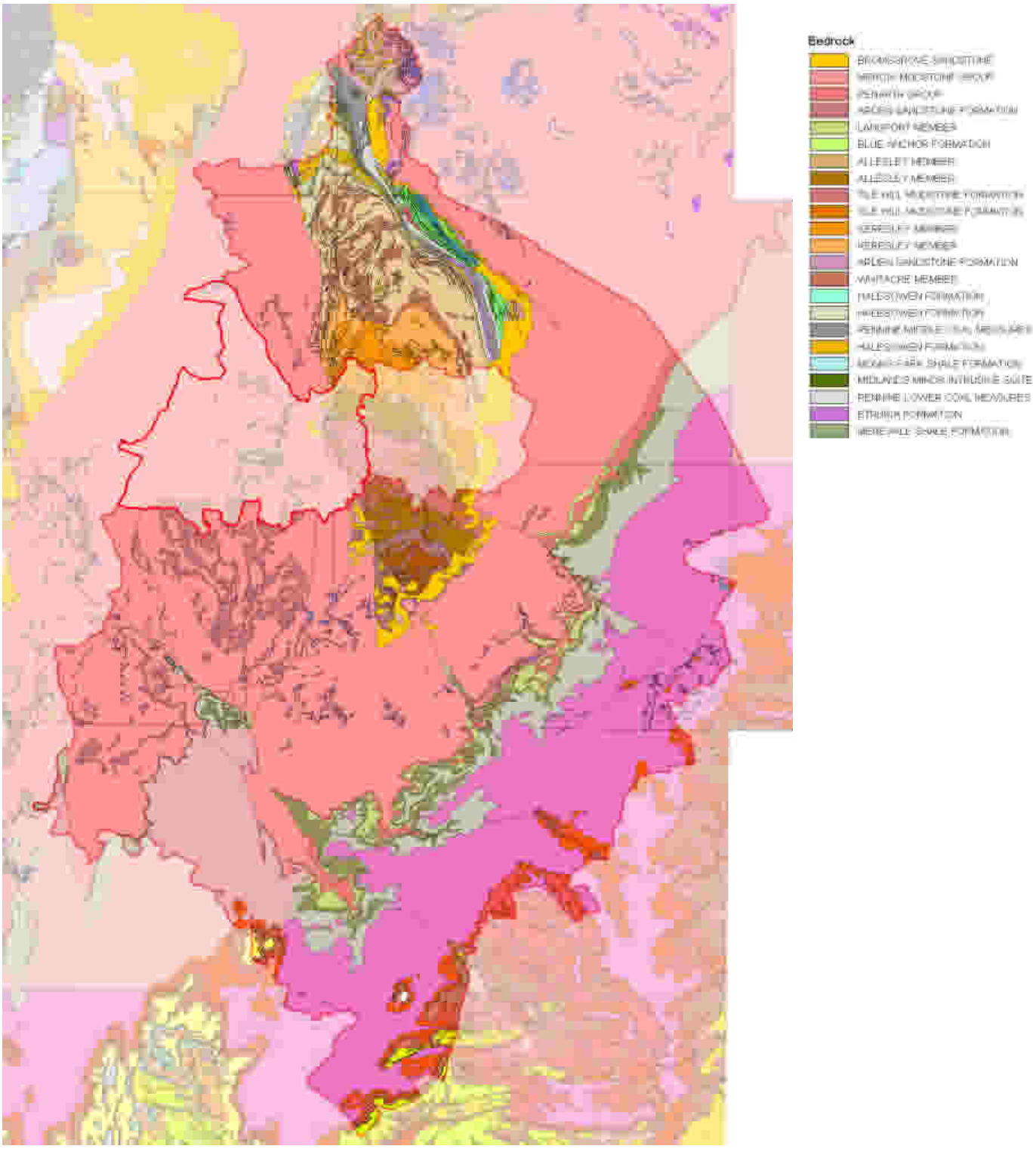
Area	Size (ha)
North Warwickshire	28,340
Nuneaton	7,872
Rugby	35,250
Warwick	28,200
Stratford	97,500
Solihull	17,780
Coventry (rural fringe)	9,834
Birmingham (rural fringe)	1,545
Total	**226,321**
(minus Cotswold AONB)	-10,282
Total study area	**216,039**



Map showing project area

Geology

The geology of Warwickshire is one of the most varied of any English County, spanning 600 million years. The rock units range through many geological periods including the Precambrian, Cambrian, Devonian, Carboniferous, Permian, Triassic, and the younger Jurassic. Unconsolidated Quaternary 'drift' deposits are widespread.



Bedrock Geology in Warwickshire (© BGS, NERC. All rights reserved.)

Solid (Bedrock) Geology

In the broadest sense, the 'solid' bedrock geology of the county can be divided into three terrains.

The Warwickshire Coalfield

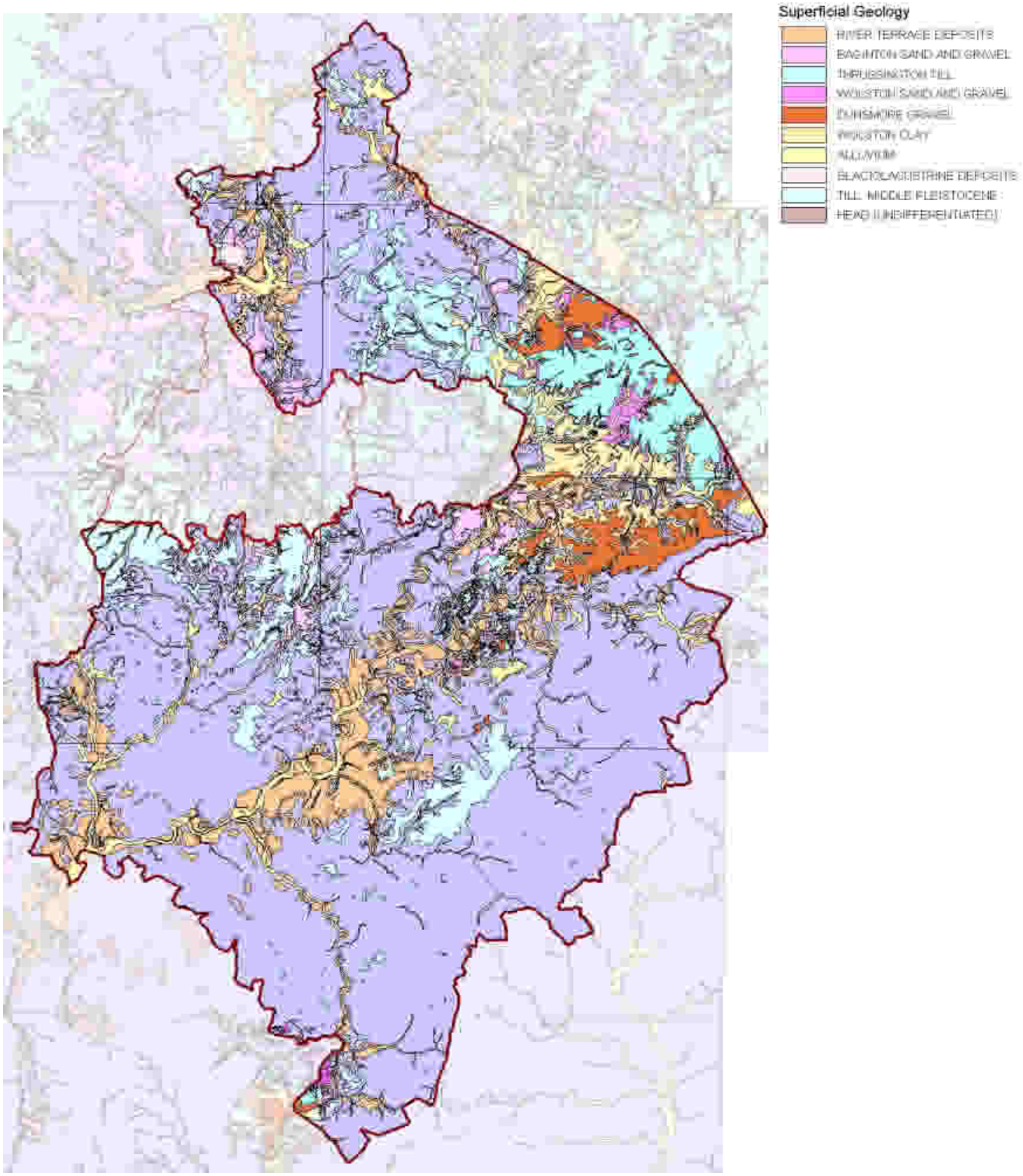
The Warwickshire Coalfield, partly equating to the Warwickshire plateau, comprises a broadly spindle-shaped outcrop of relatively old rocks, running from Warwick in the south to the Staffordshire border near Tamworth in the north. The surface geology is dominated by Upper Carboniferous mudstones and sandstones, roughly 300 million years old, overlain by similar rock-types of slightly younger Permian age in the Warwick-Kenilworth area. A narrow strip of older rocks up to 600 million years old, running up the eastern side of the coalfield from Bedworth to near Mancetter, is known as the Nuneaton Inlier. There, the surface geology includes narrowly outcropping, steeply dipping Precambrian volcanic rocks, Cambrian sandstones and shales, Ordovician intrusive igneous rocks and a small patch of Devonian sandstones near Mancetter. Carboniferous Coal Measures also occur at the surface in this area.

Triassic Lowlands

Surrounding the coalfield, a broadly u-shaped lowland terrain, running roughly from Polesworth, down through Brinklow, Cubbington, Leamington Spa, through the Avon Valley and northwards through Henley-in-Arden, Solihull and Coleshill. The surface geology of this area is dominated by sedimentary rocks of Triassic age – sandstones overlain by considerable thicknesses of red mudstone. Triassic sandstones also occur patchily on the margins of the coalfield. These are roughly 200 to 250 million years old.

Jurassic Fringe

The remainder of the county, running broadly from Rugby, down to Shipston-on-Stour, and then up into the Avon Valley near Stratford, is dominated by sedimentary rocks of Jurassic age, roughly 170 to 200 million years old. This area is dominated by the Feldon clay lowlands, underlain by Lower Jurassic mudstone and limestone beds. Along the eastern and southern fringes of the county, outlying hills and ridges of younger Jurassic rocks occur. Napton Hill, parts of the Burton Dassett Hills and Edge Hill for example, are capped by the Marlstone – a thin, resistant ironstone. Further south and west, as at Brailes, Tysoe and Ilmington, the hills are capped by sandstones and limestones of Middle Jurassic age.



Superficial Geology in Warwickshire (© BGS, NERC. All rights reserved.)

Drift (Superficial) Geology

Drift deposits comprise unconsolidated sediments dating back several hundred thousand years to the middle part of the Pleistocene period. These deposits are widely distributed throughout the county. Older drift deposits are partly glacial in origin and include river gravels, finely bedded clays and tills – pebbly clay deposits deposited by ice sheets. The younger drift deposits include deposits of sand and gravel – river terrace deposits, along the modern valley sides.

Landscape Context

Traditionally, the county has often been divided into three parts: the Arden, Feldon and the Avon valley. The Arden or 'high land' of the north-west comprises two plateau regions that reach a height of over 150 metres separated by a valley drained by the rivers Tame and Blythe. The soils are predominantly heavy and rather acidic, developed upon Mercia Mudstone, but with a surface layer of lighter glacial drift in places. To the east is the raised plateau of the East Warwickshire coalfield with coal-bearing rocks outcropping along its north-eastern margin. This region was more heavily wooded than areas to the south - the site of the supposed 'Forest of Arden'. Historically, this was the least populated part of the county, a slowly evolving landscape of scattered farms and fields with many patches of woodland and common waste; there is evidence that it was used seasonally (through transhumance) by occupants of the Feldon in the medieval period (Hooke, 1993).

Quite different is the flat plain of the Feldon or 'open land' in the south and east of the county. A platform generally between 100 and 175 metres above OD, with heavy clay soils developed mainly on the Lower Lias, this was already an area of intensive crop cultivation in prehistoric and Roman times. It was later to be characterised by nucleated villages set amidst open field systems, some of the latter surviving until parliamentary enclosure in the 18th and 19th centuries. The higher margins, including the Edgehill Fringe along the south-eastern boundary of the county, were areas of rather later development in which stock pasture played a more important role in early medieval and post-medieval times.

Between Arden and Feldon, the valley of the River Avon runs south-westwards across the middle of the county forming a transitional zone, with lighter gravel soils either side of the river. To the east, on the Dunsmore plateau, gravel deposits overlie the clays. The Avon valley was also an area of relatively early development and by medieval times market centres had developed for the exchange of goods from north and south.

Warwickshire's Landscape History

Dr Della Hooke has already written a summary of the "Changing Landscapes" of Warwickshire for the WCC Local Studies Toolkit. Rather than reproducing this work here this has been included as Appendix 1. Alternatively, the following link leads to the text online:

http://timetrail.warwickshire.gov.uk/toolkitview.aspx?tid=2&page=30

Warwickshire HLC Project Details

Project Duration

The Warwickshire HLC Project was started in May 2006 and finished in March 2010. The initial phases of the project and the digitising phase took around two and half years to complete with the analysis phase taking around 6 months and the report writing taking a further 6-8 months (although this final phase was achieved part time).

Project Team

HLC Project Manager: Jonathan Parkhouse (County Archaeologist)

HLC Project Officer: Ben Wallace

HER Manager: Emma Jones

English Heritage's Characterisation Inspector:

Dave Went (2006-2008) and

Peter Herring (2008-2010)

Limitations of the project and data

Historical Period Limitations

The HLC data relates to the current historic landscape and although previous historic landscapes are also recorded these have really only been attempted where data was readily available as far back as the medieval period.

Data limitations

The HLC consists of two parts; GIS polygons and linked detailed records.

The GIS data has been produced by digitising, predominantly freehand, using OS LandLine as a base-map, although some snapping was carried out in places. Each polygon should also fit to the surrounding polygons creating a seamless layer; however, there will be inconsistencies and places where the data has left small holes and intersections. The polygons also reflect the fact that in general they were digitised at 1:2500 scale and may not always precisely match to OS boundaries. This has been outweighed by the fact that due to upgrading the base-map to OS MasterMap, which has Positional Accuracy Improvement, the HLC dataset does not exactly match the MasterMap dataset. At the scale of digitising, use and average polygon size this is not expected to be a problem but should always be considered.

How to use this report

Because of the size and complexity of this report some explanation of its layout is given here to help guide people to the right section and make it easier to use. It is not intended that this report should be read cover to cover by all users, rather that readers can dip into the different sections and find the information relevant to them.

Introduction

This introduction forms the first part of the report and serves to introduce both HLC and the Warwickshire HLC project. For further details on the national HLC programme refer to the bibliography towards the end of the report or visit English Heritage's website: http://www.english-heritage.org.uk/server/show/nav.1293

Methodology

Following this introduction a brief summary of the methodology used for this project is given. Further details of the methodology can be found in Appendix 3.

Analysis: HLC Broad Types

The next section of the report presents the analysis carried out using the HLC data. The first chapter in this section looks at each of the twelve HLC Broad Types. For each HLC Broad Type there is a summary box showing a project wide distribution map, some key statistics and a representative photograph of the type in the landscape. Description and interpretation then follow and include aspects such as change over time, biodiversity potential, archaeological potential, and research and management issues. Finally an example of the HLC Broad Type as mapped is shown.

Analysis: HLC Types

This chapter uses the same style and layout as the previous one but in this instance it is concerned with the 55 HLC Types identified.

It is hoped that these two chapters will be used by people looking at the HLC data in their area who want to understand more about a particular HLC Broad Type or HLC Type.

Analysis: County-wide

This chapter shows how landscape characterisation has developed historically in Warwickshire and how HLC can be used at a broad countywide level to analyse particular aspects and themes of the historic landscape including comparison with other datasets.

Analysis: District-wide

This chapter describes the results of more detailed analysis on the HLC material at a Local Planning Authority (LPA) level. For each LPA an introduction is given summarising key facts about the area, a summary of historic landscape character follows with statistics about the Broad HLC Types and then more detailed analysis is arranged by HLC Broad Type with detail added about the HLC Types, their distribution across the area and their impact on the development of historic landscape character over time. It is anticipated that analyses at Local Planning

Authority level would be useful as source material for Local Development Frameworks.

Applications of HLC

Following the analysis section there is a chapter on the applications of HLC; both those that have already taken place using the Warwickshire HLC, and potential applications that could take place in the future.

Dissemination

This chapter highlights the different methods of dissemination that have been and could be used for HLC information.

Recommendations

This chapter looks at possible enhancement projects for the Warwickshire HLC and how it can best be updated and used on a day to day basis. It also looks at where other projects or datasets could benefit from using HLC, with some recommendations made for further work and studies.

Further Information and Contact Details

Here details are given on how and where to access information and material from the HLC.

Bibliography and Appendices

Finally, at the end of the report a bibliography and appendices are included for reference.

Chapter 2 - Methodology

Below is a very brief summary of the methodology used for the Warwickshire HLC project. Fuller details can be found in The Warwickshire HLC Desk Manual (Appendix 3).

Background

The Warwickshire HLC project, like most others, is based on previous HLC projects with adaptations and innovations of method and process reflecting local distinctiveness and local issues. Warwickshire owes much to the Staffordshire and Shropshire HLC projects and is loosely based on these. Other ideas and techniques have been adopted from the Black Country and Leicestershire HLC projects although to some extent all previous HLC projects have contributed in some way to define all current HLC projects.

The development of the HLC methodology has both reflected and informed changes in the way archaeologists and others describe and manage the historic environment. These changes include:

- A concern with the whole of the humanly modified landscape rather than solely the demonstrably archaeological 'sites' within it.
- A change in analytical scale from the small-scale site/monument to the wider landscape.
- An increased concern with integrated and sustainable policy development and decision-making.
- A developing political context for understanding landscape, as shown, for example, by the European Landscape Convention.
- A move from concern with 'relict' landscapes to concern with the present-day landscape which has been shaped by change and modification over centuries and millennia and by a variety of processes.
- A realisation that the concept of 'landscape' is based on subjective considerations as well as objective criteria. Landscape is something which we perceive, even more than it is something we create.
- A more detailed articulation of the realisation that understanding landscape depends on understanding the dynamics of its creation and the underlying cultural processes and political, social, economic and cultural influences.
- The realisation that the best means of protecting historic landscape is not designation but sound management underpinned by accessible material, including data which can be analysed and understood.
- The acceptance that HLC is a relatively generalised characterisation of the landscape's historic attributes which is intended to serve as a means of resource management, and which provides an approach which is consistent, transparent, repeatable and comprehensive. This approach leaves open the possibility of more detailed assessment being undertaken later as necessary. It can thus be used for spatial planning, development control, landscape strategies and resource management (Clarke et al, 2004).

Stages

The Warwickshire HLC project was split into four stages:

Stage 1: Familiarisation, refinement of methodology, sample work (pilot project)

Essentially this consisted of a review of methods and sources that it was expected would be used in the project. The method was consequently refined and the HLC Types to be used in the project were defined.

Following this, two pilot areas were selected to test the methodology and see if further refinements were needed. These pilot areas each formed a 10km block, one between Rugby and Bedworth and the other between Leamington and Stratford. They were in distinct parts of the county on the borders of different landscape character areas. Although this did test differences in landscape character it did not test all landscape types and in hindsight it might have been better to have chosen a number of smaller areas with distinct historic landscape character such as a rural area, an industrial area and an urban area. Urban landscape in particular was a type that was characterised in some detail and took much longer than expected to complete in the project.

At this point the HLC Desk Manual was produced and a project forum meeting was held to inform people of the HLC project, the results of the first stage and what the next stages were to involve.

Stage 2: Data collection and assignment of character types

Digitising, mapping and record creation for the whole of the remainder of the study area.

Stage 3: Review, analysis and interpretation

Analysis of the finished HLC including comparison with other mapped and described datasets, assessments and studies. The results of this work forms the majority of this report.

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

Production and dissemination of this final report and production of an archive containing all the material generated by the project.

Database

The exeGesIS HBSMR HLC module has been used to record the HLC data. This is essentially an Access database with linked GIS capability. Currently the HBSMR version used is 3.61 and the GIS is MapInfo 9.5.

Using this software makes it available for consultation by archaeologists, planners, researchers and the general public.

Sources

A variety of sources have been used in the HLC process from historic maps and aerial photographs to modern digital mapping. The sources used in the project are listed in Appendix 3.

Defining Polygons

The Warwickshire HLC has been a predominantly desk-based exercise that draws together information from a variety of sources.

Polygons have been defined by grouping together individual units from OS digital mapping on the basis of a common current land use, previous land use and morphology. Each polygon contains a particular combination of attributes which have been assigned to a single HLC Sub-Type. Generally HLC polygons have been digitised in MapInfo direct to screen at 1:2,500 scale.

In rural areas the usual minimum size for HLC polygons is 1 ha since it is assumed that landscape character cannot be reasonably determined for areas smaller than this. For urban areas though there are cases where HLC polygons can be defined less than 1 ha in size. In general in HLC the approach has been to avoid small polygon sizes.

Data structure

Each polygon created through the mapping process has data attached to it as a linked record held in the HLC module of the HBSMR software. The structure of the data is largely determined by the HLC module itself; however, HLC Broad Types, HLC Sub-Types and associated attributes have been customised to meet the requirements of the study area.

The nature of the HLC module is that it is dynamic so that new HLC Sub-Types can be added and previously defined ones can be updated or changed. It is very unlikely that the HLC Broad Types will change and also unlikely that HLC Sub-Types will change now that the project has finished, but the flexibility to do so exists. New HLC Sub-Types were easily added to the database in the pilot phase (e.g. Common Grazed Woodland as a previous HLC Type).

Each of the HLC records in the database has been assigned a basic classification category, known as an HLC Broad Type. There are twelve HLC Broad Types for Warwickshire (see Chapter 3 below). These are further broken down into HLC Sub-Types of which there are 124 recorded in the database. These have been joined to form the 55 HLC Types used for detailed analysis in Chapter 4. Definitions of both the HLC Broad Types and HLC Sub-Types can be found in Appendix 3.

Historic Landscape Character Attributes

Each of the HLC Broad Types has a series of attributes assigned to it. When an HLC record is created and polygon defined, key characteristics of that area can then be displayed for that record. Details of these attributes can be found in Appendix 3

Adding and editing records

Detailed information for record creation and editing can also be found in the Desk Manual (Appendix 3)

Chapter 3 - Historic Landscape Character Analysis: HLC Broad Types

Introduction

This chapter analyses the Warwickshire HLC material on a project wide level in terms of the 12 HLC Broad Types identified, namely:

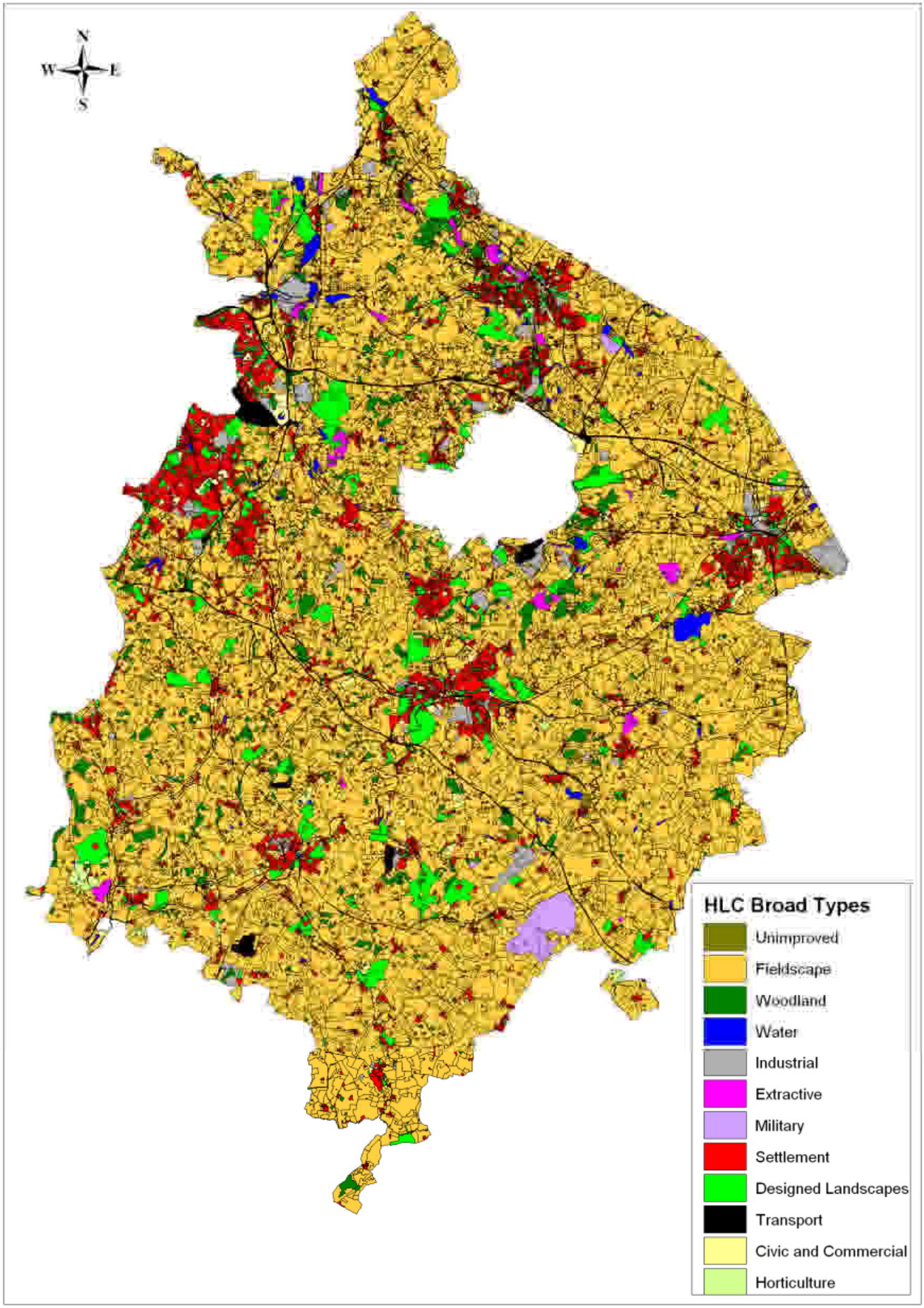
- Unimproved (UIM)
- Fieldscapes (FSC)
- Woodland (WDL)
- Water (WAT)
- Industrial (IND)
- Extractive (EXT)
- Military (MIL)
- Settlement (SET)
- Designed Landscapes (PAR)
- Transport (TRA)
- Civic and Commercial (CIV)
- Horticultural (ORC)

For reference a county wide map of these HLC Broad Types is shown below.

A definition example is given first detailing the meaning of each of the headings in the analysis and explaining how any statistics have been generated. For each HLC Broad Type there is a summary box showing a project wide distribution map, some key statistics and an example photograph of the type in the landscape. The descriptive headings then follow, including aspects such as change over time, biodiversity potential, archaeological potential, and research and management issues. Finally an example of the HLC Broad Type as mapped is shown.

The purpose of this analysis at the HLC Broad Type level is to give a very broad overview of the Historic Landscape Character of Warwickshire. The next chapter gives a similar analysis but at a much more in depth level, breaking down the 12 HLC Broad Types into their 55 individual HLC Types.

For detail at a district level please refer to the District-wide Analysis Chapter (Chapter 6).



Map of HLC Broad Types

Definition Example

Name of HLC Broad Type (HLC Broad Type Code)

Distribution Map

Legend Colour: Colour used in mapping

Total Area: **The total area that this type forms in hectares with the percentage of the total project area it covers in parentheses.**

No of polygons: **The number of polygons that make up this type with the percentage of all the polygons in the project area in parentheses.**

Average Polygon Size: **Calculation based on the total area divided by the number of polygons with a comparative size description in parentheses (<7 ha =** small, **7-20 ha =** medium**, 20-40 ha =** large, **>40 ha =** very large**)**

Occurrence: **Occurrence is assessed relative to other HLC types using the higher of the total area covered or the number of polygons. It is intended to show whether this is a commonplace or unusual element of historic landscape: <0.5% =**Very rare**, 0.5 - 2% =** Rare, **2-5% =** Occasional**; 5-20%=** Common**, 20-50% =** Abundant**, >50% =** Dominant

Photo of Landscape Type

Definition:

Definition of HLC Type for the purposes of the project

Description:

Brief description of HLC Type including key characteristics and patterns found in the county.

Historic Processes:

The wider understanding of this HLC Type including historic processes and specific development in Warwickshire. HLC Broad Types only.

HLC Types:

Here the HLC Types that make up the HLC Broad Type and the HLC Sub-Types that make up the HLC Type are given. A full list of HLC Sub-Types used in the database can be found in the Desk Manual (Appendix 3)

Period:

The broad landscape period or periods that this type originates from:

- Pre Medieval (pre 1066)
- Medieval (1066-1540)

- Post Medieval (1540–1750)
- 18th-19th Century
- Early 20th Century
- Late 20th Century)

Trajectory of Change (1880s – 1955):

A very general comparison of the change in the area of the county covered by the HLC Type between 1880s and 1955. The trajectory and rate of change is indicated as Increasing Rapidly (>50%); Increasing Moderately (20-50%); Increasing Slowly (5-20%); Stable (<5% change); Declining slowly (-5 - -20%); Declining rapidly (-20 - -50%); Declining critically > (-50%)

Trajectory of Change (1955 – 2001):

A very general comparison of the change in the area of the county covered by the HLC Type between 1955 and 2001.

The trajectory and rate of change is indicated as Increasing Rapidly (>50%); Increasing Moderately (20-50%); Increasing Slowly (5-20%); Stable (<5% change); Declining slowly (-5 - -20%); Declining rapidly (-20 - -50%); Declining critically > (-50%)

Reason for change (1880-2001):

Why this HLC Type has changed the way it has during the 20th century.

Factors influencing further change:

The main predicted factors that could lead to the creation or loss of this HLC Type.

Biodiversity Potential:

A simple indicator of the general biodiversity interest or potential of this HLC Type. Individual sites will vary and require specific assessment. (High =typically species rich and varied; Medium = Moderate amount of species; Low =species poor.)

Archaeological Potential:

A simple indicator of the general correlation of archaeological sites and historic buildings with this HLC Type. This indicator is more relevant for historic periods where buildings and monuments may be contemporary with the HLC Type; for earlier periods less correlation can be expected. Individual sites will vary and require specific assessment (High = typically associated with a wide range/well preserved monuments; Medium = Moderate range of associations/preservation; Low = few/rare associations/poor preservation).

Management:

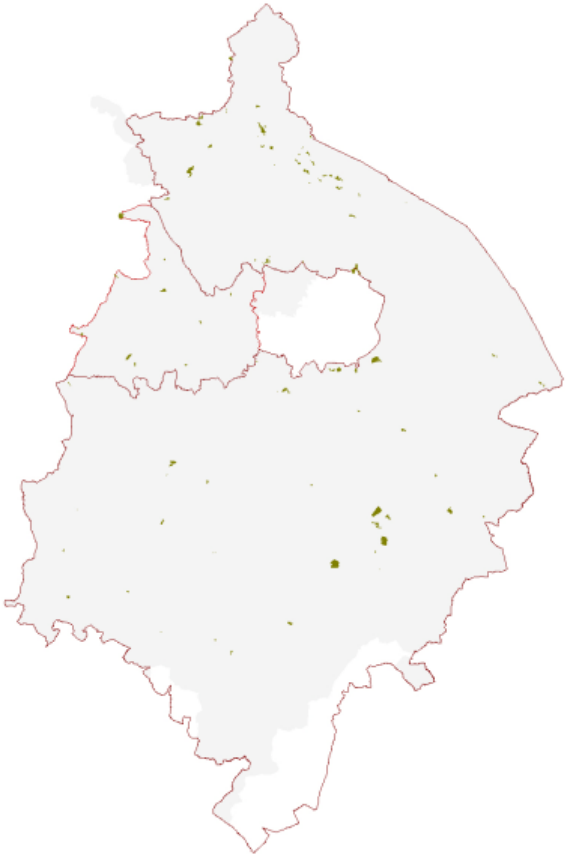
Main management issues and objectives for this HLC Type.

Research:

Potential for further research for this HLC Type

Example Map showing HLC Broad Type/ HLC Type

Unimproved Land (UIM)



Legend Colour:

Total Area: 681 ha (0.33%)

No of polygons: 95 (0.51%)

Average Polygon Size: 7.2 ha (medium)

Occurrence: Very Rare

Heathland at Grendon, North Warwickshire

Definition:

Areas of land that have remained largely unimproved over a period of time including Heathland, Commons and Scrubland.

HLC Types:

Heathland, Commons, Scrubland

Description:

Mainly found as a previous HLC type, especially in areas that were once common or heathland, recognised from map evidence and place-name evidence. Present unimproved land is found sparsely scattered throughout Warwickshire with most of it being the more modern remains of in-filled quarries from mineral extraction. A very few areas are patches of common and heathland remaining from once larger areas. As a previous HLC type this can be found fairly extensively throughout Warwickshire with concentrations at Dunsmore and in the Solihull/North Stratford/North West Warwick area.

Historic Processes:

Heathland is a landscape type that has developed primarily from human interaction with the landscape from the clearance of trees in the prehistoric period followed by intensification of land use with the introduction of agriculture and the grazing of livestock (Hawley et al, 2008.). In Warwickshire there were probably areas of heathland in the west around Solihull and in the east at Dunsmore. The exact extent is not known and can only be deduced from place-name evidence, the few pockets of surviving heathland and the later commons that developed.

Commons are land owned collectively or by one person, but over which other people have certain traditional rights, such as to allow their livestock to graze upon it, to collect firewood, or to cut turf for fuel. Recently the term has often come to apply to areas of land which a community has rights or access to. In Warwickshire there were historically large areas of common in the west, although other areas had

commons too. They were usually associated with heathland and other areas of poor soil where agricultural exploitation was difficult. Settlement often grew up close to the common and in the medieval and later periods encroachment onto the common from housing and enclosure and intensified use, such as mining, took place.

Scrub in this definition mainly relates to human processes that have left an area of land unused where natural environmental factors take over, producing a scrub habitat. This can happen over any period of time but in the last few hundred years and in Warwickshire, scrub usually develops as a result of minerals extraction.

Period:

As far as can be determined mostly Medieval or earlier; however the scrubland type mostly appears post 1955

Trajectory of Change (1880s – 1955):

Declining critically (-98%)

Trajectory of Change (1955 – 2001):

Increasing slowly (+12%)

Reason for change (1880-2001):

The biggest historic factor was the enclosure of fields from the medieval period onwards, predominantly through the parliamentary and later enclosure of fields (17th century onwards).

More recently settlement expansion and encroachment onto unimproved land has also had an effect including the development of facilities associated with settlement.

The increase of extractive industries in the later 20th century often leaves the land, post extraction, to form unimproved scrub.

Factors influencing further change:

Continued settlement and enclosure encroachment onto the remaining areas of heath and common could lead to further loss. Some areas of common may develop into woodland if left un-managed. Areas of scrub could increase due to increased minerals extraction activity, however present areas of scrub may also be developed for other purposes such as housing, recreation, woodland or farming.

Biodiversity Potential:

High - The nature of this type is that they are frequently the least intensively managed areas of land, often resulting in a more natural state than other HLC types and with a high potential for biodiversity.

Archaeological Potential:

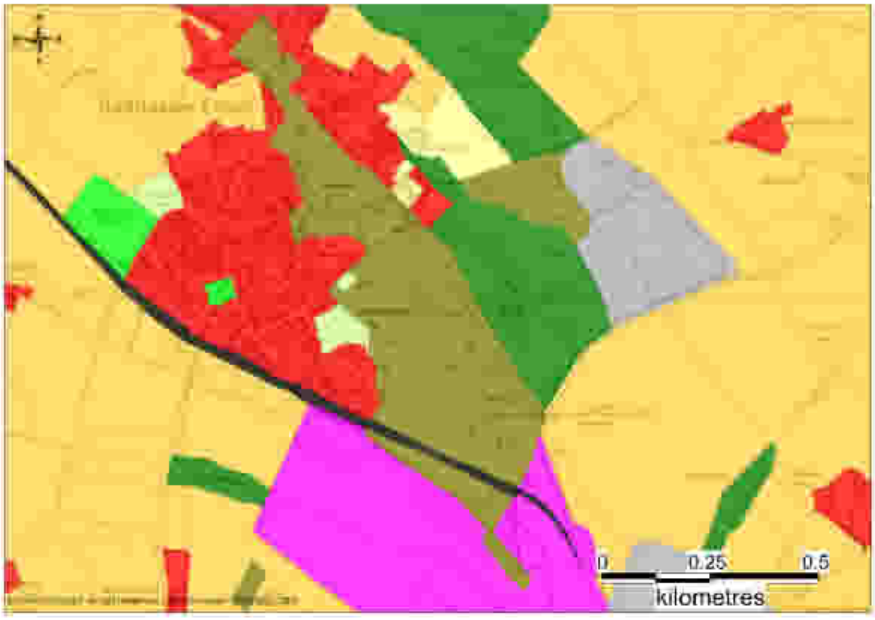
Medium - There are few archaeological sites associated with this type; in fact these areas show a distinct lack of archaeological sites, the only exception being the Dunsmore area (as an area of previous unimproved land) which has a high concentration of prehistoric sites. This lack of archaeology may be due to a lack of archaeological investigations in these areas. It may be that these areas have a low potential for historic sites due to them being relatively unused during most historic periods. However this may not have been the case for the prehistoric period. Lack of agricultural activity and absence of Ridge and Furrow will result in low disturbance to buried deposits as at Ling Hall Quarry, Church Lawford (Dunsmore Heath).

Management:

As an HLC type this type is very rare and declining critically and soon there may be no examples of these types left. Those that remain may be unimproved scrubland, a more modern creation from lack of use of land rather than a continuity of unimproved land such as common or heathland. These types should be retained where possible, with consideration given to encourage reversal to these types in areas where suitable.

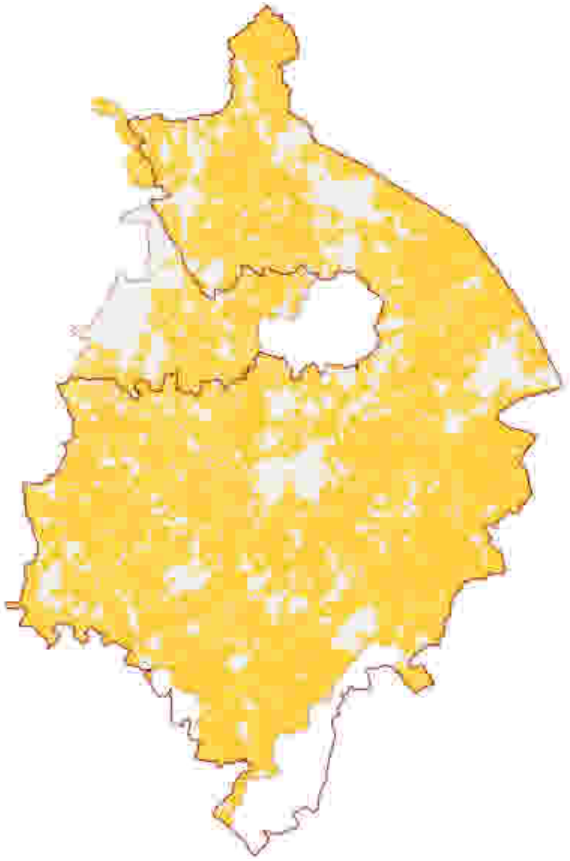
Research:

The former extent of unimproved land in Warwickshire is still not greatly understood. The location and role of commons and heathland and the interaction of people on these areas needs to be better understood. The potential for prehistoric sites on this type needs to be explored.



Unimproved Land at Baddersley Ensor/Grendon, North Warwickshire

Fieldscapes (FSC)



Legend Colour:

Total Area: 153,629 ha (73.42%)

No of polygons: 7,172 (38.86%)

Average Polygon Size: 21.4 ha (large)

Occurrence: Dominant

Very large Post War Fields at Wolvey

Definition:

Areas of land that are identified as being used for some form of agriculture. These will be predominantly enclosed land but include medieval open fields as a previous type.

HLC Types:

Squatter/Encroachment Enclosure, Floodplain and Meadow, Irregular (piecemeal) Enclosure, Planned Enclosure, Very Large Post War Fields, Paddocks and Closes, Woodland Clearance.

Description:

The pre-dominant type in Warwickshire covering around 73% of the total area. Further details are best found in the texts for individual fieldscape types in Chapter 4.

Historic processes

Enclosure took place in Warwickshire from the medieval period onwards, first as informal piecemeal enclosure that often followed patterns of agriculture and surrounding landscape features. The result was irregular shaped fields, often with curvilinear reverse 'S' shaped boundaries, and edges of fields leading up to natural landscape boundaries such as woodlands and brooks. This early enclosure took place on land used as open fields as well as enclosing heath, common and woodland. Later in the 17th, 18th and 19th centuries a more formal process of enclosure took place including parliamentary enclosure. This formed more rectilinear fields with straight boundaries that often followed straight planned roads and other features. The next major development took place in the latter part of the 20th century, post World War II, when more mechanised forms of intensive agriculture demanded larger more open fields. The result was the removal of hedges and boundaries and the creation of large open prairie fields.

Period:

Medieval - Late 20th century

Trajectory of Change (1880s – 1955):

Declining slowly (-18%)

Trajectory of Change (1955 – 2001):

Stable (+1%)

Reason for change (1880-2001):

Change due to loss of fields to increasing settlement and industry in the early 20th century. This appears to have largely stabilised in the later 20th century.

Factors influencing further change:

Enclosure is most likely to change from one type to another but there can be increases of fields from removal of woodland and use of unimproved land. Loss of enclosure is most likely from settlement expanding into the countryside especially around core urban areas. Industrial development can also have an effect with extractive industries having the biggest impact but often the land is landscaped on abandonment and converted back to fields. Agri-environment and woodland grant schemes can add or lose fields to the landscape.

Biodiversity Potential:

Medium - High - The nature of this type is that they can contain high potential for biodiversity due to hedgerows, in-field trees and the variety of habitat often found associated with fields. However, intensive forms of farming and removal of hedgerows, trees, ponds etc often lead to less biodiversity. The potential is high because the opportunity is there to adjust management to enhance many of these types and so benefit the natural environment

Archaeological Potential:

Medium - High. Many archaeological sites are found within fields; however, the potential really depends on the type of fieldscape and the use of the land. For further information refer to individual fieldscape types in Chapter 4.

Management:

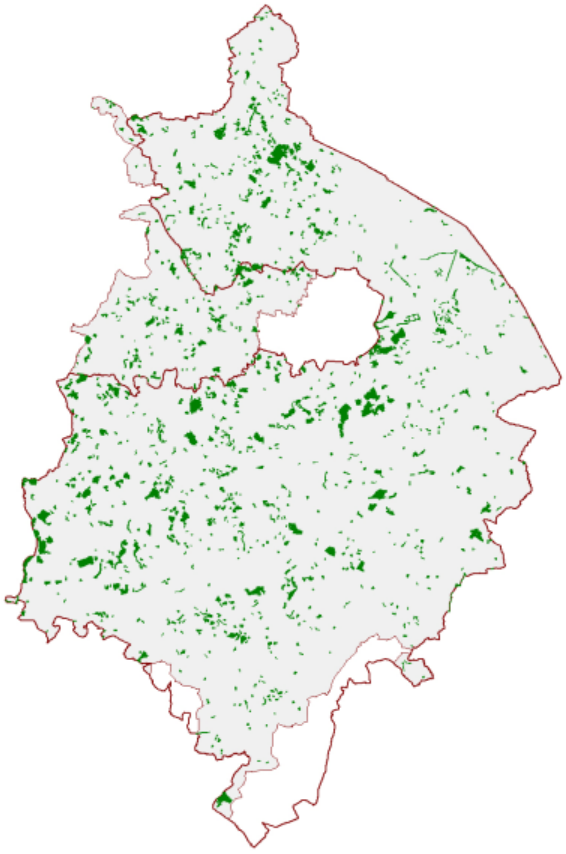
Complex management issues, which will be discussed in greater detail under individual fieldscape types. Ideally most fieldscapes should be under Environmental Stewardship with appropriate management of the character of the fields identified when drawing up agreements. In general boundaries should not be removed but appropriately managed where possible. Re-instating boundaries should also be considered carefully in the light of an area's overall historic landscape character in order to avoid pastiche.

Research:

Further research needs to be applied to understand enclosure in Warwickshire better. The development of later field types is better understood but the provenance, origins and development of piecemeal enclosure, assarting and other field types less so.

Very Large Post War Fields at Wolvey, Rugby

Woodland (WDL)



Legend Colour:

Total Area: 7,982 ha (3.81%)

No of polygons: 1459 (7.91%)

Average Polygon Size: 5.47 (small)

Occurrence: Occasional

Coniferous Woodland at Merevale, North Warwickshire

Definition:

Areas of land that are predominantly covered with trees.

HLC Types:

Ancient Woodland, Woods with Sinuous Boundaries, Broad-leaved Plantation, Mixed Plantation, Coniferous Plantation

Description:

Woodland is scattered throughout Warwickshire with no one area that is particularly densely wooded. There is a definite concentration in the North and West of the county with a further concentration in the centre.

Historic processes:

After the last ice age and prior to human activity, most of England was wooded. From the Mesolithic period onwards areas of woodland were gradually cleared. Later in the Neolithic period, with the advent of agriculture, more intensive use of the land led to more woodland clearance. This continued through to the medieval period where woodland clearance and woodland management developed at a faster pace. In Warwickshire the woodland that remained by the medieval period was generally found in large areas in the north and west, the Arden area. The south and east were used intensively for agriculture. Gradually the Arden woodland was opened up and assarted and small settlements developed. By the post medieval period and the industrial revolution, timber, charcoal and bark from woods were being used for a variety of industrial processes. By the 20th century discrete pockets of ancient woodland remained, with some plantations that had been created as part of designed landscapes and later as sources of timber; these were often of non-native or coniferous trees. Other small areas of woodland were created or managed for hunting and often have the names ‘covert’ or ‘spinney’. Woodland continued to be cleared in Warwickshire for fields and

settlement expansion. However by the later part of the 20th century woodland replanting programmes and the gradual decline of woodland destruction has led to a stabilisation of woodland in Warwickshire.

Period:

Medieval - Late 20th century

Trajectory of Change (1880s – 1955):

Declining Critically (-55%)

Trajectory of Change (1955 – 2001):

Stable (+4%)

Reason for change (1880-2001):

Woodland was dramatically reduced by half in the early 20th century. Part of this was due to encroachment into woodland from farming as well as the increase of industrial sites. Settlement expansion and early post war population explosion often devoured woodland as well as the associated transportation and civic and commercial development. In the later 20th century woodland has stabilised and is making a small increase, presumably due to secondary woodland developing on abandoned sites and the effects of funded woodland planting schemes.

Factors influencing further change:

Woodland may decline due to settlement expansion or modern clearance of woods for agricultural purposes. Woodland may expand slightly thanks to modern woodland planting schemes and a change in national policy.

Biodiversity Potential:

High - The nature of this type is that it has a high potential for biodiversity although it varies according to the age and type of woodland.

Archaeological Potential:

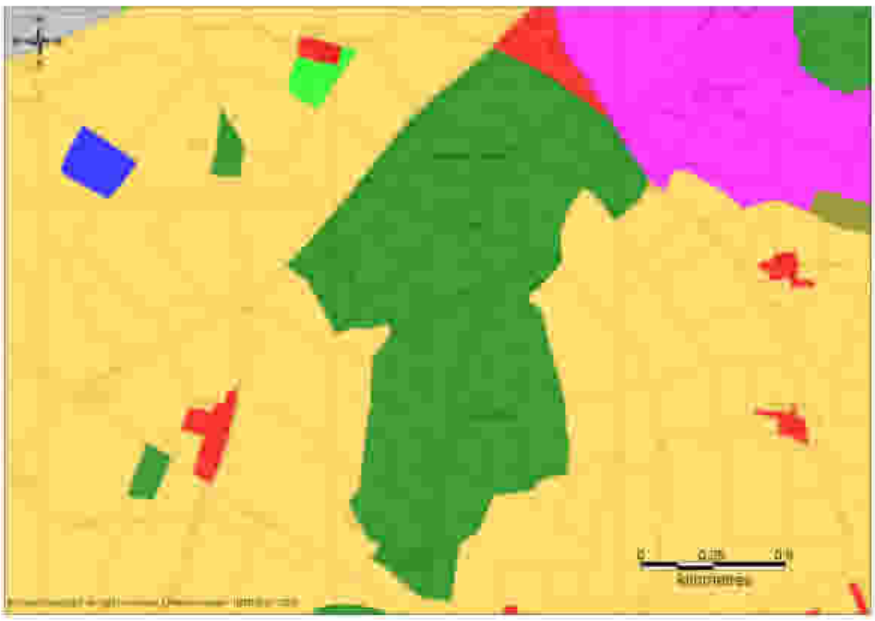
Medium - High. Archaeological features are often found within wooded areas and can be preserved surprisingly well. Examples include prehistoric features as well as medieval and later features associated with woodland management.

Management:

Woodland management plans should aim to conserve historic woodland features; however, management depends on the circumstances of each wood and type of wood. In the West Midlands the Forestry Commission uses a Woodlands Opportunity Map to help manage woodland planting; this uses HLC material where available to take account of the historic environment.

Research:

Some work has been carried out into the woodland in Warwickshire from the medieval period (Wager, 1998). However, more work needs to take place to understand the origins, change and historic use of woodlands in Warwickshire over time. Further research into archaeological features in woodland is necessary. Some woods in Warwickshire are known to contain important archaeological features but many other woods could possibly contain archaeological features yet to be discovered. New techniques such as LIDAR could help. Some of the woodland types could be used to map possible ancient woodland and indicate what a medieval wooded landscape would have looked like to help ecology colleagues and the Forestry Commission. Research could investigate woodland features identified from the HLC such as covert and spinney woodland names, along with peculiar long sinuous strips of woodland that exist in Warwickshire.



Waverley Wood, Warwick

Water Features (WAT)

Legend Colour:

Total Area: 1981 ha (0.95%)

No of polygons: 265 (1.44%)

Average Polygon Size: 7.48 ha (medium)

Occurrence: Rare

Draycote Water, Rugby

Definition:

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

HLC Types:

Artificial Body of Water, Natural Open Water, Marsh

Description:

The river system in Warwickshire is determined by its geography with two main watersheds dividing the county. The Avon and its tributaries run from the north east border of Warwickshire south and west while the Tame, Blythe and Cole start in the Solihull/Birmingham area and meet with the Anker and run north. This also forms one of the main watersheds for the midlands.

In terms of other water features there are two large reservoirs (Earlswood and Draycote Water), while smaller lakes and ponds are often found associated with old aggregates extraction sites. There are smaller ponds and water features scattered throughout the county.

Historic processes:

The river system in Warwickshire has influenced the county for a long time. Determined by the topography and geology of the county it has had a considerable impact on human interaction with the landscape. There are few other natural water features in the county. The earliest recognisable artificial features are medieval fishponds and subsequently mill ponds, leats and races. Later water management is found in the development of water meadows and then the advent of the canal network with canal feeders and reservoirs, and finally later 20th century reservoirs for the supply of water to an increasing population.

Period:

Pre medieval - late 20th century

Trajectory of Change (1880s – 1955):

Increasing rapidly (+25%)

Trajectory of Change (1955 – 2001):

Increasing rapidly (+44%)

Reason for change (1880-2001):

The increase in the 20th century is due to the development of large reservoirs to supply water for the increasing settlement and population as well as the increase of leisure water features such as fishing lakes.

Factors influencing further change:

Further fresh water may be necessary to supply an increasing population which may also demand more artificial water features for leisure purposes. Increased mineral extraction activity may also produce further water features.

Biodiversity Potential:

High - Water features by their nature are suitable for a variety of wildlife.

Archaeological Potential:

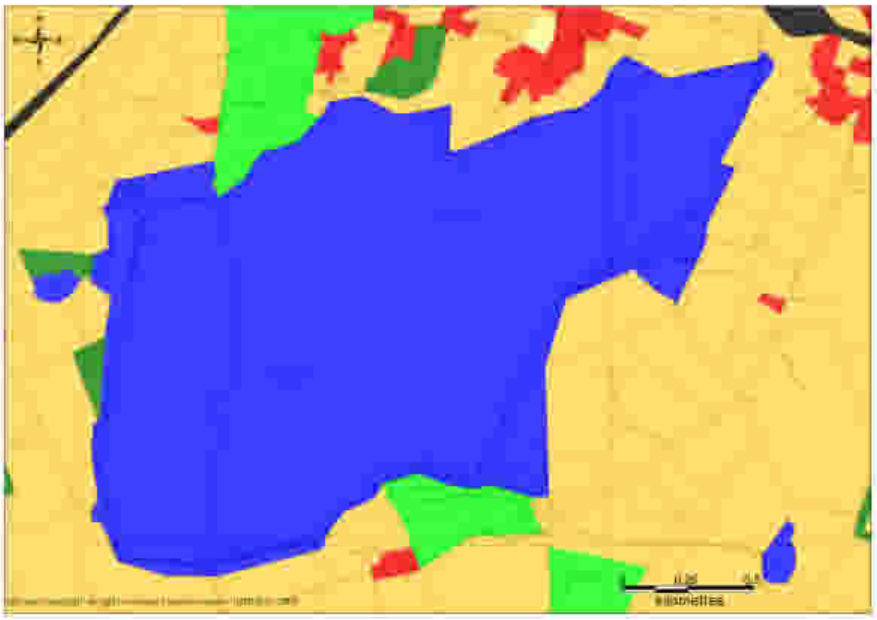
Medium - Although by its nature water features do not have many archaeological potential per se there is potential in the form of water-logged deposits, whilst river systems are often associated with historic water management features. Some reservoirs, lakes and ponds now have an historic interest.

Management:

Management should be related to keeping water logged areas stable so as to continue to preserve any remains. Water management features should be managed to respect their historic and archaeological features.

Research:

Research could be done into water management in Warwickshire especially features such as water meadows, about which little is known; indeed until recently none had been identified. Other areas include those archaeological features relating to water and waterlogged deposits.



Draycote Water

Industrial (IND)

Legend Colour:

Total Area: 4,406 ha (2.11%)

No of polygons: 400 (2.17%)

Average Polygon Size: 11.01 ha (medium)

Occurrence: Rare

Hams Hall Industrial Estate, North Warwickshire

Definition:

Areas of land that have been identified as having a predominantly industrial component but which are not related to the extractive industries.

HLC Types:

Industrial Complex, Derelict Industrial Land, Waste Tip, Utilities, Motor Industry, Radio/ Tele- communications

Description:

These are generally split into two types: small industrial areas often associated with villages and larger industrial complexes found in and around the main urban areas of Warwickshire. There is very little industrial activity in the rural areas apart from remnants of industry in the north of Warwickshire.

Historic processes:

The industry that HLC refers to here is from the industrial revolution onwards with extractive industries categorised separately. Specific early industries have not been identified here apart from brick and tile works that were located throughout the county and were often associated with clay extraction sites. Other pre 1880s industry was often small scale and varied from such things as breweries to metal working. However more prominent industries in Warwickshire include hat, ribbon, needle, glove and comb making (Slater, 1981:99-101). Later in the 20th century particular industries were becoming associated with the area, the dominant one around Coventry being the motor industry. Between the two world wars a large radio-telecommunications area developed east of Rugby. Utility works including gas, water, electricity and sewage works developed from the Victorian period onwards and increased as the population and settlements expanded.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing dramatically (+76%)

Trajectory of Change (1955 – 2001):

Stable (+4%)

Reason for change (1880-2001):

The first half of the 20th century saw a dramatic expansion of industrial areas continuing from the previous century. In the later part of the 20th century this has stabilised although the nature of the industries occupying this land has often changed,

Factors influencing further change:

Increasing industrial activity, partly related to increase of certain industries and growth of settlement/population. Older sites are at risk of demolition and/or redevelopment as traditional industries decline.

Biodiversity Potential:

Low - Little potential for biodiversity due to the nature of industrial sites, however some buildings or margins of these areas may provide some potential. Derelict industrial sites will have a higher potential as species recolonise.

Archaeological Potential:

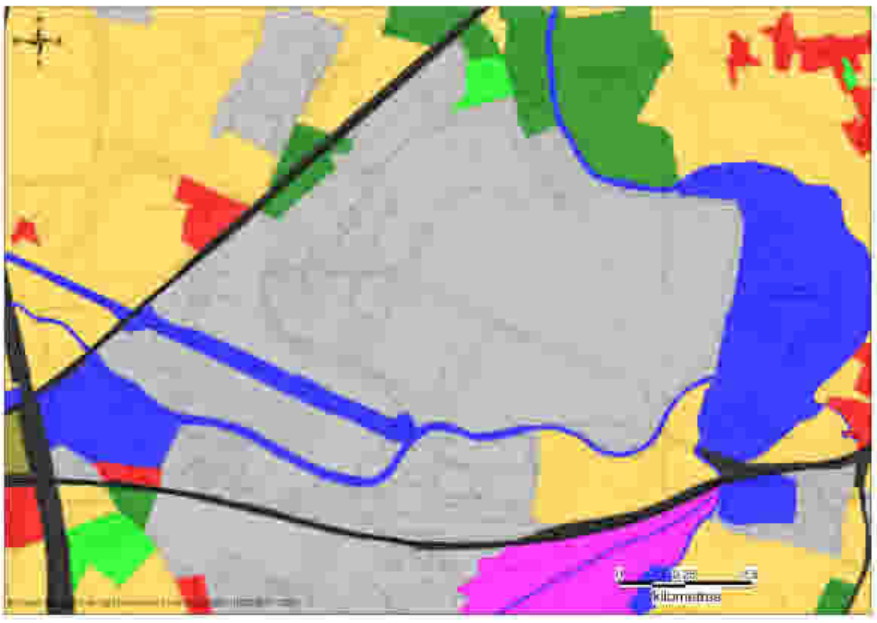
Medium – The archaeology of industrial sites has become increasingly important and later 20th century sites are no exception, often because many of them, such as the motor industry, are in decline. Late 20th century industrial sites are often found on the site of earlier industrial remains.

Management:

Conservation of older and more unique industrial sites or recording of historic features.

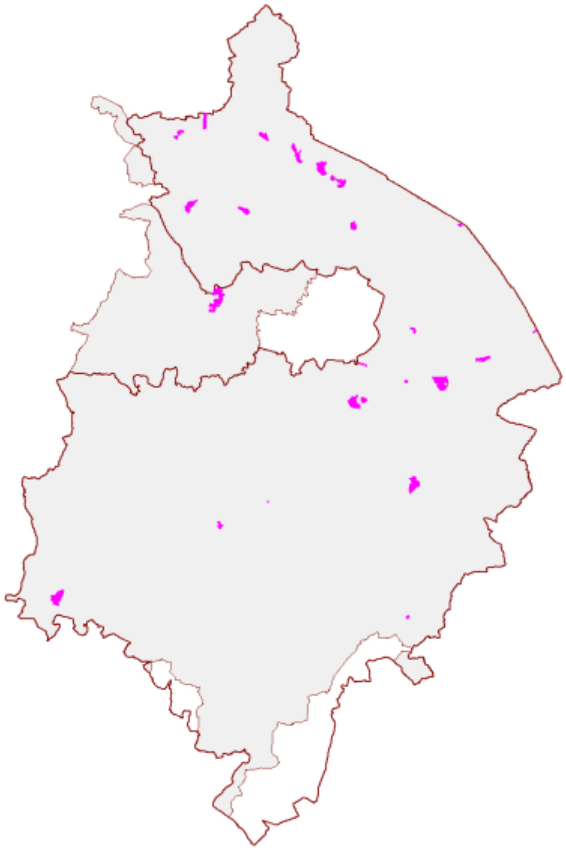
Research:

Historical research has been done in Warwickshire on specific industries such as coal-mining in North Warwickshire and the needle and glove making industry on the Arrow. However little work has been done to draw all this together and look at the archaeological implications. Work by groups such as Association for Industrial Archaeology and Warwickshire Industrial Archaeology Society contributes to archaeological research agenda.



Hams Hall Distribution Centre

Extractive (EXT)



Legend Colour:

Total Area: 1,106 ha (0.53%)

No of polygons: 40 (0.22%)

Average Polygon Size: 27.65 ha (large)

Occurrence: Very Rare

Judkins Quarry, Nuneaton and Bedworth

Definition:

Areas of land that have been identified as being related to the extractive industries.

HLC Types:

Coal Extraction, Sand and Gravel Extraction, Hard Rock Extraction, Cement Works

Description:

These are generally large areas located in those areas geologically related to aggregates or economically useful hard rocks. There is a small concentration of hard rock extraction stretching in a band north west from Nuneaton.

Historic processes:

The variety of Warwickshire's geology has led to it providing a number of rocks and deposits that have been exploited over a long period of time. In the medieval period stone was quarried for building while clay was extracted for producing pottery, brick and tiles. Coal in Warwickshire was extracted from the Roman period onwards and this was continued in the medieval period as surface mining. From the 17th century onwards coal mining extended to deeper mines until the later 19th century when deep shafts were being sunk. Presently only one coal mine (Daw Mill) survives, being one of the most productive in England. Other deposits were exploited on a small scale and from the 18th century stone, clay and marl pits are identified throughout Warwickshire. Larger quarries were formed for Lower Lias Limestone in the south and east of the county. Cement works around Rugby and Stockton expanded from the 19th century and are still prominent today. In the 20th century sand and gravel, hard rocks and clay have been extracted on a massive scale and continue to be extracted. When these large areas are spent the land is often in-filled and left as scrub. In the longer term such areas may be farmed or used for other purposes. Some extraction sites have been developed into country parks and water features.

Period:

Medieval - Late 20th century

Trajectory of Change (1880s – 1955):

Stable (-2%)

Trajectory of Change (1955 – 2001):

Decreasing rapidly (-49%)

Reason for change (1880-2001):

In the first half of the 20th century there were still a large number of extractive sites, increasingly concentrated in particular areas rather than the small scale 19th century and early extractive sites. Extractive industry has decreased rapidly in the later 20th century with the focus on extensively exploiting certain targeted areas in the landscape.

Factors influencing further change:

Extracting minerals is a transient activity. Demand for aggregates and coal may increase. Abandoned sites often change to other HLC types.

Biodiversity Potential:

Low - Natural resources are often destroyed during extractive activity. However when activity ceases the biodiversity potential often significantly increases as other uses often include natural regeneration of habitat.

Archaeological Potential:

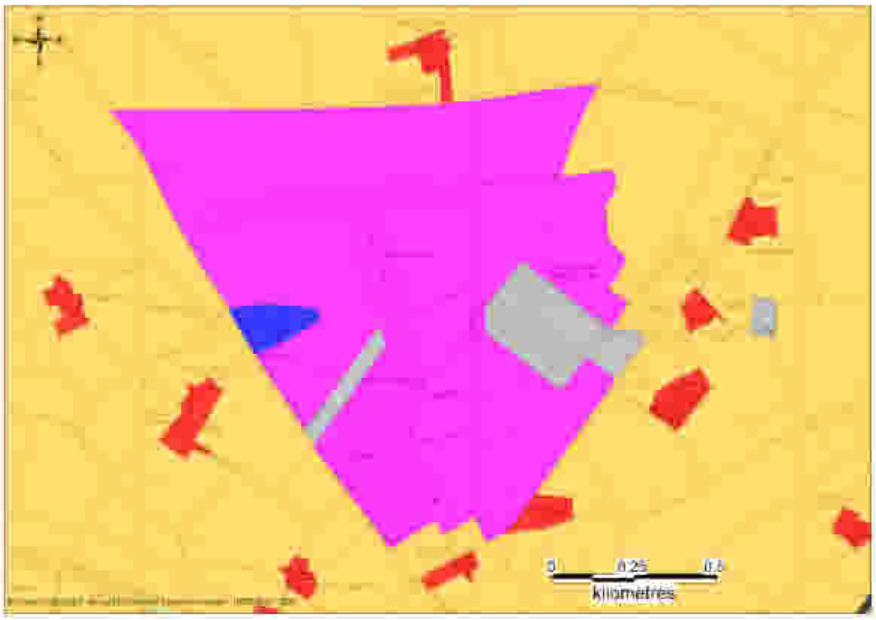
High - Extractive sites often reveal archaeological sites, particularly those of prehistoric origin. Extractive industry also leaves its own archaeological remains.

Management:

The likelihood of encountering potential archaeology prior to extraction needs to be fully considered, and the management of the Historic Environment facilitated through robust and effective minerals development policy. There is a need to develop models for predicting where prehistoric and other buried remains are likely to exist, based on other HLC types. For example, the various enclosed land types, which extractive industry will affect, will have varied potential.

Research:

The ALSF project "Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire" (Alexander et al, 2007) and should be a solid foundation for research into aggregates extraction sites in Warwickshire (especially pp133-144 and pp148-150). For other mineral extraction sites such as coal and limestone (for cement) these research themes and agenda can often apply but if possible specific research topics for these minerals should be written to a similar level of detail as the aggregates areas.



Ling Hall Quarry

Military (MIL)

Legend Colour:

Total Area: 1,258 ha (0.60%)

No of polygons: 12 (0.07%)

Av. Polygon Size: 104.84 ha (Very Large)

Occurrence: Very Rare

Aerial view of Defence Munitions Kineton (Copyright GeoPerspectives)

Definition:

Areas of land that are being used for military purposes.

HLC Types:

Military Sites

Description:

This type is dominated by the Defence Munitions site at Kineton which is over 1000 ha in size. Other areas are present such as Gamecock Barracks and Kingsbury Rifle Range with a small site of the Territorial Army in Rugby.

Historic processes:

Although military sites have a long history in Warwickshire from the Roman period onwards, for the purposes of HLC only 20th century military sites are sufficiently extensive and dominant to have been accounted for. In Warwickshire the evidence and remains of First World War sites are sparse, being limited to a few airfields and barracks. The Second World War saw a huge development in the county with focus on defending the important factories in and around Coventry. Sites include airfields, depots, camps, bombing decoys and anti-aircraft sites. After the Second World War many of these sites disappeared from the landscape with some airfields remaining while others became commercial and civil airports. During the Cold War some sites were adapted to meet the changing needs of the military. Of note is RAF Gaydon which was a V Bomber base with a nearby atomic bomb store. After the Cold War the last of these sites was turned over to other uses and now only a few military sites remain in Warwickshire, with Defence Munitions Kineton dominating.

Period:

20th century

Trajectory of Change (1880s – 1955):

Increasing dramatically (+99%)

Trajectory of Change (1955 – 2001):

Decreasing critically (-66%)

Reason for change (1880-2001):

Increased in the first half of the 20th century due to the 1st and 2nd World Wars and has subsequently decreased in the later 20th century although there is still a greater area of military sites than in the 1880s, mostly due to the very large DM site at Kineton.

Factors influencing further change:

This HLC Broad Type appears to be relatively stable now with only a few sites, remaining in the county. Increases of this type can come from an increase in military activity or a review and any subsequent changes by the Ministry of Defence regarding their current sites.

Biodiversity Potential:

Medium-High - In Warwickshire the military areas are dominated by DM Kineton which contains a large area managed to improve its wildlife and bio-diversity. Other smaller sites may have a smaller potential for biodiversity.

Archaeological Potential:

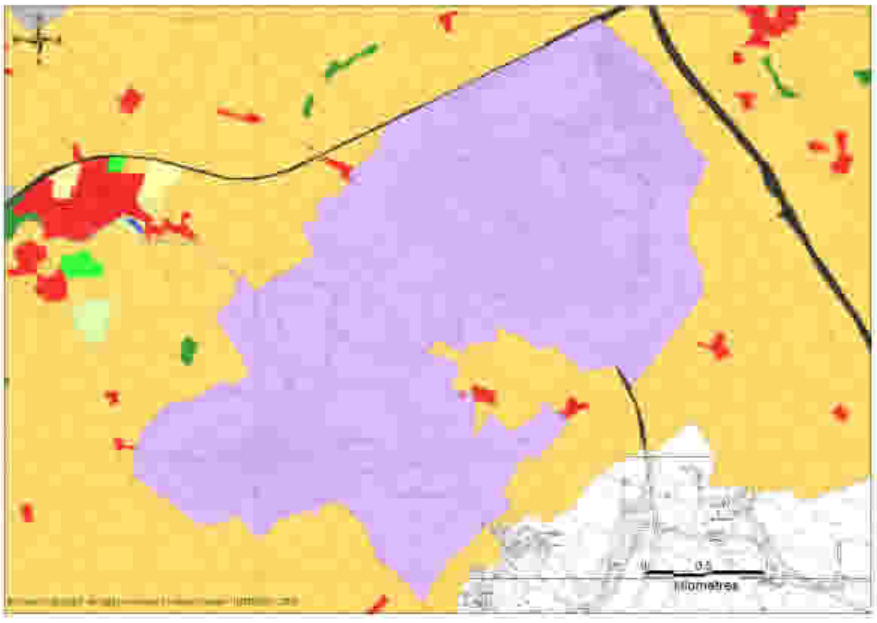
Medium - Despite intense activity by the military these areas often remain largely undeveloped and can contain important archaeological sites, the Edge Hill battlefield being one obvious example for DM Kineton. Military sites themselves are of course archaeological features.

Management:

Archaeological and historic features should be part of any management plan used by the Ministry of Defence for each site. For previous military sites that may be derelict, or have a different use, then any proposed changes should include an assessment of historic and archaeological interest.

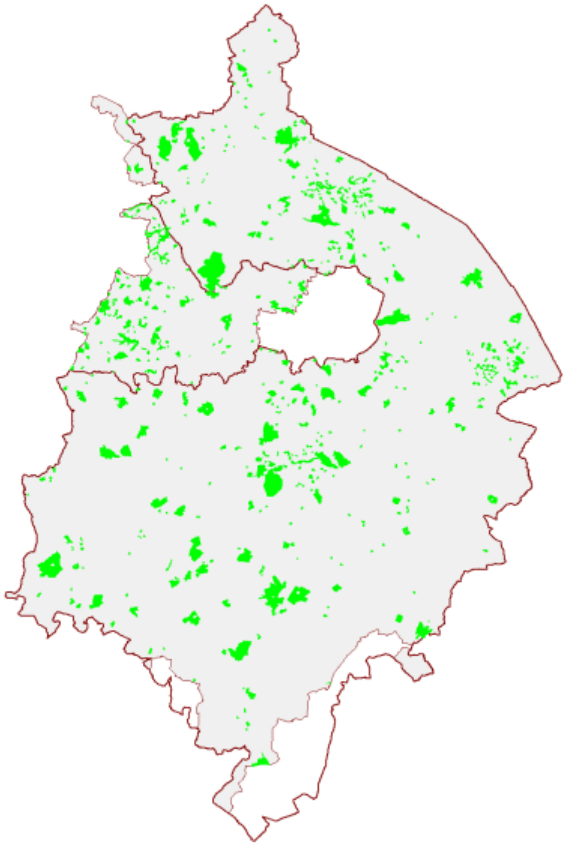
Research:

Comprehensive work has recently been published regarding military sites in Warwickshire (Carvell, 2007). Gaps include First World War and earlier sites, especially airfields. Some work has been carried out at DM Kineton in terms of a desk based assessment (Wessex Archaeology, 2006) and investigation into the battle of Edge Hill, but little is known about the history of DM Kineton itself and how it developed.



Defence Munitions Kineton

Designed Landscape (PAR)



Legend Colour:

Total Area: 9,757 ha (4.66%)

No of polygons: 725 (3.93%)

Av. Polygon Size: 13.46 ha (medium)

Occurrence: Occasional

Park in Rugby

Definition:

Areas of land that have been identified as having a predominantly designed aspect to them including recreational landscapes.

HLC Types:

Park/Garden, Golf Course, Sports Field, Cemeteries, Public Open Space

Description:

This type is scattered throughout the project area with concentrations of small designed landscapes in and around the major urban areas of Warwickshire. Aside from this there are also a number of very large designed landscapes situated in the countryside, some of which are the historic parks and gardens associated with country houses and estates.

Historic processes:

Designed landscapes have existed from Roman times in terms of gardens and ornamental areas of land. In Warwickshire the early evidence is related to the prominent castles and monasteries and their grounds along with deer parks of which there are numerous examples in Warwickshire. After the dissolution of the monasteries by Henry VIII land was exchanged and manors developed with large country houses and estates. These estates soon developed extensive gardens and later in the 18th and 19th centuries formed whole designed landscapes. In the 19th and 20th century new designed landscapes on a smaller scale developed with smaller parks, gardens, sports fields and public open spaces designed as public amenities. One of the more modern designed landscapes that has had one of the largest impacts, especially in Warwickshire, is golf courses. Ironically, these are often developed on the sites of old historic parks and gardens with the historic manor/country house often forming a club house, hotel or country spa.

Period:

Medieval - Late 20th century

Trajectory of Change (1880s – 1955):

Declining Critically (-79%)

Trajectory of Change (1955 – 2001):

Increasing slowly (+7%)

Reason for change (1880-2001):

The sharp decline in the first half of the 20th century followed a national pattern of reusing many country house designed landscapes for agriculture. The later 20th century saw a small increase in designed landscape, mainly parks and gardens associated with urban areas. There was also an increase in golf courses and other recreational types of designed landscape.

Factors influencing further change:

Large parkland estates could continue to decline and be used for other purposes such as agricultural or recreational land. Increasing population and settlement may demand more designed landscapes especially smaller public open spaces and recreational areas.

Biodiversity Potential:

High - Designed landscapes often contain a variety of species including non-native species.

Archaeological Potential:

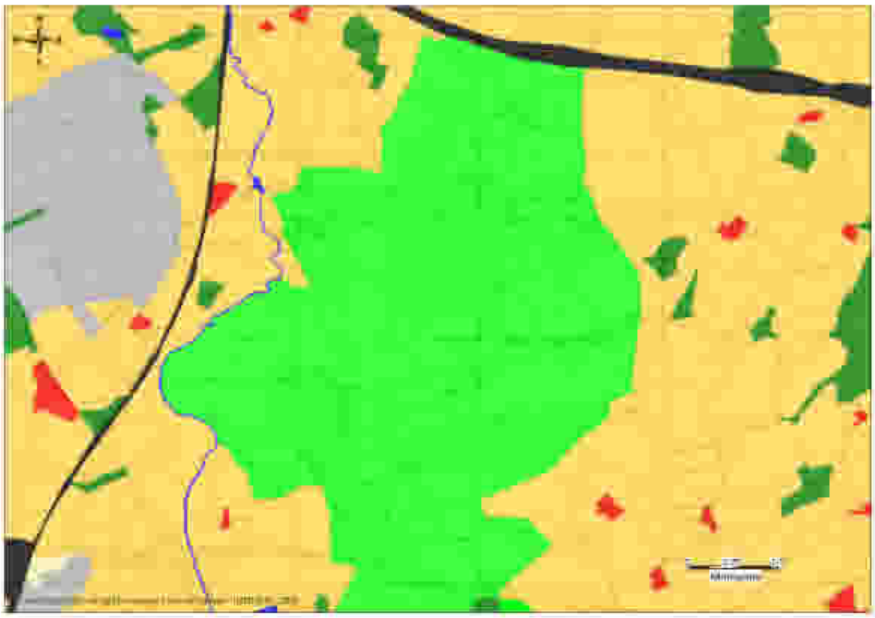
High - Parkland and other designed landscapes often contain a variety of archaeological sites and monuments. Country houses, estate buildings, deserted settlements and the generally good preservation of remains leads to a high potential for archaeology.

Management:

Conservation of parkland and other historic designed landscapes should be informed by good understanding of the original design (including planting schemes etc). Parkland and older designed landscapes often contain other historic and archaeological features (such as ridge and furrow and deserted settlements) and this should be respected in any management plan for the area. For more modern designed landscapes emphasis should be on incorporating former landscape features into the design.

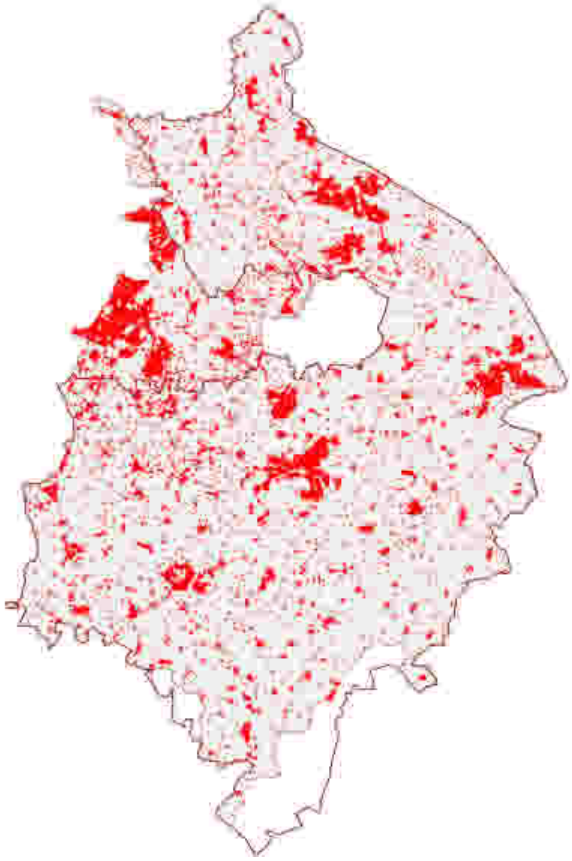
Research:

Much research has been carried out on designed parks and gardens in the landscape although often on an individual basis or looking at one area or topic in particular. Work such as that by Jonathan Lovie, carried out in 1997, could be updated especially following results from the HLC. Less research had been carried out on recreational types such as golf courses, recreational parks and sports fields.



Packington Park, North Warwickshire

Settlement (SET)



Legend Colour:

Total Area: 20,501 ha (9.80%)

No of polygons: 7,058 (38.25%)

Average Polygon Size: 2.90 ha (small)

Occurrence: Abundant

Historic Settlement Core of Thurlaston, Rugby

Definition:

Areas of land that have a predominantly populated and settled character, this also includes farmsteads.

HLC Types:

Historic Settlement Core, Terraced Housing, Semi-detached Housing, Detached Housing, Farmsteads, Country House, Flats and Apartments, Mobile Home Park

Description:

Settlement in the project area is scattered throughout the countryside with a number of larger urban areas (Warwick, Leamington, Kenilworth, Nuneaton and Bedworth, Rugby, Stratford upon Avon and the urban western part of Solihull Metropolitan Borough) and smaller towns (such as Atherstone, Coleshill, Southam, Shipston on Stour, Polesworth and Alcester). Urban character is complex and can be considered more effectively in the individual HLC Types in Chapter 4 or in more detailed characterisation work, such as that of Extensive Urban Survey.

Historic processes:

For HLC the development of settlement has only been accounted for from the medieval period onwards. The development of settlement in Warwickshire from the medieval period onwards is complex but as a summary consisted of Warwick as the Shire Town with a number of planned towns, such as Stratford-upon-Avon and Shipston-on-Stour, and larger villages that developed into towns through the medieval period. Smaller villages were scattered throughout the county, with a concentration of medieval moated settlements in the north and west. Later, a large number of settlements were deserted with more desertion occurring in the south and east of the county (Dyer 1996). In the post-medieval period a number of settlements grew, especially in the north, to serve the numerous industries in the area. This expansion continued through to the 20th century when an explosion in population

after the Second World War led to vast expansion in most urban settlements, an expansion that continues today. Warwickshire, being otherwise a rural county, also has small settlements including a number of farmsteads that developed from the medieval period onwards.

Period:

Medieval - Late 20th century

Trajectory of Change (1880s – 1955):

Increasing rapidly (+32%)

Trajectory of Change (1955 – 2001):

Stable (+3%)

Reason for change (1880-2001):

Settlement saw a rapid increase of a third in the first half of the 20th century, mainly from the expansion of larger urban areas and from the growth of the Birmingham conurbation. The second half of the 20th century saw just a small increase in terms of overall area, although there has been redevelopment of urban areas and infilling within housing patterns.

Factors influencing further change:

An increasing population will demand more housing and settlement expansion is inevitable, as recognised in the Regional Spatial Strategy. This will probably be concentrated in the main towns and urban areas in the county but could affect rural settlement too. Some towns may absorb previously detached villages and there will be increased pressure on greenbelt areas from the expansion of Solihull, Coventry and other major urban areas in Warwickshire. Less defined housing types (such as uniform terraced, semi-detached or detached housing) are being produced and a more mixed pattern of housing estates are changing settlement character. Larger urban areas may see increased pressure on un-used Brownfield and Greenfield areas.

Biodiversity Potential:

Low/Medium Some potential from green spaces and gardens in settlement areas. Some species have adapted and thrive in urban areas such as birds, foxes, bats and some amphibians. The development of Green Infrastructure as an integral part of current spatial planning will also enhance biodiversity. In rural settings villages and farmsteads often support a wide range of wildlife.

Archaeological Potential:

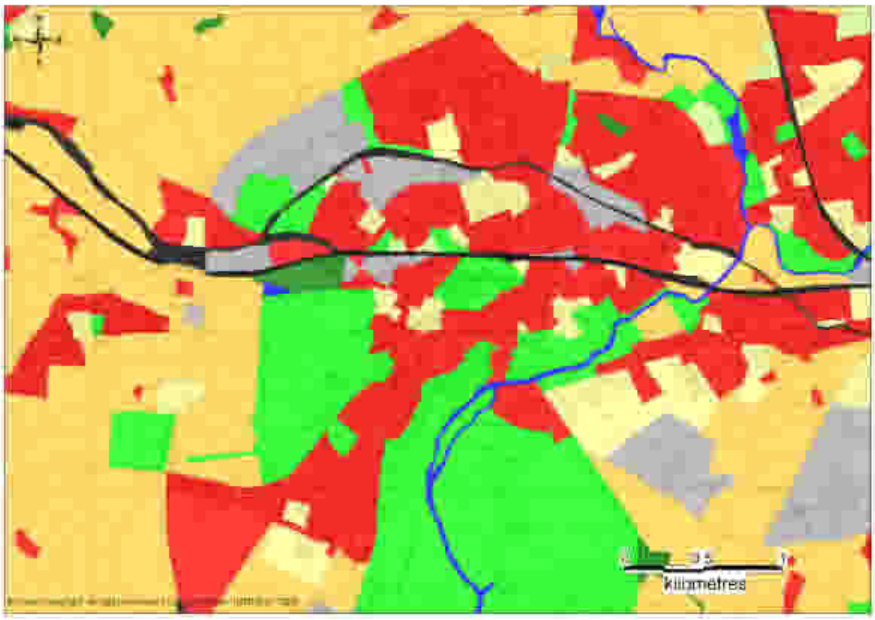
Medium - Archaeological remains are often associated with settlement, especially above ground remains. The potential for archaeology depends upon the more specific HLC Type; for example historic cores of settlement have a higher archaeological potential than more modern settlement that by its nature often destroys archaeological remains.

Management:

Specific management recommendations will depend on each type. In general for all settlement any proposals for major change should include an assessment of the existing historic character of an area and its surroundings, and an assessment of the impact of proposals upon this character. New development should take into account the character of the area in which development is to take place and ensure that the materials used are also in keeping with the surroundings. Historic Environment considerations need to be firmly embedded in Local Development Frameworks and supported by robust and effective policy at both national and local level.

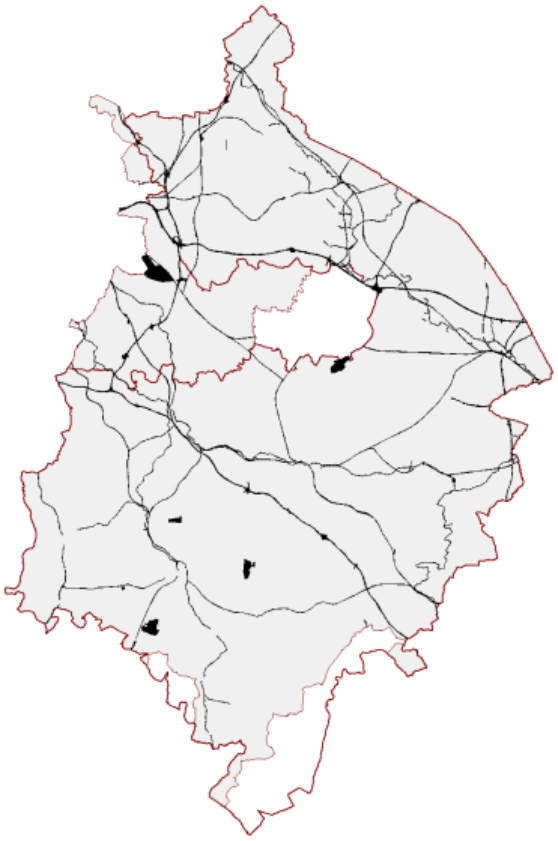
Research:

There are already a large number of national and regional research and study groups related to the study of historic settlements (e.g. MSRG). EUS has yet to be carried out in Warwickshire and is highly recommended after HLC to further understand the major historic towns. A further project has already started looking at Historic Farmstead Character and will be invaluable in understanding historic farmsteads on a local and regional level. Further research could be carried out into later settlement development such as the expansion of the Birmingham conurbation into Solihull and the increase of modern country houses in the later half of the 20th century.



Warwick Town

Transport (TRA)



Legend Colour:

Total Area: 4,149 ha (1.98%)

No of polygons: 305 (1.65%)

Av. Polygon Size: 13.60 ha (medium)

Occurrence: Rare

M69 Motorway

Definition:

Areas of land that are related to some form of transportation.

HLC Types:

Motorways, Civil Airports, Canals, Railways, Disused Railways, Park and Ride

Description:

The project area is crisscrossed with canals, railways and motorways. Most connect South East and North West England via Birmingham, with some connecting other cities and urban areas. There are a number of airports, mostly domestic and small scale, with Birmingham International dominating.

Historic processes:

Historically, roads were the primary system of transport in Warwickshire; however, only the more modern motorways have been mapped as part of this study. Canals were developed as part of the industrial revolution. Early contour canals like the Oxford Canal were followed by straighter canals with locks and tunnels. Soon a network was crossing Warwickshire that largely continues to exist today. When railways were developed in the nineteenth century, Warwickshire was again a crossroads between London and Birmingham, with lines linking Coventry, Rugby, Leamington Spa and other major towns. Many of these lines closed in the 20th century with dismantled railway lines still a feature in the landscape. Twentieth century motorways with links between Birmingham, London and the North pass through Warwickshire. Another 20th century phenomenon was the development of civil airports. Two dominate in Warwickshire: Coventry (which recently closed to passenger traffic) and Birmingham International.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing rapidly (+49%)

Trajectory of Change (1955 – 2001):

Increasing slowly (+19%)

Reason for change (1880-2001):

Transport increased in the project area by just under 50% in the early 20th century due to the continued expansion of the railways and the development of civil airports after the Second World War. This has continued to increase slowly in the later 20th century, despite the decrease of railways, largely offset by the development of motorway networks and services.

Factors influencing further change:

The railway and canal network are relatively stable. The biggest pressure comes from an increase in roads, especially in motorway widening and expansion. Pressure on expanding airports has reduced with Coventry recently halting passenger flights, although Birmingham Airport is likely to expand with a further runway. There is also the possibility of a high speed rail line (HS2 or High Speed 2) passing through Warwickshire from London to Birmingham sometime in the next 20 years.

Biodiversity Potential:

Low-Medium. Mainly low although some transportation types have high biodiversity, such as disused railway lines and canals,

Archaeological Potential:

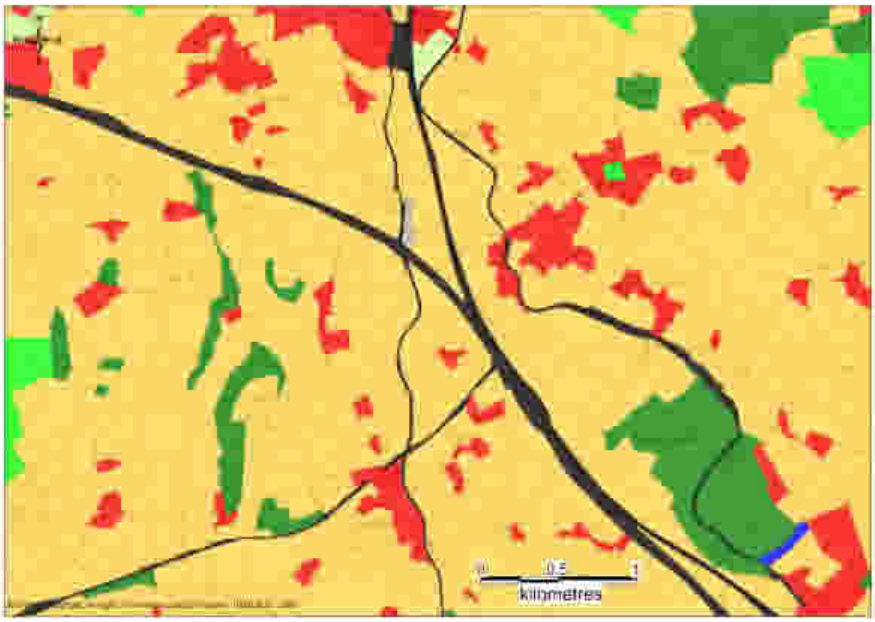
Medium - Modern transport networks such as motorways can be highly destructive, despite the fact that the areas the modern transport networks pass through often have high archaeological potential. Therefore modern transportation has an overall low archaeological potential. However older transportation systems have themselves become of archaeological interest including canals, railways and to some extent airports, especially those with a military background.

Management:

Historic elements of transportation sites (particularly canals, railways and older airports) should be preserved and managed appropriately to respect any archaeological and historic interest. Newer transportation networks such as motorways rarely provide archaeological or historic features to manage, although it may be in the future that motorways themselves form an historic feature that should be appropriately managed.

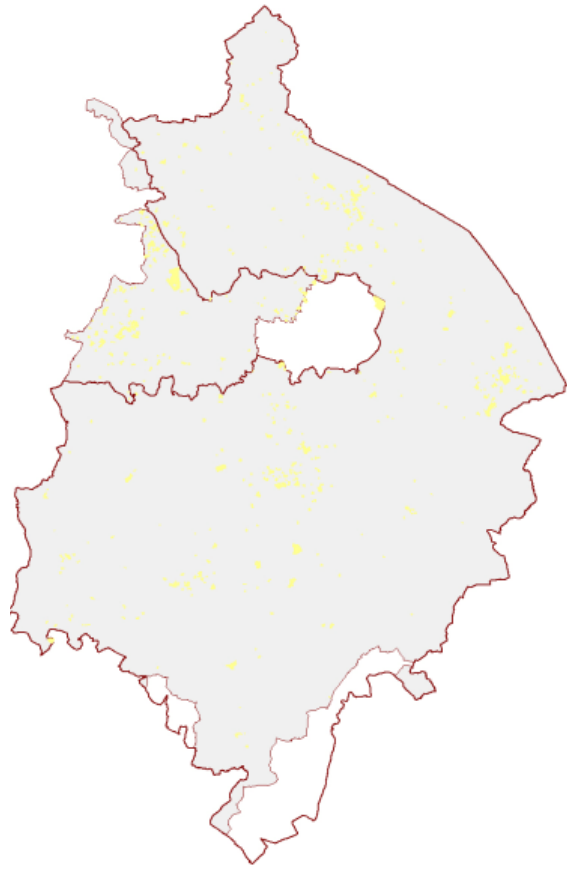
Research:

Research into historic transportation routes such as canals and railways has been carried out previously, especially as part of industrial development. Research on more modern forms of transport such as motorways has only just begun. Some research into historic roads in Warwickshire has already been carried out (Cossons, 1946) but further work could take place perhaps by mapping all historic roads in the HER or as part of a characterisation study. This has been piloted in Buckinghamshire already and further detailed work has been carried out on the Isle of Wight.



Motorway, Railways and Canals between Rowington and Lapworth

Civic and Commercial (CIV)



Legend Colour:

Total Area: 2,630 ha (1.26%)

No of polygons: 610 (3.31%)

Average Polygon Size: 4.31 ha (small)

Occurrence: Rare

National Exhibition Centre (NEC), Solihull

Definition:

Areas of land that have a predominantly civic or commercial use.

HLC Types:

Stadium/Conference Centre, Camping/ Caravan Site, Stadium, Municipal and Civic, Commercial and Retail

Description:

Civic land includes administrative buildings including schools and services, while commercial sites include such areas as supermarkets, shopping centres, retail parks and hotels. These, on the whole, are not unsurprisingly located mostly in the larger urban areas.

Historic processes:

Civic and commercial sites mostly date from the Victorian period onwards, with an expansion related to settlement and population growth in the later 20th century and the development of commercialism with out of town shopping centres and strategic distribution centres.

Period:

20th century

Trajectory of Change (1880s – 1955):

Increasing rapidly (+90%)

Trajectory of Change (1955 – 2001):

Increasing slowly (+6%)

Reason for change (1880-2001):

This increased dramatically in the first half of the 20th century due to the expansion of settlement. The early post war period also sees an increase in commercial sites. Later 20th century shows a slow increase in line with the small increase of settlement.

Factors influencing further change:

This type reflects the increase of settlement and so pressure will come from increase of population and settlement

expansion putting pressure on more civic and commercial services.

Biodiversity Potential:

Low - Limited biodiversity will exist in these areas due to their nature, however some such as schools have schemes to help promote biodiversity. Other larger civic and commercial areas often have specific areas designed for the natural environment.

Archaeological Potential:

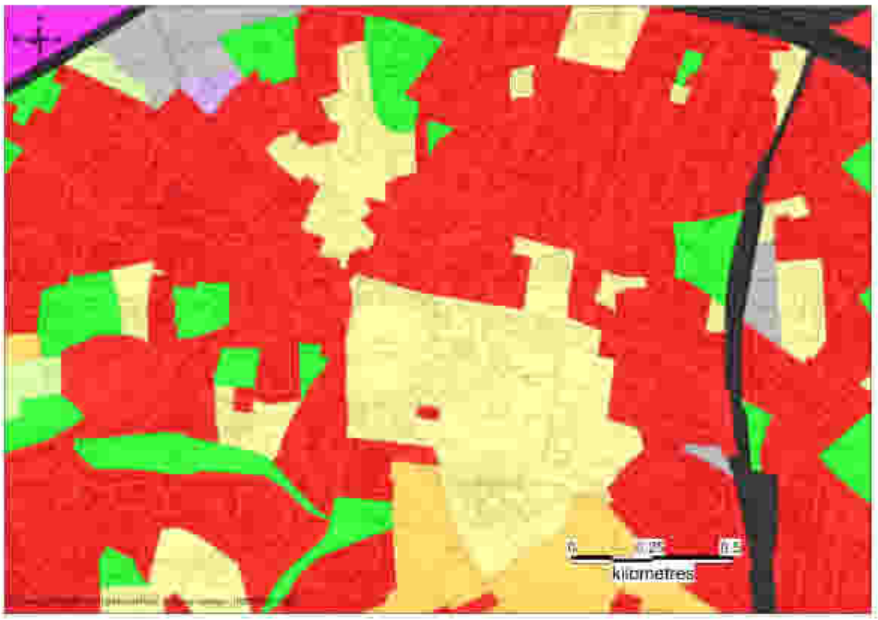
Low/Medium - There are generally few archaeological sites associated with this type and their nature often results in destruction of archaeology. Some older civic buildings have historic interest as well as intact areas of land associated with schools, car parks and camping/caravan sites.

Management:

To preserve or record where possible those older buildings or institutions that are of historic or archaeological interest.

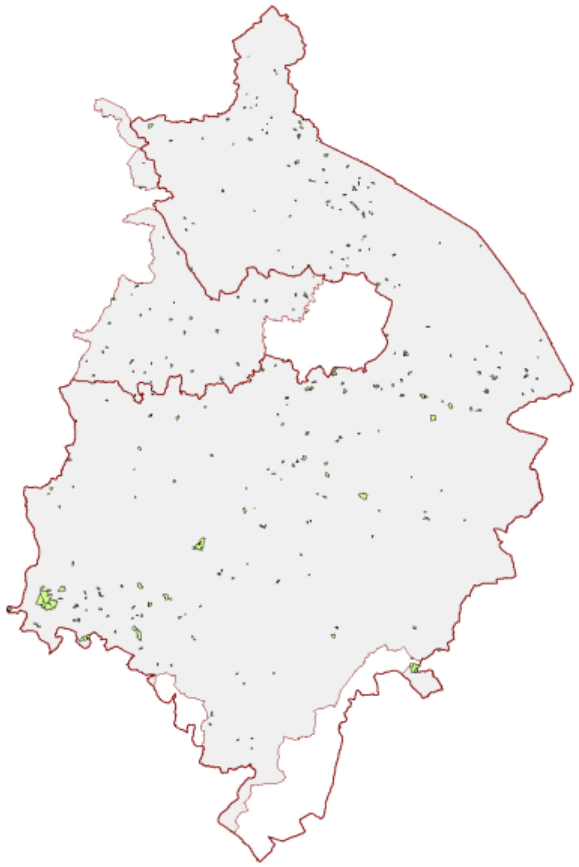
Research:

Research needs to be identified at an individual type level. This may result in proposals for thematic survey.



Civic and Commercial sites at Rugby

Horticultural (HOR)



Legend Colour:

Total Area: 1,176 ha (0.56%)

No of polygons: 302 (1.64%)

Average Polygon Size: 3.89 ha (small)

Occurrence: Rare

Snitterfield Fruit Farm

Definition:

Areas of land that can be identified as some form of small-scale horticulture. This type includes orchards, allotments and more modern nurseries and garden centres.

HLC Types:

Orchards, Allotments, Nursery/Garden Centre

Description:

Orchards are sparsely located throughout Warwickshire with a definite concentration in the south west along the River Avon. There is also a scattering of allotments and garden centres around the main urban areas of the county. With some nurseries being found along the large river valleys of the Avon and Anker.

Historic processes:

The idea of allotments as a concept has developed through history and can be traced back to the medieval period in England. However, the understanding of allotments here is very much the post-medieval sense of them being small areas of land let out, usually by local government or associations, for individuals to grow their own food.

Some have been identified in Warwickshire in the 19th century but most developed in the early 20th century with a surge around the Second World War. Since then they have declined somewhat although recently they have become more popular and a resurgence could be on the way.

Orchards were a common feature of the medieval landscape (Rackham 1990). However, in Warwickshire there has not been a strong tradition of orchards although most rural settlements had small orchards. On a commercial scale they can be found in the 19th century onwards in the south west of the county with other areas appearing with orchards later in the 20th century. However, the second half of

the 20th century has seen a decline of orchards in Warwickshire.

Nurseries and garden centres are generally a 20th century phenomenon, although some appear to have existed from the Victorian period onwards.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing dramatically (+52%)

Trajectory of Change (1955 – 2001):

Decreasing rapidly (-28%)

Reason for change (1880-2001):

The rapid increase of orchards and allotments in the first half of the 20th century is due to the need for such areas during both world wars along with a small increase in commercial orchards. Since the 1950s this has decreased rapidly following the loss of orchards from the south west of the county and the gradual decline of allotments in general.

Factors influencing further change:

The orchard industry in England as a whole is in decline and the loss of further orchards may happen due to, primarily, lack of profitability in turn due to intense competition from abroad. Allotments have seen a resurgence at the beginning of the 21st century; although few new areas are created this may stabilise any further decline. Allotments may also be incorporated in the Green Infrastructure of modern expansion. Locally run nurseries are facing increased competition from larger national commercial organisations and may decline further.

Biodiversity Potential:

High - Allotments and orchards have a high potential for biodiversity due to their nature. Nurseries and garden centres less so.

Archaeological Potential:

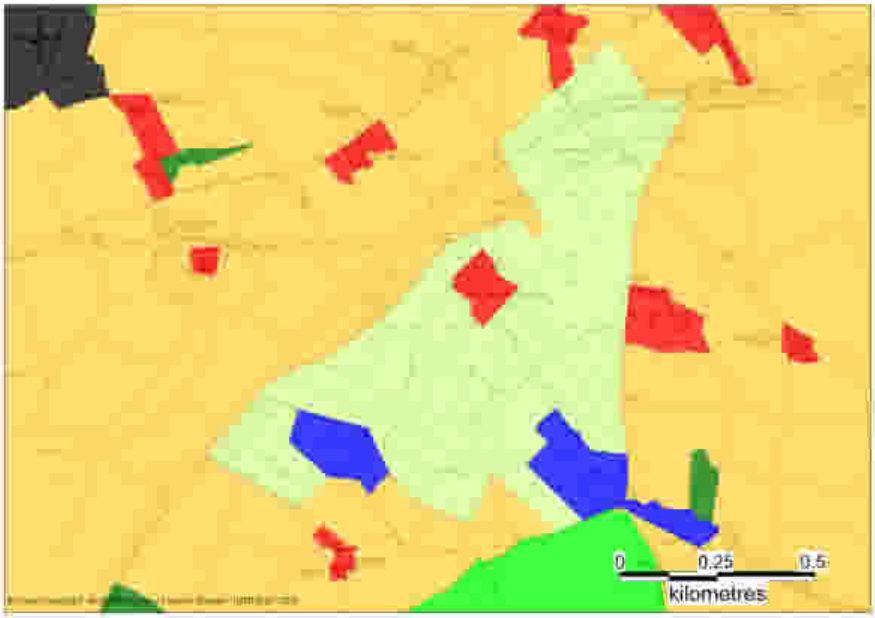
Medium/Low - Some of these HLC types are more destructive to archaeology than others; with allotments, for example, little archaeology remains after repeated digging. Orchards however can offer a higher potential and are often themselves of historic interest.

Management:

Management should be related to the more specific HLC types.

Research:

Little is known about orchard and allotment development in Warwickshire especially in the 20th century, the use of HLC could help address this.



Snitterfield Fruit Farm, Stratford-on-Avon

Chapter 4 - Historic Landscape Character Analysis: HLC Types

Introduction

This chapter analyses the Warwickshire HLC material on a project wide level in terms of 55 HLC Types that have been identified. These HLC Types are made up from 120 HLC Sub-types that were recorded as part of the digitising stage of the project. The full list and summary details of these HLC Sub-types can be found in the HLC Desk Manual (Appendix 3).

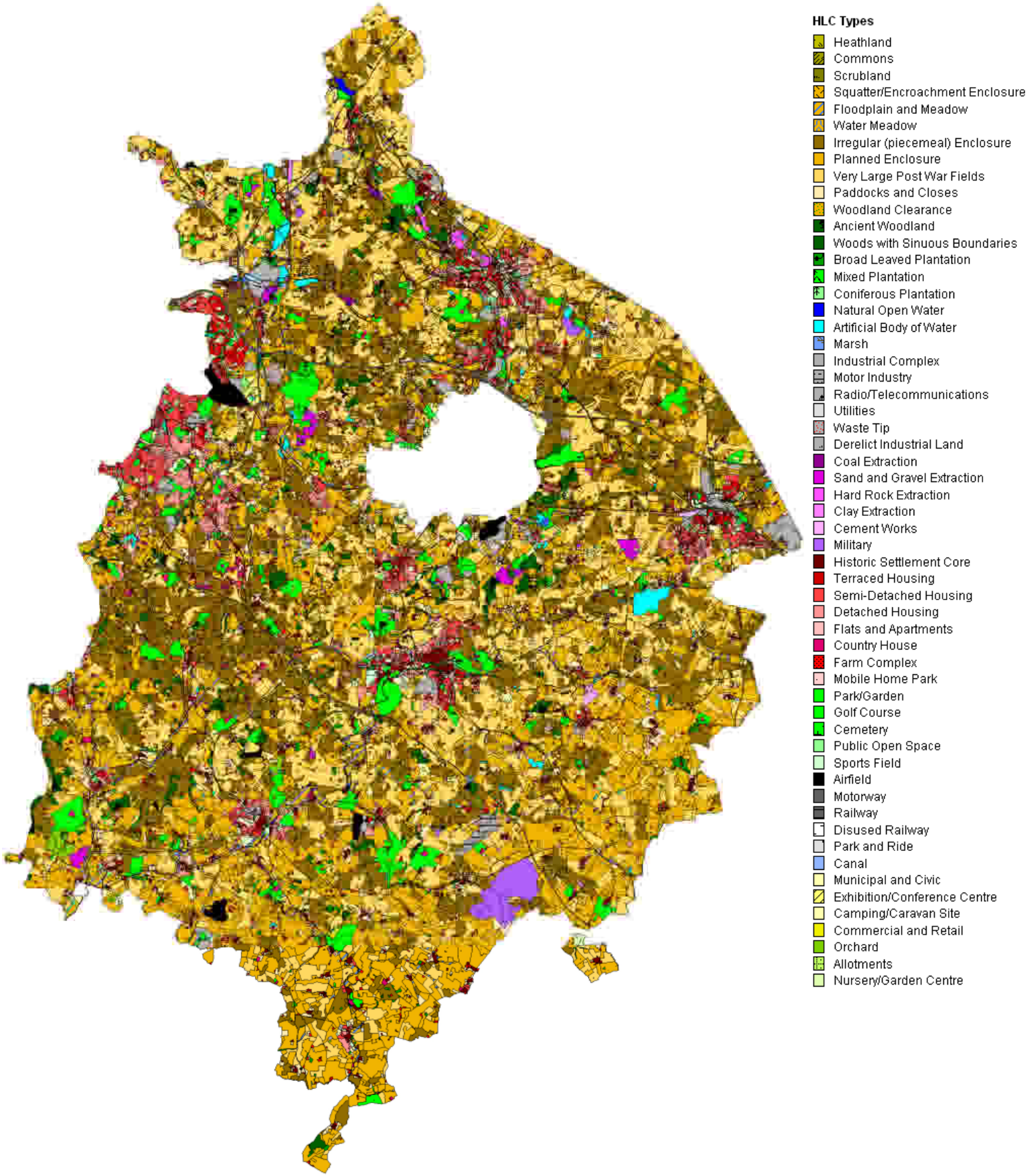
For reference a project wide map of the 55 HLC Types is shown below.

The layout of this chapter broadly follows the previous chapter (Analysis of HLC Broad Types) and all the headings and statistics have been generated in the same way. For reference it may be useful to see the definition example at the beginning of Chapter 3.

Each HLC Type has a summary box showing a project wide distribution map, some key statistics and an example photograph of the type in the landscape. The descriptive headings then follow, including aspects such as change over time, biodiversity potential, archaeological potential, and research and management issues. Finally an example of the HLC Type as mapped is shown.

The purpose of this analysis at the HLC Type level is to give a very detailed assessment of each of the identified HLC Types and help users of HLC understand the Historic Landscape Character of Warwickshire at this more detailed level.

For analysis at a district level please refer to the District-wide Analysis Chapter (Chapter 6).



Map of HLC Types

Heathland (1)

Legend Colour:

Total Area: 4.92 ha (0.00%)

No of polygons: 2 (0.01%)

Average Polygon Size: 2.46 ha (Small)

Occurrence: Very Rare

Heathland at Grendon, North Warwickshire

Definition:

Areas that have been identified as heathland by English Nature's Lowland Heathland Inventory and by the Warwickshire, Solihull and Coventry Habitat Biodiversity Audit. It is further defined by the UK Biodiversity Action Plan.

Sub-types:

Heathland

Description:

Very little heathland is found in Warwickshire and this HLC type is almost extinct, the last two small examples can be found in Solihull and at Baddesley Ensor. It is mainly found as a previous type forming larger areas that were once heathland, identified from map and placename evidence. The main concentration of these areas was in the Solihull Metropolitan Borough area and at Dunsmore Heath. Other smaller pockets of heathland have been identified sparsely scattered throughout the county.

Period:

Pre medieval

Trajectory of Change (1880s – 1955):

Declining Critically (-99.94%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

The clearance of heathland continued into the early 20th century and is reflected in the sharp decline, but by the 1950s this process had stopped, mainly due to the almost total eradication of this type.

Factors influencing further change:

The little of this type that is left can easily be lost to surrounding types including settlement, woodland or fieldscapes. It is

very unlikely that any further heathland will be created in Warwickshire.

Biodiversity Potential:

High - This type is a UK BAP Priority Habitat and supports a wide range of species often under threat.

Archaeological Potential:

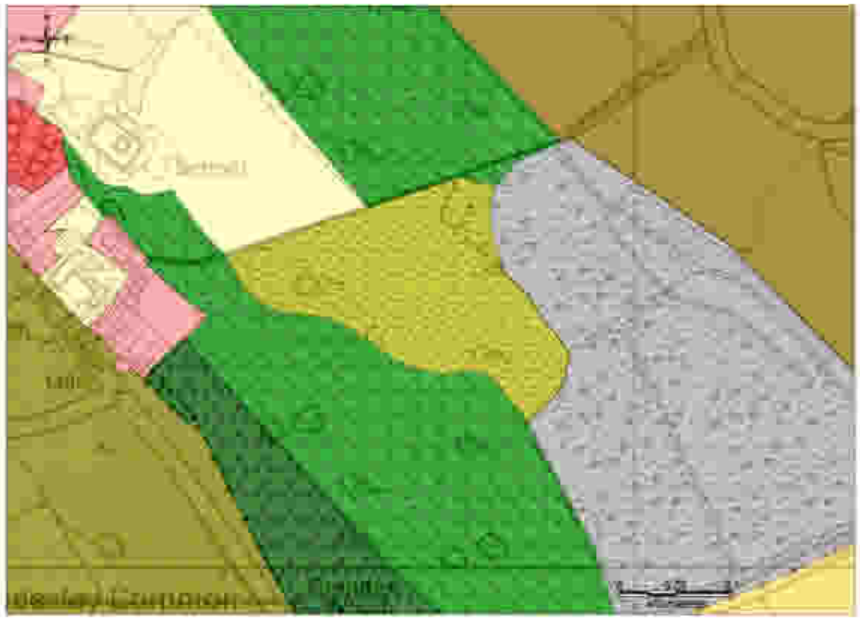
The small quantity of this type in the county makes the archaeological potential difficult to assess. As a previous type however their potential would be medium-high with cropmarks, industrial sites and moated sites on the edge of these areas.

Management:

The potential for restoring heathland should be explored. The few remaining areas should be protected as far as possible from any further change. Ecological management may be most appropriate.

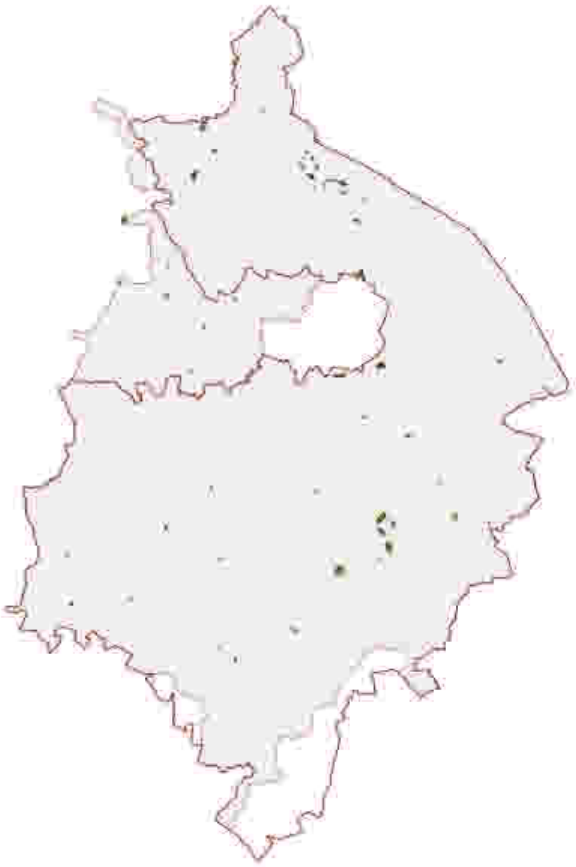
Research:

The previous extent and history of heathland in Warwickshire is not fully understood. The relationship of heathland with commons and the later developing settlements and industry is another area that is not well understood in Warwickshire.



Small area of heathland (centre) at Grendon, North Warwickshire

Scrubland (117)



Legend Colour:

Total Area: 552.57 ha (0.26%)

No of polygons: 72 (0.39%)

Average Polygon Size: 7.68 ha (Medium)

Occurrence: Very Rare

Scrubland at Lighthorne, Stratford-on-Avon

Definition:

Areas of unimproved land that do not fall into any of the other categories. These are generally areas of scrub where the landscape, geology, soil type or other factors have left the land unusable.

Sub-types:

Scrubland

Description:

Very little scrubland is found in Warwickshire. Most is sparsely scattered and is the result of modern minerals extraction where the land has been in-filled and scrub naturally develops while the land is not actively used. Some of the scrubland identified as a previous HLC type also relates to minerals extraction but here there is a wider scattering across the county that is not yet fully understood.

Period:

Possibly medieval or earlier but most of the recorded scrubland appears to date to the post-medieval - late 20th century.

Trajectory of Change (1880s – 1955):

Increasing Rapidly (68%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (7%)

Reason for change (1880-2001):

The increase in the 20th century of this type appears to be related predominantly to the extractive industries where, since the minerals are exhausted, the land is often left to form scrub. This process appears to have slowed in the second half of the 20th century, probably due to the shrinking of the extraction industry in Warwickshire and the policy of reusing the land for other purposes after extraction has taken place. This reuse now often takes the form of woodland, reversion to

agricultural land, designed parks or other amenities.

Factors influencing further change:

This type is usually an intermediary between extraction, filling and then another use of the landscape, sometimes for settlement, parks, nature reserves, woodland creation or reversion to farmland. The amount of new scrub or loss of current scrub will depend on post-extractive use of minerals sites.

Biodiversity Potential:

Medium - Generally this type will be less managed than other areas and will have a greater variety of species; however, if left for a long period of time this can degenerate into a few species dominating and reducing the potential for biodiversity.

Archaeological Potential:

Low - the potential for these areas is similar to extractive types; however, most of the archaeological remains will have been destroyed. There is some potential for pockets or strips of archaeology to remain that were not quarried and these would include prehistoric and some industrial remains.

Management:

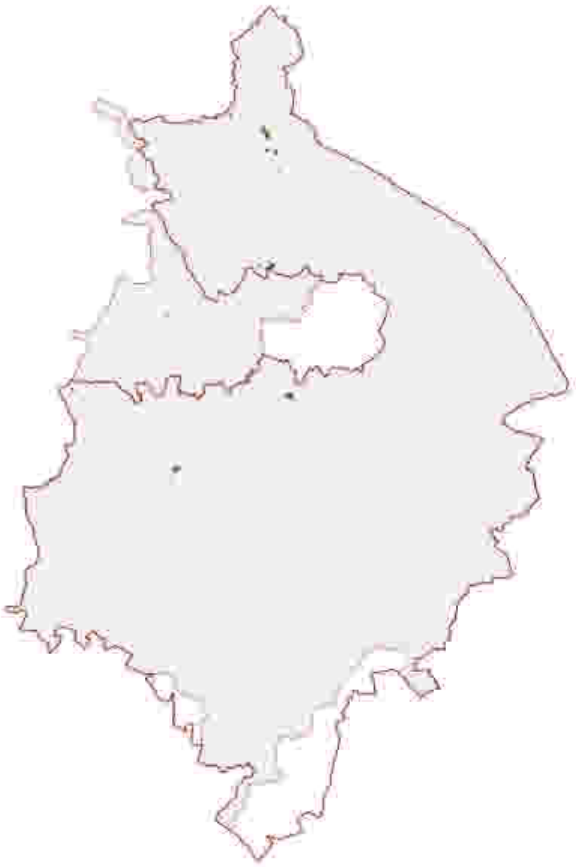
This type has considerable potential for positive change, ideally informed by a good understanding of any particular site's origins. Some have good potential to be managed for biodiversity (including controlling invasive species). Others might benefit from landscape enhancement, such as restoration of a previous landscape type or types.

Research:

This type is generally a modern development on a range of former types: research will therefore typically be confined to the history of particular sites rather than to scrubland as a type.

Scrub at Lighthorne, Stratford-on-Avon

Commons (2)



Legend Colour:

Total Area: 92.23 ha (0.04%)

No of polygons: 16 (0.09%)

Average Polygon Size: 5.76 ha (Small)

Occurrence: Very Rare

Yarningale Common, Stratford-on-Avon

Definition:

Areas of common land identified on the Countryside Agency's National Registered Common Land Map (2000) or other common land marked on OS maps that does not fall into the other categories.

Sub-types:

Commons

Description:

Very little common survives and is mainly found as small pockets in North Warwickshire, Solihull and the northern part of Warwick and Stratford-on-Avon Districts. In the medieval and post-medieval periods it formed a much larger area and is mainly found as a previous type recognised from map and placename evidence. The main concentration of common appears to have been in an area forming part of Solihull and the northern part of Warwick and Stratford-on-Avon Districts, with a further concentration at the very eastern edge of Birmingham. These formed large contiguous areas of common and had small settlements on the edge later encroaching directly onto it.

Period:

Medieval - Modern

Trajectory of Change (1880s – 1955):

Declining Critically (-99.71%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (355%)

Reason for change (1880-2001):

The sharp decrease of common land in the early 20th century is probably related to the land being gradually drawn in to be used for other purposes. In this case the area around Solihull formed the largest area of common and this is the area that has experienced the largest settlement expansion in the 20th century. The

surprising increase of common in the later 20th century appears to be related to the increasing awareness and protection of common land and subsequently the better recording of it in the landscape.

Factors influencing further change:

Settlement expansion, woodland creation and enclosing fields from the common are the biggest threats to this type. Common land is not expected to increase further in the future.

Biodiversity Potential:

Medium-High. Generally this type is less managed than other areas of land and as such has a higher variety of plant species and subsequently animal species.

Archaeological Potential:

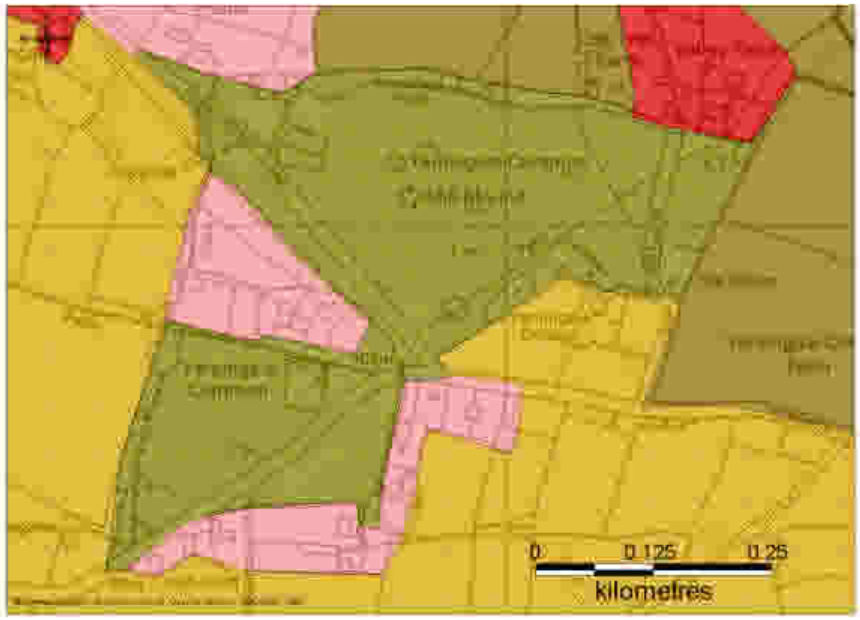
High - The nature of this type means they are generally quite archaeologically and historically sensitive. They are associated with settlement and industry and their lack of cultivation means a greater potential for surviving archaeological deposits. As a previous type they are often on the edge of medieval settlements, small industrial sites, cropmarks and moated sites.

Management:

The potential for restoring commons should be explored. Existing commons should be appropriately managed with emphasis on maintenance of grassland and control of invasive species or scrub. Any historic or archaeological features should be appropriately managed. Development is one of the least preferred options for these areas.

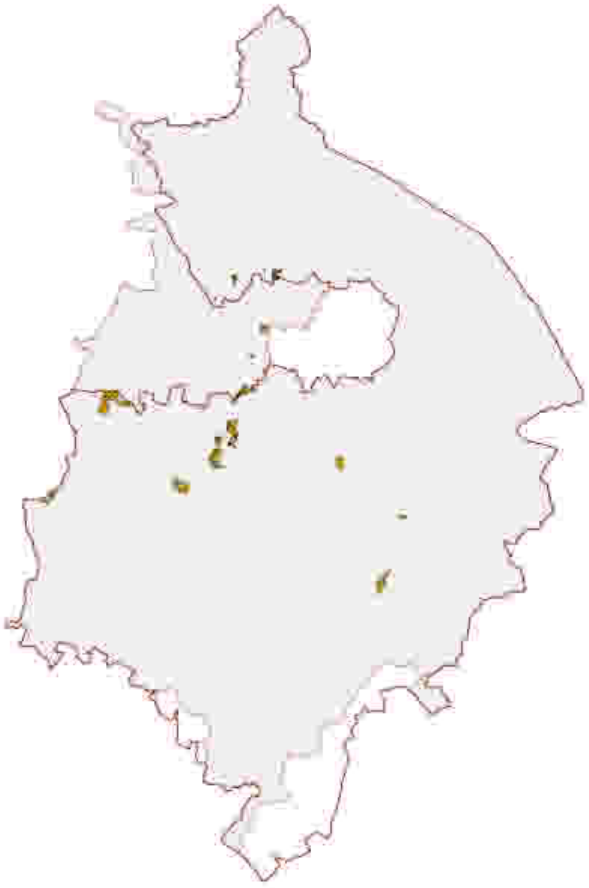
Research:

The exact extent of commons in the medieval period onwards and their later development is not well understood in Warwickshire. Their relationship with the surrounding landscape and the urban and industrial areas could be explored.



Yarningale Common, Stratford-on-Avon

Squatter and Encroachment Enclosure (9, 10, 11,)



Legend Colour:

Total Area: 976.58 ha (0.47%)

No of polygons: 38 (0.21%)

Average Polygon Size: 25.70 ha (Large)

Occurrence: Very Rare

Irregular Squatter Enclosure near Illshaw Heath, Solihull

Definition:

Small irregular or rectilinear fields usually with an unordered appearance predominantly with sinuous or curvilinear boundaries. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity; however, they may also appear as encroachment onto common land without any close proximity to any settlement or industry.

Sub-types:

Rectilinear Squatter Enclosure (9):

Small rectilinear fields usually with a more ordered appearance and predominantly with straight boundaries. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity.

Encroachment Enclosure (10):

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

Irregular Squatter Enclosure (11):

Small irregular fields usually with an unordered appearance, predominantly with sinuous or curvilinear boundaries. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity. They are often indicative of encroachment onto common land in the post-medieval or industrial periods.

Description:

There is very little squatter or encroachment enclosure left in Warwickshire. What little remains is found mainly in the northern part of Warwick and Stratford-on-Avon districts with a smaller

scattering across Solihull Borough. Not surprisingly, this type is closely related to the location of Common and Heathland and as such once formed a much larger area when the common and heath was gradually enclosed as small settlements and industry encroached upon it. One area where this is a complete lack of evidence for squatter or encroachment enclosure is the Dunsmore Heath area. This would suggest that a different process of enclosure was applied rather than through small settlement or industrial encroachment.

Period:

Medieval- post-medieval

Trajectory of Change (1880s – 1955):

Declining Critically (-76%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (19%)

Reason for change (1880-2001):

This type of enclosure is specifically associated with common and heathland and the sharp decline of this type in the early 20th century reflects the decline of the common and heathland in Warwickshire. The small increase in the later 20th century is not easily explained but may relate to better identification.

Factors influencing further change:

Settlement expansion and the re-organisation of field patterns and boundaries could affect the survival of this type.

Biodiversity Potential:

Medium - These fields and hedgerows by their nature tend to be more established, have a longer history and can potentially be more species rich.

Archaeological Potential:

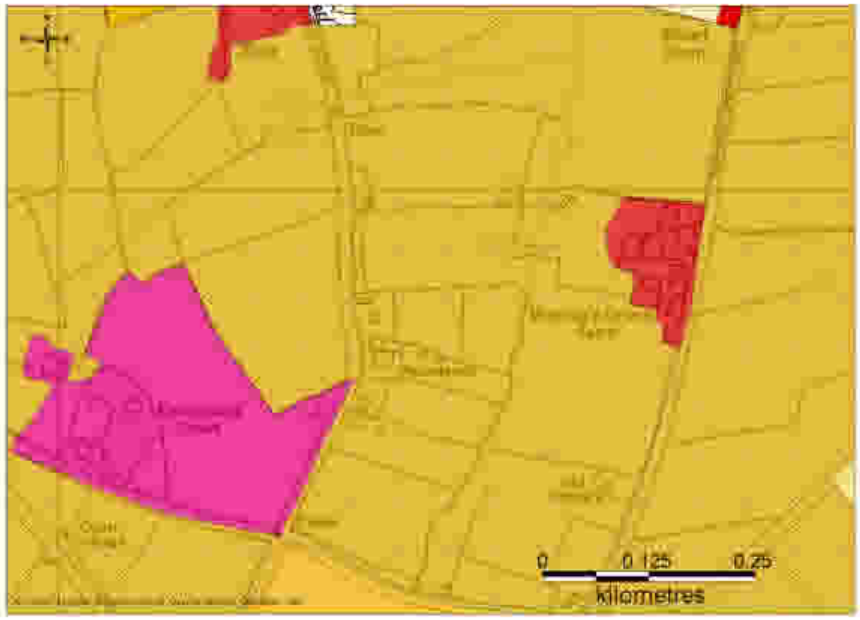
Medium-High - Small industrial sites, small post-medieval settlements and some moated sites are found close to this type. These areas are often found up to the edge of Deer Park boundaries. Some of the previous areas of this type are found either close to or directly related to medieval settlement, suggesting that this type of enclosure could date back to this period. Lack of archaeological sites suggests that the known potential for examination of these areas has not been fully realised, especially for the prehistoric period.

Management:

Maintain the field pattern, road pattern and boundaries. Revert to pasture if possible to protect any archaeological and other historic features.

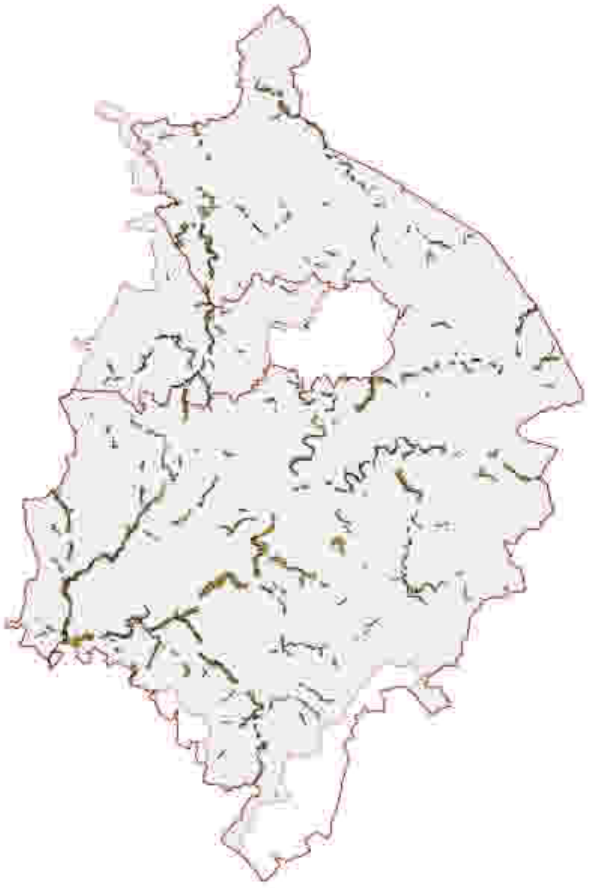
Research:

The origins and early development of this type needs to be better explored. It may be possible to map the development of this type of enclosure more accurately from pre 1880 tithe, estate and other detailed maps. The link between this type of enclosure and small scale industrial sites could be investigated.



Irregular Squatter Enclosure at Illshaw Heath, near Solihull

Floodplain and Meadow (108, 116)



Legend Colour:

Total Area: 6037 ha (2.89%)

No of polygons: 671 (3.64%)

Average Polygon Size: 9.00 ha (Medium)

Occurrence: Occasional

Floodplain near Wootton Grange, Stratford-on-Avon

Definition:

Areas of land that are recognised as regularly flooding or at risk of flooding or areas of grassland, often near a river, that are permanently covered with grass which is alternately grazed and mown for use as hay. These generally take the form of long thin fields with sinuous boundaries running alongside rivers, brooks and streams.

Sub-types:

Meadow (108):

A piece of grassland, often near a river, permanently covered with grass which is mown for use as hay. Generally these are found as long thin fields with sinuous boundaries alongside rivers, brooks and streams.

Floodplain (116):

Areas of land that are recognised as regularly flooding or at risk of flooding from nearby rivers, brooks or other water courses. Often this land is used as meadow.

Description:

This type survives well in the county although there has been a decrease since the end of the 19th century. Floodplain is usually found alongside the main rivers and brooks. Meadow is not very well represented, mainly because such a precisely defined land use is difficult to determine away from the floodplain areas. Some floodplain has been exploited in Warwickshire in the 20th century for other uses; most of this lies within urban areas and now forms types such as settlement and civic amenities like parks, allotments and sports grounds. Other floodplain that has changed has been more intensively used in agriculture, where land that once flooded regularly was probably left as meadow; this is now used for arable farming. A few areas of floodplain are now wooded, the site of sewage works or have

been exploited for sand and gravel extraction.

Evidence was found during the course of the HLC project for previous Water Meadows in some of these floodplain areas. Although none survive into use today these have been recorded as previous types in the HLC.

Period:

Medieval

Trajectory of Change (1880s – 1955):

Declining Rapidly (-23%)

Trajectory of Change (1955 – 2001):

Stable (-1%)

Reason for change (1880-2001):

The sharp decline in the early 20th century appears to be due to the more intensive use of land in floodplain areas. This use is predominantly for agricultural purposes but also for woodland, settlement, industry and sand and gravel extraction. There also appears to be a decline of meadows although this is less pronounced. In the later part of the 20th century this decline has ended and the extent has stabilised.

Factors influencing further change:

Sand and gravel extraction. Creation of industrial estates. Conversion to other types of enclosure for agricultural use.

Biodiversity Potential:

High - Meadow and floodplain areas are often species rich.

Archaeological Potential:

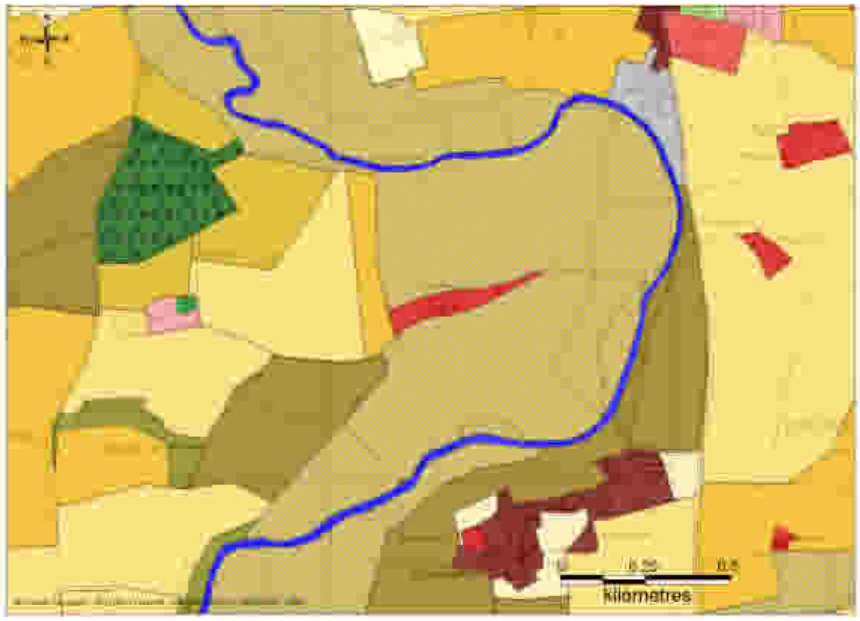
High - Meadows and floodplain area are associated with a wide range of archaeological features including water management features such as water meadows and water mills as well as historic bridges. These HLC areas were often incorporated into designed landscapes. Prehistoric and Roman settlement and features are often close to the present day floodplain. These areas are also more likely to contain waterlogged archaeological deposits. There is a strong correlation between archaeological sites recorded on the HER and river valleys and floodplains.

Management:

Ensure a stable environment and the maintenance of water levels. Retain boundaries and revert to pasture where possible.

Research:

The distribution and function of meadows are the least understood aspect of this type especially away from the floodplain area.



Floodplain of the Avon near Wasperton, Warwick

Irregular (piecemeal) Enclosure (12, 13, 14, 15)

Legend Colour:

Total Area: 43335 ha (20.71%)

No of polygons: 1825 (9.89%)

Average Polygon Size: 23.75 ha (Large)

Occurrence: Abundant

Reverse 'S' field boundary and piecemeal enclosure at Harborough Parva, Rugby

Definition:

Irregular enclosures. Some are formed piecemeal with curvilinear boundaries that often have a reverse 'S' or dog-leg morphology. These often represent field systems that have been created out of the medieval open fields by informal agreement. Others are irregular fields with straight and curvilinear boundaries that may have been created from the medieval through to the modern period.

Sub-types:

Small Irregular Fields (12):

Small irregular fields which cannot be assigned to one of the other historic landscape character types. Includes small meadows and closes not occurring next to settlements.

Large Irregular Fields (13)

Large irregular fields with a number of sinuous boundaries which cannot be assigned to one of the other historic landscape character types. Includes enclosure patterns created through the amalgamation of fields since the publication of the 1st edition OS mapping.

Piecemeal Enclosure (14)

Field systems that have been created out of the medieval open fields by informal agreement. They appear to have been established on a field by field basis and often are small irregular fields with at least two boundaries of a reverse 'S' curve or 'dog-leg' morphology indicating that they were following boundaries of former open 'strip' fields.

Re-organised Piecemeal Enclosure (15)

Small irregular or rectilinear fields that have lost 10% or more field boundaries since the OS 1st edition mapping or areas of large irregular or rectilinear fields. At least two field boundaries will have a reverse 'S' curve or 'dog-leg' morphology. These enclosure patterns have developed

through a process of amalgamation of fields created through piecemeal enclosure. This will in most cases have occurred since the OS 1st edition mapping.

Description:

One of the most abundant HLC types in the county. This type represents the older enclosure that dates from the medieval period onwards. There is a distinctive concentration and pattern of distribution of this type in Warwickshire. Most is found concentrated in the north-western part of Stratford and Warwick districts, in North Warwickshire or in Rugby Borough. There is a lack of irregular fields in the south and east of the county, in western Solihull and in a strip running from Warwick to Coventry. Part of this is due to the change of this type to planned enclosure and more modern amalgamated field patterns. In the case of Solihull it is settlement expansion and the more intensive use of the land that has led to a severe decline of irregular fields in this area.

Period:

Medieval - Post-medieval

Trajectory of Change (1880s – 1955):

Declining Critically (-60%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (31%)

Reason for change (1880-2001):

The sharp decline in the early 20th century of irregular enclosure is probably due to the continuing expansion of planned enclosure and the intensification of agriculture in the immediate post-war years leading to an amalgamation of fields and often straightening of boundaries and eradication of smaller irregular fields. In the later 20th century this trend appears to have been reversed with an increase of irregular fields; part of this could be attributed to the small increase of enclosure, modern irregular field creation and, in the case of more recent agri-environment schemes, a policy of replacing field boundaries from the 19th century.

Factors influencing further change:

Re-organisation of field pattern by amalgamating fields or removing boundaries. In some cases with modern agri-environment schemes the boundaries that were removed may be replaced. Some of these areas are close to settlement and could be at risk from settlement expansion.

Biodiversity Potential:

Medium - These fields and hedgerows by their nature tend to be more established, have a longer history and can be potentially more species rich. The irregularity of the fields often leads to some areas remaining less intensively used by modern agriculture.

Archaeological Potential:

Medium/High - These areas are typically associated with ridge and furrow and deserted medieval settlements. There is a higher potential in permanent pasture, lower under arable cultivation. These areas like all enclosure have a high potential for crop and soil marks, and archaeology from most periods.

Management:

Maintain the field pattern, road pattern and boundaries. Revert to pasture if possible.

Research:

The origin of this type is not fully understood. Further work is needed to clarify dates of boundaries and field patterns.

Piecemeal Enclosure at Harborough Magna and Harborough Parva, Rugby

Planned Enclosure (16, 17, 18)

Legend Colour:

Total Area: 51534.94 ha (24.63%)

No of polygons: 2103 (11.40%)

Average Polygon Size: 24.51 ha (Large)

Occurrence: Abundant

Planned Enclosure near Preston Green, Stratford-on-Avon

Definition:

Small or large, generally rectilinear, enclosures with a predominantly straight boundary morphology giving a geometric, planned appearance. These are usually representative of planned or parliamentary enclosure from the 18th and 19th centuries.

Sub-types:

Planned Enclosure (16)

Small or large enclosures with a predominantly straight boundary morphology giving a geometric, planned appearance. Laid out by surveyors these field patterns are the result of later enclosure during the 18th and 19th centuries. This includes commons enclosed by Act of Parliament.

Other Small Rectilinear Fields (17)

Small rectilinear fields which cannot be assigned to one of the other historic landscape character types. Includes small meadows and closes not occurring next to settlements.

Other Large Rectilinear Fields (18)

Large rectilinear fields which cannot be assigned to one of the other historic landscape character types. Includes enclosure patters created through the amalgamation of fields since the OS 1st edition mapping.

Description:

This is the most common type in Warwickshire making up almost a quarter of the total area. This type is much more scattered throughout the county than other field types; however, there are two areas of high concentration. One is in the south and east of Warwickshire and the other is in the rural part of Solihull. The areas where this type has declined appear to be mainly areas of 20th century urban expansion such as Solihull, Nuneaton and Bedworth, Rugby, Kenilworth and Leamington. A few large areas have

succumbed to such things as airports and military sites. There are two areas of planned enclosure that appear to have been created after the 1880s but which have subsequently disappeared in the southern part of North Warwickshire and in the northern part of Stratford-on-Avon District.

Period:

18th-19th century

Trajectory of Change (1880s – 1955):

Declining Critically (-62%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (58%)

Reason for change (1880-2001):

This declines in the first half of the 20th century due to a combination of settlement expansion and the amalgamation of fields to form very large fields just after the Second World War. In the later part of the 20th century more planned fields appear to have been created. Some of these may be re-organised irregular fields, whilst some may be reversion of land to agriculture predominantly from the decline of the extraction industries.

Factors influencing further change:

The amalgamation of fields to form very large post war type fields. Some settlement expansion could affect this type.

Biodiversity Potential:

Medium/Low - The potential will vary according to the location and quality of these enclosures and boundaries. This type in general is quite intensively farmed and tends to be a mixture of arable and improved/unimproved grassland and is more recent than piecemeal enclosure.

Archaeological Potential:

Medium - This type often has ridge and furrow and deserted medieval settlements associated with it. There is higher potential in permanent pasture, less under arable cultivation. These areas, like all enclosure, have a high potential for crop and soil marks, and archaeology from most periods.

Management:

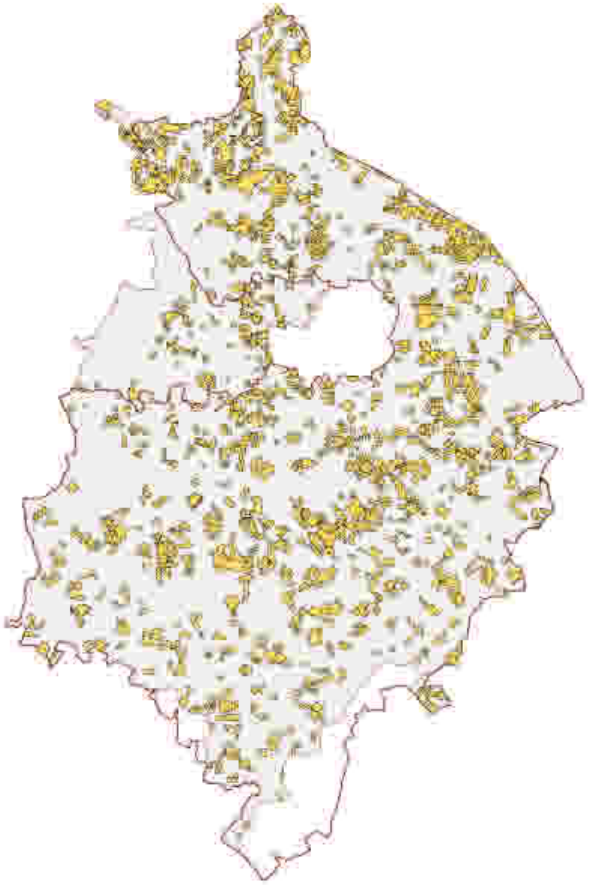
Maintain the field pattern, road pattern and boundaries. Revert to pasture if possible.

Research:

The exact dates when all these areas were enclosed have not been established, although much of this may well be documented (see Tate, 1943, Martin, 1967 and Hollowell, 2000). With enclosure and tithe maps this may be possible and may narrow a history of enclosure to each series of fields within a parish. Each parish could also be analysed and interpreted to see styles and patterns that emerge.

Planned Enclosure near Knightcote, Stratford-on-Avon

Very Large Post War Fields (19)



Legend Colour:

Total Area: 42586.00 ha (20.35%)

No of polygons: 858 (4.65%)

Average Polygon Size: 49.63 ha (Very Large)

Occurrence: Abundant

Very large post-war fields at Wolvey, Rugby

Definition:

Very large fields (over 8Ha, often much larger) created since the OS 1st edition mapping. These have been formed usually as a result of Post-War agricultural improvements intended to meet the requirements of intensive arable cultivation.

Sub-types:

Very Large Post War Fields

Description:

This type together with planned and irregular fields makes up over two thirds of Warwickshire. This type is scattered widely throughout the county with some concentrated areas in North Warwickshire, northern Rugby Borough and in a large band running from north of Stratford town to south of Warwick and Leamington and leading to Rugby. It is unclear why these concentrations exist in this pattern although in general this type appears to be replacing the older smaller irregular fields and not the later larger planned fields.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (97.11%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

This type has increased in the early 20th century, mainly just after the Second World War due to the intensification of agriculture and the amalgamation of earlier enclosures. The later part of the 20th century has seen this process stabilise.

Factors influencing further change:

This type could change due to the re-introduction of field boundaries as part of current agri-environment schemes, recreating older field patterns and landscapes.

Biodiversity Potential:

Low-medium - These fields are the most intensively managed with the least amount of hedgerows and are generally species poor.

Archaeological Potential:

Low-Medium - These areas tend to be under intensive arable cultivation and will have the least survival of archaeological deposits. Some deeply buried features may survive and sometimes these areas produce crop and soil marks.

Management:

Revert to pasture or reduce plough depth where possible.

Research:

A modern type with few research opportunities.

Very large post-war fields at Wolvey, Rugby

Paddocks and Closes (5)

Legend Colour:

Total Area: 7404.58 ha (3.54%)

No of polygons: 1655 (8.97%)

Average Polygon Size: 4.47 ha (Small)

Occurrence: Common

Small paddocks at Earlswood, Stratford-on-Avon

Definition:

Small and generally irregular fields located on the edge of settlements usually representing small meadows and paddocks.

Sub-types:

Paddocks and Closes

Description:

This type is widely scattered throughout Warwickshire with no concentration in any particular place. The distribution appears to relate to the edge of smaller villages and settlements or may be associated with farmsteads. In general they have a very good survival rate remaining fairly consistent throughout the 20th century, with a few being lost to the infill of settlement mainly around Rugby, Warwick, Kenilworth and Atherstone. In the Solihull Metropolitan area a different pattern emerges where a large number of this type present in the 1880s has now gone and there appears to be a pattern of post 1880's creation and disappearance by 2001; the reason for this unique pattern is not yet clear.

Period:

Medieval - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Moderately (21.87%)

Trajectory of Change (1955 – 2001):

Declining Slowly (-13%)

Reason for change (1880-2001):

Early 20th century increase due to the increase of farmsteads and the enclosure of areas close to settlements. Later 20th century decline probably due to settlement expansion and infill into these areas and the decline of farmsteads

Factors influencing further change:

Settlement expansion and further decline of farmsteads.

Biodiversity Potential:

Medium- These small fields generally have well established hedgerows and are often under pasture, producing more species rich areas.

Archaeological Potential:

Medium-High - These areas are often close to medieval settlement and can contain deserted or shrunken medieval settlement remains as well as ridge and furrow. Higher potential in permanent pasture, less under arable cultivation. These areas like all enclosure have a high potential for crop and soil marks, and archaeology from most periods.

Management:

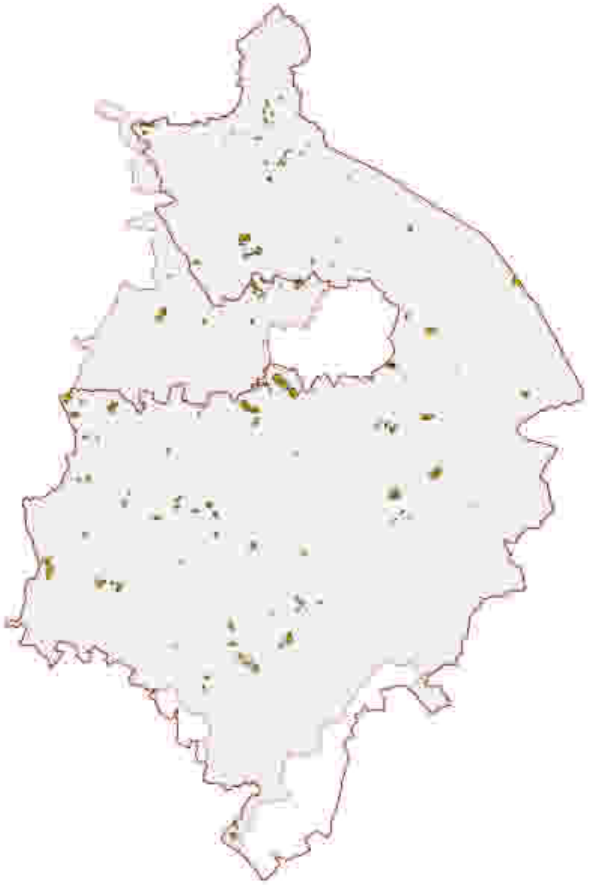
Retain the field pattern and boundaries.

Research:

The more modern paddocks have few research issues but older paddocks and closes are linked to historic settlements and this relationship could be explored.

Small paddocks at Earlswood, Stratford-on-Avon

Woodland Clearance (6, 7, 8)



Legend Colour:

Total Area: 1786.54 ha (0.85%)

No of polygons: 169 (0.92%)

Average Polygon Size: 10.57 ha (Medium)

Occurrence: Rare

Fields of old woodland clearance at Bentley, North Warwickshire

Definition:

Fields which appear to have been created through the clearance of woodland. These are usually located close to areas of ancient woodland. Generally small and irregular with sinuous or curvilinear boundaries representing the old woodland boundary.

Sub-types:

Small Assarts (6)

Small irregular or rectilinear fields which appear to have been created through woodland clearance. These are usually located close to areas of ancient woodland.

Large Assarts with Sinuous Boundaries (7)

Large irregular or rectilinear fields which appear to have been created through the clearance of woodland. These are usually located close to areas of ancient woodland. This type includes fields that have been created through the post 1880s amalgamation of small assarts.

Planned Woodland Clearance (8)

Small and large rectilinear or irregular fields typically with straight boundaries that appear to have been created through woodland clearance. These are usually located close to areas of ancient woodland.

Description:

The little of this type that is found in Warwickshire is found, not surprisingly, associated with woodland, the majority with ancient woodland. Most woodland clearance in Warwickshire appears to have taken place before 1880 and virtually none has taken place since 1955. Many of the fields cleared for woodland later develop into other types. It is difficult to ascertain if these areas are in fact medieval assarts, on one hand it may be possible given their close association with

ancient woodland, on the other hand the enclosure pattern has changed vastly in Warwickshire since the medieval period and many of these may be later re-organised fields. If large parts of the county were assarted in the medieval period then the evidence for this in the present landscape or even on maps in the last 100 years has gone.

Period:

Medieval - late 20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-35%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

Most woodland clearance appears to have taken place pre 1880s.

Factors influencing further change:

Re-organisation of the field pattern of this type to be more productive such as by straightening hedgerows or amalgamating to make larger fields. Reversion of these areas back to woodland due to their proximity to established woods and modern woodland planting schemes

Biodiversity Potential:

High - The hedgerows of these areas are very likely to be remnants of woodland and to be species rich.

Archaeological Potential:

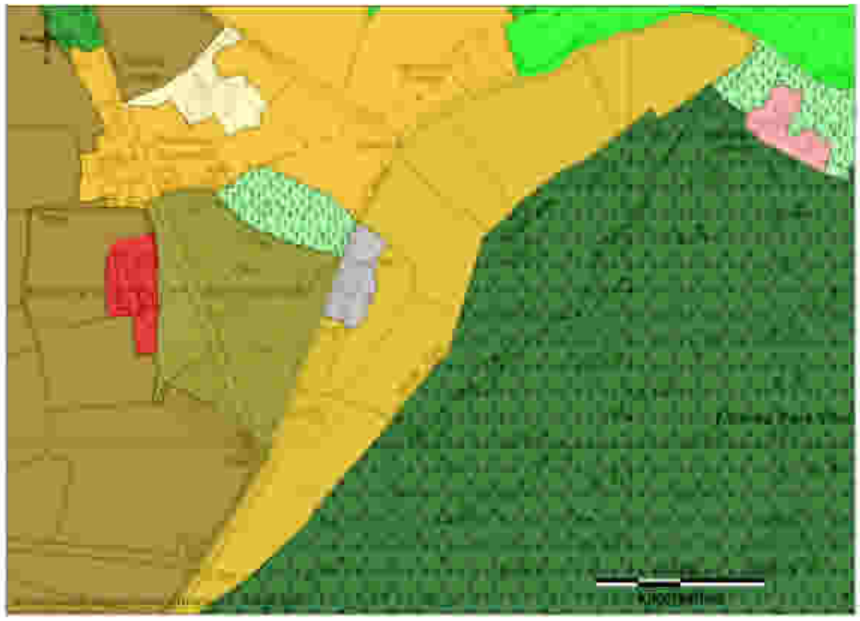
Medium - These areas may contain remnants of archaeology associated with woodland or settlements associated with assarting including moated settlement sites. Higher potential in permanent pasture, less under arable cultivation. Some prehistoric remains, designed landscapes and woodland industrial sites are associated with these areas however in general there is a distinct lack of archaeological sites found in these areas.

Management:

Retain the field pattern and boundaries. Good examples of this type should be retained especially those near ancient woodland and those which may have a medieval origin.

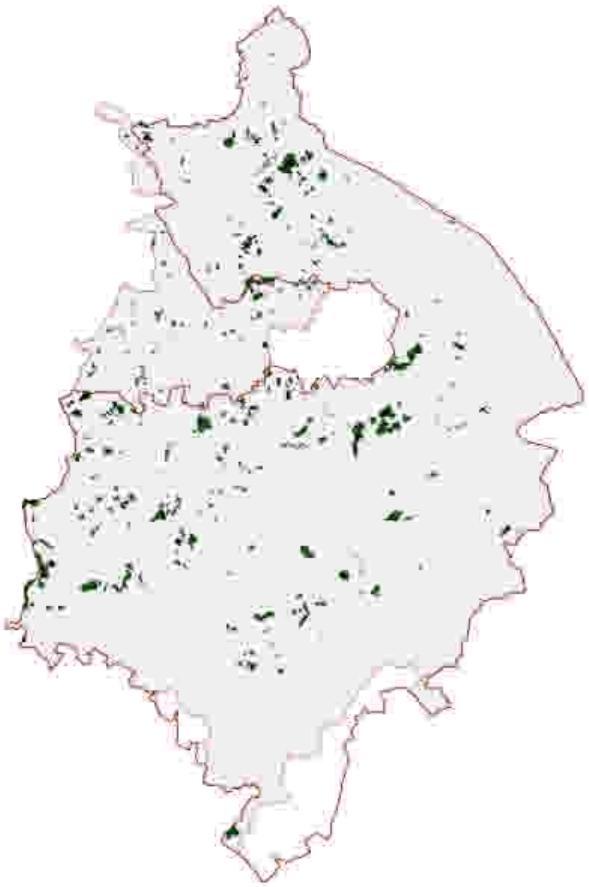
Research:

The earlier woodland clearance in Warwickshire in the medieval period is not fully understood. The assarting process and its connection with medieval settlement patterns and woodland management needs to be better explored and understood.



Woodland clearance at Bentley, North Warwickshire

Ancient Woodland (21, 22, 23,)



Legend Colour:

Total Area: 4272.70 ha (2.04%)

No of polygons: 423 (2.29%)

Average Polygon Size: 10.10 ha (Medium)

Occurrence: Occasional

Chesterton Ancient Woodland, Stratford-on-Avon

Definition:

Woodland designated by English Nature as 'Ancient Semi-Natural' and 'Ancient Replanted'. This will include some of the oldest woodland in the county, probably dating back to at least the medieval period. However some parts may have been planted with coniferous species or even been cleared and replanted during the 19th or 20th century.

Sub-types:

Broad-leaved Ancient Woodland (21)

Woodland designated by English Nature as 'Ancient Semi-Natural' (land that has had continuous woodland cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally) and identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved or broad-leaved semi-natural. This will include some of the oldest woodland in the county, probably dating back to at least the medieval period.

Mixed Ancient Woodland (22)

Woodland designated by English Nature as 'Ancient Semi-Natural' (land that has had continuous woodland cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally) and identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed or mixed semi-natural. This will include some of the oldest woodland in the county, probably dating back to at least the medieval period; however some parts may have been planted with coniferous species.

Replanted Ancient Woodland (23)

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) and identified by the Forestry Commission or the Warwickshire Habitat Biodiversity Audit as being replanted or containing conifers or young trees. These areas were probably cleared and replanted during the 19th or 20th century.

Description:

Ancient woodland is scattered throughout Warwickshire with a bias in the north and west of the county, not surprisingly in the area associated with the Arden. This type tends to form in medium sized pockets of woodland with small patches in between. There has been a substantial decline since the 1880s of ancient woodland. Mostly this takes place with the shrinking of the actual wood rather than the total eradication of the woodland. After 1955 this decline has slowed and stabilised.

Period:

Medieval - Post-medieval

Trajectory of Change (1880s – 1955):

Declining Critically (-92%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (314%)

Reason for change (1880-2001):

The decline of ancient woodland is associated with the general decline of woodland in the early 20th century although it appears to have been at a rapid rate. The rapid expansion in the second half of the 20th century is probably related to the identification of ancient woodland as a type and the replanting of ancient woodland.

Factors influencing further change:

Woodland management policies will probably allow this type to expand although at a small rate. It is unlikely to reduce although there could be threats from some settlement expansion.

Biodiversity Potential:

High - Ancient Woodland by its nature supports a variety of plant and animal species, often of national importance. The actual potential will be determined from past and present management.

Archaeological Potential:

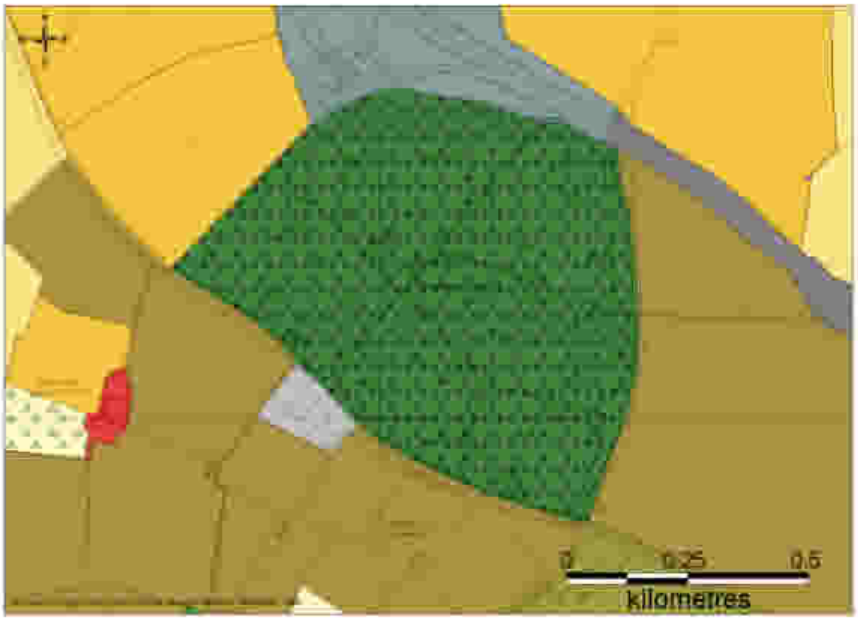
High - The potential for well preserved remains associated with ancient woodland is high including: historic woodland management and industries, moated settlements, designed landscapes, some medieval settlement and deserted settlement, and the potential for reasonably preserved roman and prehistoric remains.

Management:

Retain historic woodland features where possible and carry out archaeological surveys to understand the archaeological resource when any drastic change or management is proposed.

Research:

Despite some research already into the medieval woodland of Warwickshire (Wager, 1998) there are still many unanswered questions. We still do not fully understand the origins, changes or historic uses of these woodlands. Of particular interest is the industrial use of woodlands.



Chesterton Ancient Woodland, Stratford-on-Avon

Woods with Sinuous Boundaries (24, 25, 26)

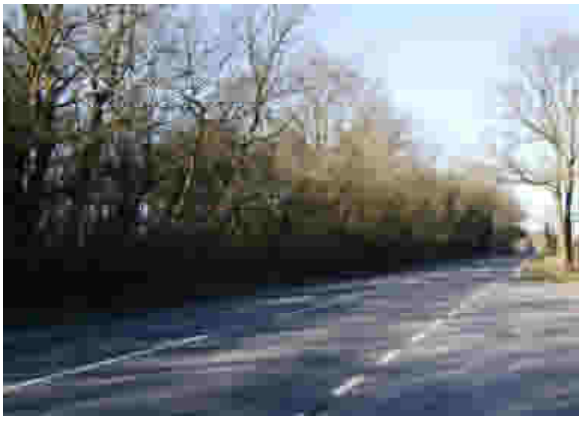
Legend Colour:

Total Area: 80.12 ha (0.04%)

No of polygons: 8.00 (0.04%)

Average Polygon Size: 10.02 ha (Medium)

Occurrence: Very Rare



Part of Withybrook Spinney running along the Fosse, near Cloudesley Bush, Rugby

Definition:

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit and which have predominantly sinuous boundaries. Whilst not designated as 'Ancient' woodland these areas may potentially contain fragments of older woodland.

Sub-types:

Broad-leaved Woods with Sinuous Boundaries (24)

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved and which have predominantly sinuous boundaries. Whilst not designated as 'Ancient' woodland these areas may potentially contain fragments of older managed woodland.

Mixed Woods with Sinuous Boundaries (25)

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed and which have predominantly sinuous boundaries. These areas may represent stands of older woodland colonised by or partially planted with conifers.

Coniferous Woods with Sinuous Boundaries (26)

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being coniferous and which have predominantly sinuous boundaries. In most cases these are likely to represent plantations.

Description:

This type is very rare in Warwickshire; some of this rarity may be because it has not been easily identified in the landscape and that often woodland matches other HLC Types better. The little that does exist is found in very small patches in North

Warwickshire and Warwick District. A larger area is associated with Coombe Abbey and this type should perhaps be part of the park and garden area rather than separated as woodland. The final area of woodland identified is Withybrook Spinney. This curious thin strip of woodland partly follows the Fosse Way Roman road and then heads west running in a sinuous form following, or alternately followed by a parish boundary. With the exception of the woodland at Coombe Abbey these area of woodland may well be remnants of ancient woodland.

Period:

Post-medieval (possibly medieval)

Trajectory of Change (1880s – 1955):

Declining Slowly (-7%)

Trajectory of Change (1955 – 2001):

Declining Slowly (-13%)

Reason for change (1880-2001):

This type is relatively stable and the slow decline may be associated with the general loss of woodland from the early 20th century.

Factors influencing further change:

Changes in agricultural and woodland policies.

Biodiversity Potential:

Medium. This depends usually on the tree species planted. There is a higher potential where there is more variety of tree species.

Archaeological Potential:

Medium - The lack of these areas make it difficult to determine the archaeological potential. They may be remnants of older woodland which may have archaeological remains associated with this type such as historic boundaries, historic woodland management and industries, moated settlements, designed landscapes, some medieval settlement and deserted settlement, and the potential for reasonably preserved roman and prehistoric remains.

Management:

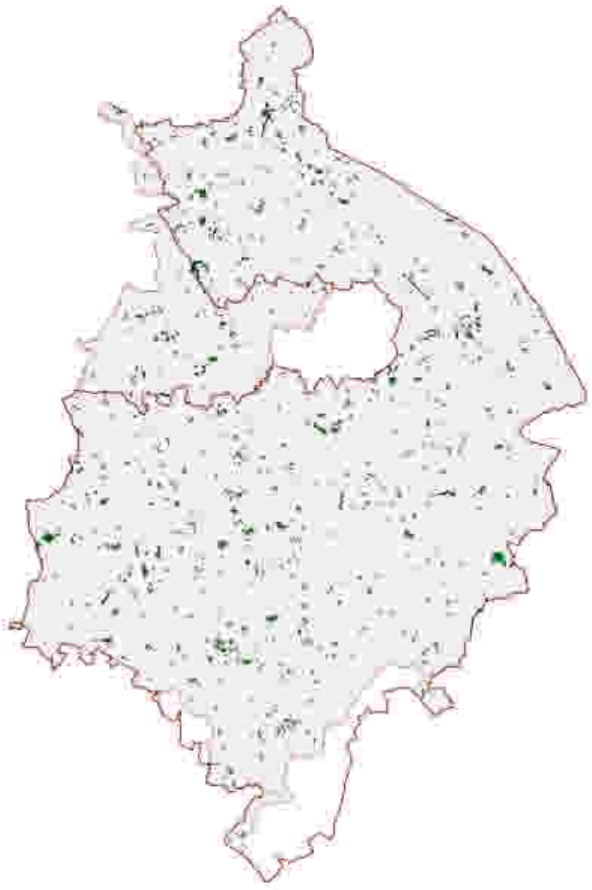
This will vary according to the specifics of each wood but in general retention and management of historic woodland features where possible, and archaeological survey to understand the archaeological resource when any drastic changes or management is proposed.

Research:

Some of these woods themselves may be of interest and some may have potential origins as ancient woodland.

Withybrook Spinney running along the Fosse, near Cloudesley Bush, Rugby

Broad-leaved Plantation (27)



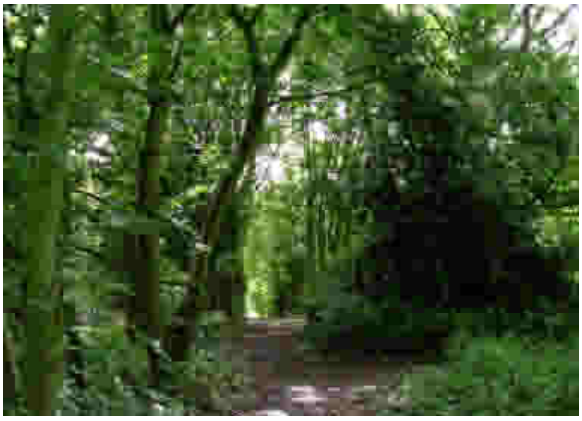
Legend Colour:

Total Area: 2719.18 ha (1.30%)

No of polygons: 842 (4.56%)

Average Polygon Size: 3.23 ha (Small)

Occurrence: Occasional



Grendon Broad-leaved Woodland, North Warwickshire

Definition:

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved plantations. Straight boundary morphology or the wood's name may suggest instances where the plantation originates in the 19th or 20th century.

Sub-types:

Broad-leaved Plantation

Description:

This type makes up the second most common woodland type in Warwickshire. The pattern of woodland forms a large number of very small areas scattered widely throughout the county. The majority of this woodland is found associated with hilly areas or watercourses; occasionally they are located on parish boundaries. In North Warwickshire this type of woodland is associated with mineral extraction sites.

There was a rapid decline of this type in the early 20th century associated with a general trend of deforestation. However it may have been that these larger areas of broad-lived woodland once formed ancient woodland, but more research would be needed to confirm this. The areas where this broad-leaved woodland once formed tend to be near areas of ancient woodland.

Period:

Post-medieval - late 20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-31%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

Broad leaved woodland saw a rapid decline in the first half of the 20th century due to deforestation, settlement expansion

and an increase in the conversion of areas to farming. The later half of the 20th century has seen this stabilise.

Factors influencing further change:

Woodland management policies will probably allow this type to expand although at a small rate. It is unlikely to reduce although it could be threatened from settlement expansion.

Biodiversity Potential:

Medium/High - Broad-leaved woodland has the potential for a good variety of flora and fauna and is often in close proximity to other woodland or ancient woodland. This also aids migration and colonisation of other plants and animals.

Archaeological Potential:

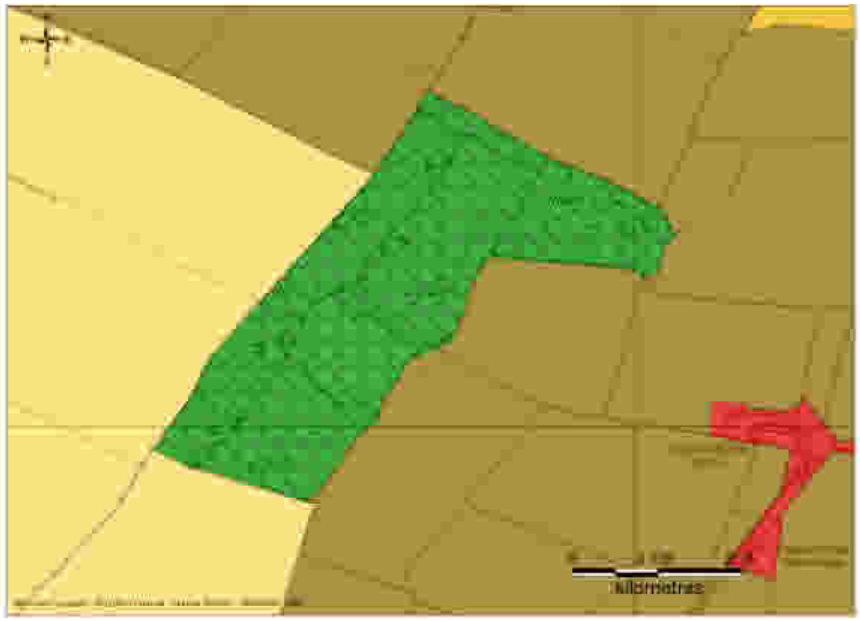
Medium – There are many examples of archaeological sites associated with broad-leaved woodland including: designed landscapes, medieval deserted settlements, moated settlements, and prehistoric and industrial sites. The exact potential will depend on previous use of the land and although woodland can protect some features it can also damage archaeology to a certain extent.

Management:

This will vary according to the specifics of each wood but in general retention and management of historic woodland features where possible and archaeological survey to understand the archaeological resource when any drastic changes or management is proposed.

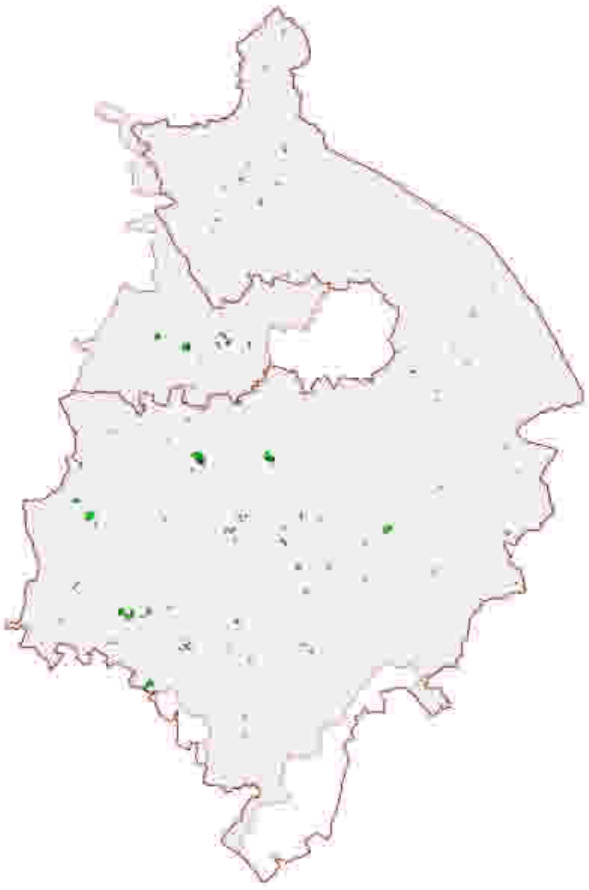
Research:

Some of these woods themselves may be of interest whilst some may have potential origins as ancient woodland.



Broad-leaved woodland near Broadwell, Stratford-on-Avon

Mixed Plantation (28, 30)



Legend Colour:

Total Area: 621.20 ha (0.30%)

No of polygons: 113 (0.61%)

Average Polygon Size: 5.50 ha (Small)

Occurrence: Rare

Mixed Woodland near Ashorne, Stratford-on-Avon

Definition:

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed plantation. Straight boundary morphology or the wood's name may suggest where the plantation originates from the 19th or 20th century.

Sub-types:

Mixed Plantation (28)

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed plantation. Straight boundary morphology or the wood's name may suggest the plantation originates from the 19th or 20th century.

Other Plantation (30)

Woodland plantation with no designation and not identified as one of the previous types by the Forestry Commission or the Warwickshire Habitat Biodiversity Audit. Straight boundary morphology or the wood's name may suggest the plantation originates from the 19th or 20th century.

Description:

This type is sparsely scattered throughout Warwickshire with a concentration in the south and western part of the county. This woodland is generally from later planting and has been slowly increasing in the 20th century.

Period:

19th century - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (57%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (41%)

Reason for change (1880-2001):

This has seen a steady increase over the 20th century and continues to increase.

Factors influencing further change:

Changes in agricultural and woodland policies. Climate change.

Biodiversity Potential:

Medium. This depends usually on the tree species planted and has a higher potential with more variety of tree species.

Archaeological Potential:

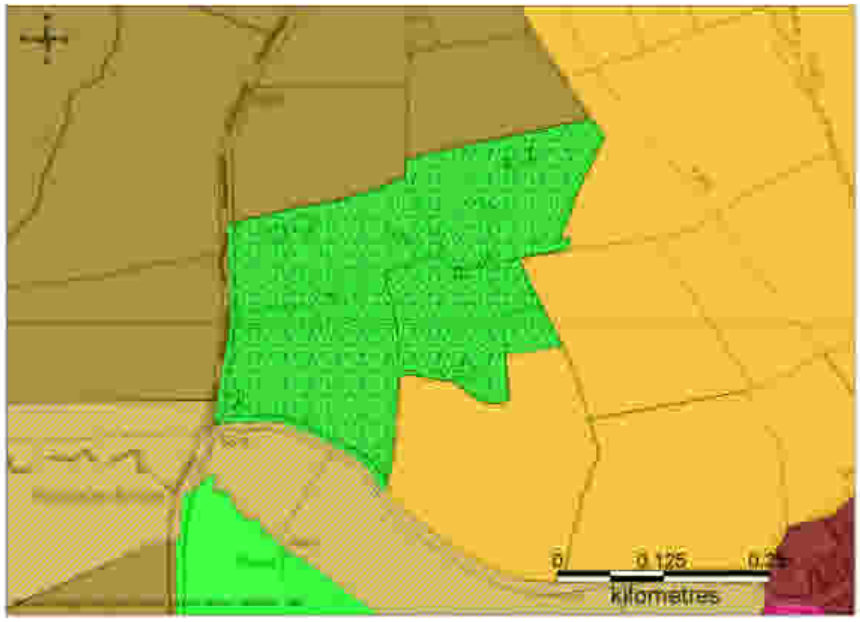
Medium/Low - Few archaeological features are associated with this type, but their more modern nature means that some archaeological features that would have been expected to be found in the agricultural landscape can be found here. In Warwickshire mixed woodland is closely associated with designed landscapes and some deserted medieval settlements.

Management:

The management will usually be through woodland management policy. Any areas associated with designed landscapes should be appropriately managed. Any archaeological features should be retained and managed to prevent any damage.

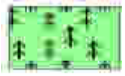
Research:

This type of woodland often forms coverts and spinneys and more research into the creation of these for hunting and sport could be carried out including their origin and extent in the county and whether other features are associated with them. Some very limited analysis is covered in a thematic study found in the Countywide Analysis (Chapter 5).



Mixed Woodland near Ashorne, Stratford-on-Avon

Coniferous Plantation (29)

Legend Colour: 

Total Area: 228.44 ha (0.11%)

No of polygons: 62 (0.34%)

Average Polygon Size: 3.69 ha (Small)

Occurrence: Very Rare

Coniferous Woodland at Merevale, North Warwickshire

Definition:

Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being coniferous plantation. Straight boundary morphology or the wood's name may suggest where the plantation originates from the 19th or 20th century.

Sub-types:

Coniferous Plantation

Description:

This type is very rare in Warwickshire and sparsely scattered throughout the county in small patches. A greater amount of this type is found in the north and west of the county, like all woodland. It is often associated with designed landscapes. However there are a number of plantations created after 1955, most of which are small areas at the edge of fields probably associated with agricultural stewardship or woodland grant schemes. This type has been steadily increasing throughout the 20th century.

Period:

19th century - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Moderately (49%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (29%)

Reason for change (1880-2001):

This has seen a steady increase over the 20th century and continues to increase.

Factors influencing further change:

Changes in agricultural and woodland policies.

Biodiversity Potential:

Low-Medium. This depends usually on the tree species planted but rarely do coniferous woods offer the same level of biodiversity as broad-leaved or ancient woodlands.

Archaeological Potential:

Low - Few archaeological features are associated with this type.

Management:

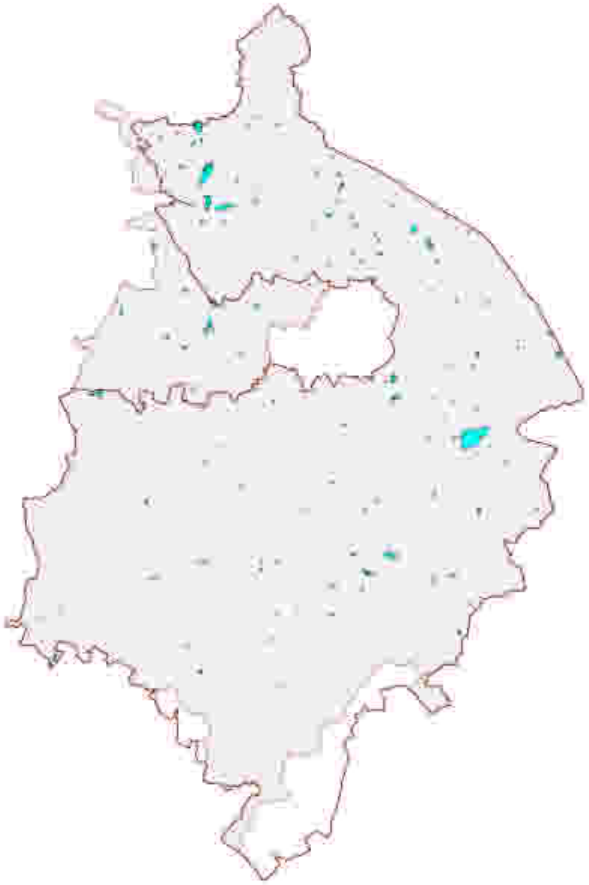
The management will usually be through woodland management policy. Some of these woods may have an historic interest and should be retained such as coverts and spinneys especially with the decline of the use of these for sport and hunting.

Research:

This type of woodland often forms coverts and spinneys and more research into the creation of these for hunting and sport could be carried out including their origin and extent in the county and if other features are associated with these. Some very limited analysis is covered in a thematic study found in the Countywide Analysis (Chapter 5).

Coniferous Woodland near Honily, Warwick

Artificial body of water (109, 32, 119)



Legend Colour:

Total Area: 1281.86 ha (0.61%)

No of polygons: 162.00 (0.88%)

Average Polygon Size: 7.91 ha (Medium)

Occurrence: Rare

Draycote Water, Rugby

Definition:

Artificial bodies of water including reservoirs, ornamental lakes, fishponds and flooded quarries.

Sub-types:

Artificial Pond/Lake (109)

Generally smaller bodies of water that can be recognised as artificial through the presence of retaining earthworks and/or dams but which are not recognised as reservoirs. These will include ornamental lakes, fishponds, flooded quarries and ponds associated with industrial activity. Also includes artificial water courses or conduits.

Reservoir (32)

Bodies of water that can be recognised as being artificially created generally for the purposes of water supply. These will usually date to the 20th century.

Fishing (119)

Areas identified with a number of artificial ponds and water features for the primary purpose of leisure fishing.

Description:

These are scattered throughout Warwickshire and fall into a number of distinct patterns. Larger areas are usually reservoirs; both those that pre-date the 1880s and which were often canal feeders, and more modern ones such as Draycote Water which is the largest artificial water feature in the county. Medium sized bodies tend to be a result of quarry workings, usually sand and gravel; sometimes these bodies of water are later developed for other uses such as Kingsbury Water Park and parts of Bandon Marsh Nature Reserve. Other medium sized bodies form more modern fishing lakes. Finally there are the more numerous and wider scattered small ponds and lakes sometimes associated with small isolated settlements or country

houses; some of these ponds may date back to the medieval period.

Period:

Mostly 19th - late 20th century although some fish-ponds may be medieval in origin

Trajectory of Change (1880s – 1955):

Increasing Rapidly (67%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (94%)

Reason for change (1880-2001):

Reservoirs were created at the end of the 19th century for the purposes of increasing water supply for a growing population, and to feed canals. This continued into the 20th century but after World War Two this expanded rapidly with the creation of very large reservoirs to supply an expanding population and the increased interest in water sports and fishing.

Factors influencing further change:

The demand for water will increase as populations increase and this may require larger or new reservoirs. The popularity of water sports and fishing may increase or decrease. Once established these rarely change to another type.

Biodiversity Potential:

High - Good potential for a variety of water life and aquatic birds as well as marginal plants on the edge of ponds, lakes and reservoirs.

Archaeological Potential:

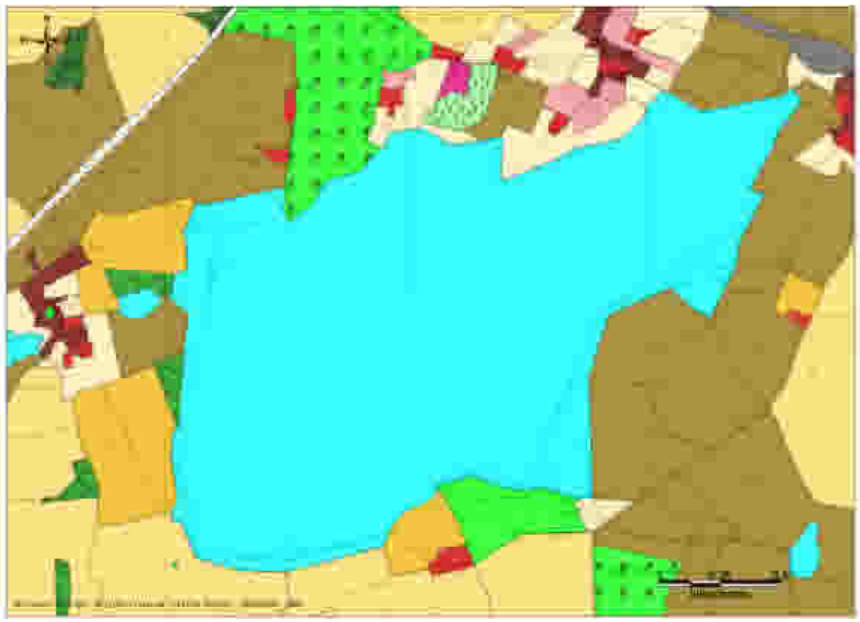
Low-Medium - Although the actual water sites themselves will have limited archaeological potential there is potential on the edge of these sites for industrial and designed landscape features. Some of the reservoirs are linked to canal development. Medieval fish ponds are one important artificial water type.

Management:

Maintain and preserve historic and archaeological remains especially on the edges of these sites or if the sites are of historic importance themselves (e.g. medieval fish ponds or canal feeder reservoirs)

Research:

The true extent of artificial water features from the medieval and post-medieval periods is not fully known.



Draycote Water, Rugby

Natural Open Water (33)

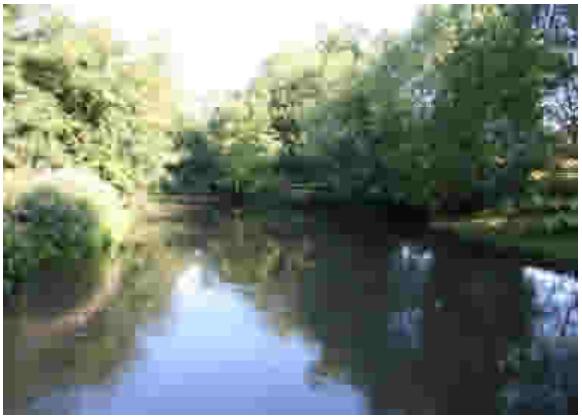
Legend Colour:

Total Area: 605.50 ha (0.29%)

No of polygons: 90 (0.49%)

Average Polygon Size: 6.73 ha (Small)

Occurrence: Very Rare



River Avon at Blackdown, Warwick

Definition:

Bodies of open water, generally over 1ha, which have natural origins.

Sub-types:

Natural Open Water

Description:

These bodies of water are essentially the river systems of Warwickshire as no other large natural bodies of water occur, the only exception being Alvecote Pools in North Warwickshire which may have formed from collapsed coal mine workings. The river system in Warwickshire is determined by its geography with one water shed dividing the county into two main water catchments. The Avon and its tributaries run from the north east border of Warwickshire south and west while the Tame, Blythe and Cole start in the Solihull/Birmingham area and meet with the Anker and run north. This forms one of the main water sheds for the midlands.

Period:

Pre medieval

Trajectory of Change (1880s – 1955):

Increasing Slowly (8%)

Trajectory of Change (1955 – 2001):

Stable (5%)

Reason for change (1880-2001):

Small increases in the 20th century but generally stable as would be expected.

Factors influencing further change:

Climate change or other major environmental changes affecting the natural water features.

Biodiversity Potential:

High - Rivers and other natural water features accommodate a wide variety of species. Rivers are a UK BAP Priority Habitat.

Archaeological Potential:

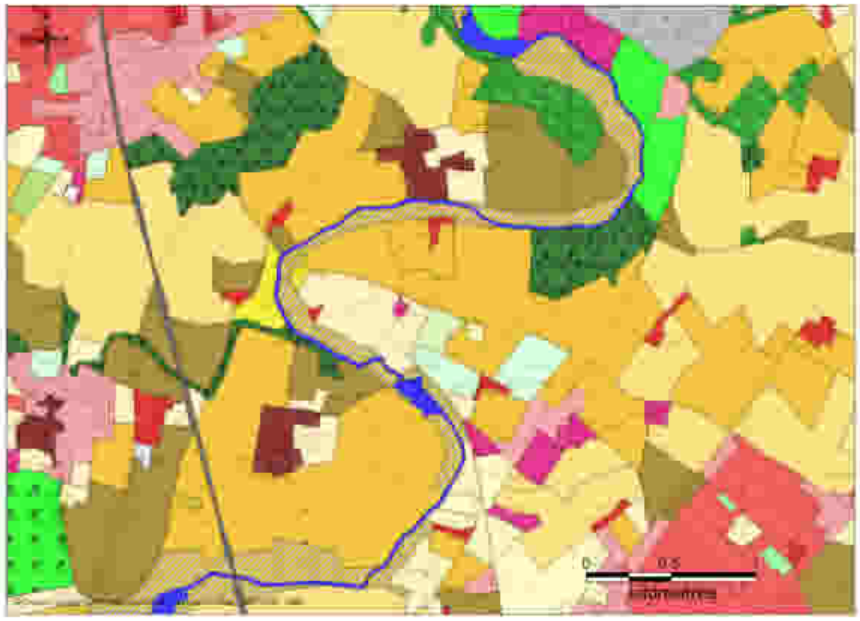
Medium - Rivers are associated with a wide range of water management features including mills, bridges and weirs. The potential for waterlogged archaeological remains is high.

Management:

To maintain and preserve any historic and archaeological features associated with rivers and other natural water features. To maintain the environmental conditions of these areas where possible to maximise the preservation of waterlogged archaeological remains

Research:

More work could be carried out regarding archaeological features associated with natural water. The exact extent or condition of waterlogged archaeological deposits in the county is not known.



River Avon at Blackdown, Warwick

Marsh (35)

Legend Colour: 

Total Area: 58.55 ha (0.03%)

No of polygons: 7 (0.04%)

Average Polygon Size: 8.36 ha (Medium)

Occurrence: Very Rare

Marsh at Grendon, North Warwickshire

Definition:

Areas of land that do not fit into any other categories and have been identified as marsh or marshy grassland by the Warwickshire Habitat Biodiversity Audit or marked as marsh on Ordnance Survey mapping.

Sub-types:

Marsh

Description:

This is a very rare type in Warwickshire with only seven areas known. These areas were approximately twice as big in the 1880s but even so this has always been a rare type for Warwickshire with the small amount being determined by its geology and geography along with modern land management. The few examples that exist or once existed are all in the northern half of the county with Brandon Marsh being the biggest and most southerly existing example. Previous marshland has developed in the last 100 years into other water features and also woodland.

Period:

Pre medieval

Trajectory of Change (1880s – 1955):

Declining Rapidly (-43%)

Trajectory of Change (1955 – 2001):

Stable (-2%)

Reason for change (1880-2001):

The decline at the beginning of the 20th century was probably due to marshland being developed for other land uses such as agricultural land or woodland. In the latter part of the 20th century this decline has slowed and been offset by some large creations of marsh and wetland habitat as a result of minerals extraction.

Factors influencing further change:

Marshland could be developed into other types to maximise use of the land. Further marsh could also be created from the minerals extraction industry.

Biodiversity Potential:

High - Marshes provide a unique and important habitat for a variety of plants and animal species. Brandon Marsh is a good example of a managed marsh with great biodiversity potential.

Archaeological Potential:

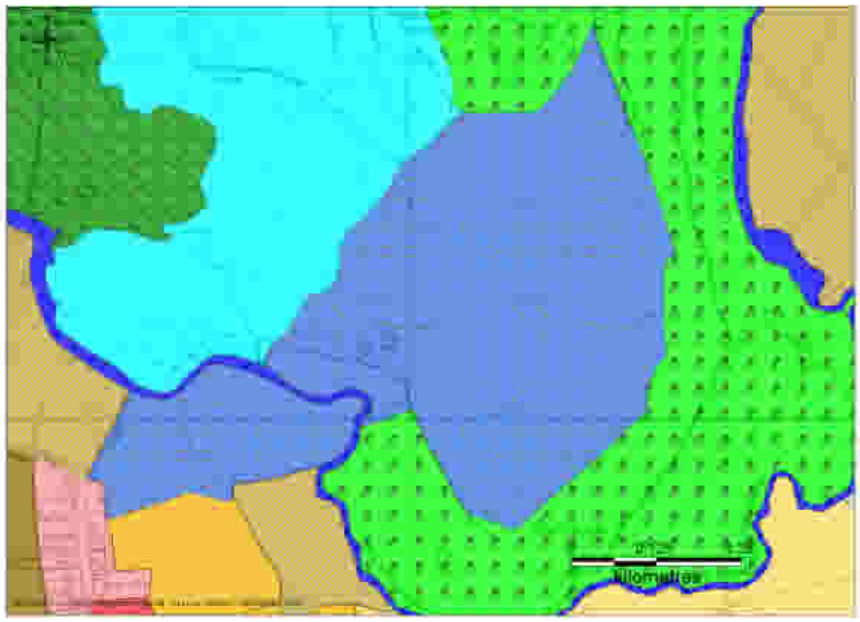
Unknown - The limited amount of this type makes it very difficult to determine the archaeological potential for these areas. However it is expected that these areas could have the potential for waterlogged remains.

Management:

To maintain marshland where at all possible.

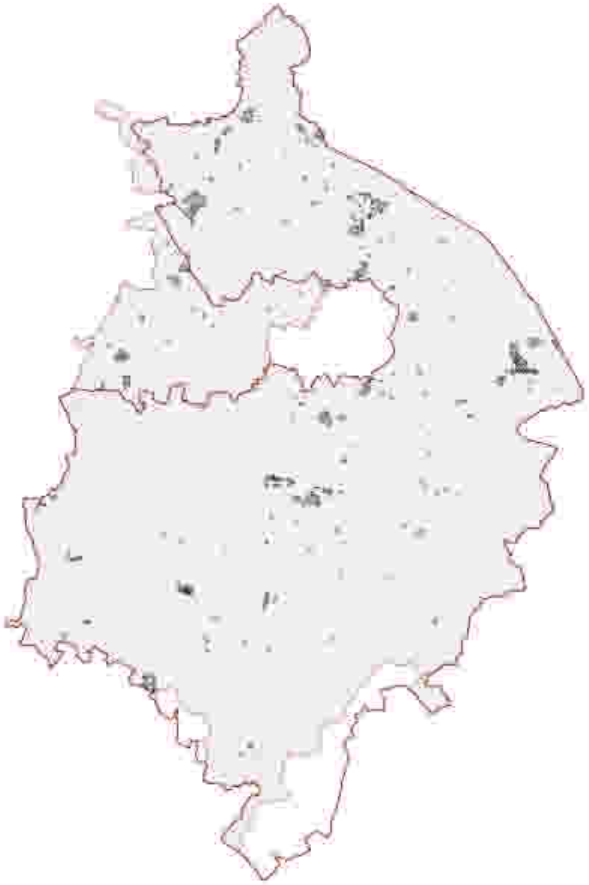
Research:

Previous extent of marshland in Warwickshire are not well understood



Brandon Marsh, Rugby

Industrial complex (37, 38, 39, 41, 44)



Legend Colour:

Total Area: 2572.19 ha (1.23%)

No of polygons: 250 (1.36%)

Average Polygon Size: 10.29 ha (Medium)

Occurrence: Rare

Hams Hall Industrial Estate, North Warwickshire

Definition:

Areas of industrial activity marked on Ordnance Survey maps and that do not fall into one of the more specific industrial categories. These include modern industrial estates and historic brick works.

Sub-types:

Pre-1880s Industrial Complex (37)

Areas of industrial activity marked on the Ordnance Survey 1st edition mapping (1880's) and that does not fall into one of the more specific industrial categories.

Post-1880s/Pre 1955 Industrial Complex (38)

Areas of industrial activity marked on the Ordnance Survey 1955 edition mapping but not marked on the Ordnance Survey 1st edition mapping (1880's) and that does not fall into one of the more specific industrial categories.

Post 1955 Industrial Complex (39)

Areas of industrial activity marked on the modern Ordnance Survey mapping but not marked on the Ordnance Survey 1955 mapping and that does not fall into one of the more specific industrial categories. These will generally include modern industrial estates and business parks but not retail parks which fall under the Civic and Commercial, Commercial and Retail type.

Other Industrial (41)

Areas of industrial activity that do not fit into any of the other industrial types.

Brick Works (44)

Areas marked on Ordnance Survey maps as brick works.

Description:

This type is predominantly found in and around major settlements in Warwickshire, in particular Warwick, Leamington, Rugby, Nuneaton, Bedworth and Atherstone with a scattering in Solihull. There are other much larger industrial complexes which

are more recent developments and these are mainly found in North Warwickshire. Smaller industrial estates are found along main roads between smaller settlements. Previous industrial complexes are mostly made up from the large number of brick works that once littered the county; these are generally found in the central part of Warwickshire. One very large area that is recorded as a previous industrial complex is the medieval pottery industry at Chilvers Coton just east of Nuneaton (Mayes and Scott, 1984). Few areas have continuity of industrial complexes from the 1880s onwards; the few exceptions are some small industrial estates found in Warwick and Stratford and a few small areas that once formed brick works and have since developed into other types of light industry.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Moderately (48%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (6%)

Reason for change (1880-2001):

Continuing expansion of industry from the industrial revolution. This slowed somewhat towards the end of the 20th century but still continues to expand.

Factors influencing further change:

Older and disused industrial buildings that are often in urban areas are at risk of being demolished and re-developed as pressure is put on increasing populations in urban areas. Global economic factors can affect the development or decline of this type.

Biodiversity Potential:

Low - Some buildings or areas may be of some value to wildlife but generally by their nature offer little in terms of biodiversity.

Archaeological Potential:

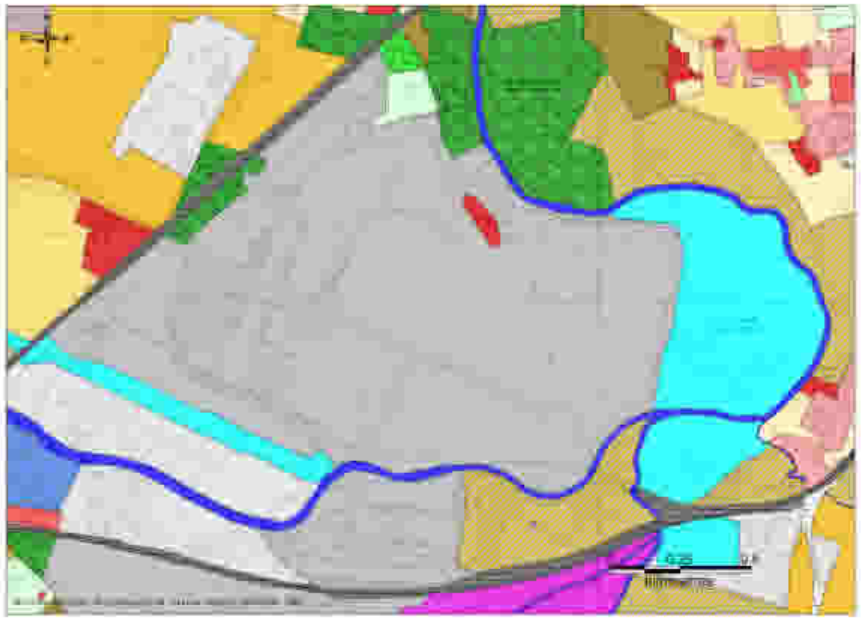
Medium - The archaeological potential will be determined by the location and nature of the industrial site. Generally those closer to the historic core of urban areas may have the greater potential for archaeological deposits although they may have destroyed much of them. Older industrial sites will have intrinsic industrial archaeology interest. By their nature more modern industrial sites can be quite destructive and have less archaeological value. Some modern industrial sites are within designed landscapes or converted from country houses.

Management:

Where possible, preserve the built form of older and more important industrial buildings since these may well contribute to local distinctiveness. Newer industrial sites will probably need less management in terms of their historic or archaeological value. Local Development Framework policies in respect of Brownfield sites need to consider the potential for industrial archaeology assets.

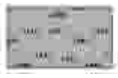
Research:

The industrial landscape of Warwickshire is not fully understood especially in terms of smaller industrial complexes and is inadequately recorded. Their origins and development could be explained better.



Hams Hall Industrial Estate, North Warwickshire

Derelict Industrial Land (40)

Legend Colour: 

Total Area: 52.14 ha (0.02%)

No of polygons: 8 (0.04%)

Average Polygon Size: 6.52 ha (Small)

Occurrence: Very Rare

Derelict Industrial Land at Baddersley, North Warwickshire

Definition:

Areas of land that previously were of industrial use and have been cleared but which subsequently have had no development on them.

Sub-types:

Derelict Industrial Land

Description:

There is very little derelict industrial land in Warwickshire. This is probably due to the intensive use of land in Warwickshire whereby most post-industrial areas are used for other purposes such as woodland, agriculture, settlement or civic amenities. The little derelict land that does exist occurs mainly in the northern half of the county.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (17%)

Reason for change (1880-2001):

The beginning of the 20th century saw a dramatic fall in industrial sites and many of them developed into derelict sites. In the later 20th century these sites were more intensively developed as pressure increased on Brownfield sites in urban areas.

Factors influencing further change:

Global economic factors can affect the development or decline of this type.

Biodiversity Potential:

Some buildings or areas may be of some value to wildlife but generally by their nature they offer little in terms of

biodiversity. In their derelict state it may be that biodiversity increases as natural processes take hold and the sites are less managed.

Archaeological Potential:

Medium - The archaeological potential will be determined by the location and nature of the industrial site. Generally those closer to the historic core of urban areas may have the greater potential for archaeological deposits although they may have destroyed much of them. Older industrial sites will have intrinsic industrial archaeology interest. By their nature more modern industrial sites can be quite destructive and have less archaeological value. Some modern industrial sites are within designed landscapes or converted from country houses.

Management:

Ideally any historically or archaeologically sensitive sites should have management programmes to maintain them and keep them in a good state of repair. Any development should take into account the historic character of the industrial site. Local Development Framework policies in respect of Brownfield sites need to consider the potential for industrial archaeology assets.

Research:

The industrial landscape of Warwickshire is not fully understood especially in terms of smaller industrial complexes and is inadequately recorded. Their origins and development could be explained better.

Derelict Industrial Land near Kingsbury, North Warwickshire

Waste Tip (42)

Legend Colour:

Total Area: 325.55 ha (0.16%)

No of polygons: 19 (0.10%)

Average Polygon Size: 17.13 ha (Medium)

Occurrence: Very Rare

Packington Landfill Site, North Warwickshire

Definition:

Areas of land that have been used for the large scale dumping or filling or rubbish. This type will include landfill sites and large domestic rubbish dumps.

Sub-types:

Waste Tip

Description:

This type is quite rare in Warwickshire but what little that does occur is found mainly in North Warwickshire and the north eastern part of Stratford-on-Avon District. Most of the time these sites are used to fill in old mineral extraction or industrial sites. A few small domestic refuse tips are also recorded.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (89%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (82%)

Reason for change (1880-2001):

As populations expanded in the 20th century so too has the need to dispose of the waste humans produce.

Factors influencing further change:

Increasing population, recycling and producing less waste, European and government restrictions on the production of waste.

Biodiversity Potential:

Low - These areas by their nature tend to have a low variety of wildlife and species although some are attracted to it as a food source.

Archaeological Potential:

Low - These areas usually are as a result of infilling of extractive areas, consequently the archaeological resource

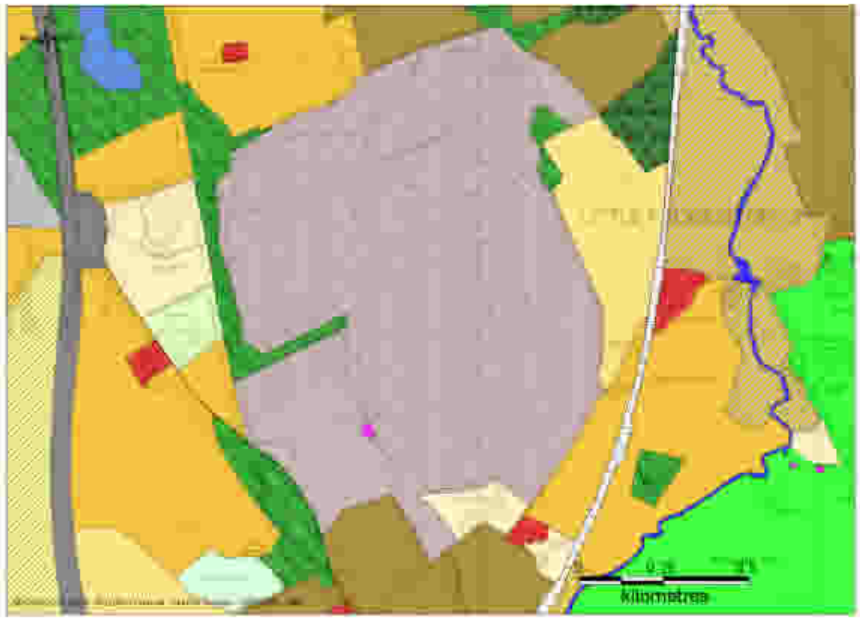
will already have been destroyed. Occasionally on the periphery of this type there may be some historic industrial remains.

Management:

A few sites such as Judkins Mount, Nuneaton will lend distinctiveness to the landscape, whilst Packington landfill site is one of Europe's largest waste tips and continues to grow (grownupgreen, 2010).

Research:

Because most of these areas are old extraction sites the research agenda identified in the ALSF project: Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire (2008) will be generally applicable.



Packington Landfill site, North Warwickshire

Motor Industry (45)

Legend Colour:

Total Area: 658.35 ha (0.31%)

No of polygons: 14 (0.08%)

Average Polygon Size: 47.02 ha (Very Large)

Occurrence: Very Rare

Gaydon Heritage Motor Centre, Stratford-on-Avon

Definition:

Areas of land with industrial activity related to the motor industry.

Sub-types:

Motor Industry

Description:

This is concentrated in certain parts of the county, mostly around the edge of Coventry, in Solihull and with the largest site forming the motor testing tracks and facilities at Gaydon. This industry was still expanding from the post-war period until very recently and has just started to decline.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (95%)

Trajectory of Change (1955 – 2001):

Declining Slowly (-6%)

Reason for change (1880-2001):

In England the motor industry started at the beginning of the 20th century and saw a rapid expansion before peaking and starting to decline in the later 20th century.

Factors influencing further change:

Supply and demand of world car market. The probable continued decline of the motor industry in the UK.

Biodiversity Potential:

Low - Some buildings or areas may be of value to wildlife but generally by their nature they offer little in terms of biodiversity.

Archaeological Potential:

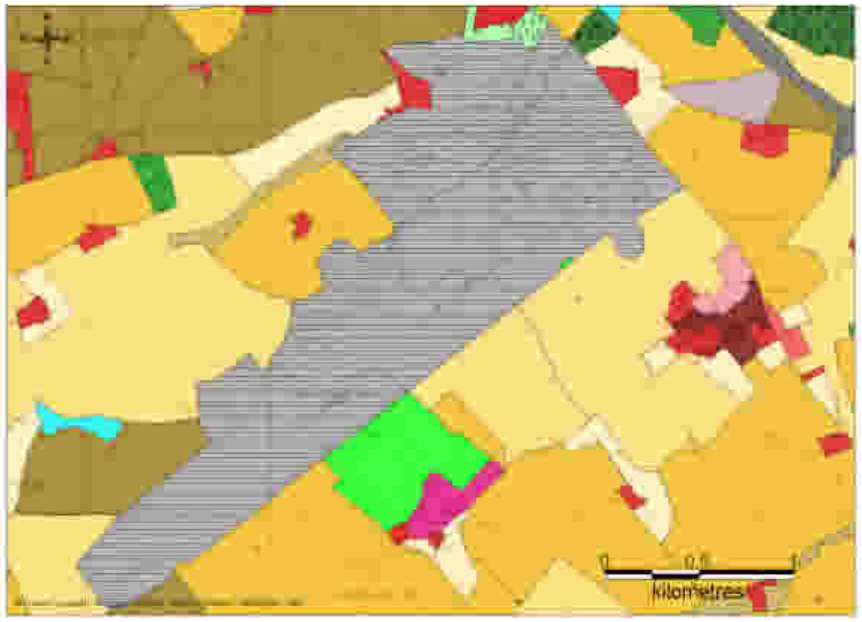
Low-medium - These areas are usually quite destructive to archaeology but they have begun to form their own field of interest in industrial archaeological terms. Some of the sites are in areas of designed parks and gardens and others on World War Two sites such as airfields.

Management:

To maintain and preserve any significant historic or archaeological features where possible. Any development or change should appreciate the character of this type.

Research:

Substantial work has already been carried out on the history and development of the motor industry in the UK, especially in areas such as Coventry and Birmingham; however peripheral areas like Warwickshire have had less attention despite the important plants, factories and test tracks.



Gaydon Motor Testing Tracks and Motor Heritage Centre

Radio/Tele-communications (46)

Legend Colour:

Total Area: 384.88 ha (0.18%)

No of polygons: 6 (0.03%)

Average Polygon Size: 64.15 ha (Very Large)

Occurrence: Very Rare

Rugby Radio Mast Site

Definition:

Areas that are clearly marked on Ordnance Survey mapping as large scale radio/telecommunications works.

Sub-types:

Radio/ Tele-communications

Description:

This type is restricted to four discrete areas in Warwickshire. The Rugby Radio Mast area, just to the east of Rugby, is by far the biggest, around 350 hectares in size. It has a unique history originating in 1926, transmitting time signals and possibly playing a role in the cold war by communicating with nuclear submarines. Recently the site was being slowly dismantled and its future remains uncertain but has been designated as a potential area of expansion for the settlement of Rugby. Other sites consist of smaller radio and TV transmitter stations.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

This technology and subsequent industry expanded rapidly during the first half of the 20th century. It has remained stable but recently appears to be in decline as the technology develops and some parts become obsolete.

Factors influencing further change:

Changes in technology. Increased cable networks, increased wireless communications. Increasing demand.

Biodiversity Potential:

Medium - Although the actual structures themselves have a low potential, the area in which they are situated usually forms semi-improved grassland which has good potential for a variety of species and is covered under the UK BAP Priority Habitats.

Archaeological Potential:

Medium - Despite being an industrial type the impact on archaeology is often quite low with most being above ground disturbance. Often these areas have ridge and furrow and prehistoric remains. The telecommunications structures themselves may have national Historic Environment Significance

Management:

To maintain and preserve any historic or archaeological features where possible. Carry out assessment of archaeological potential before major developments take place and manage as appropriate.

Research:

Some radio-telecommunication sites like the Rugby Radio Mast site have received substantial study (see: http://www.subbrit.org.uk/sb-sites/sites/r/rugby_radio/index.shtml) while smaller sites have not. The potential of archaeology on these sites has not been fully realised.

Rugby Radio Mast Site

Utilities (43)

Legend Colour:

Total Area: 411.96 ha (0.20%)

No of polygons: 102 (0.55%)

Average Polygon Size: 4.04 ha (Small)

Occurrence: Rare

Electricity Sub-Station at Hams Hall, North Warwickshire

Definition:

Industrial areas that can be identified as related to the utility industries. This type will generally include sewage works, water treatment works, power stations and gas works.

Sub-types:

Utilities

Description:

Most of these sites are sewage works and these tend to form small areas predominantly just outside the main towns and villages and are scattered widely across the county. By their nature most areas tend to be near a natural water source. Most date to the early 20th century, with a handful of earlier sites. There are a few other types of utilities sites such as electricity and gas related plants but these are few and far between. Some sites have now changed including the largest which was Hams Hall Power Station, this is now a modern industrial distribution park. Other smaller sewage works close to historic settlement cores have seen the town or village expand around them and have subsequently been replaced.

Period:

19th - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (55%)

Trajectory of Change (1955 – 2001):

Declining Critically (-50)

Reason for change (1880-2001):

These increased in the first half of the 20th century linked to the increase in population and demand for utilities. In the later 20th century as technology has developed this type has seen a rapid decline in the total

area of the landscape taken up with utilities works.

Factors influencing further change:

Population changes, urban expansion, changes in technology and reliance on utilities.

Biodiversity Potential:

Low-Medium - Some utilities areas have small areas of land that attract a wider variety of wildlife but by their nature they are industrial sites and consequently often have a low potential for biodiversity.

Archaeological Potential:

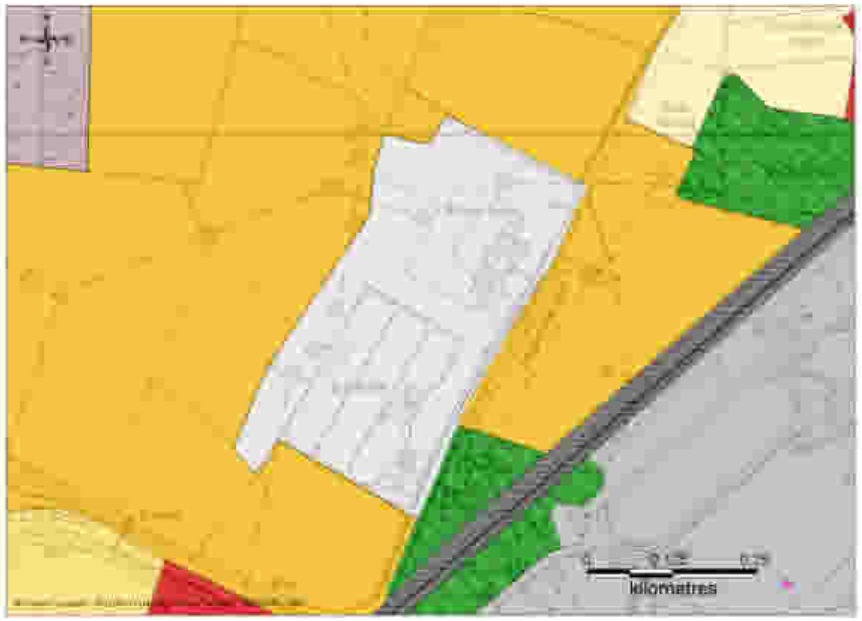
Low - Most of these sites display a complete lack of archaeological sites; this may be because of their location or the lack of fieldwork for these sites when they were created as well as their quite destructive nature. However some sites remain such as the Roman features that were part of an extensive villa complex, recorded at the Severn Trent Water installation at Pillerton Priors (Macey, 2002). Some of the historic utilities sites themselves have proven to be of archaeological interest.

Management:

New sites or changes to utilities especially infrastructure should be managed accordingly.

Research:

The history of the development of utilities in Warwickshire could be explored.



Electricity Sub Station near Hams Hall, North Warwickshire

Coal Extraction (47)

Legend Colour:

Total Area: 70.70 ha (0.03%)

No of polygons: 2 (0.01%)

Average Polygon Size: 35.35 ha (Large)

Occurrence: Very Rare

Daw Mill Coal Mine, North Warwickshire

Definition:

Areas of land that relate to the coal mining industry.

Sub-types:

Coal Extraction

Description:

There are only two sites recorded as coal extractive sites. One is Daw Mill Mine, a deep coal mine, currently active and the most productive coal mine ever in Britain producing 3.2 million tons of coal in 2008 (http://www.ukcoal.com/dm-daw-mill). The other site is Baddesley colliery which closed in 1989 and remains unused. Warwickshire has a long history of coal extraction and previous HLC types show the pattern in North Warwickshire stretching from the northern part of Coventry and heading in a slight arc north west through Bedworth, on the far west of Nuneaton and then towards Polesworth. A few other sites are just to the west of this area following a similar arc shape. Two possible sites are located just south of Coventry and this could be the southern extreme edge of the coal field. Coal extraction in Warwickshire is marked on 18th century maps and probably took place much earlier. The impact has been huge in North Warwickshire and around Nuneaton and Bedworth.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Declining Critically (-54%)

Trajectory of Change (1955 – 2001):

Declining Critically (-85%)

Reason for change (1880-2001):

The coal industry in Warwickshire was already in decline at the beginning of the 20th century and has continued to decline

until the present day where only one active coal mine exists.

Factors influencing further change:

This depends largely on the coal industry and national and global supply and demand for coal. The last coal mine in Warwickshire is highly productive and unlikely to close or develop greatly in terms of surface extent in the near future.

Biodiversity Potential:

Low - Most of the coal mine is underground. The little of the mine that is on the surface mostly consists of industrial activity and waste land with low biodiversity.

Archaeological Potential:

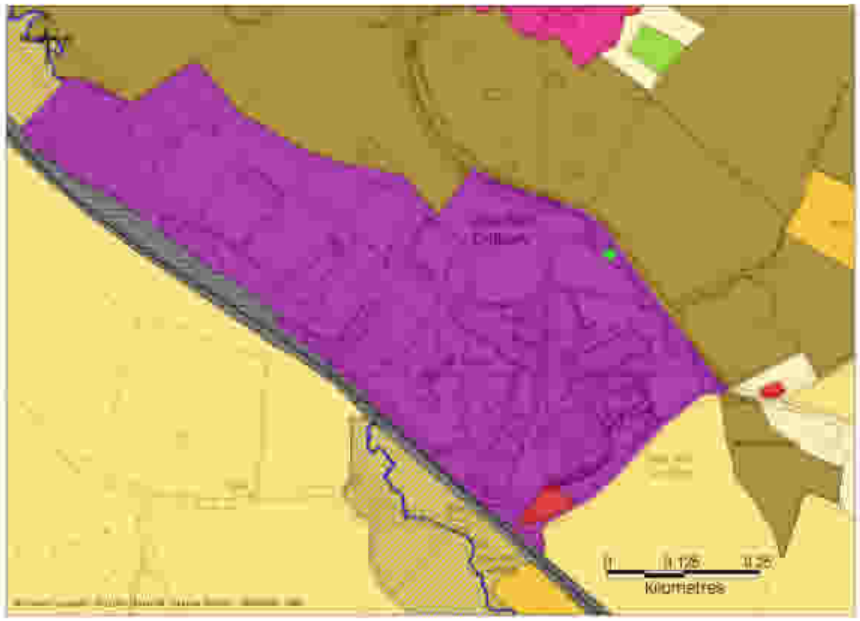
Low - There are some industrial sites of some historic interest related to the coal mines, and certainly older coal mining features may be of some value. Other archaeological potential is uncertain.

Management:

For previous coal mines or older sites the historic remains should be preserved where possible. Sometimes opportunities exist to promote the mining heritage in these areas; a good example of this is at Pooley Country Park Heritage Centre.

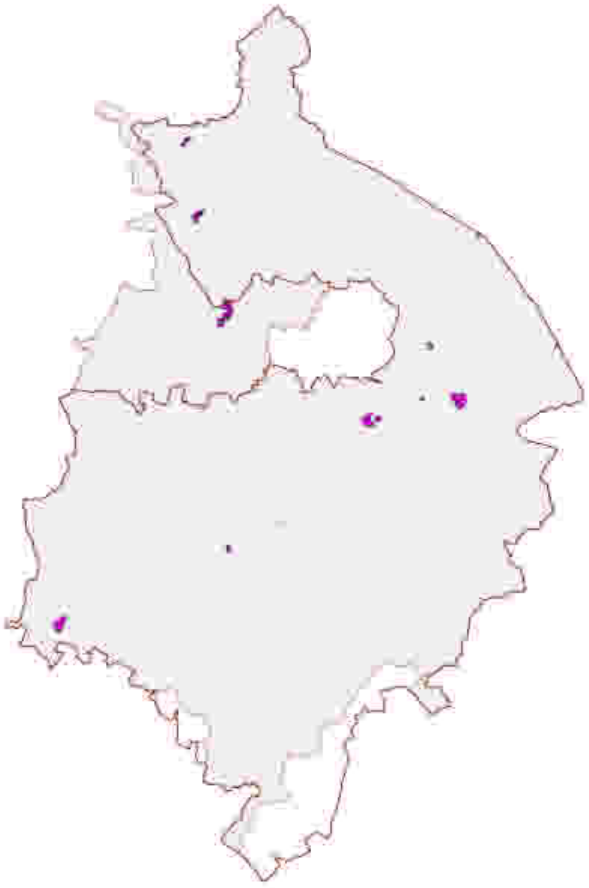
Research:

The origins and early development of coal mining in Warwickshire is not fully understood. The Warwickshire coalfield has been studied to some extent (Grant, 1982) but more could be done to identify early coal mining remains. It is also unclear when surface coal mining started in Warwickshire and the extent and development of the highly industrial mines in the 18th and 19th centuries.



Daw Mill Coal Mine, North Warwickshire

Sand and Gravel Extraction (48)



Legend Colour:

Total Area: 616.75 ha (0.29%)

No of polygons: 23 (0.12%)

Average Polygon Size: 26.82 ha (Large)

Occurrence: Very Rare

Brinklow Sand and Gravel Quarry, Brinklow, Rugby

Definition:

Areas of land that relate to the sand and gravel extraction industry.

Sub-types:

Sand and Gravel Extraction

Description:

Sand and Gravel extraction in Warwickshire has and continues to be a well exploited resource. The areas in Warwickshire that contain these extraction sites are mostly centred on deposits associated with rivers and river terraces. The biggest exception is Ling Hall quarry which is on the Dunsmore Plateau. The main other active sites are around the river Avon and the Tame but previous extraction also took place along the Anker. This industry has declined in the last 100 years where generally smaller more scattered quarries were formed. In the second half of the 20th century this decline has slowed and there is now a focus on generally larger areas for exploitation. Post-extraction these sites are usually in-filled, more recently usually with waste. If they are left with no active use of the land they form scrub areas; however most are reused as farm land, planted with trees or the land is put to other uses such as Kingsbury Water Park which takes advantage of the natural water ingress post-extraction, forming a unique country park for Warwickshire.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-46%)

Trajectory of Change (1955 – 2001):

Declining Rapidly (-43%)

Reason for change (1880-2001):

The change at the beginning of the 20th century is related to a decline in the industry as the large easily accessible deposits were exploited. In the latter part of the 20th century the industry developed further becoming more intensive on fewer sites, part of this may have been due to post World War Two reconstruction.

Factors influencing further change:

This depends largely on the aggregates industry which is still experiencing a high demand due to the expanding built environment. Post-extraction the landscape has the potential to be developed into a variety of types including settlement, farmland, woodland, parks, natures reserves or left as waste scrub areas.

Biodiversity Potential:

Low - Natural resources are often destroyed from extractive activity. However, when activity ceases the biodiversity potential increases as the landscape changes to a different type.

Archaeological Potential:

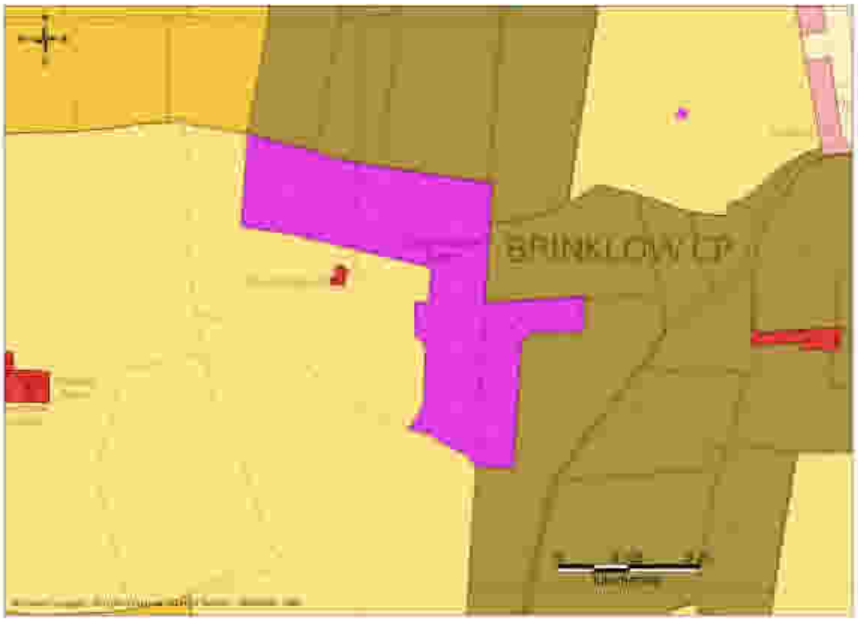
Medium-High - Sand and gravel sites often contain archaeological sites particularly those of prehistoric origin although Roman or Romano-British remains can also be found. Although much of the archaeology is destroyed once the excavation of aggregates process begins, sometimes fragments survive on the margins post-extraction.

Management:

Where possible any potential archaeology should be accounted for in these areas prior to extraction but once these areas have been extracted the archaeological resource has often gone. Any significant historic industrial remains should be preserved or integrated into any later development. The possibility of preserving or re-investigating margins of extraction before redevelopment into another land type should be investigated. Opportunities may exist to create heritage parks or trails.

Research:

The ALSF project: Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire was published in 2008 and has a number of research recommendations that are relevant to these areas. An ongoing project undertaken by the National Association of Mining History Organisations (NAMHO) seeks to identify the research potential of extraction sites and to develop a framework for the future (NAMHO, 2010).



Brinklow Sand and Gravel Quarry, Brinklow, Rugby

Hard Rock Extraction (49)

Legend Colour:

Total Area: 243.65 ha (0.12%)

No of polygons: 9 (0.05%)

Average Polygon Size: 27.07 ha (Large)

Occurrence: Very Rare

Judkins Quarry, Nuneaton and Bedworth

Definition:

Areas of land that relate to the hard rock extraction industry.

Sub-types:

Hard Rock Extraction

Description:

The hard rock extraction in Warwickshire is almost exclusively concentrated in the north of the county in an area to the west of Nuneaton. One other site is found in the south east of the county. Like other extractive industries this has shrunk in the last 100 years and previous hard rock extraction can be found scattered throughout the county. Of course the location of sites is always related to the geology of the rock being extracted and therefore usually forms disconnected bands where the geology runs. After extraction these sites are usually in-filled, recently often with waste. If they are left with no active use of the land they form scrub areas; however, most are now reused as farm land or planted with trees.

Period:

18th - late 20th century (although some small scale extraction takes place from the medieval period onwards)

Trajectory of Change (1880s – 1955):

Declining Critically (-83%)

Trajectory of Change (1955 – 2001):

Declining Rapidly (-28%)

Reason for change (1880-2001):

The change at the beginning of the 20th century is related to a decline in the industry as the large easily accessible deposits were exploited. In the later part of the 20th century the industry developed further becoming more intensive on fewer sites; the net result is less extractive sites.

Factors influencing further change:

This largely depends on the industry and supply and demand for the hard rocks being extracted. Post-extraction, the landscape has the potential to be developed into a variety of types including settlement, farmland, woodland, parks, natures reserves or left as waste scrub areas.

Biodiversity Potential:

Low - The nature of this type is that natural resources are often destroyed from extractive activity. However when activity ceases the biodiversity potential increases as the landscape changes to a different type.

Archaeological Potential:

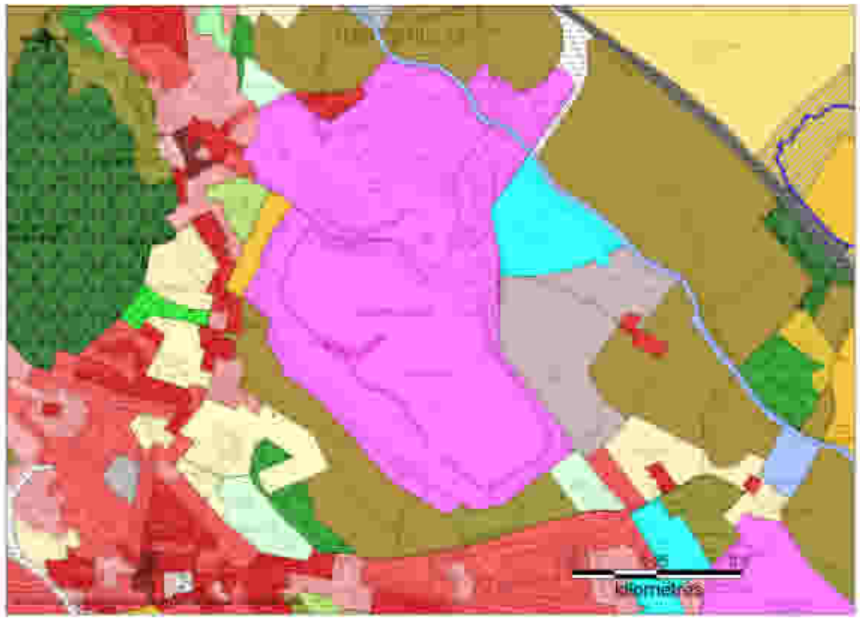
Medium - Hard Rock sites can contain archaeological sites, although much of the archaeology is destroyed once the excavation of aggregates process begins, sometimes fragments survive on the margins post extraction. The historic industrial remains are also of interest.

Management:

Where possible any potential archaeology should be accounted for in these areas prior to extraction but once these areas have been extracted the archaeological resource has often gone. Any significant historic industrial remains should be preserved or integrated into any later development. The possibility of preserving or re-investigating margins of extraction before redevelopment into another land type should be investigated. Opportunities may exist to create heritage parks or trails.

Research:

The ALSF project: Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire was published in 2008 and has a number of research recommendations that are relevant to these areas.



Hartshill Quarries, North Warwickshire

Cement Works (51, 115)

Legend Colour:

Total Area: 132.38 ha (0.06%)

No of polygons: 5 (0.03%)

Average Polygon Size: 26.48 ha (Large)

Occurrence: Very Rare

Rugby Cement Works

Definition:

Areas of land that relate to the cement or lime extraction industry.

Sub-types:

Cement Works (51)

Areas of land that relate to the cement industry.

Lime Works (115)

Areas of land that relate to the lime extraction industry.

Description:

These form two distinct areas in the county, both as lias limestone, the first just east of Rugby and the second just north of Southam and west of Stockton. Previous cement and lime works are also found in the same areas with some a little further west of Rugby and others just south and west of Southam. The cement works continue to be an important industry for Rugby and Stockton. Stockton itself expanded as a village after the start of lime and cement works. A model village was also created for some of the workers just outside the cement works.

Period:

18th - late 20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-46%)

Trajectory of Change (1955 – 2001):

Declining Rapidly (-21%)

Reason for change (1880-2001):

The change at the beginning of the 20th century is related to a decline in the industry as the large easily accessible deposits were exploited. In the later part of the 20th century the industry developed further, becoming more intensive on fewer sites; the net result is fewer extractive sites.

Factors influencing further change:

This depends on the demand for this industry but appears to be relatively stable at the moment. Post-extraction the landscape has the potential to be developed into a variety of types including settlement, farmland, woodland, parks, natures reserves or left as waste scrub areas.

Biodiversity Potential:

Low - The nature of this type is that natural resources are often destroyed from extractive activity. However, when activity ceases the biodiversity potential increases as the landscape changes to a different type.

Archaeological Potential:

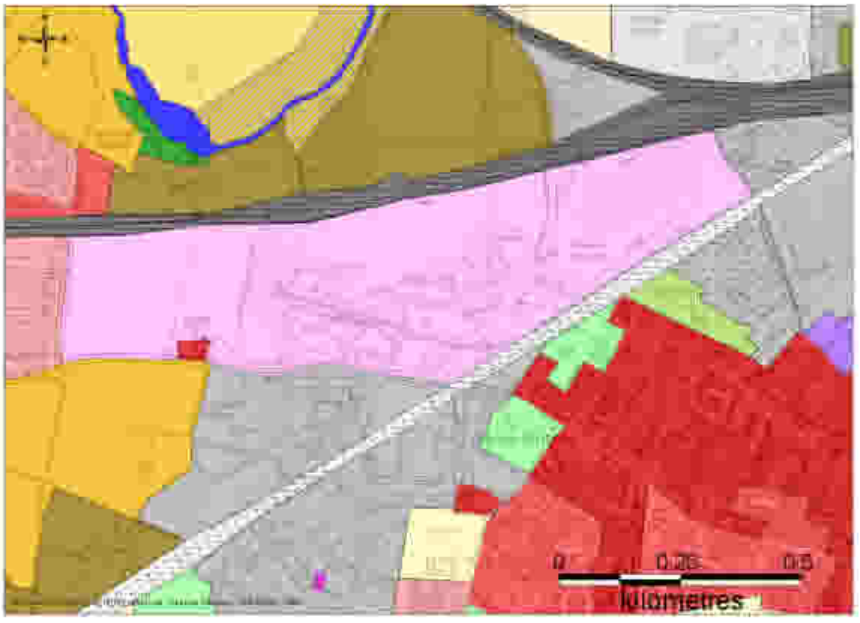
Medium - These areas can contain historic industrial features and possibly some prehistoric features but much of the archaeology is destroyed once extraction begins. Occasionally fragmented areas of archaeological deposits may survive on the margins.

Management:

Where possible any potential archaeology should be accounted for in these areas prior to extraction but once these areas have been extracted the archaeological resource has often gone. Any significant historic industrial remains should be preserved or integrated into any later development. The possibility of preserving or re-investigating margins of extraction before redevelopment into another land type should be investigated. Opportunities may exist to create heritage parks or trails.

Research:

The origins and development of cement works and lime works in Warwickshire are not fully understood, especially the extent and nature of any industrial archaeological remains.



Rugby Cement Works

Military Sites (53, 52)

Legend Colour:

Total Area: 1258.05 ha (0.60%)

No of polygons: 12 (0.07%)

Average Polygon Size: 104.84 ha (Very Large)

Occurrence: Rare

Aerial view of Defence Munitions Kineton (Copyright GeoPerspectives)

Definition:

Military bases and storage facilities identified from Ordnance Survey mapping. This includes military airfields, hostels and temporary camps associated with World War Two that are recorded as a previous HLC type but are now gone.

Sub-types:

Barracks/Training Ground (52)

Military bases identified from Ordnance Survey mapping.

Military Depots (53)

Military storage facilities identified from Ordnance Survey mapping.

Description:

There are very few active military sites in Warwickshire with Defence Munitions Kineton dominating in both size and activity. This site itself has an interesting history, having been created as a munitions store during World War Two. The area it occupies is very large (approximately 1,100 hectares) and has taken over a number of discrete types, mostly irregular/piecemeal enclosure with areas of ridge and furrow. Other military sites include the much smaller Gamecock Barracks, celebrated for being the most inland location for the Royal Navy, and a firing range just outside Kingsbury (ironically next to a major industrial oil distribution site). Previous military sites are mostly former World War Two RAF airfields and temporary camps scattered throughout the county, with a concentration mainly in the south.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Moderately (48%)

Trajectory of Change (1955 – 2001):

Declining Critically (-68%)

Reason for change (1880-2001):

An increase of military sites during the Second World War can be seen in the area with airfields, camps, factories and others. This then went into critical decline with only a few sites left in Warwickshire, mainly based at DM Kineton.

Factors influencing further change:

Increasing pressure on existing sites owned by the Ministry of Defence as downsizing takes place on many military sites after the cold war. These sites are often regarded as suitable for new housing.

Biodiversity Potential:

Medium-High - In Warwickshire the military areas are dominated by DM Kineton which contains a large area managed to improve its wildlife and bio-diversity. Other smaller sites may have a smaller potential for biodiversity.

Archaeological Potential:

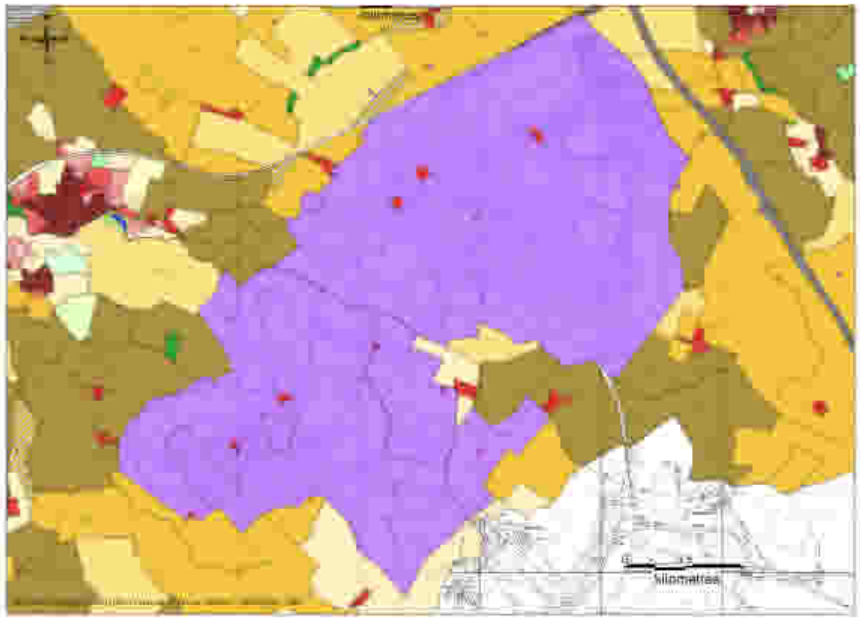
Medium - Despite intense activity by the military these areas often remain largely undeveloped and may contain important archaeological sites. DM Kineton extends over much of the area of the Registered Battlefield site of Edgehill (1642).

Management:

Consideration of archaeological and historic features should be part of any management plan used by the Ministry of Defence for each site. For previous military sites that may be derelict or have a different use, any proposed changes should include an assessment of historic and archaeological interest.

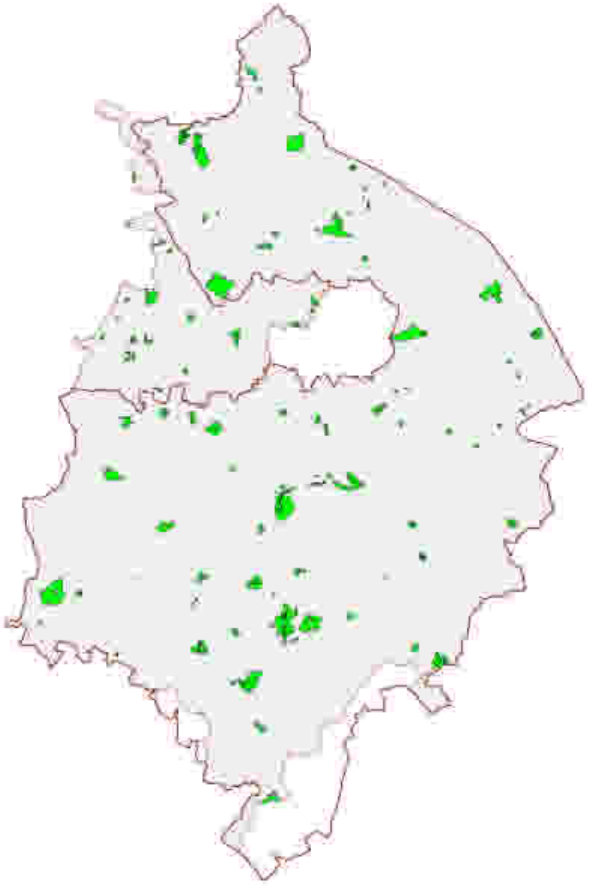
Research:

Comprehensive work has recently been published regarding military sites in Warwickshire (Steve Carvell, 2007). Gaps include First World War and earlier sites, especially airfields. Some work has been carried out at DM Kineton in terms of a management plan and research and investigation into the Battle of Edgehill, however little information is available about the history and developments of DM Kineton.



Defence Munitions Kineton

Park/Garden (56, 62)



Legend Colour:

Total Area: 5340.43 ha (2.55%)

No of polygons: 142 (0.77%)

Average Polygon Size: 37.61 ha (Large)

Occurrence: Occasional

Coombe Abbey Country Park

Definition:

Areas identified as parks and gardens from English Heritage's Historic Parks and Gardens Register as well as Ordnance Survey mapping and any evidence from the Warwickshire Historic Environment Record. This type includes deer parks.

Sub-types:

Park/Garden (56)

Areas identified as parks and gardens from English Heritage's Historic Parks and Gardens Register as well as Ordnance Survey mapping and any evidence from the Warwickshire Historic Environment Record.

Deer Park (62)

Areas of parkland that have been specifically designed for the keeping of deer. Some of these may date back to the medieval period where the prime purpose of these parks was for hunting.

Description:

This type forms a significant area in Warwickshire and distribution is scattered widely across the county. There are concentrations of parks and most of the large ones can be found in the north and west of the county. Most of the parks have existed for over 100 years with more recent creations being generally smaller and confined to areas of settlement expansion such as Solihull, Warwick, Leamington and Nuneaton. Deer parks once formed large areas in Warwickshire, again mostly found in the north and west. The largest deer parks were Wedgnock and Kenilworth Chase, both running up to each other and together extending over 1,900 hectares. A large number of the parks that once existed have disappeared, most reverting back to farmland; these tend to be those associated with large country houses that declined in the first half of the 20th century. These parks and gardens were more widely scattered

across Warwickshire but again with a lack in the very south east of the county.

Period:

Medieval - late 20th century

Trajectory of Change (1880s – 1955):

Declining Critically (-85%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (135%)

Reason for change (1880-2001):

The sharp decrease of parks and gardens at the beginning of the 20th century is related to the dividing up and alternative use of the large country estates developed in the 18th and 19th centuries. A number of houses and estates did not fully recover from being requisitioned during World War Two. In the later 20th century more parks and gardens were established to satisfy an expanding population.

Factors influencing further change:

Not all are protected under designation and many are threatened from being converted to alternative uses such as golf courses or farmland. Areas of parkland that lie close to urban areas may be threatened from settlement expansion.

Biodiversity Potential:

High - These often contain a wide range of species, many often non-indigenous.

Archaeological Potential:

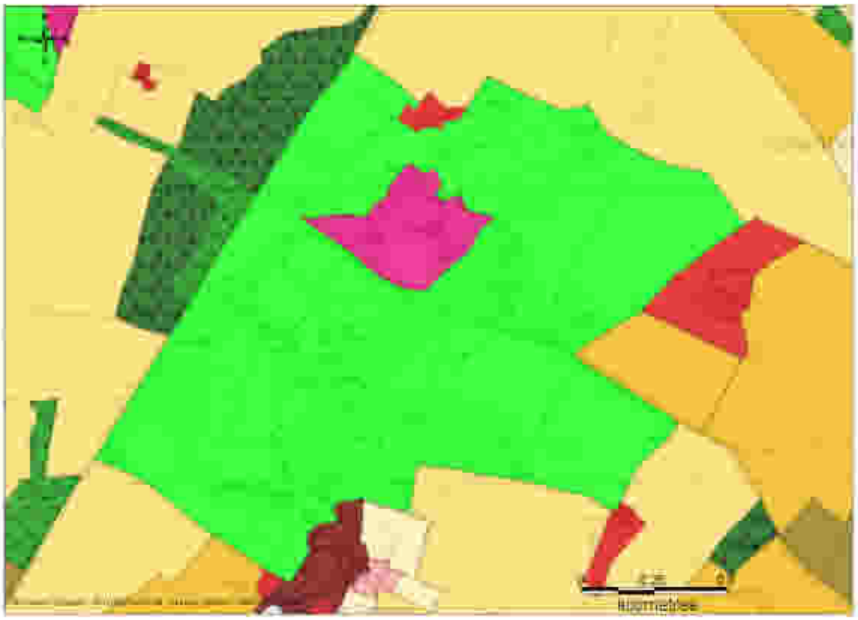
High - Parks and gardens by their nature have a high historical value and a rich diversity of sites and buildings. Many parks often show continuity, being built on old manors, estates or even areas of deserted medieval settlement and the surrounding field systems. Others were often originally developed from medieval deer parks. Ridge and furrow has a good survival rate in parks as areas of permanent pasture or being cut regularly. Many areas also have prehistoric remains.

Management:

Where possible, parkland landscapes including their many complex elements and associated archaeological features should be preserved. Many local planning authorities will have policies for the preservation and management of Registered Parks and Gardens. Cases may be made for restoration of parkland in areas that have degraded. Any development should be carefully designed to complement the park and garden and not to harm above or below ground features.

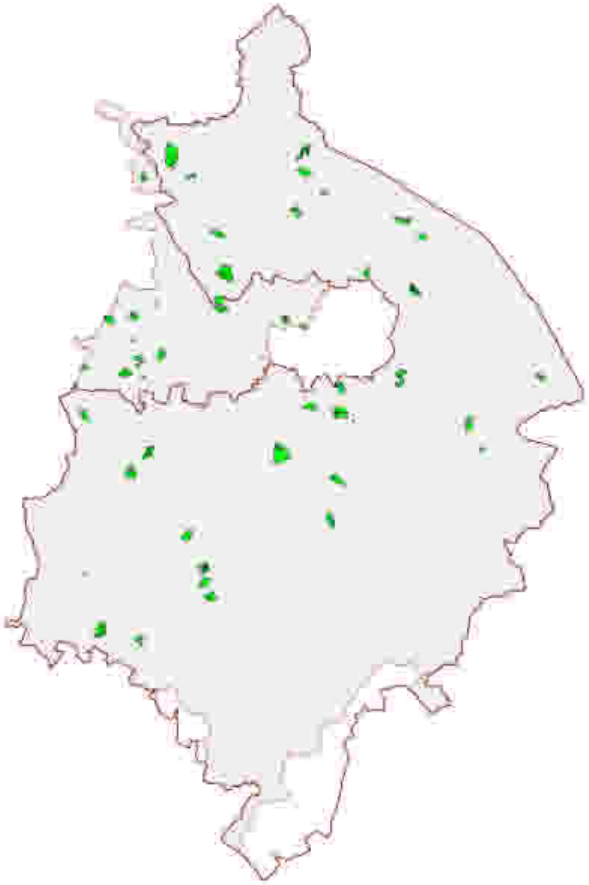
Research:

Extensive work has already been carried out by Jonathan Lovie into Parks and Gardens of Historic Interest in Warwickshire (Lovie, 1997). However the recommendations from his report were only in respect of additional areas to be included in the national register. His report along with the national register and other work has revealed a great detail about these parks and gardens and their complex histories but in many cases the origins and phases of development are less clear. Although some work has been carried out at a national level by the Parks and Gardens UK project (Parks and Gardens Data Services Limited, 2010), there is still no county overview of these designed landscapes period by period.



Compton Verney

Golf Course (57)



Legend Colour:

Total Area: 2429.95 ha (1.16%)

No of polygons: 78 (0.42%)

Average Polygon Size: 31.15 ha (Large)

Occurrence: Rare

Ansty Golf Course, Rugby

Definition:

Areas identified as golf courses from Ordnance Survey mapping.

Sub-types:

Golf Course

Description:

78 Golf Courses are found scattered throughout Warwickshire. These are mainly found in the north and west of the county with some concentrations around Solihull. The distribution forms a line stretching north east from Stratford, between Leamington and Coventry and a number in North Warwickshire district. Most of these golf courses date in origin to between 1900 and 1955. Two are marked on the OS 1st edition making them over 100 years old. A few golf courses are more recent creations or have expanded more recently. The Golf Courses Type is generally large and often contains remnants of previous landscapes. A surprising number are found in areas that once formed designed parks, while others have ridge and furrow remains or farmhouses within the grounds often converted to clubhouses.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (97%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (16%)

Reason for change (1880-2001):

Golf courses developed rapidly as the sport became more popular at the beginning of the 20th century. This popularity has continued to increase in the later 20th century although at a slower pace.

Factors influencing further change:

Although golf courses do not appear to have any discernible threats, many are near settlements that may expand into those areas. Some golf courses in Solihull have become a focus with settlement created around them and the courses themselves survive. If the golf industry declines then this land could revert back to farmland or be used for other purposes.

Biodiversity Potential:

Medium - Golf courses often contain a variety of landscape types including woodland, hedges and water features as a result there is often a variety of species present.

Archaeological Potential:

Medium - Generally this will depend on the previous land use but often golf courses are formed in the grounds of historic parks or contain other historic features. The initial design and landscaping of a golf course can have a detrimental effect on archaeology but large areas can remain untouched and generally from then onwards will have minimal impact, although golf courses can sometimes be reworked and redesigned. These areas often contain ridge and furrow, the remains of medieval settlements or roman sites. Some are on the sites of old RAF Airfields.

Management:

To respect and preserve historic landscape and archaeological features where known. Redesign of golf courses can have an adverse effect on whatever may survive from initial construction and requires planning permission. Refer to guidance from English Heritage for the management of golf courses in Historic Parks and Landscapes (English Heritage, 2007).

Research:

The amount of research that has taken place regarding golf courses is unknown. An understanding of golf course development in Warwickshire along with golf course design should take place.

The Belfry Golf Course, North Warwickshire

Sports Field (58, 60)

Legend Colour:

Total Area: 1064.81 ha (0.51%)

No of polygons: 240 (1.30%)

Average Polygon Size: 4.44 ha (Small)

Occurrence: Rare

Football Pitch, Newbold on Avon, Rugby

Definition:

Areas identified as sports fields from Ordnance Survey mapping. Areas identified as animal racecourses from Ordnance Survey mapping.

Sub-types:

Sports Field (58)

Areas identified as sports fields from Ordnance Survey mapping.

Racecourse (60)

Areas identified as animal racecourses from Ordnance Survey mapping.

Description:

These form generally small areas in and around main settlements. There are concentrations at Rugby, Nuneaton, Warwick, Stratford and Solihull but many smaller towns and villages also have sports fields. Most date to between 1900 and 1955 but a handful have been marked as sports fields for at least 100 years.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (66%)

Trajectory of Change (1955 – 2001):

Stable (-1%)

Reason for change (1880-2001):

These sites expanded rapidly at the beginning of the 20th century with an increasing population, interest in sport and more critically the increase in 'leisure' time, in the latter part of the 20th century though this expansion has stopped and the amount of sports sites remains stable.

Factors influencing further change:

These sites are often located in or near urban areas and could be threatened by their expansion. Conversely, sports

facilities may be required as infrastructure for new developments.

Biodiversity Potential:

Medium - Most of these areas are intensively managed grassland spaces but some contain a variety of other species such as developed hedgerows, trees and water features.

Archaeological Potential:

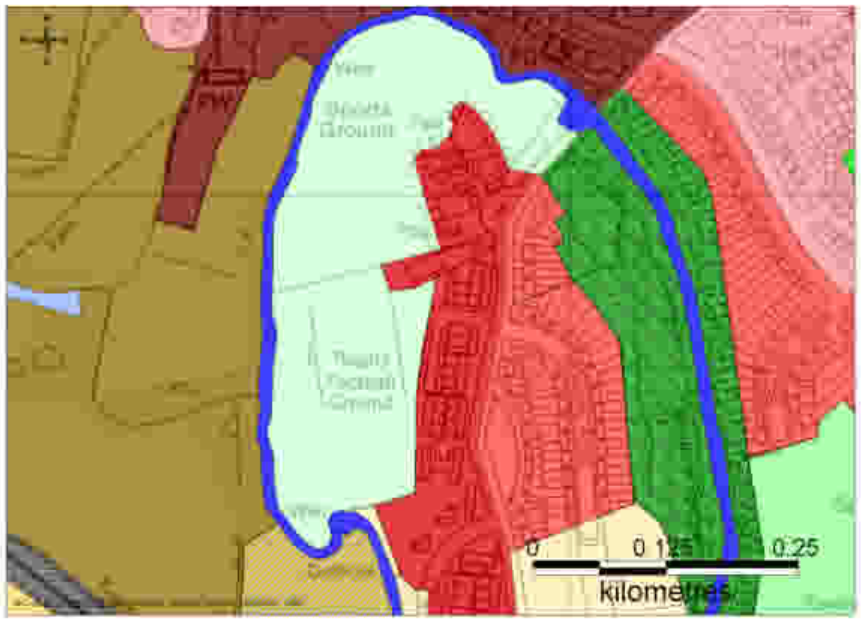
Medium - In general these areas have few archaeological sites associated with them but can contain ridge and furrow and may be close to medieval settlement remains. However the ground is often flattened destroying some of the visible archaeological remains.

Management:

Generally, to appropriately manage the site in terms of any known historical or archaeological features.

Research:

The origin and development of sports fields in Warwickshire is not well understood. Different types of sports could be mapped and their development explained.



Sports grounds at Newbold-on-Avon, Rugby

Cemeteries (59)

Legend Colour:

Total Area: 116.01 ha (0.06%)

No of polygons: 40 (0.22%)

Average Polygon Size: 2.90 ha (Small)

Occurrence: Very Rare

Atherstone Cemetery, North Warwickshire

Definition:

Areas identified as cemeteries from Ordnance Survey mapping. These will generally include the larger municipal cemeteries but not smaller church cemeteries.

Sub-types:

Cemeteries

Description:

This type is fairly rare in Warwickshire. They are usually quite small and closely defined areas and found on the edges of the larger settlements in the county. Most have existed for over 100 years and are well established. Some more modern post 1900 cemeteries are associated with settlement expansion such as at Solihull, Rugby and Nuneaton and Bedworth.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (50%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

This type increased with the increasing population and settlements. Most allowed room to expand and have remained relatively stable since, although space is now becoming a serious issue.

Factors influencing further change:

Increasing population producing an increasing demand. Changes in funerary practice.

Biodiversity Potential:

Medium - Although quite intensively maintained these areas usually have a variety of planted species and could form a haven for different forms of wildlife.

Archaeological Potential:

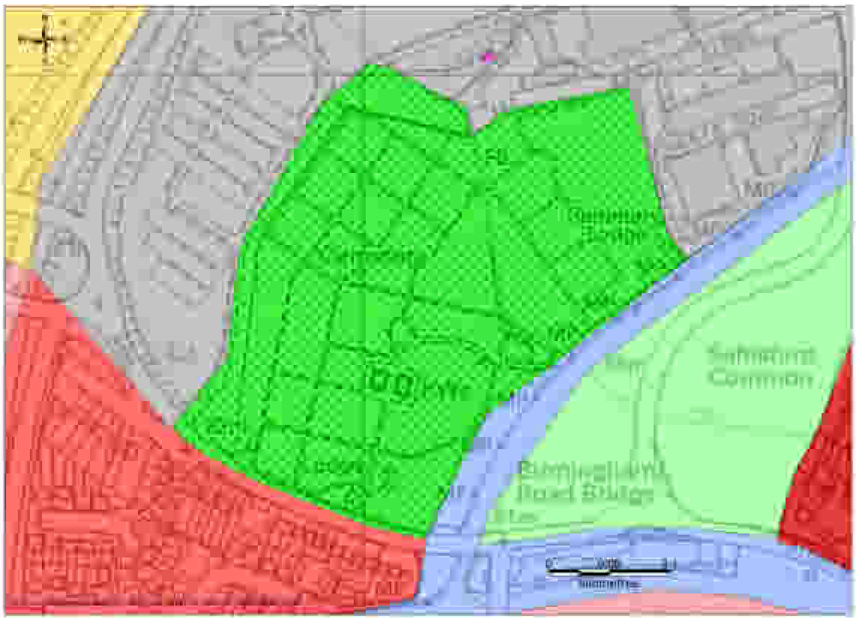
Medium - The cemeteries by their nature contain both above and below ground archaeological remains. However, apart from funerary associated features, the destructive nature of cemeteries mean that few other possible archaeological remains are left intact.

Management:

To maintain and preserve any historic or archaeological features, and to preserve the character of the cemetery through regular maintenance of grounds and monuments. New monuments should respect the character of those existing, for example, by use of materials comparable with those already present.

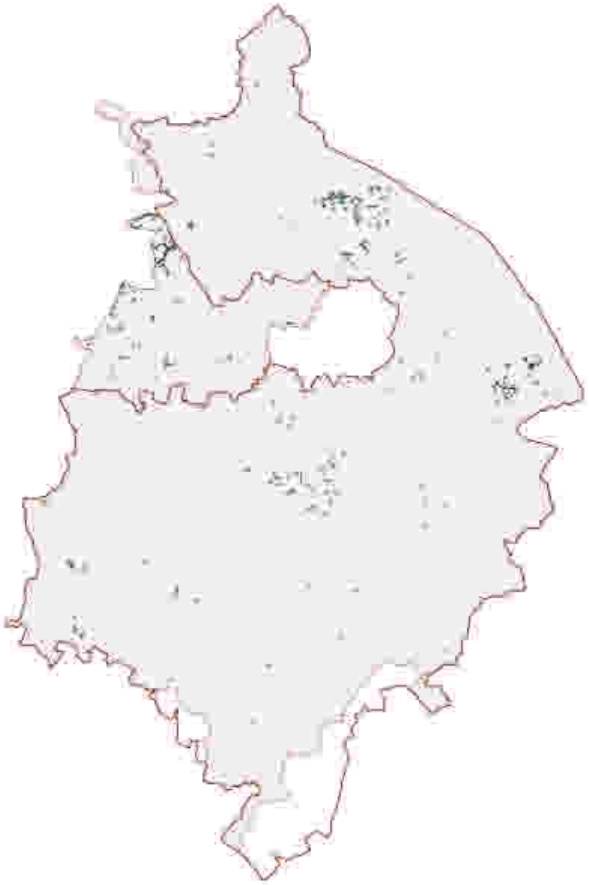
Research:

The history of municipal cemeteries in Warwickshire is not well known.



Warwick Cemetery

Public Open Space (61)



Legend Colour:

Total Area: 800.37 ha (0.38%)

No of polygons: 223 (1.21%)

Average Polygon Size: 3.59 ha (Small)

Occurrence: Rare

Elmdon Park, Solihull

Definition:

Areas of land generally with some degree of landscaping and accessible to the public, usually in an urban context. These will mostly be identifiable from Ordnance Survey mapping and the Warwickshire Habitat Biodiversity Assessment's 'Amenity Grassland' type.

Sub-types:

Public Open Space

Description:

These form small areas and are found in concentrations associated with the larger settlements in Warwickshire such as Warwick, Leamington, Rugby, Nuneaton and Bedworth and the urban areas in Solihull. Most of these date to 1900-1955, although a handful may date slightly earlier and a few have been created after 1955. This type generally appears to be associated with improvements made to urban areas after the Victorian era, when a greater need for public space and facilities arose with the increasing population. Few of these areas are found in villages or the smaller towns.

Period:

Early - late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (97%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (14%)

Reason for change (1880-2001):

This type appears to have increased with expanding settlements and a desire for more public open space. It continues to expand, albeit at a slower rate.

Factors influencing further change:

Increasing population. Increased demand. Pressure on open land for development.

Biodiversity Potential:

Low-Medium - These areas are generally quite intensively managed and therefore have a low potential for biodiversity.

Archaeological Potential:

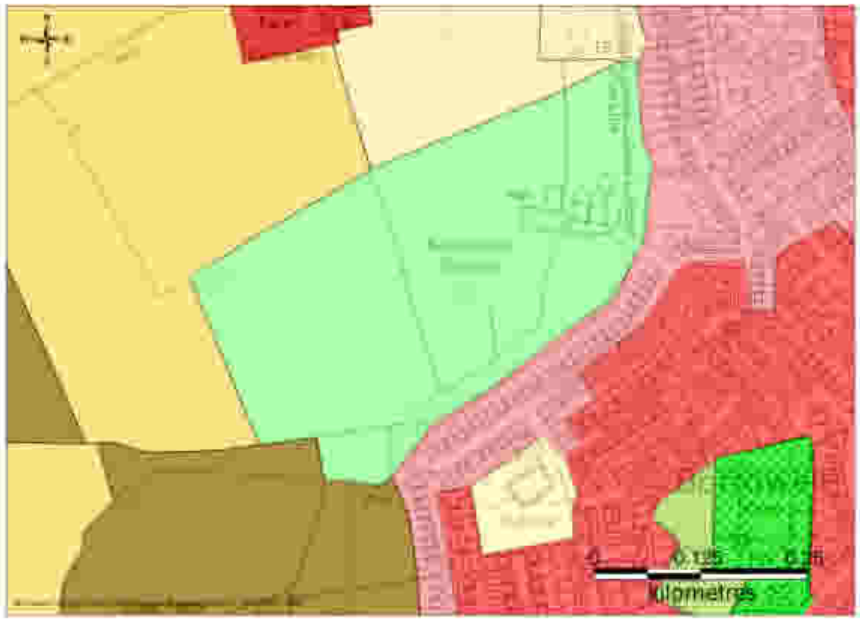
Medium - These areas have a distinct lack of archaeological sites associated with them but the ground in general may be relatively undisturbed. Some medieval settlement and ridge and furrow is found in these areas, along with historic industrial sites.

Management:

Maintain and preserve any historic and archaeological features within the area. Limit ground disturbance where possible. Carry out assessment of archaeological potential when major developments take place and manage as appropriate.

Research:

Research could be carried out on the development of public open space in the last few centuries.



Recreation Ground at Kenilworth

Historic Settlement Core (64)

Legend Colour:

Total Area: 2153.00 ha (1.03%)

No of polygons: 324 (1.76%)

Average Polygon Size: 6.65 ha (Small)

Occurrence: Rare

Historic Settlement Core of Thurlaston, Rugby

Definition:

Areas that can be identified as the historic core of a settlement either through morphology or information from the Warwickshire Historic Environment Record. In most cases these will represent the extent of the settlement at the end of the medieval period; however, some historic cores may be later.

Sub-types:

Historic Settlement Core

Description:

There are just over 300 towns and villages where historic cores are identified in Warwickshire. Of these, Leamington Spa is by far the largest and most recent, with many of the others originating in the medieval period. Different patterns exist across Warwickshire. In the south these cores tend to be larger and more numerous; from Solihull northwards, they are smaller and more scattered. They also form more defined patterns in the county with linear patterns following the River Avon, the Leam, around the edge of Dunsmore, historic routes between Alcester and Warwick, Warwick to Birmingham, on the Fosse between Offchurch and Watling Street and along the main road between Burmington and Stratford. Most historic cores have remained intact since the OS 1st edition; however, some have shrunk and amalgamated through expanding settlement such as parts of Rugby, Hillmorton, Whitnash, Nuneaton and Attleborough. Other historic cores have disappeared completely in areas of greater urban expansion in Solihull (into Shirley, Olton and Kineton Green) and the edge of Coventry (Brownshill Green).

Period:

Medieval-19th century

Trajectory of Change (1880s – 1955):

Declining Slowly (-14%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

Historic cores declined in the first half of the 20th century due to regeneration of town centres and the increase of more commercial centres at the historic core. In the second half of the 20th century this situation has stabilised, in part due to changes in planning policy and a greater focus on preserving, restoring and enhancing historic cores. Most villages have remained generally untouched.

Factors influencing further change:

Increased pressure for building or commercial sites in town centres. Increase of regeneration schemes.

Biodiversity Potential:

Low-medium - Biodiversity is relatively lower in urban areas; however historic cores usually have more associated green spaces, and older more established plants and trees as well as more extensive gardens. Some historic buildings offer great potential for a variety of wildlife.

Archaeological Potential:

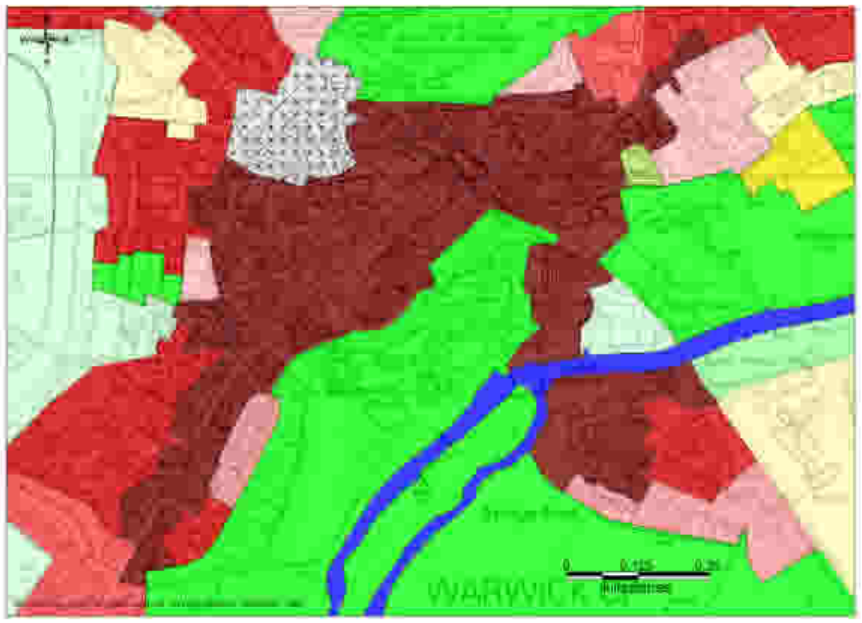
High - These areas by their very definition constitute historic environment assets with historic buildings, structures and archaeological deposits. Their archaeological potential for remains dating to the medieval period or even earlier are high.

Management:

Many of these historic cores form part of conservation areas, frequently with listed buildings and are therefore protected to some extent. However, the potential remains to preserve the historic character of these areas and the archaeological remains that may exist through appropriate policies in Local Development Frameworks.

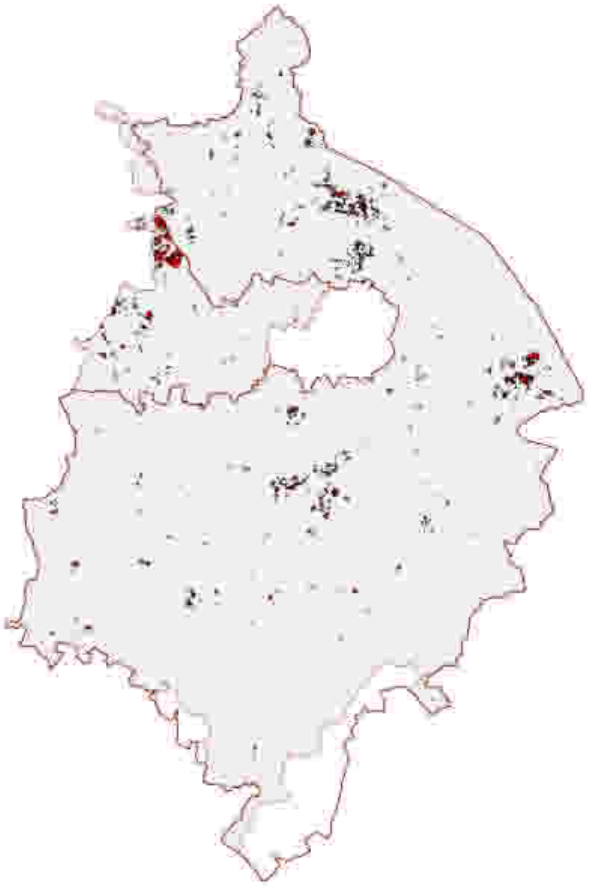
Research:

Extensive Urban Survey is recommended for as many of Warwickshire's historic towns as possible and a bid for funding has been submitted. For the other areas general research agendas exist for historic settlements. In Warwickshire more research could be undertaken into the origins and development of settlement, especially during the Anglo-Saxon and early medieval periods.



Historic Settlement Core of Warwick

Terraced Housing (66, 69, 72, 75)



Legend Colour:

Total Area: 2181.02 ha (1.04%)

No of polygons: 858 (4.65%)

Average Polygon Size: 2.54 ha (Small)

Occurrence: Occasional

Pre 1880s Terraced Housing, Atherstone, North Warwickshire

Definition:

Areas that are marked as being predominantly terraced housing as marked on Ordnance Survey maps.

Sub-types:

Pre 1880s Terraced (66)

Areas that are recognised as predominantly terraced housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core, however, in cases where the older (pre 1st edition) historic settlement core has been defined this area will show a later settlement growth.

Post 1880s/Pre 1900s Terraced (69)

Areas of terraced housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.

Post 1900s/Pre 1955 Terraced (72)

Areas of terraced housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.

Post 1955 Terraced (75)

Areas of terraced housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.

Description:

Terraced housing in Warwickshire is predominantly located within the larger urban areas in the county including Stratford, Warwick, Leamington, Kenilworth, Rugby, Nuneaton, Bedworth and the urban area of Solihull. These areas tend to have terraced housing over 100 years old towards the centre with more leading outwards as the 20th century progressed. There is a scattering in the smaller towns and larger villages such as Southam, Polesworth, Coleshill, Baddesley Ensor, New Arley, Bidford, Alcester and Studley. This terraced

housing tends to be post-war and later 20th century development. There is more terraced housing in the north of the county, which also appears to be older, with a definite relationship to industrial development. There is a distinct lack of terraced housing in the very south and south east of the county.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (412%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

This increased with the population expansion at the beginning of the 20th century and since then has remained relatively stable. This is in terms of overall area of this type of housing. In many cases in the later 20th century redevelopment of housing stock has taken place altering the character of settlement.

Factors influencing further change:

Increased population. Housing market demand. Urban redevelopment.

Biodiversity Potential:

Low - Medium - Although settlement in general does not offer a very high potential for biodiversity, gardens associated with houses do contain a variety of species.

Archaeological Potential:

Low-medium - These areas are associated with some medieval settlements, some industrial sites and churches but in general they are quite destructive to the archaeology due to large deep footprints and associated ground disturbance.

Management:

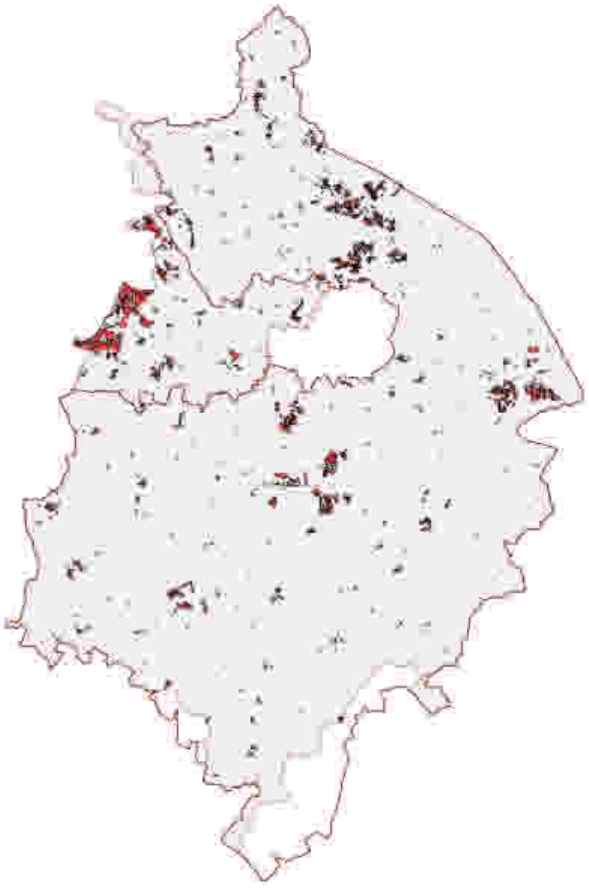
New development should endeavour to take into account the character of the area and ensure that styles and materials are in keeping with the surroundings. Any archaeological potential should be realised prior to major development.

Research:

Extensive Urban Survey is recommended for as many of Warwickshire's historic towns as possible. For other areas and In the case of terraced housing more research could be carried out into the development of groups of housing in certain areas and the exact development of urban areas for this type.

Terraced Housing at Rugby

Semi-detached Housing (67, 70, 73, 76)



Legend Colour:

Total Area: 5346.59 ha (2.56%)

No of polygons: 1190 (6.45%)

Average Polygon Size: 4.49 ha (Small)

Occurrence: Common

Post 1900s/pre 1955 semi-detached houses in Leamington

Definition:

Areas that are marked as being predominantly semi-detached housing on Ordnance Survey maps.

Sub-types:

Pre 1880s Semi-Detached (67)

Areas that are recognised as predominantly semi-detached housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core, however, in cases where the older (pre 1st edition) historic settlement core has been defined then this area will show a later settlement growth.

Post 1880s/Pre 1900s Semi-Detached (70)

Areas of Semi-detached housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.

Post 1900s/Pre 1955 Semi-Detached (73)

Areas of Semi-detached housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.

Post 1955 Semi-Detached (76)

Areas of Semi-detached housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.

Description:

This is one of the most common settlement types in the county, second only to detached housing. It is found predominantly in the main urban areas of Warwickshire (Stratford, Warwick, Leamington, Kenilworth, Rugby, Nuneaton, Bedworth and the urban area of Solihull). There is however a wide scattering of semi-detached houses throughout Warwickshire within many of the villages, much more so than terraced housing. Most of the semi-detached housing is created after 1900 with only a few small areas of early semi-detached

houses close to the historic cores. It tends to be towards the edges of the larger settlements with by far the greatest area in the urban part of Solihull, especially in Elmdon, Shirley, Lyndon, Castle Bromwich and Solihull.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (5308%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

This increased with the population expansion at the beginning of the 20th century and since then has remained relatively stable. This is in terms of overall area of this type of housing. In many cases in the later 20th century redevelopment of housing stock has taken place altering the character of settlement.

Factors influencing further change:

Increased population. Housing market demand. Urban redevelopment.

Biodiversity Potential:

Low - Medium - Although settlement in general does not offer a very high potential for biodiversity, gardens associated with houses do contain a variety of species.

Archaeological Potential:

Low-medium. These areas are associated with some medieval settlements and some industrial sites. However, in general, like all types of urban housing archaeological deposits are often heavily disturbed.

Management:

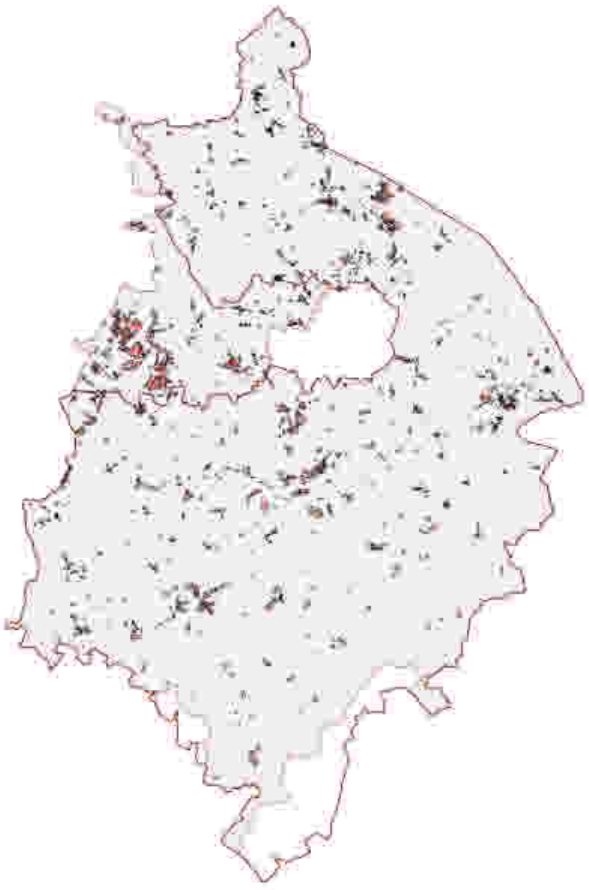
New development should endeavour to take into account the character of the area and ensure that styles and materials are in keeping with the surroundings. Any archaeological potential should be realised prior to major development.

Research:

Extensive Urban Survey is recommended for as many of Warwickshire's historic towns as possible. For other areas and In the case of semi-detached housing more research could be carried out into the development of groups of housing in certain areas and the exact development of urban areas for this type.

Semi-detached Housing in Leamington

Detached Housing (68, 71, 74, 77)



Legend Colour:

Total Area: 5961.84 ha (2.85%)

No of polygons: 1421 (7.70%)

Average Polygon Size: 4.20 ha (Small)

Occurrence: Common

Post 1900/pre1955 Detached Housing, Leamington

Definition:

Areas that are marked as being predominantly detached housing on Ordnance Survey maps.

Sub-types:

Pre 1880s Detached (68)

Areas that are recognised as predominantly Detached housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core, however, in cases where the older (pre 1st edition) historic settlement core has been defined then this area will show a later settlement growth.

Post 1880s/Pre 1900s Detached (71)

Areas of Detached housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.

Post 1900s/Pre 1955 Detached (74)

Areas of Detached housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.

Post 1955 Detached (77)

Areas of Detached housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.

Description:

This is the most common settlement type in Warwickshire, making up around 30% of settlement. Detached housing is found scattered throughout the county with most concentrations occurring in urban areas, but a large number of detached houses are found in villages and in the countryside, in contrast to terraced and semi-detached housing. Most of the detached housing is created after 1955, with a few examples of pre 1880s and 1880-1955 detached housing, remaining. Some areas of the county have seen the older detached housing replaced with later

semi-detached housing or flats/apartments. Most of this appears to occur in the Solihull Metropolitan Borough urban area probably as a result of urban regeneration or settlement growth.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (1161%)

Trajectory of Change (1955 – 2001):

Stable (1%)

Reason for change (1880-2001):

This increased with the population expansion at the beginning of the 20th century and since then has remained relatively stable. This is in terms of overall area of this type of housing. In many cases in the later 20th century redevelopment of housing stock has taken place altering the character of settlement.

Factors influencing further change:

Increased population. Housing market demand. Urban redevelopment.

Biodiversity Potential:

Low - Medium - Although settlement in general does not offer a very high potential for biodiversity, gardens associated with houses often contain a variety of species.

Archaeological Potential:

Medium - These areas may be associated with ridge and furrow, deserted medieval settlements and a few historic buildings. Although building construction itself can disturb the ground quite heavily this type is often associated with larger gardens and could have more potential for archaeology. In general these areas are quite difficult to asses and probably should be done on a case by case basis.

Management:

New development should endeavour to take into account the character of the area and ensure that styles and materials are in keeping with the surroundings. Any archaeological potential should be realised prior to major development.

Research:

Extensive Urban Survey is recommended for as many of Warwickshire's historic towns as possible. For other areas and In the case of detached housing more research could be carried out into the development of groups of housing in certain areas and the exact development of urban areas for this type.

Detached Housing at Kenilworth

Farmsteads (78, 79, 80, 81)

Legend Colour:

Total Area: 3635.22 ha (1.74%)

No of polygons: 2785 (15.09%)

Average Polygon Size: 1.31 ha (Small)

Occurrence: Common

Abbey Farm, Merevale, North Warwickshire

Definition:

Areas covered by farmhouses and their associated buildings marked on Ordnance Survey maps. These are usually also marked with a farm name.

Sub-types:

Farm Complex pre 1880s (78)

Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 1st edition mapping. These are usually also marked with a farm name.

Farm Complex Post 1880s/Pre 1900s (79)

Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition. These are usually also marked with a farm name.

Farm Complex Post 1900s/Pre 1955 (80)

Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition. These are usually also marked with a farm name.

Farm Complex Post 1955 (81)

Areas covered by farmhouses and associated buildings marked on the Ordnance Survey modern mapping but not on the 1955 edition. These are usually also marked with a farm name.

Description:

This type is the most numerous in terms of the number of polygons recorded. This is probably because each farmstead is recorded on an individual basis. Most of the farmsteads recorded date to pre 1880s, with the next substantial group dating to after 1955; between these dates few new farms appear in Warwickshire. There are concentrations of farmsteads in the county, with more found in north Stratford and west Warwick district, Solihull and southern North Warwickshire district. This happens to be the same area

that has better survival of piecemeal enclosure and squatter/encroachment enclosure and where most of the common/heath once existed. There is another broad concentration running south east from Rugby in a wide strip covering most of the Feldon. The Avon valley appears to have less of a concentration of farmsteads but part of this is due to the larger urban areas in the Avon Valley. There are other discrete patterns of farmsteads forming lines, but it is unclear whether these patterns of farms signify anything or not. One line from Bedworth Heath running northeast towards Ansley and beyond is directly related to the road but other alignments of farms are not so clear. More post 1955 farms are found to the east of Coventry and Nuneaton and Bedworth. There are fewer in the west of the county.

Period:

Medieval -20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-21%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (28%)

Reason for change (1880-2001):

The decline in the first half of the century is probably due largely to settlement expansion, often absorbing farmsteads and the villages they were in. The decline of the agricultural industry may be another factor. After World War Two the farming industry rose once again as more intensive methods of farming were introduced, and a number of farmsteads then grew at a steady pace. In the last part of the 20th century this trend appears to be reversing with the concentration and amalgamation of land holdings and with farmsteads once again in decline.

Factors influencing further change:

Any changes in the agricultural industry will affect farmsteads. Presently many farms and farm buildings are converted for other uses as agriculture goes into decline and becomes less profitable. Agri-environment schemes can have a positive effect, offering management plans for farms and farm buildings. Farms continue to be amalgamated and as a result farmsteads either become defunct or change their use.

Biodiversity Potential:

Medium - Although farmsteads are made up predominantly of buildings these buildings often allow a variety of important wildlife to thrive such as bats, owls, bird etc. Ponds and other features may also exist.

Archaeological Potential:

Medium-high - Farmsteads by their nature are often of historic value and many are listed. The areas of the main farm buildings and courtyards are often associated with previous historic and archaeological features such as manor houses, medieval or post-medieval settlements, possibly even earlier settlements. In the north and west of the county they are often associated with moated settlements. Farms are inextricably linked to the great parks and designed landscapes of the 18th and 19th centuries with home farms supplying the needs of rural estates.

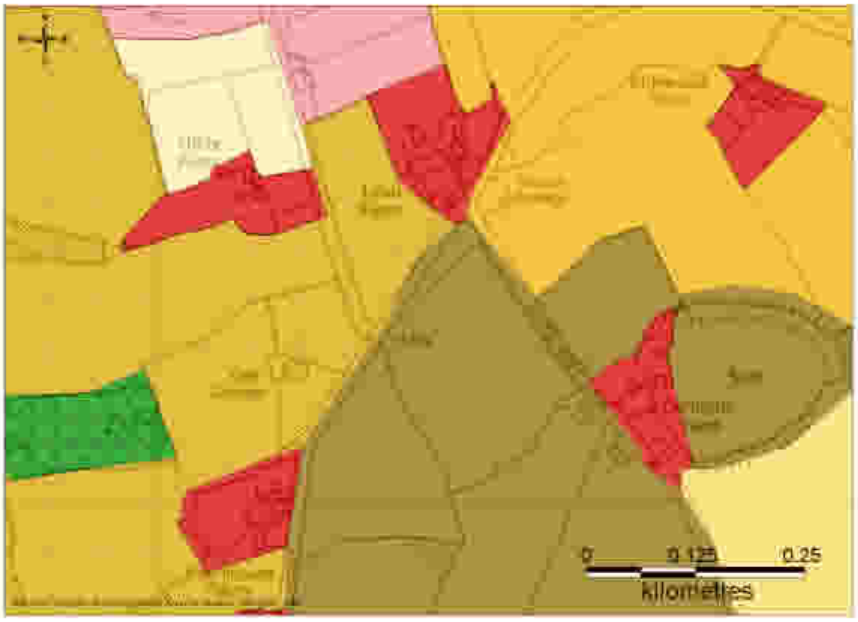
Management:

Management recommendations will arise from the West Midlands Historic Farmstead Characterisation project. Aside from these, unique buildings and farmsteads should be maintained and preserved where possible. Development should take into account the character of the farmstead, its layout and its buildings. The link should be made between the farmstead and the land it relates to. Agri-environment schemes offer management opportunities for farms and farm buildings.

Research:

The West Midlands Historic Farmstead Characterisation Project which will further our understanding of farmstead plan, layout and type, and place it into its context in the historic landscape, is due to take place in 2009 and 2010 and this will add much to our understanding of historic farmsteads, not just in Warwickshire but on a regional level. It is hoped in the future to be able to compare farmstead character

on a national level. Aside from this project one area of farmsteads that could be better understood is post-1955 development of farmsteads. Also to identify the landholding relating to each farmstead and analyse this data.



A cluster of farms at Beausale, Warwick

Country House (82)

Legend Colour:

Total Area: 878.24 ha (0.42%)

No of polygons: 260 (1.41%)

Average Polygon Size: 3.38 ha (Small)

Occurrence: Rare

Packwood House, Warwick

Definition:

Areas of usually isolated settlement in a rural or semi-rural setting often associated with parkland or designed landscapes. In many cases in Warwickshire these will be named 'Hall' and of 18th and 19th century date in origin.

Sub-types:

Country House

Description:

Country houses are fairly prominent in Warwickshire with a large concentration in south east Solihull metropolitan borough and northwest Warwick district. There is also a strong concentration of country houses in the more affluent districts of Warwick and Stratford in the south of Warwickshire with far fewer in the east and north of the county. The development over the 20th century of country houses is also distinctive with more, and larger, country houses existing at the end of the 19th century and with a much more even spread throughout the county, although there is still a concentration of country houses in the south and eastern part of Solihull and the north western part of Warwick district and also in areas around Warwick, Kenilworth and Leamington. In the first half of the 20th century the number and size of country houses declined rapidly by 75-90%. Many of these were converted into other uses more suitable to their size such as hotels, schools and training colleges. Since the 1950s the number of country houses has increased but their size has continued to reduce.

Period:

Post medieval- late 20th century (although some have remains of medieval settlement)

Trajectory of Change (1880s – 1955):

Declining Rapidly (-47%)

Trajectory of Change (1955 – 2001):

Declining Slowly (-7%)

Reason for change (1880-2001):

Country houses declined at the beginning of the 20th century as a result of changing socio-economic factors in England at the time making it difficult to maintain large expensive country houses and estates. This is likely to be related to impacts of the two world wars. During the later 20th century this decline has slowed and smaller country houses have started to be created.

Factors influencing further change:

Increase in population. Increase in wealthy classes. Housing market demand.

Biodiversity Potential:

Medium - High - These houses are often older historic houses with large associated gardens containing a variety of species.

Archaeological Potential:

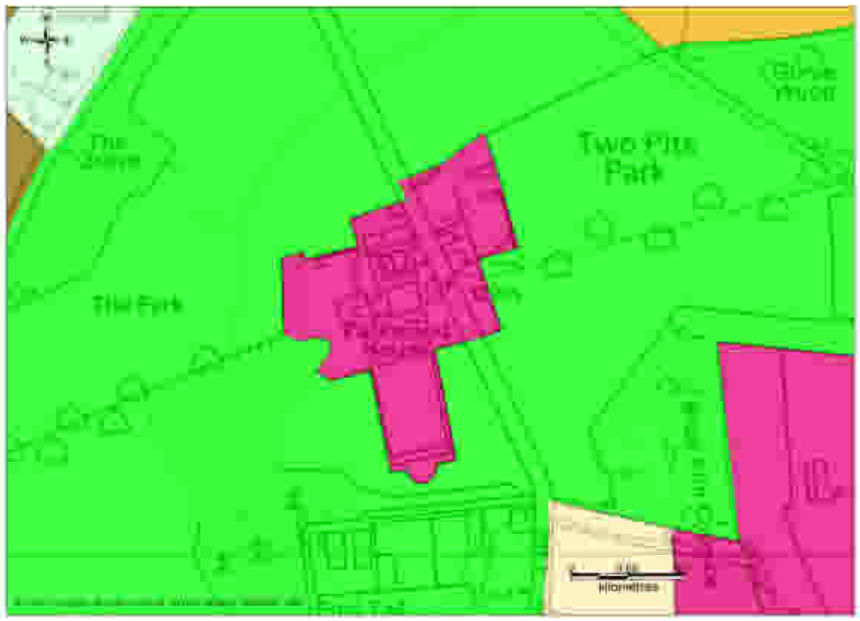
Medium - High - Many country houses by their nature are historic buildings and their immediate gardens and grounds often contain other historic features. They are often associated with designed parks and gardens, deer parks, sometimes moated settlements, farmsteads and deserted medieval settlements.

Management:

Some of these buildings are protected as listed buildings. However, any historic or archaeological features associated with the house or immediate grounds should be maintained and preserved by limiting development which disturbs known features.

Research:

Substantial research has been carried out regarding historic country houses, halls, manor houses and estates (Tyack, 1994). However more recent 20th century country houses have not received as much attention.



Packwood House, Warwick

Flats and Apartments (83)

Legend Colour:

Total Area: 300.38 ha (0.14%)

No of polygons: 204 (1.11%)

Average Polygon Size: 1.47 ha (Small)

Occurrence: Rare

Flats at Rugby

Definition:

Areas marked as multi-storey residential buildings.

Sub-types:

Flats and Apartments

Description:

This type of housing is a phenomenon seen after World War Two and is almost exclusively found in the main urban areas around the county such as Warwick, Leamington, Rugby, Nuneaton, Bedworth, Stratford and the urban areas of Solihull. A few exceptions are country houses which have been converted into apartments, a trend that is continuing.

Period:

20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

In the first half of the 20th century this type saw a rapid increase mainly due to flats being seen as a housing solution in urban areas to provide cheap affordable accommodation for after the Second World War. In the later part of the 20th century this stabilised and in Warwickshire few new areas of flats or apartments exist; most are conversions of older farms or country houses.

Factors influencing further change:

Increased population. Housing market demand. Urban redevelopment.

Biodiversity Potential:

Low - The nature of this type offer a low potential for biodiversity.

Archaeological Potential:

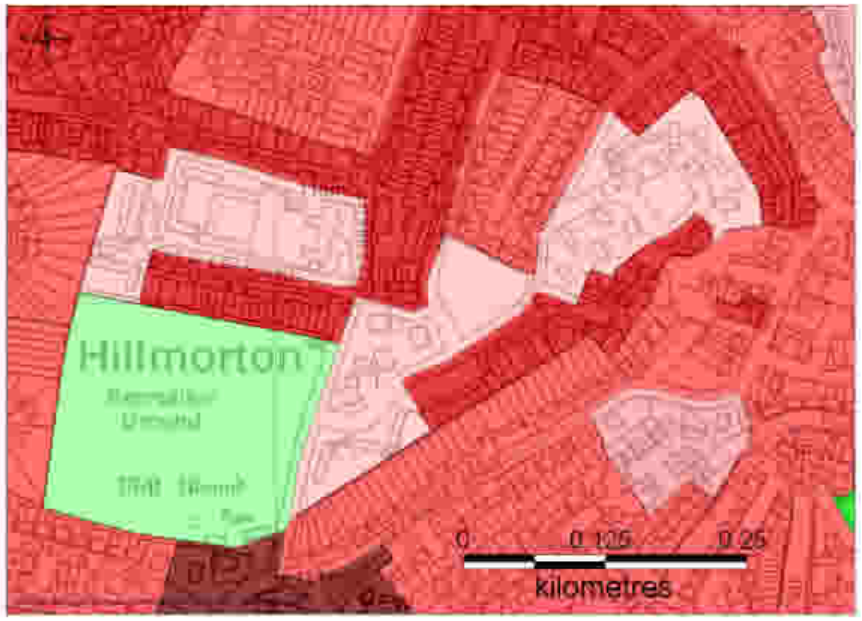
Low - This type is highly destructive to archaeology due to the large foundations and often intensive use of land; however, they can often be found close to or even within historic cores of settlements and some medieval settlement remains.

Management:

To preserve any archaeological remains where possible.

Research:

n/a



Flats at Hillmorton, Rugby

Mobile Home Park (120)

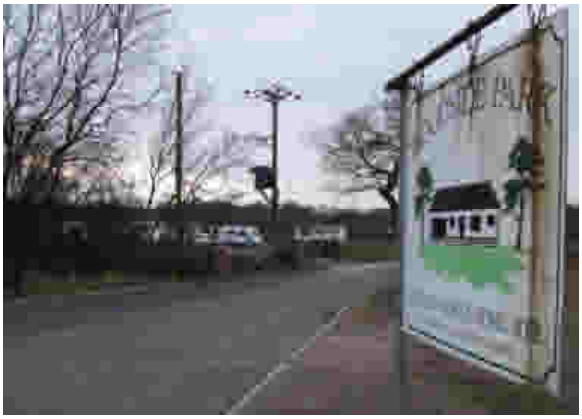
Legend Colour:

Total Area: 38.82 ha (0.02%)

No of polygons: 16 (0.09%)

Average Polygon Size: 2.43 ha (Small)

Occurrence: Very Rare



Woodside Park Mobile home Site, Near Ryton Woods, Rugby

Definition:

Areas where 'temporary' mobile homes exist. These are usually associated with gypsy/traveller sites or retirement parks.

Sub-types:

Mobile Home Park

Description:

Only 16 sites of mobile homes exist in Warwickshire and these are spread throughout the county. Curiously half of these sites are found adjacent to or within woodland, the reason for this is not clear.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Stable (0%)

Reason for change (1880-2001):

This type is a phenomenon that happens after World War Two.

Factors influencing further change:

Increased demand, increasing population, temporary status and the expectation that local authorities will identify sites for gypsies and travellers.

Biodiversity Potential:

Low - The nature of this type offer a low potential for biodiversity.

Archaeological Potential:

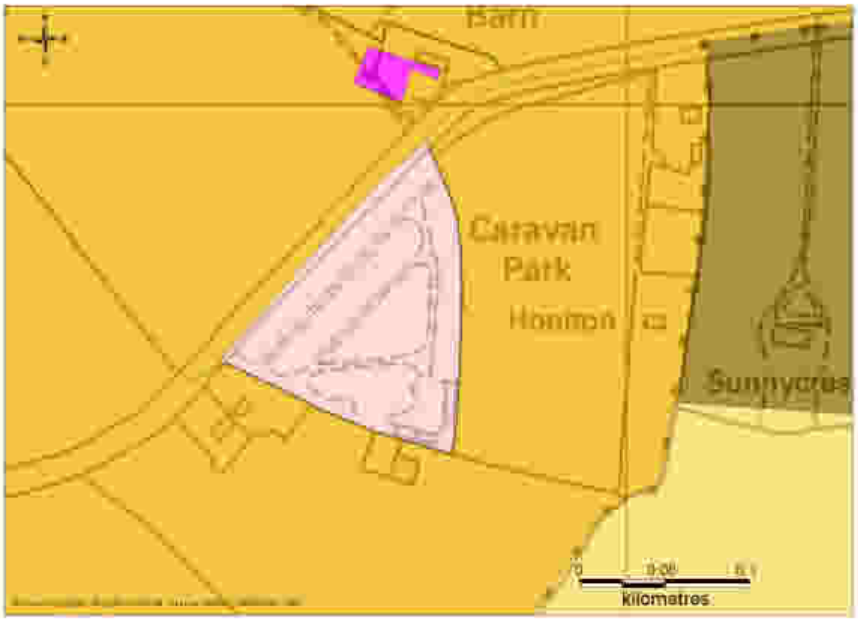
Low - The limited number of sites makes this difficult to assess the potential but some are close to designed landscapes.

Management:

Local Development Frameworks will contain policies for siting of gypsies and travellers.

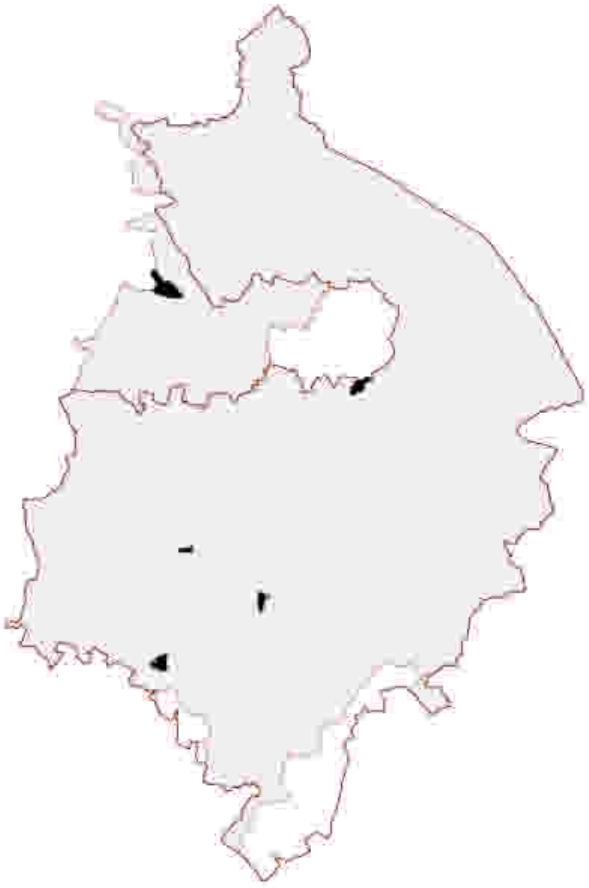
Potential for research on the archaeological signatures left by temporary camps.

Research:



Hill Top Caravan Park, Princethorpe, Rugby

Civil Airport (88)



Legend Colour:

Total Area: 822.30 ha (0.39%)

No of polygons: 5 (0.03%)

Average Polygon Size: 164.46 ha (Very Large)

Occurrence: Very Rare

Birmingham Airport, Solihull

Definition:

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.

Sub-types:

Civil Airport

Description:

There are a number of Civil Airports throughout the county including Birmingham International Airport (in Solihull), Coventry Airport (recently halting passenger traffic) and Wellesbourne airfield which is mainly used for light aircraft. All of these airports developed from World War Two airfields with the exception of Birmingham International which was a municipal airport just before the war. Birmingham International is by far the largest airport and continues to expand.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Moderately (49%)

Trajectory of Change (1955 – 2001):

Stable (-5%)

Reason for change (1880-2001):

Airports developed during the beginning of the 20th century, usually first as military airfields and later as civil airports. Once established they have expanded and increased activity but remain generally stable in size.

Factors influencing further change:

Demand for flying from business and leisure will determine the future of airports as will the availability of aviation fuel as oil resources deplete. These areas are quite stable at the moment and unlikely to

develop in the near future, although Coventry Airport has recently halted passenger flights and is up for sale.

Biodiversity Potential:

Low - By their nature these areas are not very biodiverse, although there are some elements such as grass areas that may support some wildlife.

Archaeological Potential:

Low–Medium - Airports and their facilities can be quite destructive to the archaeology of an area. However some older historic features and military features may remain on the site and there are often large areas of land that have had limited disturbance. In Warwickshire the airfields often have prehistoric features on or near them.

Management:

To maintain and preserve any historic features on site and to consider archaeological potential in the light of any development, expansion or change of use.

Research:

The development of civil airports could be explored, perhaps at a regional or national level.

Coventry Airport

Canal (90, 87)

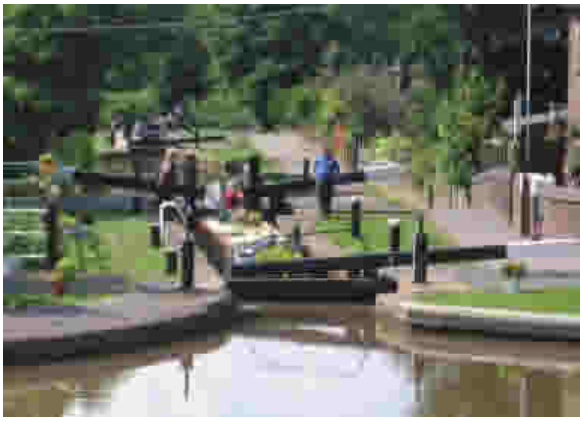
Legend Colour:

Total Area: 536.00 ha (0.26%)

No of polygons: 77 (0.42%)

Average Polygon Size: 6.96 ha (Small)

Occurrence: Very Rare



Canal Locks at Atherstone, North Warwickshire

Definition:

Areas identified on modern OS maps as bring developed and used as artificial waterways including their associated locks, basins and wharfs. This type also includes old canals and canal arms that may have become abandoned and disused.

Sub-types:

Canal Lock/Basin (87)

Canal locks, basins, wharfs and marinas as marked on modern Ordnance Survey mapping.

Canal (90)

Areas developed and used as artificial waterways. In some cases this will include old canals and canal arms that have become abandoned and disused.

Description:

The canal network in Warwickshire is largely complete since its creation with the Oxford Canal which skirts the east of the county and passes through Rugby and runs north. Part of the Grand Union Canal crosses the county from near Napton-on-the-hill, through Warwick, Solihull and into Birmingham. The Stratford Canal that connects Stratford at the navigable limit of the River Avon to Birmingham whilst parts of the Coventry Canal and Ashby de la Zouche Canal pass through North Warwickshire. The only decline in canals has been from the straightening and improvement to the Oxford Canal (which was originally a contour canal), leaving behind disconnected arms and disused sections.

Period:

18th - 20th century

Trajectory of Change (1880s – 1955):

Small decline (-14%)

Trajectory of Change (1955 – 2001):

Stable (-4%)

Reason for change (1880-2001):

By the 20th century canals in Warwickshire had reached their peak and what followed was a small decline. Most of the established canal network in Warwickshire still exists and remains stable due to its use as a recreational resource.

Factors influencing further change:

Use of and demand of canals as a low carbon means of transport. Tourism industry.

Biodiversity Potential:

Medium - High - Canals attract a variety of water life and aquatic birds. The edges of canals also support a variety of wildlife.

Archaeological Potential:

Medium – Canals and their associated features have become of historic and archaeological interest. Often these areas are associated with earlier industrial archaeological sites and other potential lies in the areas which the canals may have crossed including medieval settlement remains, ridge and furrow and prehistoric features.

Management:

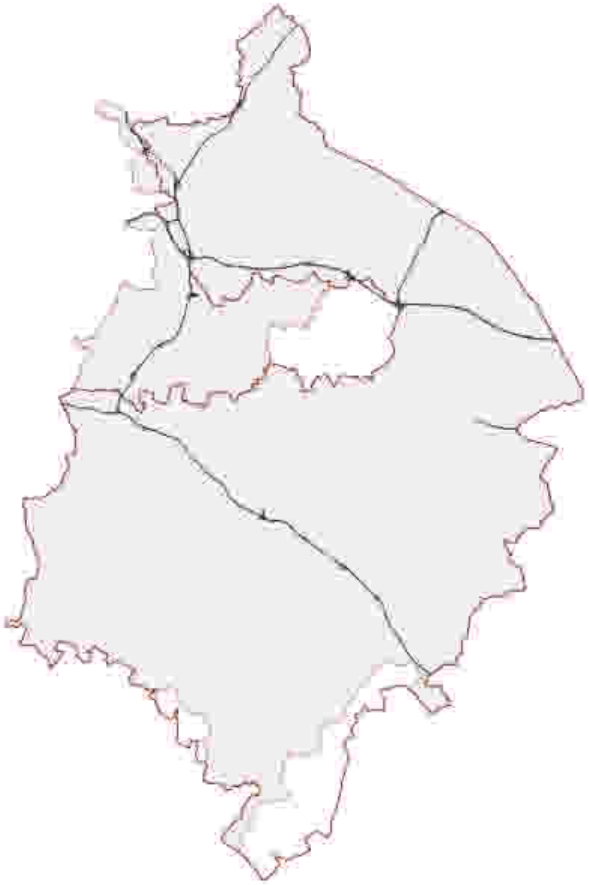
Management plans have been developed by British Waterways. Any historic features should be maintained and preserved where possible. Any development or changes should take into account the character of this type. Some archaeological features may be close to or have been cut by the canal and should be appropriately managed.

Research:

Comprehensive work has already taken place on the history of canals and related features in Warwickshire and the HER has many features mapped and recorded (Ransom, 1979, Hadfield 1966, Hadfield and Morris, 1962). Some archaeological work has been carried out most recently at Curdworth Toplock on the Birmingham and Fazely Canal (Powell, 2008). Some features of older canals in Warwickshire, such as the remains of the old contour elements of the Oxford Canal, deserve more attention, including mapping and updating the HER.

Oxford Canal near Priors Hardwick, Stratford -on-Avon

Motorway (91, 85, 89)



Legend Colour:

Total Area: 1371.14 ha (0.66%)

No of polygons: 53 (0.29%)

Average Polygon Size: 25.87 ha (Large)

Occurrence: Very Rare

M69 Motorway near Wolvey

Definition:

Motorways, associated service areas and major road junctions as marked on modern Ordnance Survey mapping. These will all have been constructed after 1960 and often dramatically alter the landscape.

Sub-types:

Motorway (91)

Motorways as marked on modern ordnance survey mapping. These will all have occurred post 1960 and often dramatically alter the landscape.

Major Road Junction (85)

Areas of major road junctions and roundabouts over 1ha in size.

Motorway Service Area (89)

Service areas associated with motorways and marked on modern Ordnance Survey mapping.

Description:

Warwickshire has a number of Motorways passing through it including the M40 which runs southeast to northwest connecting Birmingham to London. The M6, M42, M45 and the M69 all cross Warwickshire. Associated services and large motorway junctions mean that they have had a big effect on the landscape, disconnecting field patterns, woodland and settlements. In terms of size of area they are the dominant transport type in the county but despite this they still make up less than one percent of the total area of Warwickshire.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (65%)

Reason for change (1880-2001):

These developed after World War Two and have continued to be built linking parts of the country together.

Factors influencing further change:

Motorway widening and expansion.

Biodiversity Potential:

Low - Medium - Generally low as nothing exists on the roadway itself. However, some grass features on embankments, cutting and verges may support potentially rare birds and wildlife.

Archaeological Potential:

Low - Apart from the motorway and structures themselves that may become of historic interest there is very little potential for archaeological remains.

Management:

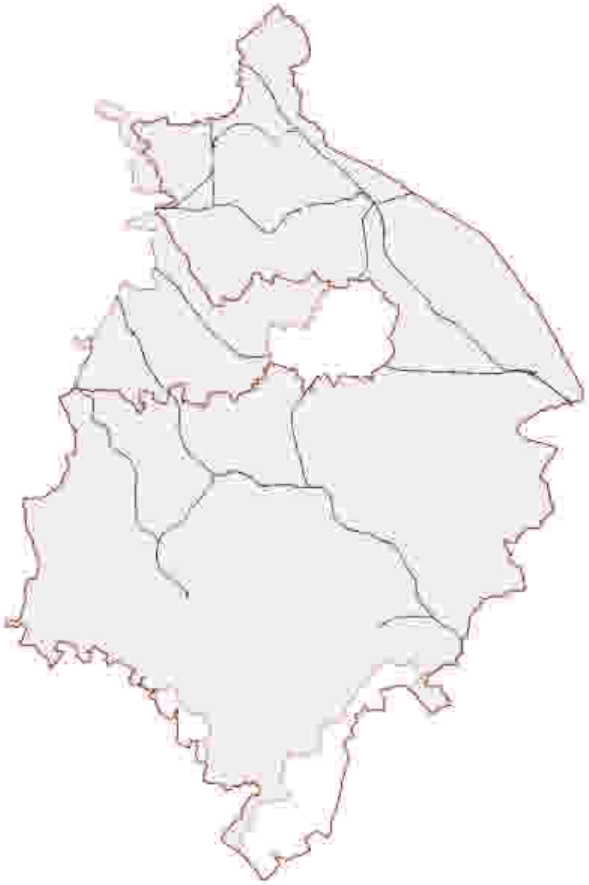
n/a

Research:

Research has been carried out into the motorway network in Britain including its origins and development. More recently English Heritage has started a 'Car Project' that will involve looking at the archaeological work that was carried out on some of the motorways (English Heritage, 2010)

M40 Motorway near Barford, Warwick

Railway (92, 86)



Legend Colour:

Total Area: 895.17 ha (0.43%)

No of polygons: 99 (0.54%)

Average Polygon Size: 9.04 ha (Medium)

Occurrence: Very Rare

Railway at Atherstone, North Warwickshire

Definition:

Modern railways as marked on modern Ordnance Survey mapping including associated train stations and sidings.

Sub-types:

Train Station/Sidings (86)

Areas that form train stations and large sidings as marked on modern Ordnance Survey mapping.

Railway (92)

Modern railways as marked on Modern Ordnance survey mapping. These will often include large areas either side of the railway that formed as part of the construction process such as cuttings and embankments.

Description:

The railway network across Warwickshire is substantial, connecting most large towns and the large cities in the country. The main lines generally form a south east to northwest pattern connecting London to Birmingham while passing through most of the major towns (Leamington, Warwick, Rugby, Nuneaton, Bedworth, Atherstone, Solihull and Coventry). Most of these lines date to pre 1880s. Stratford is connected to this main line network with a branch line that runs to Warwick; there is also a later line that connects it with Birmingham directly.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Declining Rapidly (-30%)

Trajectory of Change (1955 – 2001):

Stable (1%)

Reason for change (1880-2001):

This form of transport went into decline in the early 20th century; by the late 20th century it has remained relatively stable.

Factors influencing further change:

Increasing population. Increased demand for more efficient transport systems.

Biodiversity Potential:

Medium - Although the main part of the line itself will be of low potential, the sides often contain a variety of species and they act as corridors for wildlife.

Archaeological Potential:

Medium – The lines and associated railway features have become of historic and archaeological interest. Often these areas are associated with industrial archaeological sites. Other potential lies in what these railway lines may have crossed including deserted medieval settlements, ridge and furrow, roman sites and some prehistoric features.

Management:

Any historic features should be maintained and preserved where possible. Any development or changes should take into account the character of this type. Some archaeological features may be close to or have been cut by the railway and should be appropriately managed.

Research:

Comprehensive work has already taken place on the history of railways and railway features in Warwickshire (Hitches, 1997, Kingscott, 2009, Pixton, 2009, Boynton, 1994, Maggs, 1994 and Warwickshire Railways, 2010) and the HER has many features mapped and recorded. Some work on the archaeology of railways has been carried out (Morris, 1999). Industrial railway sites, especially the earlier examples, may warrant more study than the better investigated passenger lines.

Railway Junction at Bearley, Stratford-on-Avon

Disused Railway (93)

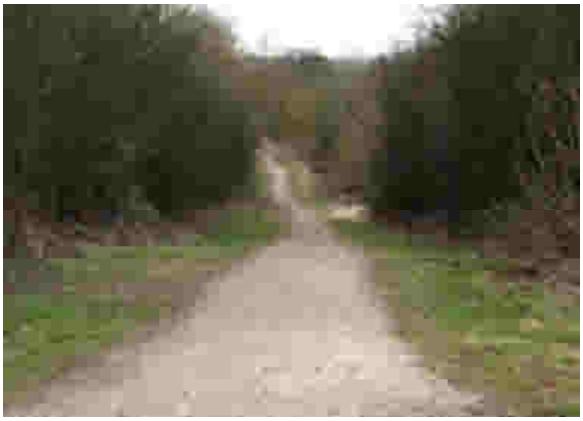
Legend Colour:

Total Area: 506.13 ha (0.24%)

No of polygons: 70 (0.38%)

Average Polygon Size: 7.23 ha (Medium)

Occurrence: Very Rare



Disused Railway part of the Offchurch Greenway, near Offchurch, Warwick

Definition:

Areas of land identifiable as a previously active railway lines. These disused railway lines are often marked on Ordnance Survey mapping and when not redeveloped retain a specific landscape character.

Sub-types:

Disused Railway

Description:

There are a number of disused railways in the county. Unlike other HLC types these very rarely change to a different HLC type or become used for any other purposes other than transport. The decline of the railways in the 20th century is reflected in these areas. In Warwickshire the decline started in the first half of the 20th century with many railway lines becoming disused, mainly those that connected towns and had more than one main line running in the same direction. The largest stretches of disused railway are found in the south where railways used to connect Stratford to various other parts of the country. A large number of disused railways are found leading from Rugby, with a few in the north part of the county often associated with industrial activity such as coal mining.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (1044%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (42%)

Reason for change (1880-2001):

This reflects the decline of the railways in the 20th century.

Factors influencing further change:

Railway industry.

Biodiversity Potential:

High - These areas are generally found as linear formations of un-improved grass or scrub and offer a haven as well as a corridor for a variety of species.

Archaeological Potential:

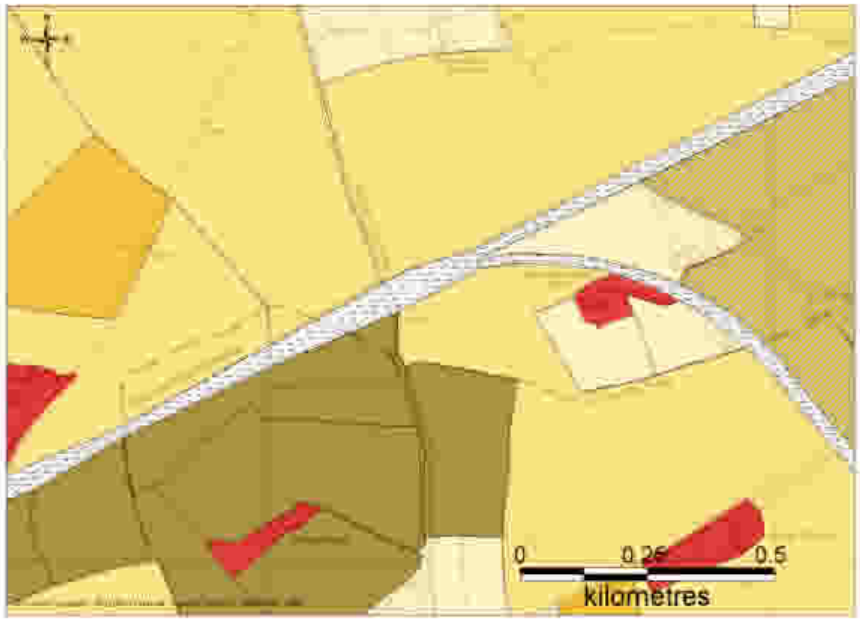
Medium – The lines and associated railway features have become of historic and archaeological interest. Often these areas are associated with industrial archaeological sites. Other potential lies in what these railway lines may have crossed including deserted medieval settlements, ridge and furrow, roman sites and some prehistoric features.

Management:

Any historic features including the line itself should be maintained and preserved. Any development of these areas should try not to break the lines they form. Where possible lines should be integrated into the development. Any older archaeological features need to be assessed and managed appropriately.

Research:

Further work could be carried out to assess and understand the rate of destruction of disused railway lines. Otherwise, like railways, comprehensive work has already taken place on the history of railways and railway features in Warwickshire (Hitches (1997), Kingscott (2009), Pixton (2009), Boynton (1994), Maggs (1994) and Warwickshire Railways (2010). Some work on the archaeology of railways has been carried out (Morris, 1999). Industrial railway sites, especially the earlier examples, may warrant more study than the better investigated passenger lines.



Disused sections of Railway near Hunningham, Warwick

Park and Ride (94)

Legend Colour:

Total Area: 4.37 ha (0.00%)

No of polygons: 1 (0.01%)

Average Polygon Size: 4.37 ha (Small)

Occurrence: Very Rare

Park and Ride at Solihull

Definition:

Areas marked on modern Ordnance Survey mapping as park and ride schemes. These will often be large car parks and associated.

Sub-types:

Park and Ride

Description:

Only one park and ride is recorded being in Solihull. Since the project has started the Stratford Park and Ride has opened and another is planned for Warwick. This remains a very unusual type for the county.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Stable (0%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (100.00%)

Reason for change (1880-2001):

This type is a late 20th century phenomenon.

Factors influencing further change:

Increased policy for park and ride schemes. Lack of use of these schemes could mean they are withdrawn.

Biodiversity Potential:

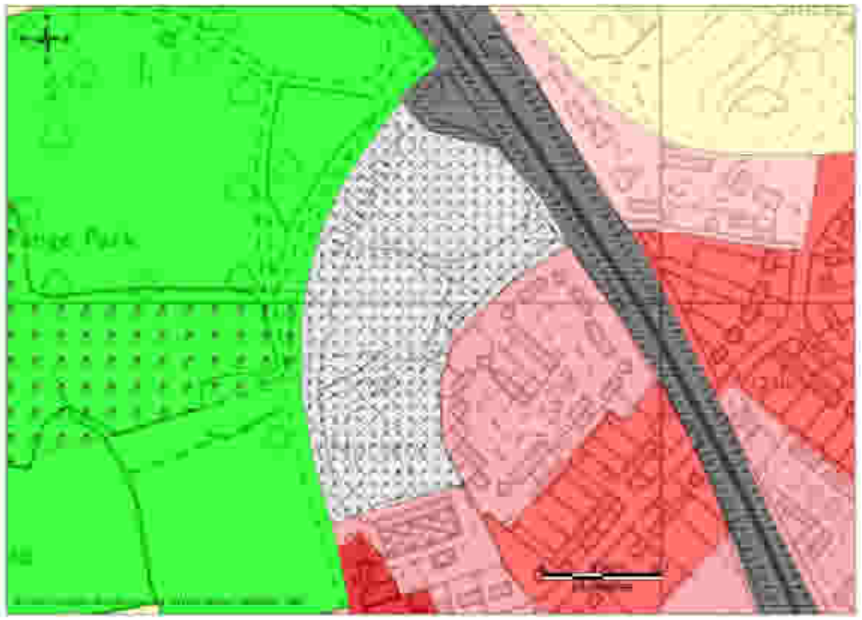
Low – By their nature these sites do not offer much scope for biodiversity. However they often have green areas associated with them and could be managed to maximise their use of these spaces.

Archaeological Potential:

Low – The lack of these sites makes it hard to determine a potential for archaeology.

Management:
Usually managed by local authorities.

Research:
n/a



Solihull Park and Ride

Stadium/Conference Centre (100, 110)

Legend Colour:

Total Area: 171.63 ha (0.08%)

No of polygons: 6 (0.03%)

Average Polygon Size: 28.61 ha (Large)

Occurrence: Very Rare

National Exhibition Centre (NEC), Solihull

Definition:

Generally large buildings, stadiums and areas that are primarily used as some form of exhibition or conference centre.

Sub-types:

Exhibition/Conference Centre (100)

Generally large buildings, stadiums and areas that are primarily used as some form of exhibition or conference centre.

Stadium (110)

An area where some form of professional sport is held.

Description:

Only four areas are recorded as conference/stadiums in Warwickshire. One of these is the Coventry greyhound racing track at Binley Woods, just outside Coventry. Two of the others are small conference centres at Wroxley and Ettington which appear to be a modern day use of the historic country houses at these sites. The last site is the NEC (National Exhibition Centre) which is in Solihull just outside Birmingham.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (100.00%)

Trajectory of Change (1955 – 2001):

Stable (3%)

Reason for change (1880-2001):

Most of these sites have developed after the Second World War

Factors influencing further change:

Increased demand for conference and stadium areas. It is unlikely that present sites will develop into anything else.

Biodiversity Potential:

Medium – By their nature most of these sites have some forms of green space designed into their layout including wooded areas, ponds and lawns. This increases the biodiversity potential but on the other hand they are predominantly large buildings for stadium or conference use.

Archaeological Potential:

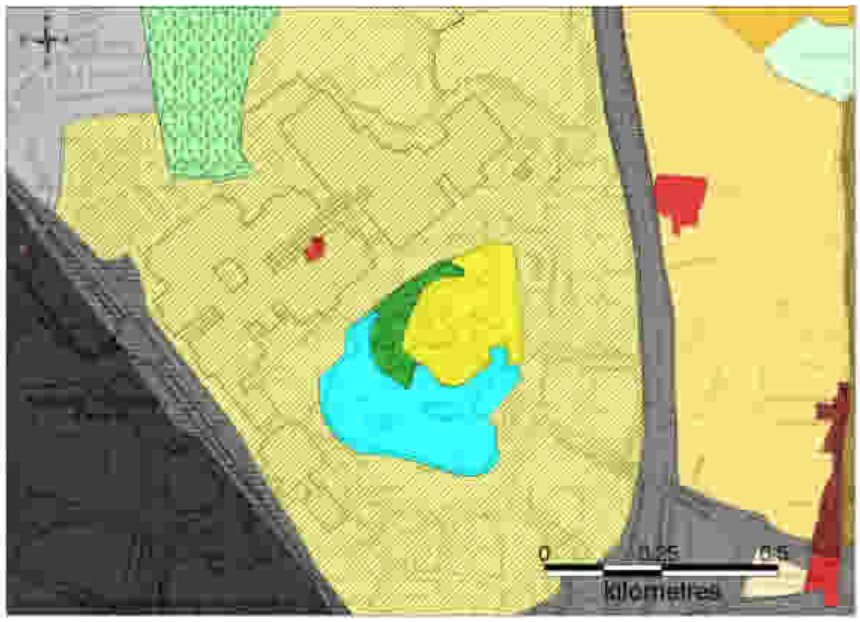
Low-Medium – The archaeological potential for these areas is difficult to realise. Some of these sites are set within the context of historic country houses with a medium – high archaeological potential whereas others are large purpose built modern venues which have a low potential. Each site needs to be judged on its own merit.

Management:

Historic country houses should be developed carefully respecting their unique character. Other more modern sites should take into account any underlying archaeology or historic character.

Research:

n/a



National Exhibition Centre (NEC), Solihull

Camping/ Caravan Site (101)

Legend Colour: 

Total Area: 107.92 ha (0.05%)

No of polygons: 35 (0.19%)

Average Polygon Size: 3.08 ha (Small)

Occurrence: Very Rare

Abbots Salford, Stratford-on-Avon (Copyright GeoPerspectives)

Definition:

Areas of land that are marked as camping and/or caravan sites on modern Ordnance Survey mapping. These tend to be commercial sites usually with a seasonal use.

Sub-types:

Camping/Caravan Site

Description:

There are around 30 individual camping/caravan sites in Warwickshire; all are a recent development after 1955, probably as a result of increased public interest in camping and caravanning. There are some concentrations of sites, particularly on the lower part of the Avon and around Bedworth. There are a number of other sites in North Warwickshire. There is a distinct lack of sites in the central part of Warwickshire around Warwick and Leamington.

Period:

Late 20th century

Trajectory of Change (1880s – 1955):

Stable (0%)

Trajectory of Change (1955 – 2001):

Increasing Rapidly (100%)

Reason for change (1880-2001):

Camping and caravanning started as a leisure pursuit at the beginning of the 20th century but sites in Warwickshire only develop in the later 20th century.

Factors influencing further change:

Demand for leisure pursuit.

Biodiversity Potential:

Medium- These areas are usually quite intensively managed but often contain

some variety of species often planted to enhance the site aesthetically.

Archaeological Potential:

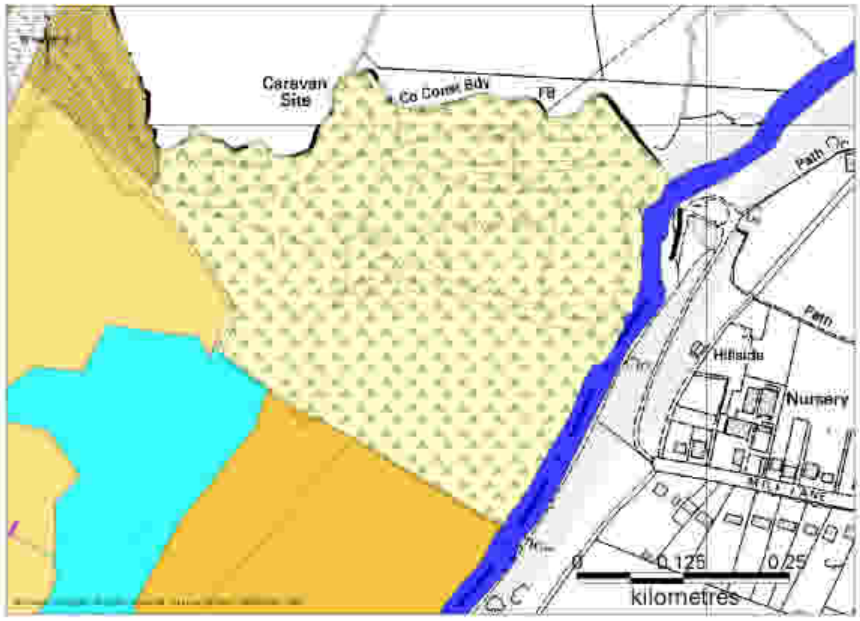
Low- Difficult to ascertain due to limited number of sites associated with this type. Some prehistoric features and medieval settlements lie close to these sites.

Management:

Any historic features should be maintained and integrated as part of the site. Ground disturbance should be avoided on known archaeological sites.

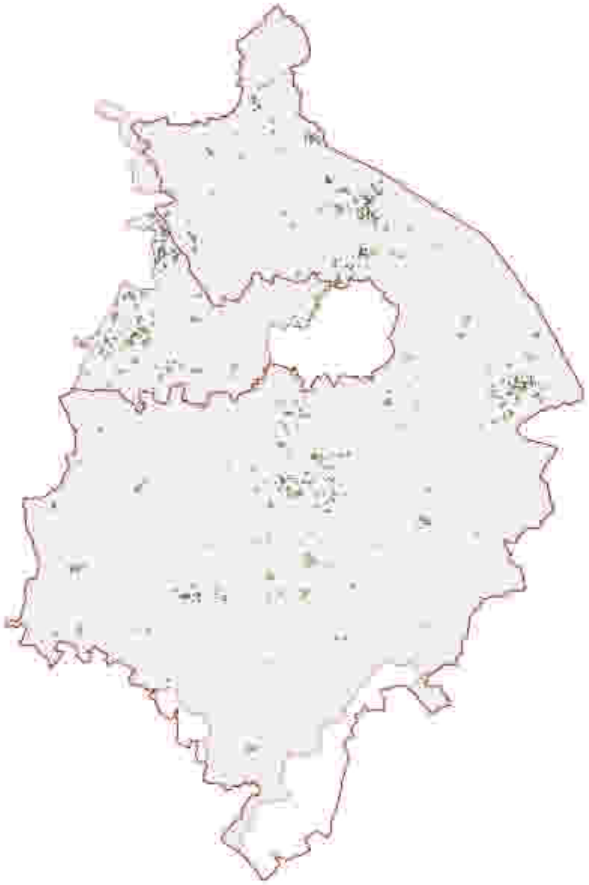
Research:

n/a



Camping and Caravan Park at Abbots Salford, Stratford-on-Avon

Municipal and Civic (95, 96, 97, 99, 118)



Legend Colour:

Total Area: 1768.36 ha (0.85%)

No of polygons: 448 (2.43%)

Average Polygon Size: 3.95 ha (Small)

Occurrence: Occasional

Shire Hall, Warwick

Definition:

Areas within larger settlements that are defined by the presence of large civic and municipal buildings including educational establishments, hospitals, care homes, leisure centres, town halls and local authority buildings. In some cases these complexes may also be found on the edge of the urban area or outside it.

Sub-types:

Municipal and Civic (95)

Areas within larger settlements that are defined by the presence of large civic buildings such as town halls, local authority buildings, libraries and museums. In some cases these complexes may also be found out of town.

Educational (96)

Educational establishments including schools, colleges and universities.

Hospital (97)

Areas of large hospital complexes.

Leisure Centre (99)

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

Care Home (118)

Usually a nursing home or residential care home as identified from modern OS mapping.

Description:

There is a fairly large number of these in the county. They are mostly found in and around the larger urban areas such as Stratford, Warwick, Leamington, Rugby, Nuneaton, Bedworth, Atherstone, Kenilworth and the urban areas of Solihull and Coventry. Most are modern (post 1955) creations associated with increasing populations and settlements and increasing demand for services. A large number are schools and hospitals and these form the majority of these sites that

have continuity from the end of the 19th century until today, although often with all or parts of them rebuilt. The oldest is the King Edward VI School, Stratford-upon-Avon, parts of which date back to the 15th century, and which boasts the oldest classroom in use in England dating back to 1427. Prisons are recorded in the 1880s but have now been replaced by housing. Other civic buildings tend to be smaller and found more towards the centre of the large towns.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (443%)

Trajectory of Change (1955 – 2001):

Stable (4%)

Reason for change (1880-2001):

This type has increased rapidly linked to the increase in population, housing and focus on services for people and communities in the 20th century. In the later 20th century this has stabilised along with urban expansion.

Factors influencing further change:

The biggest change comes from redevelopment of this type. Very rarely once established does this type change to another one. Redevelopment can affect historic buildings which may be part of these sites.

Biodiversity Potential:

Low - The majority of this type is found in an urban context with the main focus on buildings, consequently the biodiversity potential is low. However recent initiatives in Warwickshire have shown that some of this type such as schools can enhance their biodiversity through organised programmes.

Archaeological Potential:

Medium - Very often buildings found in this type have a strong historical value and may lie within or close to historic cores of urban areas which have the potential for earlier archaeological remains. Other types have large areas of open space associated with their function (i.e. school grounds, car parks) and the potential for archaeological remains will be higher. Some sites lie close to or within historic parks and gardens.

Management:

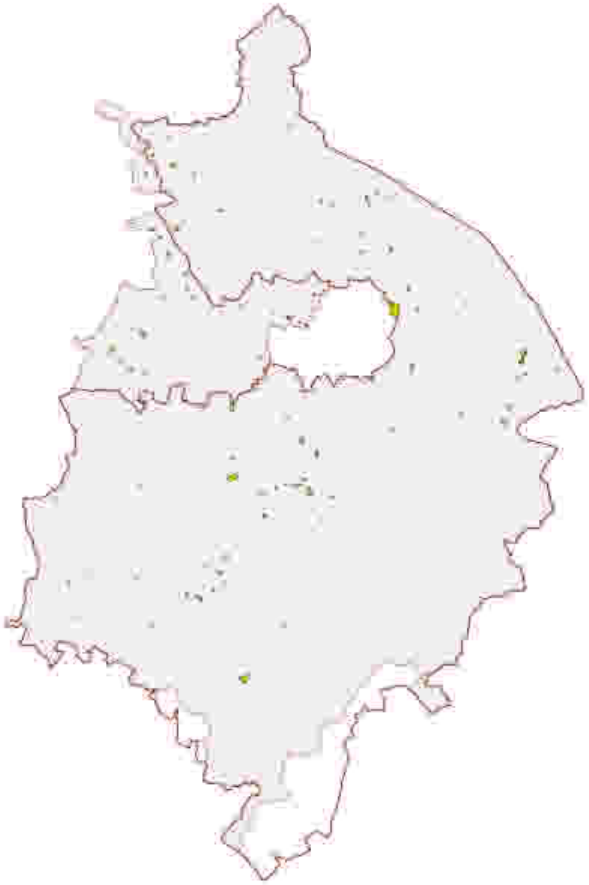
To preserve and manage the buildings and areas with greater historic and archaeological value, especially where they contribute to the character of an area or help shape a sense of place. Where appropriate adaptive reuse of buildings rather than complete rebuild should be considered

Research:

More research could be carried out into the early development of civic and commercial sites in the county in the 20th century. The RCHME and English Heritage have undertaken a number of thematic studies of some of the HLC Sub-Types within this HLC Type.

Schools at Myton Road, Warwick

Commercial and Retail (98, 102)



Legend Colour:

Total Area: 582.51 ha (0.28%)

No of polygons: 121 (0.66%)

Average Polygon Size: 4.81 ha (Small)

Occurrence: Very Rare

Touchwood Shopping Centre, Solihull

Definition:

Areas of large stores, commercial areas, retail parks and hotels marked as such on modern Ordnance Survey mapping. These areas may be found within or on the edge of urban areas.

Sub-types:

Commercial and Retail (98)

Areas of large stores, commercial areas and retail parks marked as such on modern Ordnance Survey mapping. These areas may be found within or on the edge of urban areas.

Hotel (102)

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

Description:

These are mostly found in and around the main urban areas of Warwickshire such as Stratford, Warwick, Leamington, Rugby, Nuneaton, Bedworth, Kenilworth and the urban areas of Solihull and Coventry. Other sites further into the countryside are usually hotels. Most of the sites are modern in origin, post 1955, with some older hotels and sites such as Cattle Markets recorded from the 1880s onwards. Many examples of this type are made up from supermarkets and larger commercial centres that have been developed, mostly after 1980, usually on the edge of urban areas.

Period:

20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (3759%)

Trajectory of Change (1955 – 2001):

Increasing Moderately (30%)

Reason for change (1880-2001):

This type expanded rapidly along with population and settlement expansion during the 20th century. In the later part of the 20th century demand for more choice and larger shopping areas has continued this expansion at a moderate pace.

Factors influencing further change:

Increasing population. Increasing demand for a greater variety of shops and services. The commercial and retail markets.

Biodiversity Potential:

Low - These areas by their nature do not afford much potential for biodiversity.

Archaeological Potential:

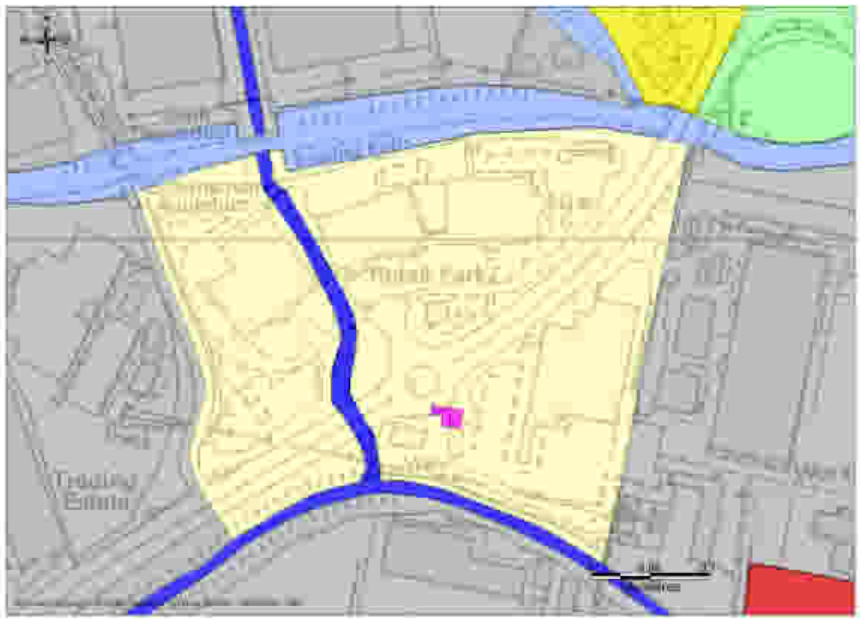
Medium - Hotels and some other commercial sites may be found within designed landscapes or include historic buildings. Central commercial shopping areas tend to be in or near medieval settlements. Some retail and commercial sites are on old RAF airfields.

Management:

To preserve and manage the buildings and areas with greater historic and archaeological value, especially where they contribute to the character of an area or help shape a sense of place. However for the majority of modern sites this will not be relevant.

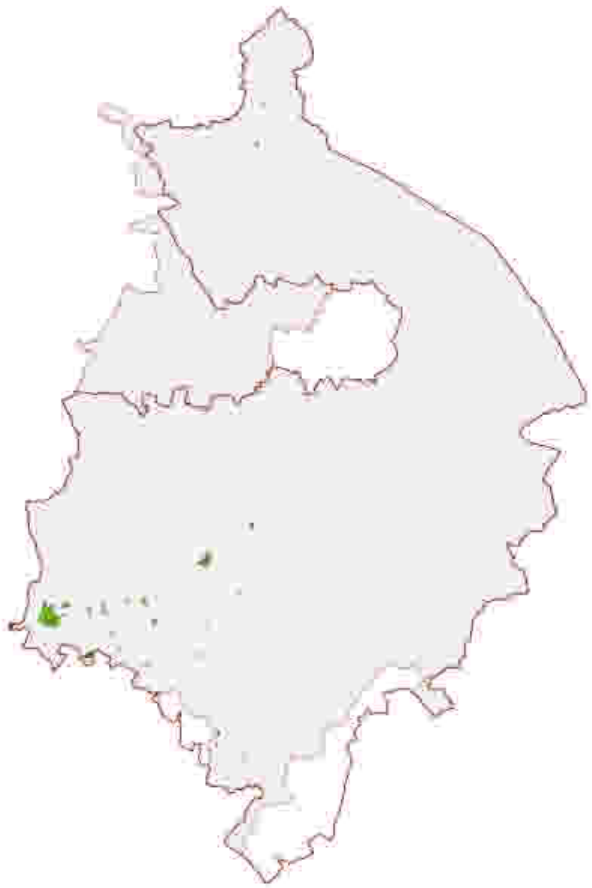
Research:

The history and development of early shopping precincts and retail areas should be further investigated.



Retail Park at Rugby

Orchards (103, 104)



Legend Colour:

Total Area: 415.63 ha (0.20%)

No of polygons: 35 (0.19%)

Average Polygon Size: 11.88 ha (Medium)

Occurrence: Very Rare

Snitterfield Fruit Farm, Stratford-on-Avon

Definition:

Orchards marked on Ordnance Survey mapping.

Sub-types:

Pre 1880s Orchard (103)

Orchards marked on the Ordnance Survey 1st edition mapping. These will generally date to post-medieval or 19th century in origin.

Post 1880s Orchard (104)

Orchards that are marked on modern Ordnance Survey mapping but absent from the 1st edition suggesting a more modern origin.

Description:

Orchards are not a prominent feature in Warwickshire. The majority of them are in the south west of the county in the area of the Avon Valley. A few very small orchards can be found in North Warwickshire. Some large modern post-1955 orchards exist up to 200 hectares in size, while some of the smaller ones have a longer history, with some being marked on the OS 1st edition. There is no doubt that the orchard industry has declined in Warwickshire since the 1880s with a 60% decline overall. The orchards in Warwickshire used to be much more widely spread across the south of the county with a definite concentration of larger orchards in the south west, similar to the distribution of present day orchards. There always has been a definite lack of orchards in the north and east of the county but a few smaller orchards were recorded in an area northwest of Rugby.

Period:

Medieval- late 20th century

Trajectory of Change (1880s – 1955):

Declining Slowly (-18%)

Trajectory of Change (1955 – 2001):

Declining Critically (-50%)

Reason for change (1880-2001):

The slight decline of orchards in the first half of the 20th century is related to the decline of the industry. This accelerated in the second half of the 20th century and now there are only a few commercial orchards left in the county.

Factors influencing further change:

The decline of this industry is related to increased competitiveness with foreign fruit producers. Orchards could increase again if the market conditions allowed; however it is unlikely. The restoration and reinstatement of orchards is permissible under Environmental Stewardship, but the effect of this has yet to be seen in Warwickshire.

Biodiversity Potential:

Medium-High - Orchards and especially older orchards attract a unique set of species not to mention the fruit trees and plants themselves. Traditional orchards are a UK BAP Priority habitat.

Archaeological Potential:

Medium - Older orchards may have the potential to preserve earlier remains from other more damaging land uses. The potential for archaeological remains for more modern orchards remains unknown; very few sites are associated with this type.

Management:

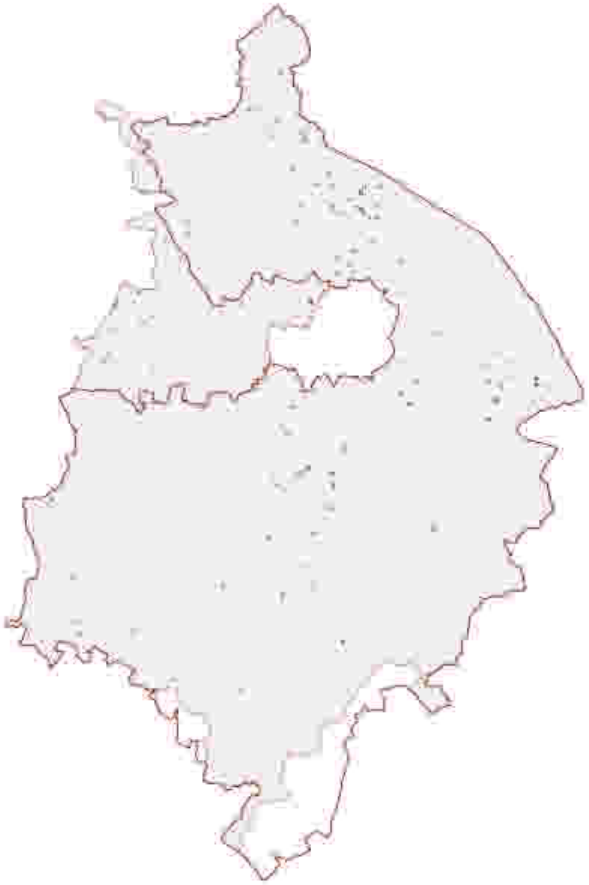
Maintenance of orchards and preservation of any known archaeological features.

Research:

More work is needed into the origins and development of orchards in Warwickshire. Smaller orchards associated with farmsteads and villages could be mapped and analysed.

Orchards at Dunnington, Stratford-on-Avon

Allotments (105, 106)



Legend Colour:

Total Area: 273.49 ha (0.13%)

No of polygons: 161 (0.87%)

Average Polygon Size: 1.70 ha (Small)

Occurrence: Very Rare

Milverton Allotments , Leamington Spa

Definition:

Allotments marked on Ordnance Survey mapping.

Sub-types:

Pre 1955 Allotment (105)

Allotments marked on the 1955 edition Ordnance Survey mapping. These will probably have been laid out prior to or during the Second World War.

Post 1955 Allotment (106)

Allotments marked on modern Ordnance Survey mapping but not on the 1955 edition.

Description:

Allotments tend to be fairly small but they are frequently found in and around the main urban areas of Warwickshire such as Stratford, Warwick, Leamington, Rugby, Nuneaton, Bedworth, Kenilworth and the urban areas of Solihull and Coventry. They have declined since the beginning of the 20th century where generally larger allotments were associated with the historic cores and developing towns. There was a definite expansion around the 1950s, probably as a result of the Second World War. Since then allotments have become smaller but just as numerous with some still being created after 1955. Some areas in Warwickshire outside of the main towns have been recorded with distinct formations of parallel tracks marked on the OS 1st edition onwards, and it may be that these were allotments also, although their position away from the main urban areas is intriguing. Allotments are marked on the OS 2nd and 1955 editions as well as modern OS maps but they do not appear on the OS 1st edition and this could have skewed the results somewhat.

Period:

19th - 20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (56%)

Trajectory of Change (1955 – 2001):

Declining Rapidly (-38%)

Reason for change (1880-2001):

In the first half of the 20th century allotments increased, partly due to the two world wars and partly due to them being more clearly mapped on later ordnance survey maps. There has been a rapid decline after 1955 but they are now gaining popularity once again.

Factors influencing further change:

Few new areas of allotments are being created even though demand is quite high in Warwickshire with long waiting lists for use of an allotment. Due to their location in and around settlements they are under threat from settlement expansion or private enclosure.

Biodiversity Potential:

High - Despite being intensively managed the wide variety of vegetable and fruit species combined with grass divisions, compost heaps and hedgerows give a high biodiversity value.

Archaeological Potential:

Low - Apart from the allotments themselves which are increasingly of historic interest the intensive ground use leaves few archaeological deposits intact. However many allotments are located close to medieval or deserted medieval settlements.

Management:

Managed by local authorities and allotment clubs and societies.

Research:

More work could be done to understand older pre-1880 allotments in Warwickshire.

Allotments at Chilvers Coton, Nuneaton and Bedworth

Nursery/Garden Centre (107)

Legend Colour:

Total Area: 480.59 ha (0.23%)

No of polygons: 102 (0.55%)

Average Polygon Size: 4.71 ha (Small)

Occurrence: Very Rare

Garden Centre at Packington, North Warwickshire

Definition:

Nurseries and garden centres identified from modern Ordnance Survey mapping.

Sub-types:

Nursery/Garden Centre

Description:

These generally small sites are found concentrated in certain areas in the county. Most are found in a central band from Solihull to Rugby running just south of Coventry. The second concentration is found downstream of Stratford. Finally, a small concentration of nurseries is found in North Warwickshire along the Anker from Nuneaton to Atherstone. A few others are distributed around the rest of the county with some notable sites such as the National Herb Centre (60 hectares in size). Some nurseries are recorded on the OS 1st edition and no longer exist; these were in Leamington, Warwick, Stratford, Kenilworth, Atherstone and Solihull. There has generally been a large increase in this type during the 20th century with this rise slowing towards the end of the 20th century.

Period:

20th century

Trajectory of Change (1880s – 1955):

Increasing Rapidly (1278%)

Trajectory of Change (1955 – 2001):

Increasing Slowly (16%)

Reason for change (1880-2001):

These appear to have grown in popularity at the beginning of the 20th century and this has continued at a slightly lesser pace in the later 20th century.

Factors influencing further change:

This type depends on the garden and nursery industry. Increasing competition from supermarkets and large DIY chain stores could reduce the amount of these in the landscape. These sites could be developed for other commercial activities or even housing.

Biodiversity Potential:

Low - medium - Most nurseries and garden centres are strictly controlled and do not have a very high potential; however; others grow a much wider variety of species attracting related wildlife.

Archaeological Potential:

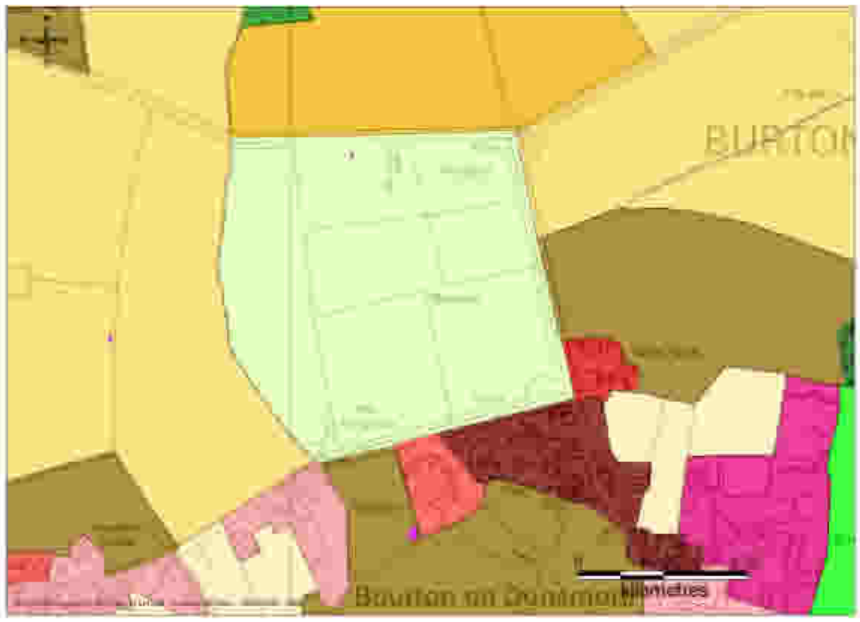
Low - By their nature these sites usually destroy most archaeological deposits. However, many sites are near to medieval or deserted medieval settlements and some are near prehistoric sites.

Management:

Managed by each individual nursery/garden centre.

Research:

The origins and early development of nurseries in Warwickshire is not well documented



Nursery at Bourton-on-Dunsmore, Rugby

Chapter 5 - Countywide Analysis

Introduction

The objective of this chapter is to consider how landscape characterisation has developed historically in Warwickshire, and how HLC can be used at a broad countywide level to analyse particular aspects and themes of the historic landscape including comparison with other data sets.

Firstly, previous characterisation work such as the Land Utilisation Survey of Britain, Historic Landscape analysis by Della Hooke, the National Character Areas, the Warwickshire Landscape Guidelines and other characterisation work is summarised and compared to the Warwickshire HLC.

Following this, other datasets are investigated to see how they can inform and be informed by the HLC.

Administrative boundaries in the county are also analysed using the HLC.

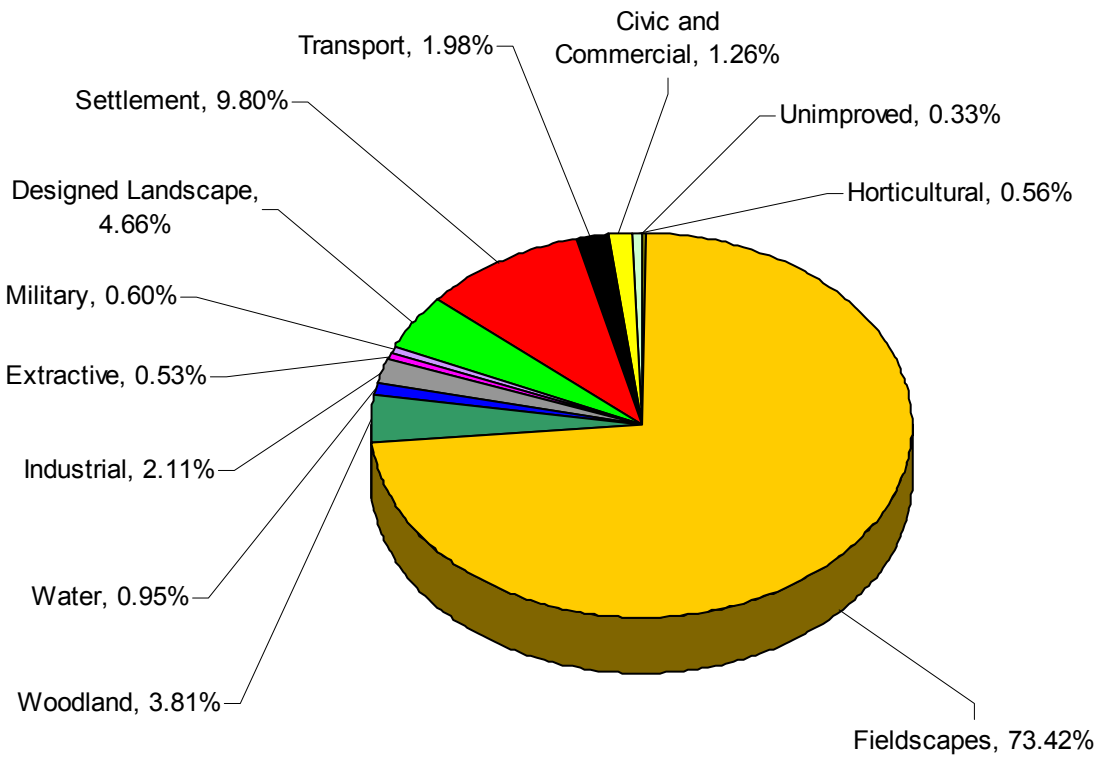
Finally, a thematic approach is taken by using HLC to understand the Historic Sporting Landscapes of Warwickshire.

For analysis of specific HLC Broad Types and HLC Types at a county-wide/project-wide level it is best to refer to the previous two chapters.

A summary of HLC Broad Types in the project area is shown below. This helps to gain a broad overview of the Historic Landscape Character of the county.

Table of HLC Broad Types in Warwickshire

HLC Broad Type	Total Area (ha)	Percentage of County
Unimproved	680.89	0.33%
Fieldscapes	153629.48	73.42%
Woodland	7982.15	3.81%
Water	1981.25	0.95%
Industrial	4405.92	2.11%
Extraction	1106.14	0.53%
Military	1258.05	0.60%
Designed Landscapes	9756.63	4.66%
Settlement	20500.78	9.80%
Transport	4148.89	1.98%
Civic and Commercial	2630.42	1.26%
Horticultural	1175.60	0.56%



HLC Broad Types in Warwickshire

HLC analysis compared to previous characterisation work

Land Utilisation Survey of Britain

Although not a characterisation study in itself, this survey and analysis of the landscape provided the first comprehensive classification of England into types, albeit land use types rather than character. The survey is a useful snapshot of the landscape and its use in the 1930s and possibly the first comprehensive analysis of the entire landscape.

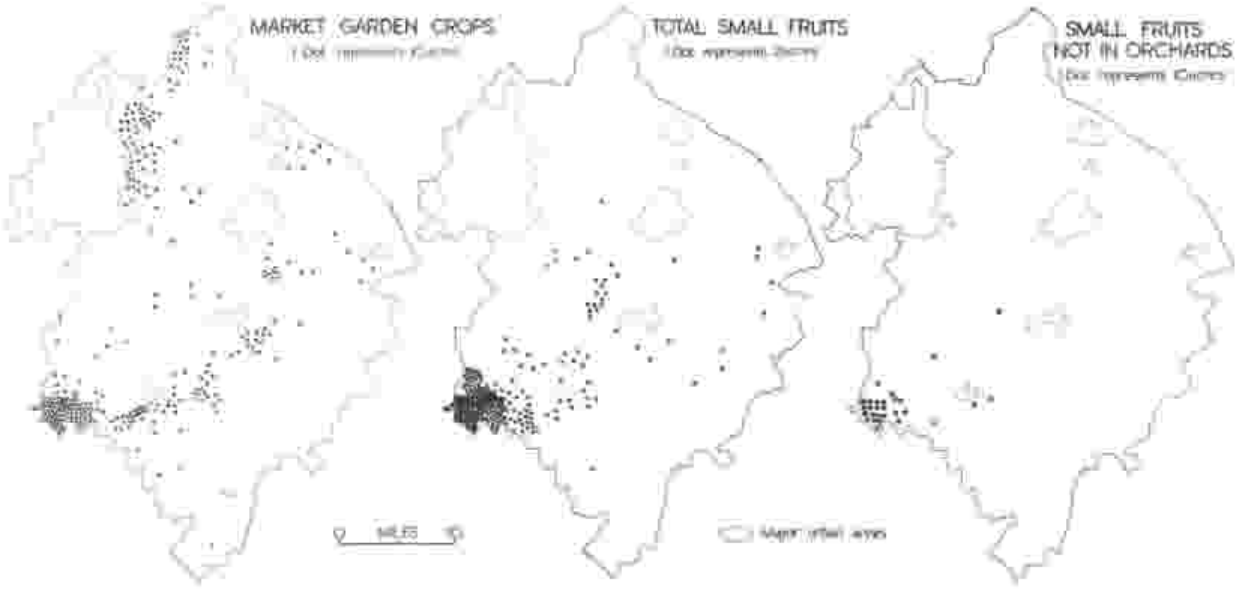
The maps are available to view at http://visionofbritain.org.uk

A report was produced in a number of parts each representing a county area. Warwickshire formed part 62 and included Birmingham, Coventry and Solihull. Although the survey work was carried out in 1931, delays in compiling the maps and preparing the report meant that Warwickshire was the last county to have the report published in 1946 after the Second World War.

The report provides a useful summary of the landscape of Warwickshire including relief, river systems, physical regions, geology, climate and soils. There is even a reference to the division into the areas of the Feldon, Arden and Avon Valley that have historically been used to describe Warwickshire.

In terms of land use, percentages of arable, permanent grass and rough grazing are given (20%, 77% and 2.4% respectively)

Market garden crops are also shown (see maps below), showing a pattern that is hard to deduce from the HLC data. Market gardening appears to be concentrated in the southwest of the county with some on the river Avon as far as Bubbenhall. A second smaller concentration is shown in North Warwickshire and appears to be mainly peas, cabbage and cauliflower (88%). Orchards only make up 3.4% of the study area and are mainly in the Salford Priors and Bidford-on-Avon area.



Market garden crops and Small Fruits in Warwickshire, taken from the Land Utilisation Survey of Britain (McPherson, 1946)

The rough grazing identified in the county matches those areas of common identified in the HLC such as at Baddesley and Baxterley, Yarningale Common and areas in Solihull.

A summary of woodland change between 1895 and 1924 is given in the report which shows that woodland declined by 10% in that period, from 3.3% to 3% of the total area. The HLC shows that between 1880-1955 woodland declined by 52%, agreeing with this decline but showing a much more accelerated rate.

The lack of woodland in the south east of the county is also noted and matches the HLC, with more woodland shown in the traditional Arden area in the north and west of the county.

The report mentions that some analysis of tithe maps was carried out in Warwickshire and shows that all the larger woods and most of the smaller ones were already in existence in 1846. Greenwood's map of 1822 does go some-way to support this but in the 20th century there was an increase in the number of plantations and this statement by the Land Utilisation survey may be misleading.

Industrial areas are mentioned and show that at the time (1931) the main industrial centres were around Rugby, Leamington, Stratford and Coventry.

Coal mining is also mentioned along with quarrying in the Hartshill Quartzite ridge between Nuneaton and Hartshill and lime and cement works at Bishops Itchington, Stockton and west of Rugby.

The rapid expansion of settlements between 1841 and 1931 is noted especially the 'doubling in size of Birmingham every 30 years'. Most large towns and their changes in the last 100 years are noted. The differences in general settlement pattern across the county are also noted, with nucleated villages in the south and east of Warwickshire and scattered smaller settlement and farmsteads in the north and west. More specific types of settlement, such as hilltop villages, ridge-way settlements, villages on border zones and valley villages are noted. This is very much an historic geographer's approach which ties in the village locations much more to geology and landform. This approach could benefit any further settlement analysis by HLC or perhaps the future EUS project that is proposed for Warwickshire.

Land Use Regions are mapped and described in the report and are in a similar vein to broad Historic Landscape Zones or Areas and perhaps these could be used in a future enhancement project with the HLC. The Land Use Regions identified, however, are very much based on physical, geological and agricultural land uses rather than relating more directly to historic landscapes.

Major Land Use Regions in Warwickshire identified in the Land Utilisation Survey of Britain (McPherson, 1946)

The report concludes by showing how land use in Warwickshire is very much related to geological, physical, historical, economic and human geography.

A warning is given on the continued expansion of the main urban areas especially around Birmingham, which could affect valuable agricultural land. Emphasis is put on the decline of arable land in Warwickshire between 1841 and 1941 so that by 1931 Warwickshire had one of the highest proportions of grassland in England. Reference is also made to the wartime mechanisation of farming and the more intensive land use. The tone of the time though was that this increasing mechanisation and agricultural intensification could only be a good thing upon which a “prosperous agricultural community can be built and maintained.”

Conclusion

This survey and report is a very useful insight into land use and a perspective on the landscape of Warwickshire in the 1930s-40s, with some valuable references to the development of aspects of the landscape such as woodland and settlement between 1841 and 1941. It is not characterisation as we know it but it is a useful historic landscape study that is perhaps underused throughout the country especially in HLC or Landscape Character work.

Early Historic Landscape Character Work

The next example of characterisation in Warwickshire, and one that had a much firmer focus on the historic landscape, is Della Hooke's work on Shakespeare's Countryside (Holliday et al, 1988). This booklet dealt with many historic landscape issues and included a map showing an early form of HLC with different historic landscape types such as settlement, woodland, deer parks, and distinct field types.

Further work was carried out in the late 1980s for the Warwickshire Landscape Project whose main products the Warwickshire Landscape Guidelines are analysed further below. A separate publication entitled Warwickshire's Historical Landscape – Arden (Hooke, 1993) was directly aimed at understanding historic landscapes and their development in this part of Warwickshire. A map was also included with an even more detailed attempt at characterising the historic landscape including commons and distinct field patterns (small irregular, medium sized and large geometric fields). This booklet was produced in 1993 with the aim of further booklets and maps to make up the whole county. However this appears to be the only one that was ever published, although the background research and work for others in the series appears to have been undertaken.

Further more detailed work has been done by Della Hooke recording historic landscape features across the county including, where possible, medieval landscape features. This information could be compared with the HLC and possibly used to update the description of HLC Sub-Types. A future enhancement project for the HLC could analyse these maps in detail, possibly scan them in and use them with other sources to update the HLC dataset.

Warwickshire Landscape Guidelines (WLG)

The Warwickshire Landscape Guidelines were the end products of The Warwickshire Landscape Project undertaken for Warwickshire County Council by Steven Warnock in 1987 and designed to offer advice on maintaining the diversity and beauty of the landscape and to ensure that it was conserved for the future.

A booklet covering the Arden area with maps and advice was published in 1990. Two other booklets followed in 1993 covering the rest of the county split into the Dunsmore, High Cross Plateau and Mease Lowland areas and the Avon Valley, Feldon and Cotswolds areas. The Arden booklet was also republished at this time to make a matching set of three guidelines booklets.

This project was the ancestor of the now nationally established procedures for Landscape Character Assessment and the layout of that Assessment followed by its Strategies and Guidelines is a familiar one

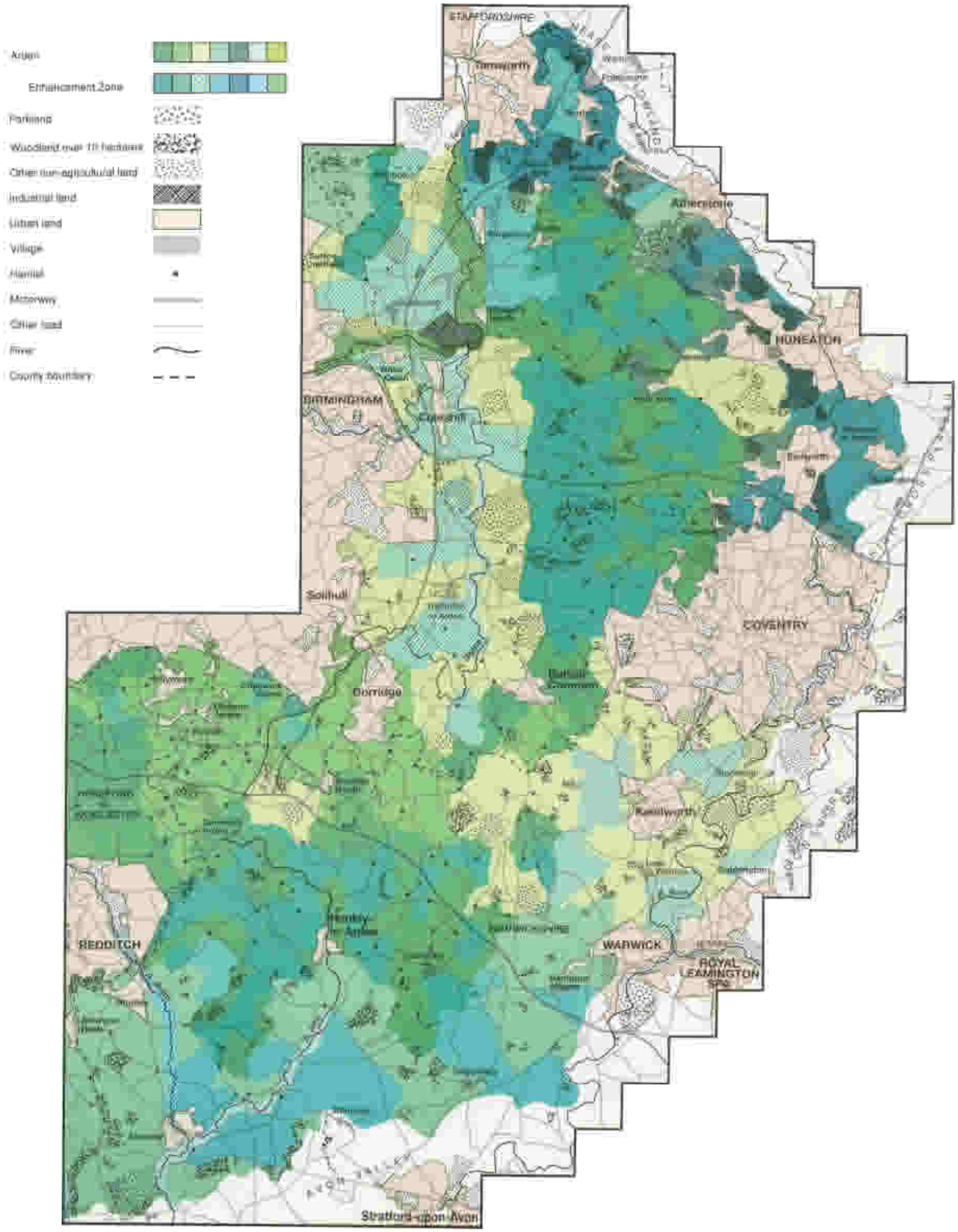
The booklets and their maps are available online at:

http://www.warwickshire.gov.uk/web/corporate/pages.nsf/Links/3540D83DEF277C69802573FD0056C908

Analysis was carried out comparing the mapped landscape character areas and their text description with the HLC material for those areas. Particular attention was paid to the human influences (historic environment) sections.

In general the HLC data goes a long way to supporting the key characteristics and descriptions of the areas identified in the Warwickshire Landscape Guidelines. There are some discrepancies highlighted below although these are mainly within the text and rarely with the mapped character areas. In fact the maps are very accurate and complement the HLC mapping well. It is recommended that they are digitised into a vector GIS layer as soon as possible. At present only raster images exist of the maps from the publications and this limits their wider use.

Arden:



Warwickshire Landscape Guidelines Map of the Arden Area.

The Arden area is split into 7 distinct areas:

- **Arden River Valleys:**
- **River Valley Wetlands**
- **Industrial Arden:**
- **Arden Parklands:**
- **Wooded Estate lands**
- **Ancient Arden**
- **Arden Pastures**

For each of these the characteristic features were compared to the HLC material for the same area

Arden River Valleys:

This area consists of the floodplains of the main river valleys (Blithe, Arrow, Alne and Cole)

HLC agrees with the characteristic features but there is very little information in the text about the historic landscape of this area.

River Valley Wetlands

This largely forms the Tame Valley wetland area.

HLC generally agrees with the characteristic features of this area.

There is a lot of industrial and extractive activity in this area and the wetlands have predominantly been formed from gravel extraction sites.

Industrial Arden:

The HLC only partially agrees with some of the characteristics for this area.

The landscape is a varied landscape of urban, industrial, coal mining, hard rock extraction, old common and heath.

The field pattern unfortunately is not identified in the guidelines for this area and despite the varied landscape it still retains a substantial portion of enclosed land.

Arden Parklands:

In general the HLC agrees with the characteristics identified for this area including the enclosure pattern, prominence of golf courses and the remnant deer parks of Stoneleigh and Packington.

However, most of the Solihull area is classified as Arden Parklands in the guidelines, although the historic landscape character points more to Ancient Arden or Arden pasture.

Wooded Estate Lands

HLC generally agrees with the characteristic features for this area.

However, the Middleton area in the north and the Merevale area appears to have a character closer to Arden Parklands rather than Wooded Estate Lands

The characterisation of Merevale as a Wooded Estate seems to be fair but it could equally be categorised as Arden parkland.

Ancient Arden

In general the HLC data agrees with the characteristics and area mapped, apart from the disconnected patch of Ancient Arden just west of Kenilworth.

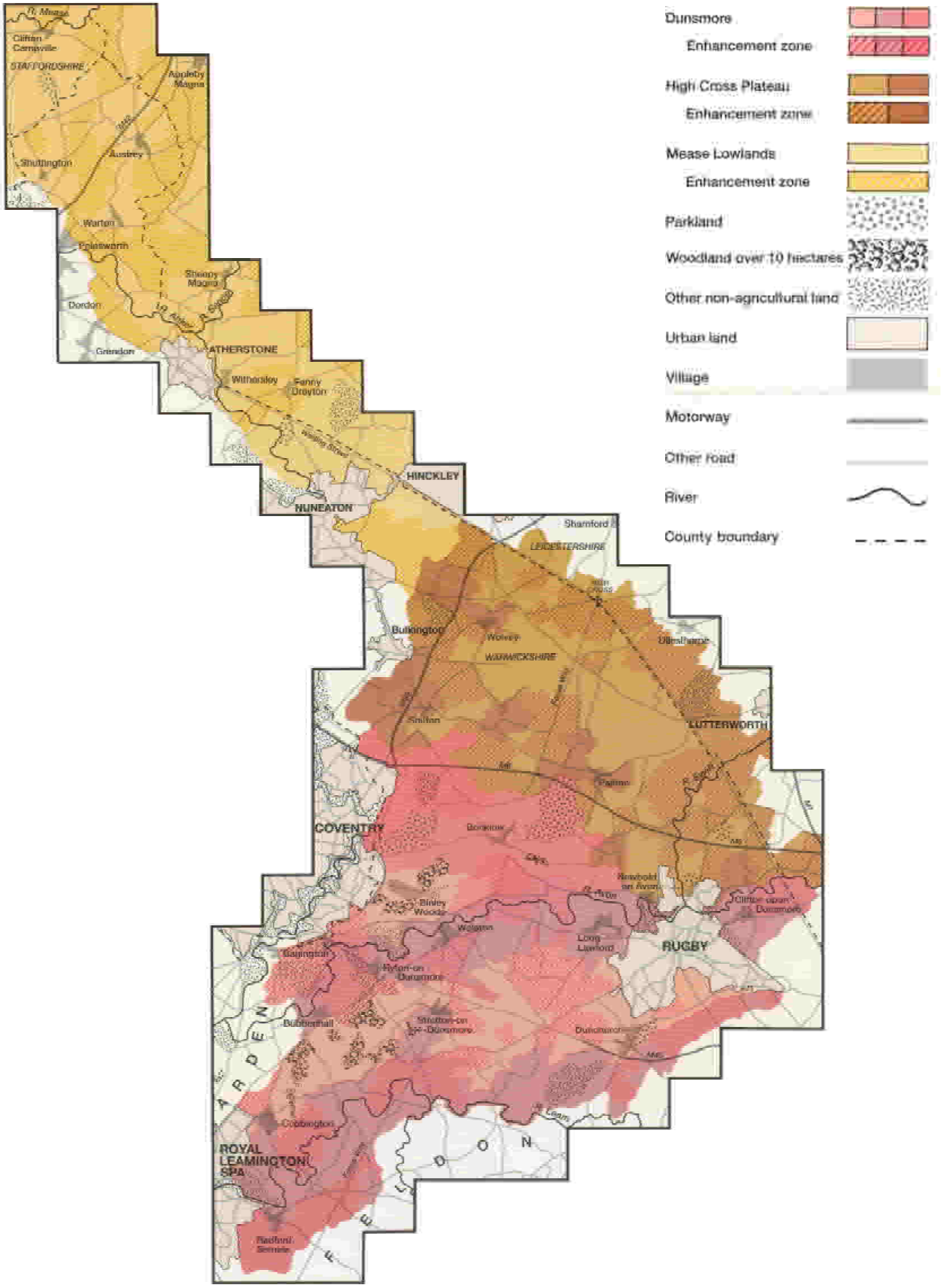
The southern section in particular matches an area of piecemeal enclosure identified from the HLC very closely.

However, there is less agreement with the northern section. It is felt from the HLC data that this has a different character with the field pattern in particular being very different, being formed mostly of irregular fields, with large amounts of post-war fields and more regular planned enclosure.

Arden Pastures

HLC generally agrees with the characteristic features and text for this area.

Dunsmore, High Cross Plateau and Mease Lowlands:



Warwickshire Landscape Guidelines Map of Dunsmore, High Cross Plateau and Mease Lowlands

Dunsmore is split into the following areas:

- Plateau farmlands
- Plateau Fringe
- Dunsmore Parklands

Plateau farmlands

HLC generally agrees with the characteristic features for this area.

One discrepancy, picked up by the HLC, is the large areas of sand and gravel extraction at Ling Hall and Bubbenhall impacting on the landscape although this is because this extraction work only really started after the Landscape Guidelines were published.

Plateau Fringe

HLC generally agrees with the characteristic features for this area.

The landscape has a very mixed character with poorly defined field patterns but more irregular and piecemeal than planned enclosure. Small nucleated villages form at the edge of the plateaux and the Rivers Avon and Leam influence this area strongly.

Dunsmore Parklands

HLC generally agrees with the characteristic features for this area.

However, only one park (Coombe Abbey) is still present in the area; the other, (Newbold Revel Park) is a relict park, as the fields are predominantly under agriculture.

High Cross Plateau:

- Open Plateau
- Village Farmlands

Open Plateau

HLC generally agrees with the characteristic features and text for this area.

The area has a large number of more recently created very large post war fields and consequently a very fragmented field pattern. Deserted villages are also a feature of this area

Village Farmlands

HLC generally agrees with the characteristic features for this area.

These areas form the main concentrations of piecemeal or irregular enclosure in this area with small nucleated villages.

Mease Lowlands:

- Estate Farmlands

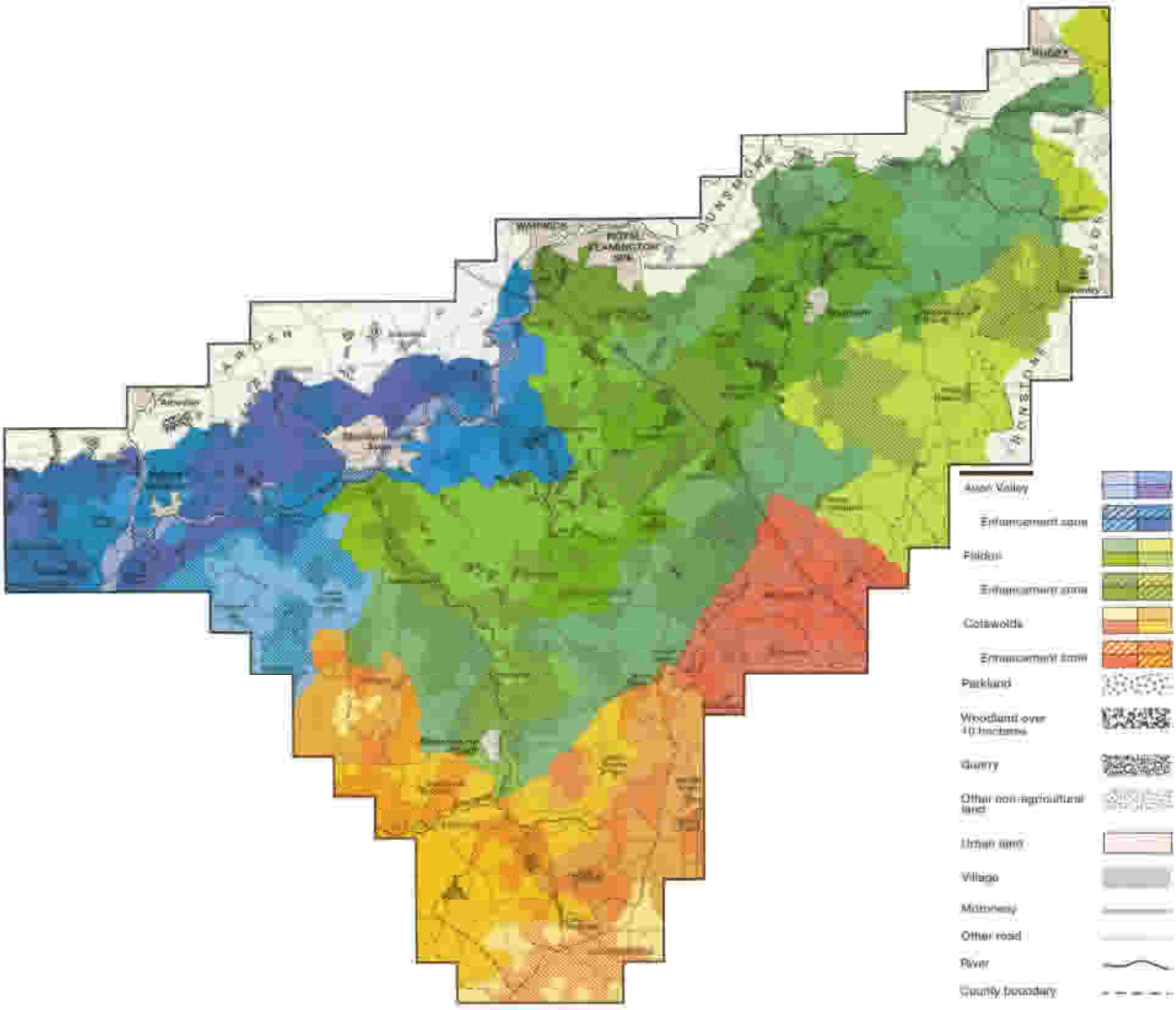
Estate Farmlands

HLC does not support all the characteristics identified for this area.

The field pattern is much more mixed, rather than the later planned enclosure described in the guidelines, although the small coverts are indeed a characteristic feature.

The settlement pattern is small nucleated villages among arable fields and so generally agrees with the Landscape Guidelines. There is also some parkland, although not as much as in other areas.

Avon Valley, Feldon and Cotswolds



Warwickshire Landscape Guidelines Map of the Avon Valley, Feldon and Cotswolds areas.

Avon Valley

- River Meadowlands
- Terrace Farmlands
- Vale Farmlands
- Vale Orchard Belt

River Meadowlands

HLC generally agrees with the characteristic features and text for this area.

This area essentially consists of the floodplains of the main rivers including the rivers themselves.

Terrace Farmlands

HLC does not support all the characteristics or text for this area.

The field pattern is more mixed rather than the purely 'geometric' field pattern indicated by the Landscape Guidelines.

Vale Farmlands

HLC generally agrees with the characteristic features and text for this area, but more information could have been included about the historic landscape.

Vale Orchard Belt

HLC generally agrees with the characteristic features and text for this area.

Feldon

- Ironstone Fringe
- Vale Farmlands
- Lias Village Farmlands
- Feldon Parklands

Ironstone Fringe

HLC generally agrees with the characteristic features for this area.

Although the text mentions 'Tudor enclosure' the HLC points more to later planned enclosure.

Vale Farmlands

The characteristics defined do not completely describe the character of this area effectively.

There is much more of a mix of field types with substantial amounts of planned, piecemeal and of very large post war fields.

There is also no mention of the huge impact of Defence Munitions Kineton on the landscape character of the area.

Lias Village Farmlands

HLC generally agrees with the characteristic features for this area.

However the field pattern appears to be more mixed rather than the small or medium sized fields noted in the Landscape Guidelines.

Feldon Parklands

HLC generally agrees with the characteristic features for this area.

There are a number of large estates with designed parks and this area is the most wooded area in Feldon.

Cotswolds (only part of the following two types are in the HLC area, the other two types are not covered by the present HLC project)

- Plateau Redlands and Edge Hill
- Cotswold Fringe

Plateau Redlands and Edge Hill

HLC generally agrees with the characteristic features for this area.

Cotswold Fringe

HLC generally agrees with the characteristic features for this area.

The fieldscape is largely regular planned enclosure with some patches of woodland and parks and very small villages.

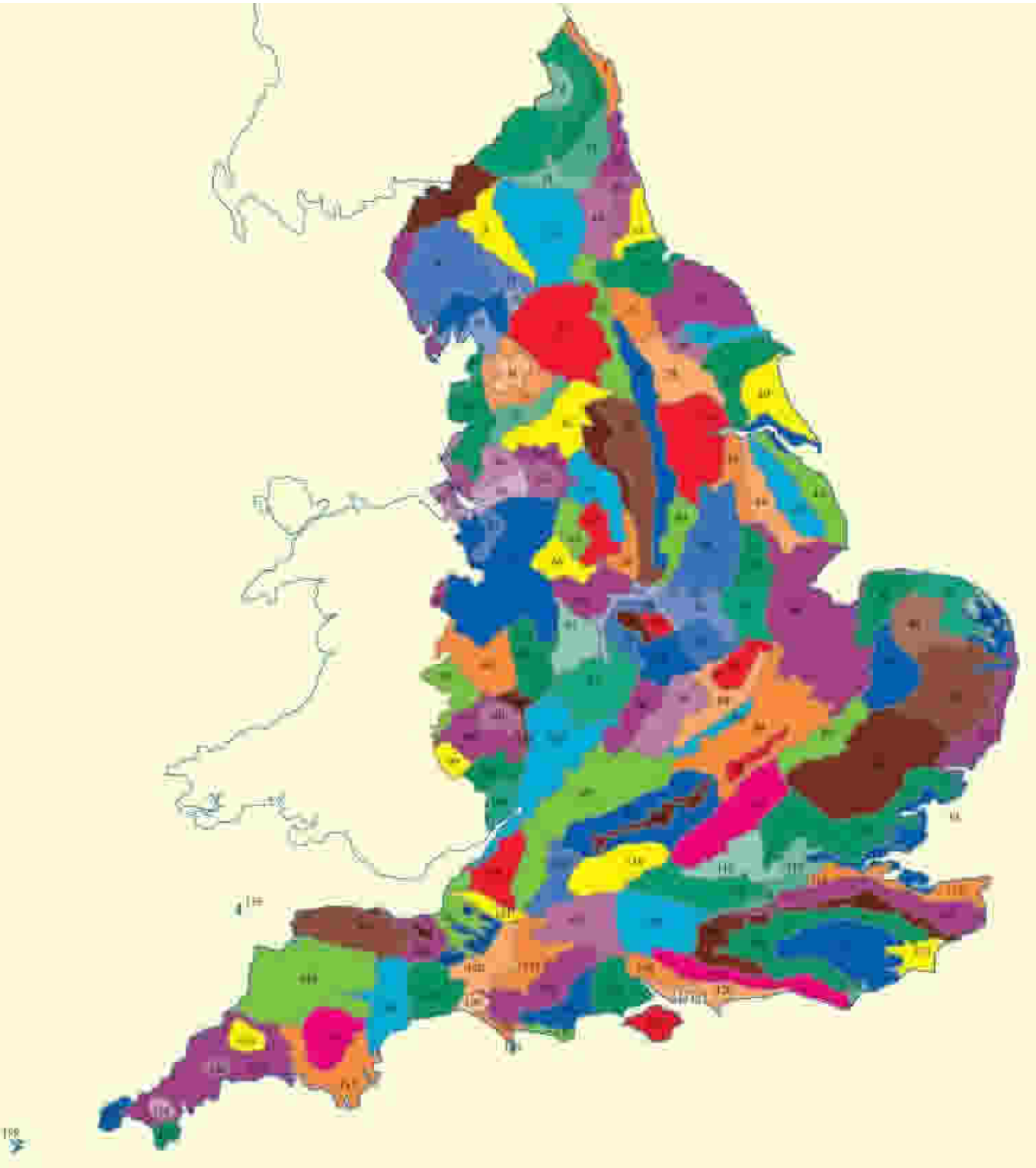
Conclusion

The Warwickshire Landscape Guidelines is a very useful piece of work that goes a long way to describing the character of the landscape in Warwickshire along with management recommendations. Despite the absence of HLC information, many of the distinctive elements of historic landscape character have been recognised and recorded. The management recommendations from the guidelines may need updating, although they appear to be generally as relevant today to modern landscape issues as they were previously.

One of the key tasks that could take place to ensure the survival of landscape characterisation in Warwickshire is to carry out an up-to-date Landscape Character Assessment using the Landscape Guidelines as a solid base and taking account of new information and sources such as the HLC and the Habitat Diversity Audit. This would ensure a continuity of use by local planning authorities who may consider the Landscape Guidelines as dated now that the project is over 20 years old and the published reports over 15 years old.

National Character Areas (NCAs)

These were previously called Joint Character Areas (JCAs) and are character areas representing the character of England's landscape, wildlife and cultural features at a national level. They were developed by the former Countryside Commission in 1996 (with input from English Nature and English Heritage) and updated in 2005 by Natural England with support from English Heritage.



Map of the National Character Areas in England

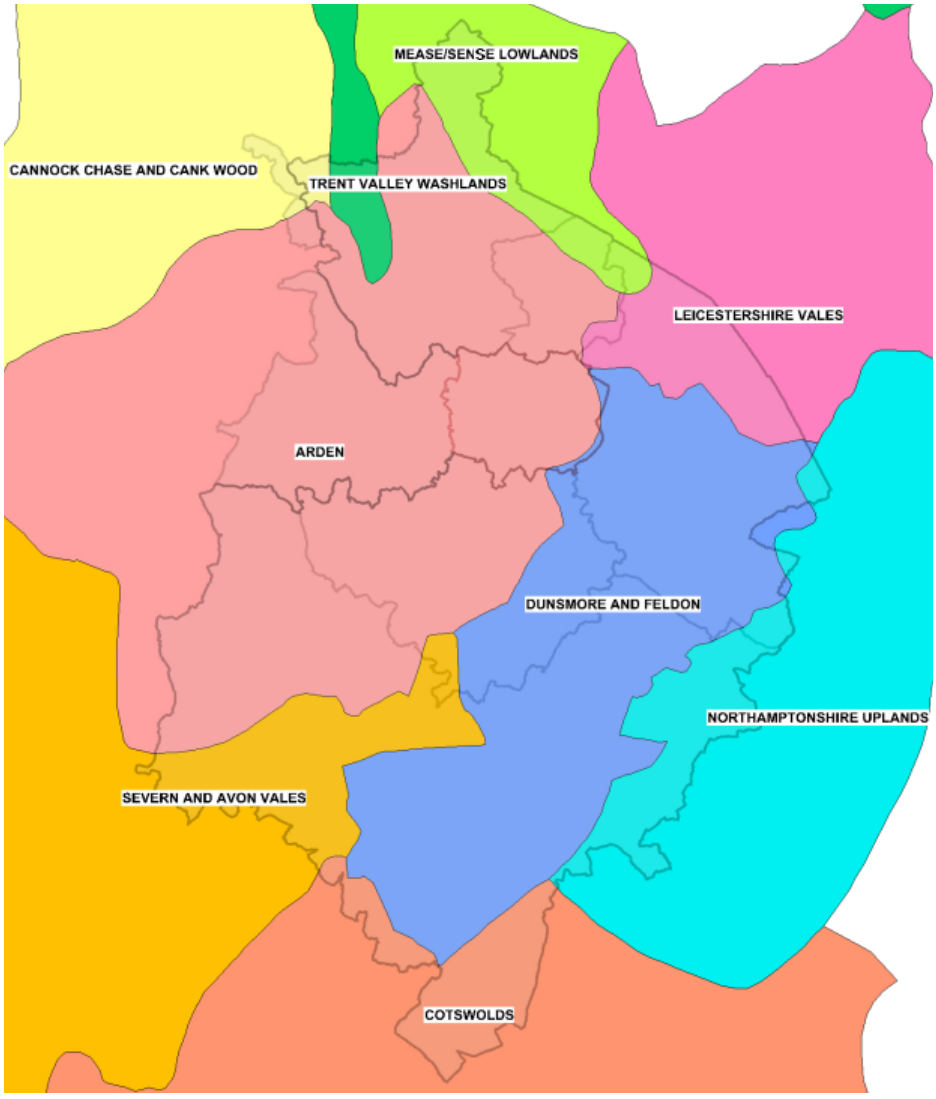
A set of eight regional volumes were published describing the 159 NCAs. These character descriptions of each NCA highlight the influences which determine the character of the landscape, for example land cover, buildings and settlement; they can be downloaded from the Natural England website:

(http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/default.aspx)

The NCAs are a widely recognised national spatial framework, used for a range of applications. Examples include the targeting of Natural England's Environmental Stewardship scheme and the Countryside Quality Counts project.

Nine NCAs fall within the Warwickshire HLC project area. These are:

- Area 67: Cannock Chase and Cank Wood
- Area 69:Trent Valley Washlands
- Area 72: Mease/Sense Lowlands
- Area 89 + 94: Northamptonshire and Leicestershire Vales
- Area 95: Northamptonshire Uplands
- Area 96: Dunsmore and Feldon
- Area 97: Arden
- Area 106: Severn and Avon Vales
- Area 107: Cotswold's



Map of National Character Areas in Warwickshire

Of these areas 96 (Dunsmore and Feldon) and 97 (Arden) cover most of Warwickshire with the other NCAs only partly falling within the county and mainly lying in neighbouring areas.

Each of the NCAs for Warwickshire has been analysed briefly in terms of its key descriptions and the area it covers compared to the Warwickshire HLC material. For the Dunsmore and Feldon and Arden areas these have been analysed in more detail.

Below are the Key Characteristics from each NCA description with an analysis of how the HLC data compares to each NCA.

67. Cannock Chase and Cank Wood

The key characteristics of Cannock Chase and Cank Wood NCA are:

- Very varied landscape with a range of industrial, residential, agricultural and recreational land uses.
- Strongly contrasting settlement pattern with some areas densely populated, others unpopulated and 'wild'. Rounded central plateau, dominated by heathland and coniferous woodland.
- Sprawling coal mining settlements.
- Reclaimed and active open-cast coal sites and spoil tips from abandoned deep mines.
- Strong rectilinear pattern of parliamentary enclosure in some areas.
- Black Country with a mosaic of urban areas, former industrial land and patches of farmland.
- Extensive urban fringe.
- Open arable areas with low hedges.
- Areas of small hedged fields, scattered farmsteads and small holdings. Historic parks.
- Red-brick buildings
- Industrial archaeological features.

HLC Analysis and Comments:

There is very little of this NCA in the county and it does not really have a significant impact on the character of the county, however the HLC could perhaps add more information to define this area better.

69. Trent Valley Washlands

The key characteristics of the Trent Valley Washlands are:

- Flat broad valleys, contained by gentle side slopes, with wide rivers slowly flowing between alluvial terraces.
- Constant presence of urban development, mostly on valley sides, in places sprawling across the valley and transport corridors following the valley route.

- Contrasts of secluded pastoral areas, with good hedgerow structure, and open arable with low hedges.
- Strong influence of riparian vegetation, where rivers are defined by lines of willow pollards and poplars.
- Open character punctuated by massive cooling towers of power stations and strongly influenced by pylons, sand and gravel extraction, and roads.

HLC analysis and Comments:

Broadly the HLC agrees with the key characteristics of this NCA where it is found in Warwickshire. In particular sand and gravel extraction has indeed had an impact on the landscape and results in water filled pits along the Tame Valley. With reference to the power stations mentioned above there was also one in this area in Warwickshire at Hams Hall; this was one of the largest of its time in the country but has subsequently been replaced with a large distribution park and industrial estate.

72. Mease/Sense Lowlands

The key characteristics of the Mease/Sense Lowlands are:

- Gently-rolling landform of low rounded hills and valleys.
- Flat land along river valleys**.**
- Extensive, very open areas of arable cultivation.
- Strongly rectilinear hedge pattern of late enclosure, often dominating an open landscape.
- Tree cover confined to copses, spinneys, intermittent hedgerow trees and parks.
- Scattered large parks with imposing mansions
- Small red-brick villages, often on hilltop sites and with prominent church spires.
- Ridge and furrow and deserted settlements. Isolated 19th century farmsteads.

HLC analysis and Comments:

Broadly the HLC agrees with these key characteristics and with the boundary of this area; however, in terms of fieldscapes it is much more a mix of planned, piecemeal and very large fields, rather than very large open areas of later rectilinear enclosure.

The description of the settlement pattern for this NCA does not fit very well with the larger settlements in this part of Warwickshire such as Atherstone. Furthermore, ridge and furrow and deserted medieval settlements are not a dominant character of this NCA in Warwickshire.

The south-western edge of this NCA appears to be the geological formation of hard stone that has and continues to be extensively quarried in Warwickshire.

89+94. Northamptonshire and Leicestershire Vales

The key characteristics of the Northamptonshire and Leicestershire Vales are:

- Gentle clay ridges and valleys with little woodland and strong patterns of Tudor and parliamentary enclosure
- Distinctive river valleys of Soar, Welland and Nene with flat floodplains and gravel terraces.
- Large towns of Leicester and Northampton dominate much of the landscape.
- Frequent small towns and large villages, often characterised by red brick buildings.
- Prominent parks and country houses.
- Frequent imposing, spired churches.
- Attractive stone buildings in older village centres and eastern towns and villages.
- Great diversity of landscape and settlement pattern with many sub units, e.g. Nene Valley and Welland Valley.

HLC analysis and Comments:

Generally the HLC agrees with these key characteristics but it is felt that this area has a much more mixed character when compared to some other NCAs. Most of this NCA falls within Northamptonshire and Leicestershire and the characteristics do not appear to be very relevant to the Warwickshire landscape, however some characteristics like prominent parks and country houses and the lack of woodland are supported by the HLC.

95. Northamptonshire Uplands

The key characteristics of the Northamptonshire Uplands are:

- Rounded, undulating hills with many long, low ridgelines.
- Abundant and prominent ridge and furrow with frequent deserted and shrunken settlements.
- Sparse settlement of nucleated villages on hilltops or valley heads.
- Mixed farming: open arable contrasts with pasture enclosed by good hedges with frequent hedgerow trees.
- Wide views from the edges and across the ridgetops.
- Straight, wide, enclosure roads, often following ridges.
- Little woodland, but prominent coverts on higher ground.
- Ironstone and limestone older buildings with a transition across the area. Brick buildings in some villages.
- Great variety of landform with distinctive local features like Hemplow Hills.
- Large and nationally-important historic parks.

HLC analysis and Comments:

The HLC agrees very strongly with the key characteristics for this NCA as well as the borders and limits that define it.

96. Dunsmore and Feldon

This description comprises two sub-character areas: Dunsmore and Feldon.

Key Characteristics of the NCA

Dunsmore:

- Farmland with large geometric fields divided by straight hedges with many hedgerow trees.
- Generally well-wooded appearance but also extensive open arable farmland.
- Heathland character still evident in woodland clearings and roadsides.
- Plateau landscape of open, flat, rather empty character, with long views.
- Plateau fringes more enclosed, with rolling landform and woodland more dominant.
- Large ancient woodlands of high nature-conservation value in the west.
- Strong urban influence in some areas.

Feldon:

- Gently undulating landscape of low hilltops and clay vales.
- Large, open, regular or rectilinear fields with few woodlands.
- Abundant pasture, often with ridge and furrow.
- Strong contrast with the more wooded, complex landscape of neighbouring Arden.
- Small, nucleated villages with buildings in red brick, often with decorative ironstone edging, or in Lias limestone.
- Narrow river valleys.
- Several subdivisions including the smaller-scale, more wooded landscape to the west, with parks and large estates.

HLC analysis and Comments:

Although the HLC correlates strongly with the broad description and characteristics of this NCA it is felt that there are actually three distinct areas here; The Dunsmore plateau, the upper Feldon (in the south towards the Cotswolds) and the lower Feldon (to the north towards Dunsmore). However the description of this NCA especially in terms of the historic landscape character is still very good. Below are the key characteristics picked up by the HLC relating to the previously identified three areas.

Upper Feldon:

- Dominated by planned enclosure and rectilinear fields with straight boundaries. There is a moderate amount of piecemeal enclosure in patches throughout the area and a small amount of post-war very large fields.
- Large designed landscapes with country houses in this area such as Ettington, Compton Verney and Walton.
- The military base of DM Kineton has had a large landscape impact and affects the character of the area.
- Some industry in the area with Gaydon Motor Test Track and facilities dominating.
- Small amounts of woodland with some larger patches to the west.
- Small nucleated villages with medieval origin and isolated farms most pre 1880s.
- Large areas of ridge and furrow.

Lower Feldon

- Much more of a riverine landscape than the upper Feldon with the rivers Leam and Avon dominating.
- More piecemeal enclosure, less planned and generally more very-large post war fields.
- More patches of larger woodland.
- Transport corridors taking advantage of the lower landscape such as motorways, canals and railways.
- Warwick and Leamington are the dominating settlements, with other smaller towns and large nucleated villages.
- Large areas of ridge and furrow

Dunsmore

- Mostly irregular fields with some piecemeal, quite a lot of very large post-war fields and a few small patches of planned enclosure.
- Large patches of woodland mostly in the west of this area.
- Some large designed landscapes with country houses.
- Some extractive industry and other industrial sites mostly in and around Rugby
- Settlement dominated by Rugby with small villages scattered throughout the rest of the area.

97. Arden

The key characteristics of the Arden countryside are:

- Well-wooded farmland landscape with rolling landform.
- Ancient landscape pattern of small fields, winding lanes and dispersed, isolated hamlets.
- Contrasting patterns of well-hedged, irregular fields and small woodlands interspersed with larger semi-regular fields on former deer parks and estates, and a geometric pattern on former commons.
- Numerous areas of former wood-pasture with large, old, oak trees, often associated with heathland remnants.
- Narrow, meandering river valleys with long river meadows.
- North-eastern industrial area based around former Warwickshire coalfield, with distinctive colliery settlements.
- North-western area dominated by urban development and associated urban edge landscapes.

HLC analysis and Comments:

This large area could be subdivided into different parts but in general the NCA description is very good and reinforced by the Warwickshire HLC.

However, it is worth mentioning that deer parks were once a common feature of this area and that it still contains a large amount of designed landscapes relating to historic country houses and more modern recreation facilities such as golf courses.

The other key character of the area in the very north of the Arden is the Warwickshire Coalfield, which has shaped the landscape and its use and exploitation greatly in the North Warwickshire and Nuneaton and Bedworth area.

106. Severn and Avon Vales

The key characteristics of the Severn and Avon Vales are:

- Diverse range of flat and gently undulating landscapes, united by broad river valley character.
- Riverside landscapes with little woodland, often very open. Variety of land uses from small pasture fields and commons in the west to intensive agriculture in the east.
- Distinct and contrasting vales: Evesham, Berkeley, Gloucester, Leadon, Avon.
- Many ancient market towns and large villages along the rivers.
- Nucleated villages with timber frame and brick buildings.
- Prominent views of hills - such as the Cotswolds, Bredon and the Malverns - at the edges of the character area.

HLC analysis and Comments:

The HLC agrees very strongly with the key characteristics for this NCA.

The more descriptive text (not shown) refers to orchards which make up part of the distinctive character of this area in Warwickshire.

The NCA description also picks up the diversity in the different vales of Evesham, Berkeley, Gloucester, Leadon and Avon and the HLC would support this in terms of the Avon valley landscape. Perhaps there should be a NCA for each vale and it may be worth considering extending the NCA area to include the Avon valley up to Rugby.

107. Cotswolds

The key characteristics of the Cotswolds are:

- Defined by its underlying geology: a dramatic scarp rising above adjacent lowlands with steep coombes, scarp foot villages and beech woodlands.
- Rolling, open, high wold plateaux moulded by physical and human influences, with arable and large blocks of woodland, divided up by small, narrow valleys.
- Incised landscapes with deep wide valleys.
- Flat, open dip slope landscape with extensive arable farmland.
- Prominent outliers within the lowlands.
- Honey-coloured Cotswold stone in walls, houses and churches.
- Attractive stone villages with a unity of design and materials.

HLC analysis and Comments:

Most of this NCA falls within the Cotswolds AONB in Warwickshire and this area has not been part of the Warwickshire HLC project. The small areas in Warwickshire that are covered mainly consist of planned enclosure with small isolated pre-1880s farms.

Conclusion about NCAs

Some of the text and historic/cultural section is very well assessed and holds true with the historic landscape character but in other areas HLC could have an influence in more accurately describing the landscape character and add significantly to the Historic section of the NCA descriptions.

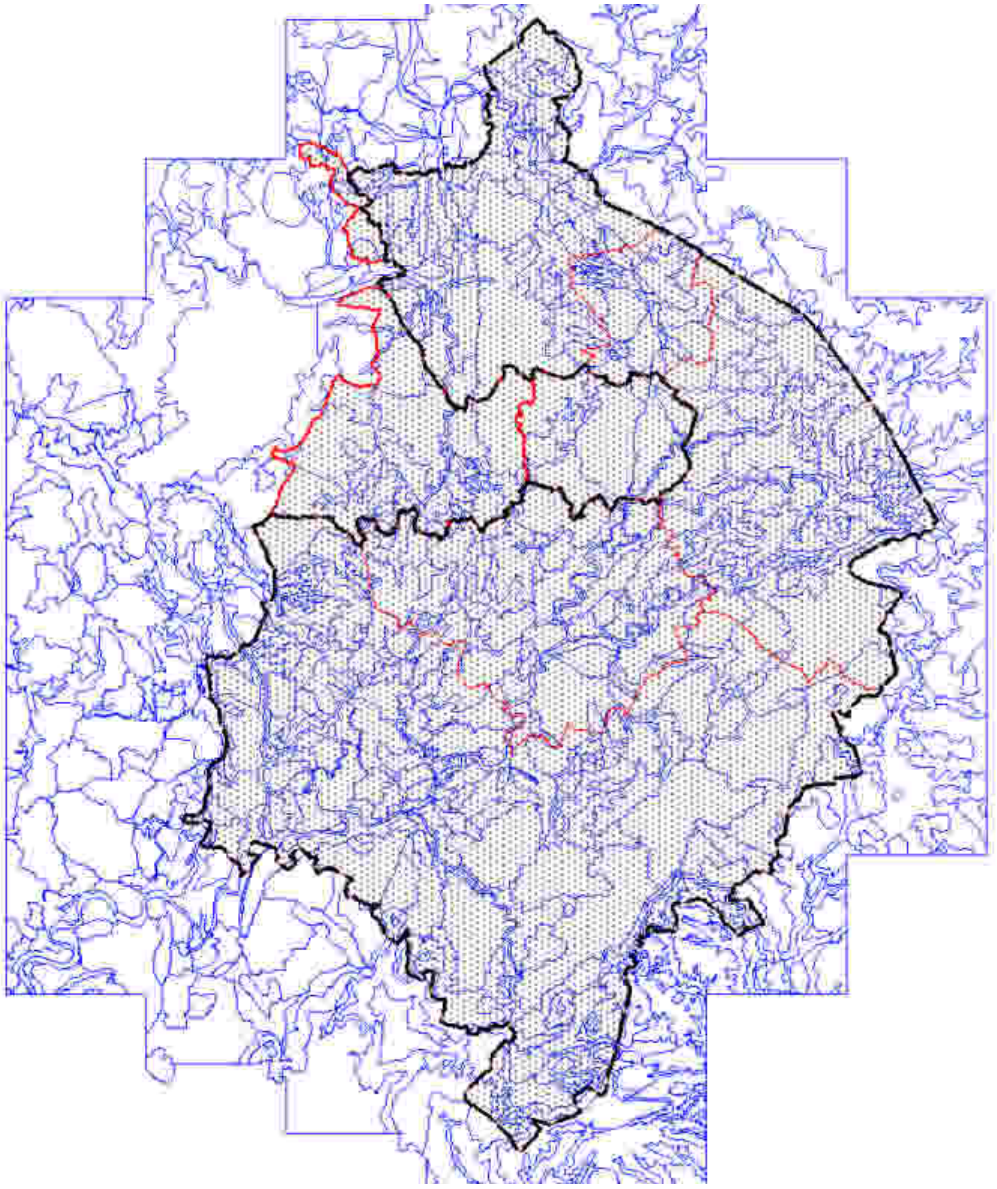
The text sections for the NCAs relevant to Warwickshire appear to have been derived from the Warwickshire Landscape Guidelines with minimal re-writing, especially the human influences (historic/cultural) section. This may explain the discrepancy between those wholly in Warwickshire and those with just a small amount in Warwickshire

Some of the borders of the NCAs are not fixed to actual boundaries. Some work could be done to make them more accurately fit the changes in the historic landscape, because some of the changes in HLC are not obvious between one NCA and another. Natural England do recognise though that the boundaries of the NCAs are “not precise and that many of the boundaries should be considered as broad zones of transition.”

Landscape Description Units

Landscape Description Units (LDUs) were developed in Warwickshire in the 1990s by Steven Warnock as part of the Living Landscapes Project. LDUs are polygons with associated data that are drawn forming relatively homogenous units of land, each defined using a series of six key characteristics relating to geology, topography, soils, tree cover character, land use and historic settlement pattern. Field survey provides the opportunity to record the visual and sensory information. All information at each scale, from the desk study as well as all field survey data, is recorded in the landscape database, and linked to the LDU polygons in a GIS.

There are three different levels of detail of LDUS from Level 1 (regional/national), Level 2 (county) through to 3 (local/individual land parcels). LDUs have developed over time and derived many datasets from its research activities including more recently HLC data, for example in Shropshire with the Landscape Character Assessment; however the Warwickshire HLC data has yet to be used to inform the LDUs in this way. Consequently in Warwickshire LDUs are only at Level 1 and Level 2.



Level 2 Landscape Description Units in Warwickshire

A very brief level of analysis was carried out using HLC and LDU data for Warwickshire.

It was discovered that the LDU polygons rarely match those of the HLC exactly. Some LDUs match very closely such as floodplain and rivers, others not so well. The LDU resolution is not as fine grained as the HLC and the LDU polygons also, as expected, tend to follow more geological and physiological features rather than historic or human landscape features.

When looked at in a very broad sense some very general patterns match between the LDU and HLC data.

For example the woodland cover from the LDUs is quite accurate and matches with the HLC data, probably because they are based on similar baseline datasets.

Larger settlement areas also match well between the data-sets; however, the LDUs only show at a broad level the dominant and secondary type in the landscape so the smaller towns and large villages are not recorded in LDUs especially larger settlements. Some of the urban areas in the LDUs also need updating to reflect modern settlement expansion and change.

The problem seems to be that to incorporate all the different elements of physiography, ground type, landcover and cultural pattern means making compromises with one or all of them. Not all of them fit together. The first three can possibly fit well to each other but the cultural or historic landscape does not always match well.

A recommendation of the Warwickshire HLC project is that an enhanced level 2 mapping exercise should take place using the HLC data to update and complement LDU areas. The methodology has already been developed in Shropshire and this could help make the LDUs a more accepted form of landscape description for use by local planning authorities, national agencies and all those involved in landscape management.

HLC analysis compared with other data sets

British Geological Survey Data (BGS)

For a summary of the geology of Warwickshire with geological maps see Chapter 1 (Introduction).

The paper and digital data from the British Geological Survey was analysed in a very broad sense against HLC data to see if particular patterns emerged and the context to which historic landscape character is influenced by underlying geology.

Bedrock Geology:

In general hard rocks match well with HLC Extraction types but other patterns emerge for particular groups of bedrock geology.

Mercia Mudstone

These areas appear to have more woodland and larger settlements such as Warwick, Kenilworth and Rugby.

Dyrham Formation (Siltstone and Mudstone, Interbedded)

Irregular fields appear to match quite well with this type.

Designed landscapes fit well with Saltford Shale Member (Mudstone), Langport Member (Limestone), Penarth Group (Mudstone) and Rugby Limestone (Limestone). This may be because of the use of these types of stone for country houses and estates.

These geological types also of course tie in with the cement works near Rugby and Southam.

The No Mans Heath area to the north of the county has a very different Historic Landscape Character compared to other areas and this may be because of the underlying geology of Bromsgrove Sandstone.

The Warwickshire Coal Seams and their subsequent development and exploitation by humans are of course directly related to the geology of the area in the north of Warwickshire.

Fieldscapes also strongly correlate with the geological change in bedrock between the Blue Lias and the Mercia Mudstone with the predominantly wooded Penarth and Blue Anchor formation forming a sinuous band in between these two areas.

Superficial Geology:

Alluvium

This generally reflects the floodplain type identified by the HLC apart from some alluvium around Austry, which appears to have previously been meadow land and which has subsequently been drained.

This geological layer also ties in with sand and gravel extraction such as in the Tame Valley

Sand and Gravel and River Terraces 1-4

Settlements, including historic cores and modern expansion, fit very well onto the sand and gravel geology, for example at Alcester, Bidford, Welford, Stratford, Warwick, Wasperton, Barford, Hampton Lucy and Leamington.

As expected sand and gravel extraction also matches well with this layer.

Dunsmore Gravel

Rugby town has expanded largely on to this area and occupies most of the rest of what was Dunsmore Heath. The small area to the north of Rugby used to form Wolvey Heath with the settlements of Bulkington and Wolvey.

Till

No real pattern exists with this type but generally there is more woodland on these areas as well as more piecemeal enclosure

Oadby Member

No particular pattern is identified in the HLC. There is a mix of enclosure types including planned and piecemeal enclosure.

Conclusion

More work could be carried out comparing geology with HLC data but this may need the assistance of a geologist and may need more work on previous HLC patterns rather than just the present landscape. There is no doubt that some HLC types will relate to the underlying geology much more than others. Extraction HLC Types is one obvious example but others such as settlement and some fieldscapes also relate to the soils and the underlying geology.

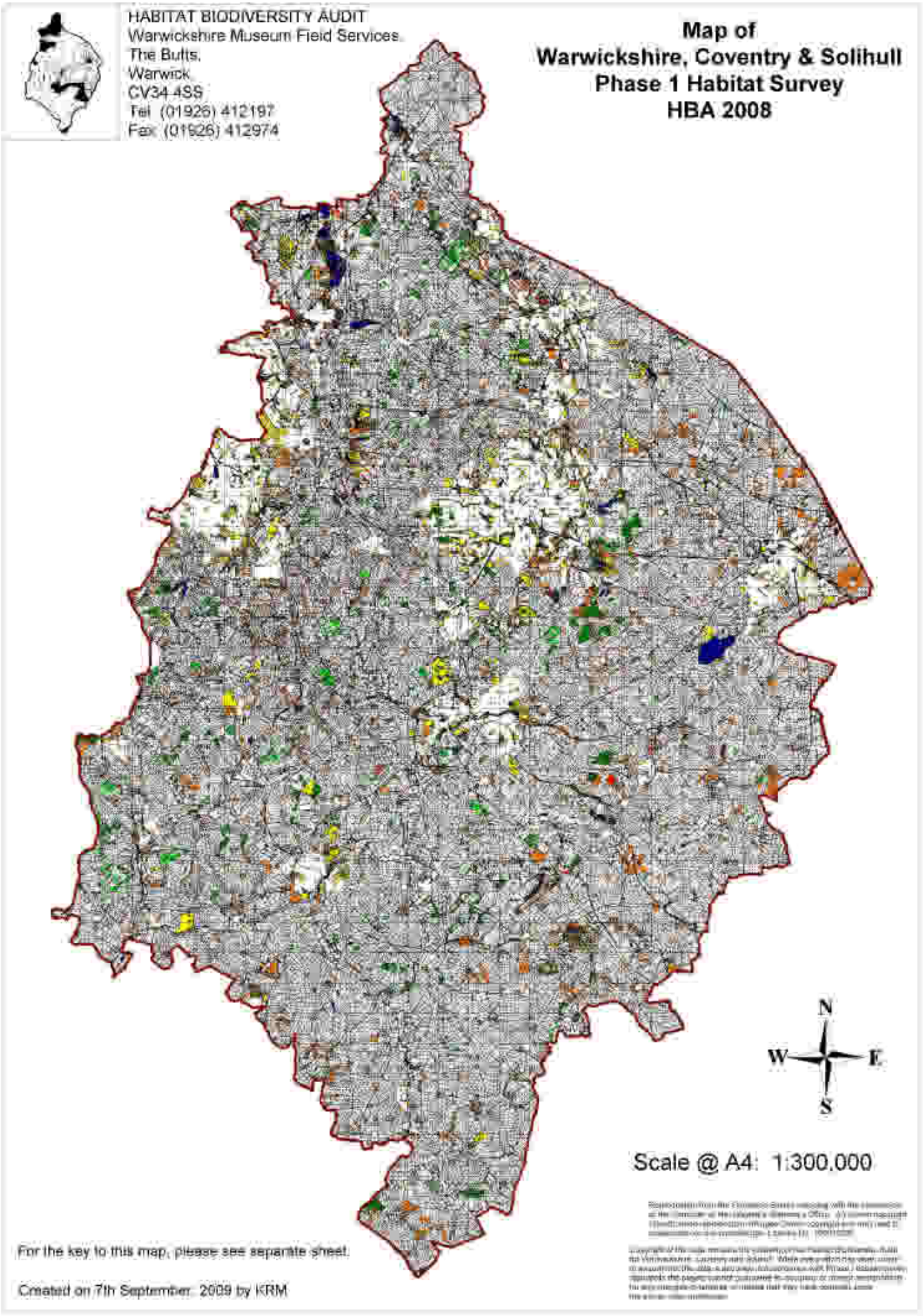
Habitat Biodiversity Audit (HBA)

The Habitat Biodiversity Audit (HBA) was established in October 1995 through a funding partnership of all the local authorities in the sub-region of Warwickshire, Solihull and Coventry as well as other bodies such as English Nature, the Environment Agency and the Warwickshire Wildlife Trust. The role of the project has evolved with time but essentially is to provide accurate, up-to-date and readily accessible ecological data to all the project partners and to other users.

A series of habitat types is used to map the biodiversity of Warwickshire. Apart from the obvious fact that these types relate to natural landscape features rather than historic they are also, unlike HLC types, agreed on a national basis including the colours used to represent the types on the maps.

The HBA dataset was used as one of the baseline datasets for HLC digitising and record creation. Here the HBA is analysed in a very broad sense with the HLC data.

The immediate difference between the two datasets is that the HBA has been recorded to a much finer grain. Not only are visible landscape features recorded, but parts of those features, such as a corner of a field that has a different habitat to the rest, are also mapped. Field boundaries are also recorded as linear features whereas the HLC looks at discrete recognisable mappable areas rather than their constituent parts


HABITAT BIODIVERSITY AUDIT
Warwickshire Museum Field Services,
The Butts,
Warwick,
CV34 4SS
Tel: (01926) 412197
Fax: (01926) 412974
Map of
Warwickshire, Coventry & Solihull
Phase 1 Habitat Survey
HBA 2008
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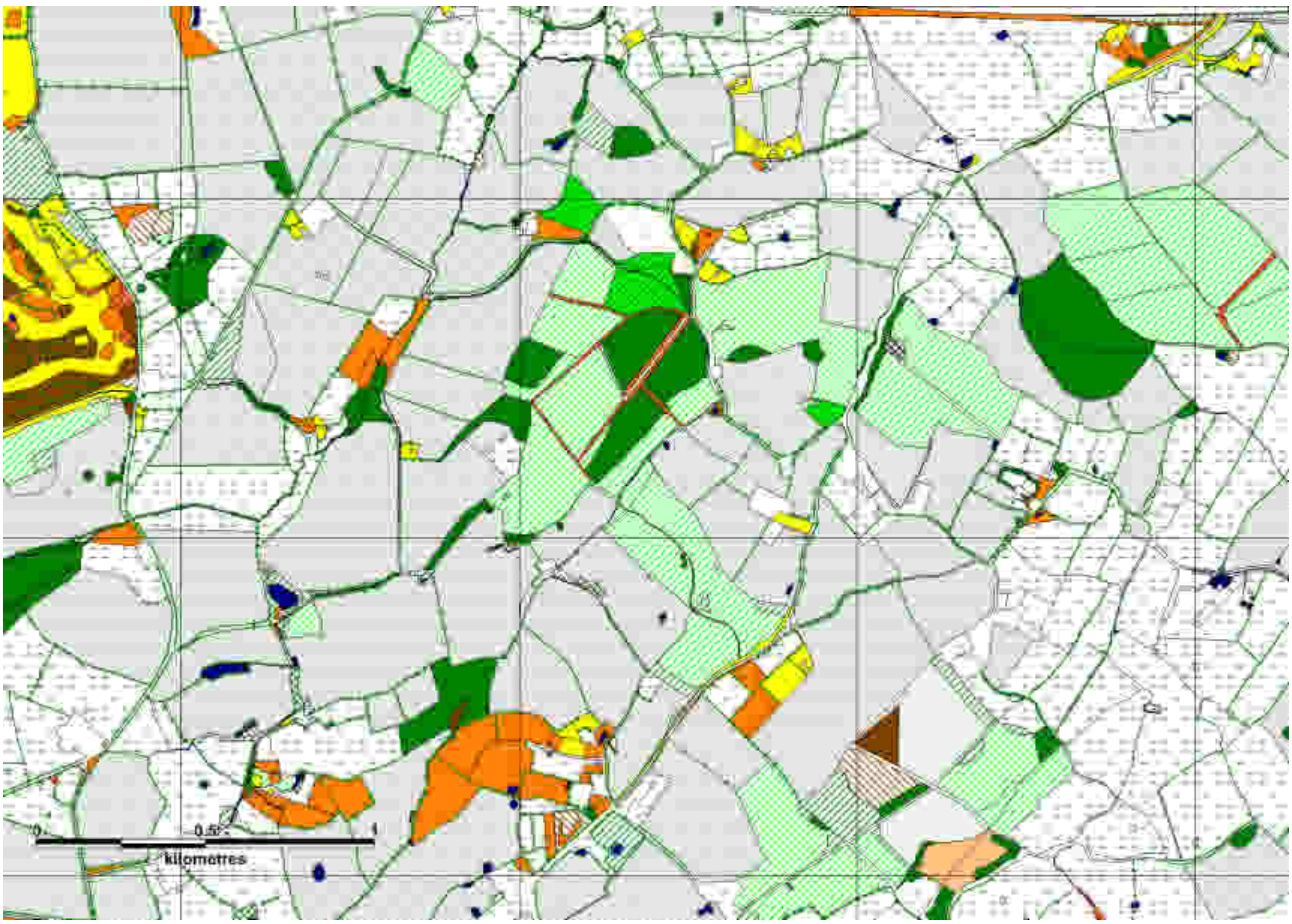
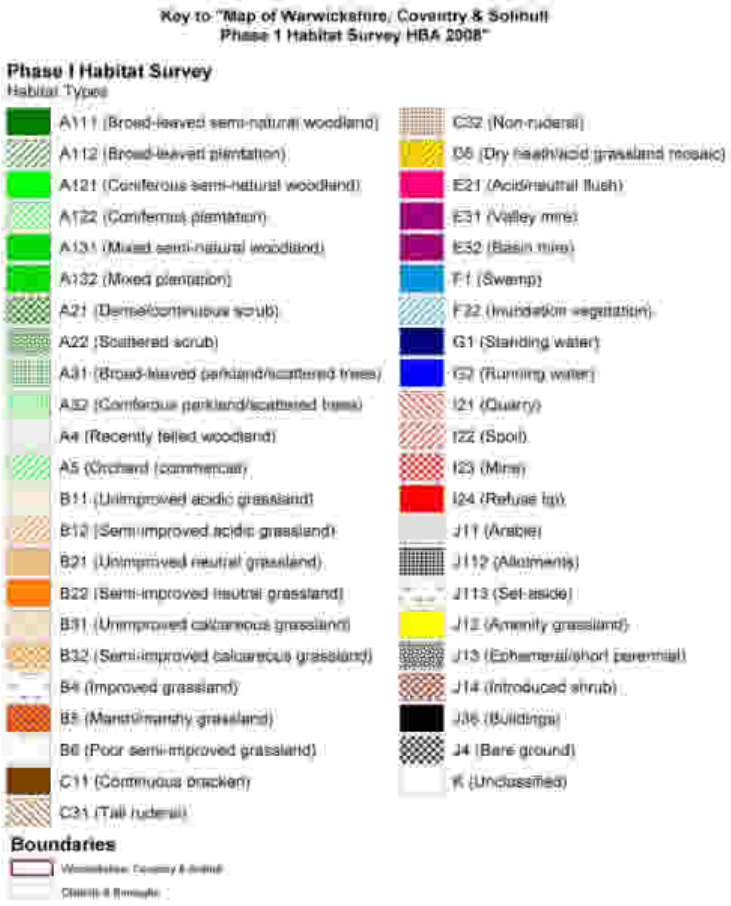
Scale @ A4: 1:300,000
For the key to this map, please see separate sheet.
Created on 7th September, 2009 by KRM



Sample area showing detail from the HBA at Kinwalsey, North Warwickshire



Urban areas which rarely have many habitat types are recorded in more detail in the HLC than the HBA, which only record major habitat types. Gardens are not recorded by the HBA and this could be one enhancement suggestion for the HBA, a Garden Habitat Type.

Woodland is one area where the HBA and HLC vary, especially in the fine detail. It appears that in some cases the HBA is more accurate in the representation of the woodland and in others the HLC. The HBA could use HLC data to cross check their woodland data.

Other benefits that the HBA could gain from HLC is the addition of a time depth element to their data, for example by describing previous habitat type in order to create a habitat history and thus have a clearer idea of how it might be managed in the future. It might also be used to establish how old a habitat, such as heathland or woodland, might be.

Another difference between the two data sets is that actual boundaries are recorded by the HBA rather than joining adjacent HLC polygon areas across minor landscape features such as roads.

In conclusion the HBA presents a more detailed, though also more partial representation of one aspect of the world whereas HLC considers the time depth element of landscape character in a more general way. Both can benefit from using each other as a baseline data set when updating takes place.

Historic Environment Record (HER)

As part of the countywide analysis the Warwickshire and Solihull Historic Environment Records were analysed looking at a small sample of archaeological monument types consisting of:

- **Ridge and Furrow**
- **Brickworks**
- **Deer Parks**
- **Military Sites**

Ridge and Furrow

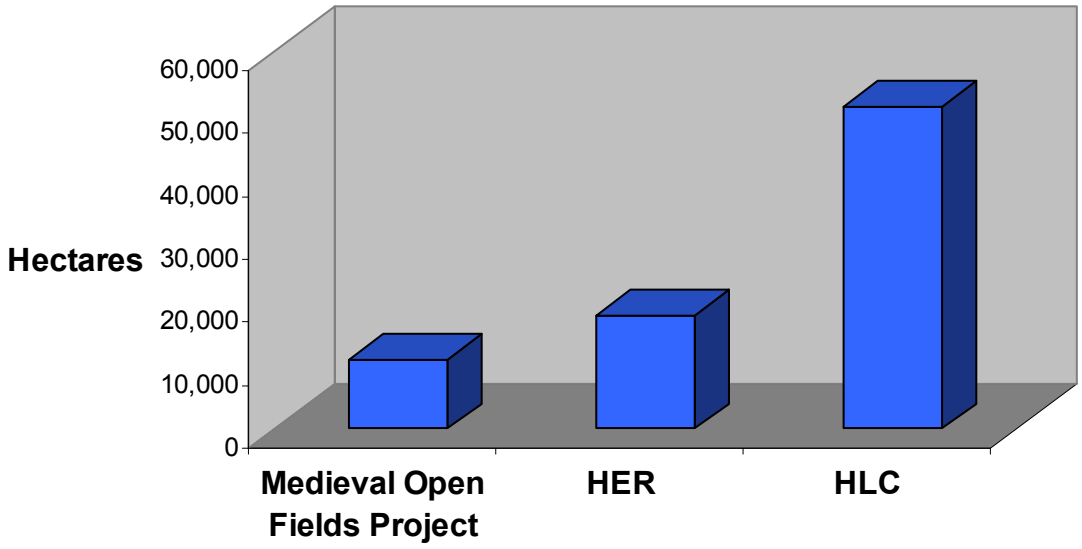
51,283 hectares are recorded in Warwickshire as Medieval Open Fields as Previous HLC Types (2369 Records forming 24% of the total project area and 12 % of the total records).

10,982 hectares are recorded in Warwickshire and Solihull from the Ridge and Furrow GIS layer from the Midland Open Fields project. This only shows extent ridge and furrow recorded in the 1990s and not the previous extent of ridge and furrow.

7,500 hectares of ridge and furrow are recorded as monuments in the Warwickshire HER. However, a large part of this area is in the Cotswolds AONB, derived from NMP data, and some of this will overlap with the Midlands Open Fields data.

More ridge and furrow data is visible in the detailed NMP work that forms part of the HER, but unfortunately this is difficult to extract to show distribution of ridge and furrow and to calculate the area covered.

For the purposes of comparisons with the HLC data the HER records a maximum of around 18,000 hectares of ridge and furrow in total.



The HLC project has therefore potentially almost trebled the evidence for ridge and furrow/medieval open fields in the county in terms of visibility on the HER. Other

studies, such as the Plotting Medieval Landscapes Project in Warwickshire funded by the RCHME in the 1980s and 1990s, have shown that Warwickshire used to have a ridge and furrow coverage perhaps even more than that recorded by the HLC but this data is predominantly in a paper format and not complete for the county as a whole.

The reason that the HLC records much more former open field data is that it records any evidence of current or previous use of the land as ridge and furrow using modern aerial photos, present or previous fieldscape types and field boundary morphology such as reverse 'S' curves and dog-leg boundaries.

There are some limitations to this though. For example, some larger HLC areas are included where only a part of the field may have evidence of ridge and furrow or piecemeal enclosure. The field could not have been split into smaller polygons because of a lack of modern boundaries.

Brickworks:

The Warwickshire HER has 105 records marked as brickworks and 142 records with 'Brick' in the record name.

The HLC records 125 brick works.

The HER has sites that are not recorded on the HLC and vice versa. It is increasingly apparent that they can both complement each other and that both should be used if investigating particular monuments or archaeological sites.

Deer Parks

The HER records 41 deer parks (38 are mapped) whereas the HLC records 31 distinct deer parks from 334 records.

Although this is not an increase in sites the HLC will enable better mapping of previous deer park boundaries and provide a landscape context for these types.

Military sites

The HER has identified a large number of military sites in Warwickshire including bombing decoys, anti-tank sites, pill boxes, RAF airfields etc. Most of this information has been assimilated from the Defence of Britain project.

The HLC has identified further military sites from the OS 1955 mapping showing previously unrecorded temporary camps and military features.

Other uses of HER data

There are other areas of the HER where the HLC has enhanced the record such as:

- Canals
- Railways (including dismantled railways)
- Industrial sites (mostly modern and late 19th C)
- Historic Farmsteads (with even greater detail to follow in a regional historic farmsteads characterisation project)
- Detail of settlements in the 20th century including historic cores
- Historic parks and country houses

- Commons
- Common Grazed Woodland
- Water meadows

Conclusion

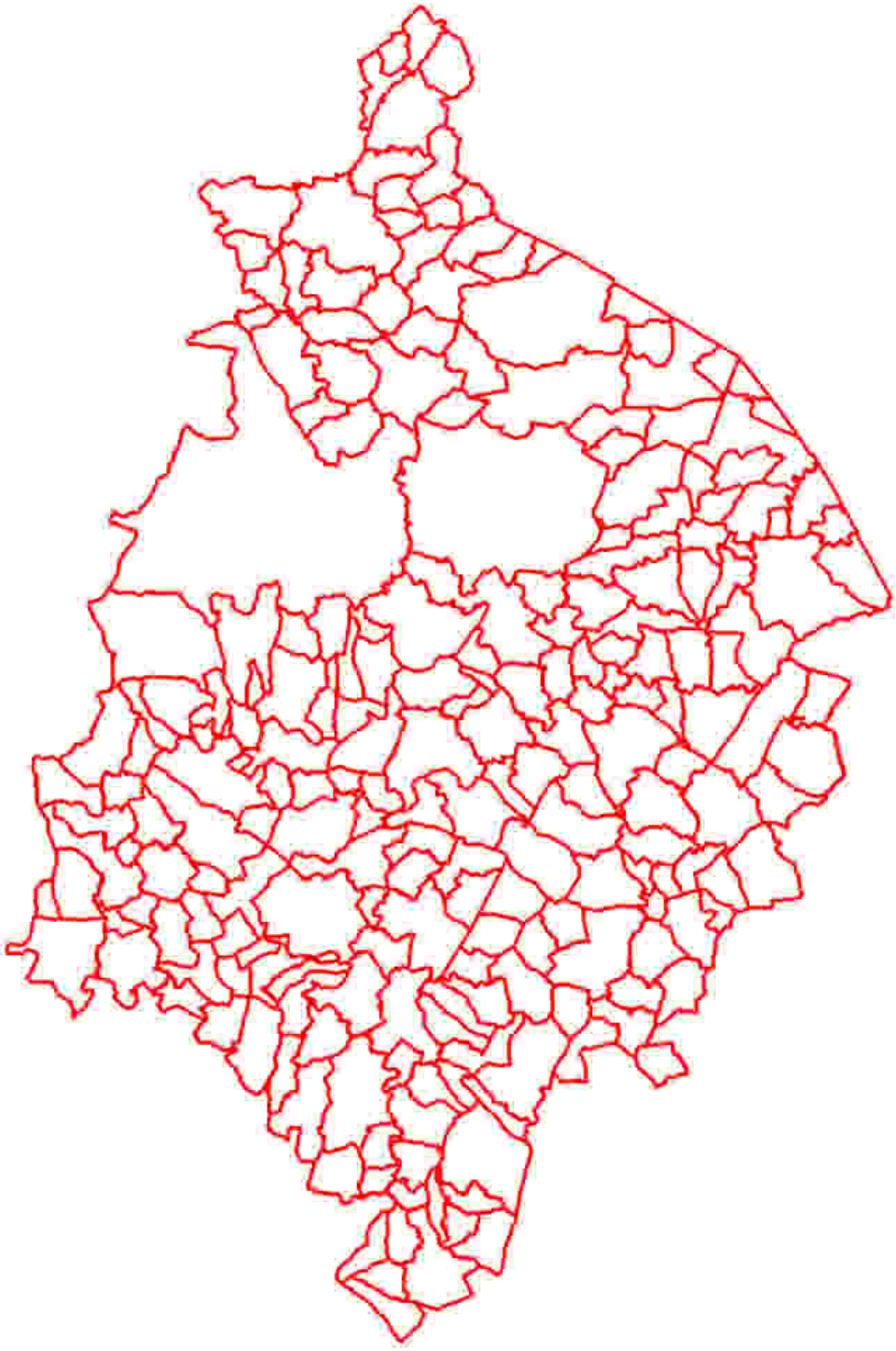
This brief analysis of the HLC with the HER has shown that the HLC can fill in many of the gaps in the HER including certain monument and landscape types. It is also clear that any integration into the HER should take account of both monument and HLC data.

HLC compared with defined boundaries and areas

A number of distinct administrative areas could be used for analysis with the HLC.

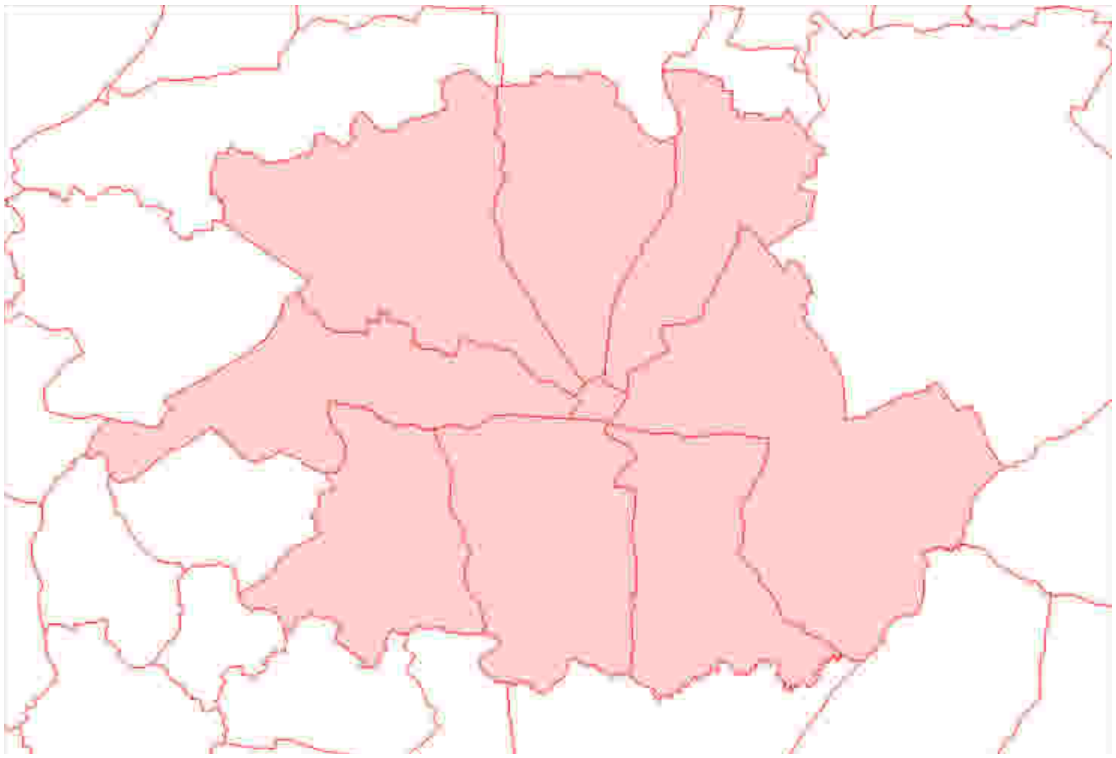
Parishes

Parishes are probably the most obvious administrative area to be used for analysis using HLC data. Most parishes and their formation date back to the medieval period, if not earlier and may have equally shaped or have been shaped by the landscape around it.



Map showing current parish boundaries in Warwickshire

Some distinctive patterns of parishes can be seen in the county such as at Dunsmore in Rugby Borough. Here the pattern of parishes radiates outwards from a central point in the middle of the Dunsmore Heath area.



Parish boundaries radiating out from Dunsmore Heath

The reason for this has been highlighted by Hooke (Warwickshire County Council 1993a) and others who suggest that the parishes represent equitable sharing of the different economic potential of different types of landscape. Each parish was laid out to include an area of heath/common, an area close to a main river or brook, an area of arable or pastoral land and probably an area of woodland

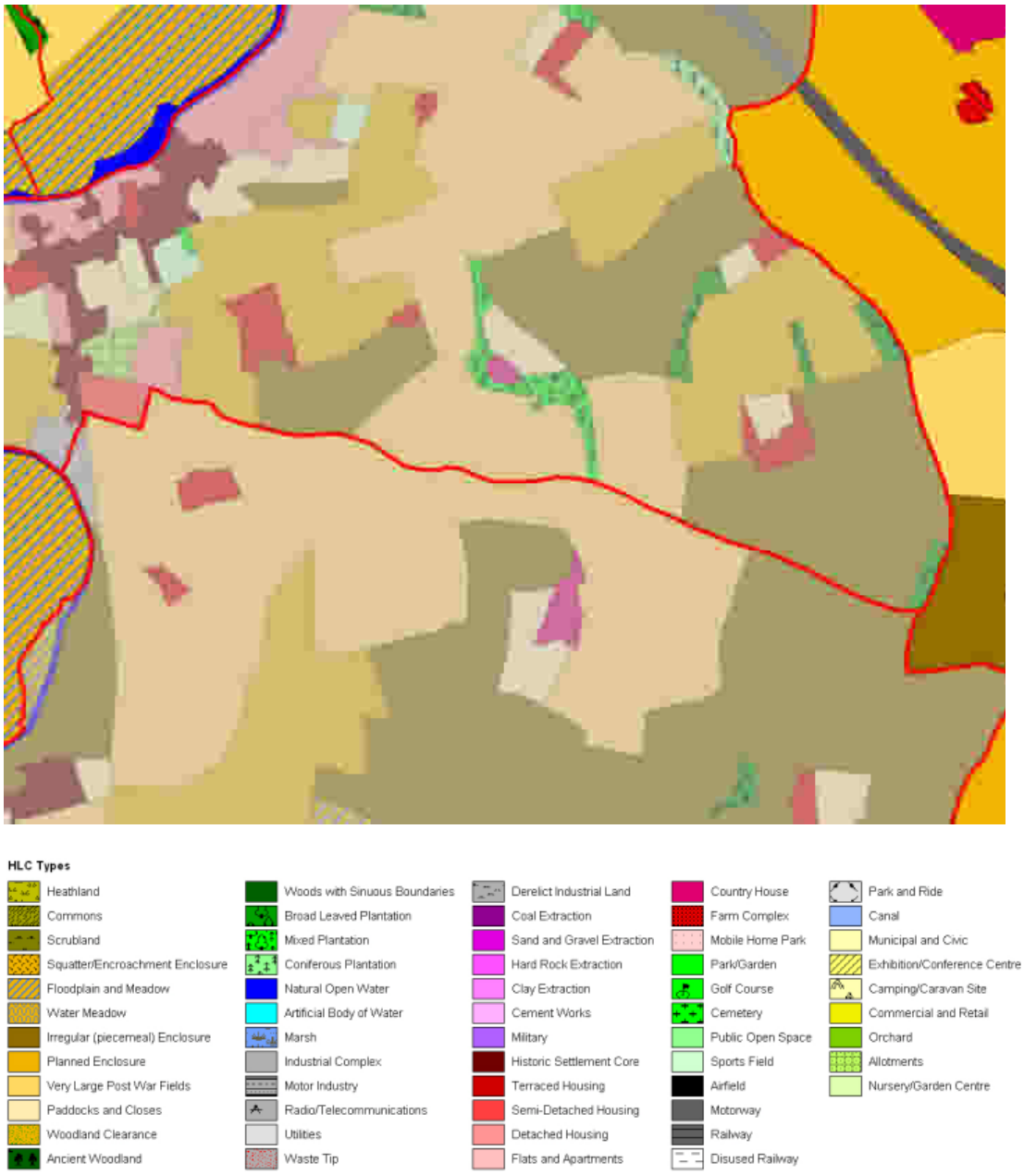
Interestingly, the later prehistoric landscape of Dunsmore appears to exhibit a similar radial patterning, with Iron Age pit alignments revealed in the extensive excavations at Ling Hall Quarry, Church Lawford, converging upon a single point (Palmer, 2002 and Palmer forthcoming).

Other parish boundaries in the county are concurrent with the Watling Street and Fosse Way Roman Roads.

Parish boundaries often follow main rivers while some follow ridge ways and routes across the higher part of the surrounding landscape such as at Aston Cantlow, Bearley, Snitterfield and Old Stratford parishes.

Later subdivisions of parish boundaries can show up clearly in the HLC where field patterns and other landscape patterns cross parish boundaries and appear to be older landscape features. A good example of this can be seen in the parish boundary between Wasperton and Barford where continuous piecemeal enclosure and field

boundaries are cut by the later parish division. It is likely that these two parishes once formed one larger administrative area, possibly even with neighbouring Charlecote parish.



Map showing HLC fieldscapes crossing parish boundaries at Wasperton and Barford

A similar example can be seen with Newbold-on-Avon and Harborough Magna parishes where piecemeal enclosure crosses the two parishes. However, in this case the parish boundary divisions are only marked on the OS 1st edition and have subsequently been amalgamated once again.

A rapid examination for similar examples across the county found a number of other examples listed below, although there may well be more.

- Preston Bagot with Claverdon parish
- Weethley and Salford Priors parish
- Oldberrow with Wootton Wawen parish
- Wootton Wawen with Tanworth in Arden parish

In other cases parishes meet at certain significant points. For example there are four parishes meeting at Tomlow, near Stockton, Stratford-on-Avon. Another pattern recognised is at Gospel Oak where a number of parishes meet (Aston Cantlow, Bearley, Snitterfield and Old Stratford).

However these examples are few and far between and in general most field boundaries match parish boundaries. This does not solve the problem of understanding which boundary is older though because the parish boundary could have been formed to match the field boundary or vice versa, or even that the parish boundaries are based on older boundaries and then the field boundaries match them later.

Parish boundaries often follow more natural landscape features such as rivers or woodland. Often woodland survives at the edge of a parish, forming the parish boundary. Examples of this are at Bilton, Stockton, Radford Semele, Wormleighton, Stoneton and Weethley. Occasionally unusual long sinuous strips of woodland have remained along parish boundaries such as Long Spinney (Withybrook, Monks Kirby and Wolvey parishes).

In the later part of the 20th century with the rapid expansion of settlements, field boundary loss and the amalgamation of fields into very large prairie type fields there has also been an erosion of parish boundaries. Many fields, settlement and other HLC types no longer respect the parish boundaries and the mapped boundary may have no physical representation left in the field or settlement.

Localities/Super Output Areas

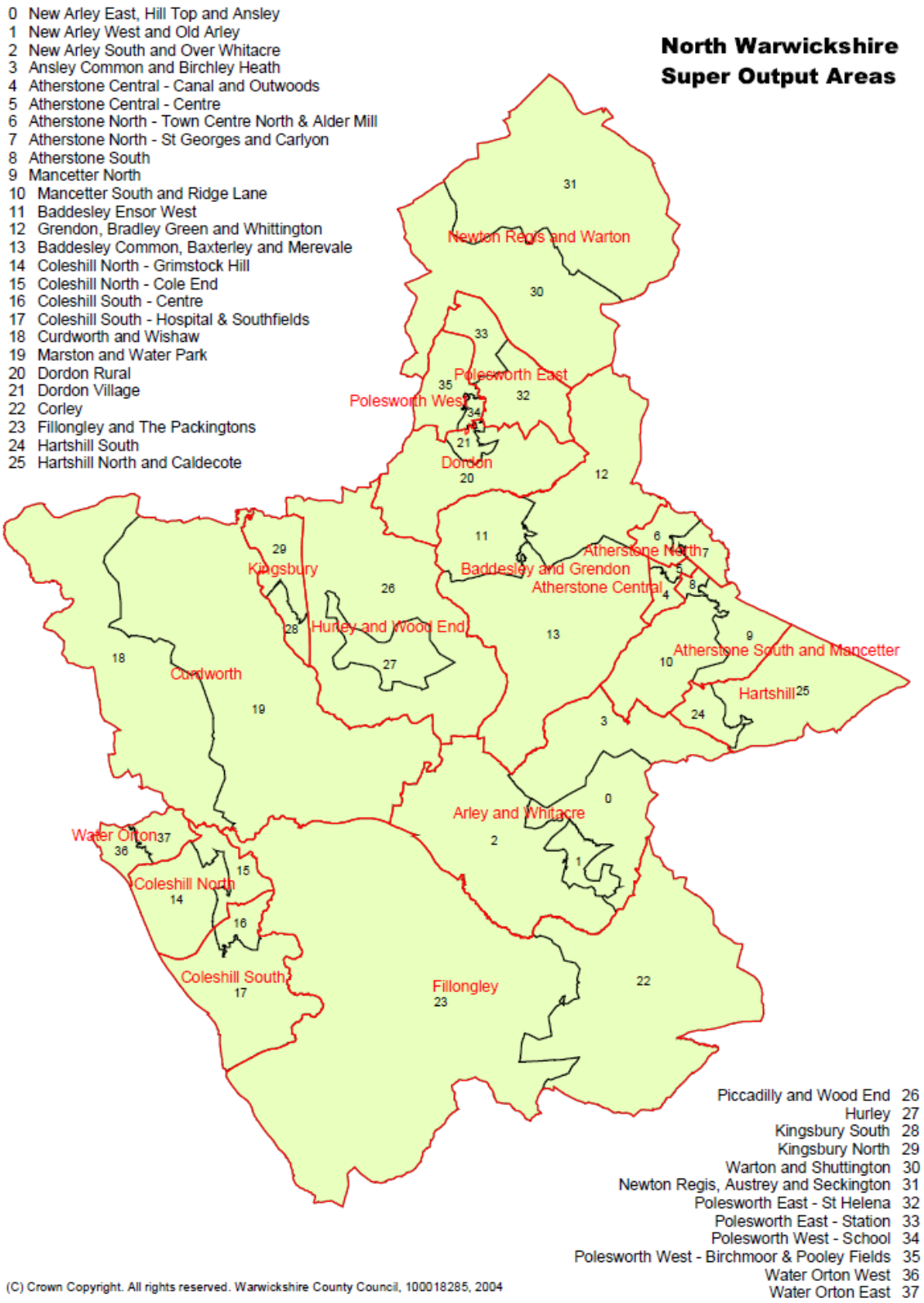
Other more recent quasi-administrative areas such as Localities or Super Output Areas have been designed for determining statistics in the county

Localities

Localities are fairly new areas that have been defined by the Government primarily for the purposes of determining statistics. They tend to combine a number of wards and are based more on population size rather than the physical area they cover. In Warwickshire 23 localities have been defined covering the five Districts

Super Output Areas

Super Output Areas (SOAs) were introduced in 2004 and have been used to replace electoral wards as the primary means of the capture and dissemination of small area statistics. This is primarily because electoral wards are subject to regular boundary reviews, making it difficult to develop trend based data. In addition electoral wards vary enormously in population size which makes it nearly impossible to draw accurate comparisons across the country at an electoral ward level.



An example of Super Output Areas in Warwickshire

SOAs are designed to be consistent in population size thus allowing comparisons to be more meaningfully made. It is also envisaged that the boundaries will not change, allowing trend based analysis for particular areas (e.g. specific area based initiatives such as regeneration schemes) to be developed. The underlying 'building blocks' for SOAs are Census Output Areas.

Three different SOA layers have been created;

Lower Layer: Each lower layer SOA contains between 1000-2000 people. They are much smaller than electoral wards but are constrained by electoral ward boundaries. There are 333 lower layer SOAs in Warwickshire

Middle layer: Middle Layer SOAs are built up from lower layer SOAs and contain approximately 7200 people. Middle layer SOAs are constrained to local authority boundaries (the 5 districts in Warwickshire) but not automatically to electoral wards.

Upper Layer: The exact nature of the upper layer SOAs is yet to be decided, although it is thought that the minimum number of people they will contain will be about 25,000.

It is hard to see how HLC can be used to help analyse or provide information about these newly defined areas. However, HLC could be used in the summary texts of these different areas to highlight historic landscape character which may help show one aspect of the historic environment for these areas. HLC may also help in land classification and in looking at statistics in these areas over time.

Cotswold Area of Outstanding Natural Beauty (AONB)

The Cotswolds AONB is the largest AONB in the country. It was created in 1966 and contains around 203,800 hectares. Only two small parts of this area are within Warwickshire, in the very south and south east of the county. The AONB area was excluded from the Warwickshire HLC project due to an earlier HLC project having covered the whole Cotswolds AONB area.

The Cotswolds AONB HLC project was started in 1997 and a report was published in 1999. It is one of the older HLC projects in the country but was one of the first to use GIS. As a result of this the data from this project was compared with the Warwickshire HLC data.

One of the immediate problems recognised with the Cotswolds AONB HLC data when compared to the Warwickshire data was that the GIS data is hard to use because only a coded field is recorded in the GIS which has to be decoded from the report to understand the Historic Landscape Character type. If this could have had the full type name and perhaps a summary description this would help people use the data more quickly and with less reference to the report. A summary description of each identified HLC area would also be useful.

Another problem is that the polygons were mapped in grid squares and so do not form complete contiguous polygons but are broken at each grid square.

The Cotswolds AONB HLC has also been carried out at a slightly lower level of detail and resolution than the Warwickshire HLC. As a result there are some particular features that do not have as much detail as the Warwickshire HLC such as settlement, especially farmsteads and some field types.

In the Cotswolds AONB HLC symbols are used to denote Deserted Medieval Villages (DMVs) and this is an attempt to show time depth but distracts a little from the present day landscape which HLC is meant to show. A better way may be to add this information as a previous HLC type or in the description text.

When comparing the two sets of data the polygons at a Broad Type level from one area to another match very well. This shows that there is congruity in the historic landscape types defined in each study and this would signal a good potential to link them or use them together.

Some of the field types and boundaries and polygons match very well together such as in the eastern part of the AONB in the Warwickshire area. Other areas do not match so well, such as in the west around Meon Hill but this may be because the landscape changes dramatically here.

One of the other aspects investigated was determining the level of use of the Cotswolds AONB HLC project and results.

There is a comprehensive Landscape Character Assessment for the Cotswolds area that was completed in 2002 which makes reference to the Cotswolds AONB HLC project.

“The Historic Landscape Characterisation (HLC) of the Cotswolds AONB was also of considerable importance to the landscape character assessment. The HLC study, completed in 1999 and re-evaluated following the recent completion of the

Gloucestershire Landscape Character Assessment, reveals how the present landscape is a result of various historic processes and that it contains many features and elements that reflect aspects of its evolution. The findings of these independent studies were made available at an early stage of the assessment and proved invaluable in the mapping and description of landscape character types and landscape character areas." (Cotswolds AONB Partnership, 2002)

The LCA is very detailed including a section for each area on 'human influences' which summarises the archaeology and history for each landscape character area including historic character.

Recommendations:

It is strongly recommended that the Cotswolds HLC is updated with the Cotswolds area within Warwickshire as an enhancement project. This could be done fairly rapidly by taking the AONB HLC data and applying the Warwickshire methodology including enhancement of those types lacking details such as settlement, farmsteads and some of the fieldscape areas.

This would then form a single consistent dataset for use by Stratford-on-Avon District Council and others interested in this part of Warwickshire instead of the two different projects and datasets existing.

Sample Thematic analysis

Historic Sporting Landscapes of Warwickshire

To illustrate how the HLC can be used to pursue particular themes, a rapid assessment of the historic sporting landscapes was undertaken primarily using the HLC data.

A number of HLC types were identified as having a sporting element and making up part of the sporting landscape of the county. These were:

- Golf Courses
- Sports Grounds (Football, Rugby, Cricket, Bowling and Archery)
- Leisure Centres
- Racecourses
- Fishing Lakes
- Stadiums

And in previous HLC types:

- Deer Parks

Other sports could be implied indirectly from these other HLC Types

- Artificial Water (water sports such as sailing, windsurfing canoeing, fishing etc)
- Natural water (fishing, water sports)
- Woodland with the names Covert or Spinney
- Farms with name Kennel or Hunt

From this a list of sporting landscapes in Warwickshire was drawn up consisting of:

- **Golf**
- **Racecourses**
- **Stadiums**
- **Fishing**
- **Water Sports**
- **Leisure Centres**
- **Sports Fields**
- **Hunting (Deer, Fox and Game)**

Golf

Golf is believed to have originated from Scotland in 12th century.

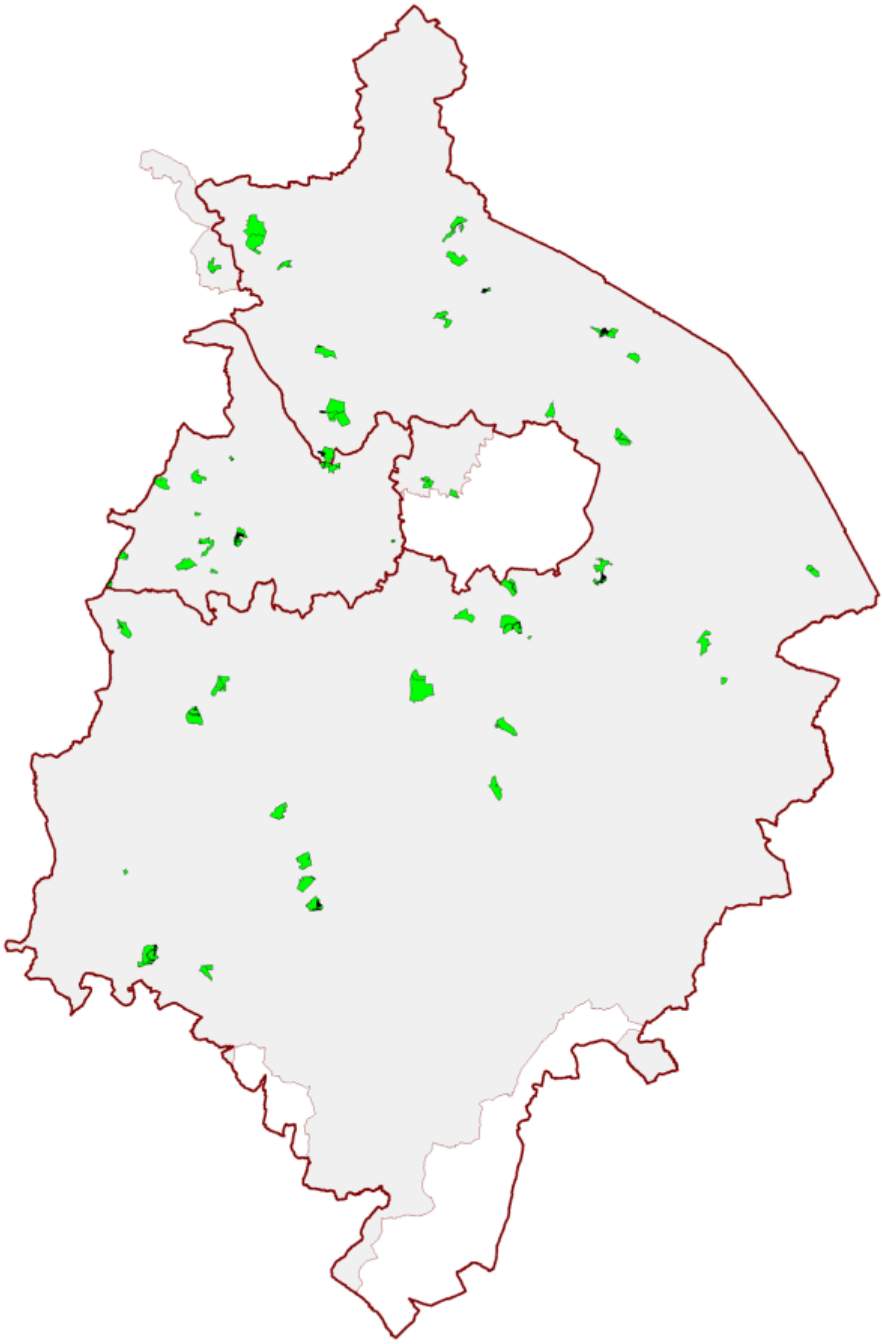
The first golf courses in Warwickshire are found on the OS 2nd edition maps (dating them to between 1884-1906). Earlier courses are unlikely.

The oldest golf course in Warwickshire is the Kenilworth Golf Course established in 1889. Other old golf courses in Warwickshire include the North Warwickshire Golf

Course (1894) and the Robin Hood Golf Course (1893), both of which are found in Solihull Metropolitan Borough.

Between 1880-1955 there was a moderate increase in numbers of golf courses in the county with 10 recorded in Warwickshire from this period, mainly found in north and western Warwickshire.

Post-1955 there has been a boom in golf courses with new courses still being created. Currently there are 47 golf courses in Warwickshire with the largest being The Belfry in North Warwickshire of around 200 hectares. The smallest ones are around 3 hectares and vary from private golf courses to small courses associated with hotels.



Location of golf courses recorded on the HLC

The distribution of Golf Courses in the county shows a bias to the north and west of the county, with a large number in Solihull. This may be because of the proximity to the larger settlement areas of Birmingham, Coventry and Solihull.

A number of golf courses have been created in the parkland grounds of large halls and manor houses, or areas where they had once existed. In this case it is interesting to note that Golf Courses continue the HLC broad type character as a designed landscape.

Racecourses

Two racecourses still exist in Warwickshire at Warwick and Stratford-upon-Avon. The Warwick Racecourse has origins from 1775, and possibly as early as 1728, while the Stratford Racecourse originates in the 1890s or possibly earlier, with a steeple chase taking place here since 1755.

Other racecourses once existed in the county. For example at Atherstone a racecourse is marked on the OS 1st and 2nd edition maps but was replaced with an industrial area. At Packington a racecourse was marked on the OS 1st edition but is now fields. A third former racecourse is marked at Shirley on the OS 2nd edition. Before this on the OS 1st edition fields are marked and the area is now a golf course.

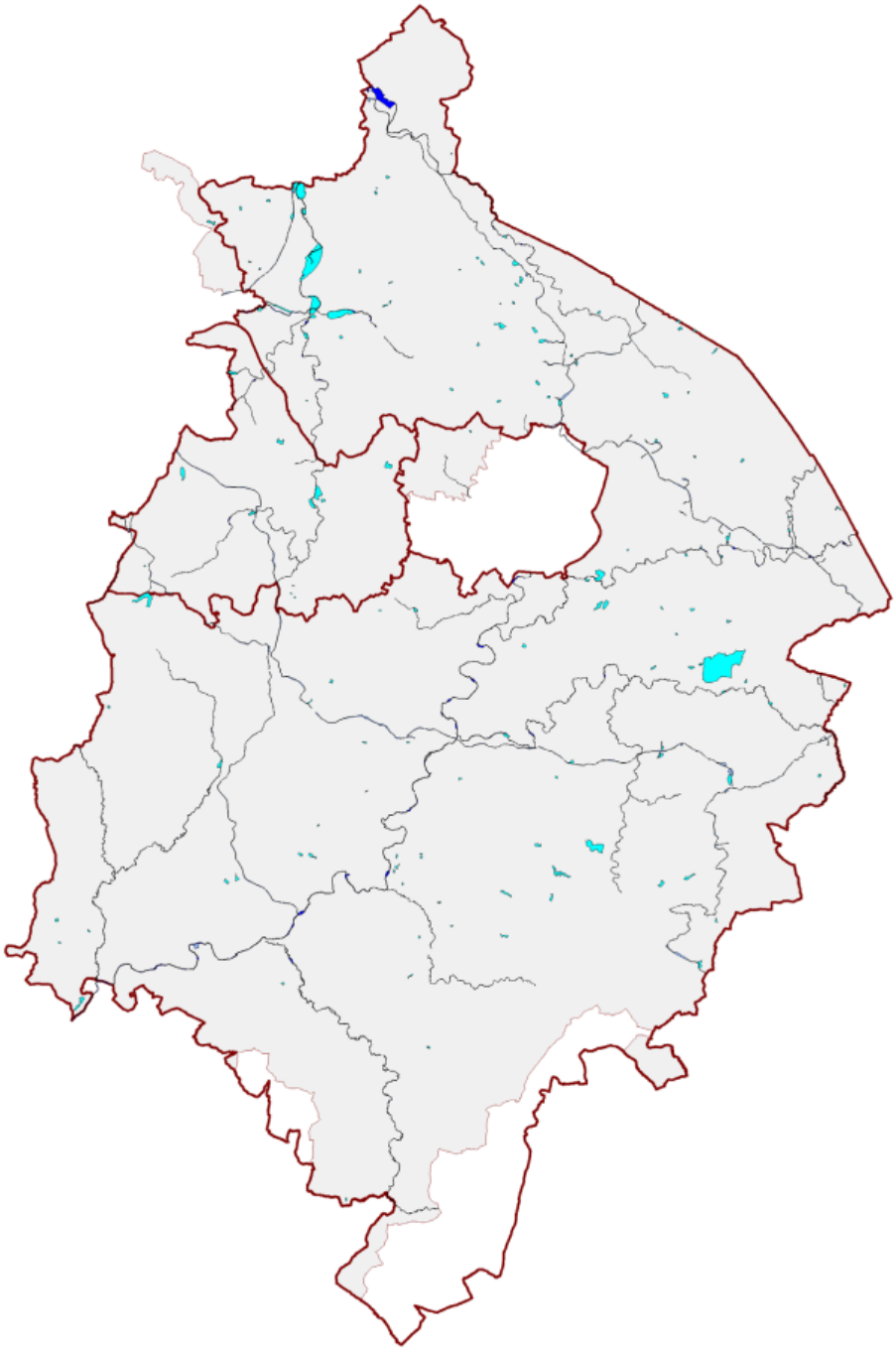
Stadiums

Only one stadium is recorded in the HLC and this is the Coventry Stadium just next to Binley Woods. This is a greyhound racing track and is first marked on the 1955 OS map. Greyhound race tracks and stadiums appear to be a rare type in England with only 28 official tracks left in the country. There may be a need to investigate the historic potential of this site. A second greyhound racetrack is recorded by the HLC at Warwick but appears to be an independent greyhound racing track not regulated by the Greyhound Board of Great Britain.

Fishing

Fishing as a sport appears to have become more popular as the 20th century progressed.

Traditionally in Warwickshire the main rivers and natural water courses would have been fished and perhaps some ponds, lakes or reservoirs. In the later part of the 20th century stocked organised pools have been created as a commercial enterprise for this recreational sport. In Warwickshire 15 of these fishing areas can be found, mostly in the north of the county. Draycote water is also popular for fishing as are other reservoirs, the canals and the rivers and brooks across the county.



Location of water features recorded on the HLC

Water Sports

Different types of water sports have developed in the 20th century such as canoeing, windsurfing, rowing and sailing. All these can be found taking place on the county's reservoirs especially Draycote Water, the largest open expanse of water in the county, as well as on the main rivers such as the Avon and Leam.

Leisure centres

These multiuse and multisport centres are found spread throughout the county. There are 7 recorded in Warwickshire (Newbold Comyn in Leamington, St Nicholas in Warwick, Abbey Fields in Kenilworth, Ken Marriot in Rugby, Stratford Leisure Centre, Fordbridge in Solihull and Tudor Grange in Solihull.)

Most are modern post-1955 developments responding to an increased interest in small sport and leisure activities. At Abbey Fields in Kenilworth the leisure centre is on the site of an earlier public swimming baths marked on the OS 2nd edition.

Sports fields

There are around 240 sites recorded as sports fields by the HLC in Warwickshire. These are generally small areas in and around main settlements with concentrations at Rugby, Nuneaton, Warwick, Stratford and Solihull but many smaller towns and villages also have sports fields. Most originate to between 1900 and 1955 but a handful have been recorded on maps as sports fields for at least 100 years.

Sports grounds may have only begun to have been routinely recorded from the OS 2nd edition onwards and this may explain the lack of older sites and why few are found in the OS 1st edition maps.

This type covers the following sports grounds:

- Cricket Grounds
- Rugby Grounds
- Football Grounds
- Bowling Greens
- Tennis Courts
- Occasionally other types of sports grounds such as Archery

In the case of archery there is one ground identified in Warwickshire near Meriden. This is Meriden Archery Club and grounds and has been marked here on the OS 2nd edition onwards as an archery ground. However, the site has even earlier origins in the form of the Pavilion and Club House designed by Joseph Bonomi and built in 1788 for the Woodmen of Arden archery club, founded in 1785. This shows that this site has been used for archery for over 220 years.

Deer Parks

One large element of the landscape in the past that could be considered a sporting landscape is the deer park. Deer parks in England may have originated in the Anglo-Saxon period but became more popular in the Norman period. Around 35 are recorded in Domesday Book in the country, but many of these associated with Royal Forests.

Rackham (2001, p.152) contends that by AD1300 there were about 3,200 parks in England which accounted for 2% of the area of the country.

Many of these continued in some form of use in the post-medieval period and developed through to the 18th century as part of gentleman's parks (often called ornamental parks). It is certainly true that many of Warwickshire's examples of designed parks associated with 17th-18th century halls and manor houses are either on the site of or are associated with deer parks.

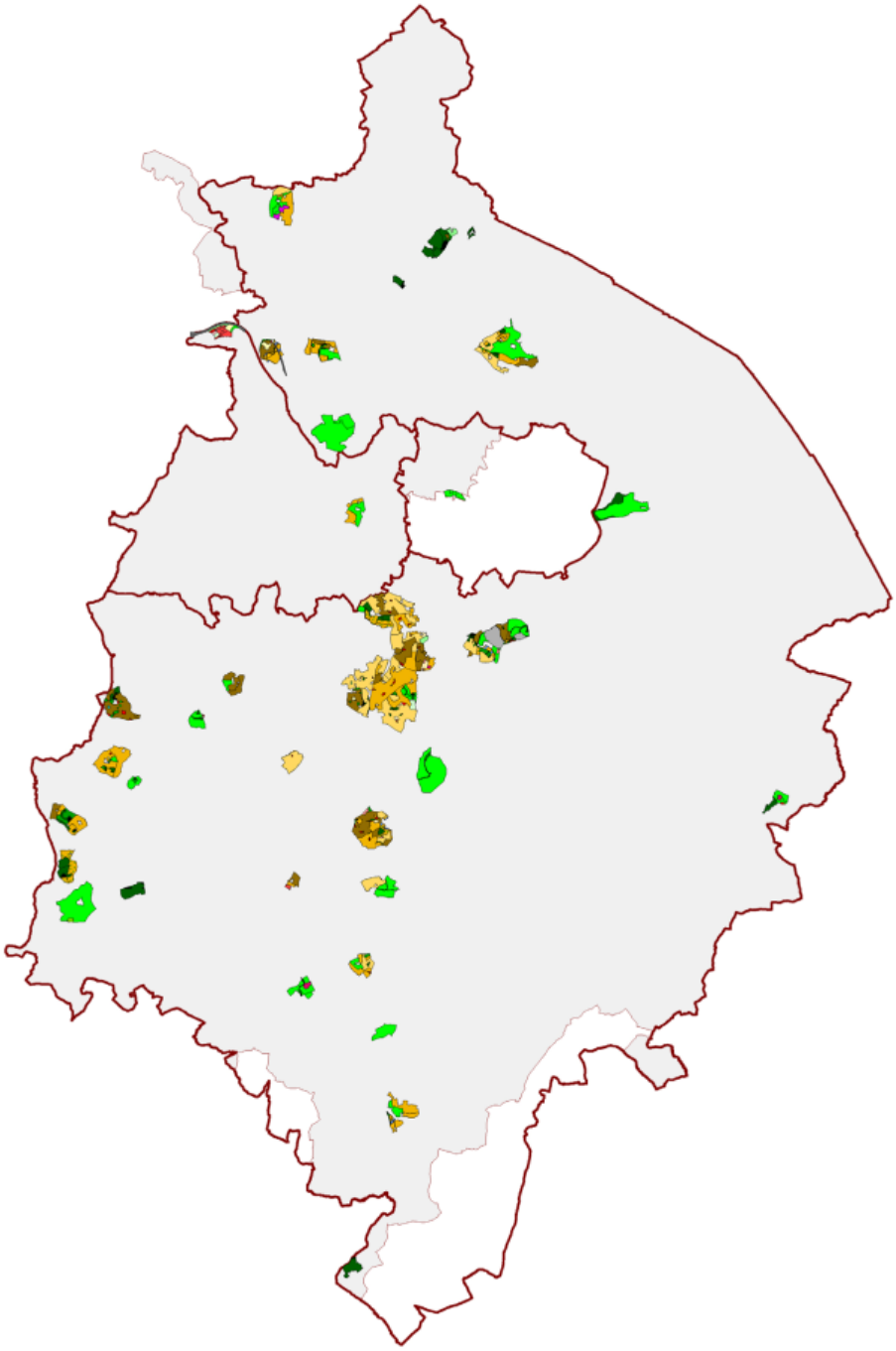
Deer parks were not always for hunting though and often were used to supply venison meat. It seems that in many cases land of poor fertility was utilised, with few parks found in areas of high agricultural production, however this view is being challenged with the argument that many more were on the best land (and have

subsequently been largely lost to view), either close to or surrounding the castle or manor house, with the conspicuous waste of good land a sign of high status

The Warwickshire HLC identifies 38 distinct deer parks in the county. A list of Deer Parks in Warwickshire can be produced and is found below.

1. Berkswell
2. Park Hall Park
3. Kenilworth Chase (Old Park/Great Park/Queens Park)
4. Wedgnock Park
5. Haseley Park
6. Coombe Abbey
7. Hampton Park (possible)
8. Fulbrook Park
9. Warwick Castle Park (possible)
10. Charlecote Park
11. Clopton Park
12. Claverdon Park
13. Bentley/Monks Park
14. Hoar Park
15. Purley Park
16. Coleshill Park
17. Maxstoke Park
18. Arbury Park
19. Packington Park
20. Middleton Park
21. Allesley Park
22. Stoneleigh Park
23. Shuckburgh Park
24. Honington Park
25. Ettington Park
26. Goldicote Park
27. Coughton Park
28. Old Park (Arrow)
29. Oversley Park (New Park)
30. Spernall Park
31. Ragley Park
32. Henley Great Park and Henley Little Park
33. Lapworth Park
34. Alscot Park
35. Skilts Park
36. Studley Park
37. Beaudesert Park
38. Baddesley Park

Most of these are recorded in the HER. Some could have been more than one park at any one time, for example Kenilworth Chase also included at certain periods the Old Park, Great Park and Queens Park. Some of these 38 deer parks could also date to the post-medieval period.



Location of former deer parks recorded on the HLC

There are some deer parks recorded on the HER but not on the HLC. The reason for this is that the exact extents are not known from map or landscape evidence and are only recorded from documentary sources. These additional deer parks include Kingshurst Park, Morton Bagot Park, Rowington Park, Baddesley Park and possible parks at Long Itchington, Snitterfield and Piles Coppice.

These are found spread throughout the county although most are in the north and western part of Warwickshire. The reason for this may be associated with the more fertile land in Warwickshire lying to the south and east while in the north and west the area was more a mixture of heathland, commons and wooded areas with less productive agricultural land on account of the different geology and soil types.

A band of Deer Parks is visible running from Honington northwards to Kenilworth, Packington and Middleton. Any reason for this pattern is unclear. There is also a ring of Deer Parks that almost entirely encircles Stratford and Wilmcote. The reason for this again is unclear, and these patterns may be just a coincidence.

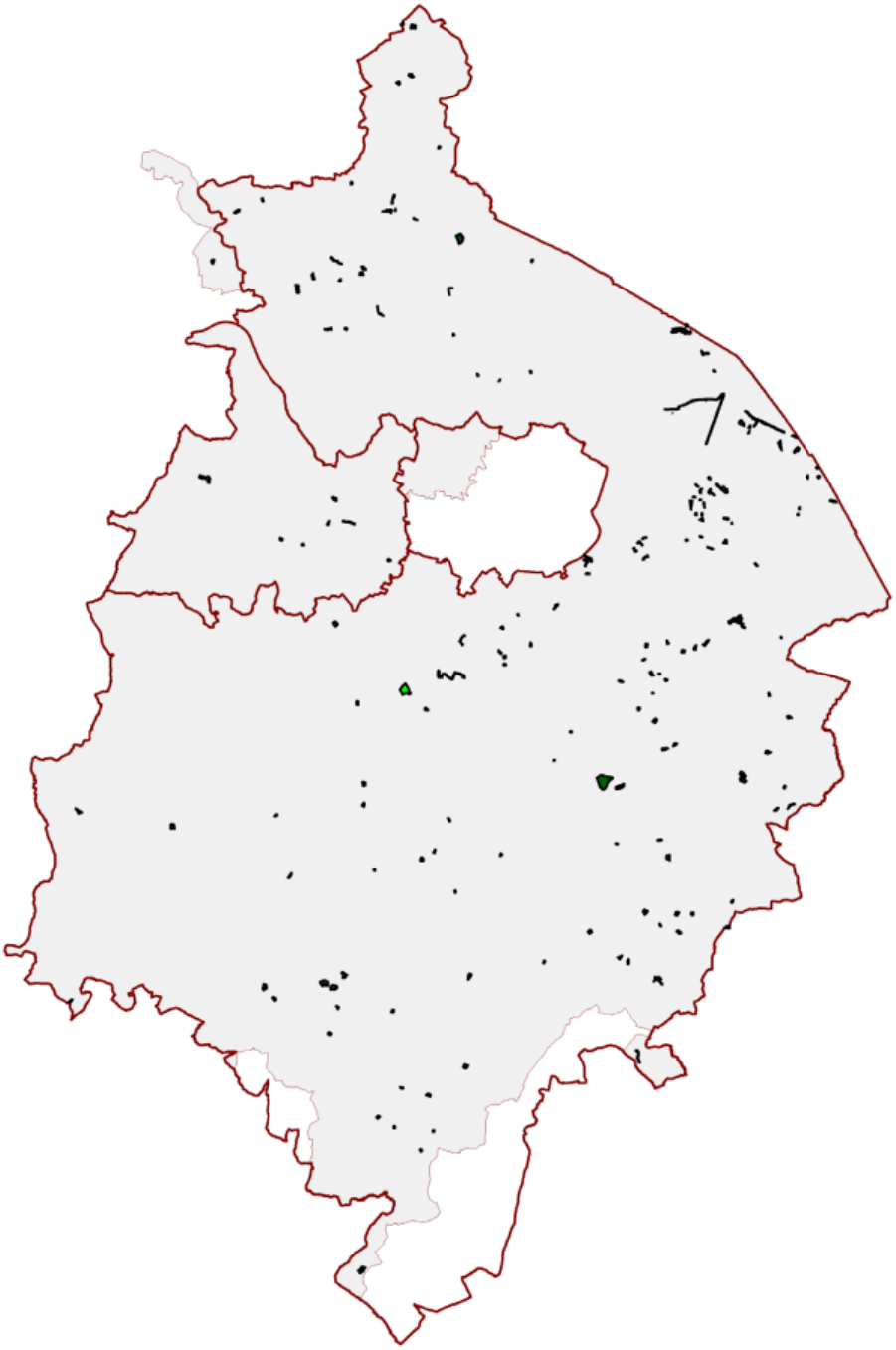
The largest deer park identified is Kenilworth Chase at around 1000 hectares. This lies next to Wedgnock Park, another large deer park of around 900 hectares, which in turn lies next to Haseley deer park whose boundaries are less clear but could be another 400 hectares. These three abut each other although in the case of Kenilworth Chase and Wedgnock they both had separate park pales with a road running between them.

The exact extents of most of the deer parks in Warwickshire are not very well known, with only a few physical park pales and boundaries still existing. The extent can often be inferred from field boundaries and sometimes from woodland boundaries. Deer Parks often took in woodland and were not always stable in size.

Fox hunting

By the 18th century, hunting hares and foxes was an important leisure pursuit, particularly for the rural gentry and their followers, and organised hunts were established throughout England. Part of this planned approach often meant manipulating parts of the landscape, for example small areas of woodland or scrub were created in certain positions to provide cover for foxes and other animals which were then flushed out and hunted. These areas often contained the name covert (meaning to cover) or spinney (meaning thorny, inaccessible scrub/woodland)

The HLC was used to show where records were recorded with Covert or Spinney in the name. This is not completely comprehensive, however, because areas less than one hectare in size are not generally recorded by the HLC and typically Coverts and Spinney were small areas.



Location of woods with the name ‘Covert’ or ‘Spinney’ recorded on the HLC

Despite this, 54 coverts are recorded in the county. They are generally around 3-4 hectares and tend to cluster in groups of 4 or 6 in particular areas in the county. Most Coverts are found in the south and east of Warwickshire with another small concentration around Whitacre Heath in North Warwickshire.

Some of these sites are marked as Fox Coverts on the OS 1st and 2nd edition maps.

There are 134 Spinneys recorded by the HLC being on average around 2-3 hectares. Some, like Long Spinney, are long sinuous formations of woodland that follow administrative boundaries but could also have been used for hunting.

Most spinneys appear to be in the north and east of the county with a complete lack in the west apart from a small concentration around Balsall Common. There is a large group of spinneys between Brinklow and Easenhall with another group leading southwest out of Rugby to Frankton and Marton. These patterns may be representative of hunting areas and routes used.

Other evidence for hunting can be found in the kennels used to house the hunting dogs. There is one site recorded in the HLC of hunting kennels at Kineton. This is recorded as a Farmstead (HWA12305) called “The Kennels - Warwickshire Foxhounds”. It is recorded as such on the OS 1st edition onwards. The listed buildings record for this site dates the kennels to 1839 as: “Hunt houses, stables and kennels. 1839. By Hugh Williams (a hunt member).” Prior to this the areas is marked as part of a park on Greenwood’s map of 1822.

A few other kennels are recorded by the HLC but tend to be modern commercial kennels rather than related to hunting.

There is one placename that may relate to hunting and that is Chadshunt, interestingly just two miles north east of Kineton, the site of the Warwickshire Foxhounds Kennels.

In terms of other types of hunting sites it is difficult to identify any others in the HLC; the only other type recorded by the HLC and HER is decoy ponds, with 4 recorded in Warwickshire.

Conclusion

The purpose of this chapter was to understand how characterisation had developed in the county and to show some examples of how HLC could be used to perform analysis at a countywide level in conjunction with other forms of characterisation and with other datasets and through thematic analysis.

It has been demonstrated that HLC can contribute greatly to other characterisation studies and should form a key part of any study or analysis of the landscape.

It has also been shown that the HLC forms an integral part of the HER and can complement present data and records and should be used in conjunction with other Historic Environment information for a far more detailed picture of the past of the county.

Other datasets such as the HBA could also benefit from using HLC data and the true potential of using the HLC data for further studies and to support, or be compared with other datasets needs to be explored further.

Only one thematic topic was covered in this level of analysis but it is felt that this has provided a unique view on the sporting history of Warwickshire and raised a series of questions for further research such as why golf courses are found in certain areas of the county and not in others, or whether planted woodland can help show fox hunting routes, or how deer parks developed over time and their true impact on the landscape?

A similar level of analysis can of course be applied to research other themes of Warwickshire's past. Some other themes are suggested below:

- Warwickshire's Industrial Landscape
- The development of field types in Warwickshire from the medieval period onwards
- 20th Century Military Landscapes of Warwickshire

Chapter 6 - District Analysis

Introduction

Analysis of HLC material was carried out for each district in the project area excluding the rural quarter of Coventry and the small rural strip of Birmingham.

For each district an introduction is given summarising key facts about the area; a summary of historic landscape character follows with statistics about the Broad HLC Types and then more detailed analysis is given arranged by HLC broad type with detail added about the HLC types, their distribution across the area and their impact on the development of historic landscape character over time.

This chapter serves as a broad summary of the Historic Landscape Character for each local authority area, but for further detail including such topics as archaeological potential and management issues please refer to the HLC Broad Type or HLC Type analysis in Chapters 3 and 4.

Nuneaton and Bedworth Borough

Introduction

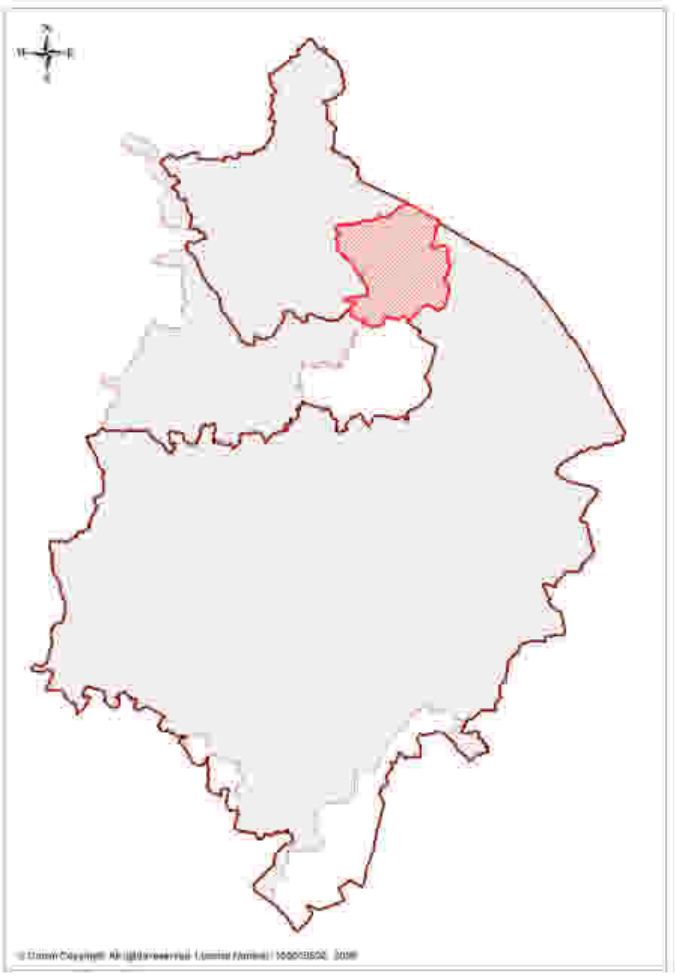
Nuneaton and Bedworth Borough was created in 1974 from the merger of the municipal borough of Nuneaton and the urban district of Bedworth (which included Bulkington).

The Borough is 7,898 hectares in size with a population of 121,200 people. This gives a density of 1,534 persons per square kilometre and makes it the most densely populated district in Warwickshire.

Largely urban in nature the Borough has three main communities: Nuneaton, Bedworth and Bulkington.

The three settlements are separated by narrow areas of mainly unpopulated countryside which are designated as Green Belt.

It borders the Warwickshire districts of Rugby to the south east and North Warwickshire to the northwest with Coventry City to the south and the county of Leicestershire to the north.



Summary of Historic Landscape Character

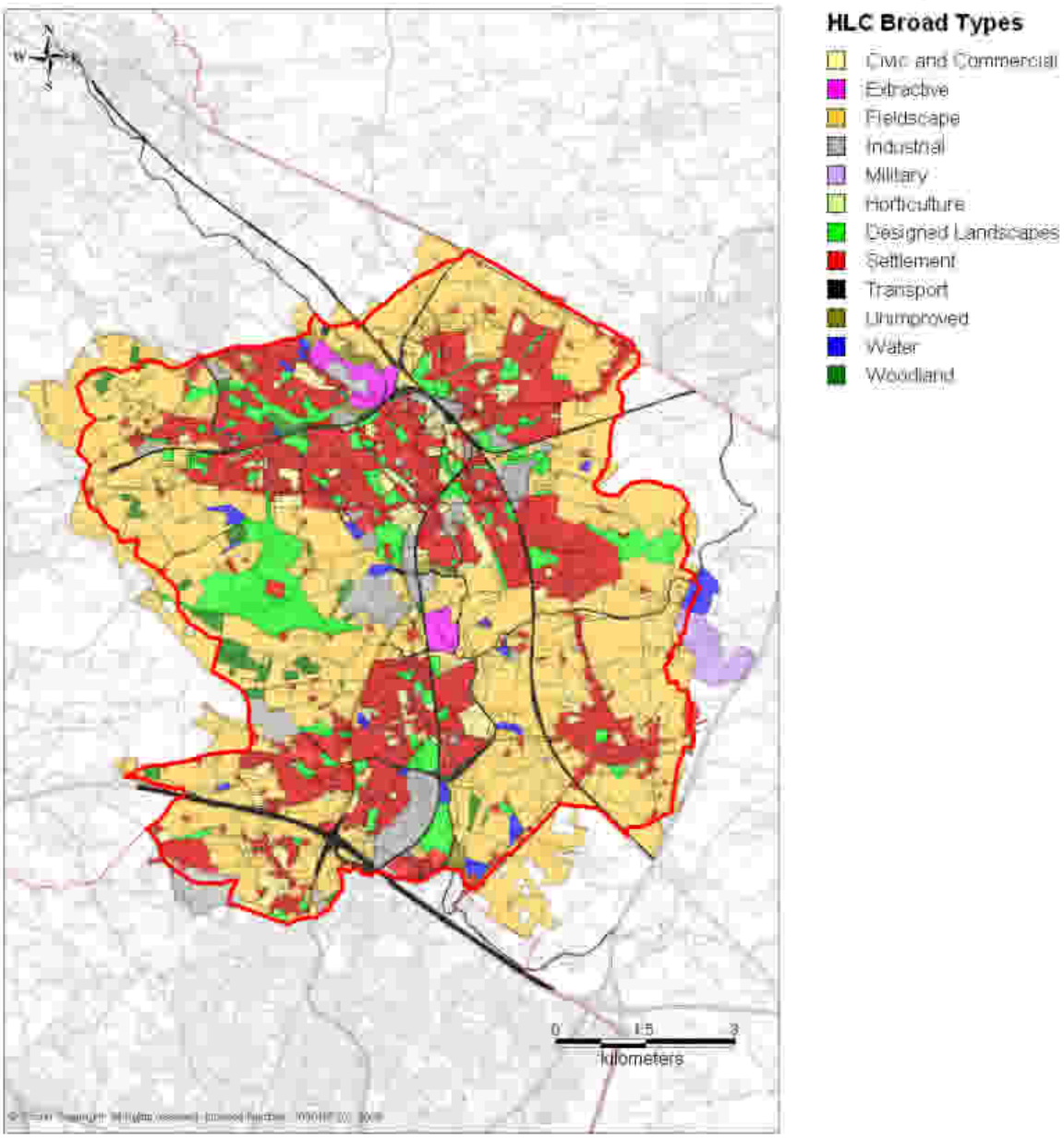
Despite being the most intensely populated borough in Warwickshire and including the urban areas of Nuneaton and Bedworth, the settlement element only makes up around a quarter of the total area of the Borough. Other HLC types related to settlement and urban areas including civic and commercial, industrial and some parks and recreational areas make up another 11%. Around half of the Borough comprises fieldscapes and the character is a mix between an urban and rural borough.

There are no active coal mining sites left in the area but there was once a string of mines running from the south to the northwest of the Borough following the Warwickshire Coal Seam. The coal mines brought industry and transport links to the area which are still significant today including the Coventry Canal, the Ashby de la Zouche Canal and the large number of railway lines that pass through Nuneaton.

Other extraction works include hard rock quarries with two, Judkins Quarry and Griff Quarry, having a large impact being almost 100 hectares in extent. Part of the land near these extraction sites is being used as a waste tip while other areas have been filled and left to form scrub which explains the slightly larger than average amount of unimproved land in the Borough.

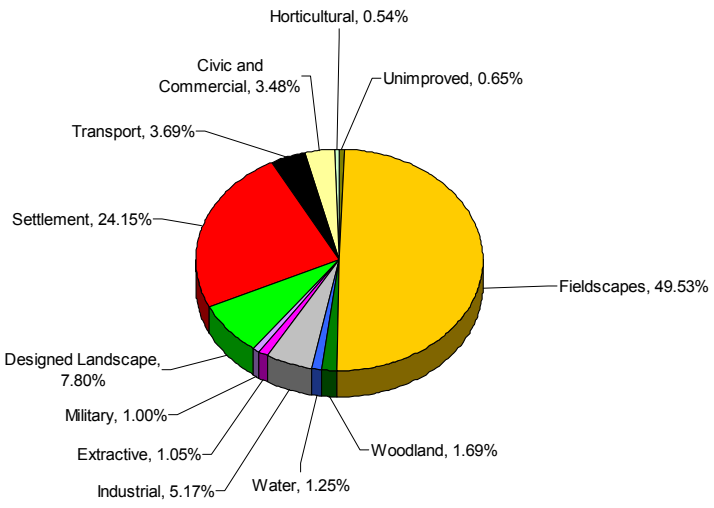
The Borough area is sparsely wooded with less than half the county average, although some of the woodland coverage forms part of Arbury Park, a designed landscape which dominates as the largest park and garden in the Borough.

Map of Nuneaton and Bedworth HLC Broad Types

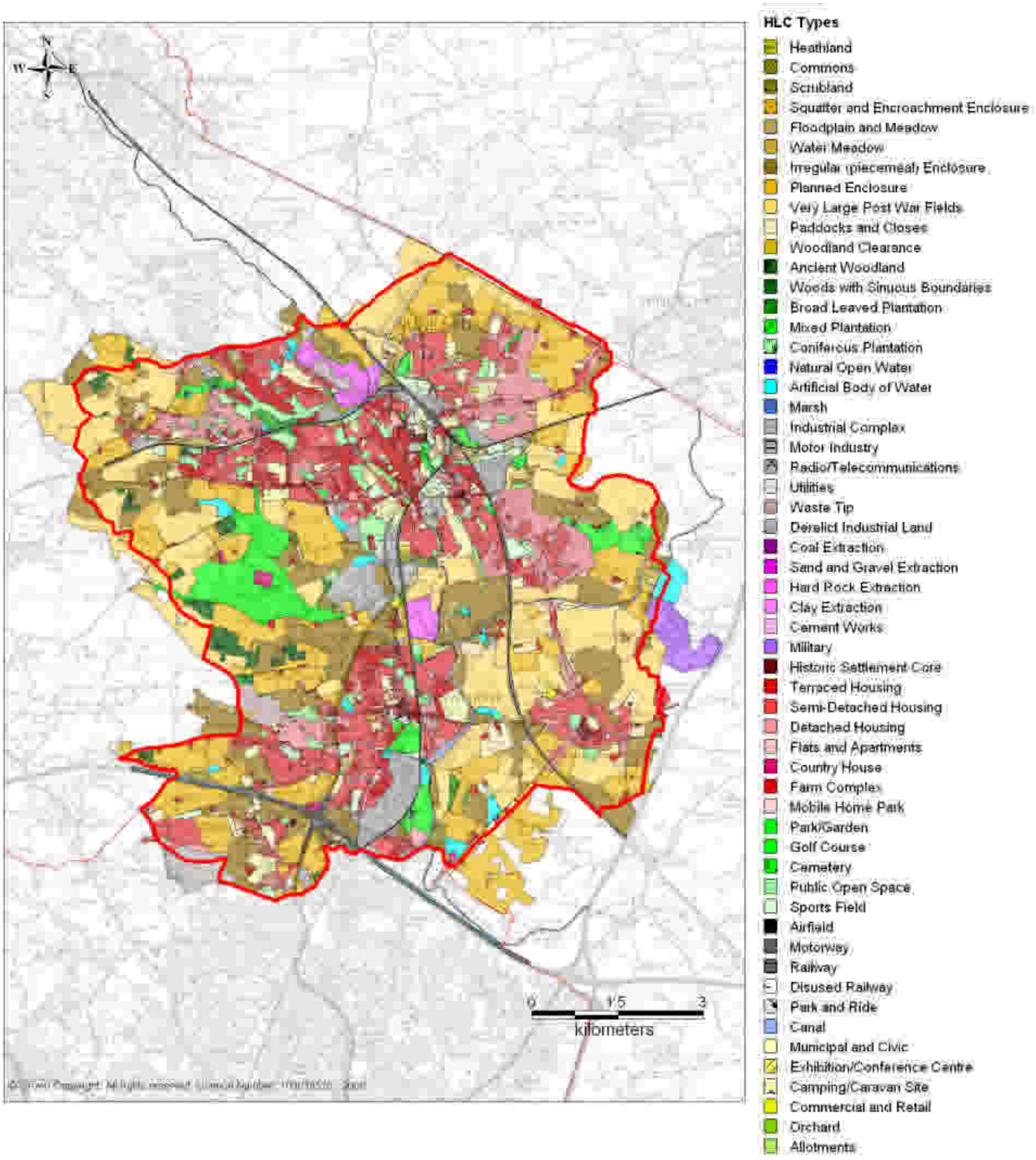


Nuneaton and Bedworth HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	57.35	0.65 %
Fieldscapes	4339.82	49.53 %
Woodland	148.25	1.69 %
Water	109.37	1.25 %
Industrial	453.15	5.17 %
Extraction	92.01	1.05 %
Military	87.29	1.00 %
Designed Landscapes	683.08	7.8 %
Settlement	2115.70	24.15 %
Transport	323.57	3.69 %
Civic and Commercial	304.94	3.48 %
Horticultural	47.30	0.54 %



Map of Nuneaton and Bedworth HLC Types



Historic Landscape Character Analysis

Unimproved

Very little unimproved land is found in the Borough with most of the present areas being scrub growth on filled-in and undeveloped old extractive works.

In terms of previous unimproved land there were some large areas of common in the north west of the Borough at Galley Common and in the south west at Bedworth Heath.

Fieldscape

The patterns of fields making up the Borough form a varied mix of fieldscape types including irregular, planned and some very large post-war fields.

There is no clear pattern of particular areas of character in respect of fieldscapes and this may be a reflection of the amount of change that has taken place in the Borough in the last few centuries, largely as a result of industrial development, extraction works and urban expansion.

For example in the 1880s there were around 7243 ha of fieldscapes making up 83% of the Borough. This demonstrates the fact that over 40% of the Borough's fieldscapes have developed into other HLC types in the last 120 years alone.

Some very general patterns of fieldscapes can be seen. For example, about half are irregular and half are planned. The planned enclosures appear to lie near the urban expansion although there are some exceptions such as at Bulkington and the Whitestone area in Nuneaton. The irregular, and possibly the older landscape, appears in the east of the Borough. This may be because it is in an area away from the common, coalfields and urban development.

Woodland

There is very little woodland in the Borough. Most can be found just outside Arbury Park with a few small pockets elsewhere. The woodland to the south and west of Arbury Park is ancient woodland and was once much more extensive as a swathe around the park, but this has been gradually eroded or assarted away.

Water

The River Anker passes through Nuneaton heading northwest.

A number of fishing lakes are found in the south and east of the Borough.

Some artificial ponds and water features are found relating to the canals and extractive areas.

Industrial

The industrial past has altered and shaped the Borough significantly especially in terms of coal mining and other extractive industry. Other historic industries include the Chilvers Coton pottery industry dating back to the medieval and post medieval periods once formed a large area to the south west of Nuneaton (Mayes and Scott 1984).

The present industrial element of the Borough is relatively high at 5% of the Borough area compared to 2% for the whole of Warwickshire. Although most of the industrial areas are relatively new industrial estates such as Exhall Industrial Estate and Bermuda Business Park, they are often on the site of old coal mines and workings. The distribution of industrial areas in the Borough relates quite closely to the pattern of the railways.

Extractive

No doubt the greatest impact on the landscape of the Borough is the result of mineral extraction from both coal and hard rock. These have left their mark on the Borough with very large areas excavated and large mounds left nearby, 'Mount

Judd' in particular dominates the skyline in the Borough.

Coal mining has taken place in the Borough from the medieval period onwards with some evidence of Roman exploitation. A string of coal mines once existed running from south of Bedworth to north west of Nuneaton following the Warwickshire coal seam (Grant 1982). No active coal mining remains in this area but the effect this has had on the landscape is obvious and has shaped the pattern of transport links, the settlement expansion of Nuneaton and Bedworth and the large amount of industrial areas.

Present extraction sites are made up of two large areas of hard rock extraction (Judkins and Griff Quarries) almost 100 ha in extent. Some of the area near this extraction is being used as a waste tip while other areas have been filled and left to form scrub.

Military

The only military site in the Borough is a small part of Gamecock Barracks at Bramcote which is the home of the 30th Signal Regiment. Gamecock Barracks is on the site of the Second Wold War RAF Bramcote training airfield. Most of the barrack site is within Rugby Borough.

Designed Landscapes

Designed landscapes are dominated by Arbury Park, which was at one time much larger and, in the medieval period, once formed part of a deer park.

Smaller parks and gardens can be found scattered throughout the urban parts of the Borough with the Miners Welfare Park at Bedworth of some note.

There are also three golf courses.

Settlement

There are four main historic cores; Nuneaton, Attleborough, Bedworth and Bulkington. The cores of all of these date back to the medieval period.

A large part of Nuneaton has been redeveloped but what remains from the early 20th century settlement is mainly terraced housing towards the centre of the town that also stretches out towards the west and a little to the south. Other areas of terraced housing developed separately at Chilvers Coton and Hartshill. All around the outside of this terraced housing semi-detached housing was created in the inter war or early 1950s period. In the late 20th century this was all linked together, mostly with more modern terraced housing estates, to form the much larger settlement area of Nuneaton. Strips of detached housing were established along the roads at the very edge of Nuneaton. Finally, in the late 20th century mostly detached with some semi-detached housing expanded Nuneaton even further out to the suburbs of Whitestone, Horeston Grange, St Nicholas Park, Chilvers Coton and Camp Hill. Modern terraced housing is found at Camp Hill, Stockingford and the Chilvers Coton area.

Bedworth had a similar development to Nuneaton with terraced housing near the centre and stretching out from there, followed by mainly semi-detached inter war/early 1950s infill. Subsequent development has focussed on the west and south linking Bedworth with Exhall and almost reaching to Coventry itself.

Bulkington is a much later developed area. Some inter war or early 1950s strips of detached and semi-detached housing stretched out towards Nuneaton. Later modern estates developed around Bulkington's historic core – again mainly semi-detached with some detached housing.

In terms of rural settlement there are a number of pre 1880s farmsteads scattered throughout the rural part of the Borough.

A greater number of farmsteads are found on the western side of the Borough, with fewer in the east and north. One or two more modern farms are found on the edge of the Borough including the large Bramcote Mains farm which appears to

have diversified into a fishing and off-road activity centre.

There are a few country houses in the Borough including Arbury Hall, country house on the site of a medieval priory and still in its context of a large 18th century designed landscape. Exhall Hall has been subsumed and enclosed by Junction 3 of the M6. Hawksbury Hall has been influenced by coal mining and has scrub surrounding most of it.

Transport

Canals were established to transport coal to the rest of the country. The Oxford Canal, one of the earliest canals in the country designed to connect the Midlands with London via the River Thames, started here at Hawksbury Junction in the 1770s.

The Coventry Canal followed this and was built in 1771. The Ashby de la Zouche Canal was then constructed in 1804 to link the Coventry Canal and the Ashby coal and lime extraction areas in Leicestershire.

Small canal arms from the Coventry Canal that linked it to the coal mining areas still exist.

Railways connected Nuneaton and Bedworth in the mid 19th century with links being made between major towns and cities in the Midlands particularly Coventry, Birmingham, Stafford and Rugby. Later, direct links were made between Nuneaton, Birmingham and Leicester.

Some dismantled railways remain in the Borough; some are industrial branches to the old coalfields while others are railways that have closed.

In terms of later 20th century transport, the M6 motorway passes through the southern part of the Borough with Junction 3 linking to the main communities.

Civic and Commercial

Most of the municipal and civic as well as commercial areas are found in the Nuneaton area with very little in Bedworth.

The George Eliot Hospital is a large hospital at Nuneaton and there are a number of schools in Nuneaton and Bedworth.

There is a fairly large commercial/retail area in the centre of Nuneaton redeveloping part of its historic core with others found on the southern and eastern edges.

Horticulture

There is little horticulture in the Borough with no orchards recorded and just a small number of allotments scattered throughout the urban areas of Nuneaton, Bedworth and Bulkington.

North Warwickshire District

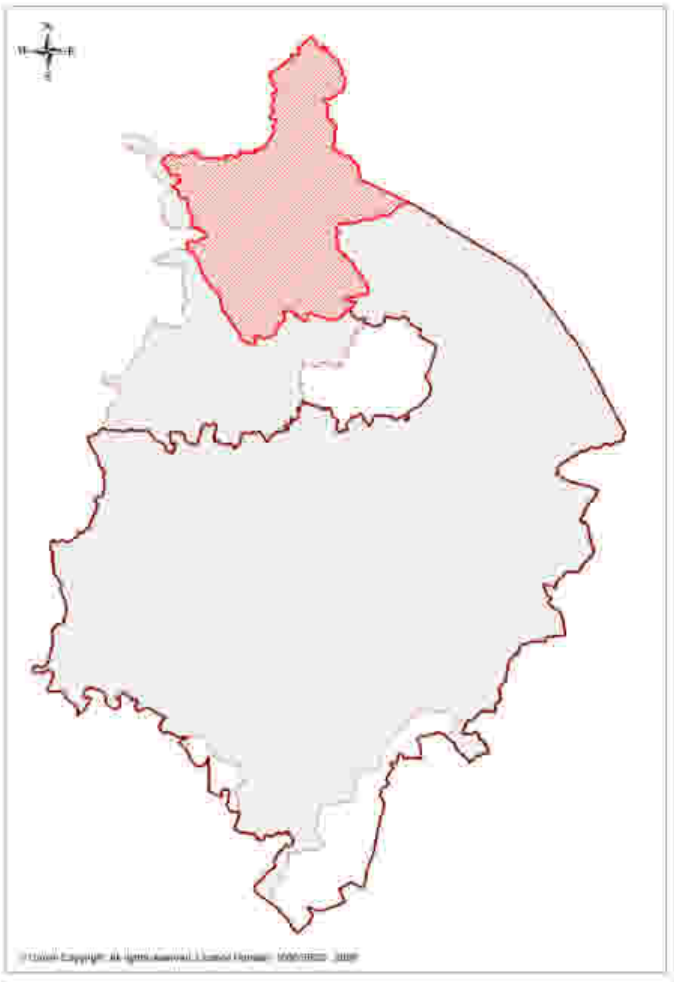
Introduction

North Warwickshire District was created on 1 April 1974 by a merger of the Atherstone Rural District and parts of the Meriden Rural District

The District is 28,516 hectares in size with a population of 62,200 people. This gives a density of 218 people per square kilometre and makes it the second least populated district in Warwickshire.

North Warwickshire is a mostly rural area with several small towns with the main town of Atherstone where the council is based while other significant places include Coleshill, Polesworth and Kingsbury. The area historically had a large coal mining industry, but this has almost died out apart from the economically very successful Daw Mill. The District is relatively remote from the rest of Warwickshire, as the county is almost split in two by the West Midlands County and Nuneaton and Bedworth.

It borders the Warwickshire district of Nuneaton and Bedworth to the east, the county of Leicestershire to the north-east, Staffordshire to the north-west, and Coventry and Solihull to the south and south-west.



Summary of Historic Landscape Character

North Warwickshire is very much a rural district with over 70% made up of fieldscapes and the figure is closer to 85% if account is taken of other 'rural' landscape types such as woodland, water, designed landscapes and unimproved land.

Consequently, settlement forms a minor part of the District with only a few larger settlements such as Atherstone and Polesworth, the rest being small villages and scattered farmsteads.

The unique geology of the District has shaped landscape development, especially in terms of human interaction with that landscape. For example, the presence of coal and hard rock in North Warwickshire led to exploitation that accelerated with the industrial revolution. However, only one active coal mine remains, Daw Mill. Other extraction continues at some scale such as hard rock at Purley, Mancetter and Hartshill, clay just south of Tamworth and sand and gravel in the Tame Valley area.

These works have impacted on the landscape, leaving behind derelict land such as Baddesley Colliery, large extraction pits some being filled in with waste, others left to form scrub and in the case of sand and gravel extraction water filled pits that have become features of Country Parks (Kingsbury Water Park) and Nature Reserves (Middleton Lakes and Alvecote Pools).

The industrial past also impacted in terms of transport links in the District with the Coventry Canal and Birmingham and Fazeley Canal both passing through the District in the late 18th century and connecting industrial areas to large settlements. Railways formed the next phase with a number of lines passing through from Nuneaton to Tamworth and connecting to Birmingham.

The level of industrial activity in North Warwickshire, although in decline compared to the previous few centuries, still remains above average for the county. Most of this is made up of huge modern distribution parks such as Hams Hall and Birch Coppice together with large industrial estates on the edge of the major settlements.

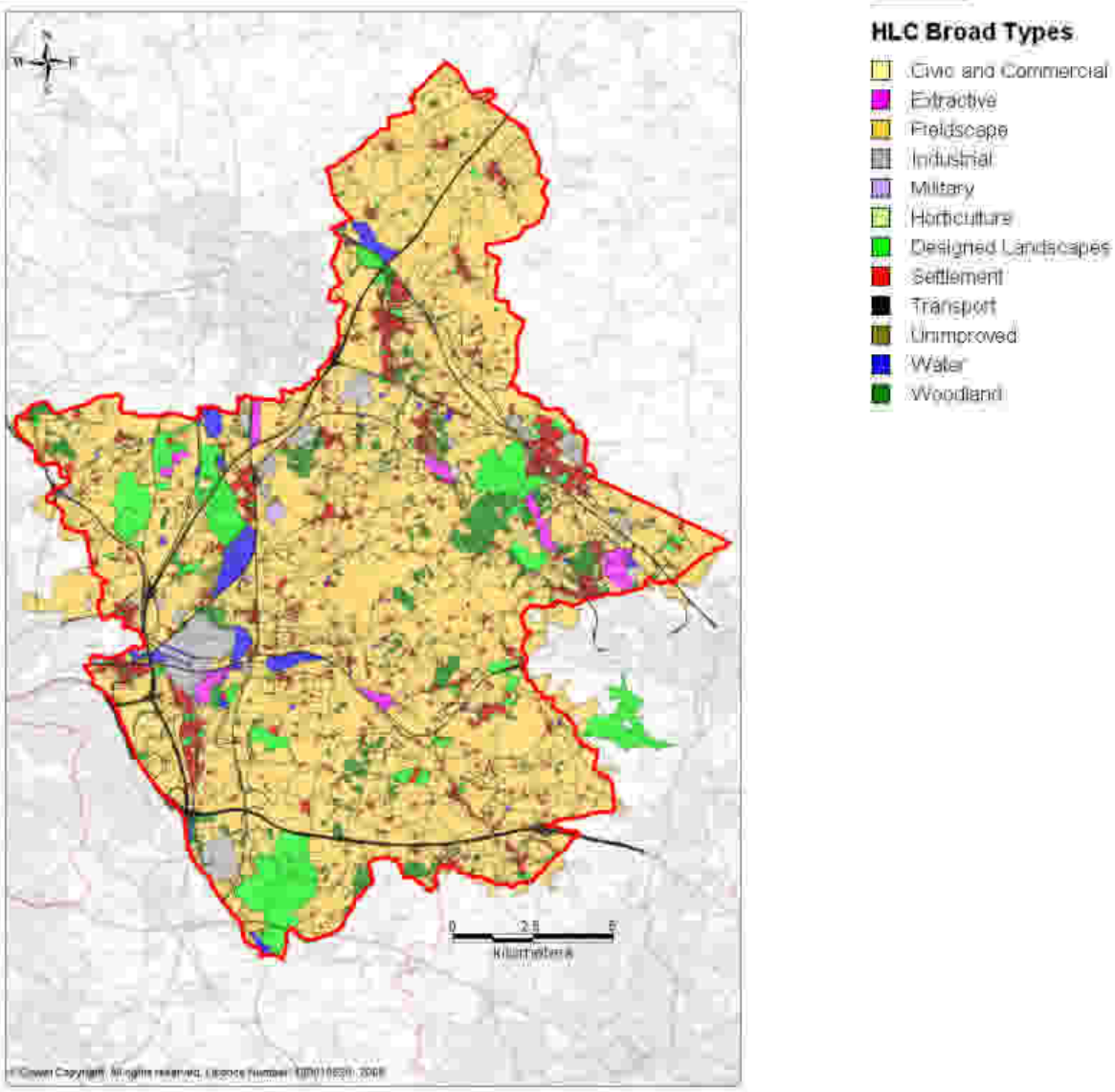
Despite this industrial and extractive impact, the main landscape feature of the District is fields. The majority of these are very large post war fields with some piecemeal enclosure scattered through the District. There is much less planned enclosure when compared to other field types and other parts of the county.

Another feature of the District is the above average amount of unimproved land. This is partly due to extractive activity leaving scrub and partly due to the remaining common and heathland forming some of the largest remaining examples in the county at Baddesley and Baxterley. Encroachment onto common in this area and other parts of the District is visible in settlement patterns and names and the remaining encroachment and squatter enclosure such as at Corley Moor.

The District also has slightly more woodland than average with some large areas of ancient woodland such as Bentley Park/Monks Park Wood, but most are small patches of woodland scattered throughout the District. Previously woodland formed a much larger feature and this has been slowly assarted and cleared from the medieval period onwards.

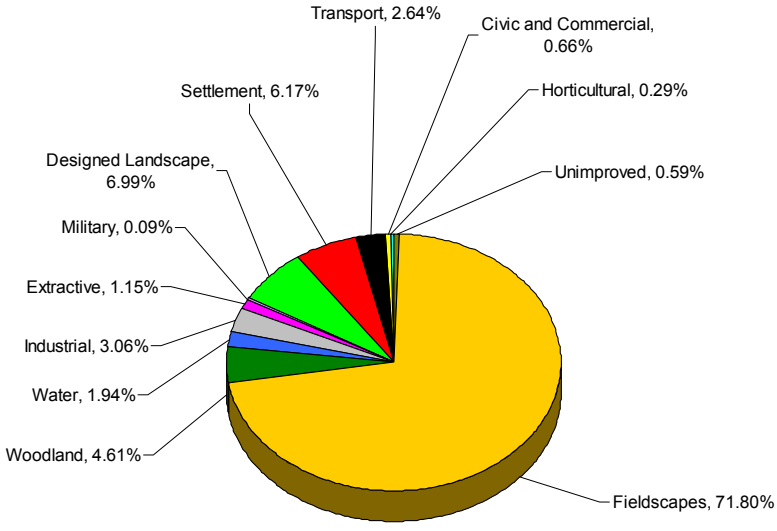
North Warwickshire also has a large number of designed landscapes. Most of these are golf courses, many of which are on the sites of historic parks. A few large historic parks and gardens do survive in the District as well as evidence of older, medieval, deer parks that once formed much larger areas.

Map of North Warwickshire HLC Broad Types

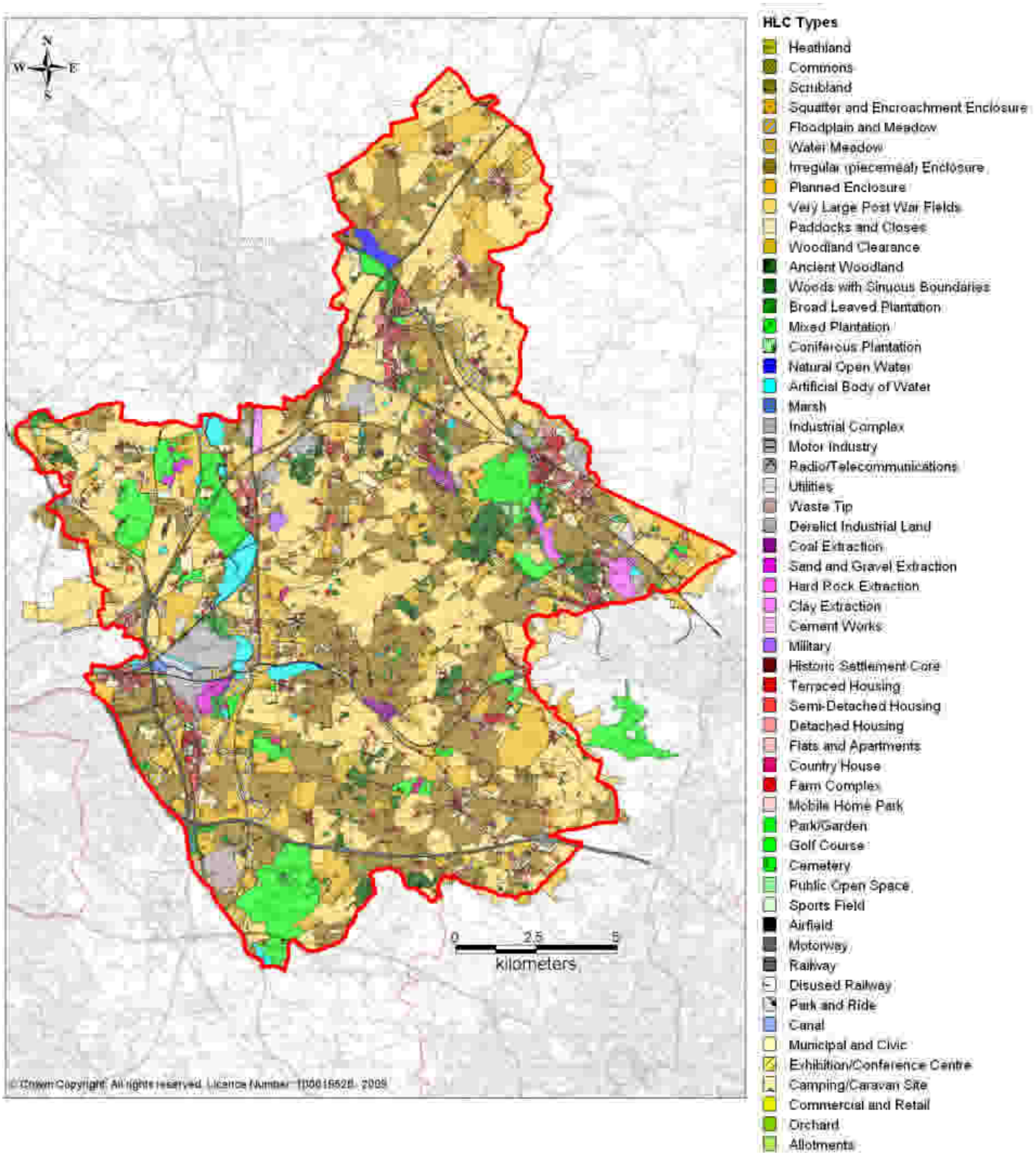


North Warwickshire HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	175.23	0.59%
Fieldscapes	21242.41	71.80%
Woodland	1365.03	4.61%
Water	572.83	1.94%
Industrial	905.02	3.06%
Extraction	340.55	1.15%
Military	27.94	0.09%
Designed Landscapes	2068.18	6.99%
Settlement	1825.38	6.17%
Transport	780.08	2.64%
Civic and Commercial	196.63	0.66%
Horticultural	85.1	0.29%



Map of North Warwickshire HLC Types



Historic Landscape Character Analysis

Unimproved

There is an above average amount of unimproved land in North Warwickshire District when compared to the county as a whole. Part of this is related to the high level of extractive activity that results in large areas of land being left to scrub. Good examples of this are found at Mancetter and Hartshill quarries. However, the other reason for the large amount of unimproved land is the fairly extensive remains of common land that once existed in North Warwickshire. This also includes the largest surviving patch of heathland in Warwickshire, albeit only 3.18 hectares in size, at Baddesley Ensor.

Patches of common survive at Baddesley, Baxterley, Corley and Chapel Green. Some of these like Corley Moor and Chapel Green have squatter and encroachment enclosure around the edge of the surviving common with detached farmsteads at the very edge of the common. Corley Moor also has more substantial settlement on the south and eastern side; some of this dates to the 19th century, some to the 20th century. Corley Moor and the surrounding fieldscape complex have been truncated somewhat by the M6.

The commons at Baddesley and Baxterley were at one point joined and were part of a much larger area called Baxterley Heath which took in Baddesley Colliery, and most of the present day extent of Baxterley and Baddesley Ensor and most of Grendon settlements.

Settlement appears to have started to encroach onto this large area of Common/Heath at Baxterley and Baddesley. This is most obviously seen in their historic cores and some isolated houses at Baxterley Common woods (which itself is woodland that has developed on common). Industry also encroached onto the common, in the late 19th century, in the form of Baddesley Colliery as well as opencast mining and spoil heaps from the mining process, all of which are now derelict. Part of the reason why the common and heath developed was due to the paucity of the soil in turn due to underlying geology, the same geology responsible for rich coal deposits.

Some place names indicate that more common and heath land used to exist in areas where little or none currently remains, such as Ansley Common, Whitacre Heath and Bodymoor Heath.

Fieldscape

The predominant fieldscape type found in the District is very large post-war fields, forming huge areas up to 540 hectares in size. These are most commonly found in the parts of the District with least settlement and appear mostly in the centre and north rather than the south where irregular fields are more prevalent.

Patches of piecemeal and re-organised piecemeal enclosure of medieval open fields are found around Shustoke, to the east of Coleshill and around Baxterley and Birchley Heath. Small patches of piecemeal enclosure are scattered throughout the rest of the District.

There is a substantial number of irregular fields in the District, mostly found on the outskirts of villages and settlement with many more irregular fields in the southern part.

The only squatter and encroachment enclosure is in the very south around Corley Moor and the eastern edge of Packington Park. This reflects the edge of a wide band of common/heathland that stretched from the northern part of Stratford-on-Avon District through Solihull Metropolitan Borough to North Warwickshire District. This common/heathland appears to have been enclosed from the late medieval period onwards.

There is relatively little planned enclosure or rectilinear fields in this area when compared to the other field types. A small concentration is found in the Newton Regis, Austry area with other patches around Caldecote, Astley, Coleshill, Maxstoke, Whitacre Heath and Middleton.

Some of these can form fairly large contiguous areas up to 213 hectares in size.

Paddocks and closes as in other parts of the county tend to be on the edge of settlements including the edge of farmsteads.

Floodplain is found along the main rivers of the Anker, Tame, Cole and Blythe.

There are some areas of woodland clearance and assarts around Heah Wood which could be older medieval assarts and Dale's Wood which is 20th century woodland clearance. Other patches are found around Bentley Park/Monks Park Wood and elsewhere throughout the District.

Woodland 

North Warwickshire has slightly more woodland than the average for Warwickshire but this is still quite sparse when compared to the rest of its landscape. Most of it is found as small patches of woodland while there are some large areas of ancient woodland such as Kingsbury Wood, Bentley Park/Monks Park Wood, Hartshill Hays, Hoar Park, Heah Wood, and New Park that form an uneven band in the centre of the District between the main river valleys (Anker and Blyth/Tame). Woodland was probably once much more extensive in this central area but is now largely fragmentary.

Small patches of later woodland plantations (19/20th century) are found scattered throughout the area, but are rarely very large.

There is some evidence of an area of previous common grazed woodland or wood pasture at the present Outwoods Golf Course just southwest of Atherstone. Bentley Park/Monks Park Wood may also have been common grazed woodland from the medieval period through to the 19th century.

There are a number of distinct areas where woodland once existed. The first is around Middleton Hall which was probably much more extensively wooded. A second area between Maxstoke and Fillongley now consists of fragmented woodland but it is likely that this was once a more cohesive woodland unit. Others include the areas around Bentley Park Wood, between Polesworth and Baddesley Ensor and on the border with Solihull at Birchley Hays Wood, Close Wood and near Packington Park.

Water 

The two main river systems in the District, the Anker and the Tame, both run in a north/north westerly direction. The Anker runs from Nuneaton through Atherstone and Polesworth and joins the River Tame at Tamworth. Alvecote pools are a major water feature on the Anker just North of Polesworth.

The Tame runs from Water Orton through Kingsbury and on to Tamworth. It is joined by the Cole running from the Birmingham area through Coleshill and the Blythe running from just the other side of Packington Park.

Where these meet, near Hams Hall, the floodplain opens out. The large number of pools here are mostly the result of extensive sand and gravel quarrying. Some make up Kingsbury Water Park; others form Middleton Lakes RSPB Nature Reserve.

Reservoirs are found throughout the District, most are small but some, such as Shustoke, are much larger, being up to 50 hectares in extent.

Other artificial water features consist of fishing lakes and small ponds associated with country houses and farmsteads. Some of these smaller ponds could date back to the medieval period.

Industrial 

North Warwickshire has around a third more, in terms of area, of industrial sites than the average for Warwickshire. This is clearly seen in some of the largest

distribution parks in the area and region such as Hams Hall (over 200 ha) and Birch Coppice (approx 75ha). Both have rail terminals with direct links to the Channel Tunnel and both have interesting histories.

The Hams Hall site was once a series of large power stations, at one time the largest in Europe. Previously it formed Hams Hall country house with a designed park attached.

Birch Coppice was until 1987 a coal mine with origins in the 19th century. Before that it was agricultural land with large irregular fields recorded on 19th century maps.

Other large industrial estates generally tend to be associated with the larger settlements in North Warwickshire such as Coleshill Industrial Estate and Carlyon Road and Holly Lane industrial estates at Atherstone.

Other smaller areas of industrial activity are scattered throughout the District. Utilities, particularly sewage works, are generally small and found all over the District however a large sewage works, presumably serving the urban area of the Metropolitan Borough of Solihull, is found next to Hams Hall on the River Tame.

One industrial site of note is Kingsbury Oil Depot which is the largest inland oil depot in the country. It is also apparently the only oil depot within a few hundred metres of a live firing range!

The older industrial areas in the District (ignoring any extraction) can be found at one particular site at Atherstone next to the canal. They are now mainly used for light industry.

Extractive

North Warwickshire has twice the number of extractive sites than the county average and this is clearly visible across the landscape. The extractive industry has declined in the last century, especially coal mining. However Daw Mill Colliery is still active as the largest coal mine in the country, producing a British record of 3.2 million tonnes of coal in 2008 (UK Coal, 2009) and with 680 miners working at the mine it is an important employer for the area.

Other coal mines have closed, some in the last 20 years such as Baddesley Colliery which remains a derelict site.

North Warwickshire District like Nuneaton and Bedworth Borough has a long history of coal extraction with some open cast mines marked on Beighton's map of 1725. In the late 19th century and early 20th century coal mines stretched from Hartshill towards Baddesley Ensor, north of Kingsbury and around Dordon with further coal fields north of Polesworth.

Change in historic landscape character from coal mining to other types has been quite varied over the last few centuries. For example old coal workings now form areas of woodland, arable fields, water features, industrial distribution parks, wildlife reserves (such as Alvecote Pools which were formed from collapsed mine workings) and Pooley Country Park which has the Pooley Fields Heritage Centre relating to Warwickshire's coal mining past.

Other active extractive sites include Purley, Mancetter and Hartshill quarries which all extract hard rock. Parts of these areas are now disused and some have been left as huge open pits with pools of water.

The only clay extraction site in the county exists in North Warwickshire on the border of Staffordshire just south of Tamworth.

The other main form of extraction in North Warwickshire is sand and gravel. There are two main areas: around Middleton Hall and just north east of Coleshill by the River Tame. In fact most of the river terraces and floodplain area of the River Tame have been exploited for sand and gravel deposits since the 19th century. Most of these areas now have water features, some forming parks such as Kingsbury Water Park and the new Middleton Lakes RSPB reserve (due to open in 2010).

Inevitably some waste tips and derelict industrial land is found near to coal mines and other extraction sites. The largest is a 123 hectare site at Packington.

Military

The only military site in the District is Kingsbury Firing Range a relatively small site not far from Kingsbury Oil Depot. Previous military sites are made up of temporary Second World War camps at Merevale and Packington Parks.

Designed Landscapes

Almost 7% of North Warwickshire is designed landscape, which is 50% more than the average in Warwickshire. This is mainly made up of just a few very large areas of designed landscape including:

- Merevale Park with the Outwoods Golf Course adjoining
- Purley Chase Golf Course
- Kingsbury Water Park
- The Belfry Golf Course
- Middleton Park
- Packington Park including the Golf Course and Country Club and Stonebridge Golf Course which adjoins it to the south
- Pooley Country Park
- Maxstoke Park Golf Course

What is immediately obvious from this list is the large number of golf courses and modern country parks such as Kingsbury and Pooley.

Modern sports fields and public open spaces are found in and around the main urban areas of Atherstone, Hartshill, Coleshill and Polesworth

Some large older designed parks and gardens dating back to the 18th/19th century exist in the District such as Merevale, Middleton, Arbury and Packington Parks. Smaller ones such as Blythe Park, Fillongley Park, Caldecote Park and Shustoke House Grounds are associated with smaller country houses.

From the medieval and post-medieval periods there is evidence of deer parks at Packington Park, Middleton Park, Maxstoke Park, Hams Hall Park, Coleshill Deer Park and Bentley Park.

Settlement

North Warwickshire is one of the most sparsely settled districts in the county second only to Stratford-on-Avon District. The urban centres are Atherstone, Polesworth, Coleshill, Kingsbury, Water Orton, Mancetter, Grendon/Baddesley Ensor, Fillongley and Hartshill (although Hartshill has become more of an extension to Nuneaton and Bedworth than a separate urban area in North Warwickshire).

Atherstone started as a linear settlement along the Roman road (Watling Street) and has expanded with industrial developments to become the main town for the District.

Coleshill is another linear settlement created along a main road and Fillongley is similar although on a much smaller scale.

Baddesley Ensor and Grendon are common edge settlements that have built up next to common land.

Kingsbury has developed sandwiched between the river Tame and the railways.

Polesworth started on the banks of the River Anker and has gradually spread outwards, particularly southwards, in the 20th century.

Other small nucleated villages can be found in the north of the District such as Newton Regis, Austry, Seckington, Warton and Shuttington. Elsewhere settlement is sparsely scattered. Farmsteads follow this pattern being more often part of nucleated

villages in the north and more scattered isolated farmsteads, but of greater density, towards the south.

There are a number of country houses in the District with most found in the south with a distinct cluster around Fillongley.

Transport

Two canals pass through North Warwickshire. The Coventry Canal (opened in 1771) from Nuneaton leads through Atherstone and Polesworth before heading towards Tamworth. A small part of the Birmingham and Fazeley Canal (opened in 1789) leads from Minworth towards Fazeley in Staffordshire.

Railways have also had an impact in the District with main lines running from Nuneaton towards Tamworth (passing through Atherstone and Polesworth) and a series of lines running from Tamworth and Nuneaton towards Birmingham. Some of the railways lines that still exist led directly to coal mines. Some have been dismantled. Others became disused but have since come back into use, such as at Birch Coppice where the old railway line leading to the old colliery was reinstated to be used for the distribution park.

Other dismantled lines include the Stonebridge Railway running from the main railway line near Shustoke towards Hampton in Arden.

More recently a number of motorways have been built across the District with the M6 dominating in the southern part while the M42 and the relatively new M6 toll cross the western part.

Civic and Commercial

In general most of the civic and commercial areas are schools located in the main settlements in the District with some municipal areas at Atherstone and Coleshill.

Other commercial sites include some camping and caravan sites and hotels such as The Belfry, Lea Marston and Moxhull Hall which have been formed mostly from old country houses.

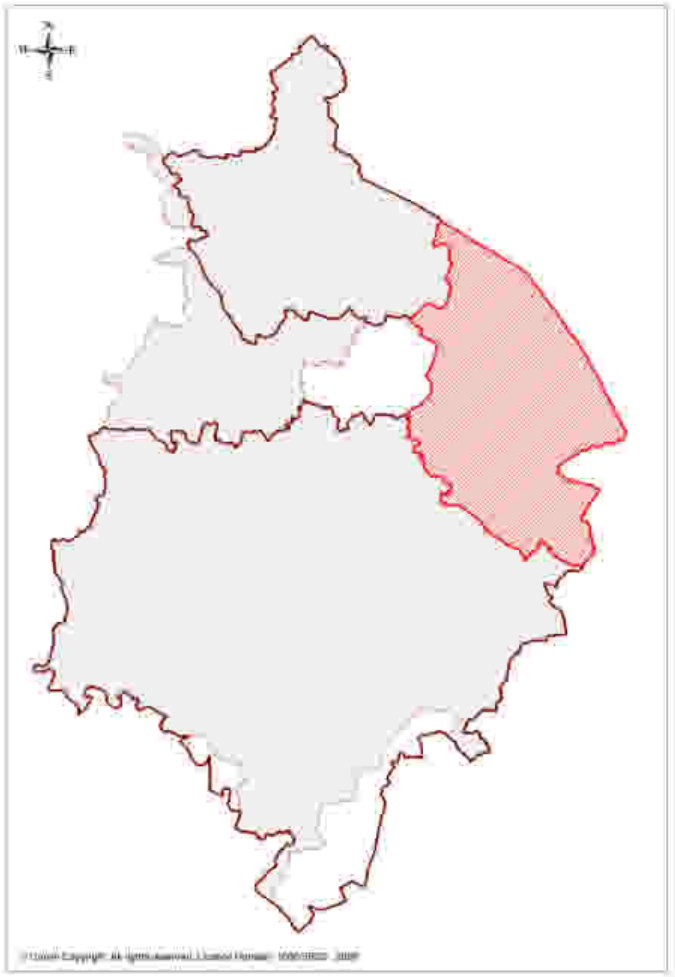
Horticulture

North Warwickshire has about half the county average of horticultural sites. Most of these are small allotments within or close to main settlements. Some small orchards are recorded but these are few and far between. Some modern nurseries are also found in the District.

Rugby Borough

Introduction

The present borough was created on 1 April 1974 by merging the previous municipal borough of Rugby (which covered the town of Rugby) and the Rugby Rural District.



The Borough is 35,558 hectares in size with a population of 91,000 people giving a density of 256 people per square kilometre. Over 60,000 people live within Rugby itself making it the second largest town in the county after Nuneaton.

The Borough is predominantly rural although the town dominates and provides the main focus for the Borough where the council has its headquarters. The town has been shaped by the arrival of the railways in the 19th century and is well known for Rugby School (the birthplace of the game of rugby), the invention of the jet engine by Frank Whittle and the Rugby Cement Works which dominate the town and skyline for miles around.

The Borough borders Nuneaton and Bedworth Borough to the northwest, Coventry to the west, Warwick District to the south west, Stratford-on-Avon District to the south and the counties of Leicestershire and Northamptonshire to the east.

Summary of Historic Landscape Character

Despite being a largely rural District with almost 80% of the landscape being fields, the dominating landscape feature of Rugby Borough is the town of Rugby itself. Over 65% of the population of the Borough live within the town and its development has shaped the settlement pattern of the Borough. It is the only major urban area and the rest of the Borough contains villages and farmsteads. Consequently, most of the civic and commercial centres including larger schools are found either within or next to Rugby.

The town expanded rapidly in the late 19th and early 20th century due to its position on a canal and the crossroads of a number of main railways. Industrial sites sprang up close to the town centre, the canal and the railways. Later the industrial areas developed as large industrial estates north along the Swift valley and even further north closer to the more modern transport corridor of the M6 motorway.

Some industrial areas are changing and developing such as the Ryton Motor Works which has closed recently and the huge area of the Rugby Radio Mast site which was recently decommissioned and largely dismantled.

The other dominating industrial site at Rugby is the cement works. In production since 1860, it is visible from miles around and has had a large impact on the town.

Other extraction works include the large sand and gravel works at Ling Hall on Dunsmore Heath and smaller scale works elsewhere in the Borough.

Despite this urban and industrial impact, fields make up most of the Borough. There is little coherent pattern in the mix of planned and irregular fields interspersed with very large post-war fields. The Borough contains some areas of unusual field patterns not found elsewhere in the county. These include the co-axial piecemeal strip fields at Harborough Magna, the later planned enclosure radiating out of Flecknoe and the fields radiating out from the centre of Dunsmore Heath.

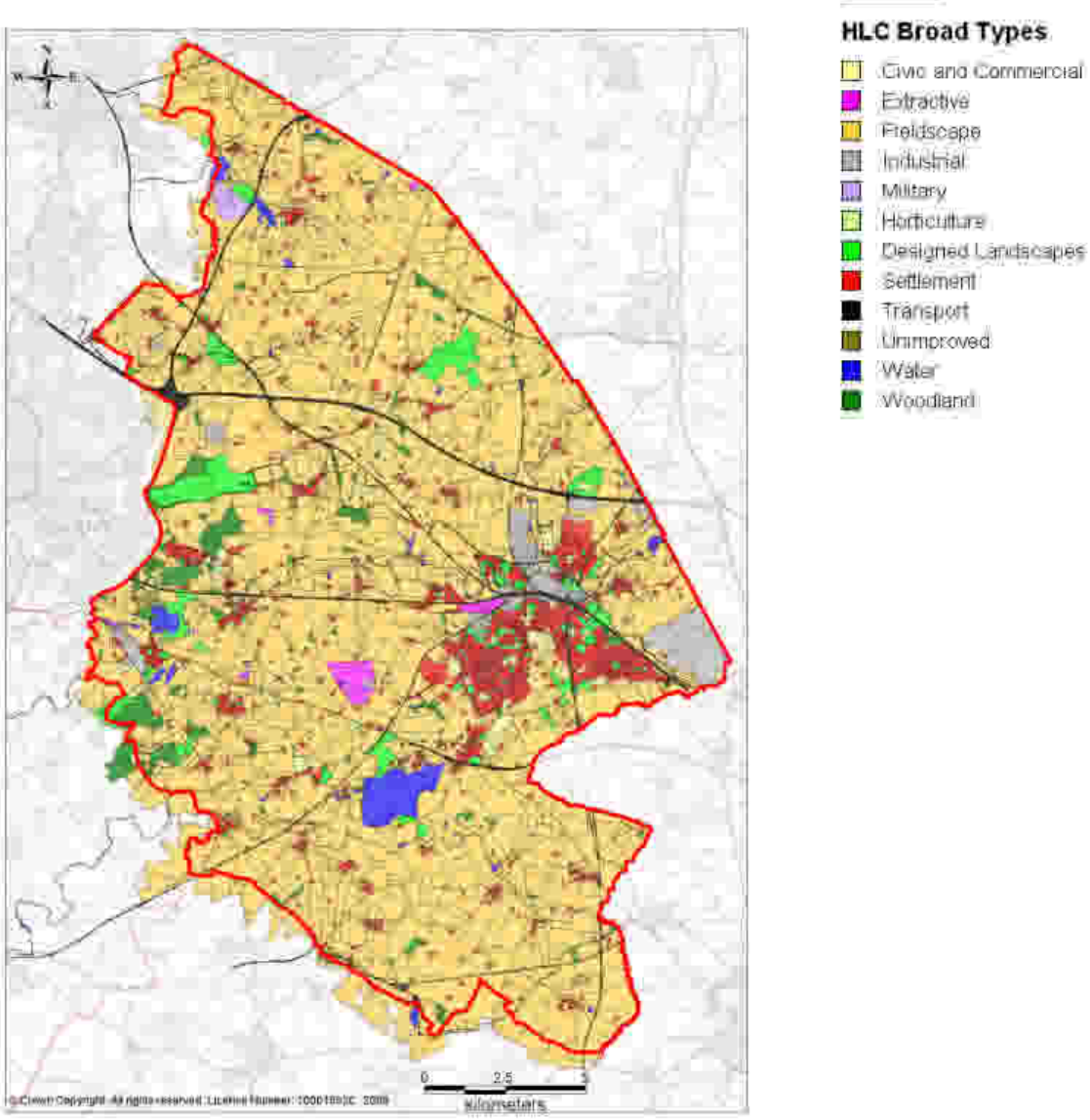
Another characteristic of the Borough is that it has little unimproved land. Most is scrub formed on disused 20th century extractive works. However in the medieval/post-medieval period there were some very large areas of common/heathland with Wolvey Heath in the north and Dunsmore Heath in the south, the later possibly forming an area over 3,700 hectares in extent and probably much larger.

There is also much less woodland than the county average. Most is found in the west of the Borough in a loose disjointed band from Birchley Wood through to Princethorpe Wood. Some of the woodland in the Borough is unusual, such as the long linear formations of Withybrook Spinney and Long Spinney following parish boundaries and historic route ways such as the Fosse Way.

Rugby borough also has the largest artificial water feature in the county in the form of Draycote Water, and the largest area of marshland, albeit artificially created (from sand and gravel extraction) and artificially managed as part of a nature reserve at Brandon Marsh. Other water features tend to be natural, such as the Rivers Avon and Leam.

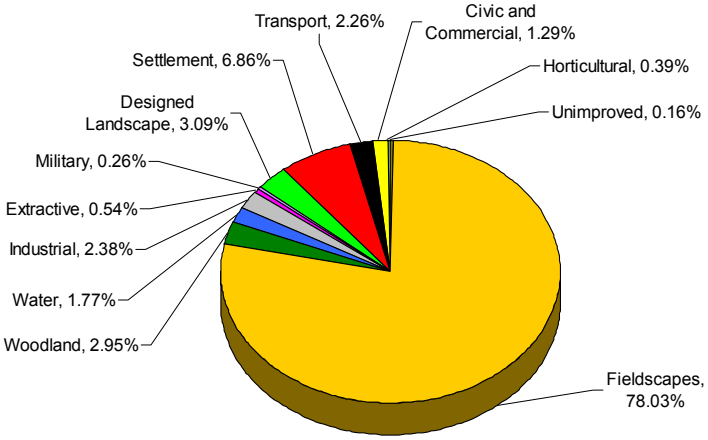
Other distinctive features of the Borough include the military barracks of Gamecock at Bramcote on the site of the former RAF airfield.

Map of Rugby HLC Broad Types

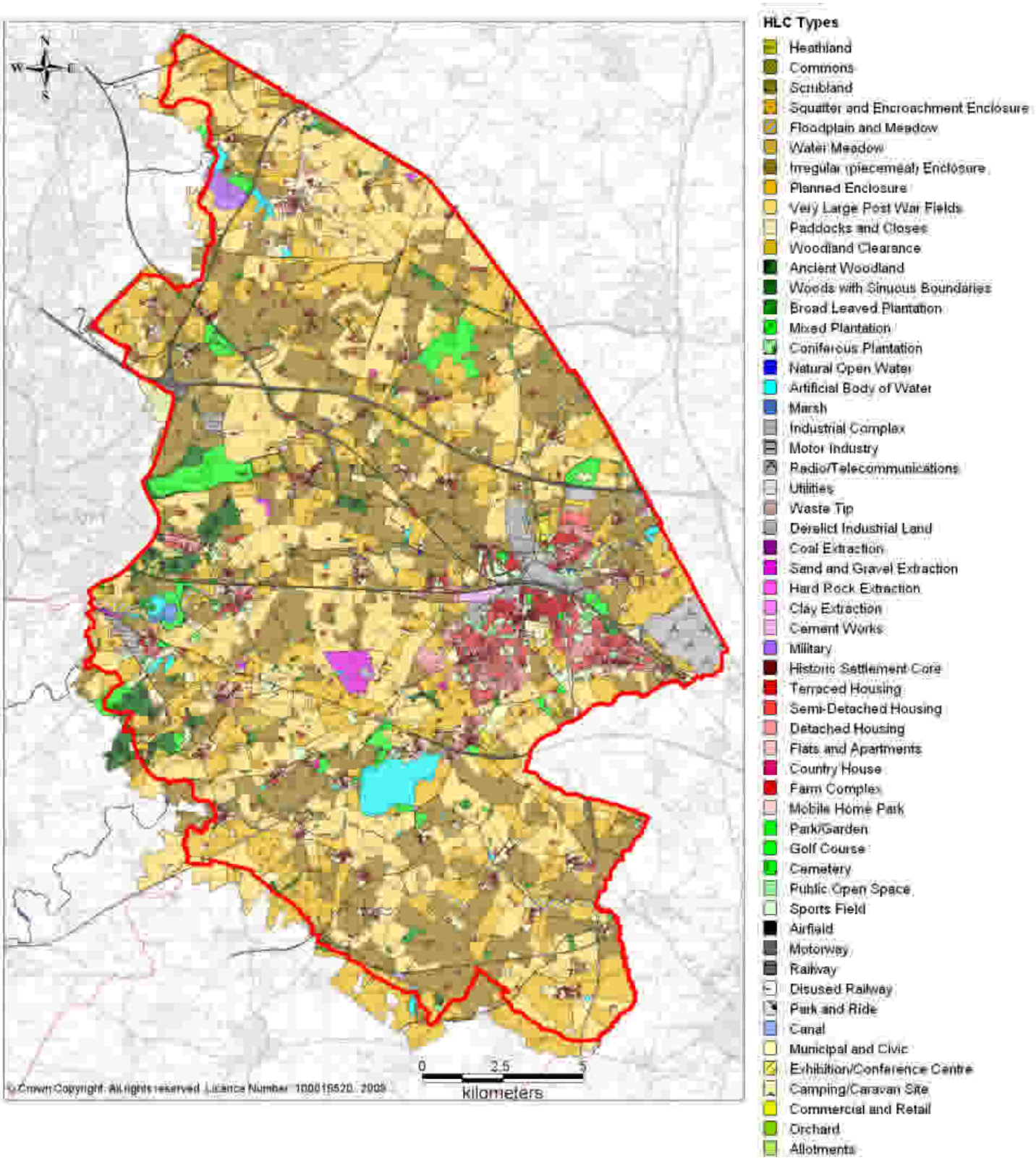


Rugby HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	60.73	0.16%
Fieldscapes	29384	78.03%
Woodland	1112	2.95%
Water	665.93	1.77%
Industrial	896.61	2.38%
Extraction	204.95	0.54%
Military	99.15	0.26%
Designed Landscapes	1163.17	3.09%
Settlement	2583	6.86%
Transport	852.65	2.26%
Civic and Commercial	487.61	1.29%
Horticultural	145.6	0.39%



Map of Rugby HLC Types



Historic Landscape Character Analysis

Unimproved

There is very little unimproved land in Rugby Borough. Most of it is scrubland associated with 20th century aggregates extraction.

However, there once were extensive areas of heath and common in the Borough, in the later medieval/post-medieval period. A small area at Wolvey Heath was probably common/heathland and a large area at Dunsmore Heath once stretched from the western edge of Rugby to Wolston and Ryton on Dunsmore to the west. It probably stretched from the floodplain terrace area of the Avon in the North until Princethorpe, Frankton, Thurlaston and Dunchurch to the south. The area may have once taken in land all the way to Clifton upon Dunsmore but it is more difficult to be certain of this.

Fieldscape

Rugby is one of the most rural local authority areas in Warwickshire with fields covering 78% of the Borough.

The overall field pattern is a mixed one with a number of areas with a planned appearance and others with more irregular field patterns. Interspersed between these are very large post-war fields, some forming huge areas and in total making up around a third of the total fieldscape in the Borough.

However, despite this mixed appearance there are some distinct patterns of fields across the Borough.

There is a concentration of piecemeal enclosure in the south from Dunchurch southwards, especially around Willoughby, Grandborough and Kites Hardwick. Other large patches of piecemeal enclosure exist just north and west of Rugby around Harborough Magna and Newton.

Further north and west of Rugby the pattern tends to be of re-organised piecemeal enclosure with small patches of surviving piecemeal enclosure.

The other striking feature in the Borough is the large amount of irregular enclosure which covers most of the area between north and west of Rugby and south of Wolvey. One particular concentration is just north of Churchover.

There are a number of concentrations of planned and more rectilinear fields: a band between Hawkesbury and Willey; around Flecknoe; to the south west of Leamington Hastings and Birdingbury; and, quite fragmented, around Stretton-on-Dunsmore.

The Fosse Way Roman road is quite clearly visible through the changes of fieldscape type on either side of it; these often reflect changes in parish and ownership.

Some unusual field patterns exist in the Borough. Just east of Clifton on Dunsmore there are very large rectilinear divisions of fields running southeast – northwest, giving the appearance of planned enclosure. However, within these fields are a series of large slightly irregular fields with straight and curvilinear boundaries breaking them down. These look like ladder type enclosures but remain a unique field pattern in the county and their development is not fully understood.

Just south of Harborough Magna a fine example of piecemeal enclosure exists with a series of small irregular fields, many forming strips with reverse 'S' boundaries related to the landscape's previous use as open fields with ridge and furrow ploughing.

At Flecknoe the planned field pattern creates a unique pattern radiating out from the village.

At Dunsmore the field pattern radiates outwards from the centre of the old Dunsmore heath area. This pattern relates to the medieval parish boundaries and division of the heath land to supply each

parish with a proportion of meadows, agricultural land, heath/common and possibly woodland (Warwickshire County Council, 1993a).

Field patterns also meet up at Cloudesley Bush which seems to be a focal point on the Fosse Way. This is also one of the highest points in the area and a major watershed division.

Small paddocks are found in the Borough predominantly next to farmsteads and on the edge of small settlements. Others are found around the nucleated villages which are more prevalent and less developed in the south of the borough.

One larger area of paddocks and closes is found at Wolvey Heath. However, this area may actually represent rectilinear squatter enclosure of the heath.

Floodplain and meadow is found mainly along the Rivers Avon, Leam, Swift and Anker.

In terms of woodland clearance older assarting, possibly dating back to the medieval period, appears to have taken place near some of the ancient woodland in the Borough, such as between Piles Coppice and Brandon Wood, around Princethorpe Wood and Debdales Wood.

More modern 20th century woodland clearance has taken place just east of Coombe Abbey and south east of Stretton on Dunsmore where Frankton Wood once existed.

Woodland 

Rugby has around 25% less woodland than the county average and there are few large areas of woodland. Most is found in the western part of the Borough with ancient woodland at Brandon Wood, Piles Coppice and Birchley Woods. There is also substantial woodland at Coombe Abbey. The other large area of woodland is at Ryton Wood with Princethorpe Wood nearby where much of this area was probably once all wooded.

Other wooded areas in the Borough tend to be small pockets scattered throughout the rural areas.

Some woodland formations in the Borough are not found elsewhere in the county. Two rectangular strips of woodland form two boxes just east of Coombe Abbey; these were created by assarting.

Two very long and thin sinuous strips of woodland partly follow parish boundaries: Withybrook Spinney and Long Spinney.

Around half the length of Withybrook Spinney runs along Withybrook parish boundary. It runs up along the Fosse Way and heads west at Cloudesley Bush. The woodland is marked on Greenwood's map of 1822 and is probably much older.

Long Spinney follows Monks Kirby parish boundary and heads towards the Fosse at Cloudesley Bush. However, it covers much less of the parish boundary than Withybrook Spinney.

Water 

The main river systems in the Borough are the Avon and the Leam with the Swift and other smaller brooks feeding into these. The source of the Anker is found in the north western part of the Borough. Cloudesley Bush is one of the highest points in the area and a major watershed division with the landscape feeding into the Anker to the west, into the Soar to the north and east into Leicestershire and into the Smite and eventually the Avon to the south.

The Borough also has the largest artificial water feature in the county in the form of Draycote Water, a reservoir created in 1960s for the principal purpose of supplying water for the surrounding populations. However, it is also used for water sports and provides an important habitat for a variety of wildlife.

The Borough also has some of the largest areas of marshland in the county at Brandon Marsh Wildlife Reserve. These artificial marshes, formed from sand and

gravel extraction, are actively managed to maintain them as marshland habitats.

Small ponds and water features are found throughout the Borough.

Industrial

The industrial areas in the Borough generally relate to the development of the railways at Rugby. The profound impact of being on the crossroads of major railway routes led to the expansive development of the town and the development of industry.

The main industrial areas in the Borough are the Radio Mast Site just east of Rugby, the large area of industrial buildings and industrial estates leading from the north of the town up the Swift valley and the motor works at Ryton and at Ansty Airfield.

The Rugby Radio Mast site has recently been decommissioned with the remaining large radio masts being dismantled (blown up!) in 2007.

The motor works are located close to Coventry, the historical centre of the motor industry. The Rolls Royce factory is on the site of the World War Two Ansty Airfield. The Peugeot factory at Ryton has closed since the Warwickshire HLC was started in 2006 and the site has been cleared of its buildings.

There are a number of small industrial areas scattered throughout the Borough; these tend to be light industrial sites, small trading estates and utility works.

The majority of the industrial sites are either within or adjacent to Rugby town. Some areas close to the town and next to the railway at Rugby have had industrial use since the first half of the 20th century. These industrial areas expanded first along the line of the railways and more recently northwards up the Swift Valley and also between the Brownsover suburb and the M6.

Extractive

Rugby Borough has an average amount of extractive areas for the county.

The dominant site is the sand and gravel quarry at Ling Hall, 125 hectares in current extent and growing.

There are other sand and gravel extraction sites at a smaller scale at High Cross, just east of Newton, on the Avon floodplain next to Ryton on Dunsmore and at other locations around the Borough.

There has been a long history of lime works and cement processing in the area and the Rugby works remains one of the biggest cement works in Europe. The extractive works and processing at Rugby have been in production since the 1860s and the present building dominates the skyline for miles around, not always to the liking of people. (The building came fifth in a Channel 4 poll for the programme Demolition, to find which building in the country the public most wanted to see reduced to rubble).

Military

Apart from a small Territorial Army Office in Rugby town the only military site in the Borough is Gamecock Barracks. The barracks is one of the few active barracks in the country to have housed all three military services. It started as RAF Bramcote, a training airfield during the Second World War. After the war in 1946 the Royal Navy took over when it became known as Royal Navy Air Station, Bramcote 'HMS Gamecock'. Ironically this was the most inland station the Navy was ever based at. Finally in 1959 it was taken over by the Army and is presently home to the 30th Signal Regiment. (British Army, 2009)

Previous military sites in the Borough consist of three World War Two airfields, the one at Bramcote, a smaller one at Ansty and RAF Lawford at Dunsmore.

Designed Landscapes

Rugby has around 25% less designed landscape area than the rest of the county.

There are only two large historic parks in the Borough at Coombe Abbey and Newnham Paddox. There are a number of smaller designed parks associated with small country houses such as Coton House, Ashlawn House and Dunchurch Hall.

There are also a number of golf courses such as Bramcote, Ansty, Rugby and Brandon. Most of Ryton Pools Country Park is in Rugby borough with part of it in neighbouring Warwick District.

Other small areas of designed landscape are associated with the main urban areas of Rugby town and the larger villages; these include such sites as cemeteries and public open spaces.

Settlement

The main settlement in Rugby Borough is Rugby itself (including Hillmorton and Bilton). Aside from this there are a number of large villages such as Dunchurch, Wolston, Ryton-on-Dunsmore, Stretton-on-Dunsmore, Wolvey and Clifton-on-Dunsmore. Many of these larger villages have expanded dramatically in the 20th century. However, most of the villages in the Borough are small nucleated villages that have had little development in the 20th century.

Binley Woods is of note as a modern predominantly post-Second World War housing estate, built isolated from other settlements. It is on the outskirts of Coventry but separated from the city by the A46 dual carriage way. The housing estate was built over the site of woodland; hence the name.

Rugby has a fairly small historic core surviving in the town centre where a large part of this area has been redeveloped with shops and the Borough's administrative buildings. Rugby School forms the other part of the historic core of the town.

The rapid expansion of Rugby in the late 19th and early 20th centuries appears to have been due to the railway and light industry. Blocks of pre 1880s terraced housing radiate out from the historic core towards the railway and were in-filled with later terraced housing in the early 20th century. Small industrial areas lie close to the railway with some of these now derelict.

The cement works has always had an impact on the town but lies on the very edge slightly detached by the now dismantled Rugby to Leamington railway line.

Between 1900 and 1955 a mixture of detached and semi-detached housing expanded Rugby to beyond twice its size and connected it with Bilton to the south-west and across the Great Central Railway to meet with Hillmorton to the east. Later post-war housing – predominantly detached around Bilton and mixed at Hillmorton – filled in many of the gaps between this area and the railways.

To the north large industrial areas filled in the area between the railway and canal and recently have expanded up the Swift valley.

Settlement also pushed north creating the large estates at Brownsover with a mix of post 1955 terraced, semi-detached and detached housing.

More recent post 1990s housing has expanded Rugby to the west at Cawston but still many villages such as Dunchurch, Long Lawford, Newbold on Avon and Clifton upon Dunsmore retain their character as separate distinct villages.

In terms of country houses there are around 25 scattered around the Borough; less densely than many other districts. These range from those with origins as manor houses in the medieval period to later 19th and 20th century creations. Most are small and without any large associated designed parks and gardens although some may have had them in the past.

A small concentration of country houses exist just south of Rugby, some being built in the 20th century.

Other country houses have been converted to other uses such as Coombe Abbey to a hotel and Bilton Grange to a school.

There are a large number of farmsteads (461) also recorded in this predominantly rural borough.

Transport

The Oxford Canal (opened in 1790) passes through the Borough from the southeast just outside Rugby heading northwest past Rugby towards the Coventry/Nuneaton and Bedworth boundary.

Part of the Grand Union Canal passes through the Borough in the form of part of the Warwick-Napton Canal including some of its marinas.

Railways have had a significant impact in the District. The major junction at Rugby was the main reason the town expanded so rapidly in the late 19th and early 20th century.

From Rugby railways lead to Coventry, Nuneaton and Bedworth, Milton Keynes and Northampton. These lines continue to other parts of the country such as London, Birmingham and the North.

Railways also once ran directly to Leamington, Peterborough, Leicester and the North (two lines) and Aylesbury and London to the south. These have all now fallen into disuse and have been dismantled.

More recently a number of motorways have crossed the Borough including the M6, M69 and M45.

Civic and Commercial

The administrative buildings at Rugby dominate the civic areas of the Borough with Rugby school, Bilton Grange School and other schools in Rugby also forming a large part of the total civic and commercial areas.

A number of other training colleges are found in the Borough such as the Newbold Revel College for the HM prison service, Coton House College for the Post Office and Ryton Police Training College which was the first national police training college in the country, established in 1948.

In terms of commercial sites there is a shopping and commercial area in Rugby town centre with other large retail parks on the outskirts of the town.

Other commercial sites include a greyhound racing track next to Binley Woods. A number of hotels are scattered throughout the Borough including Brownsover Hall Hotel, a large hotel formed from the old hall and the grounds of part of the designed landscape.

Horticulture

There are very few horticultural areas in Rugby borough; most are small allotments found within and adjacent to Rugby town and some of the larger villages while there are also a number of nurseries.

Warwick District

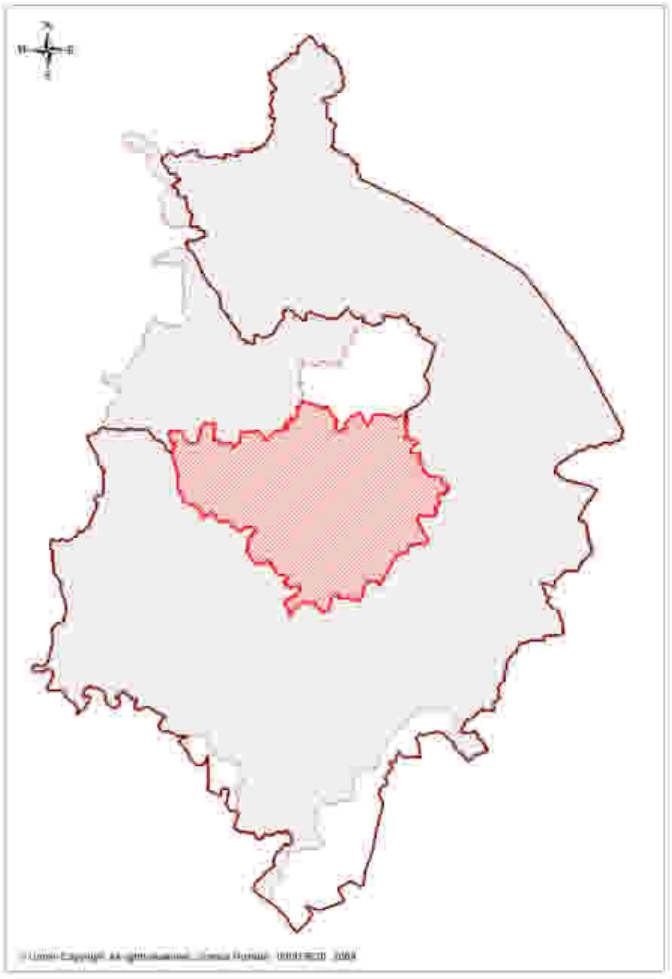
Introduction

The present district was created in 1974, by a merger of the former Leamington Spa and Warwick municipal boroughs, the Kenilworth urban district and the Warwick Rural District.

The District is 28,226 hectares in size with a population of 134,600 giving a density of 477 per square kilometre. Most of the population live in the main settlements of Leamington Spa, Warwick and Kenilworth.

The District contains the county town of Warwick, famous for its castle, and the home of Warwickshire County Council. However in terms of size it has been outgrown by the adjacent town of Leamington Spa where the District Council has its headquarters.

The District is bordered to the south and west by Stratford-on-Avon District, to the north-west by Solihull Metropolitan Borough, to the north-east by Rugby Borough and to the north by Coventry City.



Summary of Historic Landscape Character

Although Warwick is a mainly rural district it has less than the average for the county in terms of fieldscapes. However some distinctive patterns of field types can be seen in the District with much more irregular piecemeal enclosure with squatter and encroachment enclosure on old common/heathland out to the west. Some distinctive patches of later planned enclosure lie between here and Warwick/Kenilworth with further patches along the Avon valley. Even later 20th century post-war very large fields are found mostly out to the south and east although they are also found throughout most of the District.

The three main towns of Warwick, Leamington and Kenilworth make up most of the settlement element of the District with over 70% of the population of the District residing in these towns. Most civic and commercial sites are also found within these three towns. Other settlement is mainly made up of small villages and farmsteads scattered throughout the District. A number of country houses are found in the area with a particular concentration in the west; not all of these are very old with some being late 20th century.

There are a number of concentrations of industrial areas in the District. The first is, as would be expected, around the edges of Warwick and Leamington, mainly in the form of more modern industrial estates, although some older industrial sites exist closer to the town centres near the railway and canal. Other large industrial sites are found next to Coventry airport with a large distribution park, industrial estate and sewage works all lying between the airport and the Avon.

Another distinctive feature of the District is the large number of designed landscapes with a third more on average than the rest of the county. Most of these are in the form of large golf courses or historic parks with a number of large parks and open spaces in the towns of Warwick, Leamington and Kenilworth.

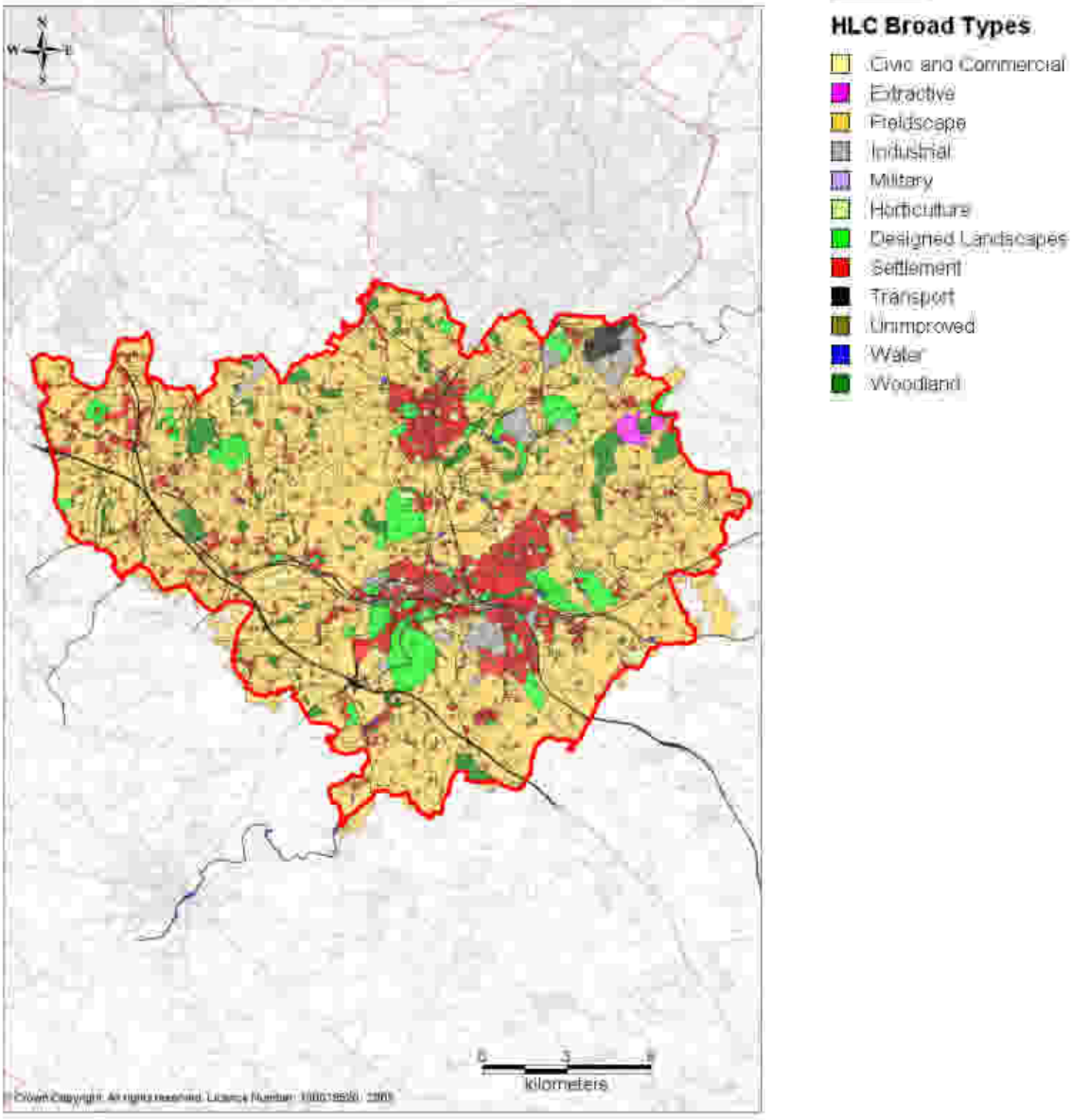
Designed landscapes also played an important part in the earlier history of the District. There were a number of deer parks in the District, covering over 3000 hectares and made up of Wedgnock, Kenilworth Chase and Haseley deer parks.

There is also an above average amount of woodland in the District, the main areas being Hay Wood and in the eastern part of the District around Ryton, Bubbenhall and Wappenbury. Both of these areas were once much bigger and more continuous but have been assarted and partly cleared since the medieval period. Another part of the District that once contained a large amount of woodland is just north and west of Kenilworth.

Conversely there is little unimproved land in the District with only a small amount of common at Kenilworth and some scrub from extraction works in other parts of the District. However in the medieval/post-medieval period there were once much larger areas of common and heath in the western part of the District around Pinley Green, Honiley and Beausale.

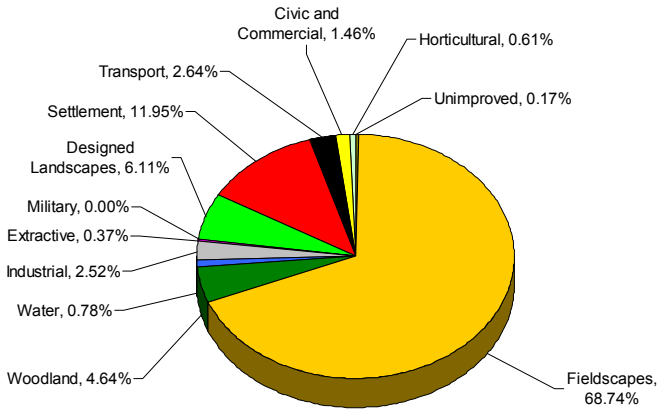
Like other districts there is little horticulture, with some allotments and garden centres found in and around the main settlements in the District.

Map of Warwick HLC Broad Types

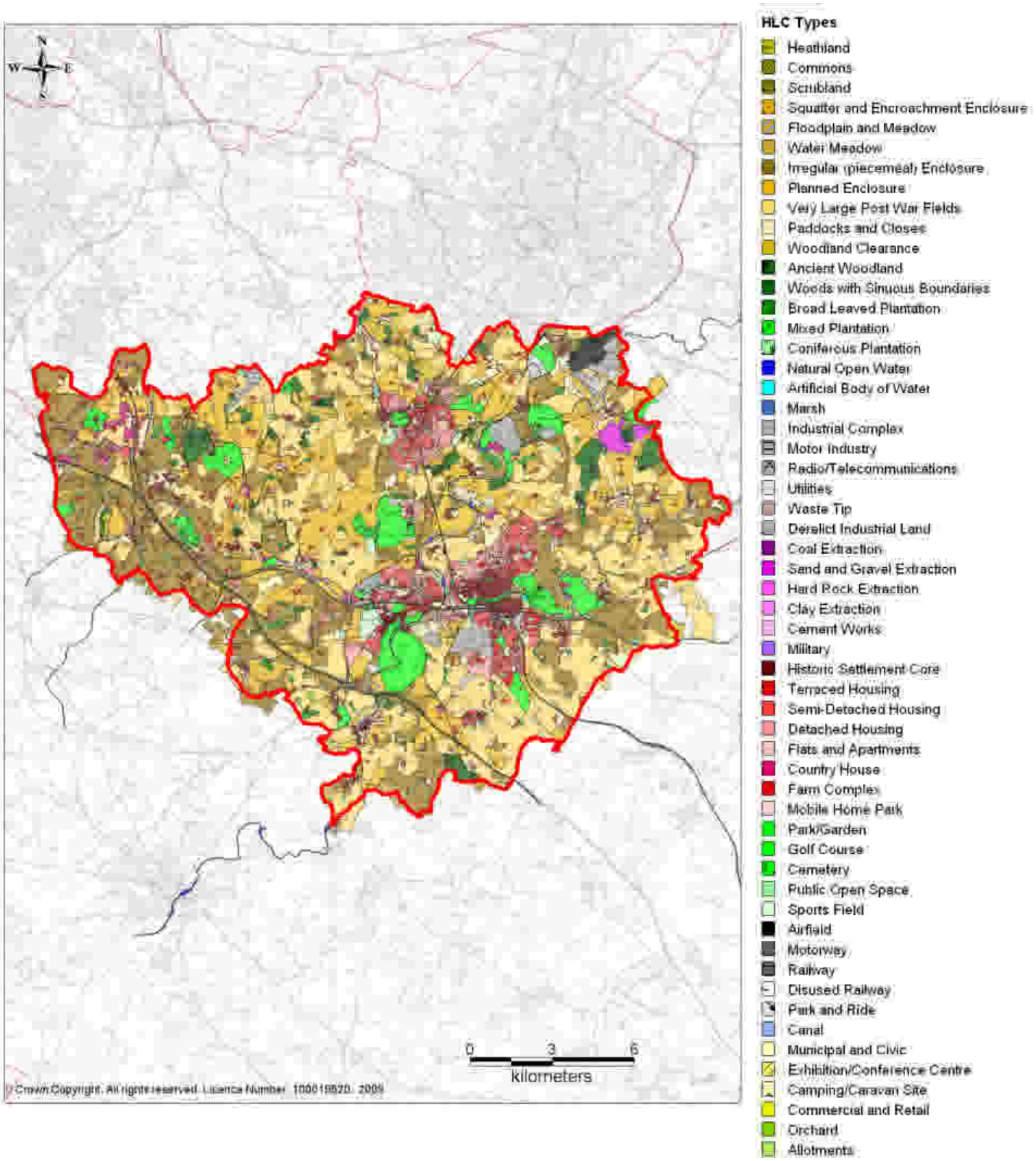


Warwick HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	50.78	0.17%
Fieldscapes	20100	68.74%
Woodland	1358	4.64%
Water	226.7	0.78%
Industrial	738.1	2.52%
Extraction	109.3	0.37%
Military	0	0.00%
Designed Landscapes	1788	6.11%
Settlement	3495	11.95%
Transport	771.1	2.64%
Civic and Commercial	425.8	1.46%
Horticultural	178.7	0.61%



Map of Warwick HLC Types



Historic Landscape Character Analysis

Unimproved

There is very little unimproved land in the District: small areas of common just to the north of Kenilworth and some small areas of scrub on old extraction sites around Baginton and Bubbenhall

However, there were once large areas of common and heathland almost exclusively out to the west, stretching from Yarningale Common, just over the border in Stratford-on-Avon District, north-eastwards through Pinley Green, Shrewley, Beausale and Honiley into the Solihull Metropolitan Borough area and beyond.

Fieldscape

Warwick District has around 6% less than the average amount of fieldscape for the county. This shortfall appears to have been mainly taken up by more settlement, designed landscapes, woodland, transport and civic and commercial.

The field pattern in Warwick District is quite mixed but some patterns of groups of field types can be observed. For example, on the western edge of the District there is a concentration of piecemeal and re-organised enclosure.

There is also a large area of squatter and encroachment enclosure forming a strip from Shrewley to Beausale. This area appears to have been enclosed in the 19th century and was open common land before this. The place names in this area also suggest that common once existed here; names such as Shrewley Common, Haseley Green, Haseley Knob, Yew Green, Rowington Green, Pinley Green and Copt Green.

The concentration of piecemeal enclosure in the same area may also reflect the fact that the land had not been used extensively for agricultural purposes until later in the medieval period. Although ridge and furrow evidence suggests that open fields existed, the good survival of piecemeal enclosure in this area shows that later planned and parliamentary enclosure did not take place, possibly due to the lower potential for more efficient agricultural use of the land and fewer benefits from carrying out whole scale planned enclosure.

The large amount of piecemeal enclosure with its irregular fields and curvilinear boundaries is one of the dominating characteristics in the western part of Warwick District. Elsewhere in the District there are only patches of piecemeal and irregular enclosure and other forms of enclosure dominate.

Planned enclosure and rectilinear fields survive well in certain areas in the District, in particular in the area between Baddesley Clinton and Honiley. This was probably later planned enclosure of common.

Another area of planned enclosure is between Hatton and Kenilworth where the medieval and post-medieval deer parks of Wedgnock and Kenilworth Chase once lay.

Other concentrations of planned enclosure can be found along the Avon and Leam valleys.

In terms of 20th century enclosure most very large post-war fields appear to be more in the east of the District, mainly to the east and south of Leamington and between Hatton and Burton Green. Paddocks and closes are found close to settlement especially farmsteads.

Assarts and woodland clearance are found generally in one concentrated area to the north and west of Kenilworth around the ancient woodland of Crackley Wood, Broad Well Wood, Longmeadow Wood and Chase Wood

Other areas where woodland appears to have been cleared are around the edge of Hay Wood and also around the edge of Weston Wood, Wappenbury Wood and Bubbenhall Wood.

Floodplain and meadow are found in the main river valleys of Avon, Leam and Sowe.

Woodland

Warwick District has an above average amount of woodland in the county. There are two main areas of ancient woodland both of which were probably medieval managed woodland; one is around the Waverley Wood, West Wood, Wappenbury Wood, Bubbenhall area and the other is Hay Wood. Both of these were once more extensive. Elsewhere, small patches of ancient woodland are found around Honiley, Stoneleigh and north of Kenilworth. Also of note is Oakley Wood in the south of the District. There are other small patches of woodland spread throughout the District with some larger more recent plantations west of Shrewley Common and west of Leek Wotton Golf Course.

Kings Wood, a medieval managed woodland, existed to the west of Kenilworth, but little now remains.

Water

The main river system that passes through the District is the River Avon and its tributaries the Leam, Sowe and Finham Brook which flow through and meet in Warwick District. The river system comes from the north and east and flows out south and west, through Leamington and Warwick towards Stratford-upon-Avon.

A few small ponds and reservoirs are the only other water features found in the District.

Industrial

There are two main concentrations of industrial areas in the District. The first is within the towns of Warwick and Leamington with the relatively recent Heathcote Industrial Estate being the biggest development. Older industrial estates are found closer to the town centres and where the canals and railways pass through the towns, with the bigger more recent post war industrial estates being on the edge of the settlements towards the west of Warwick and the south of Leamington.

The other main area of industry is just to the south and east of Coventry Airport where a variety of industrial estates, utilities and a vehicle testing ground can be found.

The impact of the car industry is further found in the District by another large proving ground at Honiley.

Other significant areas are the National Agricultural Centre, soon to be rebranded as Stoneleigh Park. Stoneleigh Deer Park, a business park just east of this and to the north of Stoneleigh itself is a large area of sewage works.

Elsewhere throughout the District small areas of industrial activity and utilities can be found.

Extractive

There are three areas of extraction in Warwick District. One small sand and gravel extraction lies just north of Barford next to woodland. The other two are the large sand and gravel extraction sites at Bubbenhall. Previous extraction sites are found just north and east of this area and around Baginton.

Military

There are no present day military sites in Warwick District.

There were only a few previous military sites in the form of RAF airfields at Honiley, Warwick, Leamington and Baginton.

Some temporary camps may also have existed at Stoneleigh Deer Park Golf Course, The National Agricultural Centre and Stoneleigh Abbey, whilst at Budbrooke there appears to have been a temporary World War Two camp.

The District has one of the few military sites in the county marked on the OS 1st

edition (1880s) with the site of Budbrooke Barracks, now under a 1950's/60s housing estate.

Designed Landscapes

Warwick District has almost a third more designed landscape area on average compared with the rest of the county. These are mainly made up of a small number of very large areas of golf courses and historic parks and gardens.

There are seven main golf courses in the District, the largest being Leek Wootton followed closely by Stoneleigh Golf Course.

The largest historic park and garden in the District is Warwick Castle Park. Other large parks include Offchurch Bury Park, Wroxhall Abbey Park, Stoneleigh Abbey Park, Baddesley Clinton and Two Bits Park

Other smaller parks are associated with the main towns in the District such as Abbey Park at Kenilworth, Priory Park, St Nicholas Park and the Racecourse at Warwick and Newbold Commyn, Jephson Gardens, Pump Room Gardens and Victoria Park in Leamington.

Part of Ryton Pools Country Park is also included in the area although most of it is across the border in Rugby Borough.

A number of sports fields are found in the District; most are fairly small and lie either within or next to the main settlements. There are some larger ones just to the north of Leamington, a rifle range just north of Warwick and sports fields at Warwick University.

Warwick District once had the largest almost contiguous area of deer parks in the county with the large deer parks of Wedgnock and the Old/Great Park or Chase associated with Kenilworth Castle. These parks were only separated by a road running between the two sets of park pales. It is likely that Haseley Park also abutted Wedgnock Park making a huge area of deer parks almost 3000 hectares in size.

Other medieval deer parks were at Stoneleigh Abbey, Lapworth Park and Grove Park.

Settlement

The main urban areas are the towns of Leamington Spa (including Whitnash), Kenilworth and the county town of Warwick. A number of small villages are scattered throughout the District along with farmsteads.

Leamington has the largest historic core in the county. Part of this is the "old town" area to the south of the River Leam where the development of Leamington started in the late 18th century. The other part of the historic core to the north of the river was developed from the beginning of the 19th century and remains a fine example of a Georgian planned town.

Industry has focused towards Leamington Old Town with the canal and railways with terraced housing extending out from these areas.

To the north of Leamington, large detached houses developed in the Victorian period along the main roads along with some areas of terraced housing. Further development between 1900 and 1955 in-filled and spread Leamington further north towards Lillington, Cubbington and Milverton while to the south Leamington spread towards Whitnash.

The latest phase of development, in the late 20th century, produced detached houses in north Leamington, semi-detached houses to the north east and modern terraced estates and flats at Lillington, Sydenham and some parts of Whitnash.

Warwick on the other hand has a compact historic core with late 19th century terraced housing extending along the main roads such as Emscote, West Street and Saltisford. Later small scale terraced housing and semi-detached infill make up the rest of the modern town with modern housing estates to the north and west.

Kenilworth had a different development from Warwick with two main areas of focus of early development: one around the castle and north of the abbey, the other to the south along the High Street. Late 19th century and early 20th century development comprises terraced housing infilling between these historic cores and the railway to the east. Small areas of detached housing that sprang up in the early 20th century and modern (post-1955) infill, predominantly detached houses, make up the present day Kenilworth.

Some villages in the District have retained their original 19th century or earlier historic core and size, such as Hill Wotton, Ashow, Honiley, Turner's Green, Hatton Green, Little Shrewley, Offchurch and Sherbourne. Others have expanded as small commuter villages such as Radford Semele, Bishop's Tachbrook and Barford. One late 20th century village can be found in the case of Hatton which replaced the site of a mental hospital.

In terms of farmsteads there is a higher number on the west side of the District when compared to the east

This is also true in terms of country houses where a large concentration is found in an area between Nuthurst, Chesets Wood and Kingswood. Many of these are more modern post 1955 country houses but some are older country houses such as Packwood Hall. A second smaller area of country houses just north of Leamington are mainly of the 19th century. Larger country houses with associated parks and gardens are found at Stoneleigh, Offchurch Bury and Wroxall Abbey.

Transport

The Warwick-Napton Canal and the Warwick-Birmingham Canal is the main canal route passing through the District. This was established around 1800 and now forms part of the Grand Union Canal.

The other canal in the District is the Stratford-upon-Avon Canal which passes so close to the Warwick-Birmingham Canal at Kingswood that they were later linked with a small joining section and locks.

The railway network in the District has Leamington as the hub with links to London, Birmingham, Coventry and through to Stratford via Warwick. Part of the disused Leamington – Rugby line is in the District. Other dismantled lines are between Kenilworth and Berkswell and also part of the Henley in Arden Branch Railway.

Motorways have had their impact too with the M40 passing through the south and south western part of the District

Coventry airport is also in Warwick District. Until recently it was an international passenger airport, but closed to all but light aircraft and commercial flights in 2008. The future for the airport at the moment is uncertain. Its origins like many airports are from the Second World War.

Civic and Commercial

Most of the civic and commercial areas in the District are found within the main urban areas of Warwick, Leamington and Kenilworth.

The administrative centre for the county is in Warwick and for the District in Leamington. This and the large population size of the two towns means that most of the civic and commercial areas are also found here. Kenilworth also has a number of schools, a leisure centre and shopping areas, while some larger villages have primary schools.

However, other civic and commercial areas are found in the District including part of Warwick University, country hotels and conference centres.

Horticulture

Only one area of orchards remains in the District, just outside Sherbourne. Some orchards existed to the south and east of Kenilworth in the late 19th century.

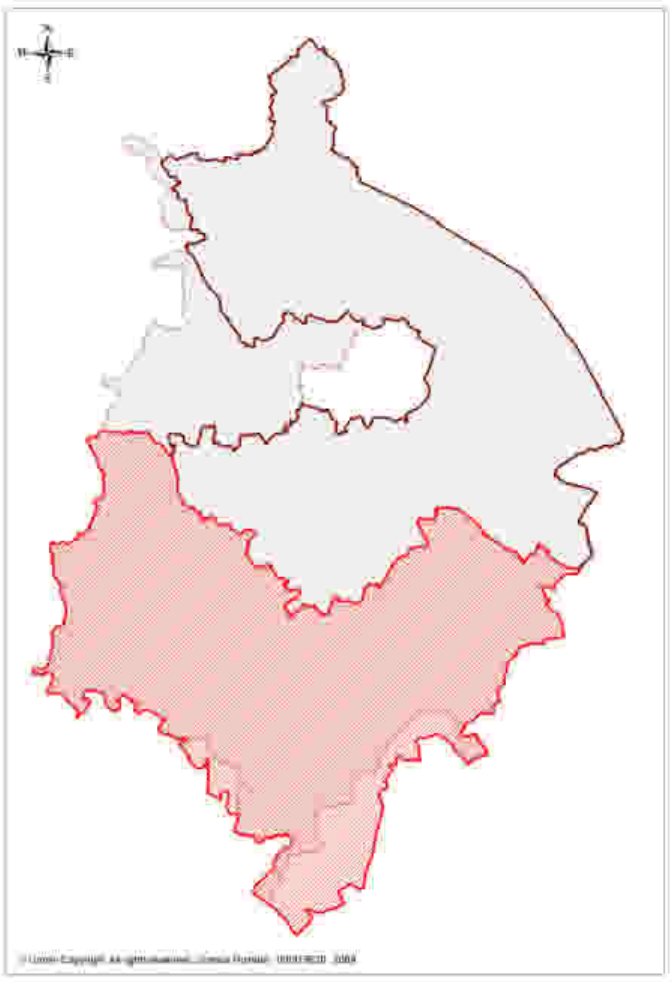
The rest of the horticultural element in the District is made up of allotments found around the main settlements of Leamington, Warwick, Kenilworth and some of the larger villages such as Bishop's Tachbrook and Barford.

There are also a fairly large number of garden centres spread around the District, some of them covering quite large areas.

Stratford-on-Avon District

Introduction

Stratford-on-Avon District was formed in 1974 by the merger of the Borough of Stratford-upon-Avon, Alcester Rural District, Shipston-on-Stour Rural District, Southam Rural District and most of Stratford-upon-Avon Rural District.



The District is the largest in Warwickshire making up half of the county at 97,657 hectares in size. The population is 117,800 giving a density of 121 people per square kilometre making it the least populated District in the county.

The District contains the town of Stratford-upon-Avon famous as the birthplace of Shakespeare. It also contains the county's only AONB with part of the Cotswolds AONB forming the very southern section of the District.

The District is bordered to the north by Warwick District, the north-east by Rugby Borough, the north-west by Solihull Metropolitan Borough, the west by Worcestershire, the east by Northamptonshire and the south by Gloucestershire and Oxfordshire.

Summary of Historic Landscape Character

Stratford-on-Avon is the most rural District in the county with fields forming around 81% of the landscape. There is a pronounced division between the northwest and southeast of the District. Earlier piecemeal and irregular enclosures are found in large swathes mainly in the northwest forming the most concentrated area of surviving piecemeal enclosure in the county. In the south and southeast, planned enclosure, mostly dating to the 18th and 19th centuries, dominates. This again forms one of the largest and better preserved areas of later planned enclosure in the county with many parishes almost wholly comprising planned enclosure.

In between these two distinct areas there is a much more mixed pattern with many very large post-war fields being found. Most are in the north of the District and around the Avon valley.

Conversely, in terms of settlement, Stratford is the most sparsely populated district in the county. The main town is Stratford-upon-Avon with a number of smaller towns throughout the District and most of the civic and commercial sites are located in or near these larger urban areas. In the south east smaller more nucleated villages exist while in the north and west the settlement pattern is more dispersed especially in terms of farmsteads.

The town of Stratford-upon-Avon has developed as a hub for transport with the Stratford to Birmingham Canal originating here, linking the Avon to Birmingham. A large number of railways also lead from Stratford to the north, east, south and west to Warwick, Birmingham, Honeybourne, Alcester and beyond.

The District also has less than half the county average area of industrial sites. The largest site is at Gaydon, (motor industry), with other more modern industrial estates found closer to the larger urban areas such as Stratford, Alcester, Wellesbourne and Studley.

Extractive sites in the District are again less than half the county average and are dominated by the cement works at Southam and the sand and gravel quarry at Broom.

There is also very little unimproved land in the District. Most of it is secondary scrub growth following minerals extraction. Some common survives at Yarningale and Forshaw Heath, but, like other areas in the county, there were once large areas of common or heathland. These were mostly in the extreme northwest of the District around Gilbert's Green, Terry's Green and Forshaw Heath with a few other areas in the very south of the District.

The main river system in the District is the Avon with large tributaries such as the Arrow, Alne, Stour and Dene. Other water features include Earlswood Lakes and Napton and Wormleighton reservoirs, all created as canal feeders in the 19th century.

There is an average amount of woodland in the District compared with the rest of the county. Most is ancient woodland with a concentration towards the west and north of the District, but very little in the south and east. Previous areas of woodland which have been subsequently assarted or cleared are also found mostly towards the west with a lack of woodland clearance in the south east.

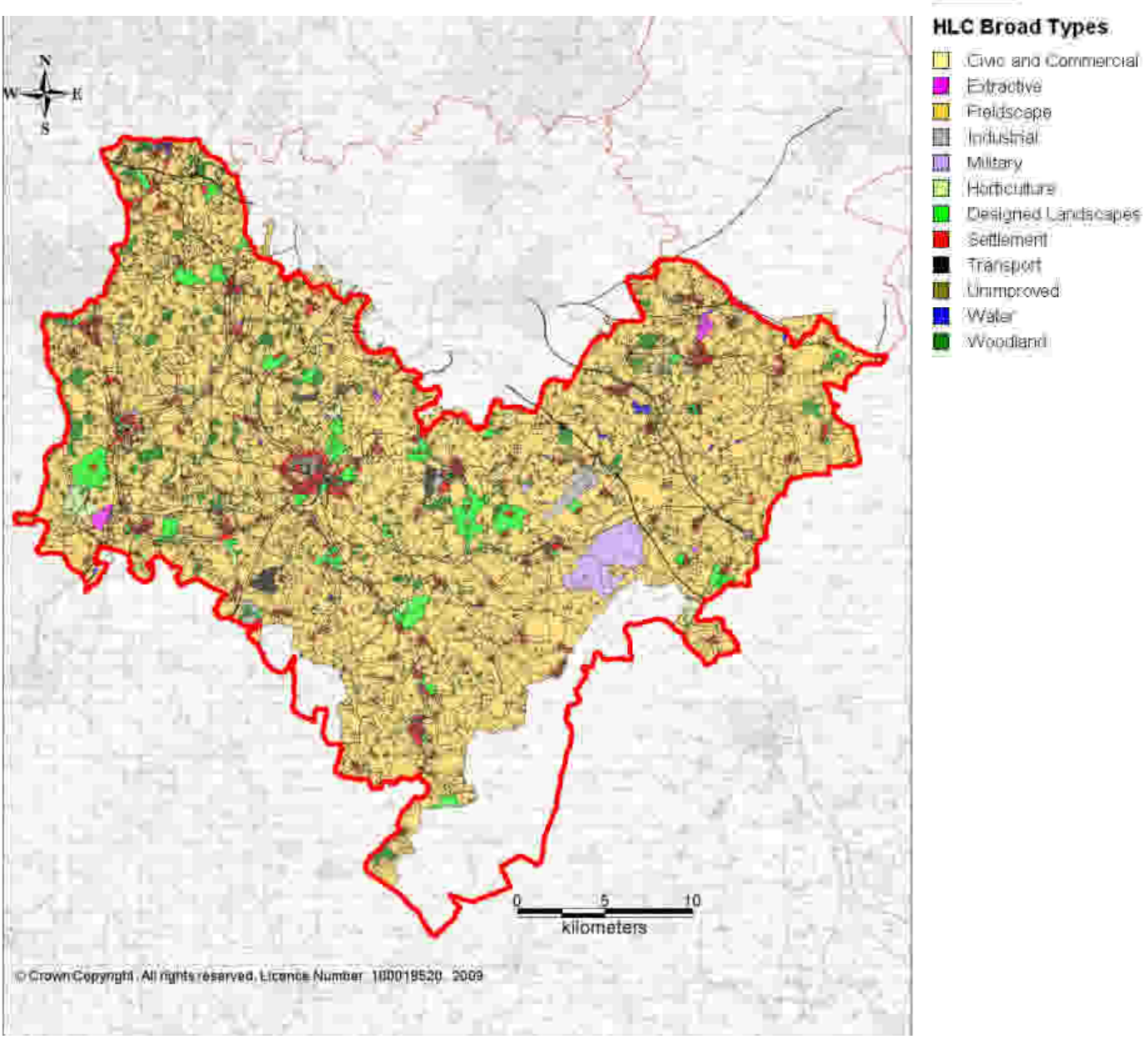
A dominant feature is the military site of DM Kineton in the southeast. At over 1000 hectares in size it is the largest military complex in the county. Part of it covers the site of the civil war battle of Edge Hill. The only other military site is the former nuclear bomb store just west of Gaydon. There were a number of former military installations in the District, such as the Central Engineers Park at Long Marston and a number of RAF airfields, some of which are still in use for light aircraft (Wellesbourne), gliding (Snitterfield) and music festivals (Long Marston).

Another distinct characteristic of the District is the great extent of horticultural land, especially orchards, compared to the

rest of the county. There are still large commercial orchards in the south and west of the District, many in the Avon Valley area.

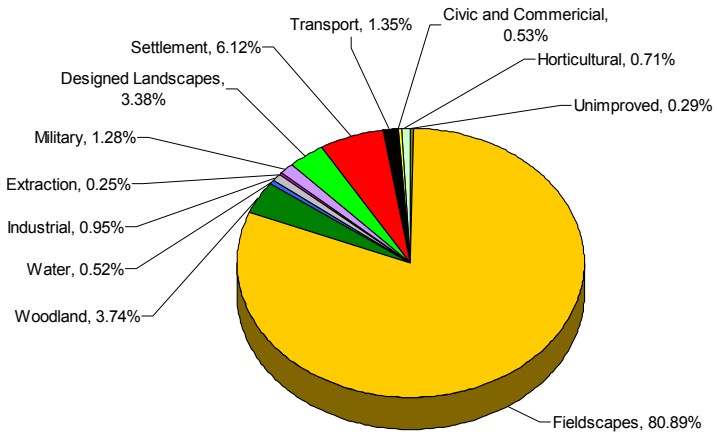
Designed landscapes make up just over 3% of the District and are concentrated in the north and west, with a lack in the south and east. Most are large historic parks with a number of other sites being golf courses. Previously a number of deer parks existed, again mostly in the western part of the District.

Map of Stratford HLC Broad Types

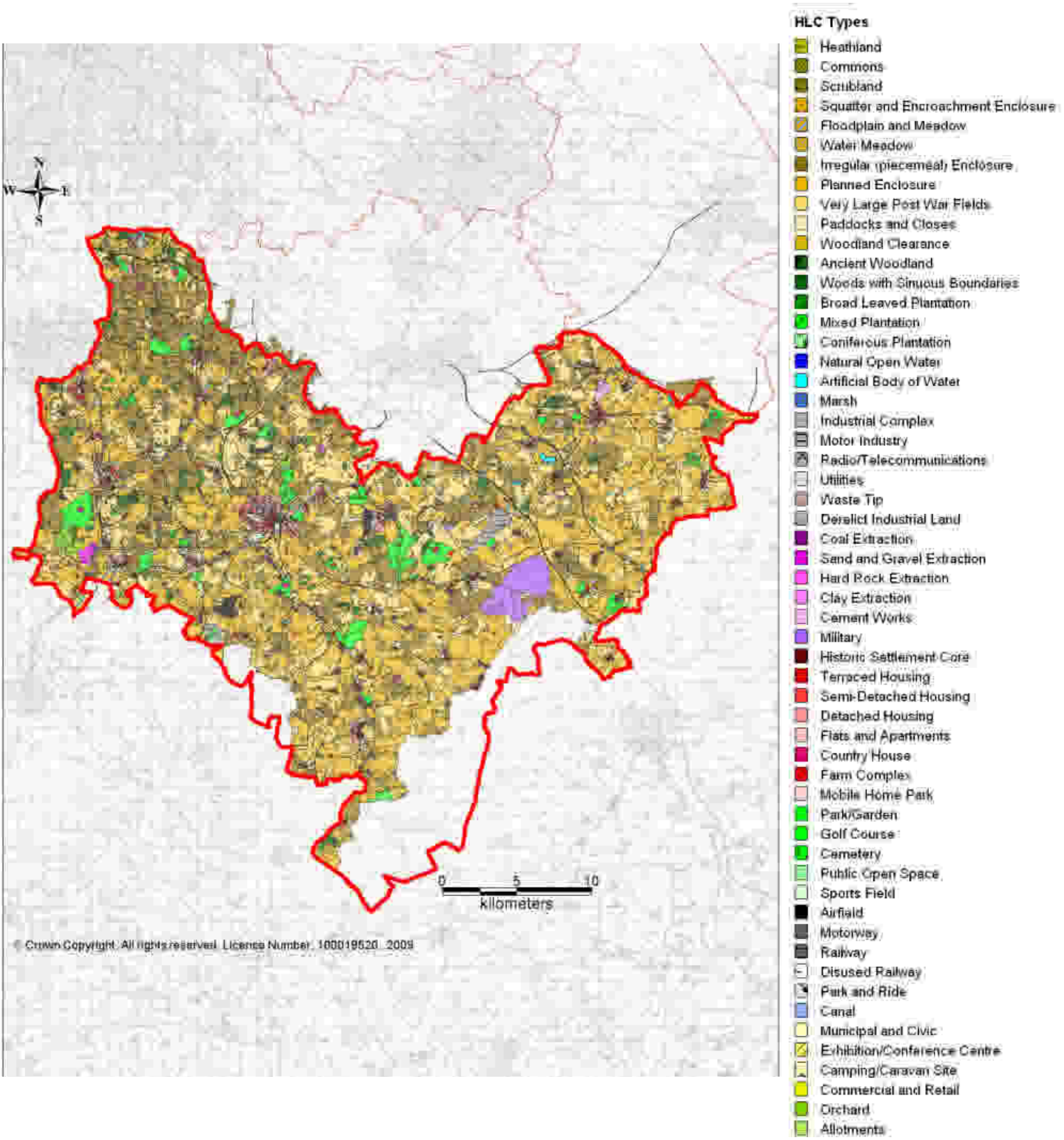


HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	258.3	0.29%
Fieldscapes	71430	80.89%
Woodland	3300	3.74%
Water	461.5	0.52%
Industrial	839	0.95%
Extraction	217.7	0.25%
Military	1128	1.28%
Designed Landscapes	2982	3.38%
Settlement	5405	6.12%
Transport	1194	1.35%
Civic and Commercial	463.6	0.53%
Horticultural	624	0.71%



Map of Stratford HLC Types



Historic Landscape Character Analysis

Unimproved

Most of the unimproved land in the District is scrubland, mostly secondary growth on abandoned quarries and industrial sites. There is a distinct concentration around Bishops' Itchington, Harbury and Lighthorne with another large area at the old Napton Brickworks Site. There is also a scattering of smaller areas of scrub throughout the District.

The district does include some areas of common at Yarningale Common, Barnmoor Green and Forshaw Heath. The common at Yarningale is the second largest remaining common in the county at just over 17 hectares, second only to Baddesley Common in North Warwickshire. It was once much larger, stretching all the way to the present edge of Claverdon settlement.

Previous areas of unimproved land are found in distinct concentrations. The largest is in the very north west of the District at Gilbert's Green, Terry's Green and Forshaw Heath. Just to the north of Studley appears to have been another area of common. To the west of Alcester appears to have been an area of heathland. Another area is just on the county boundary in the very south east of the District just east of Morton-in-Marsh and south of Wolford Wood.

A final possible area of old common or heath may have existed just south and west of Bishops' Itchington.

Further south at Crimscote Downs another concentration of previous unimproved land once existed. As the name 'Downs' suggests this was probably down land lying just off the Cotswolds.

Fieldscape

Stratford is the most rural district in the county with almost 81% of the area formed of enclosed fields. Because of the complexity of the fieldscape and the sheer size of the District the discussion of fieldscapes has been broken down into HLC Sub-Types.

Piecemeal/re-organised Piecemeal Enclosure

There is a concentration of piecemeal and re-organised piecemeal enclosure in the north western part of Stratford-on-Avon District, effectively forming a large area bounded by Studley, Alcester and Stratford running north-westwards towards the border of Solihull, Warwick and Worcestershire.

There are some very large areas of contiguous piecemeal enclosure hundreds of hectares in size. This is one of the most concentrated areas of piecemeal enclosure in the county (the total area is almost 5,000 hectares) and shows field patterns from the late medieval period if not earlier.

The reason why this piecemeal enclosure exists here probably reflects the later use and enclosure of this area. Some of this may have been due to the large commons or heathland that were enclosed in the late medieval period. This area may also have been more traditionally wooded, as part of the Forest of Arden, and enclosed later to be used for arable or pasture purposes. There is a lot less formal or parliamentary enclosure in this area and it is likely that the soil type of this area did not have as good agricultural potential as the fields in the south and east of the District.

Irregular Enclosure

There is a fairly large amount of irregular enclosure in the northern and western parts of the District and again very little in the far eastern part. However, there is also a large concentration in the central part south of Wellesbourne and south west of Harbury. There are also some large patches scattered throughout the rest of the District, for example at Burton Dassett which was enclosed in 1497 (see Alcock, 1982 pp33-36).

It is likely that these fields may have once been piecemeal enclosure and reflect the general pattern shown above.

Encroachment/squatter enclosure

There are four distinct areas of squatter and encroachment enclosure in the District:

- in the northwest, just east of Earlswood;
- on Yarningale Common, just northwest of Claverdon;
- an area just north of Studley;
- southwest of Bishop's Itchington on Itchington Heath.

Planned enclosure

Planned enclosure in the District is also concentrated in certain parts. The largest concentration is in the east of the District with large areas almost covering whole parishes that were subjected to parliamentary enclosure during the 18th-19th centuries.

Other substantial concentrations are south of Kineton, towards the edge of the Cotswolds, and south of Stratford running from Shipston on Stour to Bidford on Avon.

Large rectilinear

This when combined with planned enclosure forms the most dominant enclosure type.

Most of the south and east of the District has a planned appearance with large rectilinear fields. Whole parishes appear to have been enclosed as part of the 18-19th century parliamentary and formal enclosure movement. These areas appear to be the more productive areas of the District especially in terms of arable farming.

These areas have also seen greater change with much more extensive formal enclosure and probably more efficient farming especially in terms of arable production.

Very large post war fields

This is not one of the most dominant field types in the District. However, in some areas it forms huge prairie type fields obliterating the previous field pattern that once existed.

Greatest concentrations appear to be just north, northwest and northeast of Stratford and in a loose scattered band running from Wellesbourne to Kineton and north east towards Southam.

Elsewhere there is a general scattering of this field type showing the late 20th century changes in farming practice opening the fieldscape up.

Paddocks and closes

These tend to be in small blocks on the outskirts of small settlements, some of which, such as Napton on the Hill have large amounts of paddocks and closes. The reasons for this are unclear.

Floodplain and meadow

Floodplain and meadow is found in the District along the main river corridors of the Avon, Arrow, Alne, Dean, Stour and the Tachbrook, and along some smaller brooks leading to these rivers.

There are noticeably larger areas on the lower parts of the Avon in the District.

Wood clearance

There is a distinct lack of woodland clearance in the south east of the District with only one concentration in the central part south and east of Wellesbourne on the edges of Walton Park and to the west of Ettington in a line following ancient woodland.

A second concentration is between Snitterfield and Claverdon where there were patches of woodland probably cleared in the 18th and 19th centuries. Another is in the very northwest at Earlswood, where some clearance may have taken place in the post medieval period.

Smaller areas are next to ancient woodland at Oversley Wood, at Old Park

Wood and around Long Itchington at Print Wood and Long Itchington Wood.

There is no doubt that many other areas especially to the west and north of the District in the area of the Forest of Arden were at one time wooded but the evidence for this woodland clearance or assarting is no longer visible in the fieldscape.

Woodland 

There is an average amount of woodland in Stratford-on-Avon District compared to the rest of the county.

Most is ancient woodland with a few modern coniferous and mixed plantations.

Some broad-leaved woodland has been planted more recently, such as at Priors Marston, but in general most dates back to at least the 19th century.

Ancient woodland is especially concentrated on the western and northern side of the River Avon in the traditional Forest of Arden area. Some of these woods are quite large, such as Oversley Wood (almost 100 hectares).

Another concentration of large patches of ancient woodland is in the very far west of the District on the border with Worcestershire. This area was next to and possibly once part of the Feckenham Forest.

Other areas of ancient woodland are found around Earlswood, Woodend and Nuthurst, in a loose band between Snitterfield and Wootton Wawen and between Alcester and Stratford.

The Avon Valley has a distinct lack of woodland, especially ancient woodland.

There is also very little woodland in the south and east and what exists tends to be more recent plantations.

When the previous woodland extent is considered there is an even more pronounced east-west divide. All the areas of ancient woodland mentioned above used to be, in the Medieval period, much more extensively wooded, forming very large areas hundreds of hectares in extent.

The only exception is the loose band between Southam and Preston on Stour where very little previous woodland has been identified – only at Walton, where most of the present park and the land beyond to the Fosse Way to the east and Wellesbourne Wood to the west, may have been wooded at one time.

Water 

The main river system flowing through the District is the Avon running north east to south west. Flowing into this are a number of tributaries, such as the Rivers Arrow and Alne from the north, the River Stour from the south and the River Dene from the East. In the north east of the District the River Itchen flows into the Leam and eventually into the Avon.

Artificial water bodies include Earlswood Lakes in the very north of the District bordering Solihull Metropolitan Borough. This is a reservoir created to feed the Stratford-upon-Avon canal in 1821.

In the north east of the District Napton reservoir dates to at least 1822 as a feeder to the Warwick-Napton Canal. Similarly, Wormleighton Reservoir is found in the east feeding the Oxford Canal and also dating to at least 1822.

A couple of larger artificial water sites appear to be the result of sand and gravel quarrying at Bishops Bowl (Bishop's Itchington) and to the east of Abbot's Salford on the floodplain of the River Avon.

A number of small lakes and ponds are scattered through the District. Most are modern with some relating to the farming and horticultural industries. A few are older and may be fish ponds originating in the medieval period.

Industrial

There is less than half the average area of industrial sites in the District when compared to the county average.

The largest site is Gaydon Proving Ground used by Jaguar and Land Rover for vehicle research and testing. It is also the home of Aston Martin and has the Heritage Motor Centre on the site. This like other proving grounds in the county is on the site of an old RAF airfield, in this case RAF Gaydon.

Other large industrial areas are generally found closer to the main urban areas such as the industrial estates on the west side of Stratford near the canal and railway, and northeast of Alcester and north of Studley.

At Wellesbourne part of the airfield has been developed into industrial use.

There are smaller industrial sites close to Southam, Stockton, Shipston-on-Stour and Long Itchington.

Extractive

There is only half the average for the county in terms of extractive sites in the District. Most of these are the cement works just north of Southam. There have been works in this area related to limestone extraction since the 19th century.

The other large extraction site in the District is the Marsh Farm sand and gravel quarry just west of Broom. A small area of sand and gravel quarrying just east of Snitterfield appears to be disused.

There is also a small area of hard rock extraction just north east of Avon Dassett.

Previous extraction sites include the large extensive quarries at Burton Dassett Hills, the quarries north of Bishop's Itchington, clay extraction at Napton on the Hill for the brick works, blue lias and cement works at Wilmcote and the other cement works and limestone extraction sites north of Southam.

Military

Stratford-on-Avon District has twice the average military areas than the rest of the county. This is because the District contains the huge Defence Munitions Site at Kineton, around 1100 hectares in extent. Built in 1941 as a central ammunition depot for the Second World War it was rebuilt in the 1960s and has continued as one of the largest permanent ammunition depots in the country.

This depot also covers, in its southern part, most of the site of the battle of Edge Hill from the English Civil War.

The only other military installation in the District is a small depot to the north of DM Kineton just to the East of Moreton Paddox and to the west of Gaydon Proving Ground. This small depot site appears to have been where nuclear bombs were stored for the Vickers Valients bombers at RAF Gaydon during the cold war. It is unclear what it is used for now but the last information known was that it held the national film archives (Carvell, 2007:104).

Previous military installations consist of a number of former Second World War RAF airfields at Snitterfield, Wellesbourne, Long Marston, Atherstone on Stour, Gaydon and Southam. RAF Gaydon continued in military use into the Cold War as a V-Bomber Base carrying nuclear bombs.

Some of the other Second World War airfields have continued uses: Snitterfield for gliding; Wellesbourne for light aircraft with some industrial use; and Long Marston for a flying club, a drag strip and music festivals.

Other previous military sites include the Central Engineers Park south of Long Marston.

Designed Landscapes

Designed landscapes are concentrated in the central, northern and western part of

the District with fewer in the east and south east.

The largest areas are found east of the Fosse Way running in a loose band northwest towards Tanworth-in-Arden.

These numerous historic parks and gardens form the largest designed landscape areas, sites such as Compton Verney, Walton Park, Ettington Park, Farnborough Park, Charlecote Park, Ragley Park, Barrells Park, Umberslade Park and Alscot Park.

To the east of this parks tend to be smaller, such as Shuckburgh Park, Ladbroke Park, Stoneythorpe Park and Chadshunt Park.

Other large areas of designed landscape are golf courses, which are only in the northern and western parts of the District, being closer to larger urban areas of Stratford, Warwick and the Solihull/Birmingham conurbation. Examples include Tiddington, Welcombe, Ingon Manor, Welford-on-Avon, Bidford, Crockets Manor and Ladbroke Park Golf Clubs.

Small cemeteries exist at Shipston, Stratford, Harbury and Alcester.

The remaining designed landscape is made up of public open space and sports fields either within or close to larger urban areas. Of note is Stratford Racecourse dating to 1769.

In terms of previous designed landscapes, a number of historic parks associated with country houses have been converted to fieldscapes or other historic landscape types. Some, such as Henley Little Park, Henley Great Park, Skilts, Studley, Coughton and Hampton/Fulbrook Parks also appear to have been deer parks dating back to the medieval or post medieval periods.

Some parks surviving today were once much larger while other smaller ones associated with small halls have disappeared completely.

Again there are more parks and deer parks to the west and north of the Fosse Way with smaller parks and a few notable exceptions (such as Compton Verney, Idlicote Park, Honington Park, Farnborough Park and Kineton Park) being found south and east in the District.

Settlement

Stratford is the most sparsely populated district in the county with 50% less settlement than the average for the county.

The main town is Stratford-upon-Avon. There are a number of smaller towns or large villages that act as focal points such as Southam, Alcester, Shipston-on-Stour, Bidford-on-Avon, Wellesbourne, Studley and Harbury.

There are a number of medium sized villages in the District especially in the west along the main Avon/Arrow river corridors like Welford-on-Avon, Henley in Arden and Wootton Wawen. Smaller villages tend to be in the south and east of the District.

Stratford:

The town has a large square historic core with a rectilinear street grid which reflects the planned medieval layout. Other historic cores of Bridge Town, Shottery and Bishopton have been amalgamated into the town as a result of 20th century expansion. Tiddington and Alveston are still effectively detached from the town, although Tiddington is often regarded as an extension of Stratford.

The railway and canal influenced the development of large blocks of terraced housing in the 19th century and early 20th century. Industrial areas spread north-westwards alongside the canal and railway towards Bishopton.

In the early 20th century a series of detached houses appeared in a linear formation alongside the edge of the historic core of Bridge Town.

Between 1900 and 1955 a large expansion took place of predominantly

detached housing to the north of Stratford and over the Avon to the east in linear strips along the main roads. Further semi-detached housing also sprang up towards Shottery.

Post 1955 development has tended to be infill between these areas with detached housing to the east and on the edges of Stratford and semi-detached housing in between.

Some other unusual settlements exist such as the Model Village between Southam and Bishops Itchington, built between 1900-1955 to house the workers of the cement extraction and factory works found just over the road to the east.

A large number of the villages in the south and east of the District tend to retain the shape and size of their historic core and are usually made up of a number of historic farmsteads. In the north and west of the District the settlement pattern is dominated by dispersed farmsteads.

There are around 82 country houses in the District, concentrated in the north and west.

Transport

The Stratford-upon-Avon Canal, built between 1793 and 1816, runs from the Avon at Stratford northwards towards Birmingham.

Part of the Oxford Canal passes through the eastern part of the District as does part of the Warwick to Napton Canal (part of the Grand Union Canal)

The development of railways in the District connected Stratford to the rest of England. The Stratford to Moreton Tramway built between 1821-1826 was at first a horse drawn tramway; it later became steam powered. It ran from Stratford to Moreton in Marsh with a branch to Shipston on Stour.

The next line instated was the Stratford – Honeybourne line built in 1859 and dismantled in 1960 that now mostly forms the Stratford Greenway cycle way/footpath.

Stratford was connected with Warwick and the main railway lines in 1861 with a direct line towards Birmingham that opened in the early 20th century; both lines remain in use. The Leamington to Banbury line also passes through the District.

Railway lines also led west from Stratford towards Alcester and beyond and east, with the East and West Junction Railway, towards Kineton, Fenny Compton and eventually Towcester (Northamptonshire); these lines were dismantled post World War Two with only a small section of the East-West Junction Railway still remaining, linking DM Kineton to the Leamington-Banbury main railway line.

Further lines that once existed include the Marton Junction to Weedon branch line connected to the Leamington to Rugby line, for cement works. This was opened in 1895 and closed by 1964.

A number of airfields still exist in use in the District although none as commercial passenger airports. Wellesbourne started as a Second World War RAF airfield and continues to be used for light aircraft although the airfield has reduced in size with industrial development encroaching.

Snitterfield, another Second World War RAF airfield, remains in use for gliding. Long Marston is another RAF airfield still used for a flying club, a drag strip and music festivals.

The M40 motorway passes in and out of the District a number of times running southeast to northwest.

Civic and Commercial

There is less than half the average of civic and commercial sites in the District when compared to the rest of the county, reflecting the smaller amount of settlement.

Not surprisingly most of the Civic and Commercial sites are schools and services associated with the main settlements of

Stratford, Southam and Alcester. Some smaller towns and villages have schools and other small sites.

There are larger educational sites at Ashorne Hill College, Horticulture Research International and Moreton Hall.

Camping and caravan parks are mostly on the floodplain of the lower parts of the rivers Avon and Arrow. Large hotels are usually on the sites of old country houses and often include the park associated with them or include newer golf courses, resorts or spas. Examples include Ettington Hotel, Welcombe Hotel, and Stratford Manor Hotel.

Horticulture

The district has almost 25% more horticultural area than the average for the rest of the county. This is mainly due to the large commercial orchards in the southwest, often over 200 hectares in extent, mostly post-1880s in creation. This south west area has been traditionally associated with orchards and some are marked here on the OS 1st edition especially around Welford-on-Avon.

A number of smaller orchards are dotted broadly along the Avon Valley southwest of Stratford.

Also in this same area are a number of nurseries, mostly post 1955 in origin. Of note is the larger National Herb Centre away from this area near Warmington.

There are a number of other nurseries scattered through the District.

Allotments are within or at the edge of the larger settlements.

Solihull Metropolitan Borough

Introduction

Originally part of Warwickshire Solihull Metropolitan Borough was created in 1974 by the merger of the Solihull County Borough and most of the Meriden Rural District. In 1986 the Solihull borough became a unitary authority when the West Midlands County Council was abolished. It remains part of West Midlands County for ceremonial purposes, and for functions such as policing, fire and public transport.

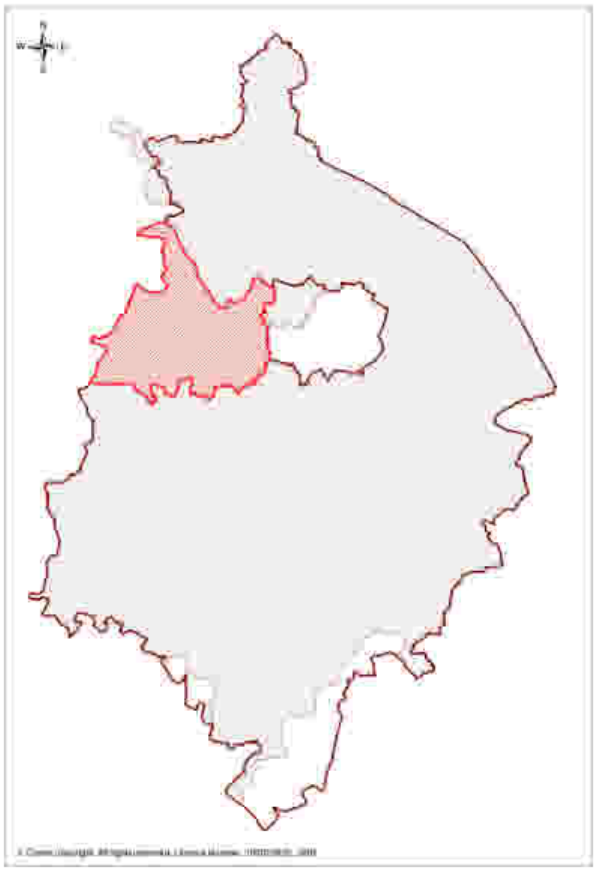
The Borough is 17,829 hectares in size with 203,600 people giving a density of 1142 people per square kilometre. This makes it the most populated district in the project area and second only to Nuneaton and Bedworth in terms of population density.

Solihull is where the Borough council has its headquarters. Other large residential populations are found in the northern and western part of the Borough at Castle Bromwich, Chelmsley Wood, Fordbridge, Kingshurt, Marston Wood, Smith's Wood and Shirley. Detached and to the east, Dorridge and Balsall Common make up the other main settlements in the Borough.

Despite this urban element, mainly created by spill over from Birmingham in the 20th century, the Borough remains around two thirds rural with Green Belt and fields stretching south and east towards Coventry, Warwick and Stratford-upon-Avon.

The Borough is bordered by the M6 and the M40 and split by the M42 which divides the urban centre of the Borough from the rural south and east. The Borough's transport links have led to a number of large businesses being established in the Borough, such as Land Rover, the National Exhibition Centre and Birmingham International Airport.

The Borough shares its boundaries with the City of Birmingham to the west and north, the City of Coventry to the east, North Warwickshire District to the north, Warwick District to the south east, Stratford-on-Avon District to the south, and Worcestershire to the south west.



Summary of Historic Landscape Character

Solihull Metropolitan Borough is the most populated of all the districts in the project area with just over 25 % of the Borough being settlement. Most of the 200,000 people in the Borough live in the large urban west and north with a couple of large settlements, Dorridge and Balsall Common, to the east. However, most of the eastern part of Solihull contains only small villages and scattered farmsteads. The urban development of Solihull has mainly taken place in the 20th century and is a result of the outward expansion of Birmingham. Different phases of development and housing types can be recognised and are discussed in more detail below.

The Borough has three times the county average area of civic and commercial sites. This is due to the large population being provided with more services. Indeed most civic and commercial sites are found within or close to the large urban west. However, some very large sites such as the NEC are just outside the urban area.

Most industrial sites are found in the more urban east and north. Large sites include the Birmingham Business Park, Elmdon Trading Estate, the Shirley/Monkspath industrial estates and the very recent Blyth Valley Business Park, which is adjacent to the M42 corridor. The Land Rover motor works is another important industry for Solihull remaining in the Borough since its conception in 1946.

Transport is a dominating feature in the Borough with the very large BHX (Birmingham International Airport) forming the largest single transport feature in the project area. Other transport links such as canals, railways and motorways have made a deep impression on the Borough, all linking Birmingham with other parts of the country.

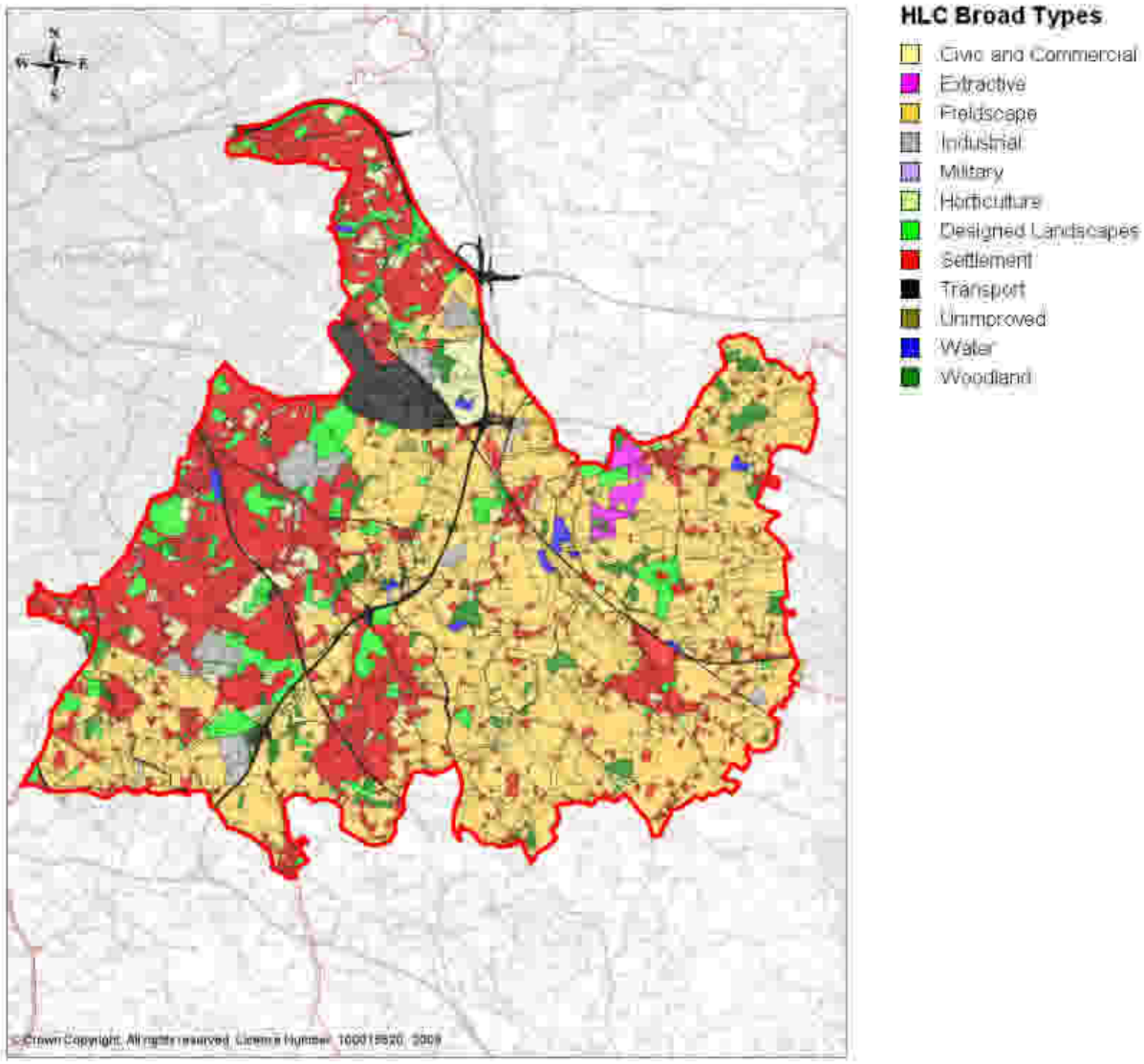
A consequence of all this settlement, industry, transport and services is that only half of the Borough is formed of fieldscapes. Most of the enclosure in the Borough is quite varied. However, there are a number of concentrated areas of certain types. Piecemeal enclosure and irregular fields run in bands from the south east to the northwest. Planned enclosure is also grouped in patches throughout the Borough. Very large post-war fields are in smaller patches and mainly appear to replace piecemeal enclosure. There are also some distinctive areas of encroachment and squatter enclosure over old common/heath at Meer End, Flints Green, Carols Green and Hockley Heath.

Only a small amount of unimproved land remains: a very small and rare piece of heathland in the west and some small areas of common elsewhere. Most of the rest is scrub formed since suspension of minerals extraction. However, there once existed some very large areas of common and heath. The largest was at Balsall Common with other areas at Dorridge and to the south and west of Solihull Town.

The Borough has 50% more designed landscape than the average for the rest of the project area. Most is made up of large golf courses, possibly because of the proximity to Birmingham. There are also a number of historic and modern parks.

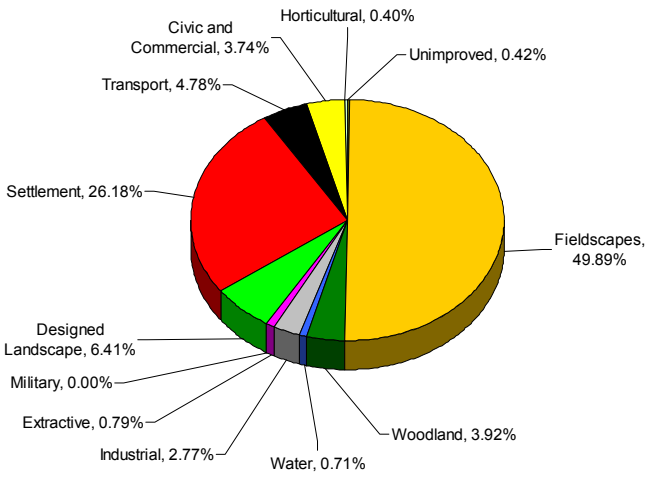
Only an average amount of woodland exists in the Borough when compared to the rest of the project area. Most is in large patches in the east with smaller wooded areas in the urban west. Woodland was once much more prevalent across the Borough and this is reflected in place names and some evidence of assarting and woodland clearance.

Map of Solihull HLC Broad Types

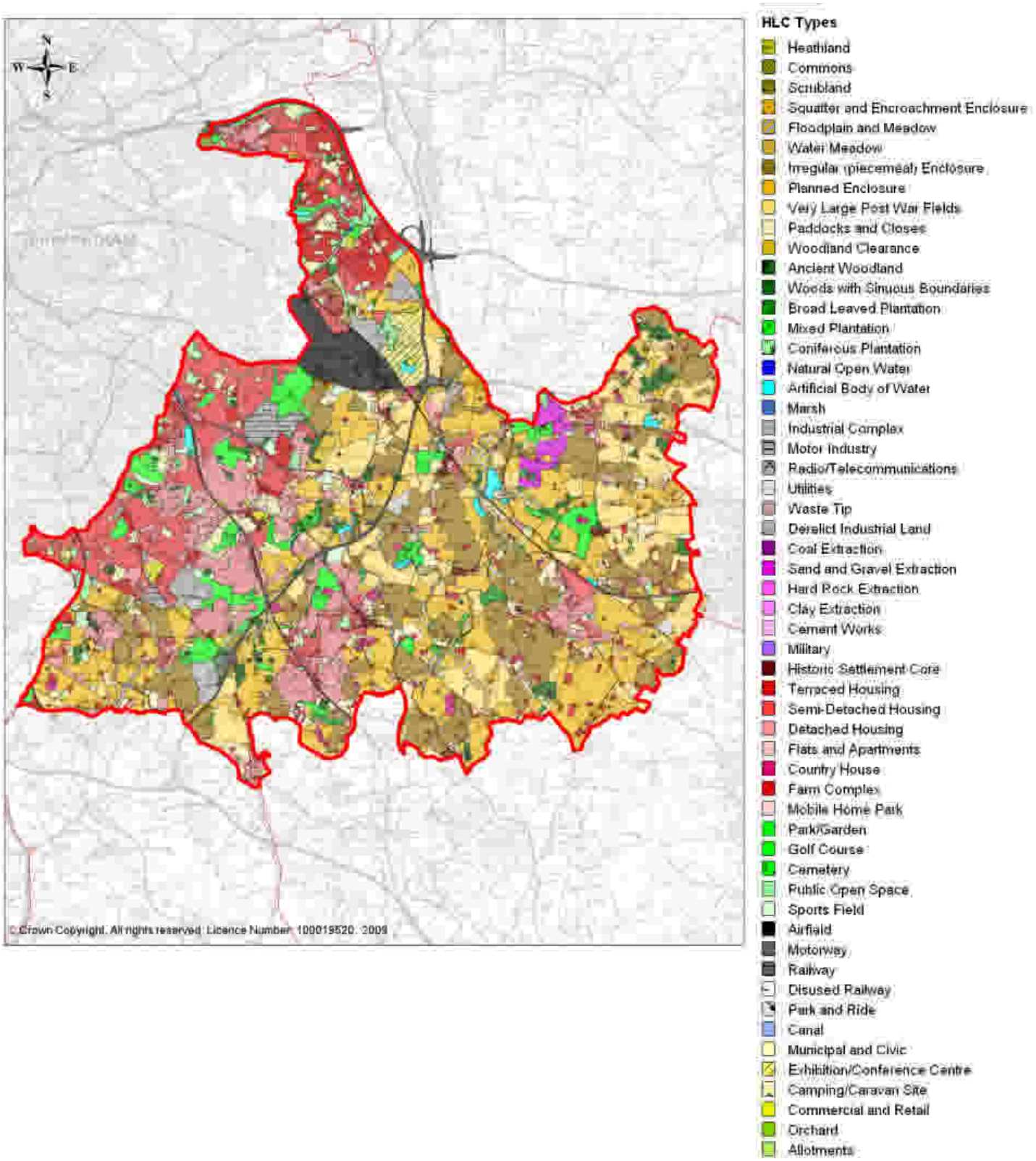


HLC Broad Type Statistics

HLC Broad Type	Total Area (ha)	Percentage of District
Unimproved	74.1	0.42%
Fieldscapes	8900	49.89%
Woodland	699.14	3.92%
Water	126.83	0.71%
Industrial	493.58	2.77%
Extraction	140.59	0.79%
Military	0	0.00%
Designed Landscapes	1143.85	6.41%
Settlement	4670.84	26.18%
Transport	852.15	4.78%
Civic and Commercial	666.72	3.74%
Horticultural	70.84	0.40%



Map of Solihull HLC Types



Historic Landscape Character Analysis

Unimproved

There is one small area of heathland at the very south western edge of the metropolitan borough. This type is very rare in the Warwickshire area.

One small area of common lies just on the outskirts of the northern part of Catherine-de-Barnes. The remaining unimproved areas are scrubland, some as a result of mineral extraction, and others as unused areas.

In terms of past unimproved landscapes, the Borough area once had a number of commons or heaths. Locations of some are obvious from place names such as Balsall Common, Bentley Heath, Dickens Heath, Hockley Heath, Copt Heath, Elmdon Heath, Cheswick Green, Marston Green, Fen End, Meer End, Chadwick End and Whitlock's End.

There are probably more place names related to old common or heathland in Solihull than in any other district in Warwickshire.

Former common and heath is also evident in squatter and encroachment enclosure and some of the later very regular formal planned enclosure of heathland areas.

Consequently a number of areas probably formed large commons or heathland. The largest appears to have been around Balsall Common. Other large areas were at Dorridge stretching south west into Warwick and Stratford-on-Avon Districts; to the southwest of the historic core of Solihull itself; and to the north of Birmingham Airport and the NEC around Marston Green and Chelmsley Wood.

Fieldscape

Around half of the Borough is formed of fieldscapes, a lower proportion than most other districts in the study area.

There are large areas of piecemeal and re-organised piecemeal enclosure including a concentration in a central band running from the western edge of Balsall Common and Meer End to the eastern edge of Dorridge. It then runs north and northwest towards Birmingham Airport. There are also many very large post war fields in this area that were once piecemeal enclosure.

Another concentration of piecemeal enclosure, more scattered and interspersed with large amounts of very large post war fields, runs north from the northeast of Balsall Common towards Meriden and then northeastwards towards Corley.

Two other medium sized patches of piecemeal enclosure are in the south west of the Borough near Dicken's Heath and Cheswick Green.

Large irregular fields found either in or on the edge of these distinctive areas may have once been piecemeal enclosure.

There are also distinct areas of planned enclosure. That to the south and east of Balsall Common is a clear result of formal planned enclosure of the common or heathland. Other areas lie west of Dorridge and south of Dicken's Heath and Tidbury Green.

Large rectilinear fields probably also showing planned enclosure are also found in a band running northwards from Chadwick End towards Hampton-in-Arden.

Very large post-war fields in these areas tend to have replaced piecemeal enclosure, but also occasionally replaced planned enclosure.

Small paddocks and closes are found on the edges of settlements and farmsteads. One or two of the larger areas of these small fields may have been created from encroachment or squatter enclosure on the common, such as at Hockley Heath.

There are two distinctive areas of encroachment enclosure at Meer End and Flints Green. There is also a small area of squatter enclosure at Carols Green.

In terms of woodland clearance, again these are only found in a few concentrated areas. The first is in the very northeast of the Borough around Meridan Shafts. The second is at Hampton Coppice just east of Elmdon Heath. A couple of small areas are also found at Siden Hill Wood and the old Wakelin's Wood just east of Four Oaks.

Floodplain and meadow are generally only found in the Borough along the main river valley of the Blythe and its tributaries.

Woodland 

The Borough has an average amount of woodland when compared to the rest of the project area.

Most of the woodland is in the rural eastern part of the Borough, although small patches of mainly ancient woodland are found dispersed among the urban areas of Solihull.

Woodland in the Borough tends to be in disjointed patches. The largest area of ancient woodland is in the very north east, including Meriden Shafts, Chantry Wood, Meigh's Wood and Boultbees Wood. This area once formed a much larger more cohesive block of woodland. Hampton Coppice also used to be a large ancient woodland, but was mostly felled in the 20th century.

Other ancient woodland tends to be in smaller blocks scattered across the Borough, places like Frogmore Wood and Monkspath Wood.

Most modern plantations are in a loose central band running from Balsall Common through Barston towards Solihull. There are some large coniferous plantations such as at the NEC and just south of Shirley.

There is evidence of areas where woodland once existed. Parts of Shirley and Dicken's Heath had woodland in the late 19th century that has been subsumed by 20th century settlement expansion.

The post-war settlement of Chelmsley Wood as its name suggests may have once formed woodland.

There is no doubt that other large areas of the Borough once formed woodland, but little evidence remains for it in the last two centuries.

Water 

The main river system through Solihull flows from south and west to the north and north east and consists of the Rivers Cole and Blythe and their tributaries. Interestingly, the southern boundary of the Borough follows almost exactly part of the main midlands watershed between the rivers flowing north and east and those flowing south and west.

A number of artificial bodies of water can be found in the Borough, mainly next to the River Blythe. Some are commercial fishing lakes, while others are the result of mineral extraction. There are also a couple of small reservoirs in the area.

Industrial 

Most of the industrial areas are found in the more urban west and north of the Borough.

Some small post-1955 industrial sites are in the very north of the Borough. Larger ones such as Birmingham Business Park and Elmdon Trading Estate are found adjacent to the NEC.

Large industrial areas related to the automotive industry are found at Elmdon Heath in the form of the Land Rover Motor Works. This site has an interesting history; it was built between 1936-1938 as a 'Shadow Factory' producing aircraft and tank engines. The factory passed into Rover's hands in 1946 and started producing vehicles by 1948. It is one of the few motor factories remaining in the project area.

The other site related to the motor industry is at Shirley. It appears to be a research

centre related to the automotive industry. It was created after 1955 and appears to have been owned first by Joseph Lucas, then TRW, both making parts for the motor industry.

Other large industrial areas include a complex at Shirley/Monkspath made up of the Shirley Trading Estate and the Monkspath Business Park. This area includes a rare listed 1955 industrial building (the Carr's Papers building) designed by Erno Goldfinger.

A much more recent and large industrial area is the Blythe Valley Business Park which appears to have been developed since 2000. This is a classic example of a very recent industrial estate on the edge of the urban area, next to good communication links (M42).

Other small industrial areas such as scrap yards and depots are scattered throughout the Borough with a fairly large sewage works in the centre of the Borough west of Eastcote.

The Borough has one area of waste landfill just east of Middle Bickenhill. This site appears to have formerly been used for clay extraction.

Previous industrial sites include old sites of brickworks, gas works and sewage works mostly not far from the historic cores of Solihull and Knowle.

Extractive

There is only one fairly large area of mineral extraction in Solihull and that is just west and south west of Meriden. This area appears to have been developed into sand and gravel extraction after 1955.

This extraction area was at one point much larger and appears to have included the area of the water features found just to the southwest of the River Blythe.

Another fairly large site of extractive work existed to the west of the Borough, now this appears to be a refuse tip but once formed clay works and clay extraction.

A few other small extraction sites are marked scattered throughout the metropolitan borough on the OS 1st edition.

Military

No military sites are present in the Borough.

Designed Landscapes

The Borough has around 50% more designed landscape areas than the average for the rest of Warwickshire.

Part of this is made up of the numerous golf courses in the area, mostly close to the western urban part of the Borough. Nine large individual golf courses are recorded as well as a couple of driving ranges and some small golf courses such as at Nailcote Hall and Tudor Grange Park. Some of these date back to the first half of the 20th century.

A number of parks are scattered through the Borough, with most being close to the western urban area. An exception is Berkswell Park, an historic park associated with Berkswell Hall and once part of a medieval deer park.

The largest park is Elmdon Park, a 100 hectare municipal park owned and managed by the local authority since 1944. Most of the rest of the parks tend to be smaller municipal parks and recreation grounds found scattered throughout the urban area of Solihull.

There are one or two older historic designed landscapes such as Malvern Park and the grounds associated with Knowle Hall and Hampton Manor.

Much of the rest of the designed landscape in the Borough tends to be small sports fields and public open spaces, again mostly within or adjacent to the urban area in the west of the Borough. However smaller sites are found in some of the larger villages. There are also a

number of cemeteries such as the Robin Hood cemetery near Shirley.

Other historic parks once existed, especially in the more rural east of the Borough. These, associated with country houses and manor houses, have mostly been developed into agricultural land. Designed landscape parks used to exist at Chadwick Manor, Springfield Hall, Park Hall, The Firs, Meriden Hall, Allspath Hall, Langdon Hall.

Settlement

Solihull is the most densely populated district in the project area, with the highest percentage of settlement at just over 25%. This does not include other related areas such as civic and commercial, industrial, parks, transport and other types that together with settlement make up around one third of the Borough.

The settlement pattern of the Borough is highly influenced by 20th century expansion from Birmingham.

The old historic cores consisted of small historic towns or villages such as Solihull, Meriden, Berkswell, Barston, Hampton-in-Arden, Knowle, Shirley and Bickenhill.

At the end of the 19th century a small amount of settlement expanded out from Birmingham into Olton at the very western part of Solihull. At the same time some settlement developed just west of Meriden out along the road together with a series of detached houses running along the road between Hockley Heath and Solihull just to the west of what is now Dorridge.

The next phase of development saw a large settlement expansion between 1900 and 1955 and especially in the interwar period. This was settlement expansion from Birmingham, creating huge housing estates of predominantly semi-detached housing in the Lyndon, Olton and Elmdon areas, stretching towards Solihull itself. Also at Shirley semi-detached housing estates began to make a huge impact. To a lesser extent the same was taking place at Castle Bromwich.

Closer to Solihull detached houses appear to have been favoured and by 1955 Solihull became joined to Birmingham. Other small areas of detached houses appeared on the outskirts of the old historic core of Solihull.

Some of the small historic cores also started to expand at this point, places such as Hampton in Arden, Marston Green, Hockley Heath and the new area at Meriden. Part of Balsall Common at this time also began to be built on.

After World War II there was another huge wave of expansion, especially in the western part of the Borough. At Castle Bromwich settlement expanded southwards through Smiths Wood, Kingshurst, Chelmsley Wood and towards Marston Green. This predominantly terraced housing gives a completely different character to the area than the rest of Solihull.

Shirley also expanded with predominantly detached housing stretching up towards Solihull and east towards the M42 motorway.

Also at this time Dorridge was ‘created’ from the expansion south and west of Knowle and the expansion around the railway in the south to meet it. This again is predominantly detached housing.

Other areas that have expanded since World War Two are Balsall Common, Cheswick Green and Dicken’s Heath. Meriden saw a little expansion to the village.

Most of the rest of the small villages in the rural south and east have remained little changed since the 19th century.

There are a large number of country houses in Solihull, many of them dating back to at least the 19th century and some with medieval origins. There is a concentration of these in the central southern part of the Borough with another small concentration around Meriden.

Farmsteads have mainly been subsumed into the large urban developments in Solihull. However in the rural part of the

Borough there is a wide scattering of farmsteads, some forming a more discrete linear pattern of farmsteads along common edges at Meer End and the nucleated farmsteads pattern at Bickenhill village.

Transport

This is a dominant feature of Solihull with over twice the average area for the county.

The principal transport feature in terms of sheer size in Solihull is Birmingham International Airport, taking up 368 hectares. It first opened in 1939, was requisitioned for the Second World War, and returned to being a civil airport in 1946.

Parts of the Grand Union Canal (Warwick-Birmingham) and the Stratford upon Avon Canal pass through the Borough on their way to the centre of Birmingham.

A number of railways cross the area including lines leading from Coventry, Leamington and Stratford-upon-Avon, all heading towards the centre of Birmingham. The large urban area means there are numerous train stations.

There are small sections of dismantled railways; part of the Stonebridge Railway and a section of the Kenilworth and Berkswell Branch Railway.

Two motorways are found in the Borough: the M42 cuts through the middle and the M6 forms the northernmost border of the Borough around Castle Bromwich.

Civic and Commercial

Solihull has three times the amount of area of Civic and Commercial sites than the average for the rest of the project area. This is due, in part, to the larger settlement area and the need for more shops and services. It may also be due to its proximity to Birmingham and the opportunity for more commercial sites as well as for more schools and civic services.

Most of the Civic and Commercial sites are made up of schools and these are mainly found in the urban west and north of the Borough. However, there are a large number of commercial centres also in the urban part of Solihull including some quite large retail parks and shopping centres.

The main municipal and civic buildings are close to the Historic Core of Solihull itself with some smaller ones spread throughout the Borough.

The largest civic and commercial site is of course the NEC just to the east of Birmingham International Airport; at around 160 hectares in size it is the biggest such site in the area, if not the region.

Horticulture

There are no orchards in the Borough.

Allotments are found mainly in small patches associated with the main settlement areas.

A number of nurseries and garden centres are also found in the Borough; some of them are fairly large.

Chapter 7 - Applications of Historic Landscape Characterisation

Introduction

From the very start of the Warwickshire HLC project, requests were made by external partners for data or information about the HLC in order to help inform various studies, projects and strategic planning documents. Initially it was decided not to prioritise characterisation of any particular areas, or to release any data piecemeal. However, once data became available after the digitising stage (stage 2) it was felt that it should be promoted to help further the acceptance and use of HLC. Disadvantages of taking this approach included being unable to provide detailed analysis or a supporting report (which were prepared in later stages of the project). The use of the HLC data also had mixed results with some less successful applications. The following section presents examples of how the HLC has already been used and ways in which HLC could be used in the future.

Landscape Management

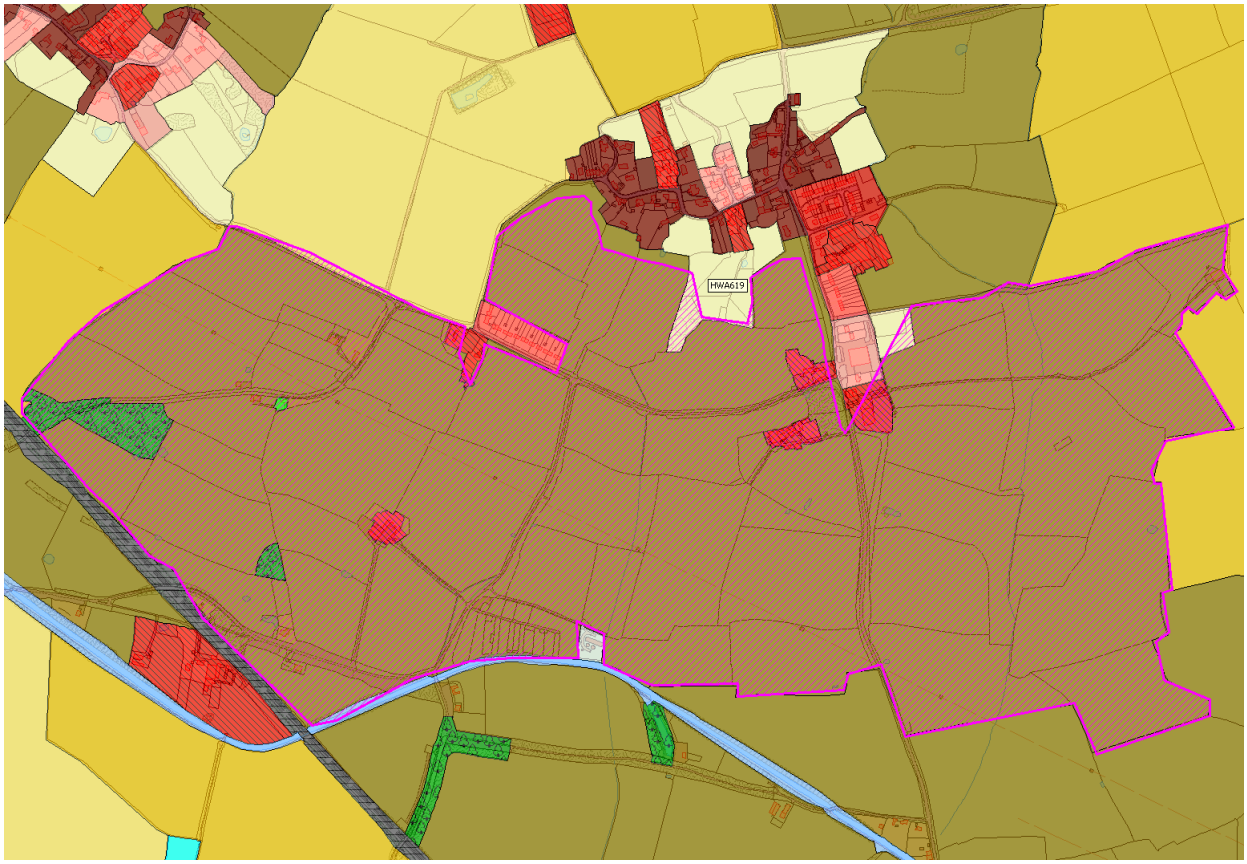
Agri-Environment Schemes

HLC can help inform Agri Environment Schemes such as Higher Level Stewardship, administered by Natural England. Traditionally only HER data has been used in the preparation of the Farm Environment Plans that inform HLS agreements. HLC looks at the whole landscape, not just individual monuments and specific areas, and improves understanding and management of the historic environment at a farm scale.

HLC is used as one of the data sources when a request for HER data for a Higher Level Scheme FEP is made. Here some interpretation of the HLC material can help highlight to the farmer, the agent preparing the FEP or Natural England as promoter and commissioner of HLS agreements, how an area's Historic Landscape Character might benefit from certain types of management.

Recently Natural England with assistance from English Heritage and local authority HERs developed SHINE, the Selected Heritage Inventory for Natural England, a dataset of historic environment features across England that could benefit from management within the Entry Level Environmental Stewardship Scheme (ELS).

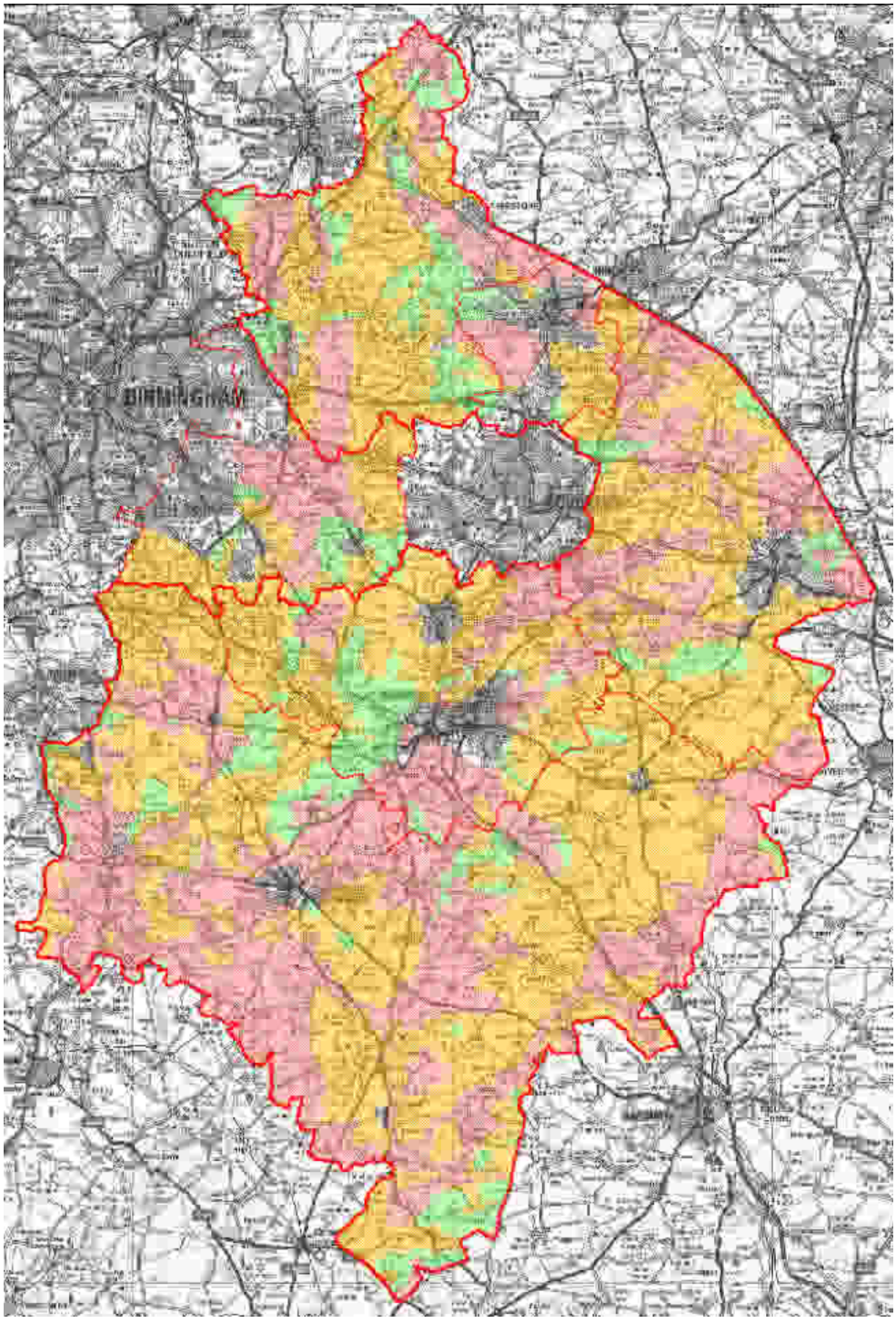
The HLC was used to highlight candidates in Warwickshire, such as the area of piecemeal enclosure at Harborough Magna (shown below). These have now been accepted as SHINE designations.



SHINE Record DWA6332: Fieldscape denoting piecemeal enclosure at Harborough Magna

Woodlands Opportunity Mapping

When the West Midlands Woodland Opportunity Mapping project was carried out by the Forestry Commission in 2006 the Warwickshire HLC had only just been started and so could not be used to inform the Cultural Heritage Map Layer. Instead an approach was used where a rapid assessment took place across the county using the HER data and including broad historic landscape features.



The Woodland Opportunity Mapping Cultural Heritage Map Layer for Warwickshire (Green = Preferred, Yellow = Neutral, Pink = Sensitive).

Now that the HLC data is available the WOM could be updated incorporating the previously defined methodology of using HLC to assess Cultural Heritage sensitivity to (or capacity for) woodland planting.

Historic Environment Action Plans (HEAPs)

First developed in Cornwall in 2003, these are similar to Biodiversity Action Plans (BAPs) and help focus action on the Historic Environment in certain areas.

HEAPs can be developed for particular HLC Types or for specific areas. They should be carried out in consultation with those who will take the actions such as land managers, farmers, national bodies and agencies as well as local communities. There is scope to integrate HEAPs with Parish Plans and Design/Vision statements, and to use HEAPs as a platform for encouraging public engagement and local ownership of the Historic Environment, fulfilling the role in responding to proposed development envisaged in the recent draft PPS15 on Planning and the Historic Environment.

Recent examples of where HEAPs have been developed are the Isle of Wight and Cranborne Chase HEAP projects. These have a mix of area and type based HEAPs and most crucially are driven by historic environment experts working very closely with extensive and very active steering and stakeholder groups. Essential for a successful HEAP is that it doesn't just produce recommendations but turns these into SMART actions (Specific, Measurable, Attainable, Resourced and Time-bound).

HEAPS use both HLC and HER data to understand the issues that need to be addressed in relation to the Historic Environment.

A guidance note on HEAPs is due to be published by English Heritage soon (P. Herring pers. comm., 2010).

Landscape Character Assessments and Strategies

Conservation Area Appraisals

Rugby Borough Council commenced an appraisal process of all their Conservation Areas in 2007/2008. This coincided with the HLC data becoming available for the borough and it was suggested that it could be used to help enhance the understanding of the historic environment for each Conservation Area Appraisal.

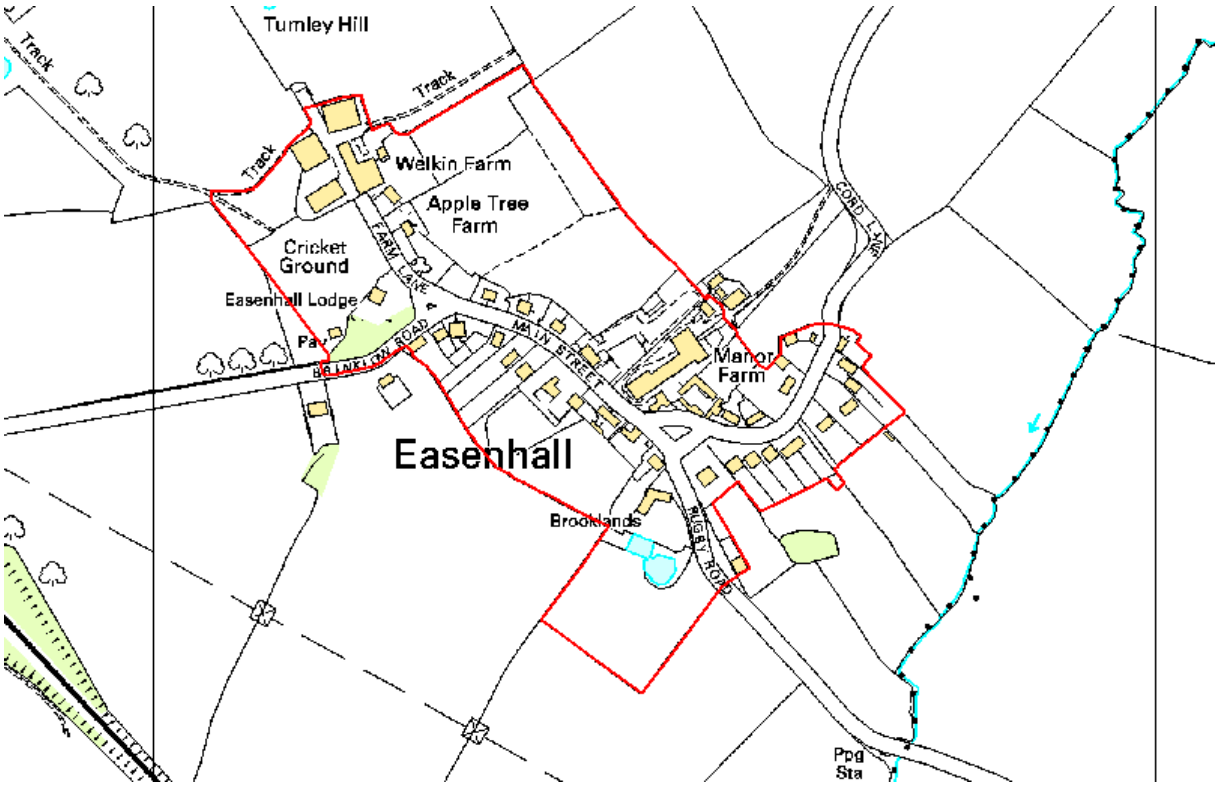
Detailed analysis of each Conservation Area and the HLC records that they contained was carried out and a pro-forma was completed recording:

- Conservation Area Name
- Map of Area
- HLC Types in Conservation Area
- HLC Types adjacent to Conservation Area
- Historic Landscape Character Summary
- Comments

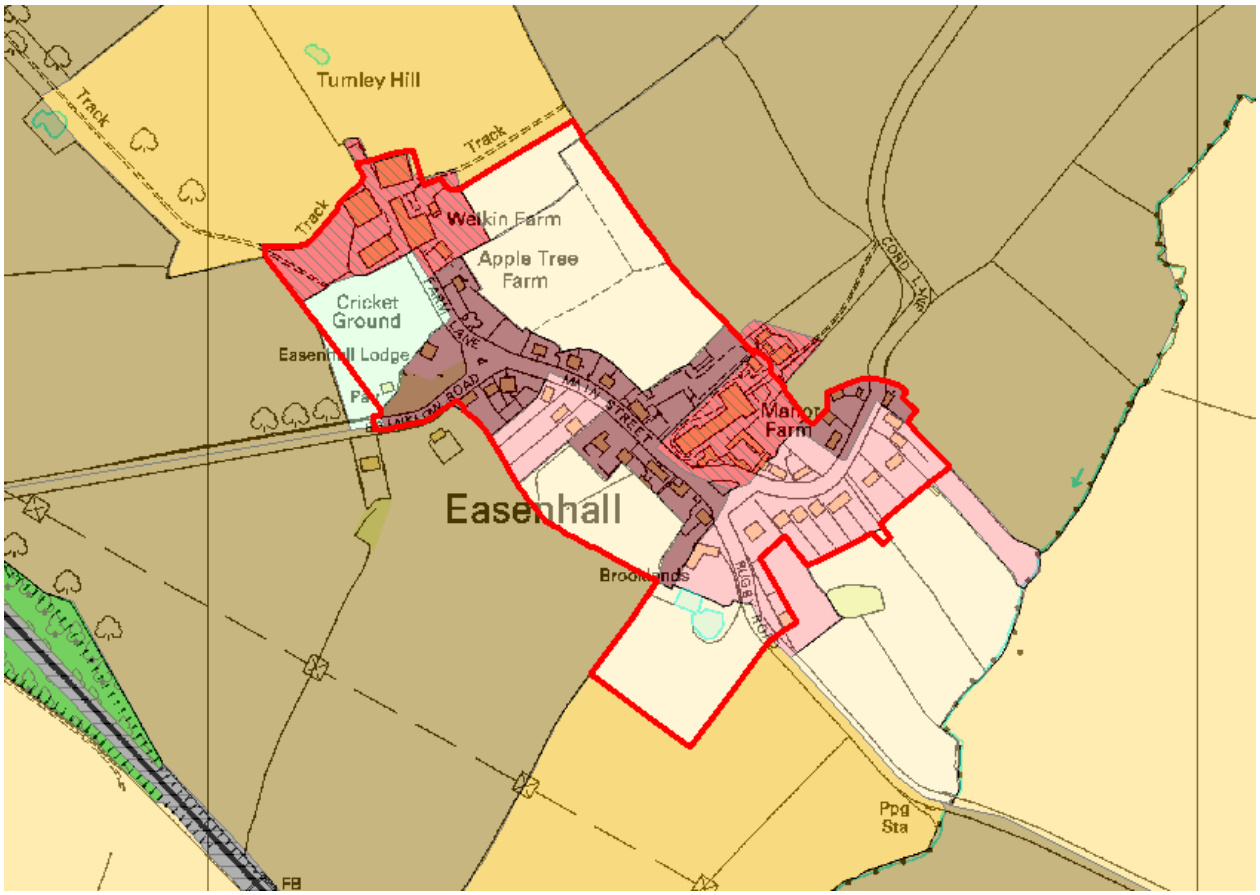
Comments and recommendations were made where it was felt the HLC helped contribute to the understanding of the historic area or where changes could be made to the boundary of the Conservation Area to reflect the historic landscape character better.

An example of one of these recommendations is shown below for Easenhall

Present Conservation Area



Map of HLC Types in Area



Comments made:

> *"The paddocks just to the south east of Easenhall appear to be the remains of strip fields with some ridge and furrow present. This area could be a significant addition to the Conservation Area showing the connection of the village to the agricultural landscape from the medieval period onwards. Elsewhere around the outside of Easenhall much of the remainder of the field pattern and character has been altered significantly since the Second World War."*

A series of short reports for Rugby BC were produced tied in to the phasing of the appraisal process and these were sent to the consultant carrying out the appraisal. This shows that HLC can add an extra dimension and understanding of the historic environment not always appreciated in the conservation area appraisal process. Indeed English Heritage recommend in their guidance (below) that characterisation studies should, where available, be taken into account and inform conservation area appraisals.

English Heritage strongly recommended that Characterisation information, including HLC, should be used in Conservation Area Management.

> *CHARACTERISATION*
>
> *Understanding an area's distinctive historic character and how it came to be as it is, is one of the starting points for deciding its future. Characterisation can help to develop an appreciation of an area as the basis for making sustainable decisions on managing change within it. The aim of most historic landscape*

> *characterisation studies is to define the distinctive historic dimension of today's urban and rural environment within a given area and its capacity for change, through mapping, describing, analysing and understanding the landscape. Characterisation can assist with Conservation Area appraisals by providing the landscape context of settlements and helping to identify and analyse different 'character areas' or zones within large and/or complex areas.*
>
> (English Heritage 2005a: p12 Section 4.2)

This is further reinforced for Conservation Area Appraisals:

> CHARACTERISATION
>
> *Characterisation (the mapping, describing, analysing and understanding of the existing townscape or landscape character) is a parallel technique that can help the appraisal process. Most historic characterisation studies define the distinctive historic elements of today's urban and rural environment across large rural areas, or cover the whole of a settlement. They are therefore compiled at a strategic level and can provide a wider context for Conservation Area appraisals and help in defining boundaries, as well as providing some information for sustainable management even beyond the Conservation Area. Some specific characterisation techniques can also be used within Conservation Areas, for example, to identify distinctive 'character areas', or zones*
>
> (English Heritage 2005b: p8 Section 3.2)

Conclusion

In light of this and the case study from Rugby it is recommended that all Conservation Area Appraisals use HLC in furthering their understanding of the historic landscape both in and around Conservation Areas.

It is also recommended that the HER and archaeological information in general is better used in the CAA process to understand the historic environment in its entirety.

A list of appraisals and when they are due to take place should be obtained from the local planning authorities so that the HLC, the HER and the Historic Environment can be promoted at the best opportunity.

Extensive Urban Survey

The HLC will form part of the base dataset for a proposed Extensive Urban Survey (EUS) for Warwickshire. The HLC's coverage of 20th century development of the selected towns should prove especially useful. HLC's treatment of historic settlement cores was relatively limited so the EUS project will greatly enhance our understanding of the development and character of the selected towns; it will also enable definition of discrete historic urban character areas.

Landscape Description Units

The Landscape Description Units (LDUs) have a variety of uses especially for large landscape projects and for Landscape Character Assessment. Those for Warwickshire are currently at a level 2 stage where they have been mapped at (approximately) 1:50,000 scale and deal with the historic or cultural aspect of the landscape in a relatively cursory way. It is recommended that an upgrading project is designed based on experience in Shropshire where LDUs were compared with HLC and refined to produce an enhanced level 2 LDU data set.

Landscape Character Assessment

HLC could be used alongside the HER, natural environment data (such as the HBA and Biological Records) and landscape datasets (including the LDUs) in any updating of the Warwickshire Landscape Guidelines or replacement of the Guidelines by a Landscape Character Assessment.

Historic Environment Assessment (HEA)

Elsewhere in the West Midlands (e.g. Shropshire and Staffordshire) and in Essex, West Berkshire and Buckinghamshire Historic Environment Assessment projects have taken place. Here HLC mapping is used to identify larger Historic Landscape Character Areas (HLCAs). HER data is then introduced to define and describe Historic Environment Character Areas (HECAs) and where appropriate subdivided into Historic Environment Character Zones (HECZs). These zones can then be assessed and used as an aid in spatial planning especially for larger development projects or to inform Local Development Frameworks.

In Warwickshire it is hoped to use this method to develop a SPD on the Historic Environment for the Sub-region.

Spatial Planning

Local Development Frameworks

It has always been intended that HLC would be used for strategic planning purposes and this was certainly one of the main expectations from the Warwickshire HLC project (see Appendix 2). HLC is ideal for strategic planning because it can be used at a broad scale to offer advice and information about the historic landscape to help inform planned change. The 'new' local strategic plan process incorporating Local Development Frameworks (LDFs), commenced just before the Warwickshire HLC project initiated and it was obvious that HLC should play a part in informing LDFs, their reviews and any successors.

In 2008 Stratford-on-Avon District Council commissioned Warwickshire Museum to carry out an Historic Environment Assessment for their proposed strategic sites for development to help inform their LDF Core Strategy.

The HLC was included as part of this analysis with a pro forma and map generated for each site containing some analysis of the Historic Landscape Character and some comments (example shown below). This information was then considered as part of the general comments relating to the assessment of the archaeological potential of each site, the likely impact of the past and future use of the sites on archaeological deposits, and initial archaeological planning recommendations based upon currently available data.

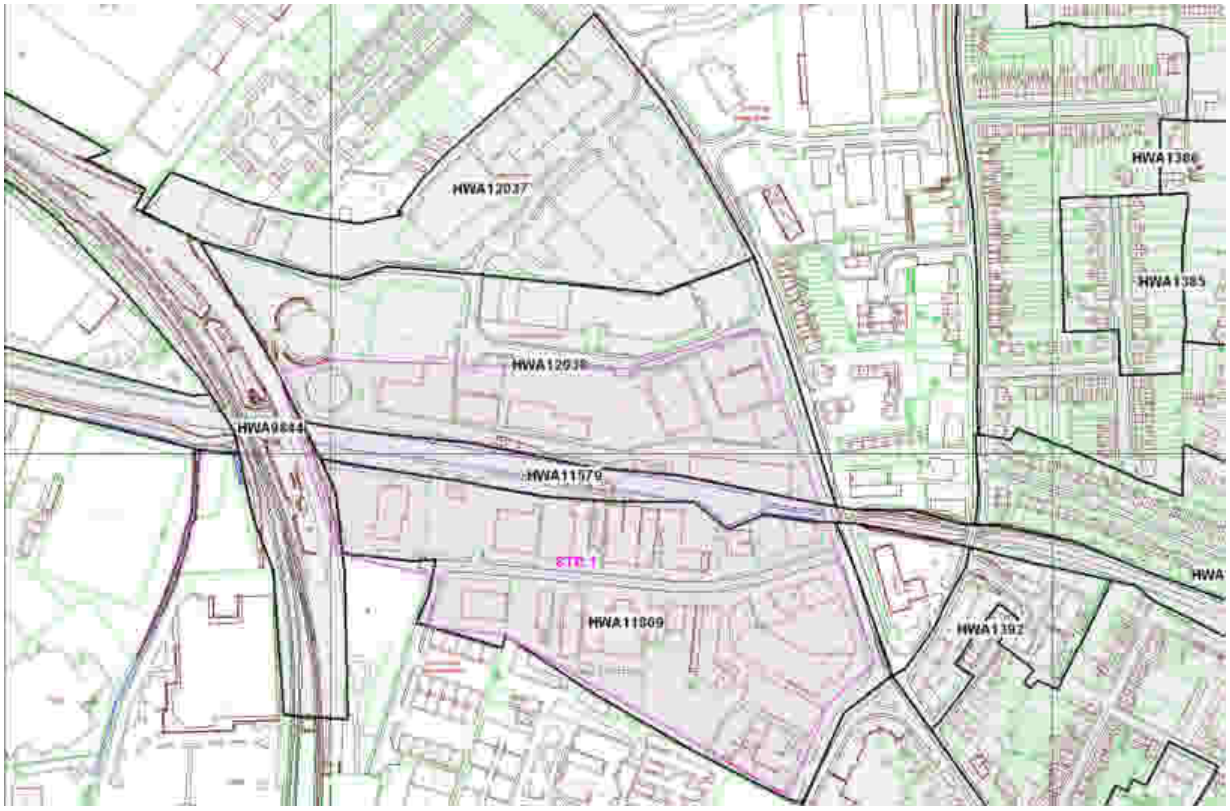
The report is available on Stratford-on-Avon District Council's website:

http://www.stratford.gov.uk/planning/planning-2733.cfm

The work was not a full Historic Environment Assessment in the terms of creating Historic Landscape Character Areas, Historic Environment Character Areas or Historic Environment Character Zones and then carrying out detailed analysis of those areas (this approach is detailed as a further use of HLC, above). However, it is a good example of where HLC can play a part in contributing to the understanding of the historic environment as a whole even on a site by site basis and further that this can play a part in strategic planning.

Site No: STR.1

Map:



HLC Type(s):

- Industrial (Post 1955 Industrial Complex)
- Transportation (Canal)

Other HLC Types in vicinity:

- Industrial (Post 1955 Industrial Complex)
- Transportation (Railway)
- Settlement

Summary:

This site covers two distinct areas of industrial estate (Western Road and Avon industrial estates) which straddle the Stratford upon Avon Canal. These appear in their present form on modern OS maps, post 1955.

Prior to this, by the 1880s, the Avon Industrial Estate formed sidings and goods sheds relating to the Hatton-Stratford Railway. The Corporation Gas Works appeared later between 1900 and 1955.

The Western Road Industrial Estate formed Brick Works marked on the OS 1st edition and named as One Elm Brick and Lime Works on the OS 2nd edition.

Points to note:

This area has had an industrial character for over 100 years relating to the development of both the canal and the railway (both still in use).

As a result of this work and with discussion through the HLC Stakeholder Forum, Stratford-on-Avon District Council added HLC directly into their Historic Environment Policy in their Draft Core Strategy document.

Policy CS.26

> *"Historic landscape character should be fully taken into account when proposals for development and changes in land use are being designed or assessed. In particular, proposals should avoid detrimental effects on patterns and features which make a significant contribution to the character, history and setting of a settlement or defined area.*
>
> *(Stratford-on-Avon, 2008: p60)*

Historic character of the landscape is also mentioned more generally in the policy for Natural Features and Landscape.

Policy CS.24

> *"The landscape of the District is valued for its local distinctiveness, historic character and for the ways it sustains biodiversity and geodiversity."*
>
> *(Stratford-on-Avon, 2008: p56)*

In February 2010 Stratford-on-Avon District Council released their second draft of their Core Strategy for their LDF, which has revised the policy wording but still notes Historic Characterisation:

Policy CS.13 Protecting Landscape and Natural Features

> *"Development should have regard to the distinctiveness and historic character of the District's different landscapes.*
>
> *Development should protect and enhance landscape character and avoid detrimental effects on patterns and features which make a significant contribution to the character, history and setting of a settlement or area."*
>
> *(Stratford-on-Avon, 2010: p54)*

Policy CS.14 Protecting Heritage Features

> *"New development should be integrated with its historic context using evidence gained through historic characterisation, and the retention of heritage features secured through sensitive design and layout of development proposals."*
>
> *(Stratford-on-Avon, 2010: p56)*

It is through policies such as these that HLC and the Historic Environment can be taken into account more fully in strategic planning. Studies such as Historic Environment Assessment on any scale can add an evidence base for strategic planners to use.

Green Infrastructure Planning

Green Infrastructure (or GI) has traditionally been associated primarily with the natural environment as Natural England's recent guidance on Green Infrastructure makes clear:

> *'Green Infrastructure is a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering those ecological services and quality of life benefits required by the communities it serves and needed to underpin sustainability. Its design and management should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types.*
>
> *Green Infrastructure includes established green spaces and new sites and should thread through and surround the built environment and connect the urban area to its wider rural hinterland. Consequently it needs to be delivered at all spatial scales from sub-regional to local neighbourhood levels, accommodating both accessible natural green spaces within local communities and often much larger sites in the urban fringe and wider countryside.'*
>
> (Natural England, 2009: pp7)

However there is scope in that definition to include other environment and landscape features and to recognise that the natural environment in England is actually directly related to human action and is therefore also historic. The more obviously historic of the types of Green Infrastructure identified by Natural England (Natural England 2009, p 7) are the following.

- *Parks and Gardens*
- *Amenity Greenspace – including village greens and urban commons*
- *Natural and semi-natural urban greenspaces – woodland and scrub, grassland (e.g. downland and meadow), heath or moor, wetlands, open and running water, wastelands and disturbed ground), bare rock habitats (e.g. cliffs and quarries)*
- *Green corridors – including canals, road and rail corridors*
- *Other – including allotments, cemeteries and Churchyards*

In the GI guidance HLC is directly referenced as a typical evidence base source: *"Environmental character datasets and supporting documents: Landscape Character Assessment, Historic Landscape Characterisation, Sites and Monuments Record (HER)".*

HLC can best be used by informing GI studies at an early stage and combined with HER data can offer a comprehensive picture of historic environment assets. HLC data has already been used to inform a number of GI studies in the area with mixed results.

Coventry

Coventry's GI study included a 1km buffer area around the unitary authority boundary and HLC information for this buffer was requested. However, the study does not appear to have used the HLC data.

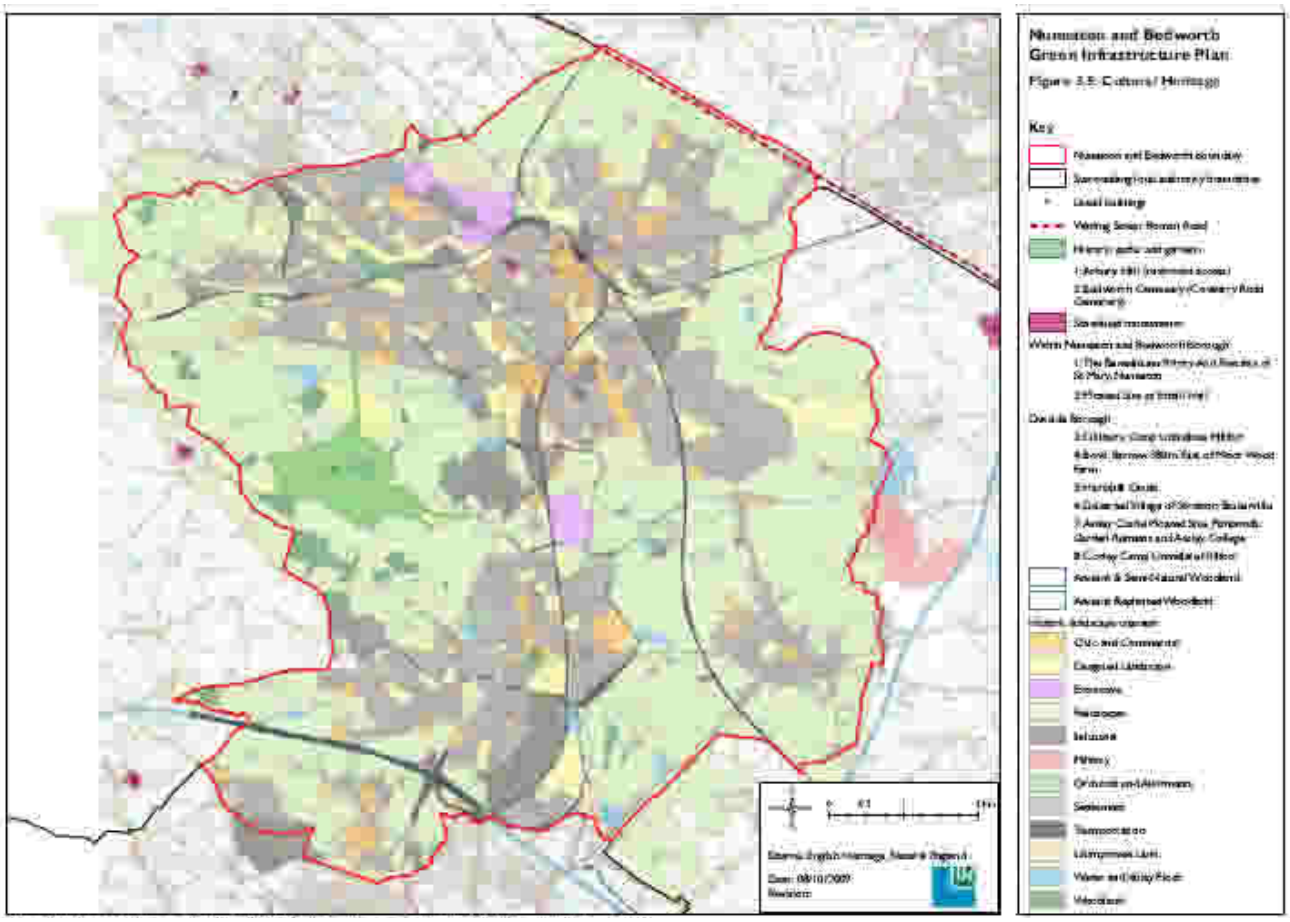
Rugby

Rugby was the next local authority to carry out a GI study. HLC was promoted at GI project meetings and this time was used and integrated into the report at relevant points. Furthermore, a section in the report listed the HLC types most relevant to GI together with a short analysis of their distribution in Rugby Borough (Entec UK Ltd, 2009). Some of these types helped define GI assets such as Disused Railway Lines which were identified directly from the HLC.

Recommendations from the project refer directly to the historic environment especially in policies and further work needed, such as the identification of Local GI networks where both the HLC and HER are referenced as essential sources of information (Entec UK Ltd, 2009:pp47).

Nuneaton and Bedworth

The GI study of Nuneaton and Bedworth Borough was carried out to inform their LDF. HLC data helped highlight historic landscapes, designed landscapes and other historic environment features. A section on HLC was included in the report and the data used in a supporting map (shown below)



(Reproduced with kind permission from Nuneaton and Bedworth Green Infrastructure Plan, Final Report. Copyright Nuneaton and Bedworth Borough Council, Warwickshire County Council, English Heritage and Natural England. Ordnance Survey data Crown copyright. All rights reserved. 100019520. 2009)

Conclusion

HLC can be used effectively in GI studies, ideally at the earliest possible opportunity. The local planning authority and any consultants/contractors carrying out the work should be made aware of its potential at project commencement.

For HLC to be used at all it has to be promoted at the earliest possible opportunity with both the local planning authority and any consultants/contractors carrying out the work being made aware of it as an essential data source.

The Rugby and Nuneaton and Bedworth GI studies are the better examples of using HLC within the project area although in the wider Historic Environment picture they fail to make adequate use of all the HER information available.

Development Control

Incorporating HLC data into the HER makes it immediately accessible to the Warwickshire and Solihull Planning Archaeologist for use in development control work. The HLC summarises the historic character of the landscape of development sites and puts other relevant HER records into context. Text prepared for each HLC type can improve understanding of the potential effect of proposed change and so improve decision making. Where no HER records exist an understanding of the HLC can still suggest what impacts may be expected and can therefore influence advice regarding the appropriateness of applications and placing conditions for archaeological appraisal and mitigation works.

Partnership, Learning and Outreach

Farmsteads

Historic farmsteads play an important role in contributing to landscape character, yet are poorly represented either by statutory protection or by being recorded in HERs. In 2005 English Heritage produced preliminary character statements in respect of Farmstead Character for each region in England. Subsequently, a series of documents regarding farmsteads was also produced relating to managing farm buildings and securing where possible their long-term sustainability. In these documents EH recognised that the restructuring of the agricultural industry, combined with demand for economic and especially residential use, has led to many historic farmsteads being redeveloped in a manner that has altered their character or function. Over the last century many farmsteads have been destroyed entirely, but their true vulnerability remains unknown.

In response to the poor evidence base for historic farmsteads EH commissioned a pilot project in West Sussex to map and record detailed information about historic farmstead character. In 2008 following this pilot project EH started on the West Midlands Farmsteads and Landscape Project (with funding from the RDA), a region-wide project to characterise all historic farmsteads identifiable on OS maps from around the turn of the 20th century. The material produced would help local authorities make more informed decisions about the future of farm buildings.

The project had a two phase approach (completion due in early 2010) and because the Warwickshire HLC had already recorded around 3500 historic farmsteads, the phase one details for many sites already existed.

In the second phase those farms that had not been picked up by the HLC project such as farmsteads destroyed since 1900, field barns, outfarms and smallholdings were recorded. Additional information was also recorded including a much more complete picture of the character of each historic farmstead. This included recording farmstead plan type (primary, secondary and tertiary), farmhouse position in relation to farmstead, Listed Buildings, survival, potential for reuse, position of modern sheds, etc.

This phase two project contributes to a West Midlands region wide consistent data set while acting as an enhancement of both the HLC and HER in Warwickshire and Solihull. In early 2010 a regional report will be produced by English Heritage together with other documentation, webpages and a toolkit to help people use the data and understand Historic Farmsteads in their area especially when considering development or change.

Conclusion

Although farmsteads were already being recorded as part of the HLC project, this example shows how the HLC can be used to form the baseline dataset for a specific aspect of historic character.

HER Enquiries

Because the HLC data is added directly to the HER it can be easily provided alongside sites and monuments information, as for the Rugby Green Infrastructure Study mentioned elsewhere.

Obviously the relevance of the HLC data varies between queries. When dealing with a localised query the HLC provides a background historic landscape context and so suggests lines of more detailed enquiry. When larger areas are investigated HLC provides help in establishing likely age, function and archaeological potential of more general patterns.

Ancient Woodland Mapping

HLC (and the sources it draws upon) could also be used to update the Ancient Semi-Natural Woodland mapping. The current mapping (developed by the Nature Conservancy Council) omits blocks of woodland less than two hectares in extent.

The HLC has identified a number of smaller woodland sites that could potentially be classified as Ancient Woodland although as the earliest HLC source maps showing woodland are from 1822. Further work would be required to establish that this woodland can be dated back to the 17th century.

HBA

The Warwickshire Habitat Biodiversity Audit team have expressed an interest in using the HLC data as an alternative mapping of certain habitat types such as woodland, scrub or water features. Previous HLC type information will also show how habitats have changed over time.

This may be one of the first times that HLC data will have been used to inform an HBA in this way.

Research

HLC material, being essentially a spatially organised scheme of historical interpretations, supports and stimulates large scale landscape analysis. A great variety of research topics could be addressed, as identified from the HLC Broad Types and HLC Type analysis and the County-wide analysis.

Some substantial research has already taken place nationally using HLC material or the HLC methodology such as at Newcastle University where a review of the HLC programme has taken place exploring its political and practical context (Winterburn 2008). The Historic Field Systems of East Anglia project developed from HLC to refine understanding of the variety of field pattern forms in that part of England (Martin and Satchwell 2008). Earlier landscapes have been abstracted from the HLC for Cornwall and have contributed to enhanced understanding of medieval and late prehistoric change (Turner 2003; Herring 2007). Newcastle and Edinburgh Universities have also used the concept of HLC in Thrace a historical and geographic area in southeast Europe (University of Edinburgh 2009).

Outreach Initiatives Community and Education

There is great potential for HLC to be used as a resource for Outreach initiatives. The HLC Toolkit project aims to deliver HLC to members of the public wishing to know

more about their local area (for further information see Chapter 8). HLC can serve as an educational resource fitting in the national curriculum in both history and geography and covering topics such as the agrarian revolution, open field farming and parliamentary enclosure.

Chapter 8 - Dissemination

Introduction

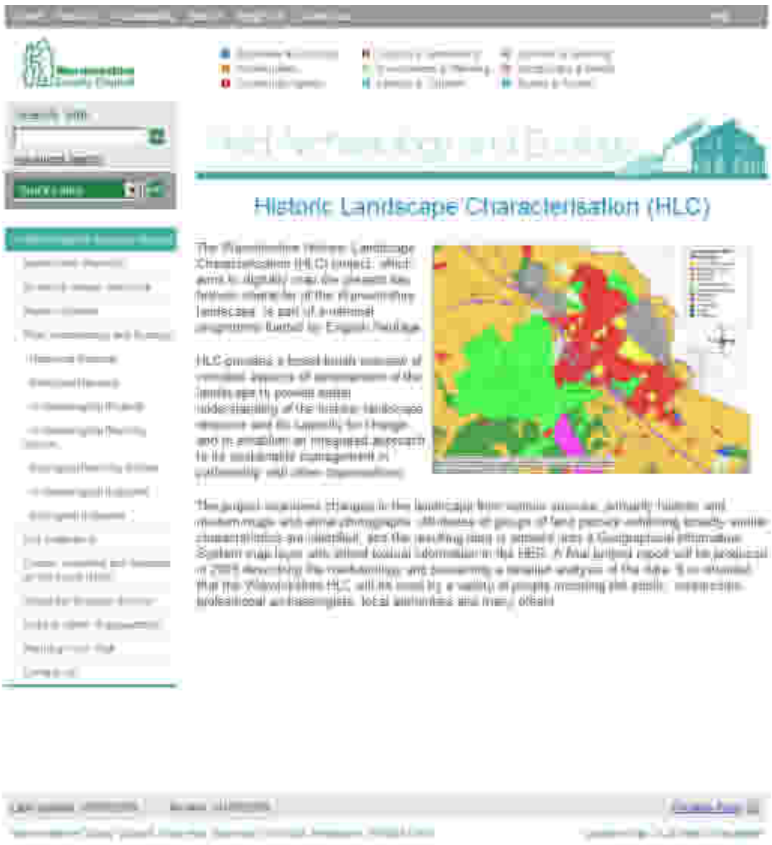
An important part of any HLC project is the dissemination of results. Time and budget constraints can make it difficult to successfully circulate information to the diverse stakeholders and potential users, but dissemination remains one of the keys to HLC becoming more widely accepted and understood. This chapter highlights the methods of dissemination planned for the Warwickshire HLC.

The four products that will be disseminated:

Final Report

This final report contains detailed information about methodology, results, uses of HLC and future proposals. It is a key document for anyone interested in the project or wishing to use the data. The report will be produced primarily as a digital copy in PDF format available through the following media:

- On CD, with a limited run produced and further copies on demand
- Through the Warwickshire County Council Website (example shown below) (http://www.warwickshire.gov.uk/hlc)



- Through the online HER website (http://timetrail.warwickshire.gov.uk)
- Hard copies are not being produced because of the high cost and relatively low use.

Iconic Map

The iconic map is a map that shows the HLC data in a way that offers some detail and understanding of the Warwickshire landscape at a broad level but uses minimal different types to avoid confusion and overloading the viewer with too many colours and too much information. The Warwickshire Iconic HLC Map has 20 HLC Types that have been selected to represent Warwickshire's Historic Landscape Character.

A limited run of the Iconic Map of the Warwickshire HLC has been produced as an A3 poster and distributed to stakeholders.

Further maps will be produced as individual PDFs and made available on the CD and websites. Below is a provisional list of maps:

- Warwickshire HLC Broad Types
- Warwickshire HLC Types
- Warwickshire HLC - Urban Detail
- Warwickshire HLC - Countryside Detail
- HLC maps for each district for Broad HLC Types and HLC Types
- Period maps showing the Historic Landscape Character, and gaps in our current understanding for the following periods
    - Medieval
    - Post Medieval
    - 19th Century
    - Early 20th Century
    - Late 20th Century/Present

Summary Booklet

While there will not be hard copies of the main report, it is envisaged that a summary booklet will be produced as a hard copy, with a limited run, and distributed to stakeholders and others interested in the HLC. It may be possible to print further copies of this booklet later, on demand.

The summary booklet will have the following sections:

- Executive Summary
- Introduction

  An introduction to the Warwickshire HLC project with details about the history of the project, project area, brief methodology and explanation of HLC types
- District Analysis

  A summary of the Historic Landscape Character for each of the districts covered by the Warwickshire HLC
- Using HLC

  Some examples of HLC use in Warwickshire, with further potential uses also listed
- Accessing HLC

  Details of how the HLC data and full report can be accessed
- A copy of the Iconic Map (see above)

HLC Toolkit

Two bespoke HLC Toolkits will help deliver HLC to two key audiences; professionals who wish to use HLC (such as planners and conservation officers) and members of the public interested in discovering more about the past of Warwickshire.

Although present dissemination methods make the data available, and the reports often have detailed explanations of project methodology and HLC analysis, this does not necessarily mean that the information can be readily understood or used by non-specialist archaeologists, other professionals or members of the public.

The solution is an easy to use toolkit, made available online, that aims to describe HLC simply and explain what it can be used for.

The toolkits will include sections on

- An introduction to HLC
- The Warwickshire HLC Project (background, project area, methodology)
- Results
- Analysis
- Using HLC (how to use and understand the GIS, the dataset behind the polygons (the HER data) and how to access the report and its more expanded text)
- How to access further information on HLC
- FAQ

It is hoped that the toolkit will have a style and function similar to the Warwickshire Local Studies Toolkit, an Aggregates Levy Sustainability Fund project carried out by Warwickshire Museum with help from the Warwickshire County Record Office. This toolkit is available online at: http://timetrail.warwickshire.gov.uk/toolkit.aspx

Where the data can be consulted:

HER

The Warwickshire HLC has been added directly into the HER. Adding HLC records directly into the HER has a number of distinct advantages:

- Monument records can be directly linked to HLC records.
- HLC records are visible and play an active part in contributing to monument and other HER records.
- HLC records can be accessed directly by anyone viewing the HER including (in Warwickshire's case) the Planning Archaeologist, County Archaeologist and other archaeological staff.
- HLC records can form part of the standard search for HER information carried out by commercial organisations, researchers or members of the public.

In short it means that the HLC material is visible and will be actively used.

How the HLC and dissemination depends on partnership and champions:

Stakeholder Forum

Three HLC Stakeholder Forums have taken place (just after the pilot stage, close to the end of the digitisation phase and the last at the end of the project). These have usefully engaged key stakeholders with the HLC project; not only informing them about the HLC and its progress but also allowing a two-way relationship to develop where comments, suggestions and ideas can be taken on board while the HLC project is running and once it is complete.

HLC Stakeholder Forum in action

Publicity

Another key part of dissemination is publicity and making others aware that the project exists and how the HLC data and report can be accessed.

For the Warwickshire HLC project it is hoped to publicise the end of the project in the following ways:

- On the Warwickshire County Council website news section
- On the Warwickshire Museum's news webpages
- On the Warwickshire County Council Intranet news section
- Through the online version of Warwickshire View (a publication aimed at Warwickshire's citizens)

Further publicity has been reserved for the HLC Toolkit including local newspapers, press and other websites.

Internet

Another key part of dissemination is making information accessible via the internet, using the Warwickshire County Council Website and the online WCC HER website. In addition to making a digital version of the report available online, more concise information about HLC, together with relevant images and maps may be uploaded.

Links can also be made to other relevant websites, such as:

- English Heritage's Characterisation webpages (http://www.english-heritage.org.uk/server/show/nav.1293)
- The HELM (Historic Environment Local Management) website (http://www.helm.org.uk/)
- The Heritage Gateway website (http://www.heritagegateway.org.uk)
- The Landscape Character Network (http://www.landscapecharacter.org.uk)

Further use of the internet will play a key role in the HLC toolkits which are described above.

How dissemination might be extended in the future

- Make the HLC data available online.

  This has already been achieved to certain levels in some parts of the country although the requirements means that uploading of full interactive and interrogatable HLCs is still problematic. It may be expected that these difficulties will eventually be overcome, and that the Warwickshire HLC will be placed online. In the meantime most effort will be put into raising awareness of the data, through the toolkits, web presence of reports and summaries.

- Regularly promote the HLC linking it to enhancement projects or regular updates to the HLC data

- Routinely include HLC in other projects, as landscape context and source of research questions. It should be expected that all projects will in turn enhance understanding of the HLC.

- Encourage use of HLC by a wide variety of people.

Chapter 9 - Recommendations

Introduction

The completion of the Warwickshire HLC project should signal the beginning of the day to day use of HLC, its promotion across the county and a plan for its future.

This chapter looks at possible enhancement projects for the HLC and how it can best be kept alive as a dynamic entity and used on a day to day basis. Recommendations are made in order of priority and at the end some suggestions are made on possible database enhancements.

REC 1: Use of HLC by the Historic Environment Team

The most important way that HLC can be kept at the forefront of the historic environment is to make sure that it is actively used by the county's Historic Environment team and by visitors to and users of the HER. It can be suggested that few HERs put sufficient resources into training and advocacy with regard to HLC. Warwickshire CC is aware of the range of benefits that will flow from full use of HLC.

The key members of the team that are best placed to use the HLC include the Planning Archaeologist, County Archaeologist, and HER staff. However, it is the very fact that the HLC material forms part of the HER database, and can act as a context for, and explanation of the HER, that allows it to be such an actively used and dynamic dataset.

Consequently, it is recommended that:

Use of the HLC material by Historic Environment staff working on and with the HER should be facilitated by a programme of training, the development of model queries, and the dissemination of results of in-house HLC-related research. In addition the benefits of using HLC alongside other HER data will also be set out to all external users of the HER; HLC training to be arranged and advertised as appropriate.

REC 2: HLC Data Online

One of the best ways to make the HLC data more accessible to others is to make the data available online. This could be achieved in a phased approach by first making the GIS data available on Warwickshire County Council's Corporate GIS, WOMBAT (Warwickshire Online Mapping and Browser Toolkit), then subsequently investigating the possibility of making the GIS data available on Warwickshire's online HER; Timetrail.

The WOMBAT system, or something similar, may itself become available over the internet through the Warwickshire County Council website and so the information may be able to be accessed from multiple areas, in the same way as HER data is now available through our own system and through the Heritage Gateway.

One issue is that only the GIS data would be made available and not the linked record which contains much more detailed information and time-depth. The possibility of adding the more detailed record information in due course, as technology and capacity permit should be investigated.

The other area to consider is the understanding of the data and the individual HLC types. Links could be made to individual PDFs for each type with its detailed description and analysis.

Consequently it is recommended that:

The HLC data is made available to all at Warwickshire County Council through the Corporate GIS system: WOMBAT

The HLC data should be made available to the wider world through the Warwickshire online HER (Timetrail), through Heritage Gateway, through an internet version of WOMBAT or a combination of all three.

REC 3: Secondary enhancement of the HLC

Secondary HLC work can take place to supplement the main HLC work and dataset. This secondary enhancement could be in the form of investigating one particular HLC Type in detail or studying one particular area in the landscape.

Secondary HLC enhancement projects should take place as and when opportunities arise. The products of this work should be used to enhance the HLC data where appropriate.

To allow for any changes to the HLC a fixed point in time HLC dataset has been produced showing the HLC as of October 2009. This has been archived as a digital copy with other HER datasets.

REC 4: Cotswolds AONB Area Enhancement

The Cotswolds AONB area within Warwickshire formed part of an earlier HLC project and although the results of these are available in GIS it is felt that Warwickshire HLC records should be added for this area to give a more consistent dataset throughout the county and especially in Stratford-on-Avon district. This would be beneficial for a number of reasons, not least development control, strategic planning and also responding to HLC enquiries for this area.

This enhancement could be carried out by using the Cotswolds HLC data as a basis to form the records and then applying the Warwickshire HLC methodology to ensure that the HLC records conform to the Warwickshire HLC types. Some HLC areas and records would have to be added for such things as more detailed settlement types and differences in HLC types but overall the enhancement project should be a fairly rapid one.

Consequently it is recommended that:

The part of the Cotswold AONB area that falls within Warwickshire should be added to the Warwickshire HLC dataset to produce a consistent dataset for the County and Stratford-on-Avon District.

REC 5: HLC Data Tidying

Some simple data tidying of the HLC records to make them uniform across the county could be carried out as part of general HER record enhancement.

111 HLC records have the 'certainty' field blank – these should be added.

99 HLC records have the 'year to' field blank – these should be added.

900 HLC records have no summaries – These should be added.

REC 6: HLC Documentation Enhancement

Further enhancement of the documentation of the HLC project could take place.

To add a 'Detailed Historic Processes' section for each HLC Type in Chapter 4 of this report as can be found under the HLC Broad Types chapter (Chapter 3).

To use the HLC to write a 'County Narrative' period by period summary of the Historic Landscape Character of Warwickshire.

REC 7: Additional Map Sources

Although a wide range of map sources was used in the HLC project there are a number of other sources that were not used or considered due to timescale and cost implications. Below is a selective list of map sources that should be added as an enhancement to the HLC.

OS 1st edition 1 inch to 1 mile maps dating to 1828-1835 (reprints though to 1880s).

Yates's map of 1793 which shows woods, commons, parks and some settlement detail.

Enclosure, tithe and estate maps that predate the OS 1st edition (6 inch to 1 mile, 1880s edition). These could be scanned and digitised as a separate enhancement project.

REC 8: Della Hooke's Historic Landscape Analysis Work

Work has been carried out by Della Hooke recording historic landscape features across the county including, where possible, medieval landscape features. These could be possibly scanned and then analysed in some detail with the information used to inform the HLC

Consider an enhancement project scanning Della Hooke's Historic Landscape Analysis work and then informing the HLC with the results.

REC 9: Historic Landscape Mapping Research Themes

(This recommendation is taken from the Research Themes section of the Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire and Solihull Draft Report (Alexander, 2008, p128-129))

> **"Consider the development of an over-arching framework within which local or parish based studies can be placed, possibly a rolling program involving outreach and local communities."**

This is a worthwhile suggestion that should be investigated to encourage further use of HLC.

> **"Historic information about the landscape that could perhaps be digitised includes:**
>
> **Early information:**
> - **Earlier Anglo-Saxon 'folk' territories**
> - **Anglo-Saxon minsters and their parochiae**
> - **Anglo-Saxon multiple estates, their caputs and functional elements**
> - **Place names and their constituent elements**
> - **Domesday Book data**
>
> **Landuse:**
> - **Field systems, woodland, meadows, pasture, commons and waste, parks**
> - **Original extent of medieval ridge and furrow**
> - **Other elements of medieval landscape exploitation such as meadows, pasture and woodland**
> - **Extent of enclosure agreements and Acts**
>
> **Settlements:**
> - **Identification of all settlement sites appearing on historic mapping, extent at a range of periods, any planned elements and phases that can be identified, areas of shrinkage. Particularly valuable in Arden.**
>
> **Tenurial patterns and organisational structures:**
> - **Medieval and later tenurial patterns; including Royal and monastic holdings, manors etc.**
> - **Administrative structures including medieval vills and townships, hundreds**
> - **Tithe maps and apportionments**
>
> **Transport network"**

These could all feed into enhancing and informing the HLC dataset and many of these should be considered as part of HER enhancement rather than specifically HLC enhancement.

REC 10: Regular Large-scale Updating of HLC

HLC projects produce data that describe the current landscape in terms of Historic Character. However, the landscape around us is continually changing and the HLC dataset should attempt to reflect that change to help secure itself as a useful tool for the future. One way to do this is to update the HLC dataset at regular intervals across the whole project area using a methodology similar to the original project. These intervals could be ten yearly and could even match such things as census years to enable comparison with the national dataset. The next census year is 2011; a full HLC update could therefore take place shortly before the following census in 2019/2020.

This whole-scale updating of the HLC dataset would help reflect physical change in the real world, and it would be an opportunity to adjust changes in interpretation and also use any new or updated sources that were not available in the original project. This work is essential if HLC is to achieve any longevity as a robust and reliable body of work.

It has already been identified in the Warwickshire HLC projects lifetime that the data sources used for the project at the beginning have become out of date by the end. The most obvious example of this is the OS mapping. When the project was started the OS LandLines digital vector GIS layer was the primary layer to inform the HLC on modern landscape features. Many of the features were only updated as recently as 2000/2001 hence the cut off date used for post Second World War features (date of origin from 1955 to 2001). However, since then, Warwickshire County Council have upgraded the GIS mapping to OS MasterMap with updates being applied every few months and effectively giving a much more recent date for the mapping (2008/2009).

To update the whole HLC dataset is no easy task and will require a systematic process or updating through the whole area taking into account any updates since the project was carried out. This should include updates to all the sources previously used in the project and any new ones. To make sure this update work follows a systematic and methodological pattern a short project design and methodology should be written to carry out and manage the work.

A problem may arise when it comes to finding funding for this work. It is slightly beyond the scope of the HER to fund outright this level of work (which could take many months to carry out) and consequently external funding would need to be sought.

It is therefore recommended that:

The HLC dataset should be updated in its entirety every 10 years.

A fixed point in time archive HLC dataset should be produced matching this timescale.

Suggestions for the Warwickshire HLC

Database Enhancement

Some changes could be made to the information that is recorded in the database element of the HLC records. Below are some suggestions, which will need to be achieved through collaboration with exeGesIS who provide the HBSMR software where the HLC records are held.

A field could be added to the database to record user name and date in order to keep track of any updates made to an HLC record.

This is to make sure that as a dynamic dataset, any changes to the HLC data would be properly recorded.

A new tab could be added with fields for different periods as well as recording the HLC Broad Type, the HLC Sub-type and a Confidence level for each period. This would make it much easier to produce time slice maps and for analysis of the data. The following periods are suggested:

- **Medieval**
- **Post Medieval**
- **1800s**
- **1900s**
- **1950s**
- **2000**

PAI Issue

With the upgrade of Warwickshire County Council's base mapping system from OS LandLines to OS MasterMap we now have a Positional Accuracy Improvement (PAI) issue for all our data (including HER data). However, at the broad brush level of HLC this inaccuracy is not something of too much concern. Some work has been carried out into the of automated software to shift polygons to correct for PAI problems. This work has been trialled by the Warwickshire HBA and it is hoped that it may also be able to be applied to HLC data. The exact time it will take to do this work and the accuracy of the results is not yet known.

Consequently it is suggested that:

The possibility of shifting HLC data using automated software to allow for PAI changes should be investigated.

Further Information and Contact Details

The HLC forms part of the Warwickshire and Solihull HERs and as such the data, maps, reports and information is all available through consultation with the Archaeological Information and Advice Section of Warwickshire Museum, Warwickshire County Council.

Please contact the Historic Environment Record for further information:

☎ 01926 412734

01926 412964

sitesandmonuments@warwickshire.gov.uk

Historic Environment Record
Museum Field Services
The Butts
Warwick
CV34 4SS

Information about the HLC project including this report is also available online at:
http://ww.warwickshire.gov.uk/hlc

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Appendix 1 : Warwickshire's Landscape History

Changing Landscapes

Written by Dr Della Hooke and taken from the Warwickshire County Council Local studies Toolkit (http://timetrail.warwickshire.gov.uk/toolkit.aspx)

The Prehistoric and Romano-British periods

Although the landscape of the county in prehistoric times is only known from scattered archaeological and air photograph evidence it seems that Arden was the least settled area in the prehistoric period, its woods and heathlands possibly already providing seasonal pasture for the more intensively developed crop-growing region to the south. Since cropmarks of burial or settlement sites are most easily detected on gravel soils, the Avon valley is also a conspicuous corridor of settlement at this time although find-spots (of flints, pottery or metalwork) show that settlement was much more widespread, especially across many parts of the Feldon. By late Iron Age times the area of the later county was divided between several tribal divisions - the Dobunni to the west and the Corieltauvi to the north-east. Hillforts throughout the region served as regional centres but the majority of settlements seem to have been farmsteads comprising round buildings set within ditched enclosures.

Some Iron Age settlement sites may have continued to be occupied after the Roman conquest of the later 40s AD (e.g. Wasperton); some were abandoned or re-emerged after a hiatus; some subsequently adopted Roman-style planning (more rectilinear buildings, as at Bidford Grange and Crewe Farm, Kenilworth) and more sophisticated building techniques (plastered walls and tiled roofs instead of timber, cob or thatch); and new farmsteads were established, but wealthy villas are not known to have been numerous here. Farming was mixed with considerable areas under arable, growing mainly cereals, and with evidence of paddocks for animals (mainly cattle and sheep); the area under arable probably expanded at this time. Military roads constructed through the region included the Fosse Way running across the county from NE to SW, the N-S Ryknield Street cutting across the west of the county, the Watling Street which later formed its NE boundary, a road running E from Alcester and another SE from Tiddington; all fostered accessibility and trade. New towns grew up close to military forts and at road stations, as at Alcester and Chesterton, with smaller centres that included Tiddington, Bidford, Princethorpe and Coleshill (a ritual centre). Industry was expanding, particularly iron working, tanning and glassmaking, while pottery production dominated in the Hartshill-Mancetter area, a centre for the manufacture of mortaria that were traded across midland and northern Britain. Kiln sites were chiefly located around the margins of Arden where wood for fuel and other raw materials were more readily available.

The early medieval (Anglo-Saxon) period

The kingdom boundaries that are known for this period appear to have respected the late Iron Age divisions, for even in the early Anglo-Saxon period a frontier zone can be detected running across the central Avon valley which probably represented the ancient eastern boundary of the Dobunni and later formed the eastern boundary of the Anglo-Saxon kingdom of the Hwicce, separating that kingdom from Greater Mercia. Warwick may have developed at this time as a border market town. The

Hwiccan kingdom subsumed a number of folk regions that included the tribal area of the *Arosætna* in the Arrow valley while a region across the headwaters of the Alne was granted to a group known as the *Stoppingas*. Known pagan Anglo-Saxon burials are virtually confined to the southern and eastern parts of the county. Within the Hwiccan kingdom, Christian minsters were established at central places such as Wootton Wawen (for the *Stoppingas*), Stratford-upon-Avon, Tredington in the Stour valley and, probably, at Alcester, while Coventry was probably an early religious centre within Greater Mercia (the pace-name **ecles* - as in Exhall - found both near Alcester and Coventry strongly suggests a pre-existing Roman-British Christian church in the vicinity).

In this period, estates were being carved out as new tenurial units with estate centres that often gave rise to villages bearing a topographical type or 'ton' place-name (replacing the older pattern of scattered farms). Several such units (townships) were usually grouped to form an ecclesiastical parish as churches were founded by manorial lords upon their estates within the old minster territories. Some parishes in the Feldon continued to be associated with others in Arden in medieval times, relics of past territorial arrangements and an earlier use of resources - a system of NW-SE trackways running between Arden and the Avon valley/Feldon region may have had its origin in a system of droveways that were used to move stock to seasonal pastures in Arden in prehistoric or early medieval times. In the south of the county, villages grew in size, surrounded by common fields in which farmers held scattered strips and had rights in the meadows and waste. Within Arden villages were smaller, with limited areas of open field, and dispersed settlements may have been more characteristic, many probably more reliant on pastoral farming. The incidence of the 'ley' term, signifying settlements set within wooded countryside or the actual woods themselves, is much higher in this region. Pre-Conquest charters reveal details of land use across the county - fisheries in the rivers, mills being established and a complex pattern of routeways, including ways used for the transport of salt from the inland salt-producing centre of Droitwich in Worcestershire (notably an E-W route through Wellesbourne).

Under the pressure of the Danish invasions new defended burhs were established, including that at Warwick fortified in 914, offering a measure of protection to the surrounding countryside as well as centres for marketing. Warwick was chosen as the centre of the new county demarcated perhaps in the 10th century. By the end of the period, the regional distinctions of the landscape within the new county were firmly established with the framework of settlement patterns, field systems and many routeways already in place. Some of the land use and landownership detail is captured in the Domesday Book that was compiled soon after the Norman Conquest.

The medieval and Tudor periods

Under the Normans the differences between the north and south of the county were at first accentuated - in the south, both villages and their surrounding field systems continued to expand and in many parts of the Feldon meadow and waste was in short supply by the 13th century, with population levels practically as high as the medieval farming system could support. The common fields (usually from two to four per township) were divided into strips and ploughed using ox teams into ridges with intervening furrows to provide drainage. In the north, however, where the extent of open field was limited but might be divided into more numerous small patches, new

farmsteads were being established in the 12th and 13th centuries (often attracting colonists from the more heavily populated crop-growing regions to the south), largely by expansion onto the waste and into the woodland, thus maintaining a mainly dispersed pattern of settlement. These usually held their own land around them and many farmers became more prosperous than the feudal peasantry of the south, building moats around their houses largely as a status symbol, a practice largely confined in the south to manorial lords. The area of woodland and waste diminished as the new farms were established. Open fields, too, were gradually enclosed and divided between farmers - a landscape of banked and ditched hedgerows bordering relatively small fields was created across the region, a marked contrast to the mainly open undivided lands to the south.

New additions to the landscape under the Normans were the castles, many of them simple motte and bailey features, the most impressive of which survives at Brinklow. In time a few belonging to the greater lords were rebuilt in stone, as at Warwick and Kenilworth. These were associated with their own hunting parks. Although Arden may temporarily have been under Norman forest law this was not to last and many lesser manorial lords were also able to enclose parks in which they hunted game. To the north, Sutton Chase, part of Cannock Forest granted to the earls of Warwick, also extended into the county. Parks were most numerous in Arden where there was ample waste for emparkment leaving sufficient pasture for the domestic stock of the peasantry. Tracts of ancient woodland were not infrequently preserved within such parks, which might also include fleets of fishponds and rabbit warrens. Fishponds were to become a common feature of the region as other landowners followed suit.

The new Norman lords also rebuilt manorial churches in stone and the wealthiest were also founding abbeys upon their estates. Only a few of the early minsters had survived and at Coventry the Great Benedictine priory (?re-)founded in 1043 was the oldest monastic house in the county with another smaller priory founded in 1140 at Alcester. However, other abbeys were established, most in the 12th century, including those of the Cistercians at Combe, Merevale and Stoneleigh, many of whom were also involved in the clearance of north Warwickshire's woodland.

The medieval period was brought to a slow and lingering end when the Black Death decimated rural and urban populations in the mid-14th century. Only a few villages entirely lost their inhabitants but often those left could no longer provide the enormous amount of labour needed to maintain the open field system. In Arden, however, where feudal restraints were fewer, the surviving peasantry were often able to purchase land made newly available. Medieval society and economy were deeply disrupted, leaving the way open for the changes that were to follow.

By Tudor times increasing profits were to be made from animal husbandry, for which the Arden farms were well suited. Here landscape change remained gradual - enclosure of remaining open-field patches generally proceeded piecemeal through agreements between landholders. In the south of the county, in the Feldon, however, villages were being abandoned, sometimes voluntarily as their remaining inhabitants sought better lives in the growing market towns; sometimes the villagers were ousted by manorial lords anxious to improve their revenues. Whole townships might lose their village centres as these were replaced by one estate farm maintaining herds of cattle or giant flocks of sheep: the landscape became a mosaic of empty lands divided into huge, hedged stock enclosures (with few remaining footpaths) intermixed

with other areas in which the villages had recovered, their inhabitants maintaining the old open field system (although the fields were seldom as extensive as in the early 14th century), each set at the nucleus of a 'spider's web' of approach roads. Today many deserted settlement sites are revealed by the earthworks of former roads and house platforms with perhaps, too, the moated site of a former manor house. Where pastures have not been subsequently ploughed, ridge and furrow marks the extent of the former arable fields.

The dissolution of the monasteries under Henry VIII added much land to an already fluid land market in Tudor times and enabled many entrepreneurial merchant families to join the old landed dynasties. New country houses were built to express their owner's status like Compton Wynyates, Arbury Hall and Charlecote (both refurbished later) or older ones substantially rebuilt (such as Coughton Court), a few, like Combe, incorporating former monastic buildings. Wealth filtered down to the yeoman farmers of Arden where many new timber-framed farmhouses (some of their owners claiming quasi-manorial status) witness the continuing availability of timber (examples in the Arrow valley include Gorcott Hall and Old Castle in Studley, Church Farm, Greenhill and Netherstead in Morton Bagot). In Arden, the settlement remained dispersed, made up of farms and hamlets linked by a network of irregular roads and trackways. Groups of landless labourers and village craftsmen tended to settle around the edge of the common waste, their settlements often bearing names ending in 'Green' or 'End'.

The post-medieval period

By the middle of the 18th century a new wave of 'agricultural improvement' was being advocated as landowners sought ways to further maximise productivity and profit. Most of the midland countryside lay in large estates and their owners were able to invest in large-scale enclosure by private or parliamentary act - the open fields were eradicated as new fields (and often, too, new roads) were laid out, farmed from new outlying farms built in a distinctive style. The large Tudor stock enclosures were also divided up into smaller fields. Enclosure across the south and east of the county and in the Tame-Blythe corridor created a more uniform landscape of geometric-shaped fields separated by new hedges, often single-specie hawthorn hedges. Country houses were often refurbished in the latest style, like Arbury or Packington Halls, or rebuilt as at Compton Verney, some of them set amidst grounds landscaped in the new 'natural' style of 'Capability' Brown. Such landscape parks around country houses spread the idea of 'parkland' from Arden to the rest of the county. In the south of the county stone also began to be used more for village housing - dark ironstones in the far south and pale-coloured lias from local bands of rock in the Feldon and Avon valley.

However, not all villages relied on farming. Rural industry provided employment in some areas - the woollen industry had flourished in and around Coventry in the 14th century, giving way in the Tudor period to the production of knitted caps and later to the manufacture of hats and ribbons. The textile industry of northern Oxfordshire also spilt over the boundary into southern parishes like Brailes. Most medieval towns with access to hides supported a leather industry and Stratford-upon-Avon was a centre for glove making in the 16th and 17th centuries. Cottagers augmented their low incomes by needle making in the Arrow valley. Coal was being mined on the East Warwickshire Coalfield by the 13th century but it was the introduction of new industrial

techniques developed in the Industrial Revolution and improving communications that concentrated industry in more localised areas after the mid-18th century (like Birmingham, Coventry and the Black Country). New turnpike roads had improved travel and the Avon had been deepened for navigation in the mid-17th century (destroying many local fords) but it was the Coventry Canal, opened in 1771, that led to a concentration of industry in the north-east of the county - industries that often involved the movement of heavy goods such as coal mining and quarrying, lime and cement making (also at Rugby on the Oxford Canal) or tile, brick and stoneware production. Many of these, like the huge quarries near Rugby or at Stockton have left lasting marks on the landscape although mounds of colliery waste have often been obliterated and 'restored'. Today's surviving deep mines (Daw Mill opened in 1965) no longer produce surface waste.

The 19th and 20th centuries

Some open fields persisted into the mid-19th century (as at Darlingscott and Tredington in the Stour valley) but generally it was the remaining waste that was to be taken in the last stages of the enclosure movement - including most of the remaining Arden commons. The poor lost their rights to free grazing and increasingly left the countryside: the remains of deserted settlement sites can sometimes be identified along roads and around patches of former waste (as around the former Morton Common in Morton Bagot). Many were attracted to the growing towns, for home industry moved almost entirely into factories - although in the Arrow valley, for instance, water corn mills were at first converted for the finishing processes of the needle industry it was the large mechanised mills established at Alcester and Studley that were to commandeer the trade. Although the introduction of steam-powered machinery met violent protest from the Coventry ribbon makers, large and 'cottage' factories here and at Nuneaton continued to prosper until the end of the 19th century, also producing other silk items, woollens and threads. The two World Wars gave new impetus to the car and cycle firm of Coventry.

Although canals were still being built in the earlier part of the 19th century they soon met competition from the railways. With industry and improved communications came a spate of new building - settlements spread over the adjacent countryside at an unprecedented rate, swallowing farmlands and subsequently giving rise to areas of 'urban fringe' dominated by 'overspill' housing, sports facilities and straggling suburbs. By the 1950s motorways were slicing across the countryside encouraging the development of warehouses etc, close to major junctions. Despite the introduction of stricter planning laws and 'Green Belt' policies much former rural countryside has been lost. With the pressures for more intensive farming and greater production that began after World War II the countryside has suffered hedge removal on a huge scale, the loss of old pastures and meadows, the introduction of new crops and colours (like the harsh yellow of rape), and a general loss of regional distinctiveness. With moves now towards a fully ratified European Landscape Convention and greater conservation it is imperative that features of local and regional historical significance should be full recorded and, where possible, preserved.

Appendix 2: Warwickshire HLC Project Design

Warwickshire County Council

Museum Field Services

Historic Landscape Characterisation

Project Design v3.2

January 2006

CONTENTS

Part 1 Summary and Introduction

This project design describes a proposed programme of Historic Landscape Characterisation (HLC) for Warwickshire, to be undertaken by Warwickshire Museum Field Services.

English Heritage have supported a national programme of Historic Landscape Characterisation projects over the past decade. For the most part they have been undertaken by County Council based Historic Environment Services, covering individual Counties or similar sized units. They aim to achieve an archaeologist's understanding of the historic and cultural origins and development of the present day landscape through a desk-based programme of digital mapping, description and analysis, by the identification of the physical remains visible within the landscape that demonstrate the processes by which it has reached its present form.

Like the other members of the family of landscape characterisation studies to which it belongs, HLC provides a broad-brush overview of complex aspects of the historic environment in order to provide new and wide-ranging information for conservation, management and development decisions. The objective of HLC is to promote better management and understanding of the historic landscape resource, and of the accommodation of continued change within it, and to establish an integrated approach to its sustainable management in partnership with other organisations.

The basis of HLC is a Geographic Information System (GIS). The information within the GIS is structured by the identification and classification of archaeological historical and other environmental attributes of land parcels. Unlike other forms of landscape assessment, HLC permits the creation of a plurality of classifications of Historic landscape types. The distribution of landscape types can be mapped using GIS, with each type being supported by written descriptions of the landscape types and the particular process of landscape formation that they represent. This approach to HLC provides a permanent and renewable database, which may be used to inform a wide range of planning, conservation and management initiatives and strategies.

In the initial, data collection stage of HLC, GIS polygons will be defined, based on groups of modern land parcels exhibiting similar historic origins or processes. These may prove broadly comparable to the Land Cover Parcels used in the ongoing WCC landscape assessments such as that recently undertaken for the environs of Stratford; these parcels will reflect common historic characteristics. Each polygon will be assigned to one of a set of pre-determined high-level HLC types (e.g. woodland, meadow, former open field, parkland). An Access database, linked to the GIS, will be used to record a range of attributes reflecting the historic landscape features specific to each polygon (such as aspects of field pattern and boundary form, woodland cover, evidence for former land-use)

In the subsequent, analytical phase of the programme, the attributes will be interrogated to provide further Historic Landscape Types and other classifications, based on recognisable and extant historic character.

Part 2 Background

2.1 Location and Description of the Project Area

The project area (see map) will consist of the following four components:

The present day administrative county of Warwickshire

The total area to be included in the study is 186840 ha. There are five District Councils within this area: North Warwickshire, Nuneaton and Bedworth, Rugby, Warwick and Stratford-upon-Avon. Warwickshire Museum Field Services provides archaeological planning advice to all five Councils. The small part of the County (10,282 hectares) lying within the Cotswolds AONB was the subject of an earlier HLC programme (Hoyle 1999); the current project will ensure that its results are seamlessly amalgamated into the Warwickshire HLC.

The administrative area of the Metropolitan Borough of Solihull

This was historically part of Warwickshire until the 1974 local government re-organisation. Archaeological planning advice is provided to Solihull MBC by Warwickshire Museum Services, who also maintain the Solihull Sites and Monuments Record. The area along the western boundary of the MBC area is prominently urban (Castle Bromwich, Kingshurst, Chelmsley Wood, Olton, Elmdon and Shirley, totalling some 4140 hectares), but much of this has been C20th growth and characterisation should still be possible. The area to be characterised in the same detail as present day Warwickshire is 17,780 hectares; for the remaining (built up) area a more broad-brush approach will be adopted to provide a frame for any future work

The administrative area of Coventry City Council

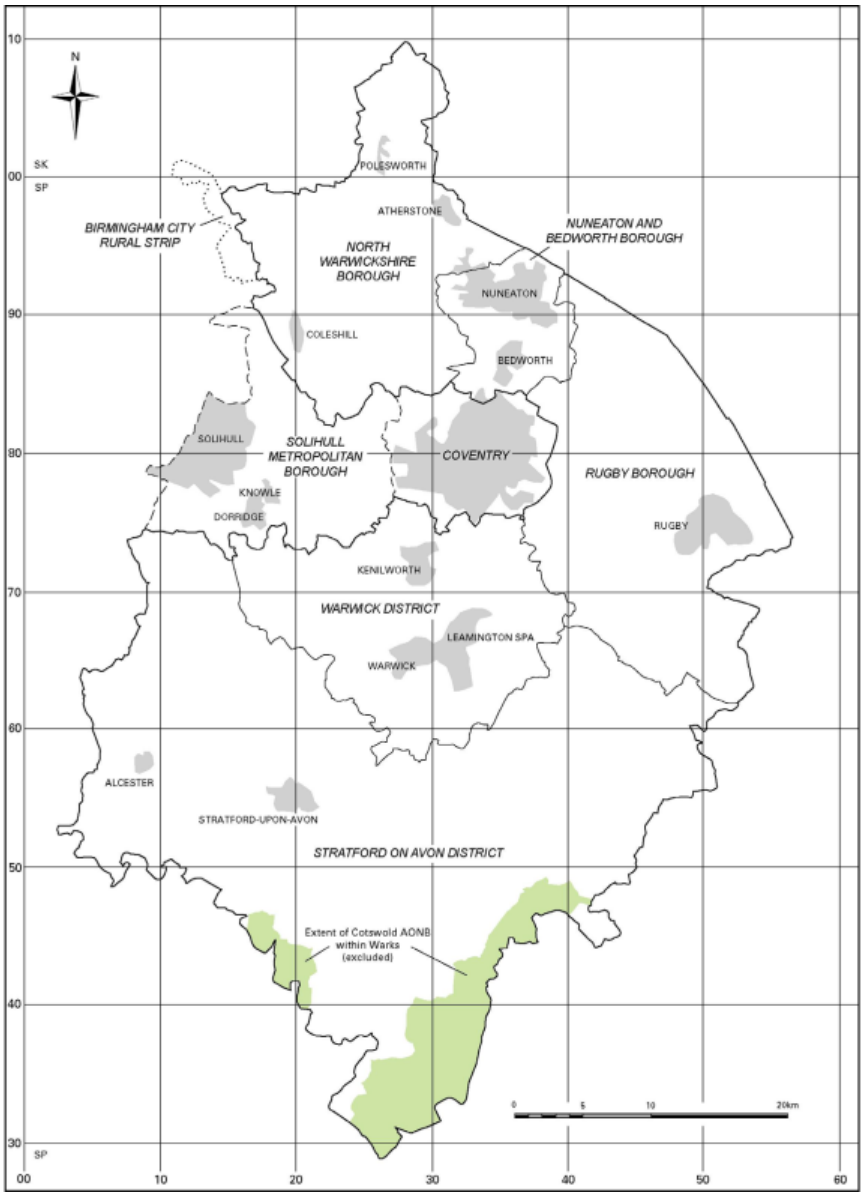
The Council are currently developing a Historic Environment Record which incorporates certain aspects of HLC. Following discussion with the Conservation and Archaeology Team at Coventry City Council it was agreed that Coventry should, if possible, be included within this HLC programme. However, in order not to duplicate work already being undertaken, it was decided only to provide very broad-brush detail for the historic core, since the Coventry team will be developing an extensive series of both data and interpretative maps for the city, using the very extensive data which survives; an attempt to undertake detailed characterisation of the urban core as part of this HLC project would be inappropriate. More detailed work will be undertaken in the rural fringe of Coventry where the City Council are not themselves undertaking characterisation work. Careful liaison with the Coventry Conservation and Archaeology Team will ensure that methodologies are complimentary and compatible. Area 9834 hectares.

Part of the administrative area of Birmingham City Council

The rural strip within Birmingham to the east of Sutton Coldfield, roughly between Curdworth and Watford gap; this too was part of Warwickshire until 1974. This is an area of approx 1500 ha.

Size of County (hectares):

N.Warks	28300
Nuneaton	7872
Rugby	35250
Warwick	28200
Stratford	97500
(total Warks)	197122
Solihull	17780
(Total Warks + Solihull)	214902
B'ham rural fringe	1500
Coventry	9834
Total	226236
(minus Cotswold AONB)	-10282
Total study area	**215954**



Map showing project area.

2.2 Landscape character of the project area.

Historic Warwickshire contains a variety of landscape types. Landscape assessment undertaken in 1990-93 (WCC 1993) identified seven main character areas, of which four were largely within Warwickshire and the remainder largely within adjoining counties.

The four distinctively 'Warwickshire' landscapes are:

Landscape	Description
Arden	The Arden covers much of the north-western part of the study area, and consists of a region of former wood pasture and heath. The settlement pattern is typically dispersed, with area of ancient woodlands and mature hedgerow oaks
Dunsmore Plateau	A glacial plateau in the eastern central part of the area around Rugby with sandy soils, much of it heathland until comparatively late
Avon valley	River terraces and alluvium along the river corridor, containing nucleated villages and market towns; prosperous farms, market gardening, orchards and meadow pasture
Feldon	Claylands in the southern part of the county and extending into Northants, with a high level of relatively early enclosure, large geometric fields and nucleated settlements

The remaining landscape types are:

Landscape	Description
Mease Lowlands	The north eastern edge of the study area is an area of large estates and small nucleated villages, extending into Leicestershire
High Cross Plateau	Open clay wolds with small nucleated villages, extending along the Leicestershire border to the south of the Mease Lowlands
Cotswolds	Limestone uplands. The Cotswolds AONB was the subject of an earlier HLC study (Hoyle 1999) and is excluded from the present project

2.3 Previous landscape and characterisation work

The Warwickshire chapter of the Land Utilisation Survey of Britain was published in 1946, drawing largely upon studies undertaken in the early 1930s (McPherson 1946). This survey makes no reference to historic landscape; it is of interest however in containing much information about mid-C20th land use, although its usefulness in the present context is limited by the very large scale of the maps.

Other early attempts to describe the historic character of the landscape have been at an extremely low resolution; thus descriptions such as the brief summary by Kinvig (1971) is no more than a geographical pen portrait. The work of David Pannett and others (unpublished, but see Harrison, Mead and Pannett 1965) in mapping the open fields is clearly relevant to landscape character, although the scale of the mapping, the restricted range of sources used, and its non-digital format, means that its use in the present programme may be problematic.

A Warwickshire Landscapes Project was established in 1987 as a partnership between the County Council and the Countryside Commission. The main purpose of the project was to develop a methodology for landscape assessment suited to lowland England as well as to consider the distinctive characteristics of the Warwickshire landscapes. The principle output was the three volume *Warwickshire Landscape Guidelines* (WCC 1993; hereinafter WLG), consisting of a landscape assessment for each of the main areas and a series of general guidelines for management and development purposes. The landscape assessments identified local landscape types within each of the primary character areas; these were mapped in non-digital format.

Amongst the sources used for the Warwickshire Landscapes Project was a series of 1:50,000 maps drawn up by Dr Della Hooke showing a number of basic character areas (e.g.: woodland, orchards, C18th enclosures, commons, deer parks). Unfortunately these maps are not cross-referenced to the source material from which they were derived, and their use in the present programme will therefore be limited. Nevertheless it is intended to consult Dr Hooke, who it is intended should be part of the Project Forum.

A broad framework for landscape characterisation at a national scale was provided by the publication in 1996 by the former Countryside Commission and English Nature, with support from English Heritage, of the Joint Character Map of England. This identified 159 landscape character areas and was accompanied (from 1998) by descriptions of each area, together with the influences which had shaped their character and some of the main pressures for change. This work provides a top tier of landscape character assessment, but the necessarily broad-brush treatment does not address individual landscape types.

More recent landscape assessment work includes studies undertaken by the Planning, Transport and Economic Strategy Department of WCC in Dordon (North Warwickshire) and around the urban fringe of Stratford upon Avon (WCC 2003): similar work is presently in progress around Rugby's urban fringe, whilst further work is envisaged around Coventry.

The Stratford study was undertaken in conjunction with the Living Landscapes Project, a partnership between local authorities, academic institutions and national government agencies with a view to developing an integrated GIS-based framework for decisions in respect of planning and land-management in accordance with national/regional policy objectives. The study identified nine Landscape Character

Types based on a number of smaller Landscape Description Units, which in turn were aggregations of smaller Land Cover Parcels. The study was also the pilot for the development of a GIS-based LDU map for Warwickshire. Digitisation of the LDUs is nearing completion, although the accompanying descriptions have still to be written.

Other relevant topic-based studies include Dr Sarah Wager's work on Warwickshire woodlands (Wager 1998) and the English Heritage funded study of Midland open fields (Hall 2001), whilst the Habitat Biodiversity Audit has built up an important and detailed database of the County's ecological diversity which will also reflect the long term influence of human beings on local landscapes. Comparison of HLC patterns and the results of these previous studies will be a particular consideration within Stages 3 & 4 of the HLC project.

2.4 Rationale for the HLC programme

2.4.1 National context

The HLC project will form part of a national programme sponsored and encouraged by English Heritage. The need for the programme is best understood as a response to two gaps in understanding: one, of the historic environment resource at a landscape level, with a consequent lack of a robust framework for taking decisions in respect of managing change, and the second as a gap in landscape assessment where the historic and archaeological dimension landscape (time depth) is concerned. HLC is therefore designed to assist both archaeologist (and other HE managers) and landscape architects (and other countryside managers).

The development of the HLC methodology over the past decade has both reflected and informed changes in emphasis in the way archaeologists describe and manage the historic environment (Aldred & Fairclough 2003). These changes include:

- a concern with the whole of the humanly modified landscape rather than solely the demonstrably archaeological 'sites' within it
- a change in analytical scale from the small-scale site/monument to the wider landscape. This is in fact a long-term archaeological and historic concern, going back at least to the studies by WG Hoskins; however, much of the earlier emphasis tended to concentrate on particular topographies such as upland areas with good earthwork and field monument survival. More recent studies have helped focus understanding of aspects of the landscape at a much wider scale, as exemplified by the EH Settlement Atlas (Roberts and Wrathmell 2000 &c)
- an increased concern with integrated and sustainable policy development and decision-making. In particular the establishment of landscape assessment methodologies has stimulated the development of methodologies for integrating archaeologically-based approaches; thus the processes of landscape assessment (Countryside Agency/ Scottish Natural Heritage 2002) have required that a separate type of characterisation undertaken from the landscape archaeologists' perspective be developed. HLC, with its specialist analysis by archaeologists of the time depth of landscape, provides finer detail and greater understanding than Landscape Character Assessment (LCA) on its own. Ideally

HLC should inform LCA , but even where this is not possible, LCA descriptions and analyses can be relatively easily modified in the light of subsequent HLC

- a developing political context for understanding landscape, as shown, for example, by the European Landscape Convention of 2000 and in the Government's 2001 statement *A Force for our Future*.(3.19: 'The Government commends character assessment to local authorities both as a useful tool in itself and as a way of encouraging greater involvement by local communities in conservation issues').
- a move from concern with 'relict' landscapes to concern with the present-day landscape which has been shaped by change and modification over centuries and millennia and by a variety of processes
- a realisation that the concept of 'landscape' is based on subjective considerations (intellectual, emotional and aesthetic, themselves each socially- as well as individually-developed) as well as objective criteria. Landscape is something which we perceive, even more than it is something we create.
- a more detailed articulation of the realisation that understanding landscape depends on understanding the dynamics of its creation and the underlying cultural processes and political, social, economic and cultural influences.
- the realisation that the best means of protecting historic landscape is not designation (although on occasion this may have a role to play) but sound management underpinned by accessible data which could be analysed and understood. This realisation was initially at odds with the invitation contained within the 1991 Government White Paper 'This Common Inheritance' to establish a Register of Historic Landscapes, which led to the EH conclusion that such a register would only be partial and selective and thus an inappropriate means of managing historic landscape character (Fairclough *et al* 1999). Achieving the necessary understanding of the data is the key aim of HLC.
- a move, in the more recent HLC projects, away from classification-led systems (in which land was allocated to pre-defined types) towards an attribute based-system in which interpretations and observations are attached not to the pre-ordained types but to individual mapped polygons which can be subsequently analysed, thus enabling a multiplicity of classifications and interpretations as well as a transparency of analysis
- The acceptance that, despite the sophistication of GIS, HLC is a relatively generalised characterisation of the landscape's historic attributes which is intended to serve as a means of resource management, and which provides an approach which is consistent, transparent, repeatable and comprehensive (no gaps). This approach leaves open the possibility of more detailed assessment being undertaken later as necessary. It can thus be used for spatial planning, development control, landscape strategies and resource management (e.g. Clarke, J., Darlington, J. & Fairclough, G. 2004 *Using Historic Landscape Characterisation*. English Heritage & Lancashire County Council.)
- Acknowledgement of the interpretative, subjective character of landscape; HLC is thus not another environmental database

2.4.2 Local context

The reasons for this HLC project are several:

- It will articulate existing Structure Plan Policy and Local Plan Policy, as well as the emerging framework of Regional Spatial Strategy and Local Development Plans
- It will, when integrated with HLC undertaken in adjacent areas, provide a context for developing Regional agenda
- It will provide additional baseline information for landscape strategies and landscape assessments
- It will provide baseline information for local environmental strategies (including Conservation Area Appraisals, Parish Plans and Village Design Statements) and LA21 agenda
- It will provide a context for advice given to DEFRA in terms of targeting priorities for joint character areas, and for advice given in respect of Environmental Stewardship
- It will provide assessment of landscape sensitivity for development of the Woodland Opportunities Map, a component of the Regional Forestry Framework
- It will provide a context for management of the County Council's own rural estates
- It will provide a fundamental, holistic and meaningful landscape layer against which to interrogate other layers within the County Historic Environment Record
- It will provide a dataset which will provide additional context for other County-wide GIS datasets, such as biological and geological records, and the Habitat Biodiversity Audit
- It will provide a context for subsequent development of an Extensive Urban Survey for Warwickshire and Solihull
- It will provide a context for possible future research, for example on characterisation of vernacular buildings.

Part 3 Aims and Objectives

3.1 Overall Aim

To characterise, and digitally map, the historic dimension of the existing landscape in Warwickshire, in order to inform its management, conservation and understanding at local, County, regional and national levels. The HLC will be created using existing information, and will become a component of the Historic Environment Records for Warwickshire and Solihull. It will consist of GIS mapping linked to a database of attributes of individual landscape units. It will also result in a technical report explaining the HLC methodology, providing guidance on the use of the database, interpreting the project's findings at county scale and providing management guidelines for the historic landscape.

3.2 Project Objectives

3.2.1 Specific Objectives

Within the project the following specific objectives have been identified:

Specific Objectives

- to define GIS polygons with similar historic character and collect attribute data
- to use attributes of each polygon to define and describe HLC types
- to collect sources and defined data sets to support HLC, show transparency and facilitate future update
- to analyse and produce preliminary synthesis to inform management, planning, outreach and research
- to assess potential for further HLC development
- to disseminate results of the project
- to produce an archive which supports the project
- to produce a dynamic dataset that may be enhanced and updated in the light of future research
- to identify mechanisms for future review/ revision of the HLC

3.2.2 Broad Objectives

The following broad objectives have also been recognized:

Broad Objectives

- to improve and foster understanding of historic landscape character within Warwickshire
- to provide a landscape context for archaeological sites within the Warwickshire Historic Environment Record
- To provide a framework for subsequent characterisation projects, in particular Extensive Urban Survey
- to encourage HLC as a resource for sustainable management and facilitation of appropriate change
- to provide baseline data for monitoring subsequent change to the historic environment
- To support WCC's role in strategic planning in respect of historic environment issues
- To underpin historic environment advice given to District Councils within Warwickshire and to Solihull Metropolitan Borough Council
- to widen understanding, within and beyond WCC and the planning authorities advised, of what historic environment consists of
- to assist development of partnership with other agencies
- to foster links with other disciplines/datasets (e.g. Warwickshire Biological Records centre, Warwickshire Habitat Biodiversity Audit)
- to encourage integrated working with other environment/conservation agencies including DEFRA (for example within the areas of agri-environment and rural diversification), and the Forestry Commission (development and implementation of Regional Forestry Framework)
- to enhance awareness of local distinctiveness
- to ensure a level of compatibility with HLC data in adjacent counties in preparation for the development of regional HLC models

Part 4 Method Statement:

The project methodology will be based on that developed during development of the national HLC programme, particularly those projects involving predominantly rural landscapes. Typically, this involves four stages:

Stage 1: Familiarisation, refinement of methodology, sample work (pilot project)

Stage 2: Data collection and assignment of character types

Stage 3: Review, analysis and interpretation

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

4.1 Familiarisation, refinement of methodology, sample work (Stage 1)

This Stage is split into two shorter sub-stages:

1a: Short period of familiarisation with sources and assessment of their value.

The project officer will be acquainted with the project area, and project design. Meetings will be arranged with key partners; WCC departments (primarily Planning, Transport and Economic Strategy) and Local Planning Departments.

A digital Project Summary, as required by English Heritage Historic Environment Commissions, will be produced and submitted.

Availability of and access to data sources will be confirmed beforehand. The project officer will undertake a rapid critical review of existing assessments (Warwickshire Landscape Guidelines, Cotswold AoNB HLC), and familiarise him/herself with the national review of methodology (Aldred & Fairclough 2003).

Any necessary GIS training will be undertaken. (The person specification for this post assumes previous experience of GIS. However, some software-specific training may be required). After examination of the potential data and available digital datasets, a detailed data collection methodology using a MapInfo-based system with related Access database will be developed.

It is proposed that the Exegesis HBSMR HLC module is used to record data. This will make it available for consultation by archaeologists, planners, researchers and the general public from an early stage of the project. Advantages to using the module are:

- It is a proven system currently used by a number of HLC projects (Wolverhampton, Norfolk, South Yorkshire). Where limitations have been encountered, such as limited functionality when it comes to 'previous' landscape character fields, reasonable solutions have been found.

- The HLC module will benefit from future improvements to the HBSMR system made by ExeGesis.

- The project will benefit from the experience and knowledge that has built up in the locations already using the HBSMR HLC module

[Note: Were the project to use an "in-house" module, developed by Warwickshire County Council the project cost and timescale would increase considerably. Discussions with WCC Contract and Management Services (CAMS) has established that this work would need to be carried out by an external agent because the County does not have sufficient capability to undertake the work. Additional impacts on the project would include:

- Less integration between the HLC data and the SMR data
- Potentially less support from colleagues in other counties undertaking HLC work using the HBSMR module
- An "in-house" system is unlikely to be supported by our technical services section in the short term; and is unlikely to benefit from future technological development]

Also within this initial sub-stage, a list of high level HLC types will be defined for assessment and development within a targeted study (Stage 1b). This will involve appraisal of other HLC projects, particularly those of neighbouring counties/areas (e.g. Cotswold AONB, Staffordshire). A provisional list of high level HLC types is included in Appendix A.

During stages 1 and 2 the project officer will make periodic vists into the study area in order to experience at first hand the landscapes with which they will be dealing. The opportunity will also be taken to take photographs of key areas and typical landscapes, for incorporation within the report.

Stage 1b: Testing of the methodology against a representative sample of landscape areas (see below).

The sample will consist of two areas: one to the south of Warwick, which takes in parts of the Feldon, Avon Valley and Arden character areas, and the second northwest of Rugby, taking in parts of the Dunsmore and High cross plateaux. This selection will test the methodology against most of the main character areas within the project area.

Following any refinements of the methodology arising from data collection in the sample areas, the method statement will be developed into a desk manual which will be used throughout stage 2 and as a basis for the final reporting in Stage 3. A revised project design will be produced if necessary, along with GANTT chart for the remainder of the project.

Outputs during Stages 2 and 3 (e.g. seminars and outreach, web-based information, guidance for agri-environment schemes, Supplementary Planning Guidance, integration with HER and other data sets) and a framework for their delivery will be defined during Stage 1.

This stage will also be used to test and where necessary develop the proposed software (ExeGesis SDM, HBSMR database (HLC Module), and integrated MapInfo link). The identified issues (i.e.: lack of functionality) relating to the HBSMR system have been investigated and we are confident that the benefits outweigh any shortcomings.

A Consultation Group/Project Forum will be established (see below for suggested membership)

It is anticipated that Stage 1 will take around 4-5 months.

4.2 Characterisation, mapping & digitisation (Stage 2)

GIS polygons will be defined and characterised using the methodology refined in stage 1. Attributes which describe present, previous and (where known or interpreted) earlier historic landscape character will be ascribed to each polygon. This will use a number of sources.

For present day landscape current and recent digital OS maps, 1:25000 paper maps, geo-referenced GIS-based vertical aerial photographs will be used. It may be possible to make use of supporting evidence such as historic maps & documentary evidence (e.g. County Maps). However, it is considered that use of tithe, enclosure & estate plans would be too large a task within the HLC project, and that these are perhaps best regarded as a resource for future use within a complete HLC framework. However it may be possible to use historic mapping to extrapolate interpretations from detailed characterisation of key areas, and record the assumptions used to extrapolate. SMR data will be largely for use in the analysis stage, but Ridge and Furrow data from the Open Field Survey probably could be used at this stage.

Provisional list of sources	
Primary	OS 1st Edn
	1919-1930
	1955
	Current 1:2500 landline
	1:10,000
	2000 Digital APs
Subsidiary	C18 County Maps (Beighton, &c)
	Countryside Agency Regional Character maps
	Warwickshire Landscape Guidelines
	Geology
	Open Fields data (AP-derived R&F plots)
	Habitat Biodiversity Audit Phase 1 data
	SMR
	1947 aerial photographs

Defining HLC polygons: It would be impractical and unnecessary to collect data at the level of individual land parcels. Defining polygons will involve grouping together

individual units from OS digital mapping on the basis of a common current land use, previous land use and morphology, the aim being to define polygons sufficiently small and distinctive to permit the attachment of attributes that can later be used to create characterisation. Each polygon will therefore contain a particular combination of attributes which can be assigned to a single HLC type. HLC polygons will be digitised in MapInfo direct to screen at 1:10,000 scale.

Annotating HLC types and attributes:

Attributes will be recorded for each polygon, e.g. broad landscape type (See Appendix A for a list of Broad Types), possible date, confidence level.

Data will be attributed in three main layers:

1. Broad high-level groups (of which there will be a limited number, possibly a dozen or so, e.g. Urban, ancient woodland, enclosed)
2. Present day HLC. This is the central feature of the HLC process, allowing sub-division of higher-level attributes according to source evidence and morphology (e.g.: regularity, field size, patterning, shape of internal and external boundaries &c&c)
3. Previous HLC (where recognisable and inferable from historic mapped evidence or morphology) – diagnostic characteristics will include dog-leg boundaries, R&F, old quarries & earthworks, fieldnames.

It is anticipated that stage 2 will take in the order of 18 months

4.3 Review, analysis and interpretation (Stage 3)

This stage will connect with other landscape assessment projects and with the planning/management agendas. It will review the results of stage 2, using the inherent attributes of each polygon recorded within the database built up in stage 2 to create a classification of HLC types. There are likely to be several layers of classification from broad and simple to complex and narrow. Other analyses will be possible: differing vulnerability of various HLC types to loss, rates of change, comparison with earlier landscape character models including WLG; it is likely that other candidates will suggest themselves during the project.

The HLC type data will be compared with SMR data and with secondary sources in order to identify patterns and trends within the data, particularly insofar as they relate to time depth and process of landscape change. Comparison with HLC results from adjacent studies such as the Cotswold AoNB will be undertaken in order to identify unconformities.

Stage 3 will also involve consideration of the data in terms of its input to management, with a view to informing management strategies. This is likely to take several forms: identification of areas and HLC types which are particularly rare and/or vulnerable, prescriptions for estate management, and for FEPs, assistance with identification of targets for agri-environment schemes, and for the identification of issues to be addressed in the planning process.

It is inevitable that this programme will identify further avenues for research. The value of HLC is acknowledged in the emerging West Midlands Archaeological Research Framework, and the development of the research framework will be another output from this programme. Peer Group review via the project forum will be important at this point.

4.4 Preparation of a report, archive and dissemination of results (Stage 4)

It is obviously crucial that the results of the HLC be widely and appropriately disseminated. This is likely to comprise several elements. The end products will include a report on the project, the database and GIS (HBSMR module), and a data archive

4.4.1 The Report

The report will be available in hard copy (and CD) and record the methodology and the assumptions made. There will be a summary of the data including HLC type descriptions. This will lead to a provisional analysis of the landscape in the study area based on the data gathered, illustrating the changes in understanding and perception which the project has led to. It will identify avenues for further work, and put forward preliminary guidance for management of the historic landscape. It will be illustrated by a series of appropriate maps derived from the GIS database, as well as a large format map of the entire study area (this larger map, annotated with suitable non-technical text providing a very brief overview of the programme, is likely to have a number of applications including acting as an advertisement for the project, and it is intended to produce this as a freestanding poster/leaflet for wider distribution). The report will include the following sections.

- Introduction, background to the project, aims and objectives
- Methodology & non technical summary of results
- Characterisation (including written description of morphological and interpretative HLC types)
- Discussion of results, including summary of assessment stage of project
- Recommendations for further work, including potential for further analysis and research
- Management guidelines for dealing with the historic landscape, identifying archaeological management guidelines to assist in the preparation of future landscape management strategies.

Three bound hard copies of this report, as well as a digital master, will be provided to English Heritage. Further copies will be provided for partner local authorities and other agencies, the final distribution to be determined by the project team.

Dissemination via the WCC website will also be explored. Whilst full access to the HLC dataset would be impractical within the present project, consideration will be given to provision of a series of GIS derived maps within the Museum's web pages.

4.4.2 The database and GIS

The HLC data will be made accessible via the SMR/HER. Appropriate guidance for maintenance/ updating will be provided in a users' manual. It will be possible to provide this GIS-based data to other agencies such as planning departments.

Information from the project will become available via the HBSMR HLC module from an early stage. This is a significant advantage of using the module rather than developing an HLC database independently.

4.4.3 The Project Archive

The Project Archive will include:

- copies of the project design
- revised method statements
- data tables with explanations
- copies of correspondence
- text and mapped information produced and/ or copied as part of the project
- copies of all reports produced as part of the project.

The archive will be quantified and ordered in line with English Heritage guidelines and then held within Warwickshire SMR. Archive material for the parts of the project covering areas outside Warwickshire, i.e., parts of Birmingham, Solihull and Coventry will remain with the Warwickshire SMR. It is not intended to copy this material and thus duplicate the archive storage.

4.4.4 Wider Dissemination of Results

The use of the HLC to engage local communities with their surroundings is another important output from the project, and will require the results of the project to be disseminated widely. The map-based character of HLC lends itself to engagement with the imagination, and a large format map encompassing the entire project area and annotated with an overview of the project's results in terms of understanding the landscape will be a ready means of showcasing the project far beyond the Project Forum stakeholder group. There is scope for a popular publication, and for dissemination via the web (perhaps by integration with the existing online SMR at www.warwickshire.gov.uk/timetrail). A series of PowerPoint presentations will be developed for dissemination to local environmental theme groups and other external organisations.

The results of HLC will also be of academic interest, and consideration will be given in stage 4 to scoping an academic publication, perhaps to be undertaken as a separate project.

During Stages 3 & 4 a strategy will be developed in conjunction with the various project partners for periodic updating of the HLC. Such updating (perhaps at intervals of around 10 years) will refresh the data within the HLC, as well as providing an empirical means of monitoring the effects of change upon the historic landscape.

7 months is allowed for Stages 3 & 4.

Part 5 Project Management.

5.1 Personnel

The project programme is based on a proposed duration of 30 months. This programme will be reviewed a stages during the project and may change. The programme will be revised at the end of stage 1 when completion of the pilot phase will provide a more accurate indication of likely duration of individual tasks, this is especially relevant to the digitisation process.

Day to day management will be the responsibility of a dedicated project manager (to be recruited) who will be responsible to the County Archaeologist, Jonathan Parkhouse. The County Archaeologist will be responsible for management of the Project Team and the project budget (as County Council Cost Centre manager). Regular meetings will be held of a **Project Team**:

The HLC officer (to be appointed)

County Archaeologist (Jonathan Parkhouse)

David Went (EH)

Warwickshire HER Officer (Emma Jones)

A larger Consultation Group or **Project Forum** will also monitor project progress via a series of seminars at the conclusion of each project phase (it may also be useful to have an additional meeting during phase 3)

This group will consist of the Project Team, together with

Local Authority Representatives (to be confirmed):

WCC PTES, landscape design team (Carol Thorne and /or Jerry Birkbeck)

WCC Ecology Unit, will cover the interests of the HBA (David Lowe)

Solihull MBC (Martin Saunders)

Coventry City Council (Chris Patrick)

Birmingham City Council (Dr Mike Hodder)

Stratford District Council (David Jones)

North Warwickshire Borough Council (Paul Taylor)

Rugby Borough Council (Paul Larcombe)

Warwick District Council (TBC)

Nuneaton and Bedworth Borough Council (TBC)

Other interested Parties and Individuals:

Ian George (EH Inspector)

Della Hook

David Pannett

Stephen Warnock

Sarah Wager

Terry Slater

HLC Officers from neighbouring counties

The final meeting will involve a wider group of stakeholders, which will be identified during the project.

5.3 Timetable

A provisional project timetable, showing the main project stages, milestones and proposed Project Team and Project Forum meetings, is contained in the attached Gantt chart (Excel spreadsheet)

5.4 Copyright.

Copyright will be shared by Warwickshire County Council and English Heritage.

5.5 Health and Safety.

The project will be undertaken in accordance with WCC Health and Safety policy, as stated in the Health and safety policy documents prepared at County, Departmental and Service level and updated annually. All activities are subject to risk assessment. Copies of these policy documents and assessments will be supplied on request.

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Roberts BK & Wrathmell S 2000 *An Atlas of Rural Settlement in England*

Wager SJ 1998 *Woods, Wolds and Groves: the Woodland of Medieval Warwickshire* (BAR Brit Ser 269).

WCC 1993 *Warwickshire Landscape Guidelines* (3 vols: 1 Arden; 2 Avon Valley, Feldon, Cotswolds; 3 Dunsmore, High Cross Plateau, Mease Lowlands) Warwickshire County Council & Countryside Commission

WCC 2003 *Stratford town's urban edge: a pilot study* Warwickshire County Council

Appendix A

Draft list of landscape groups or broad types. This will be refined and additional types may be added during stage 1:

UIM	Unimproved land	Enclosed? Type (eg heath, moor, hill pasture) Previous character?
FSC	Fieldscapes	Predominant field size (s,m,l) Predominant field shape (rectilinear, irregular) Predominant boundary morphology (straight, sinuous, curvilinear) Predominant secondary boundary morphology (straight, sinuous, curvilinear, none) Other internal boundary morphology (none, dog-leg, S-curve, following watercourse, co-axial) Other external boundary morphology (sinuous, settlement edge,
WDL	Woodland	Nature of boundaries (eg straight, curvilinear) On 1st edn 6”? Ancient/semi-natural? FC indicative designation (broad-leafed, coniferous, felled, mixed. Shrub, young trees, none Previous character? Other
V	Water and valley floor	Type (eg Open water reservoir, watermeadow) Enclosed (fully, partly, unenclosed) [water features] natural/modified/manmade other
IND	Industrial	Type (eg quarry, waste tips, factory, power station) Still active? Previous character? other
MIL	Military	Type (eg airfield, munitions dump) Current use (active/alternative uses) Previous character? other
PAR	Designed landscape (ornamental, parkland, recreational)	Type (eg parkland, recreational, golf course, cemetery) Previous character?
SET	Settlement	On 1st edn OS? Post 1945?
TRA	Communications & infrastructure	Road, Rail, canal, commercial airfield, service/distribution

Appendix B

Plan Policies:

West Midlands Regional Spatial Strategy (2004)

Policy QE1

B. Local authorities and other agencies in their plans, policies and proposals should:

.....iv) protect and enhance the distinctive character of different parts of the Region as recognised by the natural and character areas ... and associated local landscape character assessments, and through historic landscape characterisation.

Warwickshire Structure Plan 1996-2011

Policy ER.4

Local plans should seek to protect and enhance landscape character and quality in all areas of Warwickshire's countryside. In particular, criteria should be established for the assessment of the sensitivity of each local landscape type to different categories of development.

(a) Special Landscape Areas should be designated by virtue of their particular landscape quality, which is of local rather than national importance. The broad extent of these areas is indicated on the Key Diagram, and should be determined precisely within local plans. Within these areas, local policies should ensure that development does not damage landscape character and that only developments which can demonstrate a high quality of design are permitted.

(b) Areas where environmental quality is poor should be identified in local plans as Environmental Enhancement Zones where new developments would be expected to contribute to the restoration of the environment. Where derelict land and unrestored mineral workings are located close to towns or cities, and are not proposed to be restored to agricultural use, local plans may provide for the restoration of this land, for recreation, public access or archaeological, geological or nature conservation use.

North Warwickshire Local Plan Revised Deposit Draft (April 2004)

Core Policy 1

Local Plan policies will conserve the character and quality of the countryside across the whole Borough by resisting dispersed, isolated and sustainable development

ENVA

Landscape Character

Landscape Character impact assessment and enhancement will be required in all significant applications, especially those for development outside Development Boundaries. Assessments should accord with the methodology prepared by the County Council.

Rugby Borough Council Local Plan Review First Deposit Draft (May 2004)

Policy E17 - Development Affecting Parks and Gardens and other elements of the Historic Landscape

Planning permission will not be granted for development, which would adversely affect the character, appearance, or setting of a:

1. Park, or Garden registered as being of Special Historic Interest, or of acknowledged local importance, or

2. Any other element of the Historic Landscape,

or which would detract from the contribution they make to other features and the wider landscape, unless:

1. The need for and benefits of the development for the community can not otherwise be achieved and are sufficient to override the need to preserve the Park, or Garden, or other element of the Historic Landscape; and

2. All opportunities for mitigating the adverse impact are taken.

Development proposals should not compromise the future restoration of such Parks, or Gardens, or other element of the Historic Landscape and wherever possible should seek to enhance such features.

Stratford-upon-Avon Local Plan Revised Deposit Draft (January 2003)

3.2 Landscape and settlement character

Policy PR.1

All development proposals should respect and, where possible, enhance the quality and character of the area.
Proposals that would damage or destroy features which contribute to the distinctiveness of the local area will not be permitted unless significant public benefit would arise from the scheme. The value attached to such features by local communities will be taken into account.
In assessing all applications for development, thorough consideration will be given to the detailed guidance provided in supplementary planning guidance adopted by the District Council, including the District Design Guide, Countryside Design Summary and Village Design Statements.

Warwick District Council Local Plan First Deposit Draft (Oct 2003) (NB we have suggested that this policy needs to make more specific reference to historic environment and historic landscape characterisation)

DP3 Natural Environment

Development will only be permitted which positively contributes to the character and quality of its natural environment through good habitat/landscape design and management. Development proposals will be expected to demonstrate that they:-

a) protect and/or enhance, where necessary, existing site features of nature conservation and landscape value;

b) protect and/or enhance, where necessary, features of historical, archaeological and geological significance;

c) reflect and enhance the local ecology and landscape character of the area;

d) provide appropriate levels of amenity space which incorporate suitable habitat features and hard and soft landscaping;

e) integrate the amenity space and proposed landscaping into the overall development; and

f) secure the long term management and maintenance of habitat/landscape features.

Development proposals which have a significant impact upon the character and appearance of an area will be required to demonstrate how they comply with this policy by way of a Landscape Analysis.

Solihull Metropolitan Borough Council Unitary Plan Review: Revised deposit draft (2003)

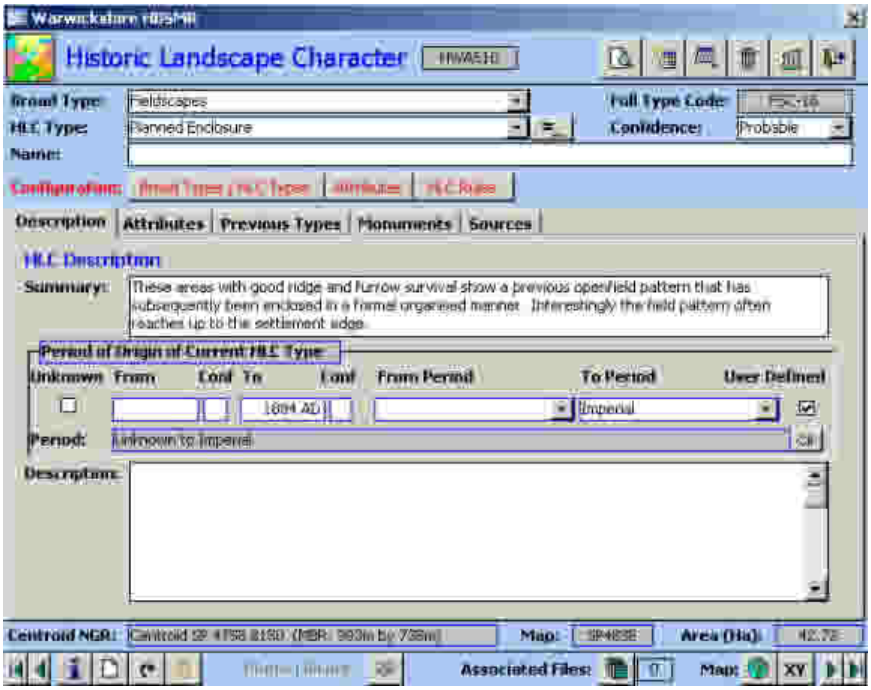
POLICY C8

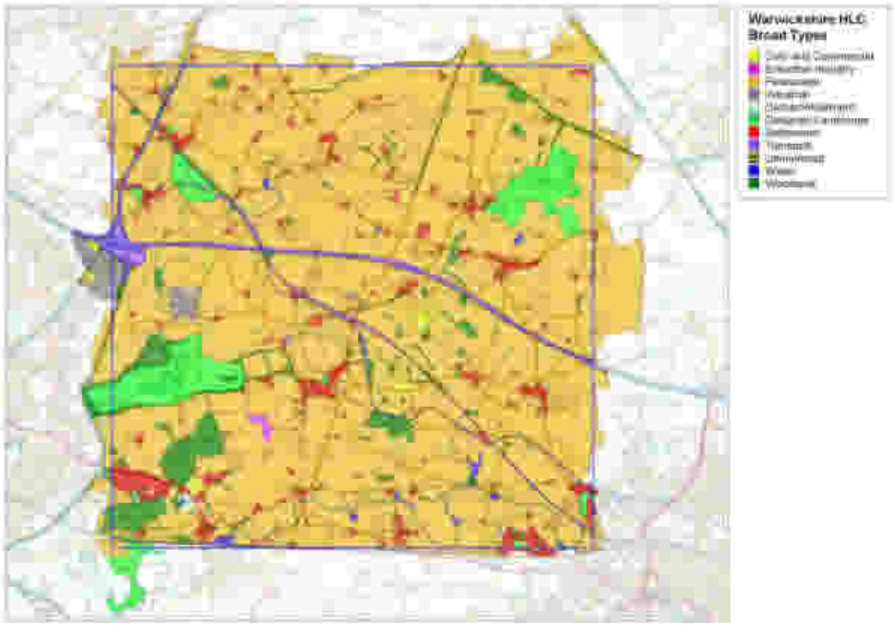
LANDSCAPE QUALITY

The Council will seek to safeguard the countryside in the Borough by protecting and enhancing its landscape and historic character and quality, retaining or seeking the restoration of its diverse landscape features and maintaining local distinctiveness. Development in the countryside will be permitted only if it respects or enhances the distinctive character of the landscape.

Appendix 3: Warwickshire HLC Desk Manual

Warwickshire Historic Landscape Characterisation Project





Desk Manual
And
Revised Method Statement
October 2006

(Ben Wallace, HLC Officer, Warwickshire County Council) {v4 updated 2009}

Table of Contents

Summary

This document serves as a desk manual and revised method statement to accompany the Warwickshire Historic Landscape Characterisation Project. It was written by Ben Wallace (Historic Landscape Characterisation Officer) at the end of the first stage of the project which was a familiarisation and pilot phase designed to test the methodology of the project design.

It is hoped that this document will prove useful to those who may wish to use the Warwickshire HLC or understand further the methods that have been applied. It will be a standalone element to the HLC but parts of it will also be used in the final project report.

The layout of this document starts with a brief introduction to the Warwickshire HLC project with the project area defined followed by a summary of previous characterisation work in the area.

Next the methodology is described along with the core and supplementary sources used.

Following this there is a description of the software and database used together with information on HLC record creation and data entry. Here a list of established HLC Broad Types and Sub Types is given.

There is a brief report on the pilot areas tested with some preliminary results.

Finally there is an introduction to the stakeholder forum and a look at some possible outputs and uses of HLC.

A select bibliography is given in the appendix to show sources used throughout the project.

Introduction

(Quoted from the Warwickshire HLC Project Design)

"English Heritage have supported a national programme of Historic Landscape Characterisation projects over the past decade. For the most part they have been undertaken by County Council based Historic Environment Services, covering individual Counties or similar sized units. They aim to achieve an archaeologist's understanding of the historic and cultural origins and development of the present day landscape through a desk-based programme of digital mapping, description and analysis, by the identification of the physical remains visible within the landscape that demonstrate the processes by which it has reached its present form.

Like the other members of the family of landscape characterisation studies to which it belongs, HLC provides a broad-brush overview of complex aspects of the historic environment in order to provide new and wide-ranging information for conservation, management and development decisions. The objective of HLC is to promote better management and understanding of the historic landscape resource, and of the accommodation of continued change within it, and to establish an integrated approach to its sustainable management in partnership with other organisations.

The basis of HLC is a Geographic Information System (GIS). The information within the GIS is structured by the identification and classification of archaeological historical and other environmental attributes of land parcels. Unlike other forms of landscape assessment, HLC permits the creation of a plurality of classifications of Historic landscape types. The distribution of landscape types can be mapped using GIS, with each type being supported by written descriptions of the landscape types and the particular process of landscape formation that they represent. This approach to HLC provides a permanent and renewable database, which may be used to inform a wide range of planning, conservation and management initiatives and strategies.

In the initial, data collection stage of HLC, GIS polygons will be defined, based on groups of modern land parcels exhibiting similar historic origins or processes. Each polygon will be assigned to one of a set of pre-determined high-level HLC types. An Access database, linked to the GIS, will be used to record a range of attributes reflecting the historic landscape features specific to each polygon (such as aspects of field pattern and boundary form, woodland cover, evidence for former land-use)"

Location and Description of Project Area

Boundaries and Administrative units

"The project area (see map) will consist of the following four components:

The present day administrative county of Warwickshire

The total area to be included in the study is 197,162 ha. There are five District Councils within this area: North Warwickshire, Nuneaton and Bedworth, Rugby, Warwick and Stratford-upon-Avon. Warwickshire Museum Field Services provides archaeological planning advice to all five Councils. The small part of the County (10,282 hectares) lying within the Cotswolds AONB was the subject of an earlier HLC

programme (Hoyle 1999); the current project will ensure that its results are seamlessly amalgamated into the Warwickshire HLC.

The administrative area of the Metropolitan Borough of Solihull

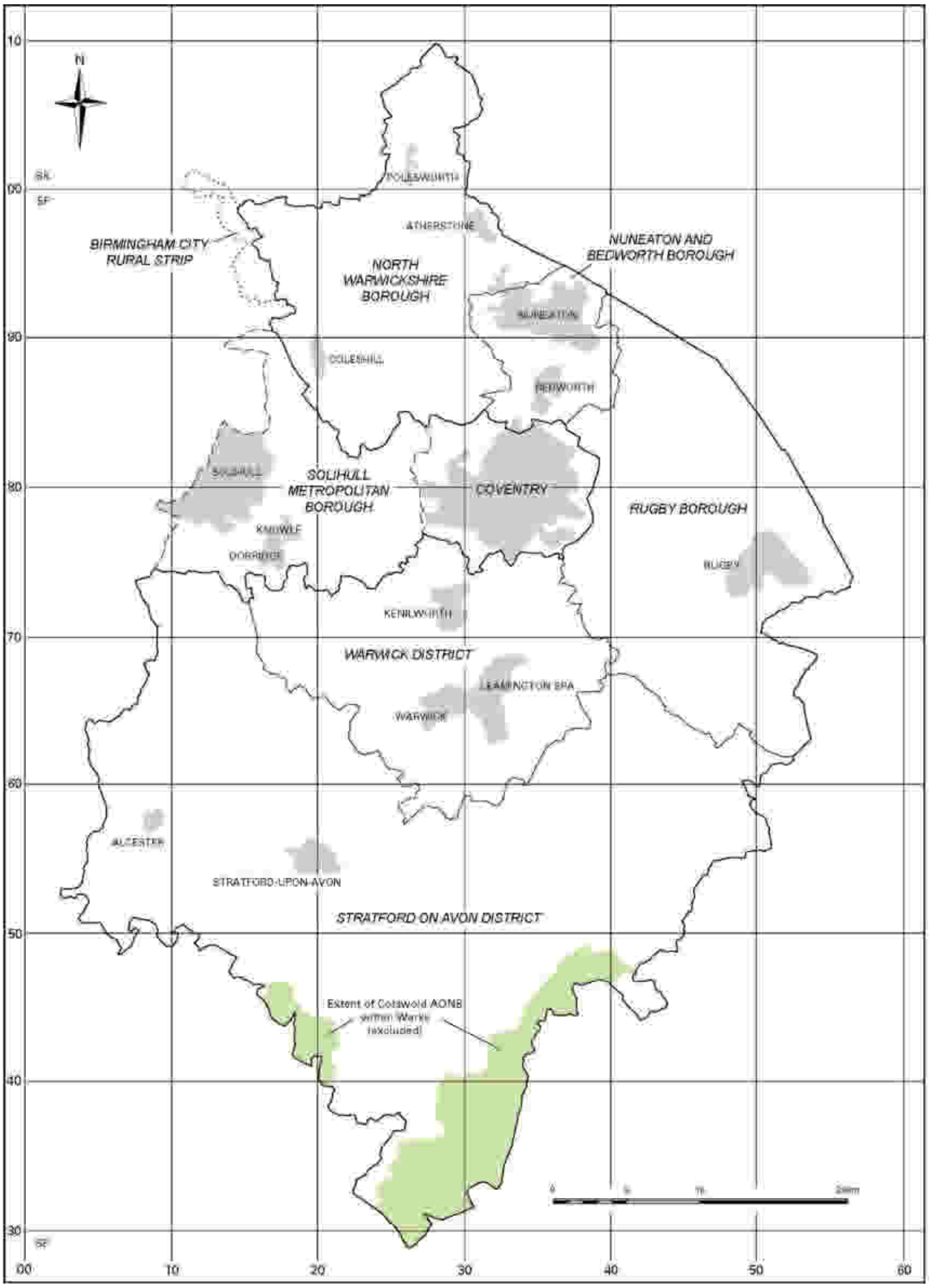
This was historically part of Warwickshire until the 1974 local government re-organisation. Archaeological planning advice is provided to Solihull MBC by Warwickshire Museum Services, who also maintain the Solihull Sites and Monuments Record. Approximately a third of Solihull is considered urban (areas of settlement totalling over 1,500 inhabitants) totalling some 6,000 hectares. Characterisation in this area could prove to be more complex than Warwickshire not least because of large 20th century development and growth leading to probable multiple present and previous HLC types. It is hoped however to keep the approach consistent and to characterise in the same detail as present day Warwickshire. Total area is 17,780 hectares.

The administrative area of Coventry City Council

The Council are currently developing a Historic Environment Record which incorporates certain aspects of HLC. Following discussion with the Conservation and Archaeology Team at Coventry City Council it was agreed that Coventry should, if possible, be included within this HLC programme. However, in order not to duplicate work already being undertaken, it was decided only to provide very broad-brush detail for the historic core, since the Coventry team will be developing an extensive series of both data and interpretative maps for the city, using the very extensive data which survives; an attempt to undertake detailed characterisation of the urban core as part of this HLC project would be inappropriate. However, the exact details of what level of characterisation would be appropriate for this area have yet to be fully confirmed. More detailed work will be undertaken in the rural fringe of Coventry where the City Council are not themselves undertaking characterisation work. Careful liaison with the Coventry Conservation and Archaeology Team will ensure that methodologies are complimentary and compatible. Area 9,834 hectares.

Part of the administrative area of Birmingham City Council

The rural strip within Birmingham to the east of Sutton Coldfield, roughly between Curdworth and Watford gap; this too was part of Warwickshire until 1974. This is an area of 1,545 ha.



Map showing project area.

Summary Table of Project Area (hectares):

Area	Previously Quoted Total (from Project Design)	Actual GIS Area	Urban (areas over 1500 inhabitants)	Percentage Urban
North Warwickshire	28300	28340		
Nuneaton	7872	7872		
Rugby	35250	35250		
Warwick	28200	28200		
Stratford	97500	97500		
Total (Warwickshire)	**197122**	**197162**	12690	6.4%
Solihull	17780	17780	5935	33.33%
Total (Warwickshire and Solihull)	**214902**	**214942**		
Birmingham rural fringe	1500	1545		
Coventry	9834	9834	7004	71.23%
Total	**226236**	**226321**		
(minus Cotswold AONB)	-10282	-10282		
Total study area	**215954**	**216039**	25630	11.81%

Landscape Character

Historic Warwickshire contains a variety of landscape types. Landscape assessment undertaken in 1990-93 (WCC 1993) identified seven main character areas, of which four were largely within Warwickshire and the remainder largely within adjoining counties.

The four distinctively 'Warwickshire' landscapes are:

Landscape	Description
Arden	The Arden covers much of the north-western part of the study area, and consists of a region of former wood pasture and heath. The settlement pattern is typically dispersed, with area of ancient woodlands and mature hedgerow oaks
Dunsmore Plateau	A glacial plateau in the eastern central part of the area around Rugby with sandy soils, much of it heathland until comparatively late
Avon valley	River terraces and alluvium along the river corridor, containing nucleated villages and market towns; prosperous farms, market gardening, orchards and meadow pasture
Feldon	Claylands in the southern part of the county and extending into Northants, with a high level of relatively early enclosure, large geometric fields and nucleated settlements

The remaining landscape types are:

Landscape	Description
Mease Lowlands	The north eastern edge of the study area is an area of large estates and small nucleated villages, extending into Leicestershire
High Cross Plateau	Open clay wolds with small nucleated villages, extending along the Leicestershire border to the south of the Mease Lowlands
Cotswolds	Limestone uplands. The Cotswolds AONB was the subject of an earlier HLC study (Hoyle 1999) and is excluded from the Warwickshire HLC project

Landscape Characterisation Programmes

The Warwickshire chapter of the Land Utilisation Survey of Britain was published in 1946, drawing largely upon studies undertaken in the early 1930s (McPherson 1946). This survey makes no reference to historic landscape; it is of interest however in containing much information about mid-C20th land use, although its usefulness in the present context is limited by the very large scale of the maps.

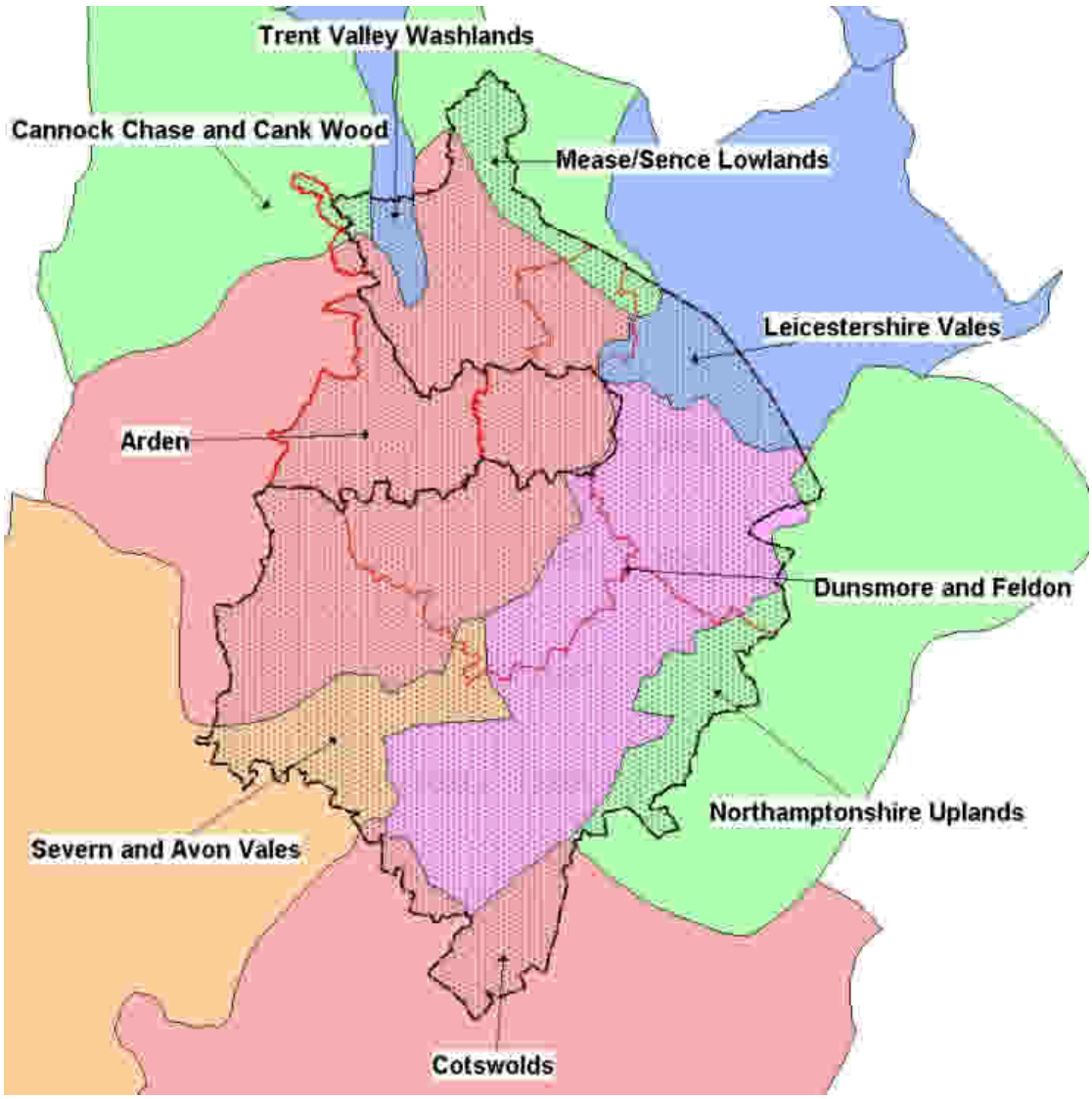
Other early attempts to describe the historic character of the landscape have been at an extremely low resolution; thus descriptions such as the brief summary by Kinvig (1971) is no more than a geographical pen portrait. The work of David Pannett and others (unpublished, but see Harrison, Mead and Pannett 1965) in mapping the open fields is clearly relevant to landscape character, although the scale of the mapping, the restricted range of sources used, and its non-digital format, means that its use in the present programme may be problematic.

A Warwickshire Landscapes Project was established in 1987 as a partnership between the County Council and the Countryside Commission. The main purpose of the project was to develop a methodology for landscape assessment suited to lowland England as well as to consider the distinctive characteristics of the Warwickshire landscapes. The principle output was the three volume *Warwickshire Landscape Guidelines* (WCC 1993; hereinafter WLG), consisting of a landscape assessment for each of the main areas and a series of general guidelines for management and development purposes. The landscape assessments identified local landscape types within each of the primary character areas; these were mapped in non-digital format.

Amongst the sources used for the Warwickshire Landscapes Project was a series of 1:50,000 maps drawn up by Dr Della Hooke showing a number of basic character

areas (e.g.: woodland, orchards, C18th enclosures, commons, deer parks). Unfortunately these maps are not cross-referenced to the source material from which they were derived, and their use in the present programme will therefore be limited. Nevertheless it is intended to consult Dr Hooke, who it is intended should be part of the Stakeholder Project Forum.

A broad framework for landscape characterisation at a national scale was provided by the publication in 1996 by the former Countryside Commission and English Nature, with support from English Heritage, of the Joint Character Map of England. This identified 159 landscape character areas and was accompanied (from 1998) by descriptions of each area, together with the influences which had shaped their character and some of the main pressures for change. This work provides a top tier of landscape character assessment, but the necessarily broad-brush treatment does not address individual landscape types.

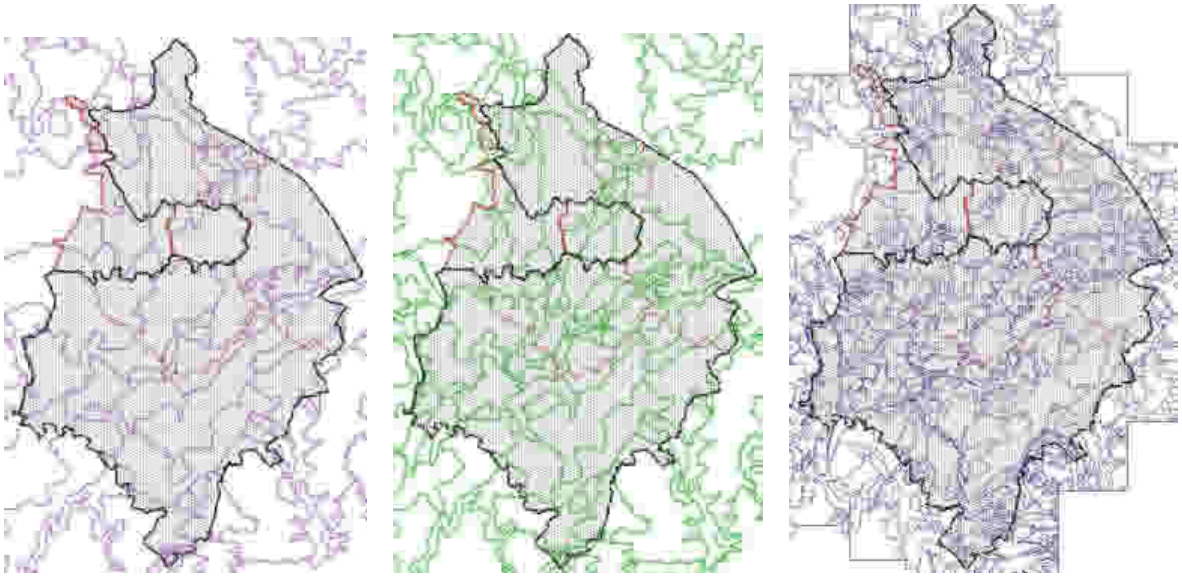


Map showing the Countryside Agency Join Character Areas and HLC Project Area.

More recent landscape assessment work includes studies undertaken by the Planning, Transport and Economic Strategy Department of WCC in Dordon (North Warwickshire) and around the urban fringe of Stratford upon Avon (WCC 2003): similar work is presently in progress around Rugby's urban fringe, whilst further work is envisaged around Coventry.

The Stratford study was undertaken in conjunction with the Living Landscapes Project, a partnership between local authorities, academic institutions and national government agencies with a view to developing an integrated GIS-based framework

for decisions in respect of planning and land-management in accordance with national/regional policy objectives. The study identified nine Landscape Character Types based on a number of smaller Landscape Description Units (LDUs), which in turn were aggregations of smaller Land Cover Parcels. The study was also the pilot for the development of a GIS-based LDU map for Warwickshire. Digitisation of the LDUs for level 2 is complete, although the accompanying descriptions have yet to be written. Currently there is work being carried out by Warwickshire County Council to rewrite and re-release the Warwickshire Landscape Guidelines taking the Level 2 LDUs into account.



Maps showing Landscape Character Types, Landscape Description Units (Level 1) and Landscape Description Units (Level 2) respectively.

Other relevant topic-based studies include Dr Sarah Wager's work on Warwickshire woodlands (Wager 1998) and the English Heritage funded study of Midland open fields (Hall 2001), whilst the Habitat Biodiversity Audit has built up an important and detailed database of the County's ecological diversity which will also reflect the long term influence of human beings on local landscapes. Comparison of HLC patterns

and the results of these previous studies will be a particular consideration within later review, analysis and interpretation stage of the HLC project.

Methodology Detail

The Warwickshire HLC project, like most others, is based on previous HLC projects that have taken place with adaptations to the methodology and process to reflect local distinctiveness or that are felt innovate or contribute to the whole HLC process itself. Warwickshire owes much to the Staffordshire and Shropshire HLC projects and is loosely based on these. Other ideas and techniques have been adopted from the current Black Country and Leicestershire HLC projects. To some extent all previous HLC projects have contributed in some way to define current HLC projects.

Context:

National context

The HLC project will form part of a national programme sponsored and encouraged by English Heritage. The need for the programme is best understood as a response to two gaps in understanding: one, of the historic environment resource at a landscape level, with a consequent lack of a robust framework for taking decisions in respect of managing change, and the second as a gap in landscape assessment where the historic and archaeological dimension landscape (time depth) is concerned. HLC is therefore designed to assist both archaeologist (and other HE managers) and landscape architects (and other countryside managers).

The development of the HLC methodology over the past decade has both reflected and informed changes in emphasis in the way archaeologists describe and manage the historic environment (Aldred & Fairclough 2003). These changes include:

- a concern with the whole of the humanly modified landscape rather than solely the demonstrably archaeological ‘sites’ within it

- a change in analytical scale from the small-scale site/monument to the wider landscape. This is in fact a long-term archaeological and historic concern, going back at least to the studies by WG Hoskins; however, much of the earlier emphasis tended to concentrate on particular topographies such as upland areas with good earthwork and field monument survival. More recent studies have helped focus understanding of aspects of the landscape at a much wider scale, as exemplified by the EH Settlement Atlas (Roberts and Wrathmell 2000 &c)

- an increased concern with integrated and sustainable policy development and decision-making. In particular the establishment of landscape assessment methodologies has stimulated the development of methodologies for integrating archaeologically-based approaches; thus the processes of landscape assessment (Countryside Agency/ Scottish Natural Heritage 2002) have required that a separate type of characterisation undertaken from the landscape archaeologists’ perspective be developed. HLC, with its specialist analysis by archaeologists of the time depth of landscape, provides finer detail and greater understanding than Landscape Character Assessment (LCA) on its own. Ideally HLC should inform LCA , but even where this is not possible, LCA descriptions and analyses can be relatively easily modified in the light of subsequent HLC

- a developing political context for understanding landscape, as shown, for example, by the European Landscape Convention of 2000 and in the

Government's 2001 statement *A Force for our Future*.(3.19: 'The Government commends character assessment to local authorities both as a useful tool in itself and as a way of encouraging greater involvement by local communities in conservation issues').

- a move from concern with 'relict' landscapes to concern with the present-day landscape which has been shaped by change and modification over centuries and millennia and by a variety of processes

- a realisation that the concept of 'landscape' is based on subjective considerations (intellectual, emotional and aesthetic, themselves each socially- as well as individually-developed) as well as objective criteria. Landscape is something which we perceive, even more than it is something we create.

- a more detailed articulation of the realisation that understanding landscape depends on understanding the dynamics of its creation and the underlying cultural processes and political, social, economic and cultural influences.

- the realisation that the best means of protecting historic landscape is not designation (although on occasion this may have a role to play) but sound management underpinned by accessible data which could be analysed and understood. This realisation was initially at odds with the invitation contained within the 1991 Government White Paper 'This Common Inheritance' to establish a Register of Historic Landscapes, which led to the EH conclusion that such a register would only be partial and selective and thus an inappropriate means of managing historic landscape character (Fairclough *et al* 1999). Achieving the necessary understanding of the data is the key aim of HLC.

- a move, in the more recent HLC projects, away from classification-led systems (in which land was allocated to pre-defined types) towards an attribute based-system in which interpretations and observations are attached not to the pre-ordained types but to individual mapped polygons which can be subsequently analysed, thus enabling a multiplicity of classifications and interpretations as well as a transparency of analysis

- The acceptance that, despite the sophistication of GIS, HLC is a relatively generalised characterisation of the landscape's historic attributes which is intended to serve as a means of resource management, and which provides an approach which is consistent, transparent, repeatable and comprehensive (no gaps). This approach leaves open the possibility of more detailed assessment being undertaken later as necessary. It can thus be used for spatial planning, development control, landscape strategies and resource management (e.g. Clarke, J., Darlington, J. & Fairclough, G. 2004 *Using Historic Landscape Characterisation*. English Heritage & Lancashire County Council.)

- Acknowledgement of the interpretative, subjective character of landscape; HLC is thus not another environmental database

Local context

The reasons for this HLC project are several:

- It will articulate existing Structure Plan Policy and Local Plan Policy, as well as the emerging framework of Regional Spatial Strategy and Local Development Plans
- It will, when integrated with HLC undertaken in adjacent areas, provide a context for developing Regional agenda
- It will provide additional baseline information for landscape strategies and landscape assessments
- It will provide baseline information for local environmental strategies (including Conservation Area Appraisals, Parish Plans and Village Design Statements) and LA21 agenda
- It will provide a context for advice given to DEFRA in terms of targeting priorities for joint character areas, and for advice given in respect of Environmental Stewardship
- It will provide a context for management of the County Council's own rural estates
- It will provide a fundamental, holistic and meaningful landscape layer against which to interrogate other layers within the County Historic Environment Record
- It will provide a dataset which will provide additional context for other County-wide GIS datasets, such as biological and geological records, and the Habitat Biodiversity Audit
- It will provide a context for subsequent development of an Extensive Urban Survey for Warwickshire and Solihull
- It will provide a context for possible future research, for example on characterisation of vernacular buildings.

Resources

Database

The exeGesIS HBSMR HLC module is used to record the data. This is essentially an Access database with linked GIS capability. Currently the HBSMR version used is 3.26 and the GIS is MapInfo 8.5.

Using this software will make it available for consultation by archaeologists, planners, researchers and the general public. Advantages to using the module are:

- It is a proven system currently used by a number of HLC projects (Wolverhampton, Norfolk, South Yorkshire). Where limitations have been encountered, such as limited functionality when it comes to 'previous' landscape character fields, reasonable solutions have been found.
- The HLC module will benefit from future improvements to the HBSMR system made by exeGesIS.

- The project will benefit from the experience and knowledge that has built up in the locations already using the HBSMR HLC module

- The HLC module is one of many that make up both the Warwickshire and Solihull HERs providing a direct link between the different data sets. It is hoped that the HLC will remain a dynamic dataset with updates, additions etc along with the rest of the HER.

Sources

A variety of sources are used in the HLC process, these are listed below as 'core' sources (used on a day to day basis) and 'supplementary' sources (used on a more infrequent basis or for specific cases).

Core Sources:

Source Name	Description	Coverage	Format	Original Source Date	Location	Copyright
OS First Edition	Ordnance Survey First Edition 6" to 1 mile historic mapping	Warks: Complete Solihull: Vastly Incomplete, Awaiting from English Heritage Coventry: Vastly Incomplete contact Coventry CC B'ham Strip: Complete	Digital Black and White Raster MapInfo Layer	1884-1892	Warwickshire County Council H:\HCSMuseumField Services\Data\Landmark\10560CS\36warw11\36warw11.TAB	Landmark and Ordnance Survey
OS Second Edition	Ordnance Survey Second Edition 6" to 1 mile historic mapping	Warks: 95% Complete Solihull: Vastly Incomplete, Awaiting from English Heritage Coventry: Vastly Incomplete contact Coventry CC B'ham Strip: Complete	Digital Black and White Raster MapInfo Layer	1900-1906	Warwickshire County Council H:\HCSMuseumField Services\Data\Landmark\10560CS\36warw12\36warw12.TAB	Landmark and Ordnance Survey
OS 1955	Ordnance Survey Second Edition 6" to 1 mile historic mapping	Warks: Complete Solihull: Vastly Incomplete Contact Solihull MBC Coventry: Complete B'ham Strip: 95% complete	Digital Black and White Raster MapInfo Layer	1955	Warwickshire County Council H:\HCSMuseumField Services\Data\Landmark\10000NG\War1_i5\War1_i5.TAB	Landmark and Ordnance Survey
OS Land Line	Modern Ordnance Survey Digital Vector	Complete Coverage	Digital Vector (polygon, polyline and point) MapInfo	2000-2004	Warwickshire County Council H:\HCSMuseumField Services\Data\OSdat	Ordnance Survey

	mapping		Layer		a\VECTOR\1250	
OS Modern Colour	Modern 1:10,000 colour Mapping	Complete Coverage	Digital colour Raster MapInfo Layer	2000 (approx)	Warwickshire County Council H:\HCSMuseumFieldServices\Data\OSdata\RASTER\10000C\Rast10C.TAB	Ordnance Survey
Aerial Photos	Modern colour aerial photographs (0.25m resolution)	Partial Coverage	Digital Colour Raster MapInfo Layer	2000 (approx)	Warwickshire County Council H:\HCSMuseumFieldServices\Data\OSdata\RASTER\AERIAL\aerial.TAB	?
Getmapping Aerial Photos	Modern colour aerial photographs (2.00 m resolution)	Complete Coverage	Digital Colour Raster MapInfo Layer	2000 (approx)	Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\Aerial Photos\	Getmapping
HER	Historic Environment Records	Warwickshire: Complete Solihull: Complete Coventry: Incomplete, contact Coventry CC B'ham Strip: Incomplete, contact BCC	HBSMR data (Combination of digital Microsoft Access data with MapInfo polygon Vector layers) as well as other digital and paper-based records.	2006 (and continuously updated)	Warwickshire County Council H:\HCSMuseumFieldServices\SMR\HBSMRv3\	Warwickshire County Council
Scheduled Ancient Monuments or SAMs	Schedule of Monuments	Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mapdata\Manageme.TAB Also available online at: http://www.magic.gov.uk	English Heritage
Listed Buildings	Statutory list of buildings of 'special architectural or historic interest'	Complete Coverage	Digital Vector (point) MapInfo Layer		Warwickshire County Council H:\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mapdata\DesigLB_WA.TAB Also available online at: http://lbonline.english-heritage.org.uk	English Heritage
Registered Parks and Gardens	Register of Parks and Gardens of special historic interest in England	Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mapdata\Manageme.TAB Also available online	English Heritage

					at: http://www.magic.gov.uk	
HBA	Warwickshire, Coventry and Solihull Phase One Habitat Biodiversity Audit Dataset	Complete Coverage	Digital Vector MapInfo Layer	2005	Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\HBA	All HBA Partners
Ridge and Furrow	Extant Ridge and Furrow plots from the Midlands Open Field Project and work using aerial photos from circa 1994	Almost Complete Coverage	Digital Vector MapInfo Layer	1994	Warwickshire County Council H:\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mapdata\ridge and furrow\compr+f.TAB	Warwickshire County Council?
Ancient Woodland	The Ancient Woodland Inventory for England	Complete Coverage	Digital Vector MapInfo Layer	2004	Warwickshire County Council H:\HCSMuseumFieldServices\Data\Ancient Woodland Also available online at: http://www.magic.gov.uk	English Nature (Natural England)
Flood Zone Map	The Flood Map	Complete Coverage	Digital Vector MapInfo Layers	October 2006 (and continued updates)	Warwickshire County Council H:\HCSMuseumFieldServices\Data\Floodzone\Tab	Environment Agency

Supplementary Sources

Source Name	Description	Coverage	Format	Original Source Date	Location	Copyright
Geology	BGS DiGMapGB50 Geological Data	Complete Coverage	Digital Vector MapInfo Layer	1998-2006 but based on earlier paper Geology maps	Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\Assessment Project\GIS Data\BGS Geology Data\warwickshire_solihull\DiGMapGB50\MapInfo_3_14	BGS
Urban Areas	Urban Areas map (where areas of settlement have more than 1,500 inhabitants)	Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\Assessment Project\GIS Data\ONS\EW_UrbanAreas_G.TAB	Office for National Statistics
Joint Character Areas		Complete Coverage	Digital Vector (polygon) MapInfo		Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\Countryside	Countryside Agency

			Layer		Agency\Character Area Shapefiles\Joint Character Areas\Joint Character Areas.TAB Also available online at: http://www.magic.gov.uk	
Landscape Character		Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\Countryside Agency\Character Area Shapefiles\Landscape Character Types\Landscape Character Types.TAB	Countryside Agency
LDUs Level 1	Landscape Description Units at level 1.	Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\Countryside Agency\Character Area Shapefiles\Landscape Description Units\Landscape Description Units.TAB	Countryside Agency and Living Landscapes Project
LDUs Level 2	Landscape Description Units at level 2 (better definition)	Complete Coverage	Digital Vector (polygon) MapInfo Layer	2006?	Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\SHPWarks_2(b).TAB	Countryside Agency and Living Landscape Project?
Google Earth/ Google Map	Digital Online Data Streamed Mapping Software with aerial photography coverage	Complete Coverage (however resolution varies)		Appears to be between 2000-2006?	Online: http://earth.google.com/ or http://maps.google.com/	Google and others (needs software to run it, however there is an online version)
Registered Common Land	Map showing National Registered Common Land	Complete Coverage	Digital Vector (polygon) MapInfo Layer		Warwickshire County Council H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Data\CommonLand.Tab	Countryside Agency
Beighton's Maps of Warwickshire	Maps of the Hundreds of Warwickshire published in Dugdale's Antiquities of Warwickshire	Complete Coverage	Black and White Paper Maps	1725	In Antiquities of Warwickshire by Sir William Dugdale (1730). Held at Warwickshire County Council, Museum Field Services, The Butts, Warwick, CV34 4SS	
Greenwoods Map of Warwickshire			Colour Paper Maps (Original). Black and White Copies used.	1822	Original colour maps are held in the Warwickshire County Records Office Black and White Copies are held at the Warwickshire County Council, Museum Field Services, The Butts, Warwick, CV34 4SS	
Victoria County History	The Victory History of the Counties of	Complete Coverage	Book	1904-1969	Copies held at Warwickshire County Council, Museum Field Services, The Butts, Warwick,	

	England, Warwickshire Vols 1-8				CV34 4SS	
Contour Mapping	Digital Contour maps of Warwickshire created by processing Digital Terrain / Surface data acquired by a technology known as IFSAR	Complete Coverage	Digital Vector MapInfo Layer	2002-2004	Warwickshire County Council H:\HCSMuseumFieldServices\Data\Contours\ContoursWA.Tab	InterMap
Windows Live Local	Digital Online Data Streamed Mapping Software with aerial photography coverage	Complete Coverage at high resolution		1999-2001?	Online: http://local.live.com/	Microsoft Corporation and Others
Woodland and Trees	National Inventory of Woodland and Trees	Complete coverage (not yet received from Forestry Commission)	Digital Vector MapInfo Layer	?		Forestry Commission

Defining Polygons

The Warwickshire HLC is a predominantly desk-based exercise that draws together information from a variety of sources.

Polygons are defined by grouping together individual units from OS digital mapping on the basis of a common current land use, previous land use and morphology. Each polygon will therefore contain a particular combination of attributes which can be assigned to a single HLC type. Generally HLC polygons are digitised in MapInfo direct to screen at 1:10,000 scale.

In rural areas the usual minimum size for HLC polygons is 1 ha since it is assumed that landscape character cannot be reasonably determined for areas smaller than this. For urban areas though there may be cases where HLC polygons can be defined less than 1 ha in size. In general in HLC the approach has been to avoid small polygon sizes.

Data structure

Each of the Polygons created through the mapping process will have data attached to them as linked records held in the HLC module of the HBSMR software. The structure of the data is largely determined by the HLC module itself however Broad Types, HLC Types and associated attributes are customised to meet the requirements of the study area. The definitions of these can be found below.

The nature of the HLC module is that it is dynamic, enough so that new HLC types can be added and previously defined ones can be updated or changed. It is very

unlikely that the HLC Broad Types will change but for HLC types it is possible through the life of the project that new ones are identified. This has happened in the Pilot stage and they were easily added to the database (e.g. Common Grazed Woodland Type). It is hard to predict all the HLC Types that are going to be found over such a large and often diverse landscape.

HLC Information held in the GIS

Some data is held directly in the GIS, this is transferred across from the HLC record in the HBSMR HLC module:

Field	Explanation
HLCUID	Unique Identifier linking the polygon to the HLC record in the HBMSMR database
Broad Type	HLC Broad Type
HLC Type	HLC Type
Name	Name of HLC record
Summary	Summary description
Confidence	Level of confidence that area is of particular HLC type

At the moment the HLC Broad Type and HLC Type is only being shown in the GIS as the short code used in the HLC database. It is hoped to alter this to show the actual HLC Broad Type and HLC Type name.

Other spatial data (such as size of polygon etc) is held automatically by the GIS software.

Historic Landscape Character Broad Type Definitions

Each of the HLC records in the database is assigned a basic classification category, known as an HLC Broad Type. In the Warwickshire HLC there are 12 Broad Types as defined below.

Broad Type	Code	Scope Note
Unimproved land	UIM	Areas of land that have remained largely unimproved over a period of time this includes Heathland, Commons and Unimproved Grassland.

Fieldscapes	FSC	Areas of land that are identified as being used for some form of agriculture. This will be predominantly enclosed land but includes previous medieval open fields.
Woodland	WDL	Areas of land that are predominantly covered with trees.
Water and valley floor	WAT	Areas of land that are dominated by water or water related features
Industrial	IND	Areas of land that have been identified as having a predominantly industrial component but are not related to the extractive industries.
Extractive	EXT	Areas of land that have been identified as being related to the extractive industries.
Military	MIL	Areas of land that are being used for military purposes.
Designed landscape (ornamental, parkland, recreational)	PAR	Areas of land that have been identified as having a predominantly designed aspect to them.
Settlement	SET	Areas of land that have a predominantly populated and settled character, this also includes farms and farmsteads.
Transportation	TRA	Areas of land that are related to some form or transportation.
Civic and Commercial	CIV	Areas of land that have a predominantly civil or commercial use.
Orchards and Allotments	ORC	Areas of land that can be identified as some form of small-scale horticulture. This type includes more modern nurseries and garden centres.

Historic Landscape Character Type Definitions

Each of the previous HLC Broad Types have been further sub-divided into more specific Historic Landscape Character Types and each HLC record will be associated with one of these.

Broad Type	Subtype	Code	Scope Note	Current/ Previous/
Unimproved land	**Heathland**	**1**	Areas that have been identified as heathland by English Nature's Lowland Heathland Inventory and by the Warwickshire, Solihull and Coventry Habitat Biodiversity Audit. It is further defined by the UK Biodiversity Action Plan.	Both

	Unimproved Scrubland	**117**	Areas of unimproved land that do not fall into any of the other categories. These generally are areas of scrub where the landscape, geology, soil type or for other reasons have left the land unusable.	Both
	Other Commons	**2**	Areas of common land identified on the Countryside Agency's National Registered Common Land Map or other identifiable common land that does not fall into the other categories.	Both
	Unimproved Grassland	**3**	Areas that have been identified by the Warwickshire, Solihull and Coventry Habitat Biodiversity Audit as Unimproved Grassland either of acidic, neutral or calcareous type.	Both
Fieldscapes	**Rectilinear Squatter Enclosure**	**10**	Small rectilinear fields usually with a more ordered appearance and predominantly with straight boundaries. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity.	Both
	Meadow	**108**	A piece of grassland, often near a river, permanently covered with grass which is mown for use as hay. Generally these are found as long thin fields with sinuous boundaries alongside rivers, brooks and streams.	Both
	Encroachment Enclosure	**11**	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.	Both
	Floodplain	**116**	Areas of land that are recognised as regularly flooding or at risk of flooding from nearby rivers, brooks or other water courses. Often this land is used as meadow.	Both
	Small Irregular Fields	**12**	Small irregular fields which cannot be assigned to one of the other historic landscape character types. Includes small meadows and closes not occurring next to settlements.	Both
	Large Irregular Fields	**13**	Large irregular fields with a number of sinuous boundaries which cannot be assigned to one of the other historic landscape character types. Includes enclosure patterns created through the amalgamation of fields since the publication of the 1st edition OS	Both
	Piecemeal Enclosure	**14**	Field systems that have been created out of the medieval open fields by informal agreement. They appear to have been established on a field by field basis and often are small irregular fields with at least two boundaries of a reverse 'S' curve or 'dog-leg	Both
	Re-organised Piecemeal Enclosure	**15**	Small irregular or rectilinear fields that have lost 10% or more field boundaries since the OS 1st edition mapping or areas of large irregular or rectilinear fields. At least two field boundaries will have a reverse 'S' curve or 'dog-leg' morphology.	
	Planned Enclosure	**16**	Small or large enclosures with a predominantly straight boundary morphology giving a geometric, planned appearance. Laid out by surveyors these field patterns are the result of later enclosure during the 18th and 19th centuries.	Both

	Other Small Rectilinear Fields	**17**	Small rectilinear fields which cannot be assigned to one of the other historic landscape character types. Includes small meadows and closes not occurring next to settlements.	Both
	Other Large Rectilinear Fields	**18**	Large rectilinear fields which cannot be assigned to one of the other historic landscape character types. Includes enclosure patters created through the amalgamation of fields since the OS 1st edition mapping.	Both
	Very Large Post War Fields	**19**	Very large fields (over 8Ha, often much larger) created since the OS 1st edition mapping. These have been formed usually as a result of Post-War agricultural improvements intended to meet the requirements of intensive arable cultivation.	Both
	Drained Wetlands	**20**	Small or large, irregular or rectilinear fields where most of the boundaries will be defined by the course of drainage ditches, some boundaries may also follow watercourses.	Both
	Medieval Open Fields	**4**	Areas which are likely to have formed part of medieval open fields suggested through the presence of ridge and furrow earthworks or piecemeal enclosure.	Previous only
	Paddocks and Closes	**5**	Small and generally irregular fields located on the edge of settlements usually representing small meadows and paddocks.	Both
	Small Assarts	**6**	Small irregular or rectilinear fields which appear to have been created through woodland clearance. These are usually located close to areas of ancient woodland.	Both
	Large Assarts with Sinuous Boundaries	**7**	Large irregular or rectilinear fields which appear to have been created through the clearance of woodland. These are usually located close to areas of ancient woodland. This type includes fields that have been created through the post 1880s amalgamation of fields.	Both
	Planned Woodland Clearance	**8**	Small and large rectilinear or irregular fields typically with straight boundaries that appear to have been created through woodland clearance. These are usually located close to areas of ancient woodland.	Both
	Irregular Squatter Enclosure	**9**	Small irregular fields usually with an unordered appearance predominantly with sinuous or curvilinear boundaries. They are usually associated with networks of lanes, access tracks or small cottages and quarries, mining or other industrial activity.	Both
Woodland	**Common Grazed Woodland**	**113**	An area of woodland that appears to have been used for common grazing. This may have meant opening glades and other areas within the woodland without destroying all the woodland itself. Typically these have been identified as Medieval use of woodland but may have been later.	Previous only

	Broad-leaved Ancient Woodland	**21**	Woodland designated by English Nature as 'Ancient Semi-Natural' (land that has had continuous woodland cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally) and identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved or broad-leaved semi-natural. This will include some of the oldest woodland in the county probably dating back to at least the medieval period.	Both
	Mixed Ancient Woodland	**22**	Woodland designated by English Nature as 'Ancient Semi-Natural' (land that has had continuous woodland cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally) and identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed or mixed semi-natural. This will include some of the oldest woodland in the county probably dating back to at least the medieval period, however some parts may have been planted with coniferous species.	Both
	Replanted Ancient Woodland	**23**	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) and identified by the Forestry Commission or the Warwickshire Habitat Biodiversity Audit as being replanted or containing conifers or young trees. These areas were probably cleared and replanted during the 19th or 20th century.	Both
	Broad-leaved Woods with Sinuous Boundaries	**24**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved and which have predominantly sinuous boundaries. Whilst not designated as 'Ancient' woodland these areas may potentially contain fragments of older woodland.	Both
	Mixed Woods with Sinuous Boundaries	**25**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed and which have predominantly sinuous boundaries. These areas may represent stands of older woodland colonised by or partially planted with conifers.	Both
	Coniferous Woods with Sinuous Boundaries	**26**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being coniferous and which have predominantly sinuous boundaries. In most cases these are likely to represent plantations.	Both
	Broad-leaved Plantation	**27**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being broad-leaved plantation. Straight boundary morphology or the wood's name may suggest the plantation originates from the 19th or 20th century.	Both
	Mixed Plantation	**28**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being mixed plantation. Straight boundary morphology or the wood's name may suggest the plantation originates from the 19th or 20th century.	Both

	Coniferous Plantation	**29**	Woodland identified by the Forestry Commission and the Warwickshire Habitat Biodiversity Audit as being coniferous plantation. Straight boundary morphology or the wood's name may suggest the plantation originates from the 19th or 20th century.	Both
	Other Plantation	**30**	Woodland plantation with no designation and not identified as one of the previous types by the Forestry Commission or the Warwickshire Habitat Biodiversity Audit.	Both
Water and valley floor	**Artificial Pond/Lake**	**109**	Generally smaller bodies of water that can be recognised as artificial through the presence of retaining earthworks and/or dams but are not recognised as reservoirs. This will include ornamental lakes, fishponds, flooded quarries and ponds associated with	Both
	Floodplain	**31**	Areas of land that can be identified as river floodplain but do not fall into one of the fieldscape categories.	Both
	Reservoir	**32**	Bodies of water that can be recognised as being artificially created generally for the purposes of water supply. These will usually date to the 20th century.	Both
	Natural Open Water	**33**	Bodies of open water generally over 1ha which have natural origins.	Both
	Moss/Raised Bog	**34**	Areas of unimproved peatland. The conditions of these environments generally sustain ecologically rich wetland habitats and favour the preservation of organic remains.	Both
	Marsh	**35**	Areas of land that do not fit into any other categories and have been identified as marsh or marshy grassland by the Warwickshire Habitat Biodiversity Audit or marked as marsh on Ordnance Survey mapping.	Both
	Water Meadow	**36**	Areas of land identified as floodplain areas and known to be used as meadows fertilized by allowing floodwater to cover it in winter. There are currently no known examples of this type in Warwickshire.	Both
Industrial	**Pre-1880s Industrial Complex**	**37**	Areas of industrial activity marked on the Ordnance Survey 1st edition mapping (1880's) and that does not fall into one of the more specific industrial categories.	Both
	Post-1880s/Pre 1955 Industrial Complex	**38**	Areas of industrial activity marked on the Ordnance Survey 1955 edition mapping but not marked on the Ordnance Survey 1st edition mapping (1880's) and that does not fall into one of the more specific industrial categories.	Both
	Post 1955 Industrial Complex	**39**	Areas of industrial activity marked on the modern Ordnance Survey mapping but not marked on the Ordnance Survey 1955 mapping and that does not fall into one of the more specific industrial categories. These will generally include modern industrial estates	Both
	Derelict Industrial Land	**40**	Areas of land that previously were of industrial use and have been cleared but which subsequently have had no development on them.	Both

	Other Industrial	**41**	Areas of industrial activity that do not fit into any of the other industrial types.	Both
	Waste Tip	**42**	Areas of land that have been used for the large scale dumping or filling or rubbish. This type will include landfill sites and large domestic rubbish dumps.	Both
	Utility Works	**43**	Industrial areas that can be identified as related to the utility industry. This type will generally include sewage works, water treatment works, power stations and gas works.	Both
	Brick Works	**44**	Areas marked on Ordnance Survey maps as brick works.	Both
	Motor Industry	**45**	Areas of land with industrial activity related to the motor industry.	Both
	Radio/ Tele-communications	**46**	Areas that are clearly marked on Ordnance Survey mapping as large scale radio/telecommunications works.	Both
Extractive	**Lime Works**	**115**	Areas of land that relate to the lime extraction industry.	Both
	Coal Extraction	**47**	Areas of land that relate to the coal mining industry.	Both
	Sand and Gravel Extraction	**48**	Areas of land that relate to the sand and gravel extraction industry.	Both
	Hard Rock Extraction	**49**	Areas of land that relate to the hard rock extraction industry.	Both
	Clay Extraction	**50**	Areas of land that relate to the clay extraction industry.	Both
	Cement Works	**51**	Areas of land that relate to the cement industry.	Both
Military	**Hostel**	**114**	A military installation used for housing people, it may be temporary or more permanent.	Both
	Barracks/Training Ground	**52**	Military bases identified from Ordnance Survey mapping.	Both
	Military Depots	**53**	Military storage facilities identified from Ordnance Survey mapping.	Both
	Military Airfield	**54**	Military airfield or airbase identified from Ordnance Survey mapping.	Both
Designed landscape (ornamental, parkland, recreational)	**Park/Garden**	**56**	Areas identified as parks and gardens from English Heritage's Historic Parks and Gardens Register as well as Ordnance Survey mapping and any evidence from the Warwickshire Historic Environment Record.	Both
	Golf Course	**57**	Areas identified as golf courses from Ordnance Survey mapping.	Both
	Sports Field	**58**	Areas identified as sports fields from Ordnance Survey mapping.	Both
	Cemeteries	**59**	Areas identified as cemeteries from Ordnance Survey mapping, these will generally include the larger municipal cemeteries and not smaller church	Both

			cemeteries.	
	Racecourse	**60**	Areas identified as animal racecourses from Ordnance Survey mapping.	Both
	Public Open Space	**61**	Areas of land generally with some degree of landscaping and accessible to the public usually in an urban context. These will mostly be identifiable from Ordnance Survey mapping and the Warwickshire Habitat Biodiversity Assessment's 'Amenity Grassland' type.	Both
	Deer Park	**62**	Areas of parkland that have been specifically designed for the keeping of deer. Some of these may date back to the medieval period where the prime purpose of these parks was for hunting.	Both
	Country Spa	**63**	Areas usually in a countryside setting which have been designed and developed specifically as a form of spa or retreat.	Both
Settlement	**Historic Settlement Core**	**64**	Areas that can be identified as the historic core of a settlement either through morphology or information from the Warwickshire Historic Environment Record. In most cases these will represent the extent of the settlement at the end of the medieval period.	Both
	Medieval Settlement	**65**	Areas that have been identified as having a medieval settlement component either through information from the Historic Environment Record or the interpretation of earthworks in the landscape. This category will not necessary include areas of current settlement	Previous only
	Pre 1880s Terraced	**66**	Areas that are recognised as predominantly terraced housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core.	Both
	Pre 1880s Semi-Detached	**67**	Areas that are recognised as predominantly semi-detached housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core.	Both
	Pre 1880s Detached	**68**	Areas that are recognised as predominantly Detached housing as marked on the Ordnance Survey 1st edition mapping. In many cases this area will have already been defined as the historic settlement core.	Both
	Post 1880s/Pre 1900s Terraced	**69**	Areas of terraced housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.	Both
	Post 1880s/Pre 1900s Semi-Detached	**70**	Areas of Semi-detached housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.	Both
	Post 1880s/Pre 1900s Detached	**71**	Areas of Detached housing marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition.	Both

	Post 1900s/Pre 1955 Terraced	**72**	Areas of terraced housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.	Both
	Post 1900s/Pre 1955 Semi-Detached	**73**	Areas of Semi-detached housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.	Both
	Post 1900s/Pre 1955 Detached	**74**	Areas of Detached housing marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition.	Both
	Post 1955 Terraced	**75**	Areas of terraced housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.	Both
	Post 1955 Semi-Detached	**76**	Areas of Semi-detached housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.	Both
	Post 1955 Detached	**77**	Areas of Detached housing marked on the modern Ordnance Survey mapping but not on the 1955 edition.	Both
	Farm Complex pre 1880s	**78**	Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 1st edition mapping. These are usually also marked with a farm name.	Both
	Farm Complex Post 1880s/Pre 1900s	**79**	Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 2nd edition mapping but not on the 1st edition. These are usually also marked with a farm name.	Both
	Farm Complex Post 1900s/Pre 1955	**80**	Areas covered by farmhouses and associated buildings marked on the Ordnance Survey 1955 edition mapping but not on the 2nd edition. These are usually also marked with a farm name.	Both
	Farm Complex Post 1955	**81**	Areas covered by farmhouses and associated buildings marked on the Ordnance Survey modern mapping but not on the 1955 edition. These are usually also marked with a farm name.	Both
	Country House	**82**	Areas of usually isolated settlement in a rural or semi-rural setting often associated with parkland or designed landscapes. In many cases in Warwickshire these will be a named 'Hall' and of 18th and 19th century dates.	Both
	Flats and Apartments	**83**	Areas marked as multi-storey residential buildings.	Both
	Derelict Land	**84**	Areas of land that previously was some form or settlement, currently lies unused and does not fit any other HLC category.	Both
Transportation	**Major Road Junction**	**85**	Areas of major road junctions and roundabouts over 1ha in size.	Both
	Train Station/Sidings	**86**	Areas that form train stations and large sidings as marked on modern Ordnance Survey mapping.	Both
	Canal Lock/Basin	**87**	Canal locks, basins and wharfs as marked on modern Ordnance Survey mapping.	Both

	Civil Airport	**88**	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.	Both
	Motorway Service Area	**89**	Service areas associated with motorways and marked on modern Ordnance Survey mapping.	Both
	Canal	**90**	Areas developed and used as artificial waterways. In some cases this will include old canals and canal arms that have become abandoned and disused.	Both
	Motorway	**91**	Motorways as marked on modern ordnance survey mapping. These will all have occurred post 1960 and often dramatically alter the landscape.	Both
	Railway	**92**	Modern railways as marked on Modern 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.	Both
	Disused Railway	**93**	Areas of land identifiable as a previously active railway line. These disused railway lines are often marked on Ordnance Survey mapping and when not redeveloped retain a specific landscape character.	Both
	Park and Ride	**94**	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 railway stations.	Both
Civic and Commercial	**Exhibition/ Conference Centre**	**100**	Generally large buildings, stadiums and areas that are primarily used as some form of exhibition or conference centre.	Both
	Camping/ Caravan Site	**101**	Areas of land that are marked as camping and/or caravan sites on modern Ordnance Survey mapping.	Both
	Hotel	**102**	Generally large hotel complexes that are clearly marked on Ordnance Survey mapping. These are very often found outside or on the edge of major settlements.	Both
	Stadium	**110**	An area where some form of professional sport is held.	Both
	Municipal and Civic	**95**	Areas within larger settlements that are defined by the presence of large civic buildings such as town halls, local authority buildings, libraries and museums. In some cases these complexes may also be found out of town.	Both
	Educational	**96**	Educational establishments including schools, colleges and universities.	Both
	Hospital	**97**	Areas of large hospital complexes.	Both
	Commercial and Retail	**98**	Areas of large stores, commercial areas and retail parks marked as such on modern Ordnance Survey mapping. These areas may be found within or on the edge of urban areas.	Both
	Leisure Centre	**99**	Areas marked as leisure centres, swimming pools or other leisure activity areas on Ordnance Survey mapping.	Both

Orchards and Allotments	**Pre 1880s Orchard**	**103**	Orchards marked on the Ordnance Survey 1st edition mapping. These will generally date to post-medieval or 19th century in origin.	Both
	Post 1880s Orchard	**104**	Orchards that are marked on modern Ordnance Survey mapping but absent from the 1st edition suggesting a more modern origin.	Both
	Pre 1955 Allotment	**105**	Allotments marked on the 1955 edition Ordnance Survey mapping. These will probably have been laid out prior to or during the Second World War.	Both
	Post 1955 Allotment	**106**	Allotments marked on modern Ordnance Survey mapping but not on the 1955 edition.	Both
	Nursery/Garden Centre	**107**	More modern nurseries and garden centres identified from modern Ordnance Survey mapping.	Both

Historic Landscape Character Attributes

Each of the HLC Broad Types have a series of attributes assigned to them. When an HLC record is created and polygon defined, key characteristics of that area can then be displayed for that record.

Attribute Type Code	Attribute Description	Attribute Value Code	Value	Notes	HLC Broad Type assigned
ENCL	Enclosed	1	Yes		UIM, WAT
		2	No		
FSIZE	Predominant Field Size	40	Large	Between 4-8 ha	FSC
		41	Small	Less than 2 ha	
		42	Medium	Between 2-4 ha	
		47	Very Large	Greater than 8 ha	
SHAPE	Field Shape	3	Rectilinear		FSC
		4	Irregular		
PMOR	Predominant Primary Boundary Morphology	5	Straight		FSC, WDL
		6	Sinuous		
		7	Curvilinear		
SMOR	Predominant Secondary Boundary Morphology	10	Curvilinear		FSC
		24	None		
		8	Straight		
		9	Sinuous		
IMOR	Internal Boundary Morphology	11	Dog-leg		FSC
		12	Reverse S Curve		

		13	Following Water Course		
		14	Co-axial		
		25	None		
EMOR	External Boundary Morphology	15	Sinuous		FSC
		16	Following Settlement Edge		
		21	Following Line of Transportation		
		22	Woodland		
		23	None		
		62	Following Administrative Boundary		
		65	Following Water Course		
STATU	Status	17	Active		IND, EXT, MIL, TRA
		18	Inactive		
		39	Abandoned		
		61	Derelict		
		66	Unknown		
SETLA	Settlement Layout	67	Farm: Linear Plan		SET
		68	Farm: 'L' Plan		
		69	Farm: Dispersed Plan		
		70	Farm: Loose Courtyard Plan		
		71	Farm: Regular Courtyard 'L' Plan		
		72	Farm: Regular Courtyard 'U' Plan		
		73	Farm: Regular Courtyard 'E' Plan		
		74	Farm: Full Regular Courtyard Plan		
		75	Farm: Irregular		
		76	None		
		77	Urban: Linear		
		78	Urban: Dispersed/Scattered		
		79	Urban: Irregular		
		80	Urban: Organic Plan		
		81	Urban: Planned Layout		
ELEV	Elevation	19	High Ground		UIM
		20	Low Ground		

LOSS	Percentage of Fields Lost Since Os 1st edition	26	0%		FSC
		27	10%		
		28	20%		
		29	25%		
		30	30%		
		31	40%		
		32	50%		
		33	60%		
		34	70%		
		35	75%		
		36	80%		
		37	90%		
		38	100%		
		64	Gain	A gain of fields since the OS 1st edition.	
BLOSS	Percentage of Boundary Loss since OS 1st edition	48	0%		FSC
		49	10%		
		50	20%		
		51	25%		
		52	30%		
		53	40%		
		54	50%		
		55	60%		
		56	70%		
		57	75%		
		58	80%		
		59	90%		
		60	100%		
		63	Gain	A gain of field boundaries rather than a loss.	
ON1ED	On 1st Edition OS Mapping	45	Yes		WDL
		46	No		

Rule-Based Determination of HLC Types

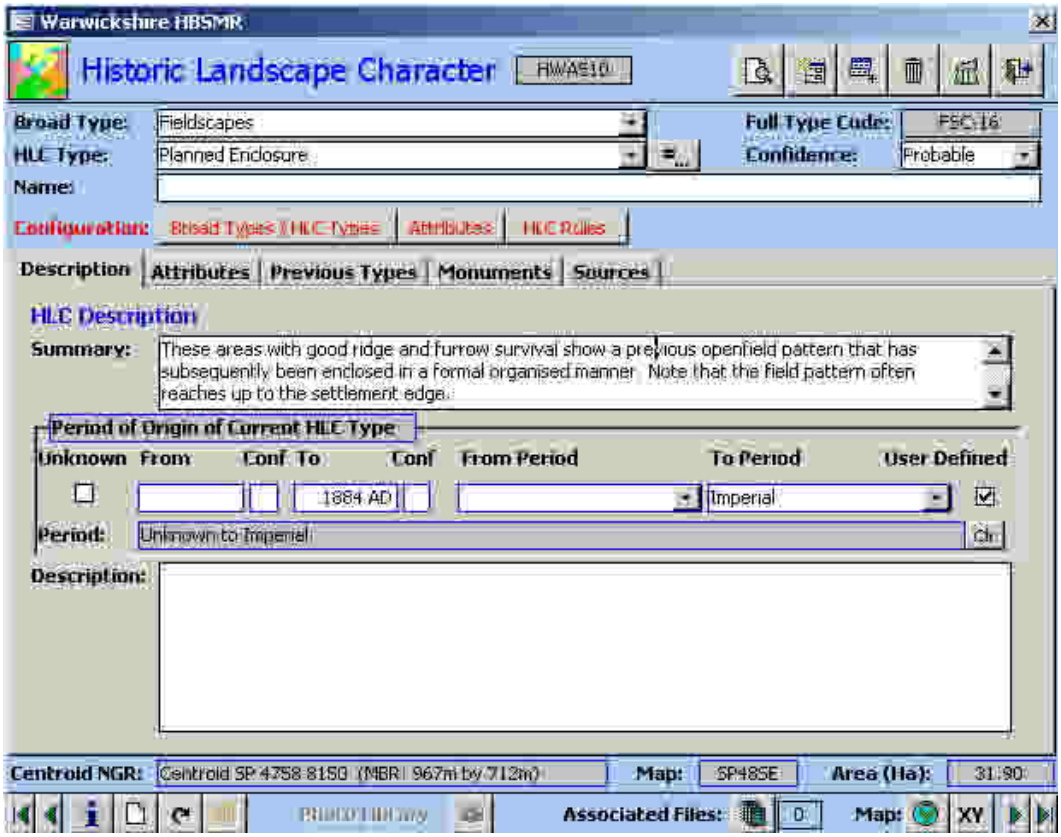
Within the HBSMR HLC module it is possible to use rule-based determination of HLC types based on the Attributes, Previous Types and Period information entered for each HLC area. Parameters are defined against which each HLC record is tested, if the data collected for an HLC record matches these parameters they can then automatically be assigned the correct HLC Type.

Use of rule-based determination has been experimented with for the Warwickshire HLC but it was felt this systemises the process of HLC taking the level of control

away from the person carryout out the HLC process essentially disconnecting them from the landscape. It is felt that with rule-based determination you are more inclined to fit landscapes into the rules you create rather than understand the Historic Landscape that exists. For these reasons it was decided not to use the rule-based determination option for the Warwickshire HLC.

Record Creation

Main Form



To create a record, first open the HLC module part of the HBSMR Software.

It is usual to go to the GIS and look at most of the core sources before adding a new record. This way the HLC type and details about the HLC area will be established and the information can be easily added.

Once a distinct HLC area has been identified a new record can be created by clicking on the new record button in the top right hand area.

A UID number is assigned automatically with the prefix HWA

Next the HLC Broad Type needs to be assigned from the drop down list. Following this the HLC Type can be assigned.

When this information has been added the Full Type Code (on the right hand side) is automatically generated.

The confidence level can be chosen from a drop down list. This list can be defined by the user but has been left as Certain, Probable or Possible. The idea is this goes to

inform how confident the creator of the HLC record is with the HLC Broad Type and HLC Type that have been assigned. For example there may be cases that a fieldscape area appears to have the character of Planned Enclosure but the confidence of this may only be 'probably' rather than 'certain' due to the evidence available.

A name can be assigned for each HLC record. Generally a rule has been adopted where if the HLC area being added has a known name (such as Piles Coppice for a woodland) then this should be recorded. Also where a sensible name can be defined such as 'Historic Core of Stratford-upon-Avon' then this can be added. However, there are many cases where Fieldscapes and other HLC Types can prove very difficult in naming. The attributes, summary and description are recorded elsewhere and it is felt these should not be replicated in the name therefore the policy has been not to invent names that provide no real relevance or do not add any information to the record. These rules may need to be reviewed in light of thinking about the final users of the HLC.

Below these fields are a series of tabs and each one of these will be dealt with in turn.

Tab 1 (Description)

Here the summary is first added followed by a more detailed description below this, both in free text fields. It has been found that for most of the time the length of the summary field is sufficient to fulfil the level of detail required. The type of information recorded is usually additional information that cannot be understood from other parts of the HLC record. In some cases an explanation of why a certain type was chosen or further detail on particular characteristics will be noted. These fields have been optional fields filled in at the discretion of the HLC officer, however after consultation with the Warwickshire Historic Environment Curatorial team (Planning/HER) it was felt that the Summary field needed to be mandatory and that it should reflect a concise summary of the record at a level easily understood from users who may only be viewing the records through the GIS with limited details and fields available. It was felt that end users may not be able to understand or use the data effectively especially if the HLC is to have a life beyond this project. It was agreed to start doing this in Stage 2 of the Warwickshire HLC project and observe if any serious time implications occurred as a result of this.

In the Description tab the period of origin for the Current HLC Type is also added. Here the more accurate the dating the better and often this will involve the dates of the sources used to determine the HLC type. The period is entered and stored in the same way as Period information elsewhere in the HBSMR and uses the same look-up table.

At this point the polygon is usually added through the GIS by clicking on the 'globe' button. This can of course be done at any time once the record has been created and has a UID number.

Spatial information, shown just below the tabs, is automatically extrapolated from the GIS.

To use the GIS link effectively in the HBSMR for the Warwickshire HLC project it was necessary to tweak the HBSMR software and how it loaded the GIS. This was so that the GIS loads all the right layers and is personalised for how the person carrying out the HLC wants. To do this first a MapInfo workspace has to be created that the user is happy with. Then the HBSMR shortcut has to be altered to point to an alternative HBSMR.ini file which in turn points to the specific MapInfo workspace.

For example the HBSMR shortcut icon was copied and the copies properties were changed. The target field was changed to:

"C:\Program Files\Microsoft Office\OFFICE11\MSACCESS.EXE" /wrkgrp "\\Lh¬nwvs1\LHSHARE1\BU\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mdb\smr3sys.mdw" "\\Lh¬nwvs1\LHSHARE1\BU\HCSMuseumFieldServices\SMR\HBSMRv3\Warks\mdb\HBSMR.mdb" /cmd G:\HBSMR.ini

Basically this opens Microsoft Access (in this case held on the C drive) then opens the HBSMR (smr3sys,mdw and HBSMR.mdb) and then uses a personalised INI file (G:\HBSMR.ini)

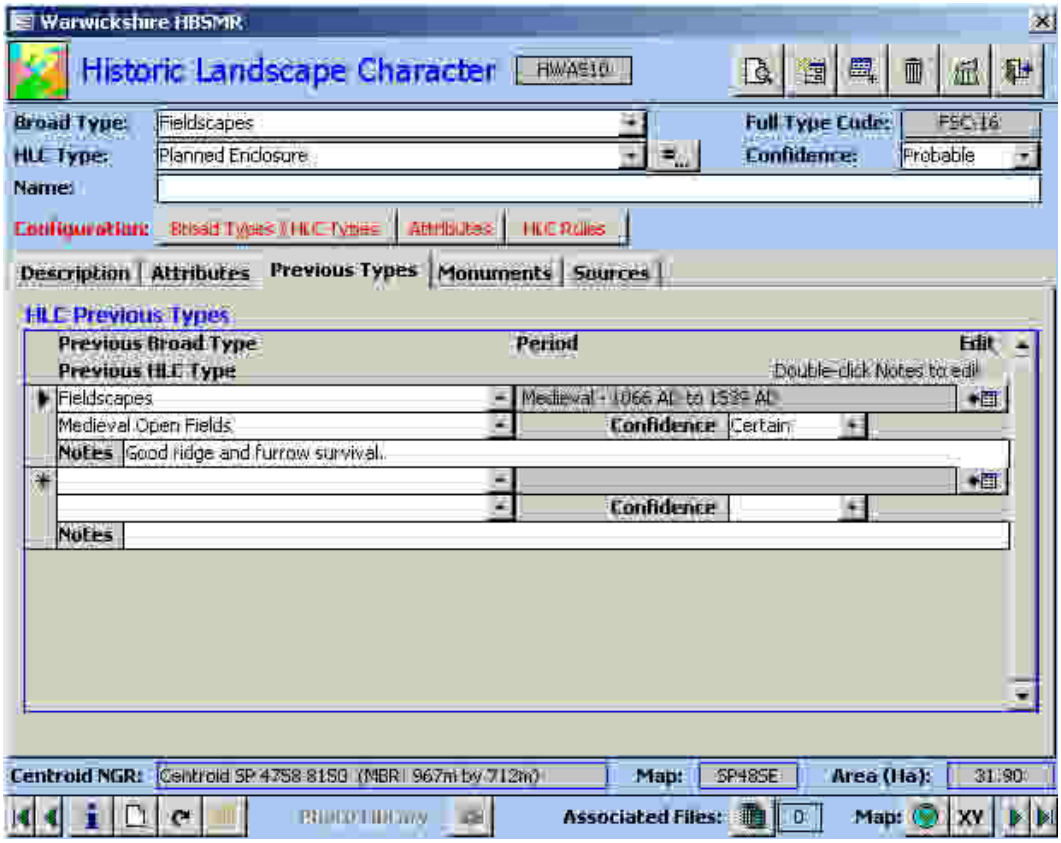
In the HBSMR.ini file a different MapInfo workspace is referenced in the [MapModule] section rather than the standard one. The workspace referenced is:

Workspace=H:\Confidential\HCSMuseumFieldServices\SMR\HLC\GIS\Workspaces\HLC.wor

Tab 2 (Attributes)

In this tab the attributes linked to the selected HLC Broad Type will be displayed. The values for each attribute can be selected from the drop down lists. The use of attributes helps maintain objectivity and consistency when it comes to assigning HLC Types.

Tab 3 (Previous Types)

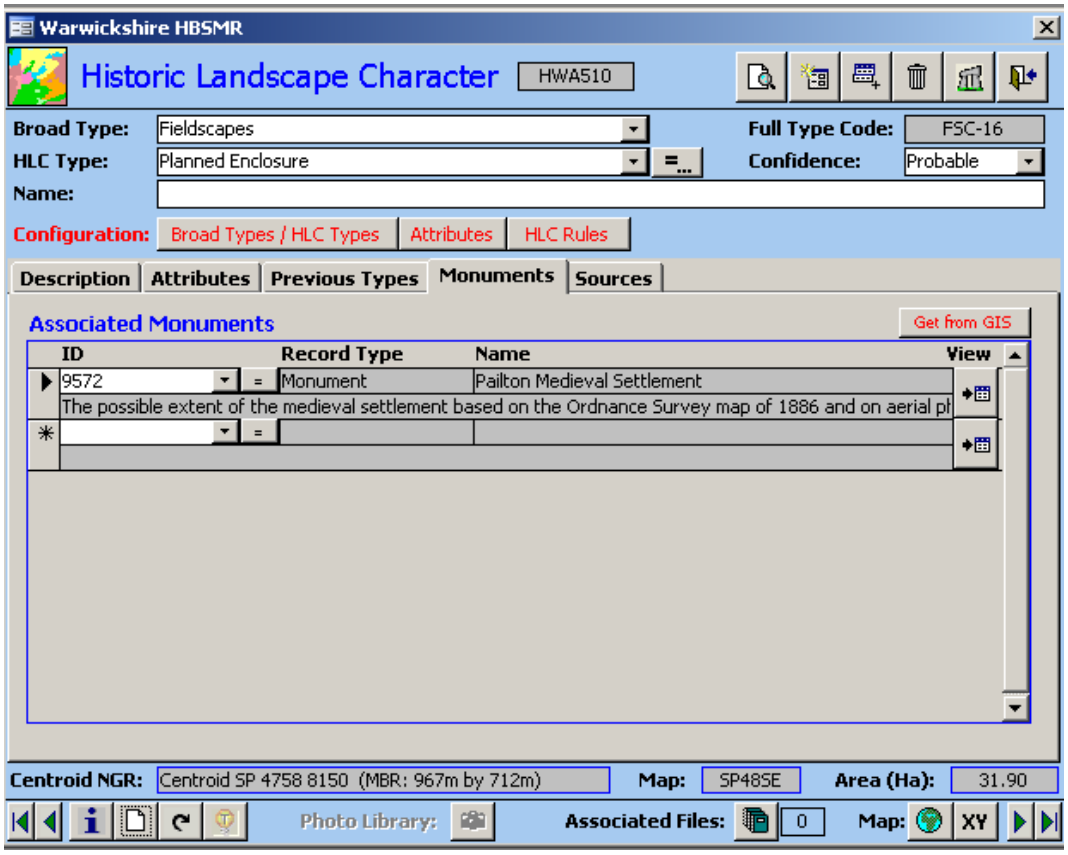


In this tab the former Historic Landscape Character is recorded. Multiple previous HLC types can be recorded for each HLC record. This is normally determined from such sources as historic mapping and the HER.

Like the main record the Previous Broad Type and Previous HLC Type along with the confidence level, dating and notes are added. As an example an HLC record may exist that has been recorded as Very Large Post-war fields, information from the HER and the shape of the fields on the OS 1st edition suggests that ridge and furrow existed in the same area. The previous Broad Type would then be fieldscape with HLC Type of Medieval Open Fields, the confidence could be Probable and the dating would be the medieval period. Further notes could be added to help show how this was determined.

In some cases it will not always be possible to determine a previous landscape character and this part of the record may be left blank.

Tab 4 (monuments)

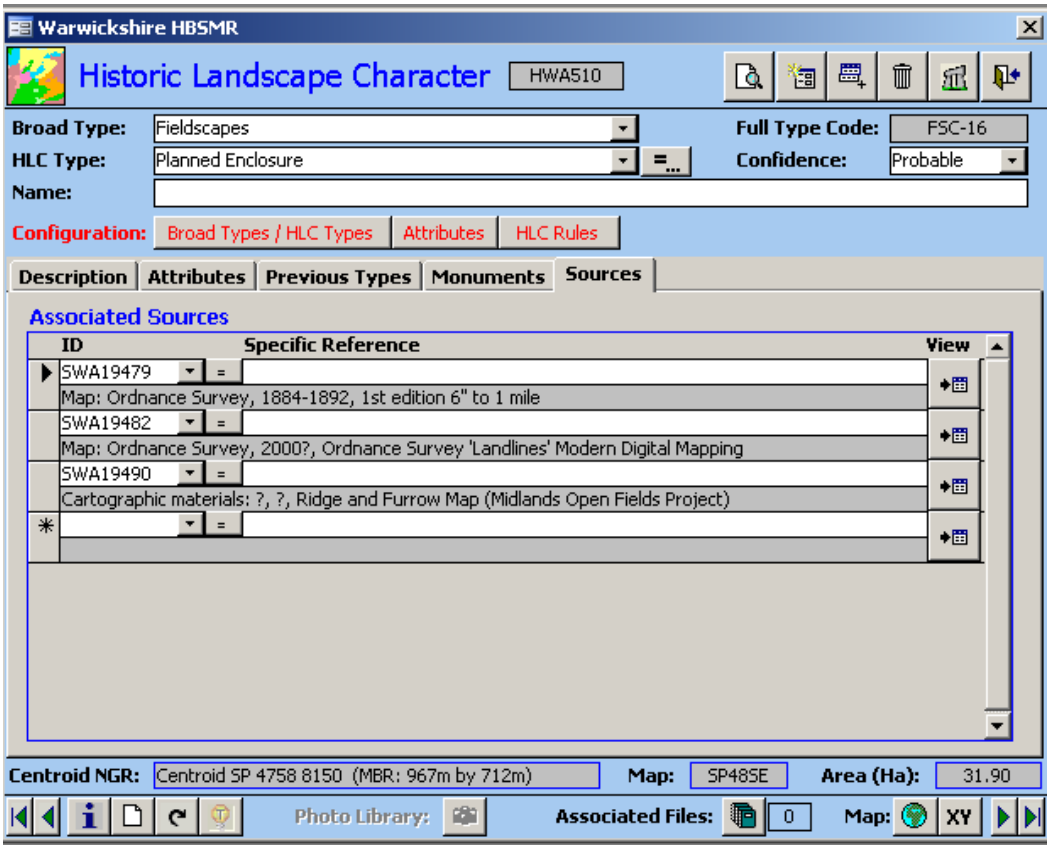


In this tab the known HER monuments in the area are recorded.

Once a polygon has been defined then clicking on the red 'Get From GIS' button will automatically check in the GIS which monument records fall within or intersect the HLC record polygon. The associated monument data is then added automatically including a direct link so that the HLC record will be seen in the relevant monument records.

Particular monuments can be linked manually if needed

Tab 5 (sources)



In this tab the relevant sources used to determine the HLC record are recorded.

Like the monument tab particular source records from the Source Module of the HBSMR can be linked to the HLC record.

Pilot Study

A pilot study took place as part of the first stage of the Warwickshire HLC Project. This was designed to test the methodology defined in the project design and to become more familiar with the HBSMR HLC Module.

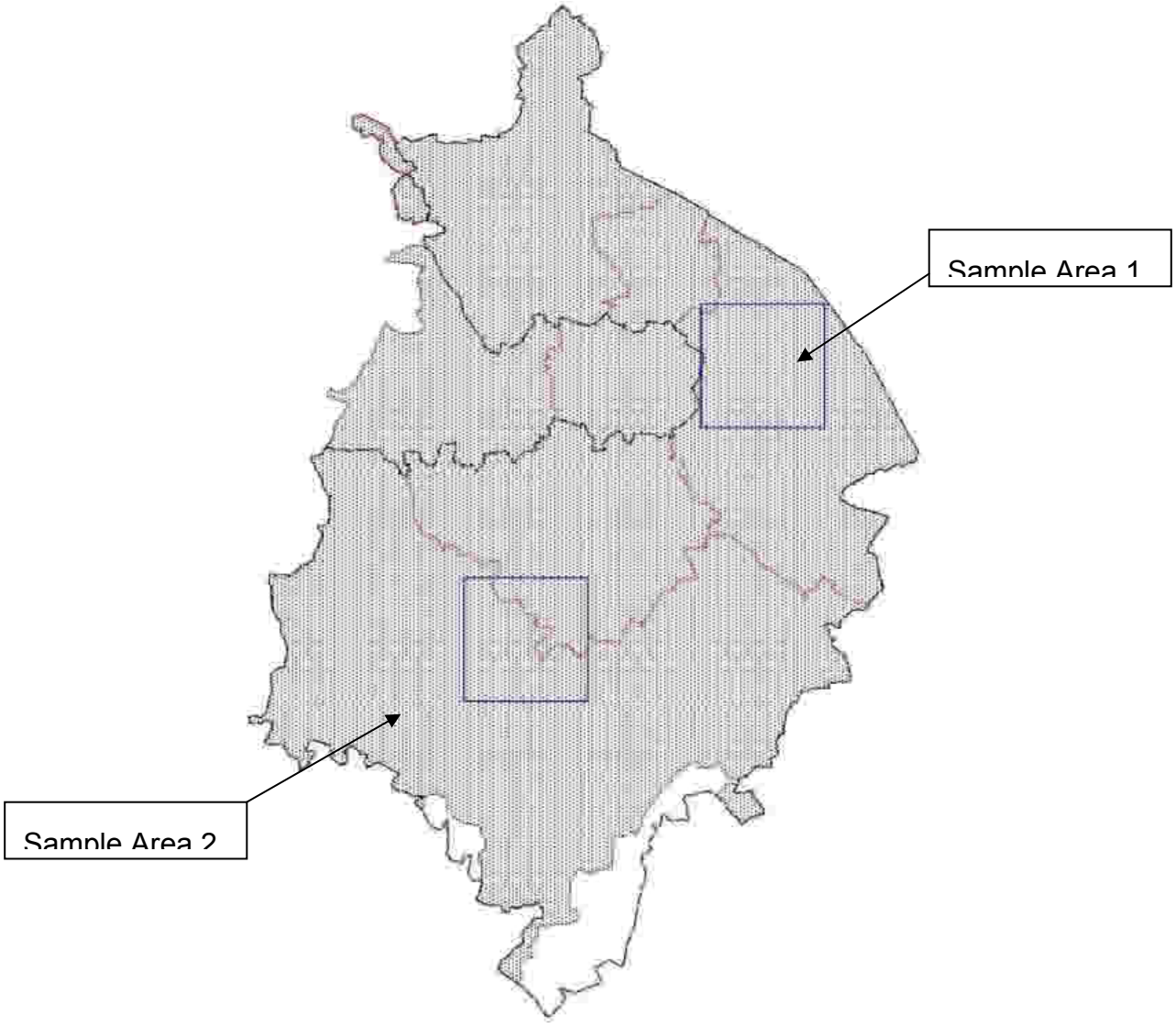
Pilot Sample Areas

Two 10,000 ha pilot sample areas were chosen in areas that it was felt would test the methodology against most of the main Landscape Character Areas identified by the Warwickshire Landscape Guidelines.

These were:

Sample 1 just to the northwest of Rugby and east of Coventry, taking in parts of the Dunsmore and High cross plateaux.

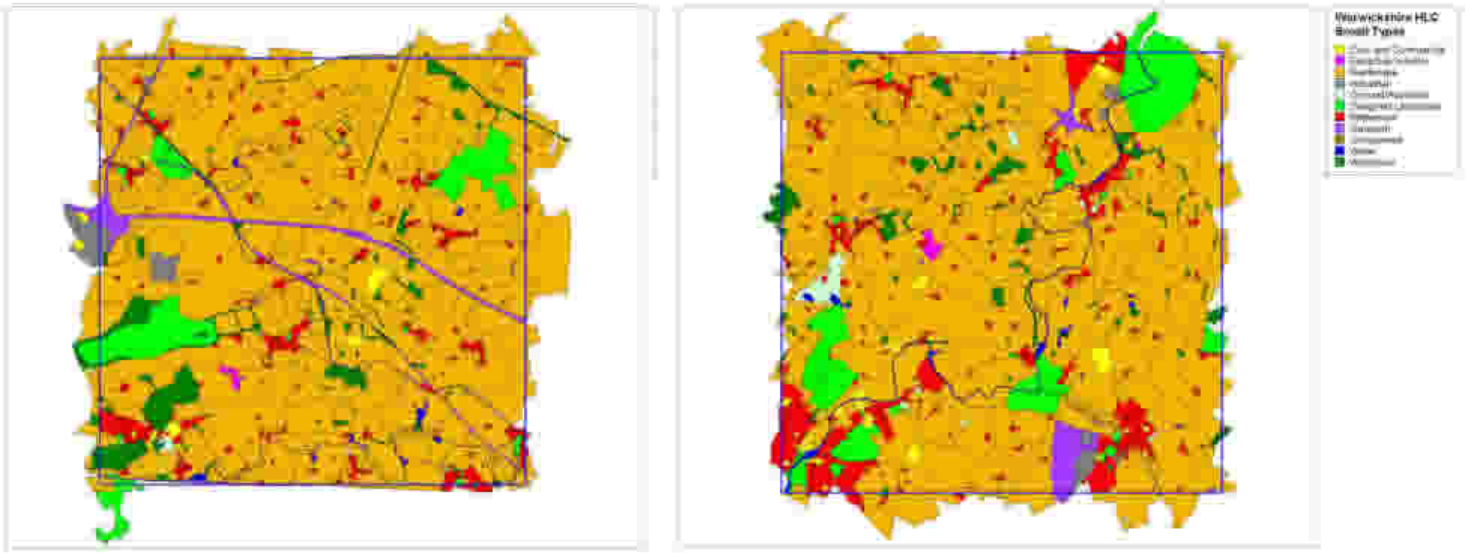
Sample 2 just to the south of Warwick and north and east of Stratford, which takes in parts of the Feldon, Avon Valley and Arden character areas.



Experiments

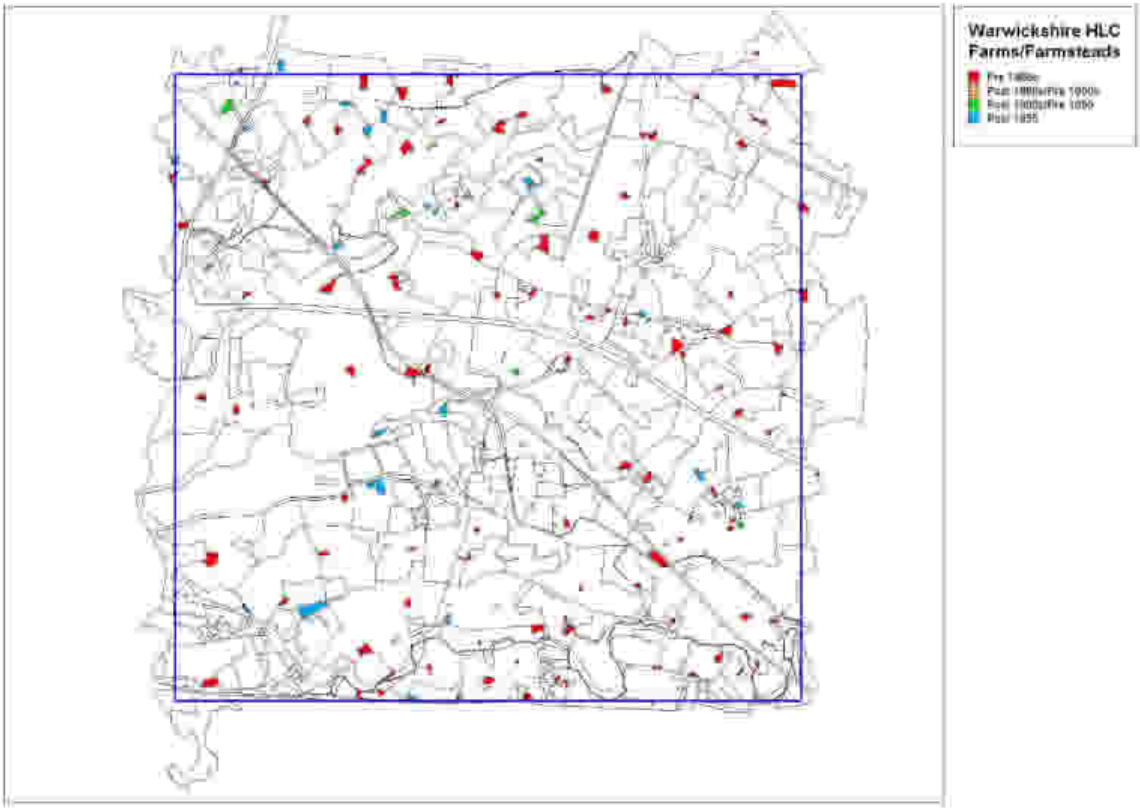
Some ideas and experiments in Historic Landscape Characterisation were trialled as part of the pilot phase. The first of these was in one sample area to map polygons and produce HLC records for large linear transportation features such as Motorways, Railways and Canals. These were not mapped in the second sample area so that a comparison could be made between the two. In most other HLCs these types of features are generally not mapped usually arguing that they are too small, not part of the Historic Landscape Character or on modern mapping anyway. For the Warwickshire HLC it is argued though that they are part of the make up of the Landscape and that they have had a big impact on Historic Landscape Character itself. A large motorway or railway carving through an old field system has changed the character of the landscape dramatically.

After presenting the results and in discussion with the Warwickshire HLC Project Team it was felt that the large linear features did add to the HLC project and were worthwhile including in the whole project area and as such will be mapped in the second sample area and throughout the rest of the project.



A second idea was to map any farms or farmsteads that were identified in the landscape. Generally these are smaller than 1 ha in size and as such are not usually included in HLCs. With Warwickshire being a predominantly rural county it was felt these were an intrinsical part of the landscape despite their small size, not only this but they can add information about the landscape or fieldscape around them that cannot be found elsewhere. The farms were mapped at a very basic level with just their immediate area around the farm buildings recorded along with their approximate period and name. At a later stage farm layout types were added as values in the attributes tab and although out of the scope of this project it is felt that this information can be added to records at a later date.

After some debate it was felt that the farms do add an extra dimension to the Warwickshire HLC and will prove useful in possible future projects when the Warwickshire HLC has taken place.



Results of Pilot Study:

- **22,100** Hectares Characterised (10.2 % of total project area 216,994 Hectares)
- **1411** HLC records created
- **32** Potential new archaeological sites located
- **24** HER Record updates noted

Some preliminary analysis was carried out on the pilot areas. For example with the first sample area we can compare the results determined so far to other landscape characterisation. Below is a map of the area with the HLC types displayed, the line across the middle marks the division of the very broad Landscape Character Areas. To the north is the High Cross Plateau, to the South is the Dunsmore Character area. Although the results of the HLC do not appear to match the division there are some broad characteristics that show a difference between the two identified character areas:

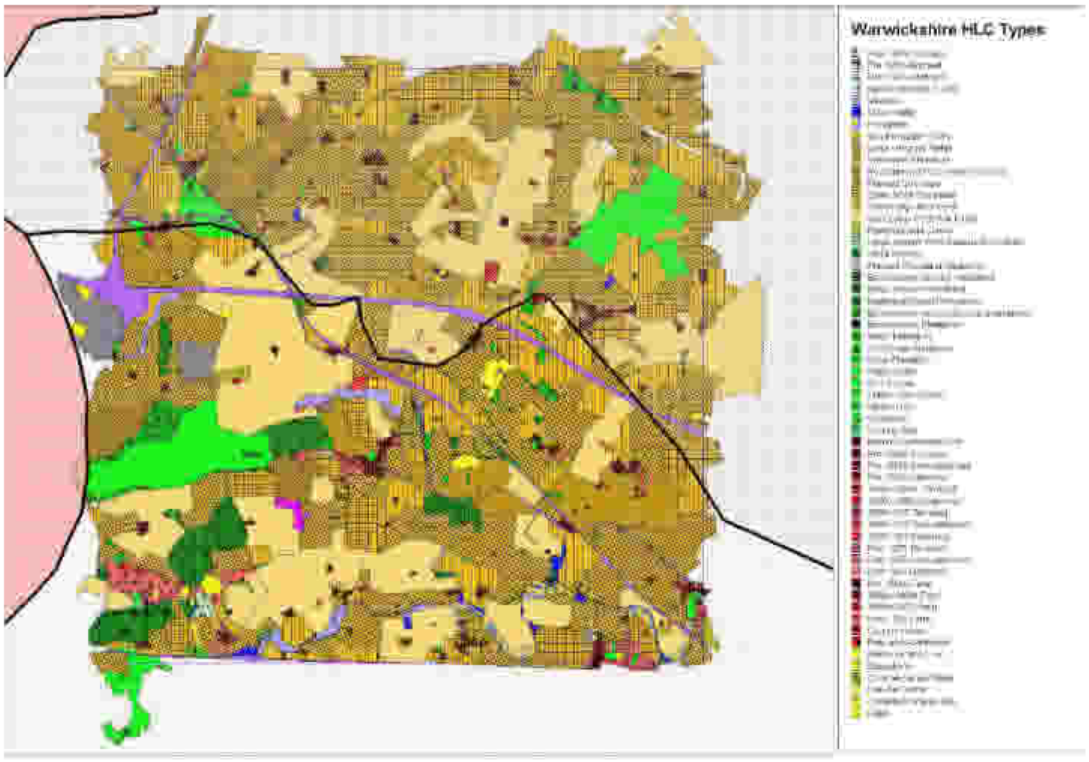
In the Northern part of pilot 1 (High Cross Plateau):

- More scattered farms and small villages usually of pre 1880's foundation and with relatively little expansion

- Very small infrequent scattered areas of woodland
- Some large parks and gardens
- Very mixed field patterns with equal amounts of older piecemeal enclosed fields, 18th-19th century planned enclosure and more modern very large fields

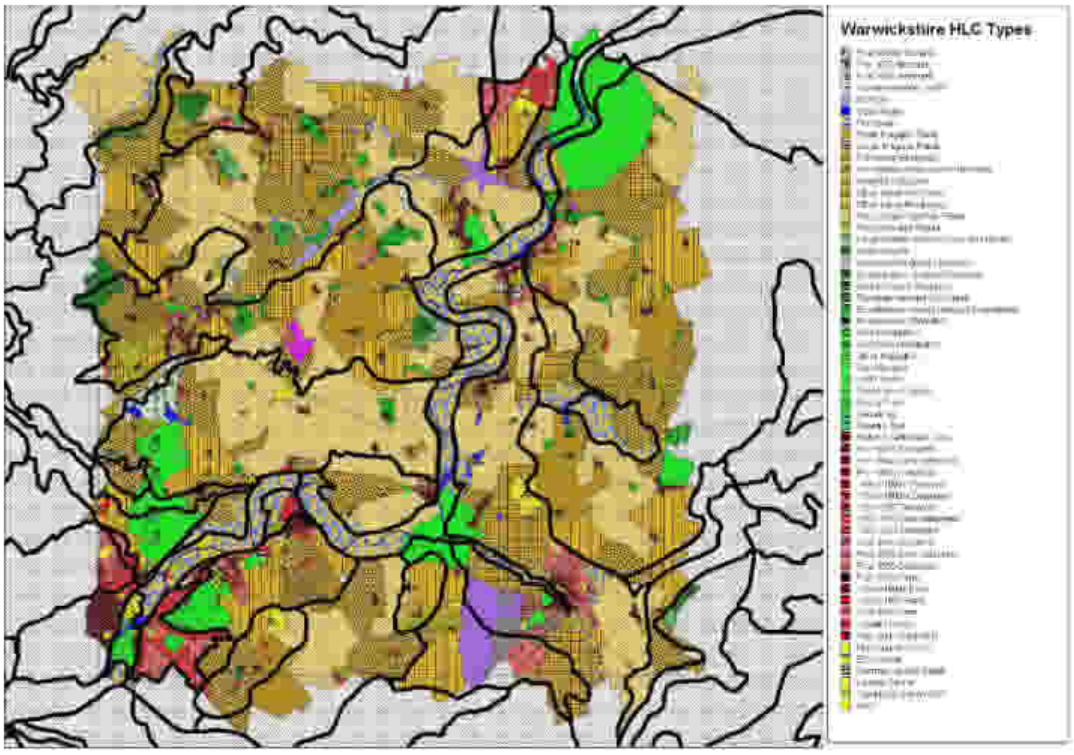
Southern part of pilot 1: (Dunsmore)

- More woodland with more ‘ancient woodland’ in larger groupings. Also much more land cleared of woodland
- Larger villages with more post 1880’s expansion
- Less frequency of scattered farms
- Large linear dominating transport links (M6, Railway, Canal)
- On edge of large urban areas with creeping urbanisation
- More industrial areas
- Large amount of post-war very large fields



We can also compare the results of the HLC to the Warwickshire LDUs. If we look at the area for the second pilot we can see the LDUs outlined in black to compare with the HLC areas. There are some areas of obvious agreement such as the floodplain

of the Avon, also the urban area of Bridge Town and some of the fieldscape HLC areas match with LDUs too.



Stakeholder forum

As part of the first stage of the Warwickshire HLC it was decided to form a group of key stakeholders and to have a Stakeholder Forum meeting to launch the start of the Warwickshire HLC. The stakeholder group was formed with those who it was felt would either benefit form the Warwickshire HLC, may have an interest in the broad theme of the project or who may want to provide some input to the project itself.

The Stakeholder Forum meeting took place on October 6th 2006 and was very well received with positive comments and useful input from the attendees at the end of the session. Comments included:

- A Discussion on the pilot areas chosen for the Warwickshire HLC.
- The fact that HLC needs to be part of planning policy for it to fulfil its objectives.
- Some districts would welcome HLC into Local Development Frameworks and planning policy but were worried about how this would be achieved.
- Other HLC projects that have already been finished offered help and advice on possible outputs for HLC and for forthcoming HLC projects such as Worcestershire.
- Warwickshire County Council is looking to update the Warwickshire Landscape Guidelines with information from the Warwickshire HLC project.
- Web-based delivery for HLC was discussed.

Another Stakeholder Forum Meeting has been suggested when Stage 2 (main characterisation phase) has been carried out.

Presentation of Outputs

The outputs of the Warwickshire HLC project need to be further refined but a preliminary list of identified possible outcomes as well as ways to deliver these are listed below.

Outcome	**Possible Delivery**
Updating and forming part of the Historic Environment Record	Through use of the HBSMR software and informing HER staff of any changes needed.
Updating and forming an additional dataset for use with the Habitat Biodiversity Audit	Through allowing sharing of the Warwickshire HLC dataset to the HBA partnership.
To inform Natural England's Farm Environment Plan, Higher Level Scheme and other agri-environment schemes	By forming part of the Warwickshire and Solihull HERs and being available to curatorial archaeological staff who deal with these enquiries.
To inform historic environment advice given to local authorities in Warwickshire and Solihull	By forming part of the Warwickshire and Solihull HERs and being available to the Planning Archaeologist.
To form source of information for research purposes	By forming part of the Warwickshire and Solihull HERs and being available to the public and academics. Possibly look at informing research staff and academics of availability of information.
Partnership with other local authorities and agencies	To be determined.
Form evidence base for LDFs	Through use by local authorities.
To add/form part of supplementary planning guidance	To be determined.
To support strategic planning	To be determined.

Appendix

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Members of the Stakeholder Forum

Warwickshire County Council:

- Ben Wallace
- Jonathan Parkhouse
- Emma Jones
- Nick Palmer
- Helen Maclagan
- Carol Thorne
- David Lowe
- Ian Grace
- Jim Davies
- Councillor Colin Hayfield
- Charlotte Johnston
- Tony Lyons
- Andy Cowan (Head of Planning, E&E)
- Ron Williamson (Head of Resources, AH&CS)
- Charlotte Cox (Rural Estates Manager)
- David Curle
- Steve Smith (Director of Property)
- Cllr Martin Heatley who is HE Champion
- WCC Carolyn Cox
- WCC Lucy Hill
- Ken Martin (HBA)

English Heritage

- David Went (EH)
- Ian George
- Amanda Smith

Solihull MBC

- Martin Saunders
- Hellen Ellison
- Nicky Goodyear
- Mike Eastwood
- Maurice Barlow
- D Simpson

Coventry City Council

- Chris Patrick
- Alex Thompson
- Paul Thompson
- Mike Murray
- Jim Newton

Birmingham City Council

- Dr Mike Hodder

Black Country:

- Mike Shaw
- Debbie Langley

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- Pat Reid

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- Dorothy Barratt
- Michael Lambert
- Jeff brown

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- Paul Larcombe
- John ware

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- Darren Henry
- Katherine Moreton
- Nick Blamire-Brown

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Staffordshire:

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- Steve Dean

- Ian Wykes

Shropshire:

- Andy Wigley

Worcestershire:

- Adam Mindykowski
- Emma Hancox

Gloucestershire

- Jan Wills
- Jon Hoyle

Warwickshire Wildlife Trust

- Beth Gardner

Natural England

- Jez Bretherton

Others:

- Della Hooke
- Stephen Warnock
- Dr Sarah Wager
- Terry Slater
- Prof Chris Dyer

Appendix4: Warwickshire HER Data Licence Agreement

LICENCE AGREEMENT FOR USE OF WARWICKSHIRE COUNTY COUNCIL HISTORIC ENVIRONMENT RECORD DATA

Parties

This Licence is made between:

WARWICKSHIRE COUNTY COUNCIL ("the Licensor") (1) and

…… ("the Licensee) (2)

1. Definitions

1.1 "WCC" shall mean Warwickshire County Council

1.2 "HER" shall mean the Warwickshire County Council Historic Environment Record (including Historic Landscape Character information)

1.3 " WCC dataset" shall mean data or information extracted from the HER and provided to the Licensee in electronic or written form

2. Licence

The Licensor hereby licences the use of the information from the HER for the Parish(es) or area of **……** in electronic or paper format subject to the following terms and conditions:

3. Restrictions on Use

3.1 This Licence agreement authorises the Licensee to use the WCC dataset solely for their internal business purposes or personal interest. The WCC dataset is not to be used by the Licensee to provide a service to a third party or for the benefit of a third party. The WCC dataset must not be reproduced, copied, sub-licensed, passed, sold, demonstrated, lent, or otherwise transferred in data or written form by the Licensee to the third party without the prior written consent of the Licensor.

3.2 For clarification, this License agreement does not include the following:

3.2.1 the reproduction and use of the WCC dataset outside of this licence;

3.2.2 the incorporation of the WCC dataset in a third party product;

3.2.3 the development of value added products using the WCC dataset;

3.2.4 the demonstration of the WCC dataset at exhibitions or seminars;

3.2.5 the transfer of the WCC dataset into any other computer readable form; or

3.2.6 the digitising or scanning of the WCC dataset.

4. Accuracy

The Licensor makes every attempt to maintain the accuracy of the information contained within the HER but this cannot be guaranteed as the data has been compiled from diverse sources (often unchecked) over many years. The HER continues to develop as new or revised information is included. Information provided in the HER is therefore not definitive and reflects the state of the records on the date the information was extracted. The Licensor shall be under no further liability in respect of any error, mis-statement or negligence to the Licencee in respect of the information contained within the HER.

5. Termination

The Licensor reserves the right to terminate this licence upon 24 hours written, verbal or electronic communication to the Licencee, if the Licencee is found to be in breach of any of the terms of this Licence. All data, CD Roms or diskettes must be returned to the Historic Environment Record of WCC within 3 working days of the Licence being terminated in this manner. All copies of the WCC dataset and any paper copies must be destroyed.

6. Commencement Date

The effective date of this Licence is the **….** day of **…….** 20**..** and it shall remain in full force and effect until the **….** day of **…..** 20**..** unless terminated earlier in accordance with the provisions of this Agreement.

7. Archaeological sites

7.1 The information in the HER should not be used for purposes which damage archaeological sites, historic buildings and landscapes.

7.2 The inclusion of an archaeological feature in the HER does not imply any right of public access to that archaeological feature.

8. Liability

In no event shall the Licensor be liable for any direct, indirect, special, consequential, or any damages or loss whatsoever arising out of use of the information contained in the WCC dataset.

9. Law

This Licence agreement shall be governed by English law and subject to the jurisdiction of the English courts.

10. Assignments

The Licensee shall not be entitled to assign the whole or any part of the benefit of this Licence agreement, or any obligation under it, without the prior written consent of WCC, which shall not be unreasonably withheld.

In order to register your use of the WCC dataset, please complete the licence details below, keep a copy and return this completed original schedule to:

Historic Environment Record

Warwickshire Museum

Field Services

The Butts

Warwick, CV34 4SS

I hereby agree to the terms of this Licence (please sign and print name):

Licensee's name:

Licensee's address:

Note: This information may be held by Warwickshire County Council for the purpose of ascertaining how many licences have been granted. Personal information will be treated strictly in accordance with the Data Protection Act 1998.