

The Cheshire Historic Landscape Characterisation



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Cheshire County Council & English Heritage

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Historic Landscape Characterisation

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¹ Ede & Darlington 2002

Introduction

The Historic Landscape Characterisation (HLC) project commenced in May 2002 and was completed in February 2005. The project area comprises the county of Cheshire, and the unitary authorities of Halton, Warrington and Wirral Metropolitan Borough. Although this project is concerned with Cheshire and areas outside the political boundaries of the modern county, it has been agreed that it should be referred to as the 'Cheshire HLC'.

The project was carried out by the Natural and Historic Environment Team, Cheshire County Council, in partnership with English Heritage. Characterisation of the Wirral has been undertaken in partnership with Merseyside Archaeological Service's Historic Urban Characterisation (HUC) Team.



Figure 1: The Location of the Project Area

Historic Landscape Characterisation

In September 1991, the UK Government White Paper *This Common Inheritance* invited English Heritage to prepare a list of landscapes of historic importance in England, similar to its Register of Parks and Gardens of Special Historic Interest for the purposes of conserving and managing England's 'historic landscapes'. A number of pilot projects followed to assess how best to identify 'historic landscapes'². This work concluded that a selective register would not meet the conservation needs of the historic landscape in its widest sense. Consequently, local authorities, in partnership with English Heritage, have increasingly turned to characterisation, a common form of landscape assessment, as a tool for understanding and managing change in the cultural landscape.

Over the past decade the concept of 'characterisation' has become accepted as the preferred approach to landscape management. The notion of 'character' was first articulated in the 1960s, finding expression in the 1967 Conservation Area legislation. Since then it has been endorsed by *PPG7* (now *PPS7*) and *PPG15*, and is embodied in the joint Countryside Commission/English Heritage/English Nature project that produced the *Countryside Character Map* in 1998³.

HLC has been endorsed by the government in *A Force For Our Future* as an emerging tool for managing change in the historic environment⁴. It also has a basis in

² Fairclough, Lambrick & McNab 1999

³ Countryside Commission 1998

⁴ DCMS/DTLR 2001

the context of the *European Landscape Convention* (ELC), which came into force on 1 March 2004 in the ten countries that ratified it. The United Kingdom signed up to the convention in 2006. The ELC supports the holistic character-based approach to landscape.

The English Heritage sponsored programme of Historic Landscape Characterisation now covers over two-thirds of England and is working towards full national coverage. It began back in 1994 when the first county-wide HLC was carried out in Cornwall as part of the county's Landscape Assessment, which was published in 1996 by Landscape Design Associates and Cornwall Archaeological Unit.

A variety of methodologies has been adopted by the local authorities and consultants who have completed HLC projects, largely in response to local needs and available resources⁵. In the counties adjoining Cheshire, HLC projects have been undertaken for the Peak District National Park⁶ (which includes a small part of western Cheshire) and in Shropshire and Staffordshire. A regional HLC for north-west England is anticipated following completion of the HLC and HUC projects for Cumbria, Merseyside and Greater Manchester. This will provide an overview of the historic landscape at an appropriate scale for inclusion in outputs such as the Regional Spatial Strategy.

From the outset HLC was intended to meet a wide range of uses and to be flexible enough to meet a number of demands, as outlined in *Yesterday's World, Tomorrow's Landscape*⁷. A national review of the applications of HLC culminated in the publication: *Using Historic Landscape Characterisation*⁸, which presents good examples of how HLC has been used in certain application areas: landscape management, landscape character assessment and strategies, spatial planning and partnership, learning and outreach.

Fundamentally HLC has helped to redefine the philosophy of how the historic environment is perceived and managed, enabling 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.

Landscape Character in the Project Area

The Cheshire HLC project covers all or part of the following character areas on the *Countryside Character Map*⁹:

- Character Area 53 – South West Peak
- Character Area 54 – Manchester Pennine Fringe
- Character Area 55 – Manchester Conurbation
- Character Area 57 – Lancashire Coal Measures
- Character Area 58 – Merseyside Conurbation
- Character Area 59 - Wirral
- Character Area 60 - Mersey Valley
- Character Area 61 – Shropshire, Cheshire and Staffordshire Plain
- Character Area 62 – Cheshire Sandstone Ridge

⁵ see Aldred & Fairclough, 2002 for a detailed discussion of HLC methodology

⁶ Barnatt 2003

⁷ Fairclough, Lambrick & McNab 1999

⁸ Clark, Darlington & Fairclough 2004

⁹ Countryside Commission 1998

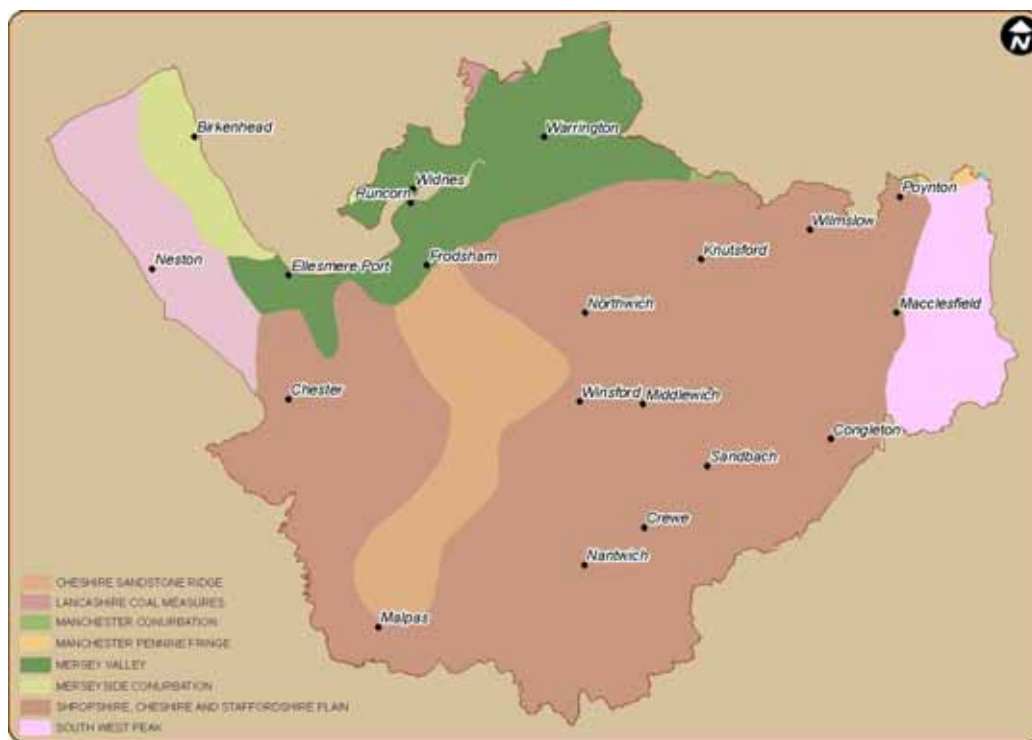


Figure 2: Countryside Character Areas

The project area lies within what Rackham¹⁰ described as ‘ancient countryside’, which he describes as a landscape of small towns and villages, within a wider landscape of small, often irregular fields with many ponds, bounded by ancient hedgerows served by a network of small winding, sometimes sunken, lanes and roads. This landscape once contained many heaths and small scattered woods. In these areas medieval open field systems are small or absent and largely abolished prior to 1700.

More recently, a study of English rural settlement by Roberts & Wrathmell¹¹ has divided England into three main provinces. The project area lies within Northern and Western Province, and is included in most of the Cheshire Plain sub-province and part of the Lancastrian Lowlands sub-province. They have defined the pattern of settlement within the project area as having high to very high levels of dispersion.

Landscape Character Assessment in the Project Area

One of the first applications of the Cheshire HLC data will be its use in informing Cheshire County Council’s Landscape Character Strategy and as a complementary study to Cheshire County Council’s Landscape Character Assessment (LCA). At present these documents are in planning or draft format respectively. Prior to the Cheshire’s draft LCA, a landscape assessment of Cheshire was undertaken in 1994¹², which has been superseded by the more recent work. Meanwhile, at a local level, Chester City and Congleton Borough have completed landscape assessments¹³ and Vale Royal and Warrington Borough Councils assessments are in progress. In addition parish based LCA is being undertaken, in partnership with the Countryside Agency, Cheshire Landscape Trust and the local community, in a number of Cheshire’s parishes. The assessment for the parish of Burwardsley has recently been published¹⁴.

¹⁰ Rackham 1986

¹¹ Roberts & Wrathmell 2000 & 2002

¹² Cheshire County Council 1994

¹³ Chester City Council 1999; Chris Blandford Associates 1999

¹⁴ Burwardsley Village Design & Parish Landscape Group 2005

It is vital that any existing or future landscape character assessments or strategies take into account human influences in the landscape, as the modern landscape is largely a man-made artefact. This is essential if they are to provide a meaningful interpretation of the landscape and its character.

The Cheshire HLC project

The landscape is an important factor in the sense of identity and quality of life of its residents and is a vital part of their heritage. Therefore, priority should be afforded to its protection and enhancement. HLC, when integrated with other assessments, enables us to come to an understanding of the diversity of any landscape.

The Cheshire HLC project has recorded the visible evidence of human history, which forms the modern landscape. This has been achieved by identifying landscape attributes from a range of historical maps. These attributes are categorised into a series of Groups, Types and Sub-types and their extent mapped and analysed using a Geographic Information System (GIS). This work enables the historic character of any given area to be presented, together with the historic processes which formed it, to be shown cartographically¹⁵.

The project has the following general aims and specific objectives:

General Aims

- To improve and promote the understanding and appreciation of the project area's historic landscape, both locally and regionally.
- To interpret and characterise how past communities have contributed to the appearance of the modern landscape.
- To create a body of data to be used for the interpretation of 'heritage assets' (archaeological remains, historic structures and other historic features) within the landscape.
- To enable informed decisions to be undertaken on future development and conservation, and to assist partnership with other agencies.

Specific Objectives

- To facilitate a landscape directed approach to archaeological development control and the interpretation of data from the Sites and Monuments Record/Historic Environment Record for Merseyside and Cheshire.
- To inform future Landscape Strategies and Assessments.
- To provide a complementary study to any Landscape Character Assessment and Cheshire's Historic Towns Survey.
- To allow a regional Historic Landscape Characterisation overview project to be defined, in collaboration with Lancashire, Cumbria, Merseyside and Greater Manchester.
- To disseminate the final analysis through professional and popular publications.

HLC Applications

It is apparent from the above list that HLC has a wide range of uses concerning the proactive management of the landscape and in strategic planning and development control. A review of applications involving HLC has been produced by Clark, Darlington & Fairclough¹⁶.

¹⁵ See Cheshire County Council 2007 for further details on the project's methodology

¹⁶ Clark, Darlington & Fairclough 2002

Landscape Management

HLC can be an influential tool in the management of the landscape from informing projects, such as the Countryside Agency's Land Management Initiatives or the work of an individual providing advice on the historic environment.

HLC provides a suitable contextual basis for advising on the historic environment, including Natural England's Environmental Stewardship agri-environment schemes (Entry Level and Higher Level Stewardship). The Cheshire HLC follows the Lancashire model¹⁷ of defining specific recommendations for each HLC type. These recommendations can be used to influence which options are selected from the agri-environment scheme and how those options are implemented.

HLC can be used to inform the Forestry Commission's Woodland Grant Schemes (WGS), including the design and location of new woodland to enhance 'heritage assets'.

Cheshire's ECONET project, part of the European Union funded Life EConet, has explored the best ways of creating ecological networks, and to enhance and sustain the existing ecological frameworks. It has also demonstrated how it is possible to use these networks to make land use planning and management more sustainable. HLC will help significantly in the development of this work.

It has been noted above (see Landscape Character Assessment in the Project Area) that the HLC is already being used to inform and direct Cheshire County Council's LCA and will ultimately be used to inform the County Council's Landscape Strategy. Information has also been supplied to Vale Royal and Warrington Borough Councils to inform their LCAs and to the Cheshire Landscape Trust for use as part of the Parish LCAs.

Planning

Indirectly, through LCA and Landscape Strategy, the HLC can be used to inform Local Development Frameworks and Regional Spatial Strategies. The HLC may also become a Supplementary Planning Document as part of a Local Development Framework. The HLC can be used to guide and mitigate the impact of minerals and waste proposals, or to inform and review landscape area designations, such as Cheshire's Areas of Special County Value.

It can be used to inform other planning processes such as Conservation Area appraisals, Parish Plans and Village Design Statements. As part of the Conservation Areas appraisal process, certain areas can be expanded to include adjacent historic field systems which contribute to the settlement's visual context.

Pioneering projects which aim to characterise the built environment are currently being conducted in Merseyside and Lancashire¹⁸, and will form a basis for future reviews of Conservation Areas.

As part of the development control process, HLC can be used to provide a landscape context for Sites and Monuments Record/Historic Environment Record data, or for assessing the impact of large scale schemes such as road construction. HLC has been a key source in the assessment of the historic environment in government Housing Growth Areas, as well as the new urban characterisations in Pathfinder Areas.

¹⁷ Ede & Darlington 2002

¹⁸ English Heritage 2004

The Project Area: An Introduction

The project area is highly varied topographically, economically and historically, ranging from the rich dairy pasturelands of the Cheshire Plain to the sheep-farms and textile mills of the Pennine fringes, and from the central Cheshire salt-fields to the industrial conurbations of the Mersey Valley.

Topography and Geology

The topography of the project area falls into four geographical areas: the mid-Cheshire Ridge, the Cheshire Plain, the Mersey Valley and the Peak fringe.

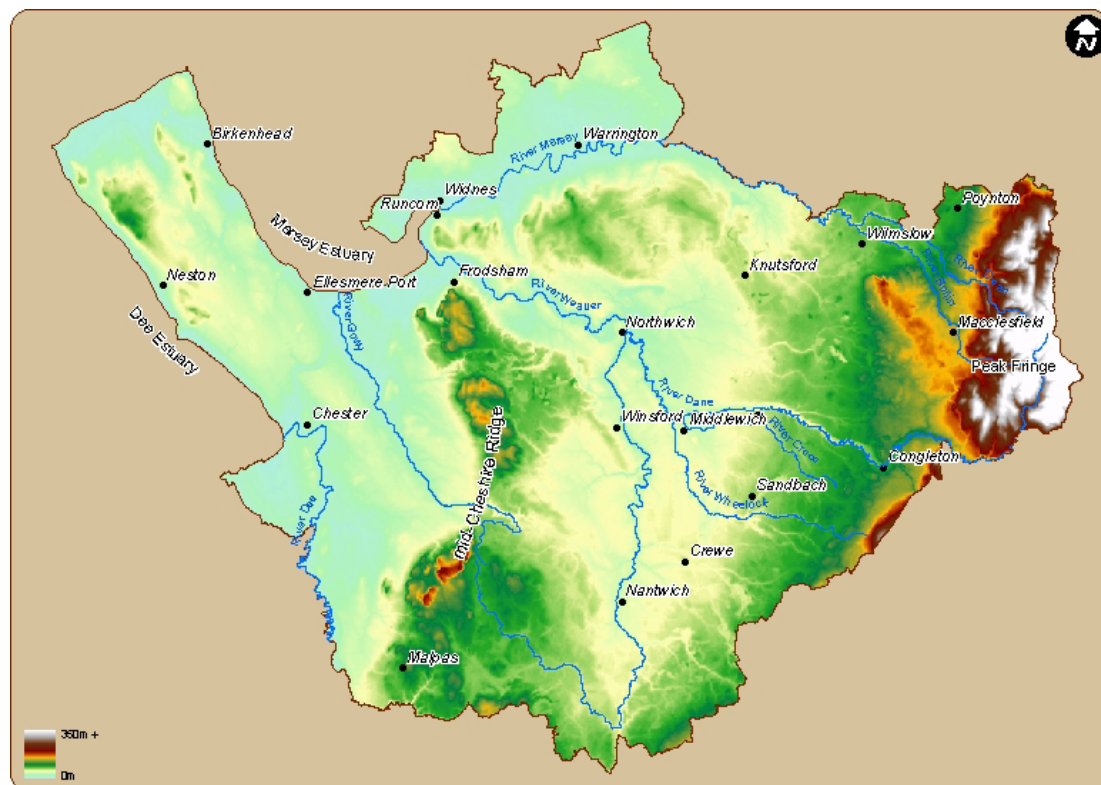


Figure 3: Topography

The mid-Cheshire Ridge forms the backbone of the project area. This outcrop of Keuper Sandstone and Waterstones runs in a north-south alignment from Runcorn and Frodsham in the north through Delamere to Malpas in the south. It varies in height from 76 to 228 metres A.O.D and in relief from gently undulating slopes, barely discernible from the surrounding plain, to steep wooded and often rocky slopes that dominate the surrounding landscape. A further sandstone ridge runs along the Wirral peninsula, with the landscape sloping gently into the Mersey estuary to the east.

To the west and east of the mid-Cheshire Ridge lies the Cheshire Plain, extending from the Peak Fringe to the Dee estuary. It is characterised by gently undulating, often flat country. This is dairy farming country and much of it is under grass. There are Keuper Sandstone outcrops to the west and north of the plain, along with areas of sands and gravels. However most of the area comprises boulder clay overlying soft Keuper layers, while basin peat is found at a number of sites, which as a result of drainage, are now much reduced in size e.g. Lindow Common and Danes Moss.

To the west, the Plain has an elevation of between 20 and 50 metres, rising to c.90 - 100 metres just to the south of Warrington. The Rivers Dee and Gowy form the main

drainage pattern. To the east of the mid-Cheshire Ridge the gently rolling landscape is punctuated by a rising area of sandstone, which outcrops at Alderley Edge at a height of 180 metres. This part of the Plain is c.30 metres higher than that to the west of the ridge. The Rivers Weaver, Dane and Bollin form the main drainage pattern.

To the north-west of the project area is the Dee estuary. This flat alluvium-based salt marsh extends along the Wirral and the north Welsh coast.

The Mersey Valley in the north of the project area has a geology of predominantly drift material, marine and river alluvium, areas of windblown Shirdley Hill sand, extensive areas of boulder clays with pockets of glacial sands and gravels and basin peats. On the southern edge of the valley there are outcrops of Keuper Sandstone associated with the edge of the Cheshire Plain. Beyond this the river area is surrounded by boulder clay with an area of brickearth and brick clay at Rixton, and fluvio-glacial gravels and Shirdley Hill sands around Warrington. The river valley is c.0 to 20 metres in height rising to a maximum of 80 metres on the southern edge bordering the Cheshire Plain.

The Pennines extend along the eastern edge of the project area known as the Peak Fringe. This is a region of steep slopes, deep valleys and broad open moorland. Altitudes range from 152 to 480 metres A.O.D. After a transitional area emerging from the eastern part of the Cheshire Plain, the foothills of the Pennines are located in the area of Macclesfield and Congleton, extending west to the borders of Derbyshire, Staffordshire and the Peak District National Park.

Much of the project area lies within a broad basin of Permian and Triassic rocks, while Millstone Grit comprises much of the western Pennine area. Solid strata is rarely seen on the Plain, most of which is covered by thick post-glacial deposits. Extensive outcrops of Triassic rocks occur only along the mid-Cheshire Ridge, elsewhere exposures are restricted to isolated low hills and to occasional stream sections. In the Pennines, drift deposits are thin and exposures of Carboniferous rocks are much more extensive.

Archaeology and History

Successive generations stretching back thousands of years have formed the landscape that we know today. Our knowledge of the project area's rich and varied past is being added to all the time through research, chance finds and developer-funded investigations.

Palaeolithic

The Palaeolithic (or Old Stone age) ranges from c.250,000 years ago to the end of the Devensian glaciation c.10,000 years ago (8,000BC). Although during the glacial periods much if not all of project area would have been beneath the ice sheet a number of inter-glacial and inter-stadials would have provided ice-free environments for exploitation by Palaeolithic hunter gatherers.

Evidence for human and Neanderthal presence in the region has been discovered in a number of caves within surrounding counties (e.g. Pontnewydd, Ffynnon Beuno, Cae Gwyn and Lynx cave in Denbighshire; Cresswell Crags and Dowell Hill in Derbyshire; and Elder Bush and Thor's Fissure in Staffordshire). Until recently evidence of human activity from the Palaeolithic in the project area was restricted to a small number of stone artefacts, which lacked a clear provenance. However, recent excavations at a rock shelter in Carden Park in Cheshire have discovered a number of upper Palaeolithic tools. The tools, recovered from beneath well-stratified Mesolithic deposits within the shelter, firmly place humans in the Palaeolithic

landscape of the project area.

Mesolithic

The Mesolithic (or Middle Stone age) spans the period from c.8000BC to c.4000BC. Although hunter gatherers, like the people of the Palaeolithic, Mesolithic peoples had developed a complex stone tool kit, indicating a greater degree of adaptation to local environments allowing the exploitation of a wider range of food sources, but also allowing them to alter and manipulate their environment.

Although Mesolithic evidence for the project area cannot be described as extensive, it is still considerably greater than that for the Palaeolithic. Palaeo-environmental evidence from the Cheshire and Warrington wetlands has suggested the manipulation of the landscape to create small-scale clearances in the woodland by burning, perhaps to promote vegetation attractive to grazing animals¹⁹.

The Wirral contains a number of significant Mesolithic sites. At Greasby stone tools have been found associated with pits, post holes and stake holes. These features are the remains of a structure and possibly the site of one of the earliest 'houses' in Britain²⁰. Environmental evidence from within the pits has suggested a seasonally occupied site, re-used over a number of years²¹. Further sites have been identified at Thurstaston, Irby, Hilbre and New Brighton. Although it is tempting to see these as seasonal camps for the exploitation of coastal resources, the sea level has risen dramatically since the end of the Devensian glaciation, as indicated by the 5,000 year old submerged remains of the post glacial forest on the Meols foreshore, placing many of these sites up to 8 km inland.

Within Cheshire, there is a dispersed but growing body of evidence of Mesolithic activity. For example, a camp site around a natural hollow at Tatton Mere; the rock shelter at Carden Park; and artefacts found at Frodsham and Ashton, and from isolated examples from the uplands of the county.

Neolithic

The Neolithic (or New Stone age) is distinguished from the Mesolithic by the transition from a hunter gatherer society to an agricultural (food producing) society, involving the cultivation of plants and the domestication of animals. This transition began in Britain about 3500BC. The Neolithic saw the development of new stone tool types, the use of pottery, and the construction of large ritual and ceremonial monuments.

Palaeo-environmental evidence for the project area would appear to mirror national trends. Pollen evidence shows a local decline in tree cover and an increase in the incidence of open ground species, followed by natural regeneration of the woodland²². This is associated with an overall national decline in elm. This may be due to a form of slash and burn agriculture, where woodland clearance is followed by a period of farming until the soil is exhausted, at which point the farmers move on and the woodland regenerates. However, with the absence of cereal pollen this cannot be conclusively related to agriculture. The decline in elm may be caused by disease of the species and the activity could be similar to that taking place in the later Mesolithic.

Neolithic settlements revealed by archaeological excavation in the project area

¹⁹ Leah *et al* 1997

²⁰ Dyer 1990

²¹ Cowell 1992

²² Cowell 1992

include: unenclosed post-built structures at Tatton Park; occupation remains on one of the sand 'islands' at Lindow Moss; and Oversley Farm where a rectangular building comprising beam slots and post holes, with a central hearth, was discovered. It was later replaced by a building of similar construction. From the earlier structure a large pottery assemblage was recovered, together with charred remains of barley and arable crop weeds. Lipid analysis of the pottery revealed the presence of sheep or goat fats²³.

Elsewhere in the project area, Neolithic pottery and flints have been found during archaeological excavations at Norton, Beeston Castle and Chester. At Woodhouse End, a large assemblage of pottery sherds, representing at least twenty-three vessels, was recovered from a round barrow, attesting to nearby settlement. This assemblage is the largest of its type in the region²⁴. Further pottery and flints have been recovered from sites in Birkenhead, Kelsborrow, Meols and Gawsworth. Neolithic stone axes have been found throughout the project area. The axes discovered in the Wirral and western Cheshire are mostly from North Wales, whereas those found in the Mersey and Weaver valleys come from Cumbria²⁵. Two axes made of jadeite from Chester and Lyme Handley are probable continental imports²⁶.

Funerary and ceremonial monuments in the project area are represented by a small number of sites. The Bridestones chambered tomb stands on the edge of the project area in the Peak Fringe and a possible long barrow is located at Lochbrook Farm, near Congleton, though recently some doubt has been cast on the date of this monument²⁷. Aerial survey has discovered a number of rectangular cropmarks at Churton in the Dee valley, which have been suggested as possible Neolithic mortuary enclosures. In the mid-nineteenth century a cremation cemetery, consisting of burials placed in urns, was discovered near to Eddisbury hillfort.

Bronze Age

The Bronze Age (2500BC to 700BC) is distinguished from the Neolithic by the introduction of metal working and new pottery types, and the establishment of new types of burial monument. The majority of the remains from this period mainly date to the early Bronze Age, with little evidence relating to the middle and late Bronze Age.

Throughout much of the country the early Bronze Age was a time of settlement and agricultural expansion. Deterioration in climate beginning around c.1500BC and possible failures in the agricultural regime led to abandonment of many marginal settlements and the formation of large areas of heathland and moorland. Palaeo-environmental evidence from the project area suggests that the woodland clearance begun in the late Mesolithic continued. At Oversley Farm the palaeo-environmental evidence indicates that a Bronze Age settlement was located within an area of open heath and pasture, suggesting that by this period woodland clearance was more extensive and permanent²⁸. Peckforton Mere and Bar Mere, adjacent to the mid-Cheshire Sandstone Ridge, contain deposits which represent major episodes of soil erosion which may be related to woodland clearance during the Bronze Age²⁹.

The upstanding earthwork remains of around 120 Bronze Age round barrows are known in the project area. They generally occur in ones or twos, lying principally on

²³ Garner 2007

²⁴ Hodgson & Brennard *unpublished*

²⁵ Longley 1987

²⁶ Longley 1987

²⁷ Mullin 2002

²⁸ Garner 2007

²⁹ Schoenwetter 1982

land above 60 metres and avoiding the Weaver and Dee valleys³⁰. Twenty barrows occur in four barrow cemeteries in Cheshire (Seven Lows, Jodrell Bank, Withington Hall and Church Lawton). In contrast, the Wirral has numerous finds of urns, but few barrows (two to three in total). Several urns with associated cremated bone were recovered from the eroding cliff at West Kirby. Similar cemeteries have been discovered at Betchton and Tytherington in Cheshire. Aerial photography has revealed evidence of ploughed out round barrows in the form of ring ditches. These cluster along the Cheshire Ridge and on the east Cheshire Plain, and are found in the Weaver and Dane valleys, at altitudes below 70 metres on wetter soils.

There is little evidence in the project area of actual settlements dating to the Bronze Age. At High Leigh an enclosure has been identified by aerial survey, from which flint tools have been recovered dating to c.2000BC. A middle Bronze Age settlement has been excavated at Irby, which comprised the post settings of an oval building and associated features, from which pottery and evidence for bronze working and cereal production were recovered. Nearby, on the north coast of the Wirral, a midden comprising the bones of wild animals has been dated to c.2000BC. Evidence for Bronze Age buildings has also been discovered at Tatton and Brook House Farm in Bruen Stapleford. At Oversley Farm, the settlement evidence spanned the entire Bronze Age. Features included post holes and beam slots representing a succession of buildings, pits, hearths, middens and a trackway, associated with a large pottery assemblage³¹. Excavations at Beeston Castle revealed a timber-laced rampart, dated by radiocarbon to 1270 - 830BC, directly associated with two bronze socketed axes (deliberately placed on the ground surface below the rampart). Behind the rampart were seven circular buildings of late Bronze Age to early Iron Age date, and associated pits and post holes.

The Cheshire Historic Environment Record contains one hundred records relating to finds of Bronze Age metalwork, including axes, spear heads and swords, but also jewellery, such as the gold torques found near Malpas. A significant number of such items have been recovered from wetland sites in the project area³². The majority were probably ritual deposits, a practice widely undertaken in the British Isles during this period.

The project area also contains evidence of metal production. At Alderley Edge a copper mine of Bronze Age date has been discovered. Archaeological excavations have revealed a series of pits, 3-4m deep containing hammer stones to break up the rock, and an oak shovel. At Beeston Castle a number of moulds, crucibles, and refractory waste have been recovered which suggests that this site may have been a specialist metal working centre in the Bronze Age.

Iron Age

The Iron Age (700BC - 42AD) is represented largely by several hillforts on the mid-Cheshire Ridge, but aerial photography has recently revealed the evidence of lowland farmsteads around the Bollin Valley in north Cheshire and elsewhere along the River Mersey. Archaeological excavations have taken place at several of these enclosures. Evidence from Great Woollen Hall, Greater Manchester³³; Brook House Farm, Cheshire and Irby, Merseyside³⁴ suggests that a common form of settlement in the later prehistoric period consisted of a curvilinear single or double-ditched enclosure, less than 2 hectares in area, containing one or more circular buildings. A mixed farming economy seems to have been practised. There is little evidence of

³⁰ Longley 1987

³¹ Garner 2007

³² Leah *et al* 1997

³³ Nevell 1998a

³⁴ Philpott & Adams 1998, Cowell & Philpott 2000

coin and pottery use.

Some of these sites appear to have had their origins in the Bronze Age and many of them continued in use into the Roman period. Recent work at Oversley Farm has seen the investigation of a multi-period site, which included a Bronze Age and Iron Age settlement³⁵. The settlement excavated at Brook House Farm near Bruen Stapleford in Cheshire, which consisted of six roundhouses, dates from the Middle Bronze Age to the Late Iron Age. A large boundary ditch and a number of linear features were also identified on the site, but there is no clear evidence to suggest that the settlement area was surrounded by an enclosure ditch³⁶. These excavations demonstrate the existence of a range of settlement types in the project area during the Iron Age, ranging from unenclosed and enclosed farmsteads to hillforts.

Pottery does not appear to have been commonly used over much of north-west England during the Iron Age. However, recent excavations have produced a variety of ceramic products, and the number of pottery assemblages of this period is now growing. The most widely represented, locally made pottery is known as VCP (Very Coarse Pottery). Vessels made of VCP tend to be cylindrical with thick bases and walls and widely flaring rims. They have been identified as containers used to dry and transport salt from the brine springs of Northwich, Middlewich and Nantwich to settlement sites in north Wales, the Welsh Marches and the Midlands during the later prehistoric and early Roman period³⁷. Salt production is thought to have started in the Late Bronze Age and intensified in the Iron Age and Roman periods. It was an important commodity in the past, being used for the preservation of foodstuffs and for other purposes. The exact production sites for VCP have not been identified, but detailed analysis suggests that it was manufactured in close proximity to the salt in the Nantwich-Middlewich area. The wide distribution of VCP salt containers outside Cheshire suggests that an established trade or exchange system was in operation.

The most dramatic evidence of Iron Age culture in the project area was found during peat cutting at Lindow Moss in the 1980s, when two well-preserved bog bodies were discovered. One of the bodies, known as 'Lindow Man', had been ritually slaughtered and buried in the bog, where the preservative properties of the peat had ensured his survival. Although radiocarbon dating indicates a date in the early Roman period, the circumstances surrounding his death point to a strong survival of Celtic tradition during Roman occupation.

Roman

The Roman legionary fortress of Deva (Chester) was founded by Legion II in c.74-75AD to control north Wales and north-west England³⁸. Its location provided access to the sea via the estuary of the River Dee. Following the transfer of Legion II in c.88AD the fortress was garrisoned by Legion XX. Many of the buildings within the fortress were initially constructed of timber and were later replaced by stone structures. The first fortress defences were constructed of turf, clay and sandstone rubble. By c.100AD they were partly reconstructed in stone. Within the fortress evidence has been found for the barracks, headquarters building and baths, as well as granaries, workshops and a unique elliptical-shaped building. An amphitheatre lay outside its south-eastern corner. The adjacent civilian settlement was located mainly to the east, with another substantial settlement south of the river at Heronbridge.

The influence of the fortress was felt throughout much of the county and a range of

³⁵ Garner 2007

³⁶ Fairburn 2002a

³⁷ Morris 1985

³⁸ Mason 2001

contemporary sites has been identified, including the legionary tile-works at Holt (Wrexham). The forts at Northwich and Middlewich were probably built to develop and control the salt industry. At Northwich, the Roman settlement grew up at the confluence of the Rivers Weaver and Dane. Evidence from excavations suggest that the fort was established towards the end of the first century, flourished in the second and may have been in decline by the third century. A brine kiln and several lead salt-pans have been recovered from the town, as well as a rare cavalry helmet, which suggests the presence of cavalry units in Cheshire in the first century AD. At Middlewich, work undertaken since the 1960s has revealed evidence of large scale salt production. It is suggested that when the fort was built, the army took over the control of the brine springs and the production of salt³⁹. An inscribed lead salt-pan found at Middlewich indicates that in the fourth century salt production may have been controlled by the Christian church. This view is supported by the finding of inscribed lead salt pans of similar date from Shavington⁴⁰.

A large area to the south of the Roman fort at Middlewich was recently excavated, and was found an intensively occupied in the Roman period, with evidence of domestic and industrial activities. The discoveries included a plank-lined well containing a range of organic artefacts and wattle-lined pits all preserved by the waterlogged conditions. A well-preserved section of Roman road was also found, together with a wealth of finds, including local and imported pottery, metal objects, wooden objects including a writing tablet, and crude clay briquetage vessels associated with salt production⁴¹.

At Nantwich, archaeological excavations to the west of the River Weaver at Kingsley Fields have revealed a large salt production site of Roman date. The complex appears to have been linked to the main Middlewich-Whitchurch Roman road by a side road, traces of which led north-westwards from the settlement. The site contained extensive and well-preserved waterlogged deposits and structural features. The most spectacular of these features were two large rectangular plank-lined pits. They were probably used as brine cisterns and are similar to the remains discovered at the Roman salt production site at Droitwich, Worcestershire. Both cisterns at Kingsley Fields were later used as rubbish dumps, and the waterlogged conditions ensured the survival of a remarkable collection of wooden artefacts, including buckets, spades and other tools. A large assemblage of animal bones, a rare survival on sites in Cheshire, was also found, together with large amounts of imported and locally-made pottery, and an array of metal objects.

The excavations at Middlewich and Nantwich have also provided important information about the nature of the contemporary landscape on the outskirts of these Roman settlements. At Middlewich, a Roman ditched trackway was excavated, leading from the settlement eastward into the open countryside. A ditched enclosure, probably a small field, flanked the south side of the track, while one of the trackway ditches cut through the plough-damaged remains of a brine-boiling hearth. At another site a similar arrangement of small rectangular fields or paddocks, outlined by ditches and drove-ways was uncovered. Some of the fields were probably agricultural, but others contained pits and postholes, suggesting temporary buildings. One field included a pottery kiln containing failed pots or 'wasters'. This is a significant discovery, as it is the first Roman pottery kiln ever found in Middlewich⁴². Intriguingly, one of the trackway ditches appears to follow the alignment of some of the medieval earthworks of Kinderton Hall moated site, further to the east. This may suggest that

³⁹ Strickland 2001

⁴⁰ Penney & Shotton 2000-1

⁴¹ Cheshire County Council 2003

⁴² Cheshire County Council 2002

elements of the Roman landscape survived to influence the layout of the medieval landscape.

At Nantwich, beyond the limits of the settlement, human cremations were found alongside the Roman roads running to the east and west. They may have been placed in small enclosures and associated with simple sandstone memorials. Recent excavations at Chester Business Park have shown that the area around the Chester fortress was organised in a similar fashion.

At Wilderspool, south of Warrington, a large industrial complex has been identified. Settlement here grew up around the lowest crossing point of the River Mersey. A port developed and served the iron, glass and pottery making workshops.

It is unclear to what extent the Roman military presence affected the lives of the indigenous population. From archaeological excavations within the project area and in adjacent counties it would appear that many settlements established in the preceding Iron Age continued with little change into the Roman period. Often rectangular or sub-rectangular in plan, these farmsteads tend to be enclosed by one or more ditches. Many have been identified as a result of aerial reconnaissance, but only a few have been excavated. A common feature of many of the rural sites of this period is the paucity of artefacts, which makes the period of occupation very difficult to date. Settlement sites at Southworth Hall, Croft and Ochre Brook (Merseyside), for example, produced pottery no earlier than the second to early third centuries⁴³. The finds assemblage from the excavation of the Romano-British enclosure at Irby is amongst the largest from a rural site in the region, but even so coins and other closely datable finds were scarce. The suggestion has been made that wealth may have been expressed in non-durable forms, such as livestock or land holdings, rather than more tangible ways detectable by archaeological methods⁴⁴.

The only known example of a Roman villa (a truly Romanised form of rural settlement) in the project area is at Eaton-by-Tarporley, Cheshire⁴⁵. In addition, it is clear from the discovery of two military diplomas (discharge certificates) from Malpas and Middlewich that some soldiers settled in the area after completing their military service.

Post-Roman - Early Medieval

In the late fourth century AD, Britain was threatened with invasion from across the North Sea. The Saxons invaded and settled, creating new kingdoms. Cheshire became a frontier zone, at times part of the Welsh kingdom of Powys and then later part of the Anglo-Saxon kingdom of Mercia.

Evidence for Anglo-Saxon settlement in the project area is elusive, but continued occupation is attested to by place-names, church dedications and occasional discoveries of metalwork. Salt production continued, but at what scale remains unclear. However, it is apparent from information in the Domesday survey that by the eleventh century Nantwich had become the focus of this industry in the area.

Chester survived as a commercial centre after the Roman period and the excavation of a sunken floored building, dating to the ninth century, suggests that occupation continued amongst the ruins of the Roman fortress. There is increasing evidence of Chester's importance in the late Saxon period, when the city possessed one of the

⁴³ Cowell & Philpott 2000

⁴⁴ Philpott & Adams 1998

⁴⁵ Mason 1982

most important mints in England⁴⁶. The city was also an important ecclesiastical centre, with two minsters and several parish churches by the late Saxon period.

Chester was also the site of one of a number of burhs or fortified settlements established in the early tenth century to protect the kingdom of Mercia's northern frontier from Viking invaders. Other burhs within or close to the project area were founded at Runcorn, Thelwall, Eddisbury, Warburton and Manchester.

North of Warrington, at Croft, is the only Saxon cemetery found in the project area. Over 600 grave slots, partly overlying a Bronze Age round barrow, were excavated in 1980. No grave goods and little bone survived. Although the east-west alignment of the graves could suggest this was a Christian burial site, there was no corroborative evidence⁴⁷.

One of the most distinctive features of late Saxon Cheshire is its inscribed and decorated crosses. A pair of ninth-century crosses at Sandbach is amongst the finest examples of Anglo-Saxon sculpture in the country. They stand as a testimony to the importance of the town at that time.

Medieval

The centuries after the Norman Conquest saw a dramatic change in the landscape of the project area, as large areas of the county were brought under the plough, woodland was cleared and marshes drained. Strip cultivation in open fields became common in parts of the project area and traces of the ridge and furrow created by medieval ploughing can still be seen, especially in southern and western Cheshire.

Settlement was limited to a certain degree by the extensive royal forests of Wirral, Macclesfield and Leek, Mara and Mondrem (Delamere), which at their height in the twelfth century covered c.34% of the project area. Perhaps because of its slow growth, Cheshire largely escaped the economic recession which followed the Black Death in 1348, therefore the project area has few deserted medieval villages.

The Normans brought with them new ideas in military architecture. A string of motte and bailey castles was established along the Dee Valley as a defence against Welsh attack, as well as in towns like Nantwich and Warrington. By the thirteenth century high status castles, such as Chester, Beeston and Halton were equipped with elaborate defences of towers and curtain walls.

The prosperity of the area in the thirteenth and fourteenth centuries is reflected in the large number of moated manor houses dotted across the landscape. Cheshire has nearly 200 examples of these moated sites. Many are now vacant earthwork platforms, but at some sites the houses were rebuilt and continued to be occupied for many centuries, for example, at Little Moreton Hall.

Throughout the medieval period many towns grew and prospered with Chester becoming the largest and most important urban centre in the area. The commercial growth of the city was reflected in its markets, fairs and guild system.

The Cheshire 'wiches' or salt towns continued to thrive. At Nantwich, archaeological excavations have produced significant information about the town's medieval salt industry. In First and Second Wood Street waterlogged conditions led to the survival of the remains of medieval timber buildings and some of the equipment needed for the production of salt from brine, including cisterns hollowed out of tree trunks known

⁴⁶ Higham 1993

⁴⁷ Freke & Thacker 1987

as 'salt ships'⁴⁸.

Away from these towns, urban prosperity was reflected by the growth of other market centres, including Knutsford, Macclesfield, Warrington, Congleton and Frodsham. Comparatively little is known about these towns from an archaeological point of view, but recent work has established their archaeological potential⁴⁹.

The relationship between towns and the countryside needed to be well maintained to enable the market economy to develop. In the medieval period we see the growth of cloth manufacture, with linen produced in the west of the project area and wool in the east. Leather working supported a number of trades, including tanners, saddlers and shoemakers. Pottery production, however, tended to be small scale sufficient to supply local markets. The Domesday survey records over one hundred corn mills in Cheshire, many of which have often been replaced by later mills on the same site.

The medieval period was also the age of monasticism. In Cheshire this was represented not only by the great Benedictine Abbey of St Werburgh (later Chester Cathedral), the Cistercian Abbey of Vale Royal and the Augustinian Priory at Norton, but also by a variety of abbeys, friaries, nunneries, priories, granges and hospitals. Norton Priory and the friaries of Chester and Warrington⁵⁰ have been subject to modern excavation.

Post Medieval

The area continued to prosper in the post-medieval period and led to many changes in the appearance of the towns, with rebuilding in their centres and the establishment of suburbs as the population grew. The rural landscape witnessed great changes too, as dairy farming became more prevalent to meet the demands for milk, butter and cheese. The process of enclosure developed throughout this period, both on a piecemeal basis and formally through Parliamentary Acts of Enclosure.

Great changes also occurred to the landscape in the eighteenth and nineteenth centuries with the increasing mechanisation of industries and the development of transport networks.

During this period Macclesfield and Congleton became the centres of a thriving silk industry. Salt production continued in central Cheshire, but with changes from traditional methods to brine pumping and rock-salt mining. Salt production stimulated the development of the chemical industry and has done much to shape the modern appearance of such towns as Northwich, Warrington and Widnes.

Extractive industries have played a more limited role in the area's past. Copper ore was mined at Alderley Edge on a small scale in the seventeenth and eighteenth centuries. Large scale coal mining began on the Wirral in the eighteenth century in addition to that at Poynton in the Peak fringe, which started a century earlier.

The eighteenth century was the age of canals, and a network of waterways was built across the county by such famous engineers as James Brindley and Thomas Telford. New settlements like Ellesmere Port developed in association with these canals. The first turnpike roads appeared at this time and by 1820 nearly 600 miles of Cheshire's roads had been turnpiked. These developments were in turn followed by the establishment of the railways. Cheshire's first railway line opened at Crewe in 1837 and by 1875 a network of lines had been established across the county.

⁴⁸ McNeil 1983, Cheshire County Council 2004

⁴⁹ Cheshire County Council 2002a-q

⁵⁰ Heawood 2002

HLC Classification

The following classifications of 'Historic Character' have been defined by the analysis of the data collected by the project. Distinctive historic processes can be identified by the presence or absence of features in the landscape. Analysis of the data combined with information from other sources has enabled the identification of these features and a classification of 'Historic Character'.

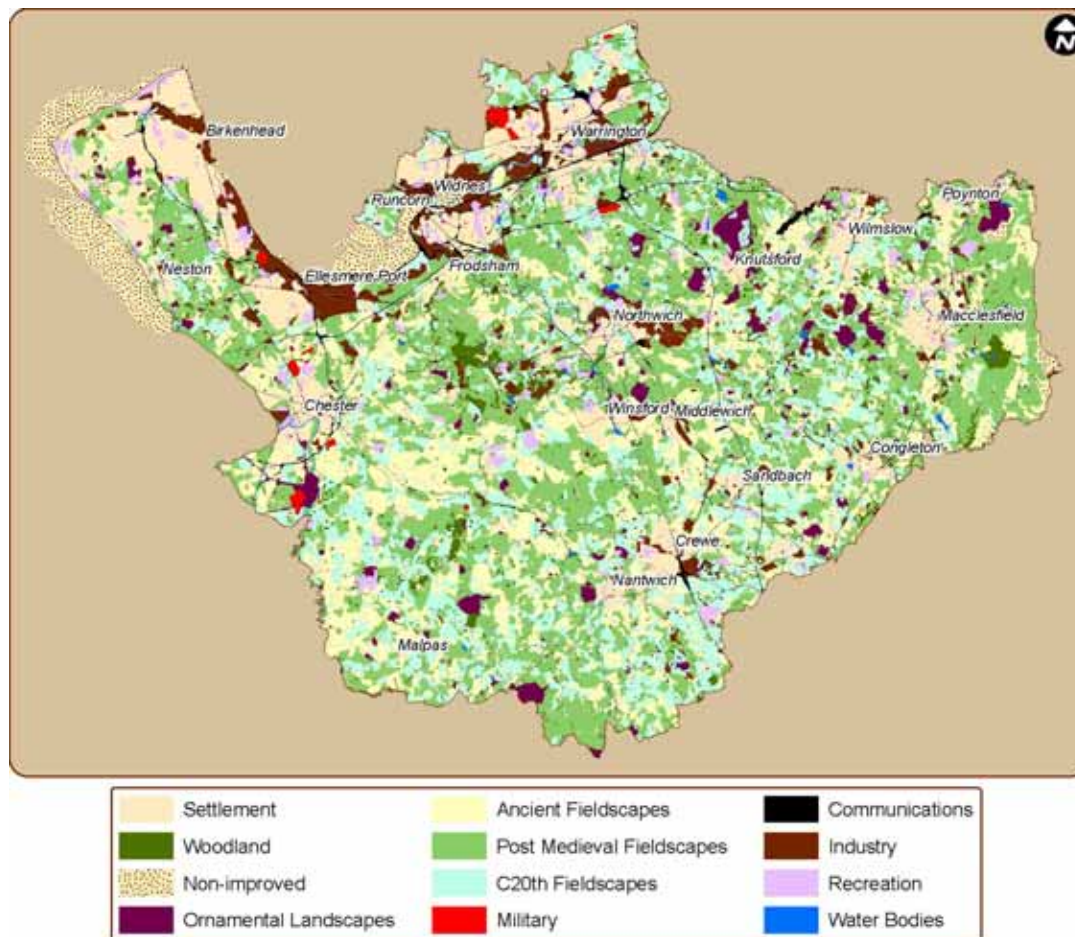


Figure 4: HLC Groups in the Modern Landscape

The following classification has been developed to create a flexible system that allows different levels of detail to be displayed, from simple county scale maps, to more detailed parish level mapping⁵¹.

- *HLC Group*: The coarsest classification which is intended to be used to create a simple and distinctive county scale map. The HLC groups are created through the amalgamation of the HLC types and are largely descriptive i.e. Industry, Communications.
- *HLC Type*: This classification is the mainstay of the HLC and contains a greater level of detail. These HLC types define specific areas of 'Historic Character'.
- *HLC Subtype*: This is the finest classification in the HLC and is intended to show some of the finer distinctions within the dataset.

⁵¹ See Cheshire County Council 2007 for further details on the project's methodology

Settlement



Figure 5: Great Budworth, Cheshire.

The Settlement HLC group covers c.12% (31,405 hectares) of the project area⁵². This group covers all forms of settlement from villages to larger urban centres.

It is important to stress that for the HLC project the centres of the principal long-established settlements were not examined in detail. Analysis of the towns in Cheshire, Halton and Warrington (with the exception of Chester) was conducted for the Cheshire Historic Towns Survey⁵³. This work considered the historic development and archaeological potential of these towns, and thus complements the HLC project.

The earliest known settlements in the project area date from the Neolithic period and the Bronze Age⁵⁴. However the first settlements of any size are likely to have been associated with hillforts, such as Beeston⁵⁵, which may have been engaged in specialist activities like metal working⁵⁶. The evidence for

settlement away from the hillforts is sparse; however recent discoveries at Brook House Farm have shown that small unenclosed farmsteads were also present⁵⁷.

The principal settlements in the Roman period in the project area were at Chester, the salt towns of Nantwich, Middlewich and Northwich, and at Wilderspool, south of Warrington. The evidence for settlement elsewhere is sparse, with the project area only containing one known villa site, at Eaton in Cheshire⁵⁸. However recent discoveries at Birch Heath⁵⁹ suggest that small unenclosed farmsteads persisted into this period. A well developed landscape of small villages and hamlets seems to have developed in (or by) the early medieval period⁶⁰, replete with a number of small market towns and administrative centres, such as Sandbach and Malpas, and the major urban centre of Chester.

The majority of the towns established in the medieval period have become considerably enlarged with the development of industries since the eighteenth century (see Industry). This change has been greatest in the Wirral, and around Warrington and Widnes. At Birkenhead, expansion took place in response to the development of the docks and associated industries, whereas Warrington and Widnes' expansion was largely related to chemical industries⁶¹. Much of the eastern

⁵² Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

⁵³ Cheshire County Council 2002-3a-q

⁵⁴ Garner 2007

⁵⁵ See Military

⁵⁶ Longley 1987

⁵⁷ Fairburn 2002a

⁵⁸ Cheshire County Historic Environment Record

⁵⁹ Fairburn 2002b

⁶⁰ Sylvester 1969

⁶¹ Cheshire County Council 2002 i & p

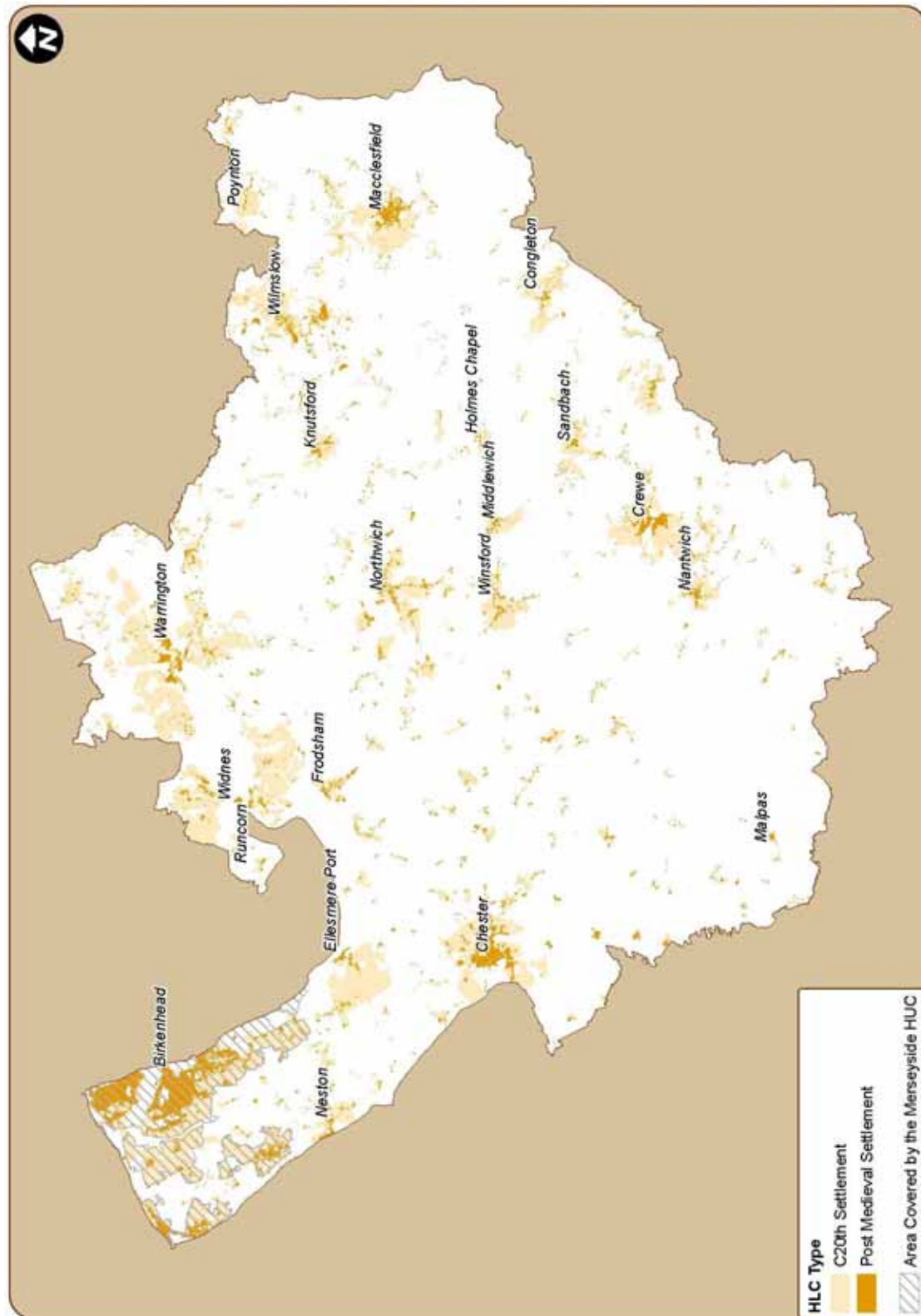


Figure 6: The Modern Extent of the Settlement HLC Group

side of the Wirral peninsula is now part of the Merseyside conurbation.

Crewe and Ellesmere Port developed in the nineteenth century, in locations which previously contained no nucleated settlement. Both are new towns which grew to serve the newly established railway and canal industries⁶². At Runcorn, initial expansion was related to the chemical industry. However, further expansion took place in the 1960s with the establishment of a New Town⁶³. The medieval market towns of Macclesfield and Congleton expanded in response to the textile industries⁶⁴ (they now act as commuter bases for the Manchester and Stoke conurbations), whilst Northwich expanded in relation to the development of the salt industry⁶⁵. In contrast, some historic towns, such as Malpas and Audlem have undergone little change and are still largely rural market towns⁶⁶.

Dispersed Settlement

Settlement within the project area is typically very dispersed. This pattern was often too small to fall within the remit of the characterisation process. However, where dispersed settlement has been subsumed into larger settlements, it has been recorded by the project as part of the historic core.

Many townships in the project area still contained no nucleated settlement in the nineteenth century. Roberts and Wrathmell⁶⁷ in their study of rural settlement in England (based upon the study of nineteenth century maps) have defined the pattern of settlement within the project area as having high to very high levels of dispersion for much of Cheshire, with lower levels in the Chester and Wirral area and higher levels north of the Mersey⁶⁸. The bulk of the project area is in their 'Cheshire Plain sub-province', which they describe as '...with the exception of the Wirral and adjacent areas, densities of nucleations were by the 1830s and 1840s notably and significantly lower than in any other lowland area of the country...'. The area north of the Mersey which forms the southern part of their 'Lancastrian Lowlands sub-province' is said to contain '...some of the most dense levels of dispersion found in the country...' ⁶⁹. They suggest that this pattern of settlement may pre-date the Norman Conquest.

Settlement growth during the nineteenth and early twentieth centuries and the rapid expansion in the latter half of the twentieth century, combined with planning policies such as village envelopes, have led to a greater degree of nucleation in the settlement pattern, which has seriously eroded a pattern of some antiquity.

⁶² Cheshire County Council 2002 e

⁶³ Cheshire County Council 2002 i

⁶⁴ Cheshire County Council 2002 c & l

⁶⁵ Cheshire County Council 2002 m

⁶⁶ Cheshire County Council 2002 a & m

⁶⁷ Roberts & Wrathmell 2000 & 2002

⁶⁸ Roberts & Wrathmell 2000

⁶⁹ Roberts & Wrathmell 2000

Managing Historic Settlements

This HLC Group is divided into two HLC Types:

- Post Medieval Settlement
- C20th Settlement

This HLC Group aims to define the extent of settlement and therefore areas of potential, rather than characterise the built environment by type of housing, etc. The reports for those towns examined for the Cheshire Historic Towns Survey⁷⁰ should always be considered in addition to the HLC dataset. The area of the Wirral not designated as green belt is part of a much wider characterisation of the built environment of Merseyside. It is intended that the results of this survey will supersede the Cheshire HLC dataset for this area.

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within this HLC Group. It is also important to note that a number of species protected by law e.g. great crested newts may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Settlement HLC Group.

- Scheduled Monuments
- Areas of Archaeological Importance
- Listed Buildings
- Conservation Areas
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ☐ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monument Record/Historic Environment Record.
- ☐ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ☐ Locally listed buildings; these are buildings which do not qualify for statutory listing, but are considered by the Borough Councils to be of local importance.
- ☐ HLC Types in this group may coincide with, or form a component part of, Areas of Archaeological Potential⁷¹.

⁷⁰ Cheshire County Council 2002 a-q

⁷¹ Cheshire County Council 2002 a-q

Post Medieval Settlement

This HLC Type represents the extent of settlement as defined by the Ordnance Survey 3rd edition County Series maps, produced between 1904 and 1909. It covers c.3% (7447 hectares) of the project area. This defines the maximum extent of each characterised settlement by the end of the nineteenth century, but does not guarantee the continuity of structures. Many of these settlements have earlier origins, which in some cases stretch back to the Roman period.

This HLC Type is not intended to replace the level of detail used in the Cheshire Historic Towns Survey⁷². Historic Landscape Characterisation should never be used to define Areas of Archaeological Potential, as centres of early settlements may not be related to the nineteenth-century urban cores, as for example at Middleswich.

This type can also be used to highlight areas of dispersed settlement which have been subsumed into larger settlements. This enables the consideration of an isolated historic building in relation to an earlier settlement pattern preserved within the modern settlement.

Post Medieval Settlement may potentially contain:

Historic buildings, locally distinctive building types, historic property boundaries and street layouts, and sub-surface archaeological remains.

Recommended historic environment management

in addition to any statutory controls

- ❑ To undertake assessments of settlement areas and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to historic buildings, associated historic features and sub-surface archaeological remains.
- ❑ To promote good quality building design for all new developments, which respect and enhance the layout of the adjacent settlement, for example, developments which would significantly increase the nucleation in an area of dispersed settlement should be resisted.
- ❑ To promote good quality building design for all new developments, which respect and enhance the traditional building styles and local distinctiveness of the locality.
- ❑ To increase awareness and understanding of the historical development of towns, including their buried archaeological heritage and the part that former areas of dispersed settlement play in the overall palimpsest of the settlement. Where possible this historic settlement pattern should be preserved.
- ❑ To promote the urban heritage as a cultural resource, whether as a focus for community-based projects or in the development of visitor attractions.

Key Indicative Sources

Ordnance Survey 3rd edition County Series maps (1904-9)
Cheshire County Council 'Cheshire Historic Towns Survey'⁷³

⁷² Cheshire County Council 2002 a-q

⁷³ Cheshire County Council 2002 a-q

C20th Settlement

This HLC Type represents the extent of the settlement as defined by the modern (c.2002) Ordnance Survey 1:10,000 scale maps. It defines the expansion of each settlement since the 3rd edition of the Ordnance Survey County Series maps (produced between 1904 and 1909) and the start of the project. Recent aerial photography (flown 1999-2001) has been used to refine this definition. This type covers c.9% (23,957 hectares) of the project area.

C20th Settlement may potentially contain:

Historic buildings overtaken by urban expansion, in addition to buildings and structures dating from the twentieth century, which have been designated for their architectural and historical value and sub-surface archaeological remains

Recommended historic environment management

in addition to any statutory controls

- ❑ To undertake assessments of settlement areas and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to historic buildings, associated historic features and buried archaeological remains.
- ❑ To promote good quality building design for all new developments, which respect and enhance the layout of the adjacent settlement, for example, developments which would significantly increase the nucleation in an area of dispersed settlement should be resisted.
- ❑ To promote good quality building design for all new developments, which respect and enhance the traditional building styles and local distinctiveness of the locality.

Key Indicative Sources

Ordnance Survey 3rd edition County Series maps (1904-9)

Ordnance Survey 1:10,000 scale maps

Cheshire County Council Cheshire Historic Towns Survey⁷⁴

Wirral Metropolitan Borough Council Aerial Survey (1997)

GetMapping.com (Cities Revealed®) Aerial Survey (1999-2001)

⁷⁴ Cheshire County Council 2002 a-q

Woodland



Figure 7: Cheshire Ancient Woodland

The Woodland HLC Group covers c.3.4% (8997 hectares) of the project area⁷⁵ and covers a range of woodland types from ancient woodlands to modern coniferous plantations. This proportion of woodland cover equates to less than half the national average⁷⁶.

Prehistoric and Romano-British Woodlands

Woodland began to colonise the British Isles from the end of the last glaciation c.12,000 years ago with colonisation by birch and pine. By 4,000BC mature deciduous woodland had developed over the majority of the British Isles. This woodland has been referred to as the 'wildwood'⁷⁷. It is probable that the entire project area would have been covered at this time in lime dominant or oak and hazel dominant woodland⁷⁸, with alder dominant woodland in the wetter areas⁷⁹.

Palaeo-environmental evidence from the wetlands of Cheshire and Warrington⁸⁰ has indicated that small scale clearances in the woodland cover were being made from the Mesolithic period. These clearances were made by burning and this may have been done to promote the growth of vegetation attractive to grazing animals⁸¹. However, it is likely that these clearances were short-lived, with the woodland cover soon regenerating. More permanent clearance and conversion of woodland into heath and farmland began in the Neolithic and increased during the Bronze and Iron Ages, with possibly over 50% of the British Isles having been cleared by 500BC⁸². Palaeo-environmental evidence for the project area would appear to mirror the national trends, with deposits from Bar and Peckforton Meres recording periods of increased soil erosion and decreases in tree pollen, suggesting periods of clearance occurring from the Neolithic and increasing in the later prehistoric period⁸³.

The archaeological and palaeo-ecological evidence for much of England during the late Iron Age and Romano-British periods suggests a cultivated landscape containing many small farmsteads and after the Roman invasion, villas⁸⁴. In contrast, the settlement evidence for the project area during the Iron Age is sparse, largely restricted to the hillforts and enclosures of the mid-Cheshire Ridge, and Romano-British settlement outside the major centres of Chester, Wilderspool and the 'wich' towns is equally elusive. However recent discoveries at Brook House Farm and Birch

⁷⁵ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

⁷⁶ Smart 1992

⁷⁷ Rackham 1986

⁷⁸ Rackham 1986

⁷⁹ Schoenwetter 1982

⁸⁰ Leah *et al* 1997

⁸¹ Mellars 1976

⁸² Rackham 1986

⁸³ Schoenwetter 1982

⁸⁴ Rackham 1986

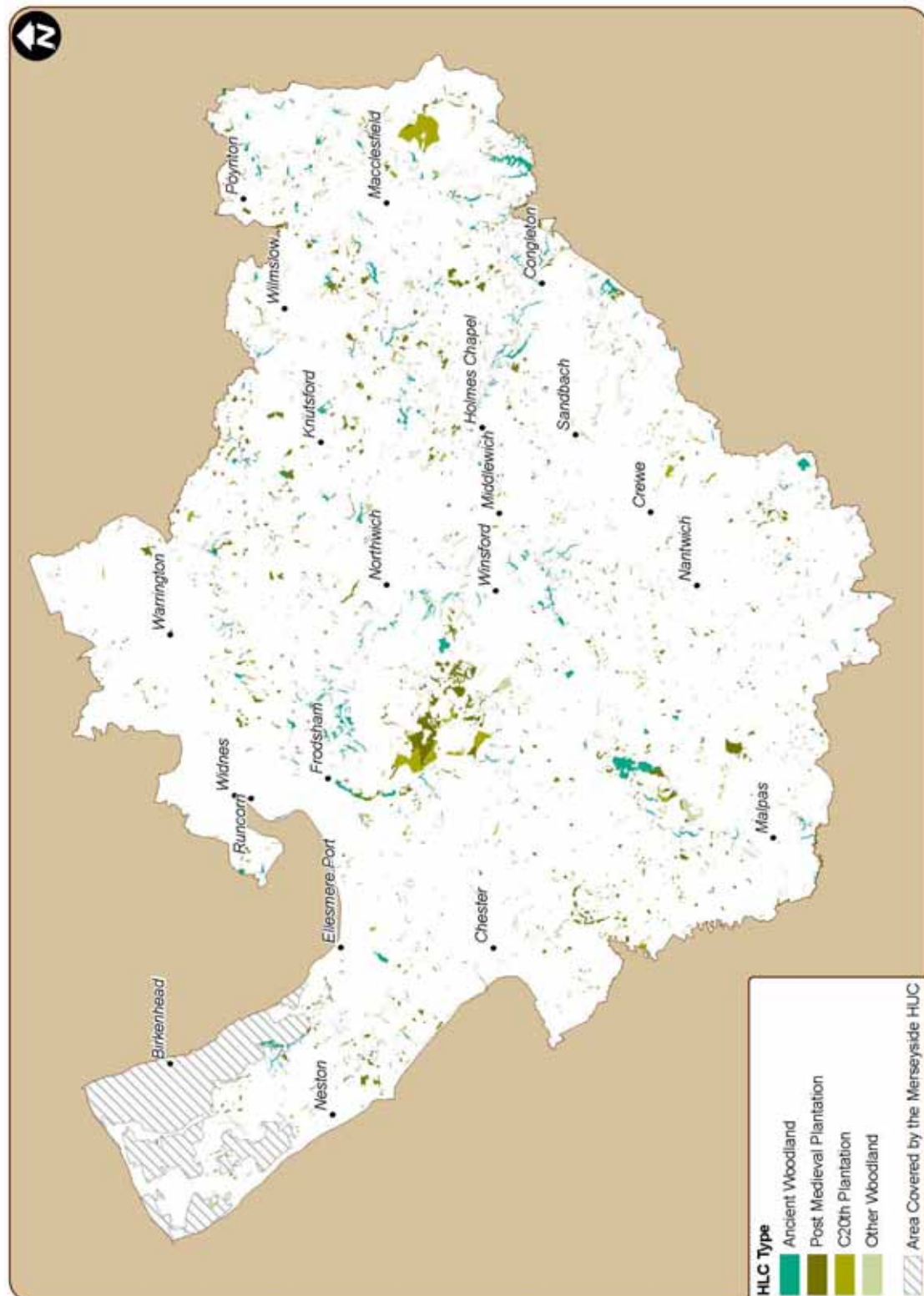


Figure 8: The Modern Extent of the Woodland HLC Group

Heath have shown that small unenclosed farmsteads were present⁸⁵ during these periods. The palaeo-environmental evidence does indicate that the use of the landscape intensified in the Iron Age and during the Romano-British period⁸⁶.

The Roman salt industries of the 'wich' towns would have required a significant fuel input, which may have come from managed coppices (woodland where new shoots at the base of tree stumps, known as stools, were repeatedly cropped for poles) in the vicinity. Wattle structures comprising coppiced wood have been recovered during the excavation of a Romano-British salt production site at Kingsley Fields in

Nantwich⁸⁷. The Romans are known to have created oak and chestnut plantations in Italy and introduced chestnut to the British Isles⁸⁸, but there are no known Romano-British plantations in the project area.

Medieval Woodlands

The degree to which the agricultural landscape remained intact or regenerated to woodland in the post-Roman period is debatable⁸⁹. What is evident is that the project area generally contains a considerable number of Old English place names indicative of woodland⁹⁰, as well as townships with woodland type names⁹¹.

The distribution of references to woodland made by the Domesday survey for Cheshire has been mapped by Sylvester⁹² and Morgan⁹³ respectively. This same Domesday distribution, together with Anglo-Saxon and Scandinavian place names indicative of woodland, has been mapped at a national scale by Rackham⁹⁴ and Roberts & Wrathmell⁹⁵. These maps suggest that there was little woodland on the Wirral, in the Chester hinterland and north of the Mersey. Woodland references increase in the central and southern parts of Cheshire and occur in large numbers in the far eastern Peak fringe. In fact Rackham⁹⁶ suggests that the Domesday survey records 27% of Cheshire as woodland. However, it should be noted that Cheshire at the time of the Domesday survey included much of Flintshire and was an already poor region recovering from the 'Harrying of the North'.

Although much of this woodland would have been a valuable resource to medieval communities, as a source of timber, underwood and grazing, the increasing population of the twelfth and thirteenth centuries would probably have led to assarting (the creation of enclosed fields derived from woodland) to bring more land into cultivation.

The project area contained a number of medieval forests⁹⁷. Forests in the Norman sense were a legal definition unrelated to woodland and referred to an area subject to forest law. These areas were the defined refuges for deer, to provide a regular access for hunting for the owner, usually the King or a favoured noble. Settlements and their fields could commonly exist within a forest. However, the inhabitants were severely restricted in their actions by forest law. There were a wide range of offences upon which fines could be applied, for instance the inhabitants were unable to create

⁸⁵ Fairburn 2002a & b

⁸⁶ Leah *et al* 1997

⁸⁷ M Leah *pers comm*

⁸⁸ Rackham 1986

⁸⁹ Rackham 1986

⁹⁰ Rackham 1986

⁹¹ Higham 1993

⁹² Sylvester 1958b

⁹³ Morgan 2002

⁹⁴ Rackham 1986

⁹⁵ Roberts & Wrathmell 2000 & 2002

⁹⁶ Rackham 1986

⁹⁷ Green 1979

enclosures to protect their crops, instead having to suffer damage from the deer. In time, the forests became more important as a revenue resource (from fines and rents) than as a hunting preserve.

The degree to which the forests of the project area were wooded varied. The Forest of the Wirral covered the whole peninsula and was an area of comparatively dense settlement with low woodland cover⁹⁸; whereas Mara and Macclesfield Forests were thinly inhabited and potentially well wooded, attested by the references in the Domesday survey to hawk's eyries and enclosures to capture roe deer⁹⁹. The gradual clearance of the more wooded forests is evidenced in the many fines and rents recovered for assarting¹⁰⁰.

Examination of the origin of the field systems within the Ancient and Post Medieval Fields HLC Groups (i.e. field systems enclosed prior to 1600AD and those enclosed between 1600AD and pre-dating the twentieth century, see Figure 9.) shows a strong correlation between the distribution of fields enclosed from woodland and the large areas of woodland recorded in the Domesday survey as plotted by Roberts & Wrathmell¹⁰¹. High densities of assarts are evident on the northern and southern margins of the Forests of Mara and Mondrem and along the Cheshire, Shropshire and Staffordshire borders. Those boroughs within this area (i.e. Congleton, Crewe and Nantwich, Macclesfield and Vale Royal) typically have 16-25% of their total area for the Ancient Fields HLC Group originating as woodland (i.e. fields which were probably enclosed from woodland). Some of the gaps are evidently filled by former moss/wetland, the shallower of which (subject to climatic conditions) has the potential for some woodland cover and may potentially have been recorded as such by the Domesday survey. It is worth noting that this area also contains evidence for, and documentary references to, a number of medieval deer parks¹⁰² potential indicators of woodland.

In the area between Poynton and Macclesfield on the Peak fringe, woodland was found to be under-represented. It is probable that this is in part due to extensive re-organisation of the landscape in the vicinity of Lyme Park. It is also probable that some of the ancient field systems of unknown origin in this area may have been assarts; a supposition supported by the evidence for a number of medieval deer parks¹⁰³ and surviving fragments of ancient woodland.

Areas identified by the HLC as generally containing no ancient woodland and few ancient field systems of woodland origin broadly correlate with those areas which have few or no documentary references to woodland. However, in the southern part of the Wirral peninsula, there is one documentary reference to a large area of woodland, which may relate to the small area of surviving ancient woodland near Bromborough. Between Bromborough and Chester there are a few areas of assarting, as well as evidence for a number of medieval deer parks. Sylvester¹⁰⁴ has identified that on this part of the Wirral peninsula settlement is of a more dispersed character, and it is the only area to contain any medieval moated sites. Despite the absence of place names indicative of woodland, the evidence suggests that in this area woodland may have been under-represented in the Domesday survey. However this is a question which may only be answered by further detailed research.

⁹⁸ Green 1979

⁹⁹ Morris 1978

¹⁰⁰ Green 1979

¹⁰¹ Roberts & Wrathmell 2000 & 2002

¹⁰² Morris 1978

¹⁰³ Morris 1978

¹⁰⁴ Sylvester 1969

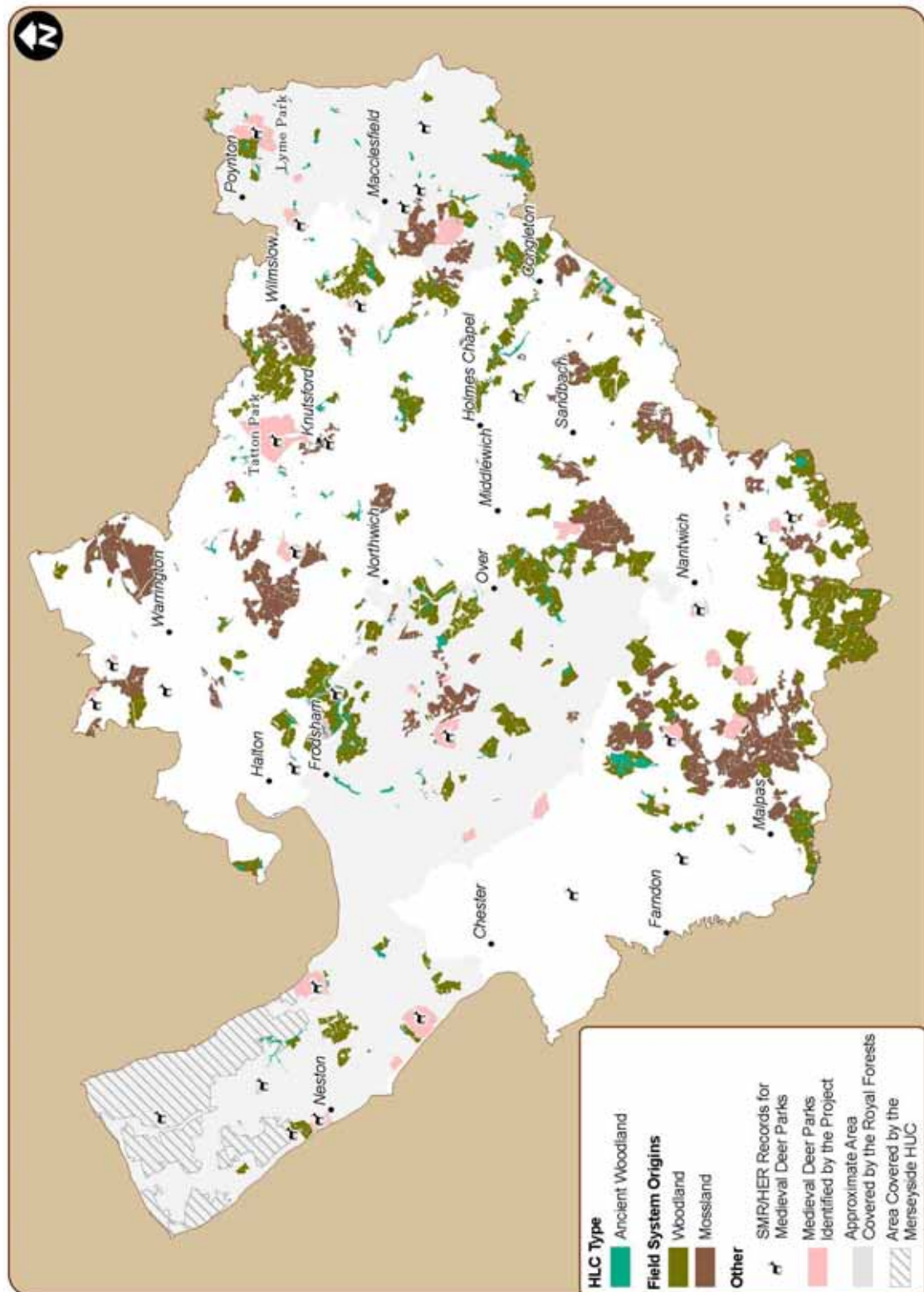


Figure 9: Evidence for the Extent of Woodland in the Medieval Period

It is also notable that away from the large areas of woodland recorded in the Domesday survey, the correlation between surviving ancient woodland and the ancient field systems of woodland origin is less conclusive. The eastern and southern parts of the Chester City administrative district have a number references in the Domesday survey to woodland, but the ancient woodland and ancient field systems of woodland origin recorded in this area are limited. This may suggest that here the woodland degraded to heath prior to enclosure, though these references are not necessarily referring to woodland *per se*, but often to timber and underwood resources. A similar pattern is evident in the western part of Macclesfield Borough, west of Knutsford, although fragments of ancient woodland still survive here. However in this area it is the extensive re-organisation of the field systems in the eighteenth and nineteenth centuries which has effectively removed much of the evidence.

Post Medieval Woodlands

It is probable that by the sixteenth and seventeenth centuries the project area was a much more thinly wooded landscape than that recorded by the Domesday survey and most if not all woodland would have been managed. In the seventeenth century there were complaints from the Chief Forester of Delamere that timber had to be bought in to repair the lodge¹⁰⁵. Prior to the Civil War it had been estimated that 2,200 oaks were available for timber in Delamere, however, by the late-eighteenth century there was apparently little or none left¹⁰⁶.

From the mid-seventeenth century there was increasing national concern over the state of timber resources in the country, plantations being a rarity. These concerns led to the start of commercial forestry and the widespread introduction of foreign conifers from the eighteenth century onwards¹⁰⁷. One of the earliest plantations in the project area was at Alderley Hall where a beech plantation was created around 1650¹⁰⁸.

The main period for the creation of woodland plantations was in the years between 1750 and 1850¹⁰⁹. This process was significantly aided by the passing of an Act of Parliament in 1756 to enable the creation of woodland on common land, and in 1757 by the provision of grants by the Royal Society of the Arts for the plantation of, initially hardwoods and later, coniferous woodland. Large plantations were established on Alderley Edge (Scots pine) and 133 acres of woodland was created on heath adjacent to Delamere Forest, earning its creator a gold medal from the Royal Society for his efforts¹¹⁰. This expansion of commercial forestry continued in the late-eighteenth and nineteenth centuries, creating extensive plantations often on areas of former heath. In Delamere this was initially intended to maintain supplies for shipbuilding. Woodlands were also being created for the new designed parklands within the project area, which included many exotic tree species (see Ornamental).

With the introduction of fox hunting from the mid-seventeenth century, and the increasing popularity of field sports in the eighteenth and nineteenth centuries, small coverts for the protection and promotion of foxes and game were created¹¹¹. Initially, some of these coverts were deliberately planted with scrub and gorse. However, these areas have at some point either been deliberately replanted with trees or trees have re-established themselves. These small woodlands, generally between 4 and 6

¹⁰⁵ Green 1979

¹⁰⁶ Green 1979

¹⁰⁷ Smart 1992

¹⁰⁸ Smart 1992

¹⁰⁹ Smart 1992

¹¹⁰ Smart 1992

¹¹¹ Rackham 1986

hectares in size, are an important landscape characteristic in large parts of the project area.

Within the Mersey valley many small osiers or willow beds were being managed to produce withies suitable for basket making. Although cultivated for centuries, it is probable that these plantations date from the eighteenth and nineteenth centuries as the plantation will often respect the boundaries of earlier field systems. Larger more complex osier beds were also established, for example at the Eaton estate adjacent to the river Dee.

Modern Woodlands

Twentieth century saw further changes in the woodland cover of the project area. The two World Wars witnessed the loss of many small woodlands to create more agricultural land, although many small woods have been created in more recent years through woodland grant schemes. Commercial forestry has continued, predominantly in some of the former heathland areas and in Delamere and Macclesfield Forests, although the focus of these areas is beginning to change from forestry to recreation.

Managing Woodland Heritage

The Woodland HLC Group has been divided into four types:

- Ancient Woodland
- Post Medieval Plantation
- C20th Plantation
- Other Woodland

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those that commonly occur within this HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Woodland HLC Group.

- Scheduled Monuments
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Woodland may form part of an ornamental landscape. Ornamental landscapes considered to be of national importance have been included on the English Heritage Register of Parks and Gardens.
- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record or Historic Environment Record.
- ❑ High quality habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ❑ Habitats included on the Inventory of Ancient Woodland¹¹² or Cheshire Habitat Inventories.

¹¹² English Nature 2000

Ancient Woodland

This HLC Type represents all woodland dating from before to 1600AD and covers c.0.8% (2131 hectares) of the project area. It is largely found along the mid-Cheshire Ridge, Weaver Valley and the eastern parts of the project area. These woodlands range in size from 1 to 123 hectares and are largely irregular in shape with sinuous or curving edges.

Woodlands of this HLC Type are for the most part defined by the Inventory of Ancient Woodland¹¹³. The Inventory does not include woodlands of less than 2 hectares, but this project has identified a small number of woodlands of this size which would meet the Inventory's criteria.

Woodland included on the Inventory is defined as an area continuously wooded since 1600 and including ancient semi-natural woodland, (i.e. areas that have never been cleared or replanted) and ancient replanted woodland (i.e. ancient woodlands that have been replanted for forestry). Less than 1% of the woodland in the project area is classified as ancient semi-natural woodland; however this type of woodland comprises approximately 80% of all woodland included on the Inventory of Ancient Woodland in the project area. Hence, these woodlands are now a very rare landscape type.

Woodlands of this HLC Type may potentially contain:

Archaeological and historic landscape features including those relating to medieval and later exploitation and management of woodlands (e.g. wood banks, internal boundaries and ancient coppice stools), together with those forming part of the wider landscape, such as, former boundary banks and field systems.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and the Forestry Commission's Woodland Grant Schemes.
- ❑ To undertake assessments of woodlands and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.

Key Indicative Sources

English Nature 'Inventory of Ancient Woodland'¹¹⁴
J McN Dodgson 'The Place-Names of Cheshire'¹¹⁵

¹¹³ English Nature 2000

¹¹⁴ English Nature 2000

¹¹⁵ Dodgson 1970a-b, 1971, 1972 & 1981a-b

Post Medieval Plantation

This landscape type represents deliberately created woodland post-dating 1600AD and covers c.1.5% (4010 hectares) of the project area. Areas of large-scale forestry are mostly found along the mid-Cheshire Ridge and the more sizeable former heaths and forests of the project area. Smaller areas of woodland associated with field sports, together with coniferous plantations and those surviving from former parks are also dispersed throughout the project area. All these woodlands are predominantly regular or semi-regular in shape with straight edges and range in size from under 1 hectare up to 175 hectares. They may comprise solely deciduous trees or conifers (often Scots pine), or a mixture of the two.

Woodlands of this HLC Type may potentially contain:

Archaeological and historic landscape features, including those relating to the medieval and later exploitation and management of woodlands (e.g. wood banks, internal boundaries, saw pits and indications of charcoal burning), together with those forming part of the wider landscape, such as boundary banks and field systems. Features within former designed parks may also survive, including earthwork and structural remains, and indications of planting schemes of native and exotic trees.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and the Forestry Commission's Woodland Grant Schemes.
- ❑ To undertake assessments of woodlands and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

J McN Dodgson 'The Place-Names of Cheshire'¹¹⁶

¹¹⁶ Dodgson 1970a-b, 1971, 1972 & 1981a-b

C20th Plantation

This landscape type represents deliberately created woodland dating from the twentieth century and covers c.0.5% (1408 hectares) of the project area. Areas of large-scale forestry are mostly found along the mid-Cheshire Ridge and the more sizeable former heaths and forests of the project area. Smaller areas of woodland, created with the help of Woodland Grant Schemes and other landscaping measures, are dispersed throughout the project area.

Woodlands of this HLC Type may potentially contain:

Archaeological and historic landscape features, such as, relic features from the pre-plantation landscape.

Recommended historic environment management

in addition to any statutory controls

- ❑ To undertake assessments of woodlands and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To promote the use of locally derived species and methods of planting for the design of new plantations and for other landscaping work.

Key Indicative Sources

Ordnance Survey 1:10,000 scale maps

Other Woodland

This type includes areas of regenerated woodland, woodland scrub and woodlands of unknown origin within the project area and covers c.0.6% (1447 hectares) of the area.

Woodlands of this HLC Type may potentially contain:

Archaeological and historic landscape features, such as relic features from the pre-plantation landscape.

This HLC Type is divided into two HLC subtypes:

Post Medieval Other Woodland

This sub-type includes areas of woodland which predate the twentieth century (those which are shown on the Ordnance Survey 1st and 3rd editions of the County Series maps) and covers 0.3% (901 hectares) of the project area.

C20th Other Woodland

This sub-type includes areas of woodland which date from the twentieth century and covers 0.2% (546 hectares) of the project area.

Recommended historic environment management

in addition to any statutory controls

- ❑ To undertake assessments of woodlands and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To promote the use of locally derived species and methods of planting for the design of new plantations and for other landscaping work.

Key Indicative Sources

Ordnance Survey 3rd edition County Series maps (1904-9)

Ordnance Survey 1:10,000 scale maps

Non-improved Land



Figure 10: Burton marshes

The Non-improved Land HLC Group covers c.4.2% (11,116 hectares) of the project area¹¹⁷. It covers a range of natural and anthropogenic landscapes from salt marshes to heathland and includes some of the oldest and newest landscapes in the county.

Mosses

Mosses are areas of peat, which have formed in hollows or depressions left in the landscape after the last glaciation 10,000 to 12,000 years ago. The county was ‘...formerly dotted with small mosses and meres, each individually named and known to the local inhabitants...’¹¹⁸. However, the picture today is one of fragmentary survival, with place names attesting the loss of these sites. Mosses are generally larger and more extensive north of the Mersey, with a patchwork of much smaller mosses to the east of the Cheshire Sandstone Ridge.

These mosses have a long history of exploitation. Field walking undertaken during the North West Wetlands Survey¹¹⁹ has recovered numerous worked flints in their vicinity. Also, the extensive palaeo-environmental record contained within the peat attests to episodes of woodland clearance in the vicinity through the Mesolithic, Neolithic, Bronze Age and later periods¹²⁰. A considerable number of Bronze Age artefacts have been recovered from wetland contexts in the study area, including bronze axes and stone hammers¹²¹. These artefacts may have been lost during exploitation of the mosses. However, this is more likely to be related to a national pattern of ritual deposition of artefacts in wetlands¹²². An ultimate expression of wetland associated ritual is demonstrated by one of Cheshire’s (and Britain’s) most spectacular finds, that of Lindow Man, recovered from Lindow Moss, who may have been a sacrificial offering. From the Roman period onwards the palaeo-environmental and other evidence for cultivation and clearance on the fringes for the moss increase¹²³.

Mosses would also have been used for grazing and as a source of fuel. The cutting of peat for fuel (right of Turbary) has been fiercely defended since the medieval period and has led in places to the formation of a distinctive enclosure pattern referred to as ‘moss rooms’ (see Ancient Fieldscapes). Throughout the post medieval and modern periods many mosses were drained and brought into agricultural production (see Post Medieval Fieldscapes). Some of these ‘improvement’ programmes were the subjects of Acts of Parliament, while others were turned over to forestry or have been intensively cut for peat and the underlying mineral deposits since the nineteenth century.

¹¹⁷ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

¹¹⁸ Leah et al 1997

¹¹⁹ Leah et al 1997 & Cowell & Innes 1994

¹²⁰ Leah et al 1997 & Cowell & Innes 1994

¹²¹ Cheshire County Historic Environment Record

¹²² Longley 1987

¹²³ Leah et al 1997 & Cowell & Innes 1994

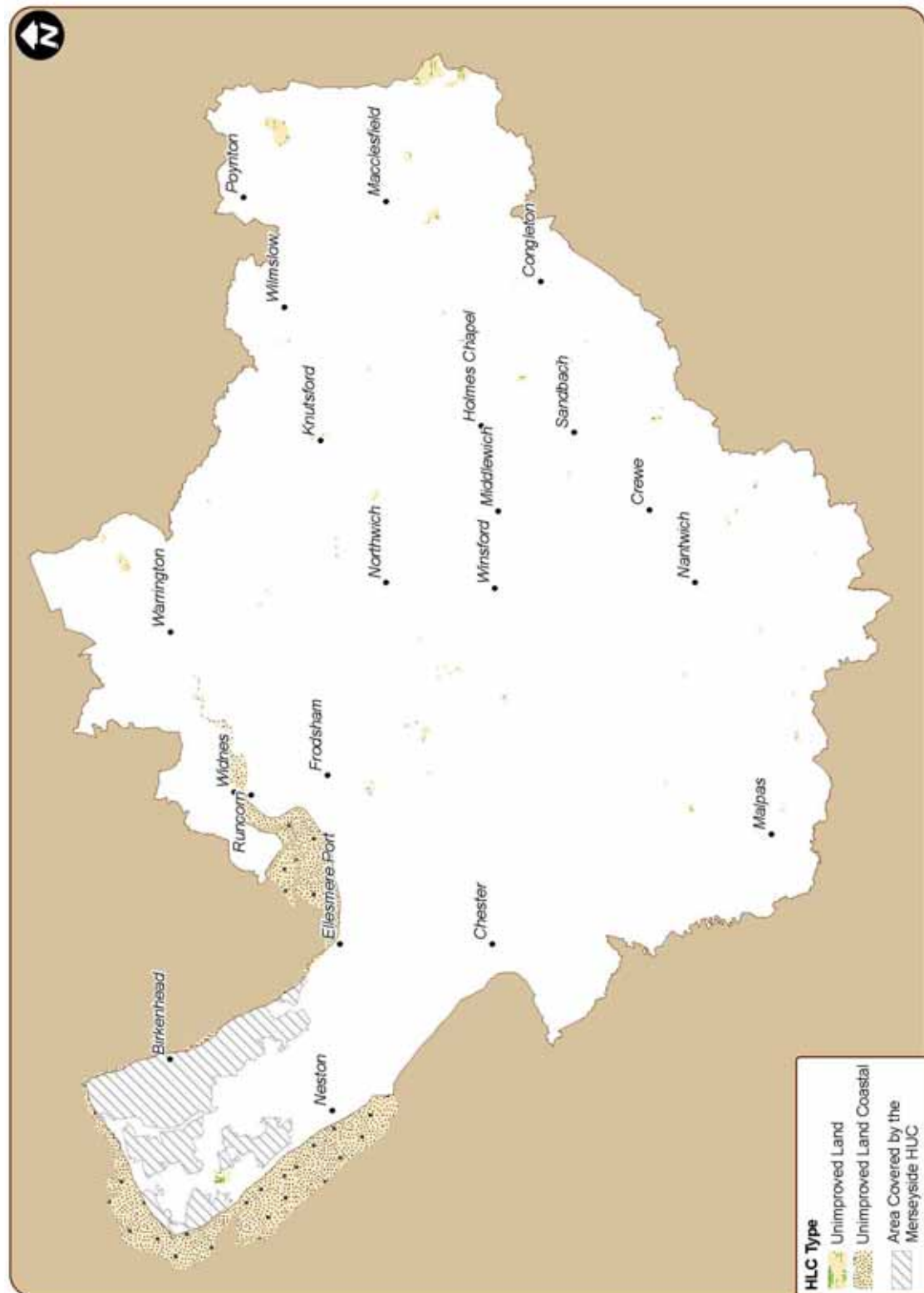


Figure 11: The Modern Extent of the Non-improved HLC Group

Heaths

Heath, or more accurately lowland heath, is a term relating to a distinctly open landscape of low shrubs and grassland, which includes gorse, heather and bracken. Lowland heath occurs below 250m and 300m AOD on impoverished acidic soils, typically sandy, which are known as podsoles. Burdett's map of Cheshire (1777) shows that lowland heath was more extensive than it is today, with vast tracts of this landscape in the former Royal Forest of Mara and at Rudheath, with many smaller heaths dotted around the project area. Today a place name or patches of gorse in the hedgerow are often the only reminders of a former area of heath.

Lowland heaths can be valuable for the resources they provide. The majority of the plants growing on lowland heaths can be grazed and it is probable that this has been their main use through time. Gorse and heather have been used widely as a fuel source, while heather can also be used for thatching material. Bracken, unpalatable to animals, can be cut and used for fuel. It was also a source of bedding material for animals. In the eighteenth and nineteenth centuries the ashes from burnt bracken were an important ingredient in soaps and detergents.

Lowland heaths have been formed entirely through centuries of human activity. Palaeo-environmental evidence indicates that prior to 6000BC many areas that we currently associate with lowland heath were covered by woodland¹²⁴. There are indications that during the later Mesolithic small woodland clearances were being made¹²⁵ and some of these may have lasted long enough to become heath. However, in the majority of cases where the heathland was left unmanaged, it would eventually revert to woodland. Lowland heath began to form on a much wider scale during the Neolithic period and Bronze Age¹²⁶. Palaeo-environmental evidence recovered during the excavation of a Neolithic and Bronze Age settlement at Oversley Farm in Cheshire, indicated that much of the land in the immediate vicinity was heath¹²⁷. Many Bronze Age burial monuments in southern England have heathland soils buried below them, indicating that lowland heath was already in existence by that point¹²⁸.

The degree to which lowland heath was widespread prior to the Norman invasion is attested in the number of Anglo-Saxon place names relating to heaths and references in Anglo-Saxon Charters¹²⁹. Much of this lowland heath appears to be associated with areas of woodland, possibly regenerated from former heath and managed as wood pasture as part of the overall grazing regime. Generally, lowland heath was not recorded separately from other grazing in the Domesday survey, but its importance is indicated by the degree to which manorial courts would protect the common grazing from encroachment¹³⁰. However, the increasing population of the twelfth and thirteenth centuries would probably have led to encroachment as heath was enclosed and used more intensively. In addition, the increase in grazing of wood pastures, and increasing demand for timber, may have led to the conversion of wood pasture to heath. Heathland was also important for rabbit farming and many artificial warrens were constructed on heaths; the rabbits sharing the grazing with the commoners' livestock. The place name Coney Green near Little Budworth¹³¹ in Cheshire may indicate one such area.

¹²⁴ Rackham 1986

¹²⁵ Leah *et al* 1997

¹²⁶ Rackham 1986

¹²⁷ Garner unpublished

¹²⁸ Rackham 1986

¹²⁹ Rackham 1986

¹³⁰ Rackham 1986

¹³¹ Dodgson 1971

From the sixteenth and seventeenth centuries enclosure and encroachment increased, with areas of heath being enclosed by squatters, and larger tracts of land enclosed by agreement or by a single landlord (see Post Medieval Fieldsapes). Activity of this kind increased in the eighteenth century, with the majority of the project area being enclosed by the time of Burdett's map in 1777. The final areas were enclosed in the late eighteenth and early nineteenth centuries by private agreement or Parliamentary Act.

Moors

Moorland is a term relating an open landscape lying above 250-300m AOD and whose vegetation is dominated by heather. It is restricted to the far eastern edge of the project area in the Peak fringe and has been included with heaths in the characterisation process. The soils in parts of this area are podsolised and have formed upland heaths, while in some areas a covering of peat has formed. The origin of moorland is not as certain as for heaths, although the preserved tree stumps and trunks that have been discovered within the peat suggest these areas were once forested. Palaeo-environmental evidence from northern Britain has shown that much of the moorland is natural in origin¹³². However, it is probable that the majority of the moorland in the project area was once woodland, sharing much of its history with lowland heaths. Prehistoric activity in this area is attested to by the Bridestones, a Neolithic funerary monument located south of Congleton¹³³. Quarrying for stone has been undertaken in this area since the medieval period, reaching its peak in the nineteenth century (see Industry). Other industrial remains are scattered throughout and include extraction hollows (bell pits) and textile mills.

Coasts and Estuaries

Along the Wirral coast and estuaries of the rivers Dee and Mersey is a wide range of landscapes, including salt marshes, sand banks and sand dunes. The coastal marshes, together with the tidal mud and sand banks, are particularly extensive in the Dee estuary and to the north-west of the Wirral.

Sea levels in the area have changed a number of times since the last glaciation. The 5,000 year old submerged remains of a post-glacial forest on the Meols foreshore, indicate that much of the Wirral at that time was some distance from the coast¹³⁴. The subsequent changes in sea level present the potential for the preservation of terrestrial landscapes beneath the extensive tidal mud and sand banks of the Dee and Mersey estuaries and the Irish Sea. In addition, deposits (especially those formed in the Dee estuary since its canalisation) have the potential to preserve a wide range of archaeological features and structures from the remains of abandoned or wrecked boats to fish traps.

The salt marshes of the Dee and Mersey estuaries and would have been a good source of fish, wildfowl and rough grazing. The estuarine marshes have been largely reclaimed, with the most extensive areas once lying between Ellesmere Port and Frodsham (see Post Medieval Fieldsapes) and are clearly visible on Burdett's 1777 map of Cheshire.

Flashes

A flash is an area of subsidence created by the mining of rock salt and pumping of brine¹³⁵. Salt production has been an important industry in Cheshire since the Iron Age and considerable evidence of Roman salt production has been found during

¹³² Rackham 1986

¹³³ Cheshire County Historic Environment Record

¹³⁴ Cowell & Innes 1994

¹³⁵ OED

archaeological excavations in Middlewich and Nantwich¹³⁶. Nineteenth-century brine pumping (pumping water into the halite deposits to extract the salt in solution) lead to cavities forming in the halite rocks below the surface. These cavities, in addition to those created by mining, often eventually lead to subsidence, forming a depression in the landscape which often filled with water. However some, such as Ashton's and Neumann's flashes in Northwich, were utilised as limebeds for the disposal of the lime waste (alkaline by products) produced by the surrounding chemical industries. These features occur in all the halite areas of the project area, but their greatest density is at Northwich, the centre of salt production in Cheshire in the nineteenth century.

¹³⁶ Cheshire County Historic Environment Record

Managing Non-improved Landscapes

The Non-improved Land HLC Group has been divided into three HLC Types:

- Unimproved Land
- Unimproved Coastal Land
- Flashes

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those that most commonly occur within the Non-improved Land HLC Group. It is also important to note that a number of species, protected by law e.g. badgers and great crested newts may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Non-improved Land HLC Group.

- Scheduled Monuments
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Special Protection Areas
- Ramsar Sites

Material Considerations

There is a range of non-statutory lists and registers that record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record or Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ❑ Natural Habitats included on the Cheshire Habitat Inventories.

Unimproved Land

This type includes mosses, heath and moorland and covers c.0.5% (1,248 hectares) of the project area. It contains a wide range of archaeological remains covering every period since the Mesolithic, together with significant palaeo-environmental remains. These landscape types are now rare within the project area.

Landscapes of the Unimproved Land HLC Type may potentially contain:

Archaeological and historic landscape features, including those relating to their exploitation (e.g. chance finds, burial structures) and geological deposits of significant palaeo-environmental value

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and the Forestry Commission's Woodland Grant Schemes.
- ❑ To undertake assessments of unimproved land and its immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features, and palaeo-environmental remains.

Key Indicative Sources

Ordnance Survey 1st edition County Series maps (1870-5)

Ordnance Survey 1:10,000 scale maps

Penny Anderson Associates 'A Peatland Inventory for Cheshire'¹³⁷

S Clarke 'Cheshire Heathland Inventory'¹³⁸

North West Wetlands Survey¹³⁹

English Nature 'Sites of Special Scientific Interest'¹⁴⁰

¹³⁷ Penny Anderson Associates 1994

¹³⁸ Clarke 1995

¹³⁹ Leah et al 1997 & Cowell & Innes 1994

¹⁴⁰ English Nature 2004

Unimproved Land Coastal

This type includes salt marsh, tidal mud and sand banks, estuarine marsh and sand dunes. It covers c.3.7% (9,616 hectares) of the project area (including estuarine areas), and is restricted to the Wirral coast, and Mersey and Dee estuaries. The shifting sand dunes of the northern end of the Wirral peninsula were previously more extensive, but they still have the potential to overlie earlier sites.

During the eighteenth and nineteenth centuries the Mersey and its estuary experienced rapid industrialisation and expansion associated with the port of Liverpool. Therefore, all landscapes within this type could potentially include finds and features relating to the industrial and seafaring heritage of this area.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features, including those relating to their exploitation (e.g. fish traps) and the rich industrial and seafaring heritage of the Wirral (e.g. wrecks) and geological deposits of significant palaeo-environmental value.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To undertake assessments of unimproved land and its immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 1st edition County Series maps (1870-5)

Ordnance Survey 1:10,000 scale maps

Northwest Wetlands Survey¹⁴¹

¹⁴¹ Leah et al 1997 & Cowell & Innes 1994

Flashes

This type covers less than c.0.1% (253 hectares) of the project area. Flashes are the result of subsidence associated with the extraction of brine from halite deposits. They are often filled with water, but may have been utilised as limebeds for the disposal of the lime waste from the chemical industry.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features associated with the salt industry, relict features from the pre-subsidence landscape and rare alkaline habitats.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship schemes.
- ❑ To undertake assessments of unimproved land and its immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 1st edition County Series maps (1870-5)

Ordnance Survey 1:10,000 maps

Ornamental Landscapes



Figure 12: Eaton Park near Chester

The Ornamental HLC Group covers c.2.6% (6797 hectares) of the project area¹⁴² and comprises all forms of ornamental and designed landscapes, other than public parks.

Deer Parks

A deer park was ‘...a large, enclosed area where deer were contained by a deer-proof pale...’¹⁴³. The pale typically comprised a ditch with an earthen bank topped by a hedge or fence and in some cases there were further internal divisions used to separate grazing areas from coppices. The main purpose of the park, in the medieval period, was to provide a source of venison, a status food, as well as providing a source of timber. Within deer parks trees would often be pollarded, a form of management where trees were cut back

to a point above the reach of the browsing deer, rather than to ground level to create a coppice stool.

Deer parks are often considered to have been introduced shortly before the Norman Conquest. However, the Domesday survey records a large number of English deer enclosures known as *haiae*, *haga* or *hays*¹⁴⁴. References to these *haiae* in Cheshire occur where significant areas of woodland were recorded in the Domesday survey, with four *haiae* recorded at Kingsley specifically for the purpose of catching roe deer¹⁴⁵. Nationally a few of these enclosures are known to survive into the later medieval period as deer parks. Liddard argues that there is a much stronger relationship between these features and deer parks, with the Domesday assessors using the terms *parcus* (park) and *haiae* interchangeably, suggesting there was little distinction between the two. He therefore concludes that ‘...there may have been a much closer association between the Anglo-Saxon and Norman deer enclosures than had previously been supposed...’¹⁴⁶, suggesting deer parks have Anglo-Saxon origins.

The number of parks increased in the twelfth century, possibly due to the introduction of the more easily managed fallow deer, and by the thirteenth century there were c.3,200 deer parks in England¹⁴⁷. Within the project area deer parks are closely associated with assarts¹⁴⁸ and areas in which significant woodland cover was recorded in the Domesday survey¹⁴⁹. For example there is a concentration of deer parks in southern Cheshire in an area bounded by Malpas in the west, Nantwich in the east, and the Forest of Mara in the north. A similar concentration is evident in the area around Knutsford and Wilmslow. Deer parks are also closely associated with

¹⁴² Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

¹⁴³ Muir 2004

¹⁴⁴ Liddard 2003

¹⁴⁵ Liddard 2003

¹⁴⁶ Liddard 2003

¹⁴⁷ Rackham 1986

¹⁴⁸ See Figure ** and Ancient Fieldscapes

¹⁴⁹ Sylvester 1958b & Morgan 2002

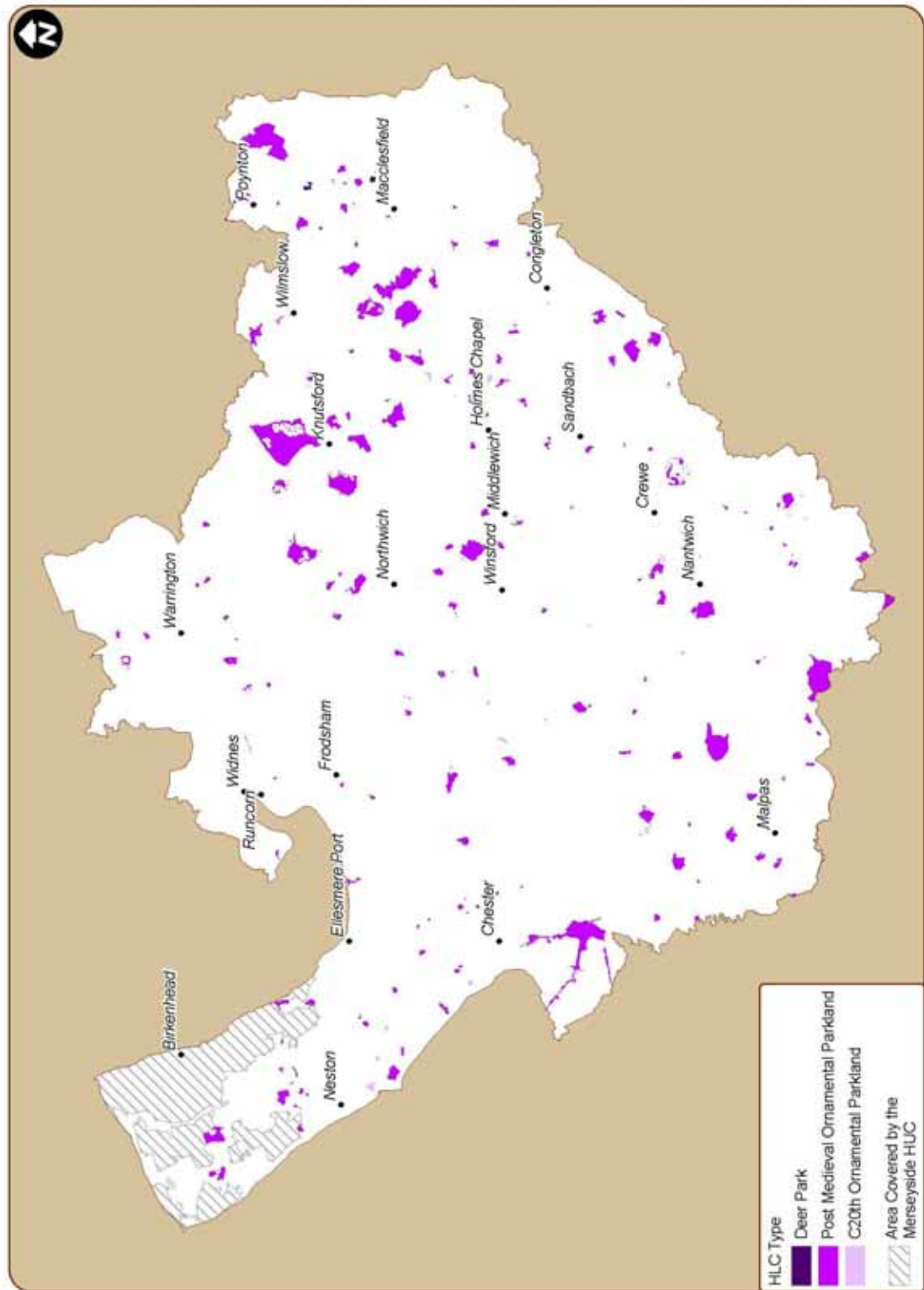


Figure 13: The Modern Extent of the Ornamental Landscapes HLC Group

the areas subject to Forest Law (see Woodland). The project area includes some very large medieval deer parks, with Tatton Park one of the largest in England encompassing an entire township¹⁵⁰.

From the thirteenth century the country's deer parks began to go out of use and by the sixteenth and seventeenth centuries many had been abandoned or converted to other uses¹⁵¹. However within the project area a small number of new parks, such as the New Pale, were created during the sixteenth and seventeenth centuries.

In the southern part of the project area parks seem to have been largely enclosed for agriculture by the seventeenth century. In the east parks largely survived to become ornamental and landscape parks in the eighteenth and nineteenth centuries. The parks within the Forest of Mara (Delamere), a royal hunting preserve, survived until disafforestation in the nineteenth century, not as functioning deer parks, but as farms¹⁵². Along the Wirral, the story is more mixed, with Shotwick Park surviving into the seventeenth century and Hooton Park becoming a landscape park (Ornamental Parkland). Elsewhere in the project area their conversion to agriculture appears to have largely taken place by the eighteenth and nineteenth centuries.

Ornamental Parkland

The earliest known ornamental gardens in Britain are associated with the Romano-British villa at Fishbourne¹⁵³ and the remains of gardens are also known from medieval monastic sites. In the sixteenth and seventeenth centuries the popularity of gardens grew and many new gardens were built in the style of those of Renaissance Italy. Although gardens of this date do not survive within the project area, features such as walls, terraces and prospect mounds do, notably at Gawsorth and Kinderton in Cheshire¹⁵⁴.

From the mid-seventeenth century a new style of garden was introduced into Britain, copying the Palladian gardens of France. These ornamental parks were much more extensive than their predecessors and were based on very formal geometric patterns. The house would be the focal point of the design, surrounded by geometric flower beds outlined by low walls or clipped hedges. Water would be confined to rectangular canals or circular basins. Straight avenues of trees would radiate out from the house across the parkland. These new gardens reflected the '...spirit of absolutism...' and the owners '...authority over man and nature...',¹⁵⁵ and one of the best examples of this style in the project area was the park at Cholmondeley¹⁵⁶.

In the mid-eighteenth century a new indigenous style developed '...reflecting the development of nature-poetry and the discovery of the countryside and landscape of Britain...' ¹⁵⁷. Central to these new landscape parks the idea of 'wilderness'. The house was no longer the focal point. Straight drives replaced winding ones, which gave ever-shifting views of the house and park. The grass of the parkland would seem to sweep up to the house. A ha-ha, a form of bank and ditch, kept livestock off the lawns without obscuring the view from the house. Avenues of trees were replaced with apparently random clumps, often planted to direct the eye toward distant views or parkland features. From the beginning of the nineteenth century designers began to turn away from the 'wilderness' ideal toward more moderate and

¹⁵⁰ Harrison 1903

¹⁵¹ Rackham 1986

¹⁵² Fairhurst 1998

¹⁵³ Thacker *undated*

¹⁵⁴ Cheshire County Historic Environment Record

¹⁵⁵ Thacker *undated*

¹⁵⁶ Goodway *undated*

¹⁵⁷ Thacker *undated*

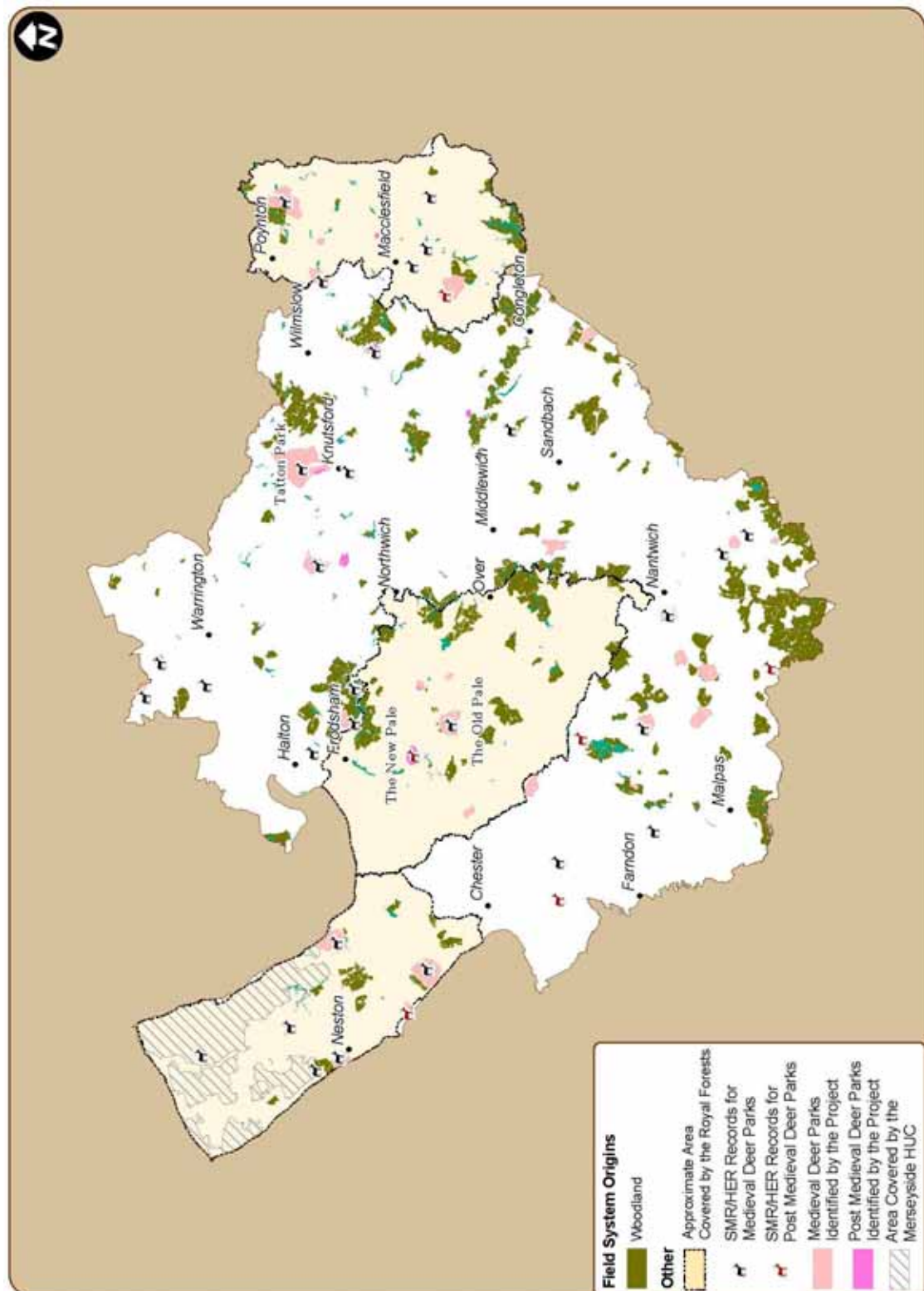


Figure 14: The Evidence for Medieval and Early Post Medieval Deer Parks

formal gardens. Parks also became more eclectic reflecting the wide interests of their owners and the time. The demand for new parks, or owners requiring theirs to be remodelled, led to the establishment of professional garden design practices. However it is probable that in most cases the park's owner would not be interested in the philosophy of its design ethos '...for him and his kind, parks were about having fun...' ¹⁵⁸

Lancelot 'Capability' Brown was probably the most famous of the professional designers to have worked in Cheshire and is known to have worked on Eaton Park and to have provided designs for Doddington Hall. William Emes remodelled parts of Tatton Park and took over from Brown at Eaton Park. He also worked on Cholmondeston Park and Crewe Hall ¹⁵⁹. Many of the other parks in the project area were designed by John Webb and Humphrey Repton. However, it is often difficult to differentiate their designs because they both worked from a similar set of principles ¹⁶⁰.

It is evident from Figure 13 that Post Medieval Ornamental Parklands are distributed throughout the project area, but occur in greatest densities in the east. It has been suggested by Sylvester ¹⁶¹, that as the eastern area was less densely populated and more open, it provided the space for ambitious landowners to display their wealth by creating '...new and magnificent mansions...in extended parks...'. It is also apparent that many of the ornamental parks in the project area were originally deer parks. The incorporation of older features and subsequent changes in design has created a palimpsest of features and is a process, which in certain locations, is still taking place. It is also evident that during the nineteenth century the parkland concept was extended by the creation of small parks and large gardens around the villas of wealthy individuals.

The data collected during the HLC project illustrates that a large amount of parkland has been lost to agriculture and the expansion of settlement. According to the Ordnance Survey 1st edition County Series maps published in the 1870s, there was about c.11,448 hectares of this HLC Type in the project area, a figure which changed little by the time the Ordnance Survey 3rd edition County Series maps (published 1904-9) were surveyed (c.11,373 hectares). From the current Ordnance Survey 1:10,000 maps used by the project 6,621 hectares are recorded, indicating a c.42% loss in this landscape type in the twentieth century.

In the twentieth century several new parks were created reflecting contemporary tastes. They are typically up to one hectare in size and in the same vein as the small parks/large gardens created around villas in the nineteenth century. However there are larger examples such as early twentieth century gardens and parkland at Tirley Garth and Ness Botanic Gardens ¹⁶².

¹⁵⁸ Muir 2000

¹⁵⁹ Goodway *undated*

¹⁶⁰ Goodway *undated*

¹⁶¹ Sylvester 1958a

¹⁶² English Heritage 2001

Managing Historic Ornamental Landscapes

This HLC Group is divided into three HLC Types:

- Deer Parks
- Post Medieval Ornamental Parkland
- C20th Ornamental Parkland

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the Ornamental HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Ornamental HLC Group.

- Scheduled Monuments
- Listed Buildings
- Conservation Areas
- Sites of Special Scientific Interest (SSSI)
- Hedgerow Regulations
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Ornamental landscapes considered to be of national importance have been included on the English Heritage Register of Parks and Gardens.
- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record or Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ❑ Locally listed buildings; these are buildings which do not qualify for statutory listing, but are considered by the Borough Councils to be of local importance.
- ❑ Habitats included on the Inventory of Ancient Woodland¹⁶³ or Cheshire Habitat Inventories.

¹⁶³ English Nature 2000

Deer Parks

Where this HLC Type is recorded in the modern landscape, it does not indicate a functioning deer park; rather a park that retains much of its former character and has not had a later field system superimposed. The former pale and any internal boundaries are likely to be surmounted by hedges. These hedges have the potential to contain a rich variety of plant species. This type covers less than 0.1% (32 hectares) of the modern landscape of the project area.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features created specifically for these parks, such as the park pale and internal boundaries. These may be associated with species rich hedgerows, historic ecofacts such as pollards and features associated with the pre-park landscape, such as relict field boundaries.

This HLC Type is divided into two HLC Subtypes:

Medieval Deer Parks

This HLC Sub-type comprises deer parks created in the medieval period and covers 19 hectares of the project area.

Post Medieval Deer Parks

This sub-type comprises deer parks created in the late sixteenth and seventeenth centuries and covers 14 hectares of the project area.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and the Forestry Commission's Woodland Grant Scheme.
- ❑ To undertake assessments of deer parks and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To increase awareness of the historical significance and archaeological potential of this landscape type in all forms of planning strategy documents.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

J McN Dodgson 'The Place-Names of Cheshire' ¹⁶⁴

English Heritage 'Register of Parks and Gardens' ¹⁶⁵

E Bennis & J Dyke 'Historic Cheshire Landscapes' ¹⁶⁶

Local Authority Historic Environment Records

¹⁶⁴ Dodgson 1970a-b, 1971, 1972 & 1981a-b

¹⁶⁵ English Heritage 2001

¹⁶⁶ Bennis & Dyke 1995 & 1996

Post Medieval Ornamental Parkland

This type comprises ornamental parkland created prior to the twentieth century. It includes extensive landscape parks associated with large country houses and small parks and large gardens surrounding nineteenth-century villas. This HLC Type covers 2.5% (6,621 hectares) of the project area and c.42% of parkland of this type depicted on nineteenth century Ordnance Survey maps has been lost.

Landscapes of this HLC Type may potentially contain:

Archaeological, historic landscape features and buildings created specifically for these parks, such as follies or lakes, historic ecofacts such as pollards and planting schemes of native and exotic trees. Also features associated with the pre-park landscape, such as relict field boundaries and pales associated with Deer Parks.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship schemes and the Forestry Commission's Woodland Grant Scheme.
- ❑ To undertake any landscaping work, including new planting, in a sensitive manner to enhance existing features.
- ❑ To carry out any building work, including repairs to historic structures, in a manner which will not detract from their existing design.
- ❑ To undertake assessments of ornamental parks and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To increase public access to, and appreciation and understanding of these landscapes.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

J McN Dodgson 'The Place-Names of Cheshire' ¹⁶⁷

English Heritage 'Register of Parks and Gardens' ¹⁶⁸

E Bennis & J Dyke 'Historic Cheshire Landscapes' ¹⁶⁹

Local Authority Historic Environment Records

¹⁶⁷ Dodgson 1970a-b, 1971, 1972 & 1981a-b

¹⁶⁸ English Heritage 2001

¹⁶⁹ Bennis & Dyke 1995 & 1996

C20th Ornamental Parkland

This HLC Type comprises landscape parks created in the twentieth century and covers less than c.0.1% (144 hectares) of the project area.

Landscapes of this HLC Type may potentially contain:

Archaeological, historic landscape features and buildings created specifically for these parks, such as follies or lakes, and planting schemes of native and exotic trees. Also features associated with the pre-park landscape, such as relict field boundaries

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship schemes and the Forestry Commission's Woodland Grant Scheme.
- ☐ To undertake any landscaping work, including new planting, in a sensitive manner to enhance existing features.
- ☐ To carry out any building work, including repairs to historic structures, in a manner which will not detract from their existing design.
- ☐ To undertake assessments of ornamental parks and their immediate surroundings where threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To increase public access to, and appreciation and understanding of these landscapes.

Key Indicative Sources

Ordnance Survey 3rd edition County Series maps (1904-9)

Ordnance Survey 1:10,000 scale maps

Ancient Fieldscapes



Figure 15: Ancient Field Systems at Coddington, Cheshire.

The Ancient Fieldscapes HLC Group is the dominant character in c.18% of the project area¹⁷⁰ (46,586 hectares) and comprises c.29% of all the Fieldscape groups. It contains all field systems believed to originate prior to 1600AD. However, some overlap between this group and the Post Medieval Fieldscapes HLC Group is inevitable.

The project area lies within what Oliver Rackham¹⁷¹ describes as 'ancient countryside' and '...the product of at least one thousand years of continuity...'. Field systems are generally described by the shape and form of their boundaries. This complex of enclosures and boundaries, of which the field is an element, has been an aspect of the landscape since farming began.

Prehistoric and Romano-British Field Systems

Fields systems, comprising regular and semi-regular fields, dating from the Bronze Age, Iron Age and the Roman period have been found in various parts of Britain¹⁷². Some of the earliest field systems evident in the landscape of the project area are the broad banks, or lynchets on the slopes of the mid-Cheshire Ridge above Longley Farm at Kelsall, which may pre-date the Roman conquest¹⁷³. Elements of Romano-British field systems have been revealed during excavations at Middlewich¹⁷⁴ and excavations to the south of Chester¹⁷⁵. This tradition of enclosed field systems is known to have continued into the early medieval period. However, it is difficult to assess the degree of continuity at a national or regional scale. Rackham¹⁷⁶ states that much of the enclosure in the areas he defines as 'ancient countryside' can be shown to be at least medieval in date, with little to distinguish it from earlier field systems.

Medieval Open Field Systems

Within the Ancient Fieldscapes HLC Group are the enclosed remnants of medieval Open Field Arable. Open Field Arable is a distinctive style of agriculture, which appears to have developed in the eighth and ninth centuries AD¹⁷⁷. The reasons for its introduction are unclear. However, the system would seem to imply a high degree of social organisation and control. Open Field Arable varied from region to region, but still retained several key features.

¹⁷⁰ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

¹⁷¹ Rackham 1986

¹⁷² Rackham 1986

¹⁷³ Cheshire County Historic Environment Record

¹⁷⁴ Clarke 2001 & Dodd 2004

¹⁷⁵ M Leah *pers comm*

¹⁷⁶ Rackham 1986

¹⁷⁷ Muir 2004

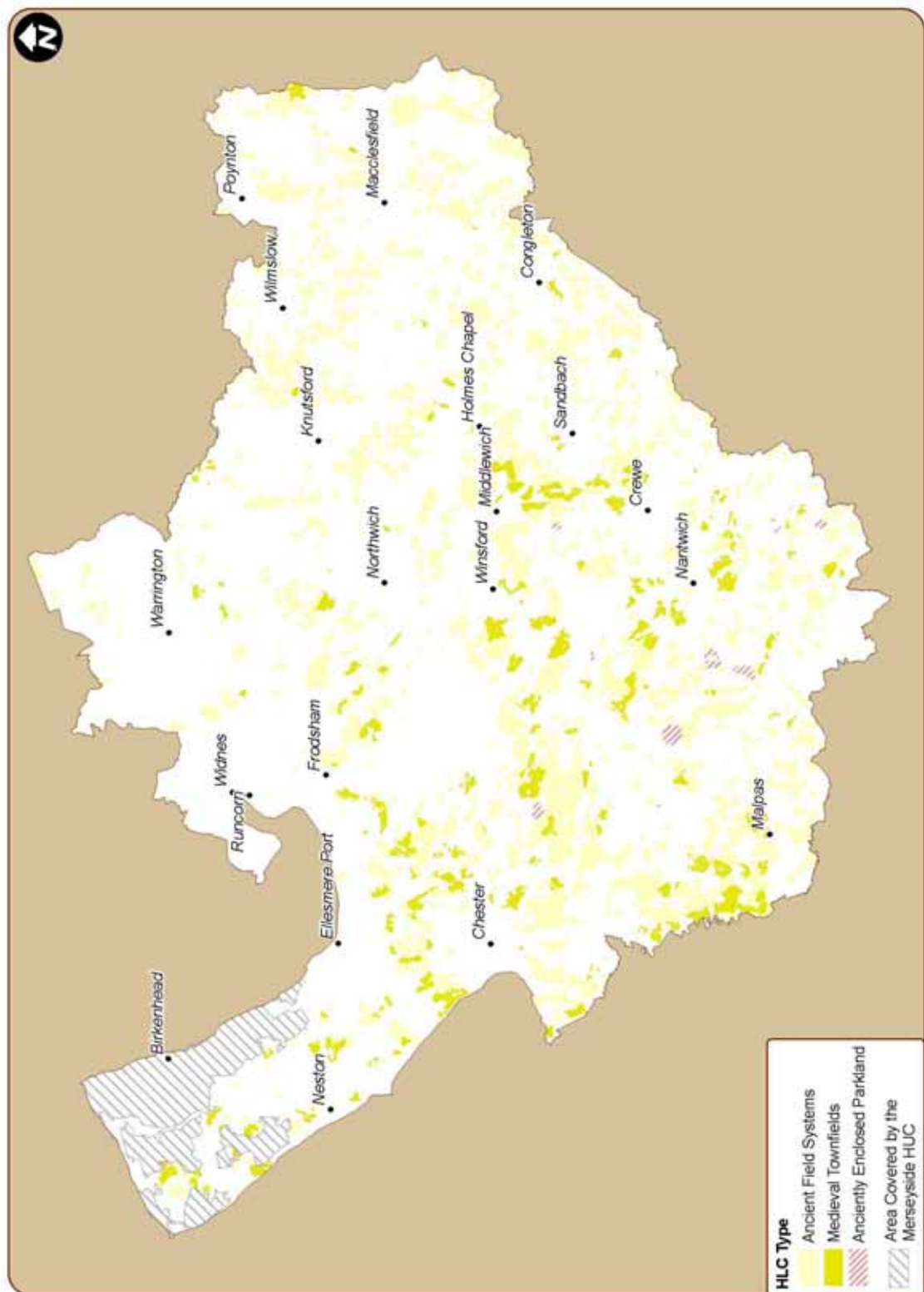


Figure 16: The Modern Extent of the Ancient Fields HLC Group

Each settlement would have had two to four large fields, each potentially enclosed by a large ring fence or hedge to exclude grazing animals. Each field would be subdivided into a number of furlongs, which in turn, comprised a number of selions (narrow strips) and would be left fallow based on a two to four year rotation. Boundaries were restricted to uncultivated strips or baulks, which lay between the furlongs. Each farmer within the community would farm a number of selions within each field, with the same crop being grown on all the selions within the field. Cultivation would have been undertaken co-operatively as very few owned sufficient livestock to form a plough team. The villagers' livestock would be allowed to graze on the stubble and weeds after harvest and on the fallow. This is often referred to as the 'Midland System' and required a form of village assembly or court to administer the system, complete with fines for transgressors¹⁷⁸.

Open Field Arable was well established by the time of the Domesday survey and is a dominant feature in the region defined as the 'Central Province' by Roberts & Wrathmell¹⁷⁹, although not so in the 'Northern and Western Province', where the project area is located. According to Rackham¹⁸⁰, Open Field Arable is not prevalent in the areas he defines as 'ancient countryside', but is a major aspect of the areas he defines as 'planned countryside'.

Figure 17 shows the full extent of all the medieval Open Field Arable in the project area, as defined by the Medieval Town Fields HLC Type. The definition of this HLC Type derives from a strict set of criteria, which could be seen to be somewhat restrictive. Field systems were assigned to this type where selions clearly influenced the location of later field boundaries and a different character was evident from other areas of ancient field systems. Therefore, it is evident that the project has recorded only the core or remnant of potentially once extensive Open Field Arable in parts of western Cheshire. Areas of Open Field Arable may be evident from the extent of broad ridge and furrow visible on aerial photographs. However, the extent to which this represents Open Field Arable within the project area is a matter of some debate¹⁸¹. It is also debatable as to whether these areas of Open Field Arable operated the same Midland System as those located in Rackham's 'planned countryside'. Within the project area the colloquial term of Town Fields has been used for this HLC Type, to distance it from the assumptions associated with the term Open Field Arable and the Midland System. The early abandonment of this form of field system (in the Project Area) is indicated by the scarcity of Parliamentary Acts of Enclosure relating to Open Field Arable within the project area¹⁸².

Figure 17 also shows a number of additional features, including the postulated extents of the forests. Forests were effectively hunting preserves subject to forest law (see Woodland), whose existence could potentially restrict the creation of enclosures. The extent of the forests is derived from a number of published sources, most notably Green¹⁸³.

Aratral boundaries are associated with medieval agriculture and have a reversed S shape, which is derived in part from the shape of the adjacent selions. The long shape is the product of the need to start turning the long teams of six to eight oxen pulling the plough, before the end of the selion¹⁸⁴. The distribution of HLC records which record aratral boundaries as a primary or secondary boundary type is shown in

¹⁷⁸ Rackham 1986, Taylor 2000 & Muir 2004

¹⁷⁹ Roberts & Wrathmell 2002

¹⁸⁰ Rackham 1986

¹⁸¹ Chapman 1952; Sylvester 1957, 1959 & 1969 & Higham 2004

¹⁸² Sylvester 1958b, Davies 1960, Phillips 2002

¹⁸³ Green 1979

¹⁸⁴ Muir 2004

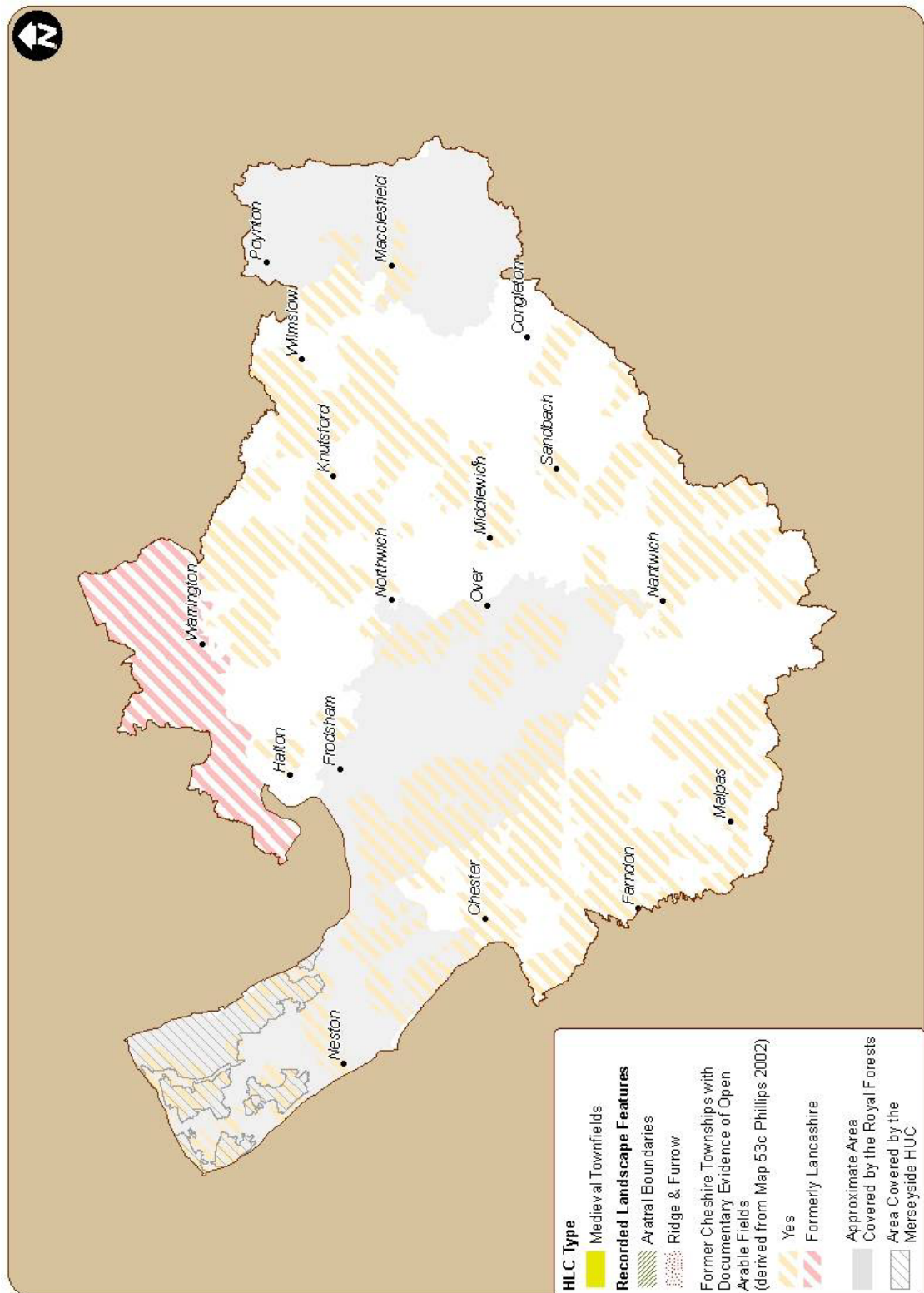


Figure 17: Open Field Arable

Figure 17. However, the extent of aratral boundaries within the project area is likely to be greater, and with hindsight it would have been prudent to record these features wherever they occurred, rather than where they predominate.

In addition, the distribution of records which have recorded the presence of ridge and furrow, as either earthworks or cropmarks, are shown in Figure 17. However these features are likely to be multi-period in date and not recorded from the best available sources (see Associated Landscape Features). This ridge and furrow is shown against a backdrop of townships with documentary references to Open Field Arable¹⁸⁵. The shaded areas show the whole township and not a postulated area of open arable fields. It does not include the project area that was formerly part of the pre-1974 County of Lancashire.

Domesday Survey

Admittedly, it may be misleading to compare the extent of the Ancient Field Systems HLC Group against data derived from Domesday survey¹⁸⁶. However, some broad correlations are apparent. The greatest densities of the Medieval Town Fields HLC Type, aratral boundaries, and ridge and furrow broadly correspond with the areas with the greater number of hides and plough teams recorded by the Domesday survey, namely western Cheshire and the Wirral. As Higham¹⁸⁷ notes, it is not surprising that the most populated (and hence developed) part of the county is in close proximity to the only major medieval urban centre at Chester. This concentration also corresponds with an area in which the Domesday survey records little or no woodland. In addition, distinct correlations are apparent in the area to the south and west of Nantwich, the Weaver Valley and the area from Winsford to Beeston, skirting the southern edge of Delamere, which became the Forest of Mondrem (see Woodland). Notably however, there is a stark lack of correspondence between the plotted Domesday survey evidence and the Medieval Town Fields HLC Type in the area of Macclesfield District. This may be due to a number of factors:

- The interpretation applied by the project to the ancient field systems in this area
- The extensive agricultural improvement undertaken in this area during the 18th and 19th century (see Post Medieval Landscapes), or
- The character of the field systems recorded in this area by the Domesday Survey

Ancient Landscapes HLC Group Structure and Extent

This HLC Group comprises of the following HLC Types and Sub-types:

HLC Type	HLC Sub-type	Description
Ancient Field Systems	Regular	These HLC sub-types are based on the morphology of the field system recorded.
	Semi-Regular	
	Irregular	
	Moss Rooms	A distinctive pattern of long thin fields associated with mosses (and former mosses).
Medieval Town Fields	N/A	Field systems which preserve the characteristics of Open Field Arable within their morphology.
Anciently Enclosed Parkland	N/A	Field systems created upon the enclosure of deer parks.

Table 1: Structure of the Ancient Landscapes HLC Group

¹⁸⁵ Derived from map 53a Phillips 2002

¹⁸⁶ Maps 31a/b/c/d Morgan 2002

¹⁸⁷ Higham 2004

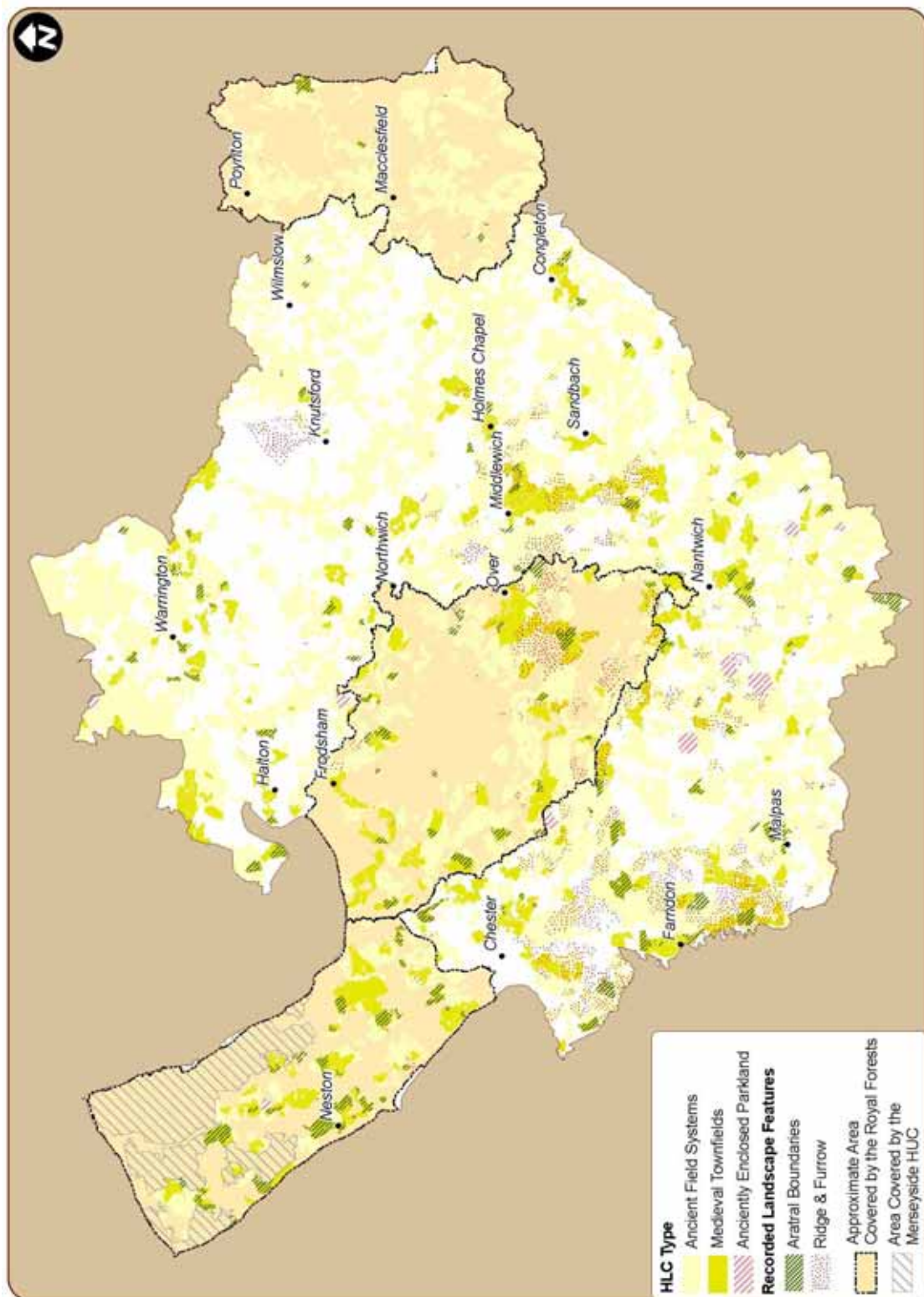


Figure 18: The Historic Extent of the Ancient Fieldscapes HLC Group

46,586 hectares of the Ancient Fieldscapes HLC Group survive in the landscape, of which 83% is assigned to the Ancient Field Systems HLC Type, 16% to the Medieval Town Fields HLC Type and 1% to the Anciently Enclosed Parkland HLC Type (Figure 19).

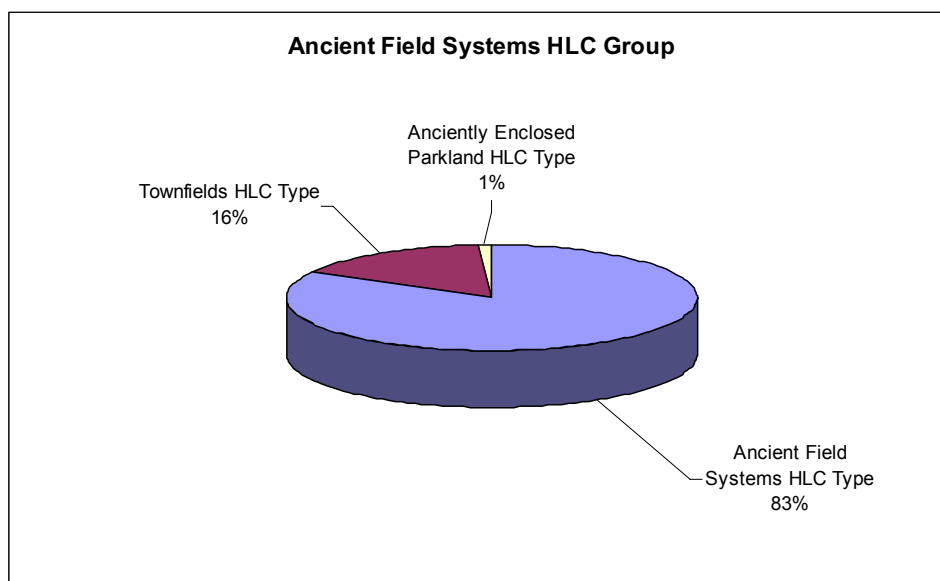


Figure 19: The Composition of the Ancient Fieldscapes HLC Group

The Ancient Field Systems HLC Type is comprised of 45% Irregular HLC Sub-type, 49% Semi-regular HLC Sub-type, 5% Regular HLC Sub-type and 1% assigned to the Moss Rooms HLC Sub-type (Figure 20).

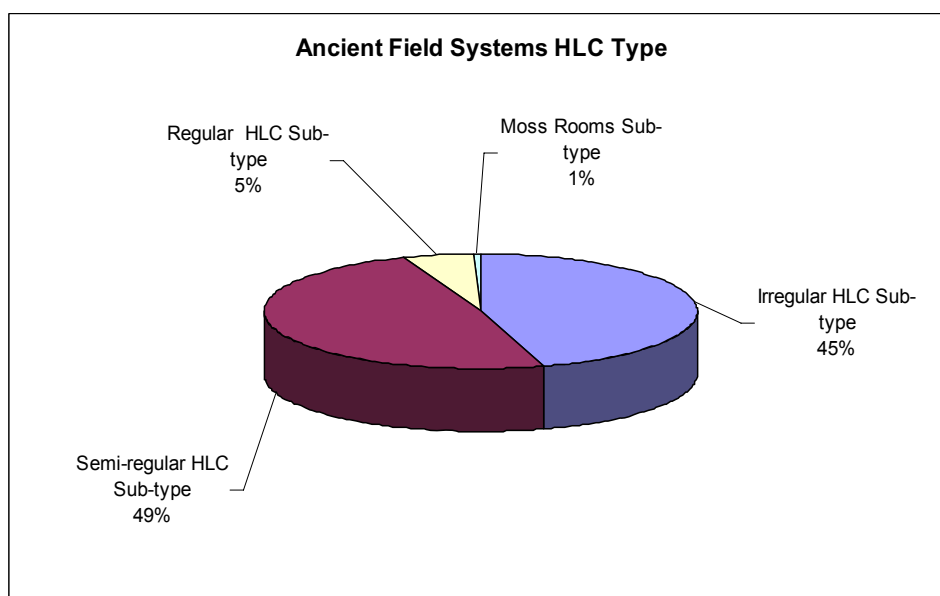


Figure 20: The Composition of the Ancient Field Systems HLC Type

Historic Extent of the Ancient Fieldscapes HLC Group

Many later field systems are created by the enlargement of pre-existing fields (by the removal of field boundaries), or by the removal of a pre-existing field system in order to establish a new field system more suited to the agricultural practices of the time. Examination of the HLC records for the other fieldscape groups indicates that up to 43% them derive from or replace ancient field systems. The data collected

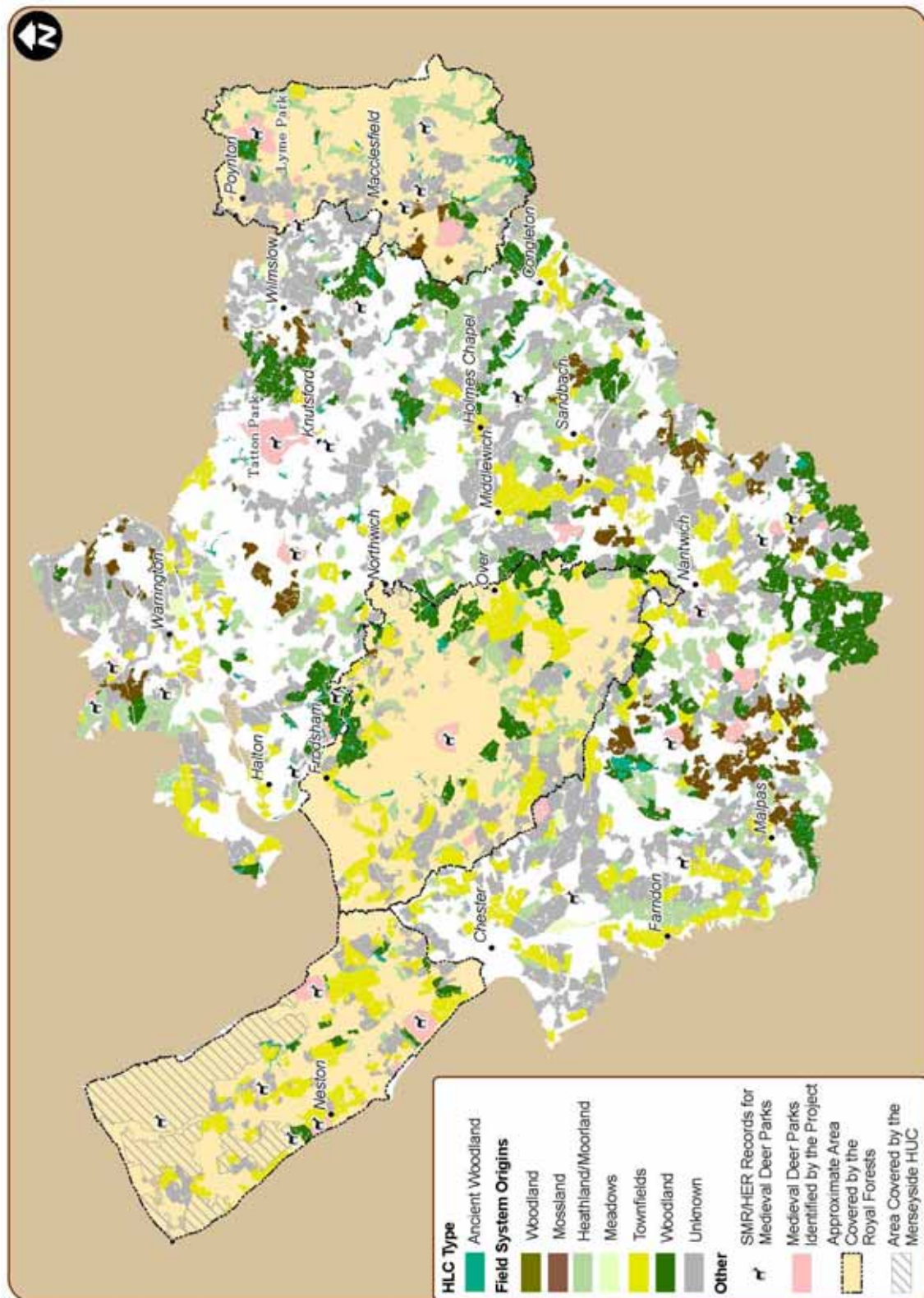


Figure 21: Origins of the Ancient Fieldsapes Group

by the project suggests that a minimum of 41% (c.108,900 hectares) of the project area may have been enclosed by (around) 1600AD. However, it is extremely likely that this figure under represents the full extent of ancient field systems as the Ordnance Survey 1st edition County Series maps used by the project do not always indicate re-organisation or former land use in urban areas.

Associated Landscape Features

In the areas characterised by glacial tills, these field systems contain a large number of small pits, dug to provide marl for spreading on the fields to aid soil fertility. This practice was undertaken from at least the thirteenth century in Cheshire¹⁸⁸ and continued into the nineteenth century. These pits occur in 56% of the area covered by the Ancient Fieldscapes HLC Group (see Figure 22). However, it is evident from the Ordnance Survey 1st edition County Series maps that they were once more extensive, with many areas commonly having one or two in each field.

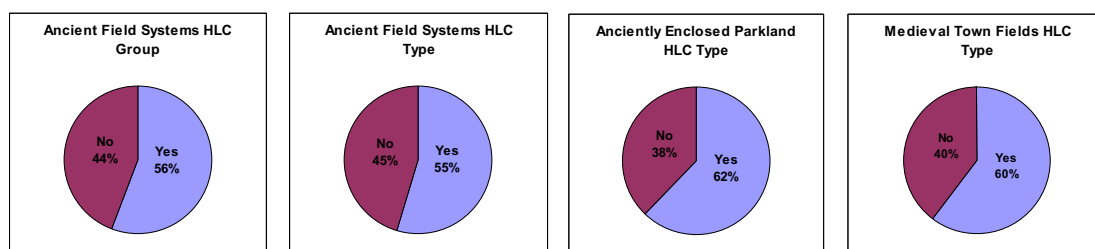


Figure 22: The Presence of Marl Pits in the Ancient Fieldscapes HLC Group

Also associated with Ancient Fieldscapes are the earthwork remains of ridge and furrow cultivation which give the fields a distinctive corduroy appearance. The HLC has recorded earthwork (upstanding) and non-earthwork (ploughed out) remains of ridge and furrow in 14% of the area covered by the Ancient Fieldscapes HLC Group (see Figure 23). There is a distinct western bias to the distribution with 54% of the recorded ridge and furrow occurring in Chester Borough. However, the HLC can only be used as a rough guide as to the presence or absence of this feature, as the aerial photographs used for the project were poorly suited to the identification of earthworks.

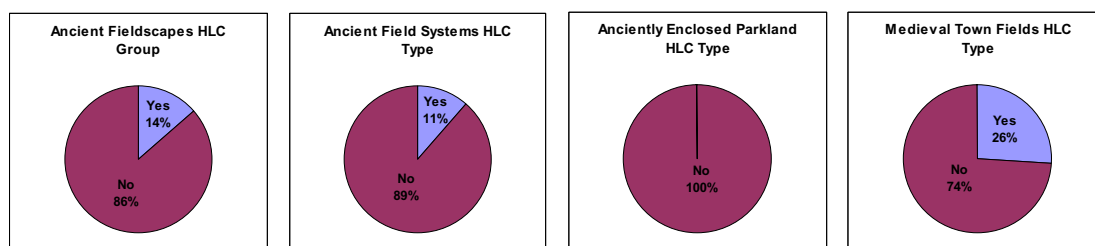


Figure 23: The Presence of Ridge & Furrow in the Ancient Fieldscapes HLC Group

Ancient Fieldscapes Overview

The historic extent of all types of field systems in the Ancient Fieldscapes HLC Group, together with the forests, is shown in Figure 18. Figure 21 shows the postulated origins of the field systems within this group (i.e. the landscape that preceded them). To a large degree this interpretation is based upon place name evidence and secondary sources. Fields adjacent to an area of ancient woodland or a moss have a reasonably evident origin. However, in a large number of cases information was not available to make an informed interpretation, and the origin of these field systems is displayed as unknown. In addition, areas of ancient woodland,

¹⁸⁸ Scard 1981

known and possible medieval deer parks, and areas subject to forest law are also shown in Figure 21.

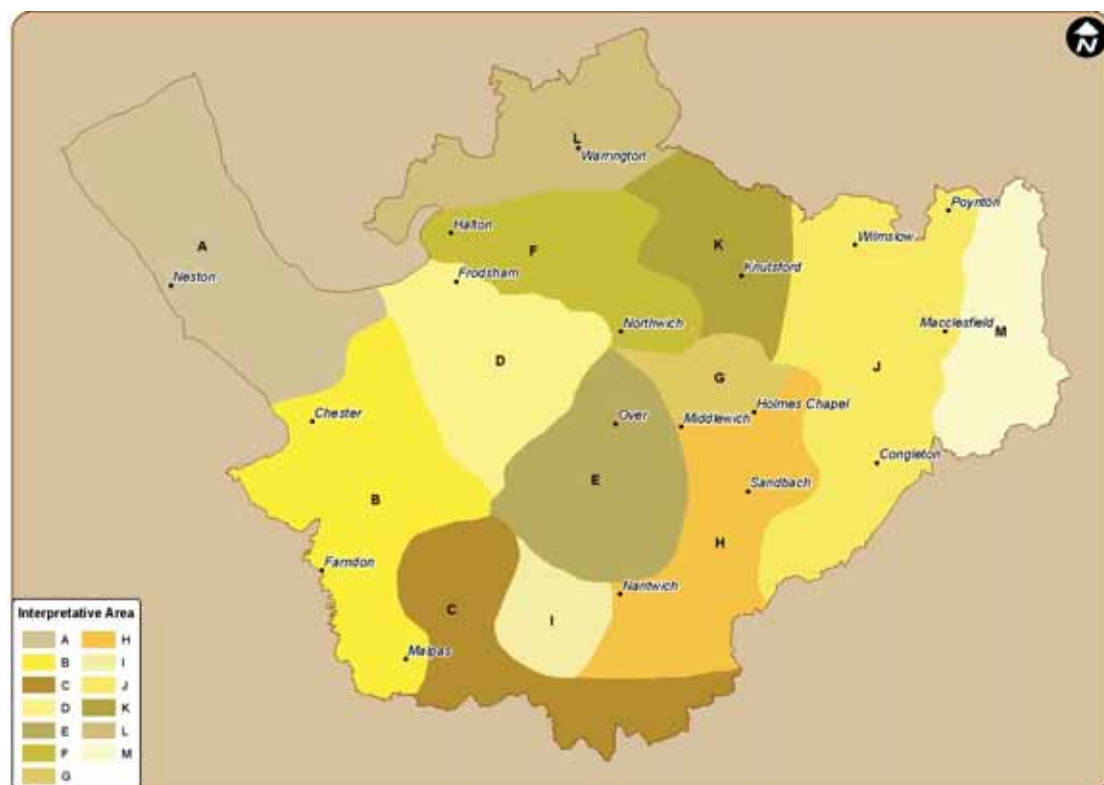


Figure 24: Ancient Fieldsapes: Interpretative Areas

From the analysis of this HLC Group it is apparent that thirteen areas can be broadly defined. The extent of these areas is shown in Figure 24.

Area A

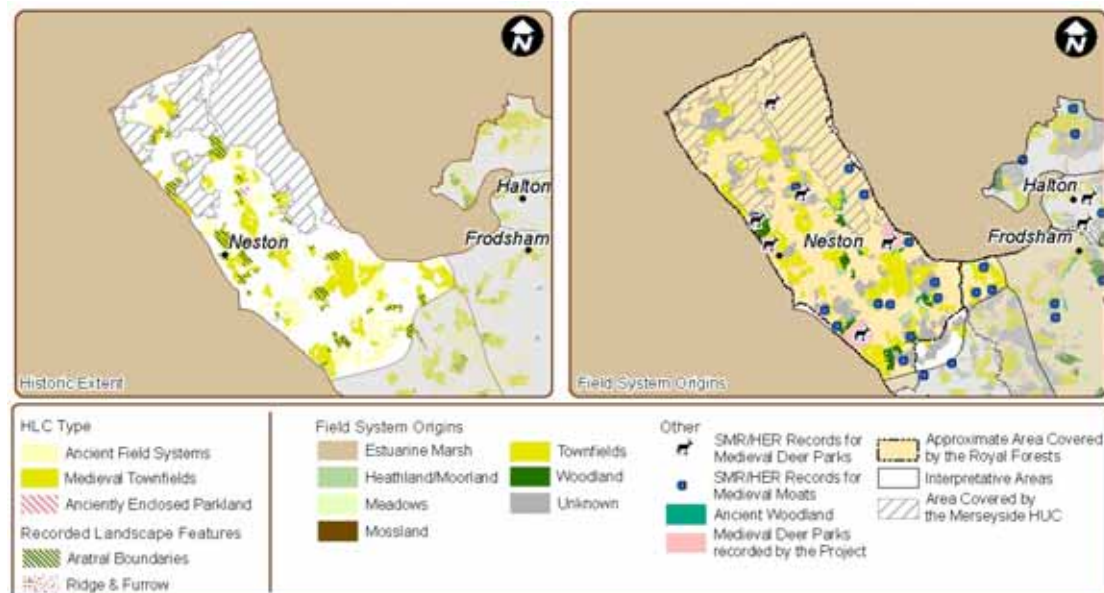


Figure 25: Area A

This area comprises the majority of the Wirral peninsula. Only information on the modern landscape was recorded for the urban part of the Wirral, which is to be characterised as part of the Merseyside Urban Characterisation Project. The Wirral

peninsular roughly corresponds to the area under forest law and was one of the most densely settled areas at the time of the Domesday survey¹⁸⁹. However this included areas of poor sandy soils and heath associated with the outcrops of the sandstone bedrock along a low ridge and the Ince Marshes. Parts of the Wirral were described in the fourteenth century as a “wilderness” and as “a resort for bands of armed men”¹⁹⁰.

Studies of settlement patterns in the project area have identified a comparatively high degree of nucleated settlement on the Wirral and the Chester hinterland¹⁹¹. It is also evident from Figure 25 that the proportions of the Medieval Town Fields HLC Type and Ancient Field Systems HLC Type are largely equal, being 47% to 54% and 53% to 46% for Wirral Metropolitan Borough and Ellesmere Port and Neston Borough, respectively (figures based on the modern landscape). The Semi-regular HLC Sub-type also predominates here, with only Area L containing a higher proportion.

The incidence of woodland recorded in the Domesday survey is low¹⁹² (see Woodland). However, areas of assarting (the creation of enclosed fields from woodland) have been recorded at the southern end of Area A. In addition there is a strong correlation between the Regular HLC Sub-type and woodland; 48% of this sub-type is interpreted as originating from woodland clearance (100% and 76% for Wirral Metropolitan Borough and Ellesmere Port and Neston Borough respectively). The Regular HLC Sub-type is also more prevalent in the southern part of Area A. The southern area also has a noticeably more dispersed settlement pattern than the rest of the peninsula¹⁹³ and is the only part of Area A to contain any moated sites of medieval date¹⁹⁴. Also within this area are a number of known and postulated medieval deer parks (see Ornamental). This suggests that in this area, woodland may have been under represented in the Domesday survey. However, the absence of place names indicative of woodland suggests that this is a question which may be only answered by further detailed research.

The area was subject to forest law from the early twelfth century until the later fourteenth century. The degree to which the restrictions of these laws may have stifled agricultural development is uncertain. However, this doesn't seem to have deterred its inhabitants, including the Abbots of St Werburgh, from assarting if the number of inquires, forest eyries and fines levied during the fourteenth century is an indication. The fines levied were often viewed as revenue or tax and the impoverishment of the inhabitants of the forest by the forest laws was cited as one of the reasons for disafforestation¹⁹⁵ (see Woodland).

Area B

This area corresponds to some of the most densely populated and agriculturally developed countryside in the project area at the time of the Domesday survey¹⁹⁶. It is also the area which contains a disproportionate number of medieval castles when compared to the project area as a whole (see Military). The degree to which this is related to the relative wealth of the area or its proximity to the Welsh border and the strategic importance of the Dee, is uncertain, but it does coincide with the location of many of the major Anglo-Saxon estates¹⁹⁷.

¹⁸⁹ Green 1979

¹⁹⁰ Green 1979

¹⁹¹ Sylvester 1969, Roberts & Wrathmell 2000 & 2002

¹⁹² Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

¹⁹³ Sylvester 1969

¹⁹⁴ Cheshire County Historic Environment Record & Merseyside Sites and Monuments Record

¹⁹⁵ Green 1979

¹⁹⁶ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

¹⁹⁷ Highham 1993

The landscape is flat or slightly undulating glacial tills and is defined by the Cheshire Sandstone Ridge to the east and the river Dee and Welsh border to the west. This area contains some of the highest densities of the Medieval Town Fields HLC Type, HLC Type, aratral boundaries and ridge and furrow. Settlement is generally more nucleated than in the rest of the study area and Sylvester suggests that this area is part of a belt of Open Field Arable townships in the lower Dee valley, which continues to the west of the Dee¹⁹⁸.

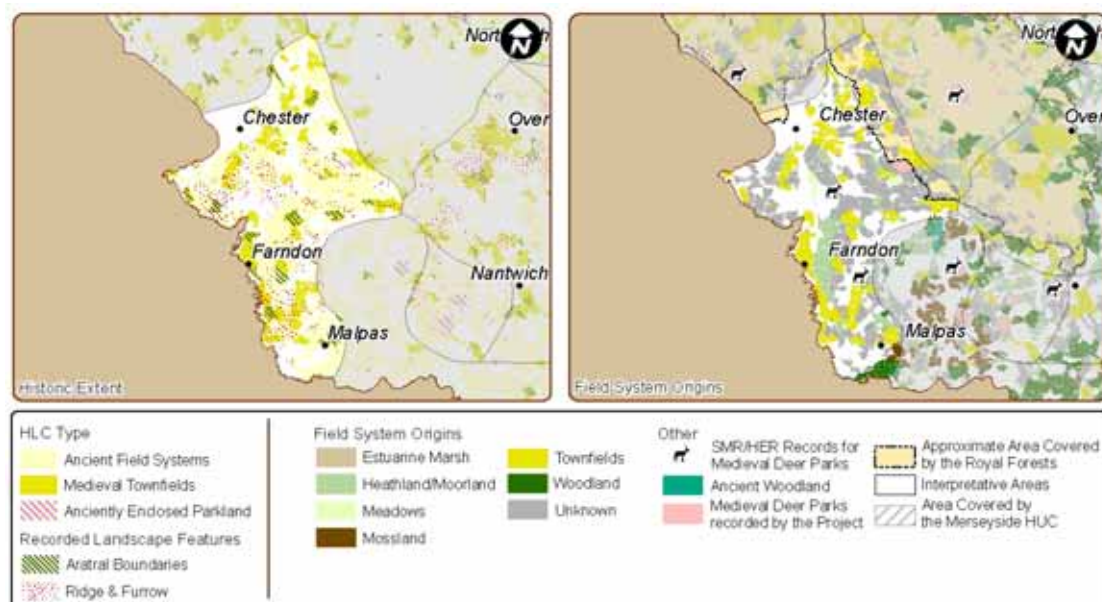


Figure 26: Area B

The origin of the Ancient Fields Systems HLC Type here is largely unknown and the incidence of woodland recorded at the time of the Domesday survey is very low. It is possible that by the late medieval period much of the landscape, away from the estuarine marshes, was enclosed. Townships would have only contained fragments of formerly more extensive heaths and commons, to which only place names now relate. A distinct and large area of approximately 715 hectares of the Regular HLC Sub-type is readily apparent in Area B to the north east of Farndon. This area encompasses the former extra parochial township of Kings Marsh. There is no evidence to suggest that these fields originate from the assarting of woodland: the townships name suggests that this area may have been marshland.

Area C

This area covers the southern part of the Cheshire Sandstone Ridge, the southern part of Crewe and Nantwich District, and much of the Cheshire-Shropshire border. East of the sandstone outcrops which form the Ridge, is a landscape of gently undulating glacial tills with patches of glaciofluvial outwash. Small glacial meres, and the remnants of small mosses and wetlands, are a common feature adjacent to the Ridge (see Non-improved Land). Here, the origin of the Ancient Fields Systems HLC Type is predominantly moss.

To this day, settlement within this area is very dispersed, with the medieval market town of Audlem the only settlement of any size. The incidence of moated sites is also much lower than in adjacent areas and there was little ridge and furrow recorded the project. The occurrence of aratral boundaries and the Medieval Town Fields HLC

¹⁹⁸ Sylvester 1969

Type is sparse and largely restricted to the area around Audlem.

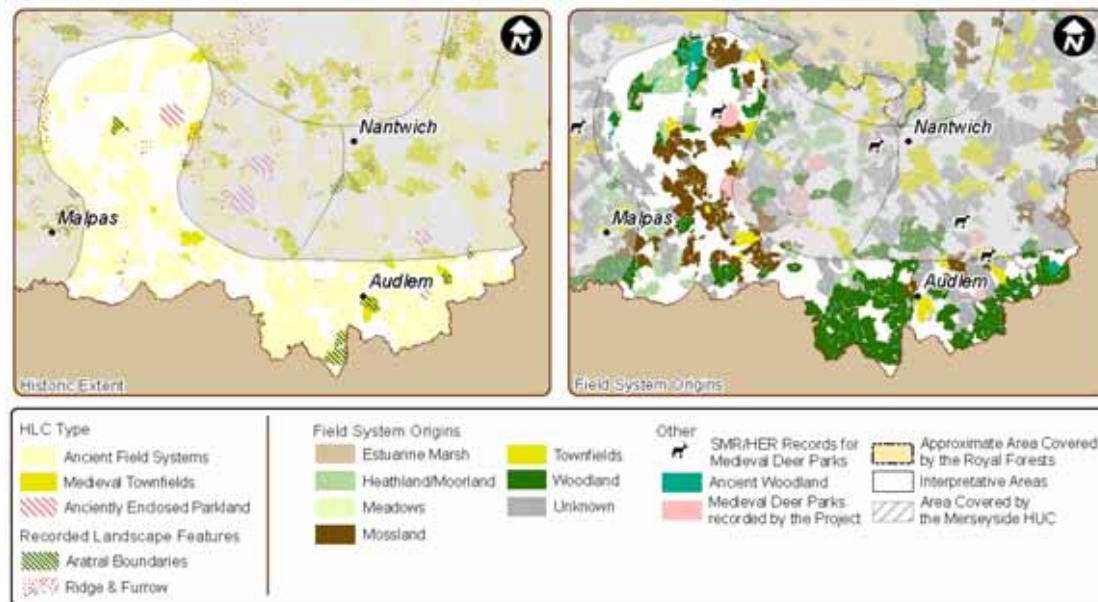


Figure 27: Area C

There is a high incidence of enclosure from woodland in the area, with ancient woodland survival being largely restricted to the sides of the Sandstone Ridge. This high degree of assarting is supported by the large number of documentary references to woodland, from the Domesday survey¹⁹⁹, to later references in the twelfth to sixteenth centuries, including Threapwood, Royal Wood, Northwood and Coole Wood²⁰⁰. A small number of known, and postulated, medieval deer parks are also located in this area (see Ornamental) supporting this supposition.

Area D

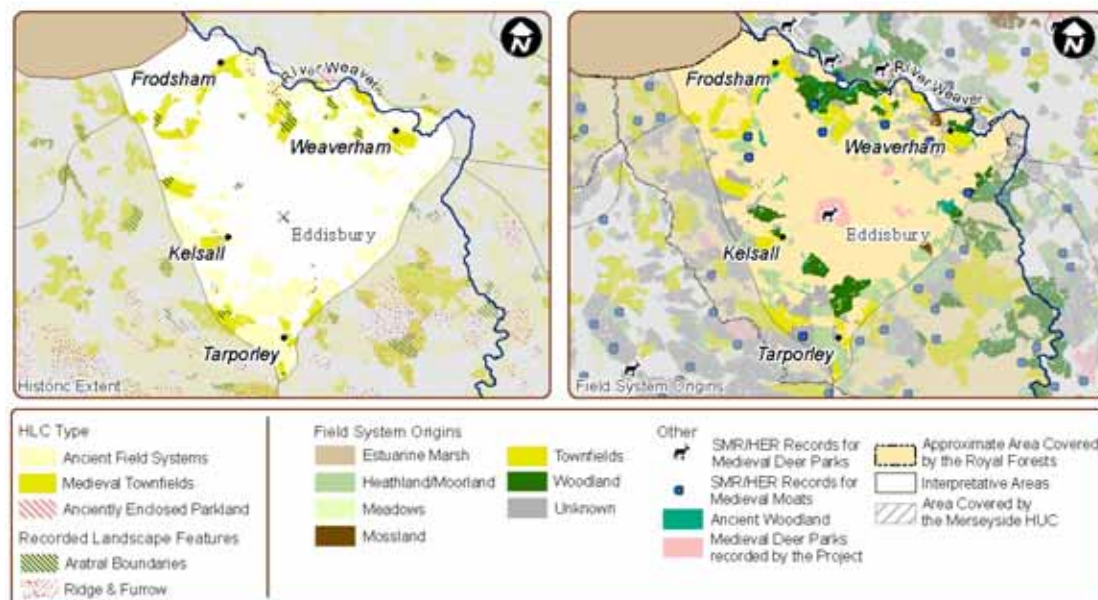


Figure 28: Area D

This area covers the northern part of the Cheshire Sandstone Ridge, Frodsham Marshes, parts of the Weaver Valley and Delamere. It comprises much of the lands which were formerly part of the Forest of Mara (see Woodland). East of the

¹⁹⁹ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²⁰⁰ Dodgson 1971

sandstone outcrops which comprise the Ridge is a large area of glaciofluvial sands and gravels dotted with small mosses. This area is fringed with glacial tills to the west of the Ridge and in the Weaver Valley.

Settlement is dispersed, although the main medieval settlements of Frodsham, Kingsley, Weaverham, Kelsall and Tarporley are nucleated in comparison with many of the settlements in the project area. Some settlement is recorded in the uplands of this area at the time of the Domesday survey,²⁰¹ however, the majority of medieval settlement was located on the glacial tills and edges of the Sandstone Ridge (as are any moated sites). This settlement is often associated with Medieval Town Field HLC Type field systems.

There are a number of documentary references to woodland in the Domesday survey, especially along the Weaver Valley, where fragments of ancient woodland survive²⁰² (see Woodland). Ancient Enclosure System HLC Types are restricted to the margins of the area, with much being derived from woodland along the Weaver and a mix of heath and woodland elsewhere. There are many references relating to assarting in the forest rolls of the thirteenth and fourteenth centuries,²⁰³ and it is probable that these relate to these areas.

The central core of Area D was largely uninhabited and undeveloped until disafforestation and enclosure in the early nineteenth century²⁰⁴. The degree to which this is primarily due to forest law is debatable. It is apparent that much of the central core of this area corresponds with the outcropping sandstone of the Ridge, and an area of glaciofluvial sands and gravels. It is probable that the associated acidic soils restricted agricultural expansion. There is an absence of medieval settlement, despite the establishment of an early medieval burh at Eddisbury and the foundation of the nearby Cistercian abbey of Vale Royal (the Cistercian order typically favoured marginal and under populated areas). Located within this area is the Old Pale, a large medieval deer park at Eddisbury, which included a small complex associated with the management of the park and forest.

Area E

This area covers a flat area of the Weaver Valley, at around 50m AOD where a glacial till geology predominates. The area runs from Beeston and the Cheshire gap in the west to Middlewich in the east, and from Nantwich in the south to the outskirts of modern Northwich in the north. This area comprised much of the land which was formerly part of the Forest of Mondrem (see Woodland).

The area has a density of ridge and furrow comparable to Area B. Settlement is dispersed, although the main medieval settlements are nucleated in comparison with much of the project area and the area contains a large number of moated sites. Extensive field systems of the Medieval Town Fields HLC Type are located in the Over, Darnhall and Wettenhall area, with further areas associated with medieval settlement. Documentary references to woodland in the Domesday survey are frequent,²⁰⁵ and fragments of ancient woodland survive adjacent to the Weaver and its tributaries. The Ancient Fieldscapes HLC Group is evident over most of the area, with much being derived from woodland along the Weaver and the southern margins of the area, with a mix of heath and woodland elsewhere.

²⁰¹ Green 1979

²⁰² Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²⁰³ Green 1979

²⁰⁴ Green 1979

²⁰⁵ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

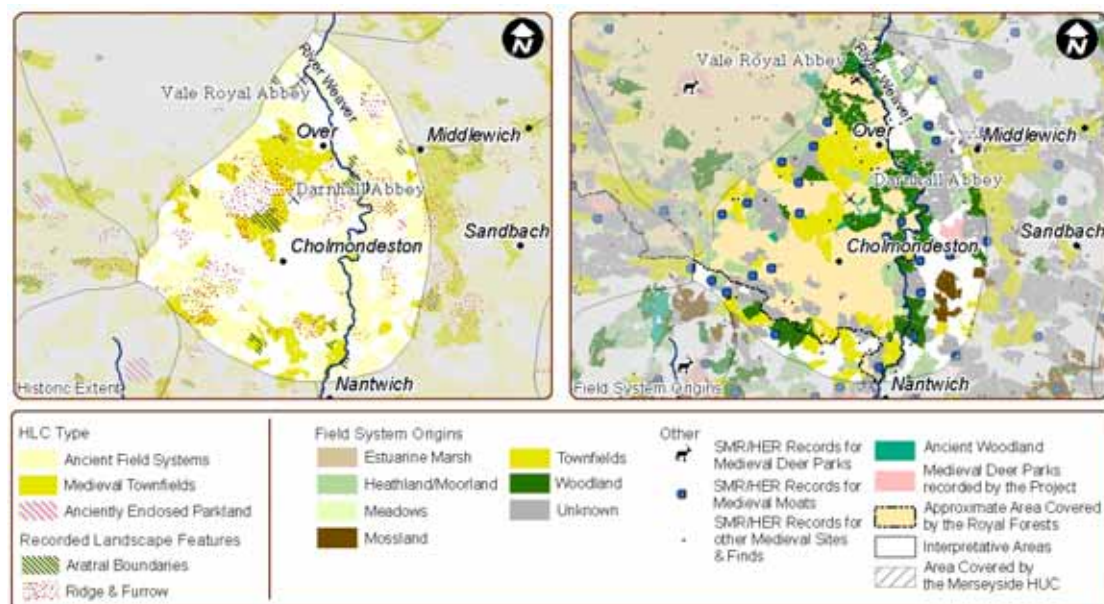


Figure 29: Area E

The settled and enclosed nature of this landscape forms an interesting contrast to that of Area D as this area was also subject to forest law. However, documentary evidence from the Domesday survey indicates that this area was already settled and farmed prior to afforestation²⁰⁶. Some of the major manors belonged to the Cistercian abbey of Vale Royal,²⁰⁷ including Darnhall, the original location for the Abbey, and at Over. The manors were disafforested and the abbey had the right to assart,²⁰⁸ which must have contributed to the number of moated sites²⁰⁹ and well-developed field systems in the Over, Darnhall and Wettenhall areas. Mondrem also had differing fines for assarting to Mara and it is probable that much of Mondrem was enclosed by 1600AD, and was no longer included in descriptions of the 'forested' area²¹⁰.

There is little evidence recorded by the project for ancient field systems around Cholmondeston, however, the Domesday survey records the settlement as having land for two ploughs²¹¹. Parts of Cholmondeston township are known to have been subject to an Act of Enclosure, but the documents have been unavailable for study. Burdett's map of 1777,²¹² however, depicts a small area of heath to the south of the settlement, suggesting that this was the area subject to the act (unless the Act encompassed pre-existing field systems). Therefore the degree to which evidence recorded by the project can be considered to reflect a genuine distribution of ancient enclosure in this part of Area E is uncertain. However this distribution is supported by a notable absence of moated sites or other medieval sites and finds²¹³.

Area F

This area is defined by the River Mersey in the north and the River Weaver in the south. Its eastern limit is defined by an area of extensive post medieval re-organisation located to the west of Knutsford (see Post Medieval Fieldsapes). It is an undulating area of sandstone outcrops, glacial tills and glaciofluvial deposits. A large glacial mere is located at Budworth and there are remnants of extensive

²⁰⁶ Morgan 2002

²⁰⁷ Green 1979

²⁰⁸ Green 1979

²⁰⁹ Cheshire County Historic Environment Record

²¹⁰ Green 1979

²¹¹ Morris 1978

²¹² A Survey of the County Palatine of Chester PP Burdett 1777

²¹³ Cheshire County Historic Environment Record

mosses in the north eastern part of this area. These mosses are generally still extant on Burdett's map of 1777²¹⁴. The complexity of the geology and landscape make it hard to identify associations with the HLC data.

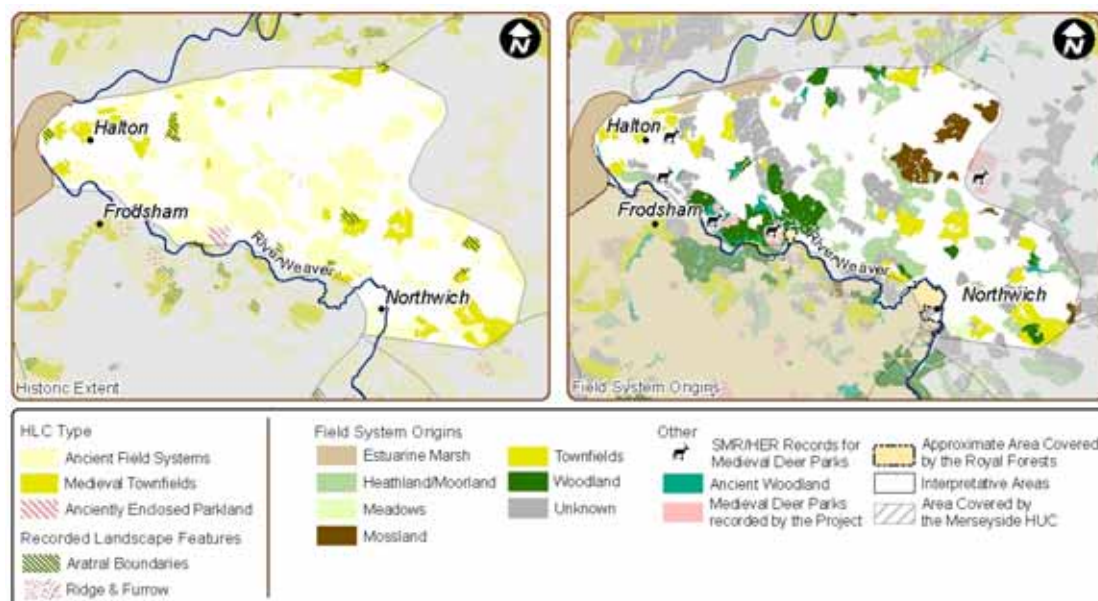


Figure 30: Area F

Settlement within this area is very dispersed, but contains the important medieval towns of Northwich and Halton. The occurrence of aratral boundaries and the Medieval Town Fields type is sparse and largely restricted to the areas around these towns. Elsewhere there is a patchy mix of the Irregular HLC Sub-type and Semi-regular HLC Sub-type. This distribution partly reflects the fine grain of the area's landscape and geology, but is also influenced by eighteenth and nineteenth century agricultural re-organisation. There is a high incidence of enclosure from woodland in the western part of Area F, adjacent to the Weaver, associated with a dense cluster of surviving ancient woodland and documentary references to woodland in the Domesday survey²¹⁵. Within this area a number of medieval deer parks have been identified by the project or from documentary sources. In the eastern part of Area F enclosure is predominately from heath, with enclosure from moss predominating in the north-east.

Area G

This is a small area bounded to the east and south by the River Dane and by Northwich to the north, and comprises part of the extra parochial area of Rudheath. It is a relatively flat area of glacial tills and glaciofluvial deposits. Part of the heath from which this area takes its name is still extant on Burdett's map of 1777²¹⁶.

Enclosure in the area is likely to have been extensive by 1300AD (Higham 2004) and distribution of the Ancient Field System HLC Type is focussed on the areas of glacial till in the west and avoids the larger area of glaciofluvial deposits. There is only one occurrence of the Medieval Town Fields HLC Type and there is a high incidence of enclosure from heath. The larger area of glaciofluvial deposits also corresponds to the area depicted as unenclosed on Burdett's map²¹⁷. Settlement within this area is sparse.

²¹⁴ A Survey of the County Palatine of Chester PP Burdett 1777

²¹⁵ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²¹⁶ A Survey of the County Palatine of Chester PP Burdett 1777

²¹⁷ A Survey of the County Palatine of Chester PP Burdett 1777

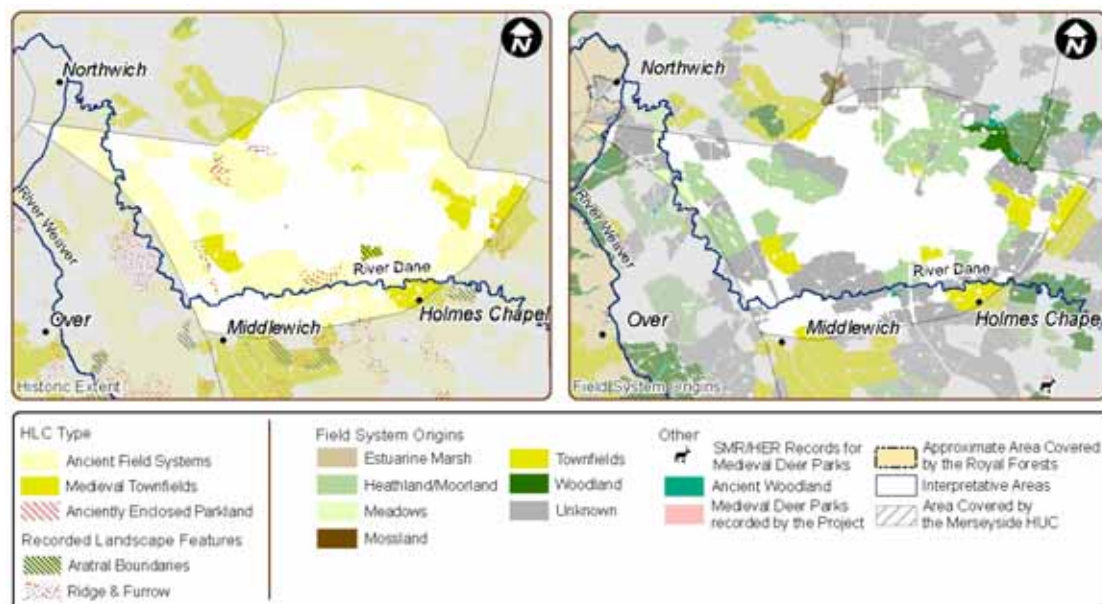


Figure 31: Area G

Area H

This area is bounded by the Rivers Weaver and Wheelock in the west, and the River Dane in the north. Topographically, the area runs from flat ground adjacent to the River Weaver, into an area of gently undulating ground in the east. Geologically glacial tills predominate in the west, with glaciofluvial deposits, intermixed with small areas of glacial till in the east. Numerous small mosses and heaths are shown on Burdett's map of 1777²¹⁸ and the remnants of small mosses are a common feature of the southern and eastern part of this area. Apart from the important medieval towns of Nantwich, Middlewich and Sandbach, settlement in the area is dispersed and moated sites are largely confined to the south²¹⁹.

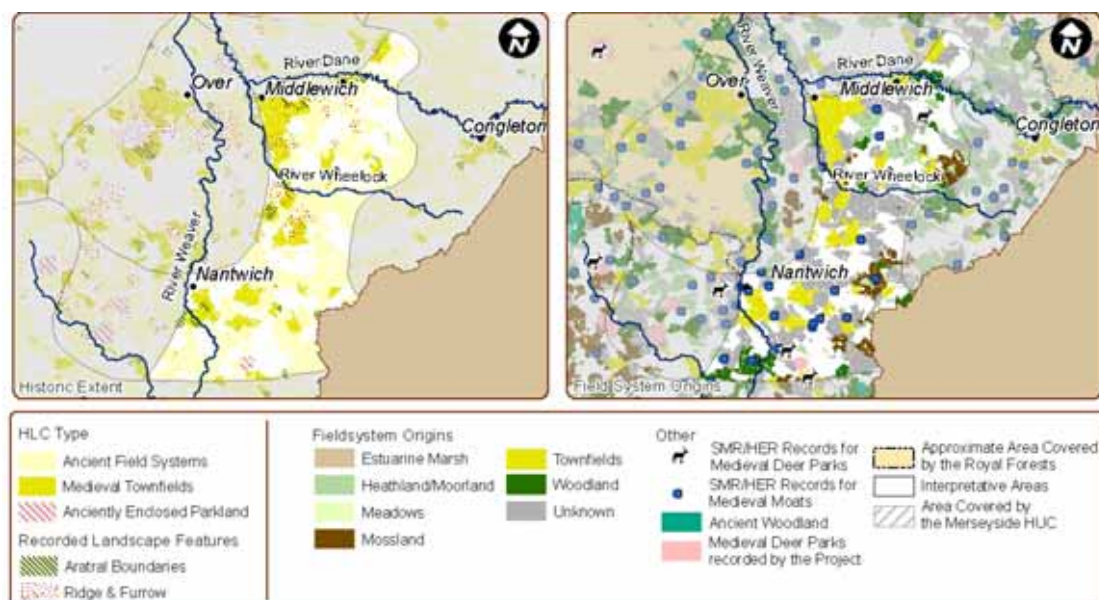


Figure 32: Area H

The Medieval Town Field HLC Type is concentrated in a broad band running from

²¹⁸ A Survey of the County Palatine of Chester PP Burdett 1777

²¹⁹ Cheshire County Historic Environment Record

Middlewich to Nantwich, with small areas located around Sandbach and Holmes Chapel. In general this type is confined to the western part of this area. Cultivation recorded in the Domesday survey generally corresponds with the areas of Medieval Town Field HLC Type, with marked concentrations evident around Nantwich and Middlewich²²⁰. Ridge and furrow remains are largely restricted to the northern part of the area. The Ancient Field Systems HLC Type is distributed throughout. The origin of these enclosure types is largely unknown, though there are references to woodland throughout the Domesday survey in this area²²¹. There are areas enclosed from moss in the south-east and woodland in the west, adjacent to the River Wheelock. There is also a concentration of enclosure from heath in the area between Sandbach and Holmes Chapel.

Area I

This area runs from the village of Chorley in the west to Nantwich in the east. It is a landscape of gently undulating glacial tills with patches of glaciofluvial deposits. To this day settlement within this area is very dispersed, with moated sites largely restricted to the north east, adjacent to Acton and Dorfold Hall. There are small areas of ridge and furrow throughout.

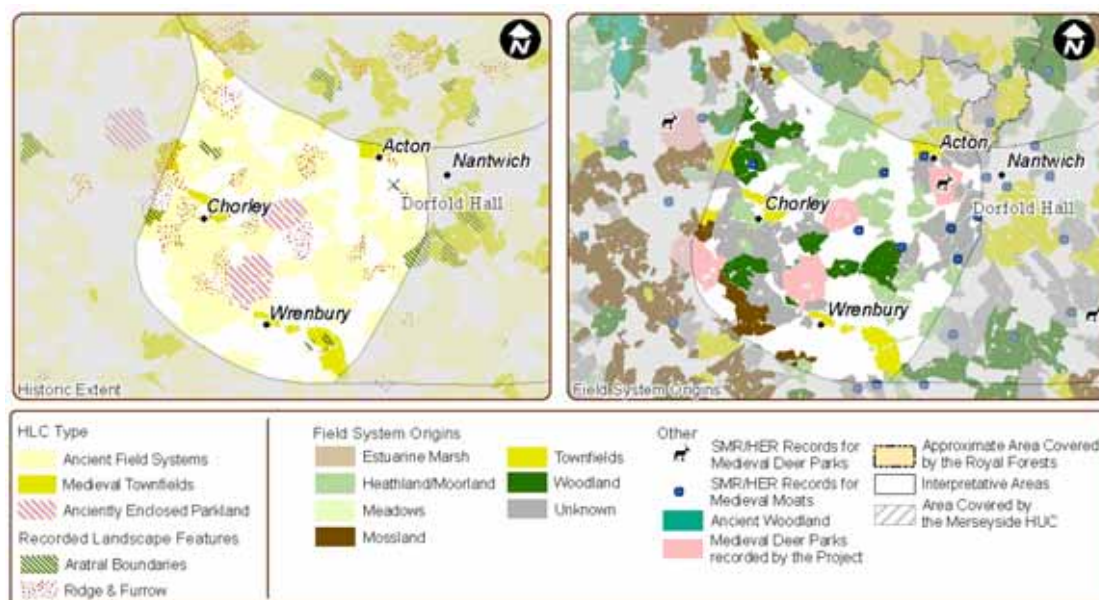


Figure 33: Area I

The occurrence of the Medieval Town Field HLC Types is sparse and largely restricted to the immediate area around Chorley and Wrenbury. The morphology of the Ancient Fields Systems HLC Type in this area is largely irregular and there is a high incidence of enclosure from heath and a number of small surviving heaths are evident on Burdett's Map²²². Additionally, areas of enclosure from woodland are readily apparent and a number of sizeable woodlands are recorded in the Domesday survey²²³. A small cluster of known and postulated medieval deer parks and references to hays (deer enclosures) in the Domesday survey were located in this area²²⁴ (see Ornamental).

²²⁰ Morgan 2002

²²¹ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²²² A Survey of the County Palatine of Chester PP Burdett 1777

²²³ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²²⁴ Morris 1978

Area J

This area runs from Wilmslow and Poynton in the north to Alsager and Congleton in the south. The eastern side of the area includes some of the land administered under forest law as the Forest of Macclesfield and Leek²²⁵ (see Woodland). The undulating landscape of glacial tills and glaciofluvial deposits slowly rise to the east to meet the sandstones and gritstones of the Peak fringe. Alderley Edge and Congleton Edge are local outcroppings of these sandstones and gritstones. A sizable area of lacustrine deposits is located between Congleton and Alsager with other small areas scattered over the area. Settlement is very dispersed, with Congleton and Macclesfield the major historic centres. Area J includes some of the largest mosses of the project area (Danes, Lindow, Congleton, Oakhanger and Whites Mosses), and many smaller mosses and heaths are evident on Burdett's map of 1777²²⁶.

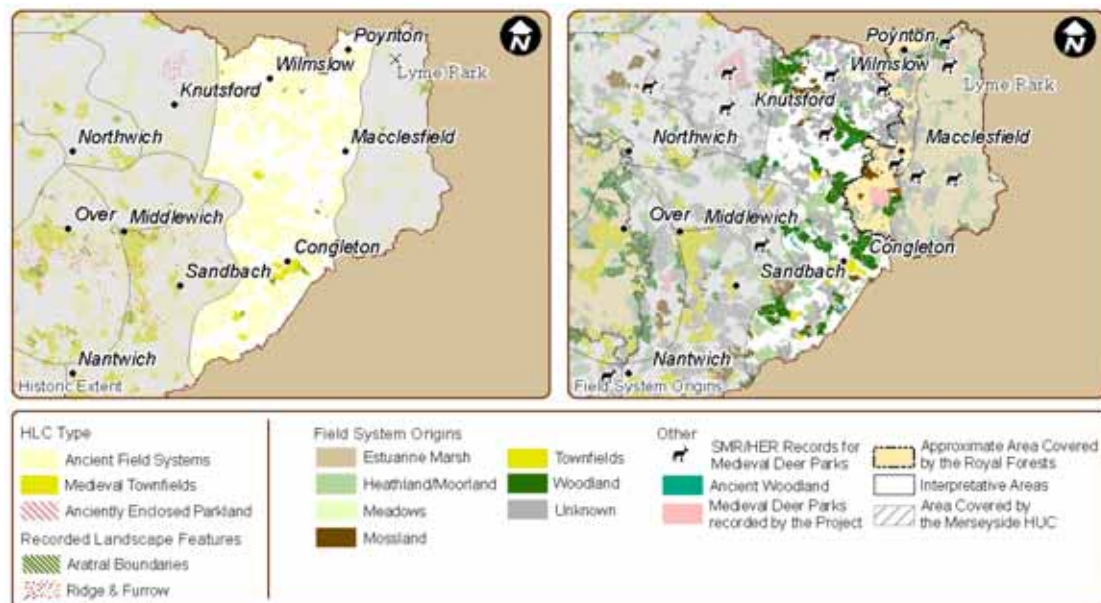


Figure 34: Area J

Area J contains very little of the Medieval Town Fields HLC Type; it is largely restricted to the area around Congleton. The Ancient Field Systems HLC Type is found throughout and is a near equal mix of the Irregular HLC Sub-type and Semi-regular HLC Sub-type. Enclosure from moss is evident in the vicinity of the major mosses, with enclosure from heath predominating in the southern half of the area.

A large amount of enclosure from woodland is apparent in the area particularly north of Alsager, along Congleton Edge and to the north of Congleton. Large areas are also located at Alderley Edge and between Lindow Moss and Knutsford. Smaller amounts are located along the Dane Valley. Ancient woodlands are often associated with these areas of assarting (see Woodland). This distribution largely corresponds with the large areas of woodland recorded in the Domesday survey²²⁷. However, in the area between Poynton and Macclesfield the project records little assarting, whereas the Domesday survey²²⁸ records large areas of woodland. It is probable that this is in part due to the extensive post medieval re-organisation of the field systems in the vicinity of Lyme Park (see Post Medieval Fieldsapes). It is also probable that some of the ancient field systems of unknown origin may be assarts, something that further research may ascertain.

²²⁵ Green 1979

²²⁶ A Survey of the County Palatine of Chester PP Burdett 1777

²²⁷ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²²⁸ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

Within Area J, the land subject to forest law would seem to have developed in much the same way as the rest of the area. This may be in part due to the custom of Macclesfield Forest of paying an annual rent for assarts²²⁹. This was established by the late thirteenth century, and by the sixteenth century, assarting was being encouraged in order to increase forest revenues²³⁰ (see Woodland).

Area K

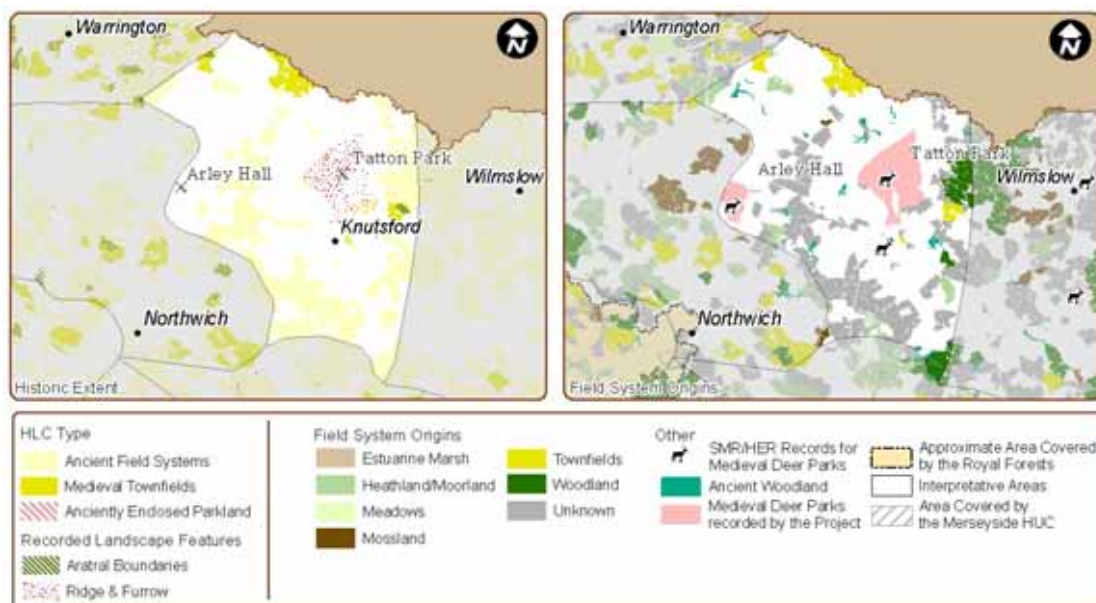


Figure 35: Area K

This area runs from the Knutsford area to the southern edge of the Mersey Valley. It is an area of undulating glacial tills terminating in a low sandstone ridge overlooking the Mersey, and with a wide band of glaciofluvial deposits running north-west south-east through Knutsford. Occasional small woods, heaths and mosses are depicted on Burdett's map of 1777²³¹. The area also contains the major estates and the medieval deer parks of Tatton and Arley. Within this area the survival of the Ancient Fields HLC Group is fragmentary due to extensive re-organisation of the field systems of the area in post medieval period (see Post Medieval Fields HLC).

Area L

This area comprises the Mersey Valley and the gently undulating lands to the north. Geologically the north is defined by a sandstone ridge and areas of glacial tills interspersed with brickearths and peat deposits in the north-west. The valley bottom, including the Sankey Brook tributary, contains sands, gravels and estuarine and fluvial silts and clays. Some of the largest mosses in the project area are located at Risley and Glazebrook, with the north-eastern edge of Area L bordering the extensive Chat Moss (see Non-improved Land).

Medieval Town Field HLC Types are largely restricted to the area around Lymm and Warrington, and in the west around Hale and Ditton. The Domesday survey for this area is not as detailed as that for Cheshire with the entries for Lancashire being of a more summary nature. Chitty and Lewis²³² suggest in a study of the St Helens area to the north-west, that the area was sparsely settled and farmed, and possibly very

²²⁹ Green 1979

²³⁰ Green 1979

²³¹ A Survey of the County Palatine of Chester PP Burdett 1777

²³² Chitty & Lewis 2002

wooded. They also indicate that there was an expansion in clearance from the eleventh to the thirteenth centuries, with farming closes (small enclosed fields located close to the farm/village) already the preference by the twelfth century. The homogeneity of the Ancient Field System HLC Type of this area and predominance of the Semi-regular HLC Sub-type may be the product of this rapid expansion. Many of the field systems seem to be arranged in parcels, which suggests large sections of land were brought into cultivation at one time, with each parcel following on from the last. The origins of the Ancient Field System HLC Type is largely unknown, however fields derived from moss are located on the margins of Glazebrook and Risley mosses, or from estuarine marsh on the areas adjacent to the River Mersey. Some assarting is apparent, including a large area of regular enclosure depicted on nineteenth century historic maps of Burtonwood, which is also associated with a small cluster of known and postulated medieval deer parks²³³.

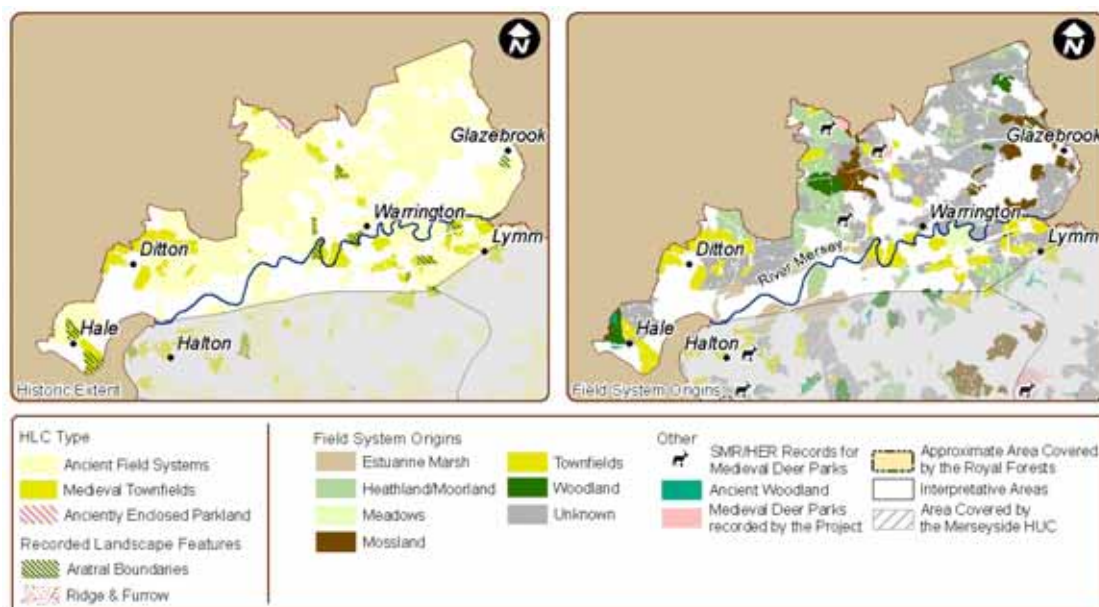


Figure 36: Area L

Area M

This area covers the far eastern part of Cheshire and contains the highest ground in the study area. The landscape is steeply undulating with heights ranging from 150 – 550m AOD, with the land generally higher in the east. Some areas of glacial and glaciofluvial deposits are located in the west and valley bottoms, however, the majority of the area is comprised of outcrops of sandstones and gritstones. Areas of blanket peat are also located on the higher ground of the south-east. Little settlement was recorded here at the time of the Domesday survey and there are few moated sites. Later this area was to become part of the extensive Forest of Macclesfield and Leek²³⁴ (see Woodland). Settlement is still very sparse in this area.

There is little ridge and furrow recorded in the HLC and the occurrence of aratral boundaries and the Medieval Town Fields HLC Type is sparse and restricted to the area around Kettleshulme in the north. Domesday records few plough teams and none for Kettleshulme²³⁵.

The Ancient Fields Systems HLC Type is largely restricted to the western parts of Area M and in the valley floors. There is a high incidence of enclosure from woodland

²³³ Cheshire County Historic Environment Record

²³⁴ Green 1979

²³⁵ Morgan 2002

throughout the northern and southern parts of this area, and this is often associated with ancient woodlands located on the steep valley sides and references to woodland in the Domesday survey²³⁶. Within the Macclesfield Forest there was a custom of paying an annual rent for assarts²³⁷. This was established by the late thirteenth century, and by the sixteenth century, assarting was being encouraged in order to increase forest revenues²³⁸ (see Woodland).

In the area between Poynton and Macclesfield the project records little assarting, whereas the Domesday survey²³⁹ records large areas of woodland. It is probable that this is in part due to the extensive post medieval re-organisation of the field systems in the vicinity of Lyme Park (see Post Medieval Fieldsapes). It is also probable that some of the ancient field systems of unknown origin may be assarts, something that further research may ascertain.

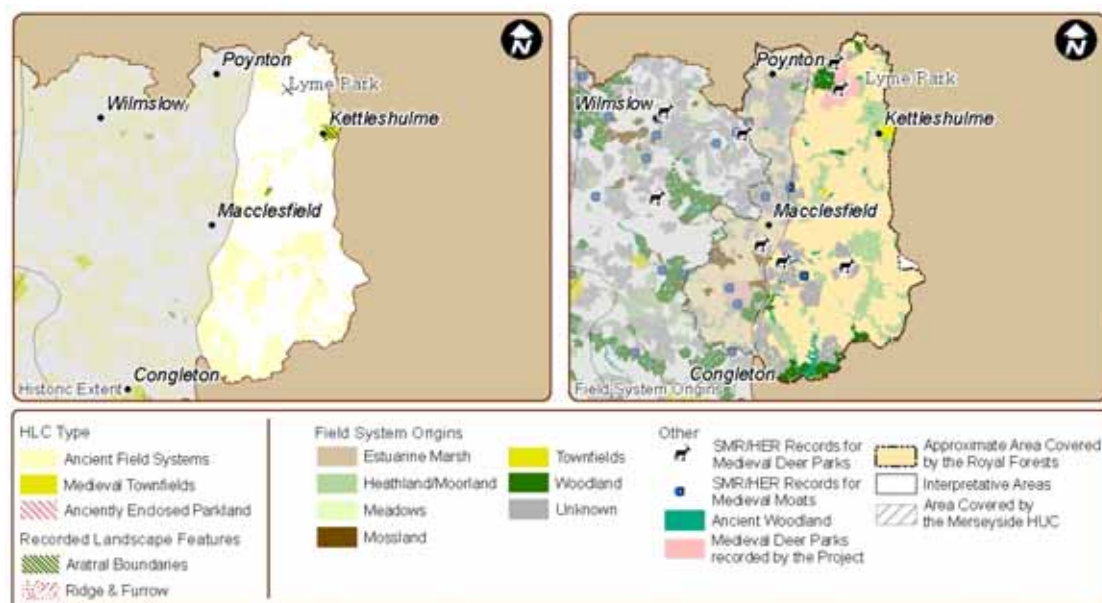


Figure 37: Area M

In the east of the area documentary references to woodland in the Domesday survey are few²⁴⁰, and here enclosure is predominately interpreted as being from moor. This interpretation is supported by the documentary references to the rental of pasture in this area²⁴¹, with a number of vaccaries (a medieval farm specialising in cattle) and horse farms being established in this part of the forest in the medieval period.

Characteristics of the Ancient Fieldsapes HLC Group

The Ancient Fieldsapes HLC Group is largely characterised by irregular and semi-regular field patterns, and very occasionally by regular field patterns, associated with a network of winding paths, tracks and lanes serving a dispersed pattern of isolated farms, hamlets and small villages. The average field size is small (see Figure 38), with 92% of the fields in this group averaging 4 hectares or less, 7% are between 4 and 8 hectares, and 1% above 8 hectares. The latter are mostly the result of incomplete information on the Ordnance Survey digital mapping.

²³⁶ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²³⁷ Green 1979

²³⁸ Green 1979

²³⁹ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²⁴⁰ Sylvester 1958b, Morgan 2002, Roberts & Wrathmell 2000 & 2002

²⁴¹ Davies 1960 & Green 1979

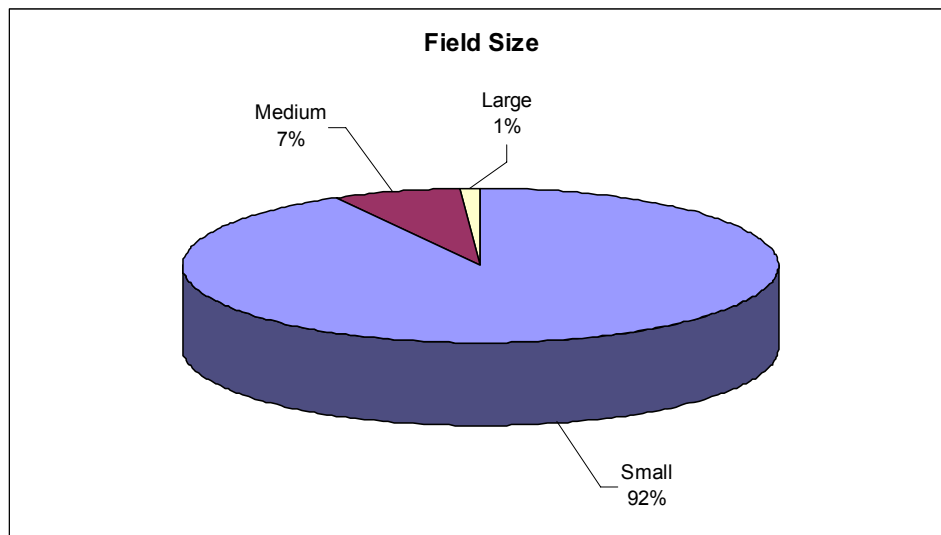


Figure 38: Ancient Fieldscapes HLC Group; Field Size

These field systems utilise a wide range of field boundaries. Dry stone walls are the prominent boundary features of the Peak fringe, sandstone walls are common features of the Cheshire Sandstone Ridge. However the predominant boundary feature is the hedge, which is often found in combination with ditches, banks, fences and walls. These hedgerows will often contain standing trees placed at regular intervals, planted in the post medieval (and potentially medieval) period in order to provide a source of timber in an area with few woodland resources, and are potentially species rich.

Managing Ancient Fieldscapes

The Ancient Fieldscapes HLC Group has been divided into three HLC Types:

- Ancient Field Systems
- Medieval Townfields
- Anciently Enclosed Parkland

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur in this HLC group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Ancient Fieldscapes HLC Group.

- Scheduled Monuments
- Sites of Special Scientific Interest (SSSI)
- Hedgerow Regulations
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers that record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record/Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.

Ancient Field Systems

This HLC type represents enclosures dating from prior to 1600AD. It covers c.14.7% (c.38,740 hectares) of the modern landscape and is distributed throughout the project area. Marl pits and ridge and furrow are common features, occurring in 55% and 11% (respectively) of the area covered by this HLC Type. The average field size is small with 92% of this type having an average field size of four hectares or below. Significant loss of field systems of this type has occurred, with an area larger than Congleton Borough (c.27,400 hectares) lost or significantly degraded in the twentieth century.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as farm buildings, earthworks associated with field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, species rich habitats, historic ecofacts and a wide range of archaeological sites.

This HLC Type is further divided into three HLC sub-types:

Regular

This sub-type comprises a regular network of fields with straight boundaries. It covers c.2042 hectares of the project area and comprises c.5% of the Ancient Field Systems HLC Type. Marl pits occur in 62% of the area covered by this sub-type and to ridge and furrow is recorded in 15% of the area. The average field size is small, with 89% of the fields having an average size of 4 hectares or below.

Semi-regular

This sub-type comprises a field system laid out in a manner suggestive of some form of overall organisation or plan. The sub-type covers c.18,964 hectares of the project area and comprises c.49% of the Ancient Field Systems HLC Type. Marl pits occur in 58% of the area covered by this sub-type and ridge and furrow is recorded in 9% of the area. The average field size is small, with 94% having an average size of 4 hectares or below.

Irregular

This sub-type comprises a field system with predominantly curving and sinuous boundaries laid out seemingly at random. This sub-type covers c.17,472 hectares of the project area and comprises 45% of Ancient Field Systems HLC Type. Marl pits occur in 51% of the area covered by this sub-type and ridge & furrow is recorded in 14% of the area. The average field size is small, with 89% of the fields having an average size of 4 hectares or below.

Moss Rooms

This sub-type is defined by a distinctive long, thin pattern of fields associated with mosses (and former mosses), whose survival within the project area is very rare. These fields result from the enclosure of the rooms or strips of moss from which an individual had the right to extract peat. It is worth noting, however, that moss rooms are multi-period in date, though the social organisation preserved within their boundaries is likely to be of some antiquity. This sub-type covers c.263 hectares of the project area and comprises less than c.1% of the Ancient Field Systems HLC Type. Marl pits occur in 29% of the area covered by this sub-type. The average field size is very small, with 100% having an average size of 2 hectares or below.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To retain field boundaries and features associated with this HLC Type, especially former township boundaries, and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems (ridge and furrow) and any associated relict field boundaries.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ❑ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of the historic and landscape character of much of the project area. These trees are generally over mature and the planting of a new generation, to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ❑ To have regard for the dispersed form of settlement often associated with areas of this HLC Type when proposals are made for development.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as, Parish Plans, Local Development Frameworks and Regional Spatial Strategies

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

Medieval Town Fields

This HLC Type represents a distinctive style of enclosure, which may relate to Medieval Open Field Arable. This type covers c.2.8% (c.7348 hectares) of the modern landscape and is distributed throughout the project area, though it is more prominent in the west. Marl pits occur in 60% of the area covered by the Medieval Town Fields Type, and ridge and furrow is recorded in 26% of the area. The average field size is small, with 94% having an average size of 4 hectares or below.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as farm buildings, earthworks associated with field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ☐ To retain field boundaries and features associated with this HLC Type, especially former township boundaries, and maintain them in good condition.
- ☐ To retain the remains of former cultivation systems (ridge and furrow) and any associated relict field boundaries.
- ☐ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ☐ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of the historic and landscape character of much of the project area. These trees are generally over mature and the planting of a new generation, to become their successors, is to be encouraged.
- ☐ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ☐ To have regard for the dispersed form of settlement often associated with areas of this HLC Type when proposals are made for development.
- ☐ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as, Parish Plans, Local Development Frameworks and Regional Spatial Strategies

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

J McN Dodgson The Place-Names of Cheshire²⁴²

²⁴² Dodgson 1970a-b, 1971, 1972 & 1981a-b

Anciently Enclosed Parkland

This HLC Type represents fields created from the enclosure of a deer park for arable (see Ornamental). Within these field systems features such as the former park pale, a substantial bank and ditch, or internal divisions may be preserved. Where the physical feature is not preserved, its former course can often be traced in the boundaries of the new field system.

This type covers less than 1% (c.498 hectares) of the modern landscape and is distributed throughout the project area. Marl pits occur in 62% of the area covered by this type. The average field size is small, with 98% having an average size of 4 hectares or below.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features associated with the former deer park, such as the park pale as well features associated with the later field systems; such as, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ☐ To retain field boundaries and features associated with this HLC Type, especially the former park pale and any other associated features and maintain them in good condition.
- ☐ To retain the remains of former cultivation systems (ridge and furrow) and any associated relict field boundaries.
- ☐ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ☐ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of the historic and landscape character of much of the project area. These trees are generally over mature and the planting of a new generation, to become their successors, is to be encouraged.
- ☐ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ☐ To have regard for the dispersed form of settlement often associated with areas of this HLC Type when proposals are made for development.
- ☐ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as, Parish Plans, Local Development Frameworks and Regional Spatial Strategies

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

J McN Dodgson 'The Place-Names of Cheshire'²⁴³

²⁴³ Dodgson 1970a-b, 1971, 1972 & 1981a-b

Post Medieval Fieldscapes



Figure 39: Post Medieval Field Systems of the Peak Fringe

The Post Medieval Fieldscapes HLC Group is the dominant character in c.27.8% of the project area²⁴⁴ (c.73,049 hectares) and comprises c.45% of all the Fieldscapes groups. It contains all field systems believed to originate after 1600AD and pre-dating the Ordnance Survey 3rd edition County Series maps (1904-9). However, some overlap between this group and the Ancient Fieldscapes HLC Group is inevitable.

Agricultural Revolution

The Post Medieval Fieldscapes HLC Group contains field systems which have their origins in a period that saw many changes in agricultural practices, and which is commonly referred to as an 'Agricultural Revolution'²⁴⁵. Although rapid change was not to occur until the eighteenth century, it was based on widely

accepted ideas and techniques which had evolved during the sixteenth and seventeenth centuries.

Nationally, sheep farming increased and a greater emphasis was placed on the selective breeding of livestock. New crops were introduced to replace low-yielding types and to facilitate more arable agriculture. To enable permanent pasture to be converted to arable, fodder crops such as turnips, swedes and potatoes were introduced. Under-sowing arable crops with clover and rye grass produced a pasture, which could be grazed off in the following year. The increase in fodder crops allowed more livestock to be kept, which in turn created more manure for use as fertiliser, whilst reducing the amount of pasture required. Water meadows were created to run water over the surface of permanent pasture. This promoted an early spring growth of grass, at a time when fodder was at a premium. Overall this enabled a flexible crop rotation system, with a greater proportion of the land under cultivation, which created higher yields. Furthermore, the Industrial Revolution was to provide new sources of capital and new types of agricultural machinery, though the latter would not be common until the late nineteenth century²⁴⁶.

Agriculture in the Project Area

The project area is not characterised by great estates arranged in discrete blocks²⁴⁷. However, "...thirteen Peers...and twenty seven others, deemed 'great landowners'..." owned half the agricultural land in the (pre-1974) county of Cheshire²⁴⁸. These large land owners' estates were spread widely and often intermingled with other estates, to the extent that the land in many townships was part of several estates and throughout the late eighteenth and nineteenth centuries

²⁴⁴ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

²⁴⁵ Taylor 2000

²⁴⁶ Taylor 2000

²⁴⁷ Davies 1960

²⁴⁸ Scard 1981

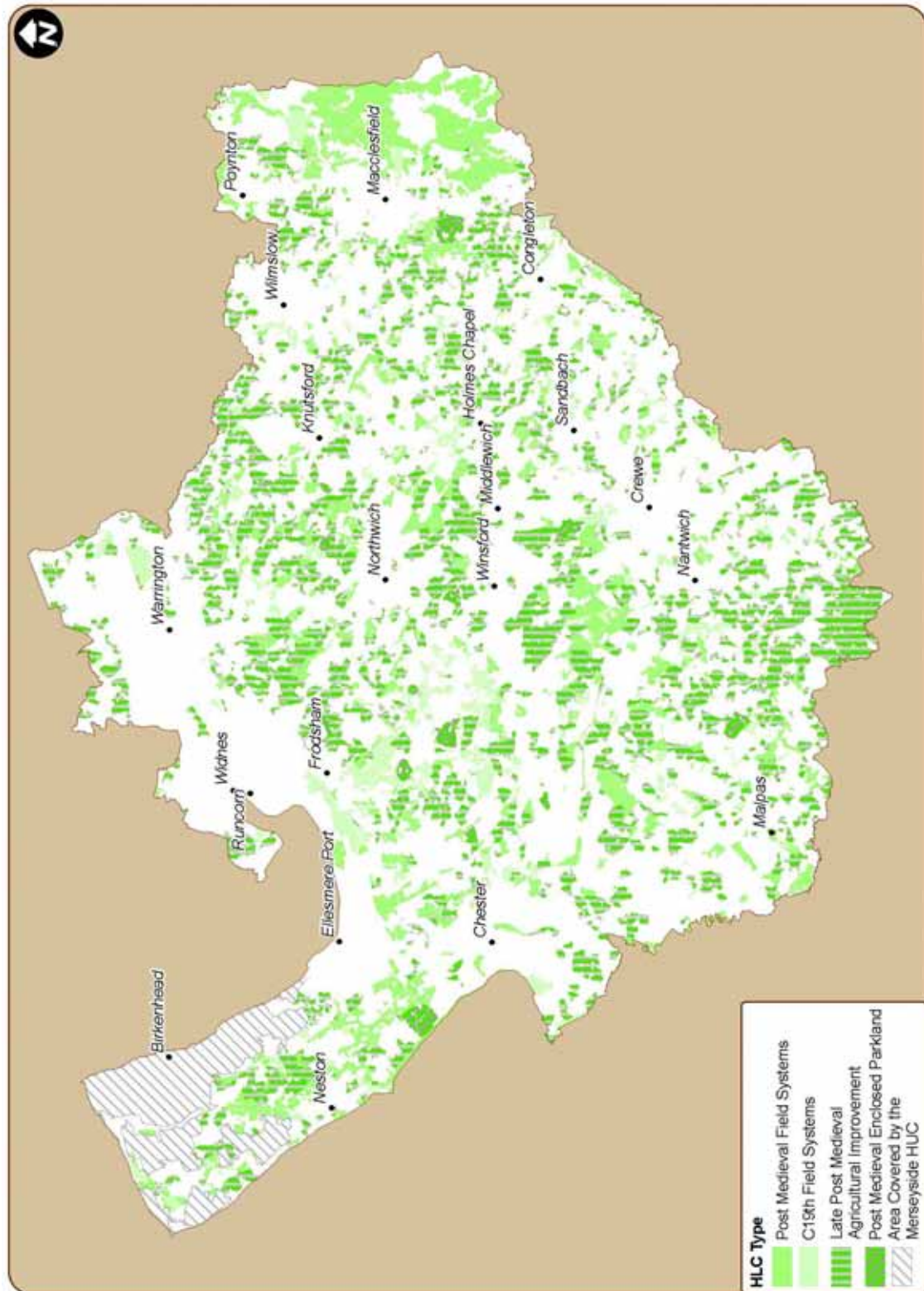


Figure 40: The Modern Extent of the Post Medieval Fields HLC Group

exchanges and purchase of land were being made in order to consolidate existing holdings²⁴⁹. However, there were also a large number of local squires, prosperous farmers and freeholders within the county owning land, and it was not unknown for tenant farmers to own or buy land²⁵⁰.

Cattle farming began to predominate in the project area from the late sixteenth century and resulted in an increase in the agricultural land used for grazing. As much as 55% of agricultural land was meadow and pasture by 1650²⁵¹. From 1870 to 1900 the acreage of permanent grass in (pre-1974) Cheshire rose from 61% to 68%²⁵². By 1900 as much as 90% of townships in the south and west of Cheshire were down to pasture²⁵³. In general, cattle rearing and fattening took place in northern parts of Cheshire, with dairying in the south and stock raising in the Peak fringe. Farmers bred their own cattle, often of mixed breeds, with surplus bullocks being sold on, often to graziers from outside the county²⁵⁴.

ADM Phillips suggests²⁵⁵ there were (in pre-1974 Cheshire) 4.3 cattle for every 100 acres in the 1680's, which had risen to 14.8 cattle for every 100 acres by 1808. It has been estimated that by the late eighteenth century there were as many as 92,000 dairy cattle in (pre-1974) Cheshire²⁵⁶ and 137,798 cattle by 1868²⁵⁷. The reliance on cattle is demonstrated by the impact of the cattle plagues of the mid-eighteenth and nineteenth centuries, which left many farmers reliant on government aid²⁵⁸.

The project area's principle export by the beginning of the eighteenth century was cheese. It was sold at markets, such as Chester and Frodsham, for export to the rest of the country. By-products would be used at home or sold for local consumption and included skins for the locally important tanning industry²⁵⁹.

Prior to the arrival of the railways in the nineteenth century, the ability to supply the milk markets was largely dependent on a farm's proximity to the urban markets of north Cheshire and south Lancashire and its access to a suitable form of transport, such as the canals²⁶⁰. The nineteenth century saw new markets developing in the new urban centres of the project area, as well as Merseyside, Manchester and the Potteries, and the developing railway infrastructure provided a means of access to these markets. The supply of milk to these new markets provided a regular cash income, attractive to farmers and led to a general increase in the milk trade in this period²⁶¹. The railways further facilitated the dairy industry by bringing cattle feed into the area to supplement the domestic supply of fodder crops.

Other livestock included pigs, sheep, horses and oxen. In the project area oxen had been largely supplanted by horses for motive power by the end of the eighteenth century²⁶². Pigs were commonly kept to consume the by products of cheese and butter manufacture²⁶³. Initially many were generally kept for domestic purposes, reared in much the same way as they had been in the medieval period, foraging in

²⁴⁹ Scard 1981

²⁵⁰ Scard 1981

²⁵¹ Phillips 2002

²⁵² Scard 1981

²⁵³ Phillips 2002

²⁵⁴ Hodson 1978

²⁵⁵ Phillips 2002

²⁵⁶ Hodson 1978

²⁵⁷ Phillips 2002

²⁵⁸ Hodson 1978, Scard 1981

²⁵⁹ Hodson 1978

²⁶⁰ Hodson 1978

²⁶¹ Scard 1981

²⁶² Davis 1960

²⁶³ Davies 1960

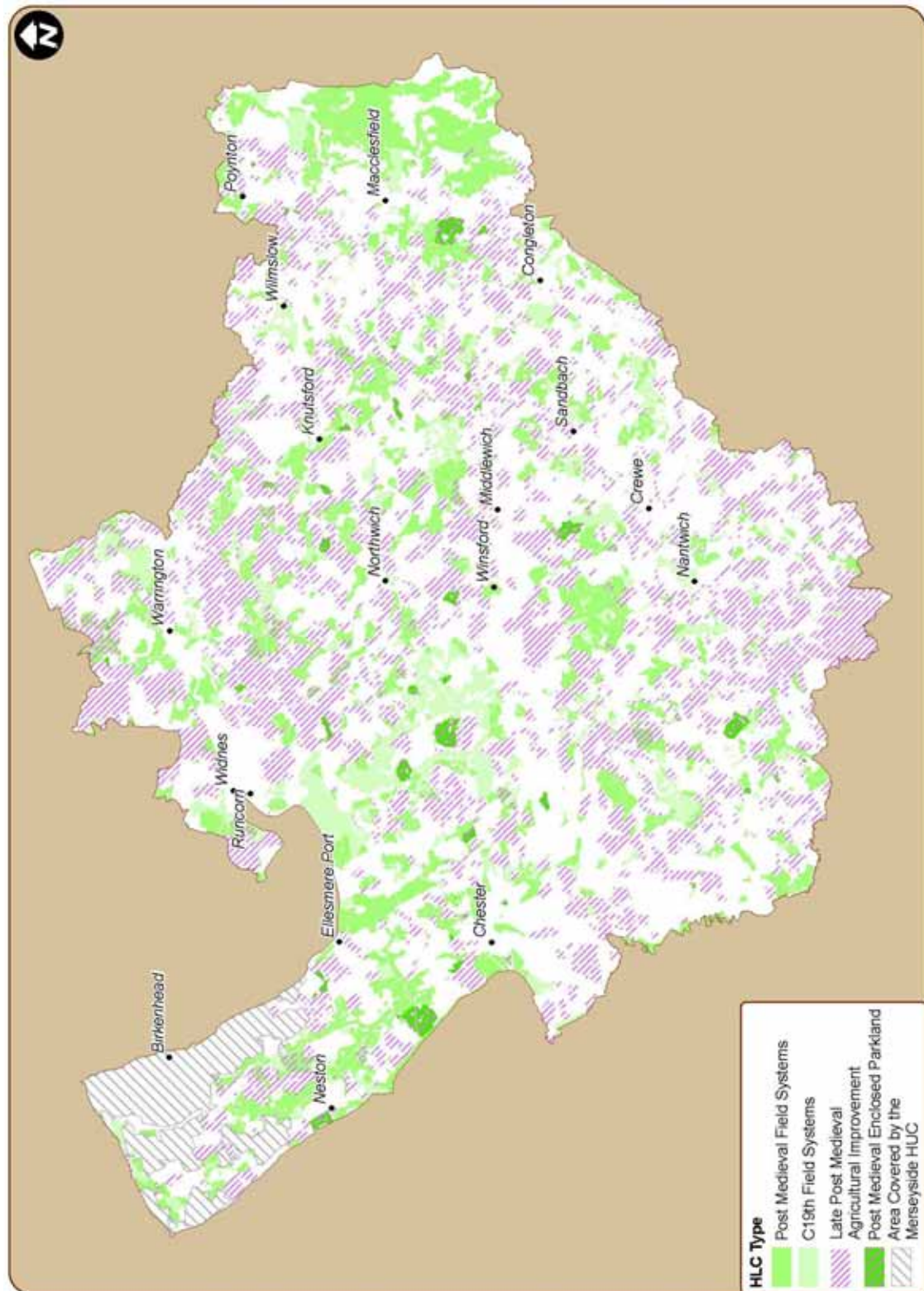


Figure 41: The Historic Extent of the Post Medieval Fields HLC Group

the woods, pastures and commons. However by the nineteenth century pigs were commonly kept in sties²⁶⁴. Sheep farming predominated in the Peak fringe, with Macclesfield a major wool market. Prior to its enclosure, Delamere Forest was commonly used for grazing sheep and small flocks could also be found throughout the project area.

By the nineteenth century arable was not plentiful, being more frequent in the north of the project area²⁶⁵. The principal arable crops were barley and oats, with some wheat. Initially wheat was only grown principally as a cash crop on the Wirral²⁶⁶, however its cultivation had become much more common by the mid nineteenth century²⁶⁷. In addition fodder crops, such as turnips, mangolds, peas and beans were common crops and flax and hemp were cultivated for textile and rope making. From the late eighteenth century the demand for potatoes encouraged their cultivation for market, where previously they had been a domestic or fodder crop²⁶⁸. However, many eighteenth and nineteenth century leases placed restrictions on how much domestic land could be used for tillage. Usually it was less than a third cultivated in rotation and there were strong stipulations against the commercial cultivation of cash crops²⁶⁹.

The Enclosure Movement

During the seventeenth and eighteenth centuries the adoption of new farming techniques required the rationalisation of land holdings. In addition the idea that a township's commons and waste could be better employed by enclosure and improvement gained strength²⁷⁰.

Extensive areas of medieval Open Field Arable, often referred to as the 'Midland System' (see Ancient Landscapes), survived into this period in some parts of the country²⁷¹. Although common, especially in west Cheshire and the Wirral, it was never dominant in the project area and had been largely disbanded and enclosed (through private agreements) by the nineteenth century²⁷². Only about 1,000 acres (c.40.5 hectares) is estimated to have remained in (pre 1974) Cheshire in 1794²⁷³.

Many of the townships would have extensive commons for which many of the community would have the rights such as grazing or turbary (peat cutting, see Non-improved Land). In some cases reorganisation and redistribution of the land within the old open fields, or the division of the commons were achieved by private agreement. However, in many cases it would require an Act of Parliament.

Parliamentary Acts of this type start to be used in the seventeenth century, but only become common after 1750²⁷⁴. These acts enabled a formal process by which the land could be reorganised and redistributed, and effectively 'privatised'²⁷⁵. The landowners of each township, usually gentry, would petition Parliament for the required act and commissioners would be appointed to survey each claimant's rights, such as grazing or the strips farmed in the open fields, and produce an allocation of land per claimant²⁷⁶. This was "...notionally equivalent..."²⁷⁷ to their holdings in the

²⁶⁴ Davis 1960

²⁶⁵ Davis 1960, Phillips 2002

²⁶⁶ Davis 1960, Hodson 1978

²⁶⁷ Phillips 2002

²⁶⁸ Hodson 1978

²⁶⁹ Hodson 1978, Scard 1981

²⁷⁰ Scard 1981

²⁷¹ Taylor 2000

²⁷² Phillips 2002

²⁷³ Hodson 1978

²⁷⁴ Taylor 2000

²⁷⁵ Muir 2004

²⁷⁶ Scard 1981

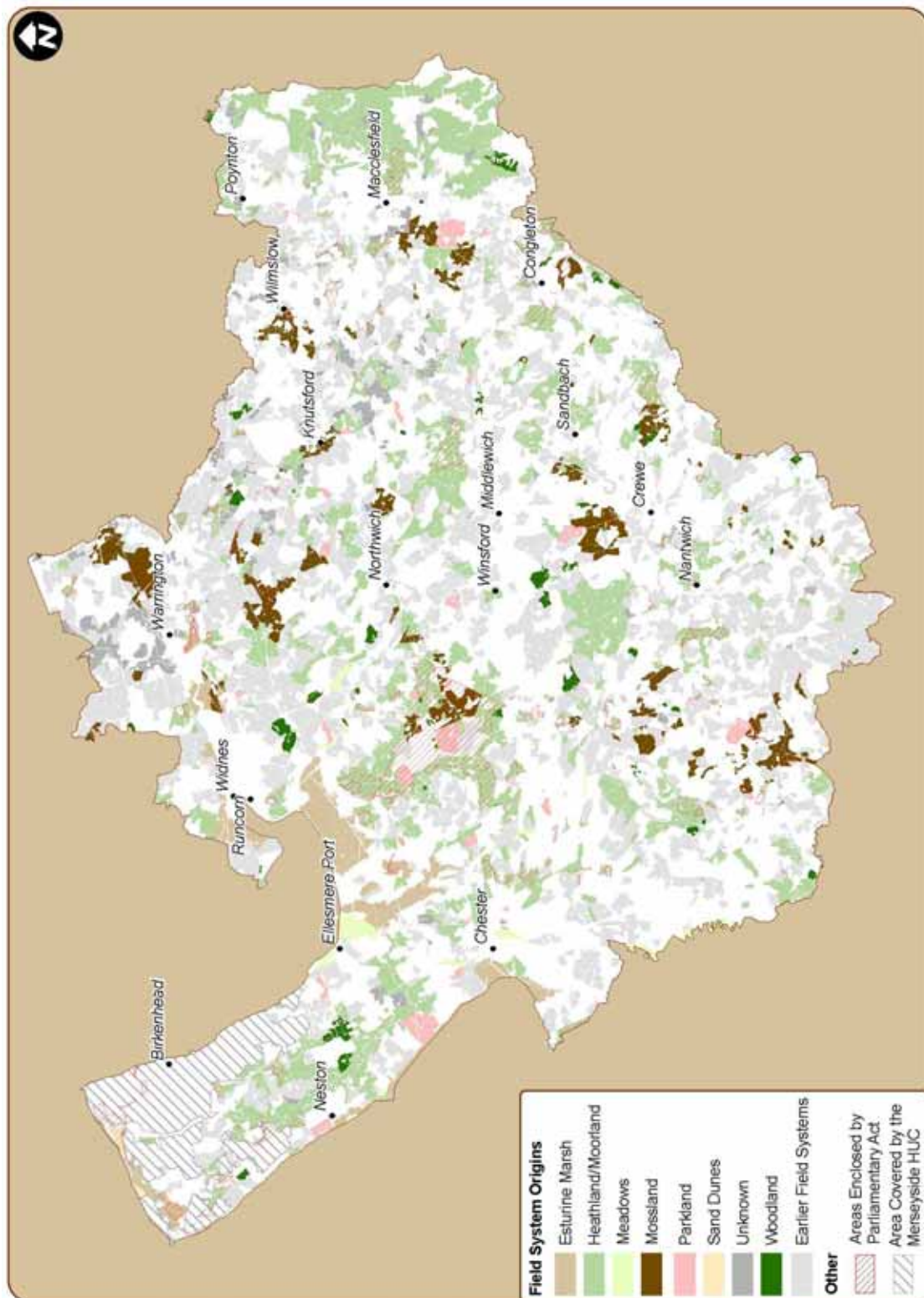


Figure 42: Origins of the Post Medieval Fields HLC Group

open fields, or compensatory to their rights to exploit resources on the commons (common rights). It was for the claimant to enclose his allocation at his own expense. However, this process was often seen as favouring the landlords, with the allocations failing to compensate for the loss of resources by the small holder, leading to conflict in some areas²⁷⁸. The effect on the landscape is well-described by Taylor²⁷⁹ "...open un-hedged landscape was transformed into a series of rigidly geometrical fields, each bounded by hawthorn hedges..."

The Parliamentary Acts of the project area are almost entirely concerned with the enclosure of township common and waste. In addition it would appear that there was little ill feeling to enclosure in the project area²⁸⁰. The disafforestation of the Forest of Mara (Delamere) was by far the largest area enclosed by Parliamentary Act in the project area. Approximately 3,600²⁸¹ hectares were enclosed by a series of Acts, which also created four new townships. However, the majority of the Parliamentary Acts cover small, sometimes fragmented areas and simply finalise the process of piecemeal enclosure that had been going on for some time.

The introduction from the seventeenth century of new grasses, which were better suited to sandy and acidic soils enabled the improvement of areas of sandy heath²⁸². The surviving heaths and mosses of the project area were often encroached by landless labourers, who created a pattern of irregular fields interspersed with small holdings. However, in many cases enclosure was undertaken by the local landlord or his tenants²⁸³. Although complaints were made, and in practice a rent would often be fixed for the new enclosures. Also where ownership was not an issue, landlords often had a policy of charging a modest rent for encroachments to encourage their tenants to improve the land. In some areas the real drivers for enclosure and improvement were the tenants, rather than the landlord²⁸⁴.

Where township commons and waste were in single ownership, or where private agreements could be made, larger scale enclosure could take place. Planned enclosure created large scale regular field systems laid out by surveyors, which are often similar to those created by Parliamentary Acts. These field systems are often associated with the reclamation of marsh or moss with a pattern of straight drains and rectangular fields, such as the land reclaimed from the Mersey estuary at Ince in 1749²⁸⁵. The Forest of Macclesfield effectively came to an end with the acquisition by Lord Derby of all the pasture and grazing he had previously rented,²⁸⁶ and much of this area was enclosed by the late eighteenth century²⁸⁷ as rough pasture for sheep²⁸⁸.

Rationalisation and Improvement

The new techniques required the rationalisation of land holdings, which led to reorganisation and/or enlargement of existing field systems and facilitated the improvement of cultivation and stock raising techniques. In some places, a few field boundaries would be removed, but in other areas entirely new regular field systems were established. New estate farms (model farms) were constructed or older ones rebuilt reflecting the new agricultural methods²⁸⁹.

²⁷⁸ Scard 1981

²⁷⁹ Taylor 2000

²⁸⁰ Hodson 1978

²⁸¹ HLC data

²⁸² Hodson 1978

²⁸³ Hodson 1978

²⁸⁴ Davis 1960

²⁸⁵ Hodson 1978

²⁸⁶ Green 1979

²⁸⁷ A Survey of the County Palatine of Chester PP Burdett 1777

²⁸⁸ Davis 1960

²⁸⁹ Barnwell & Giles 1997

The marling of pasture and arable was undertaken from at least the thirteenth century in Cheshire²⁹⁰ and had been a significant method of improving soil fertility in the project area since at least the sixteenth century²⁹¹. It was probably most useful in the improvement of sandy soils, as the benefit of applying marl to the clay soils is debatable²⁹². Marl was a local resource, generally being dug from the field itself, creating the myriad small pits and ponds which are a common feature of much of the project area.

During this period the use of lime to improve soil fertility was to become more common than marling. Liming was rarely undertaken in the project area prior to the mid-eighteenth century due to the absence of locally available lime. However some liming may have been taking place in the Macclesfield Forest area in the early eighteenth century, using lime imported on horse-back from Derbyshire²⁹³. The construction of the river navigations and the advent of the canals and later railways (see Communications) allowed limestone and lime to be brought into the area from Derbyshire and north Wales, thus increasing its availability²⁹⁴. The discovery of limestone at Astbury eventually enabled a domestic lime industry to begin, which supplied much of south-east Cheshire. With improvements in communications, as well as improvements in drainage through mole ploughing and field drains, liming had replaced marling by the nineteenth century²⁹⁵.

Post Medieval Fieldscapes HLC Group Structure and Extent

The various HLC Types and sub-types which make up the Post Medieval Fieldscapes HLC Group are summarised in Table 2.

c.73,049 hectares of the Post Medieval Fieldscapes HLC Group survive in the modern landscape, of which 56% is assigned to the Late Post Medieval Agricultural Improvement HLC Type, 30% to the Post Medieval Field Systems HLC Type, 11% to the C19th Field Systems HLC Type and 3% to the Post Medieval Enclosed Parkland HLC Type (Figure 43).

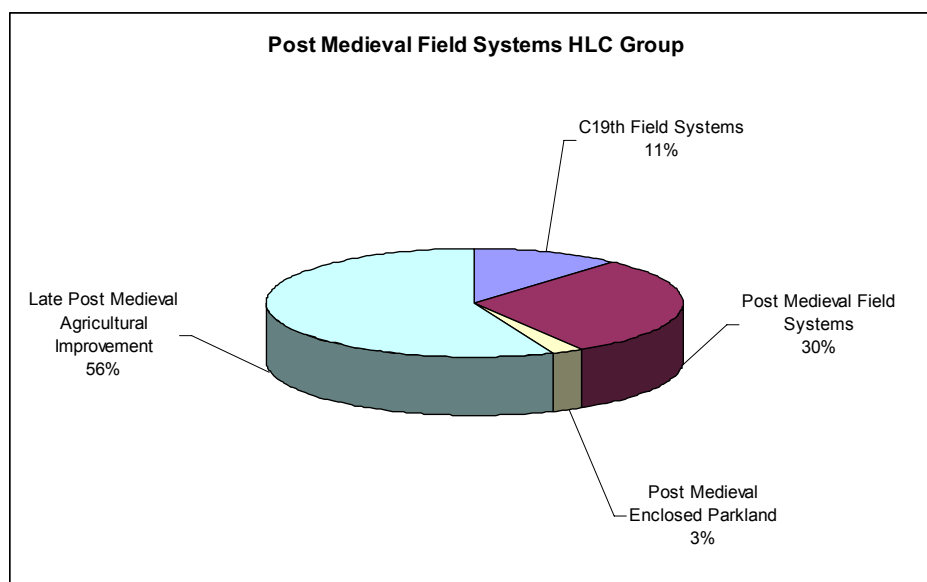


Figure 43: The Composition of the Post Medieval Fieldscapes HLC Group

²⁹⁰ Scard 1981

²⁹¹ Hodson 1978

²⁹² Davis 1960, Hodson 1978

²⁹³ Davis 1960

²⁹⁴ Hodson 1978

²⁹⁵ Hodson 1978

HLC Type	Description	HLC Sub-type	Description
C19th Field Systems	This HLC type represents the majority of later eighteenth and nineteenth century enclosure.	Parliamentary Enclosure	Planned field systems enclosed through an Act of Parliament.
		C19th Planned Enclosure	Planned field systems enclosed by private agreement or individual owner.
		C19th Planned Enclosure of Marsh	Planned field systems reclaimed from estuarine marsh through private agreements or by an individual owner.
		C19th Enclosure	Other forms of enclosure such as assarts and encroachment of township commons.
Post Medieval Field Systems	This HLC type represents the majority of post medieval field systems pre-dating the later eighteenth and nineteenth century enclosure.	Post Medieval Planned Enclosure	Planned field systems enclosed by private agreement or individual owner.
		Post Medieval Enclosure of Marsh	Planned field systems reclaimed from estuarine marsh through private agreements or by an individual owner.
		Post Medieval Enclosure	Other forms of enclosure such as assarts and encroachment of township commons.
Anciently Enclosed Parkland	Former deer parks and designed landscape parks converted to agriculture after 1600AD. These fields have the potential to contain relict features relating to the former park.	N/A	
Late Post Medieval Agricultural Improvement	This HLC type represents the field systems created by the re-organisation of earlier field systems in the eighteenth, but mainly nineteenth century.	N/A	

Table 2: Structure of the Post Medieval Fieldscapes HLC Group

The C19th Field Systems HLC Type is comprises of 47% C19th Planned Enclosure HLC Sub-type, 37% Parliamentary HLC Sub-type, 10% C19th Planned Enclosure of Marsh HLC Sub-type and 6% assigned to the C19th Enclosure HLC Sub-type (Figure 44).

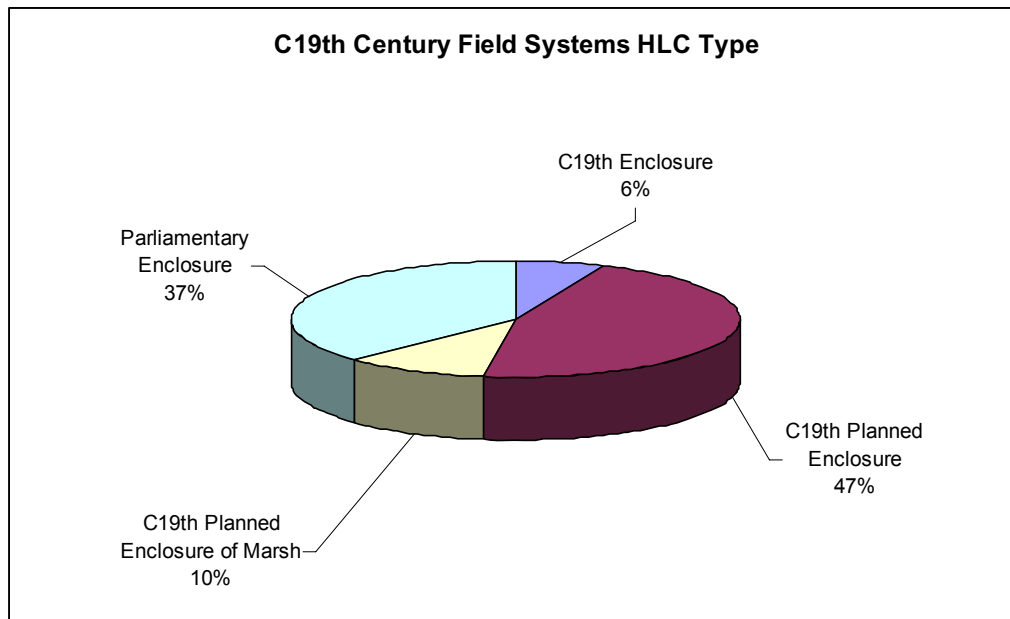


Figure 44: The composition of the C19th Field Systems HLC Type

The Post Medieval Field Systems HLC Type is comprises of 66% Post Medieval Planned Enclosure HLC Sub-type, 29% Post Medieval Enclosure HLC Sub-type and 5% assigned to the Post Medieval Planned Enclosure of Marsh HLC Sub-type (Figure 45).

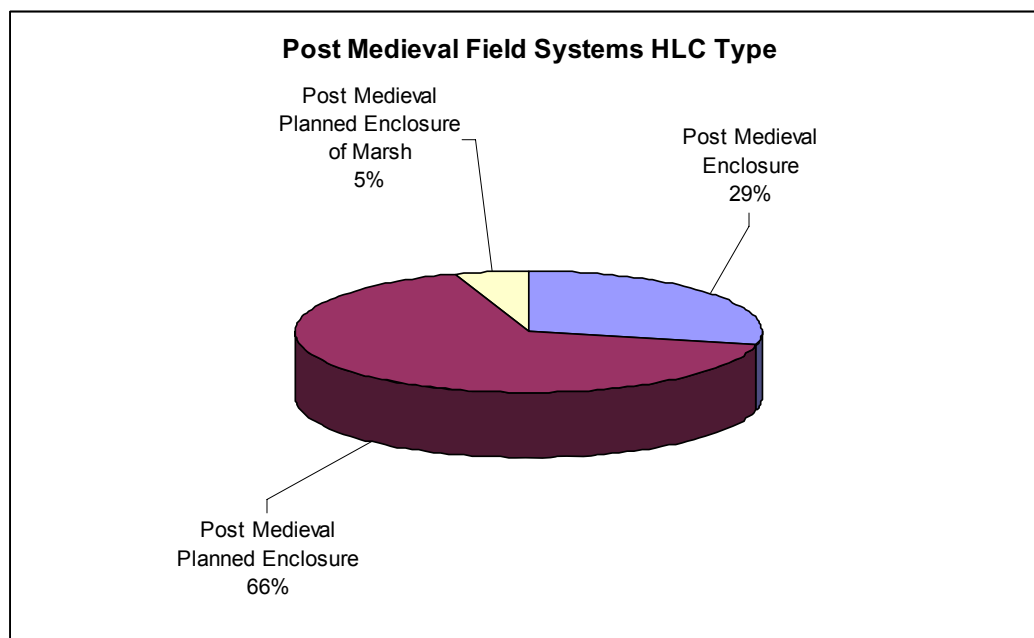


Figure 45: The composition of the Post Medieval Field Systems HLC Type

Figure 40 shows the full extent of all types in the Post Medieval Fieldsapes HLC Group.

Historic Extent of the Post Medieval Fieldscapes HLC Group

Many later field systems are created by the enlargement of pre-existing fields (by the removal of field boundaries), or by the removal of a pre-existing field system in order to establish a new field system more suited to the agricultural practices of the time. Examination of the HLC records for the C20th Fieldscapes HLC Group indicates that up to 43% of this group derive from or replace post medieval field systems.

Within the Post Medieval Fieldscapes HLC Group itself, 9% of the Late Post Medieval Agricultural Improvement HLC Type derive from or replace other post medieval field systems. For 50% (c.20,619 hectares) of the Late Post Medieval Agricultural Improvement HLC Type, there was no evidence available to indicate the nature of the preceding field system. Potentially this may have once contained ancient or post medieval field systems.

The area covered by the Post Medieval Fieldscapes HLC Group (excluding the Late Post Medieval Agricultural Improvement HLC Type) and including those field systems replaced in the modern landscape by other HLC groups, suggests c.54,110 hectares of township common and waste was enclosed in the post medieval period, c.21% of the project area. In addition another c.2823 hectares of the project area's commons were converted to forestry at this time. Examination of the HLC data suggests that approximately c.73% of this enclosure was enclosed in the seventeenth and early eighteenth centuries and c.27% enclosed in the late eighteenth and nineteenth centuries. The figure for the late eighteenth and nineteenth centuries is broadly comparable with Wedge's calculations of 60,000 acres of 'waste land' in late eighteenth century (pre 1974) Cheshire, 9% of its overall area of 665,000 acres (Scard 1981). However these figures can only represent an informed estimate.

Associated Landscape Features

In the lowland areas characterised by glacial tills, these field systems will contain a large number of small pits, dug to provide marl for spreading on the fields to aid soil fertility. This practice was undertaken from at least the thirteenth century in Cheshire²⁹⁶ and continued in to the nineteenth century. These pits occur in c.44% of the area covered by the Post Medieval Fieldscapes HLC Group. However, this distribution is based on surviving marl pits. It is evident from the Ordnance Survey 1st edition County Series maps that marl pits were once more extensive, with many areas commonly having one or two in each field.

Marl pits are generally less frequent in the field systems of the C19th Field Systems HLC Type than in those of the Post Medieval Field Systems HLC Type (see Figure 46). This is possibly due to the increased use of lime in the nineteenth century (see Rationalisation and Improvement). However, this is with the exception of the C19th Enclosure HLC Sub-type, which has a frequency of marl pits equivalent to the Ancient Fieldscapes HLC Group. This is probably due to this HLC type containing field systems indicative of encroachment onto the township commons and waste by the poor and landless and is an economic phenomenon, with marl being freely available at no cost (other than labour), whereas lime would require a larger cash outlay.

²⁹⁶ Scard 1981

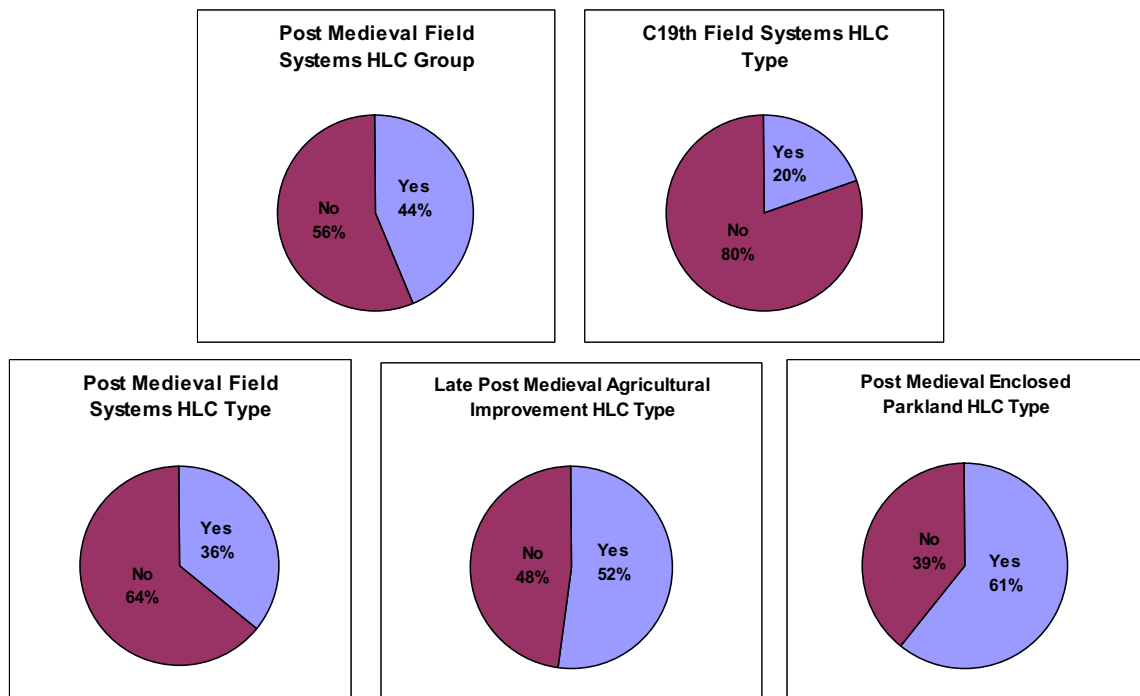


Figure 46: The Presence of Marl Pits in the Post Medieval Fieldsapes HLC Group

Also associated with the Post Medieval Fieldsapes HLC Group are the earthwork remains of ridge and furrow cultivation, some of which may predate the surrounding field system. The HLC has recorded earthwork (upstanding) and non-earthwork (ploughed out) remains of ridge and furrow in c.6% of the area covered by the Post Medieval Fieldsapes HLC Group (see Figure 47). However, the HLC can only be used as a rough guide to the presence or absence of this feature, as the aerial photographs used for the project were poorly suited to the identification of earthworks.

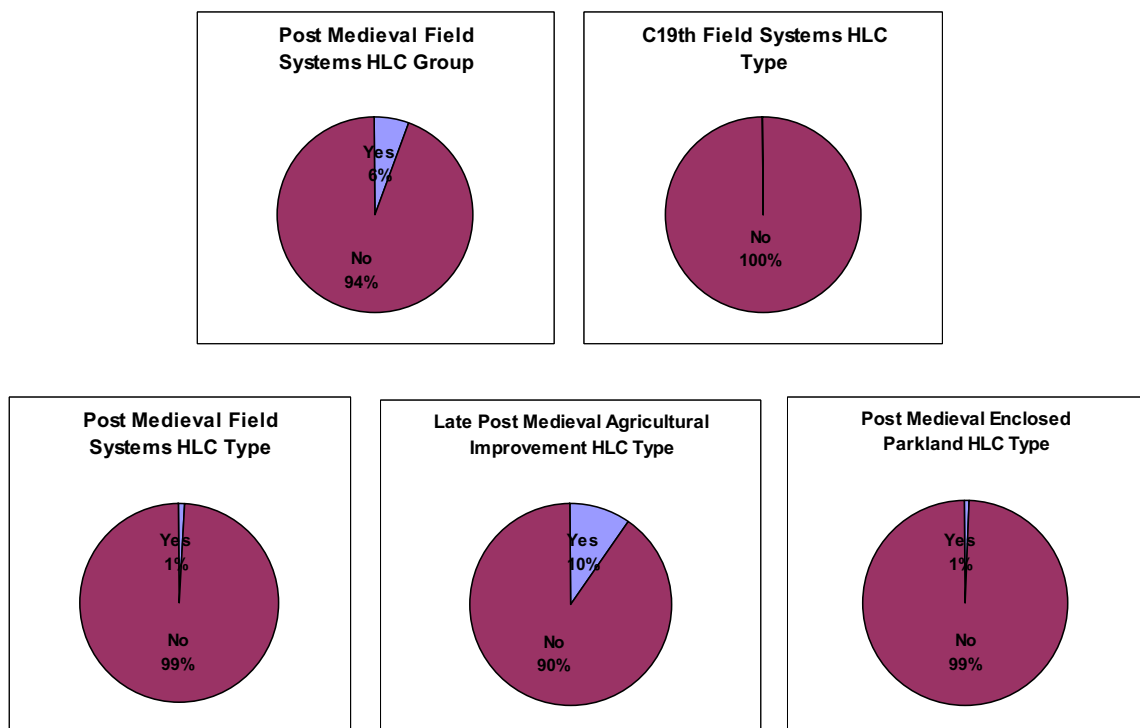


Figure 47: The Presence of Ridge & Furrow in the Post Medieval Fieldsapes HLC Group

Post Medieval Fieldscapes Overview

The postulated origins of the field systems within this group (the landscape that preceded them) and surviving ancient woodland (see Woodland) are shown in Figure 42. To a large extent this is based upon place name evidence and secondary sources. Fields adjacent to an area of ancient woodland or a moss have a reasonably evident origin. However, in a number of cases information was not available to make an informed interpretation and the origin of these field systems is displayed as unknown.

It is probable that by the sixteenth and seventeenth centuries the project area was a much more thinly wooded landscape than that recorded by the Domesday survey (see Woodland & Ancient Fieldscapes). The HLC data for the Post Medieval Fieldscapes HLC Group would seem to support this statement as it is evident that the clearance of woodland for agriculture is much more limited than in the Ancient Fieldscapes HLC Group. In the Post Medieval Fieldscapes HLC Group c.1918 hectares of fields can be attributed to assarting (the clearance of woodland for agriculture), with 74% of this belonging to the Post Medieval Enclosure HLC Type. This generally corresponds with the areas of assarting identified in the Ancient Fieldscapes HLC Group and areas of surviving ancient woodland (see Figure 21 & Figure 42). By the late eighteenth century the focus is on planting, rather than clearing woodland (for further discussion see Woodland). The vast majority of new land brought into cultivation in this period was from the mosses, heaths, the moors of the Peak fringe, the Forest of Delamere and the marshes of the Dee and Mersey estuaries.

The information displayed in Figure 41 and Figure 42 has been used to divide the project area into broad zones, which are defined in Figure 48.

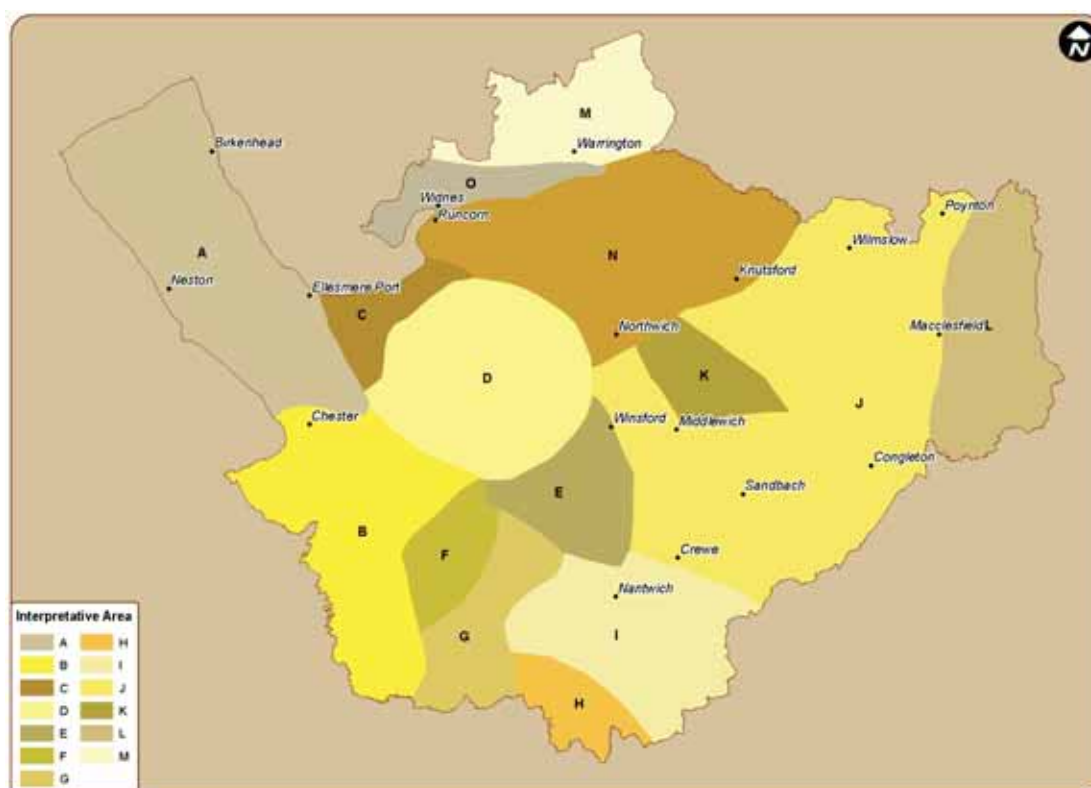


Figure 48: Post Medieval Fieldscapes: Interpretative Areas

Area A

This area comprises the Wirral peninsula, an area which was a forest until the late fourteenth century and contains a high degree of nucleated settlement when compared to the rest of the project area²⁹⁷. Only information on the modern landscape was recorded for the urban part of the Wirral, which is to be characterised as part of the Merseyside Urban Characterisation Project.

This area includes pockets of poor sandy soils and heath associated with outcrops of the sandstone bedrock along a low ridge. A broad band of the Post Medieval Planned Enclosure HLC Sub-type and smaller areas of C19th Planned Enclosure HLC Sub-type dominate this low ridge. Smaller areas of the Post Medieval Enclosure HLC Sub-type and rare examples of the C19th Enclosure HLC Sub-type are located between Neston and Ellesmere Port some of which may be associated with woodland clearance. These correspond with areas of assarting identified in the Ancient Fieldscapes HLC Group. Very small areas of these HLC sub-types are located near areas of the Parliamentary Enclosure HLC Sub-type and are associated with former heaths and sandstone outcrops. These are fragments of once more extensive field systems, created by encroachment of the township commons, which have been overtaken by urban expansion.

At the far north of the peninsula is an area of Post Medieval Enclosure of Marsh HLC Sub-type created when the low marshy areas behind the sand dunes were enclosed. The Parliamentary Enclosure HLC Sub-type is also evident here where coastal sand dunes or remnants of the marsh survived un-reclaimed into the late-eighteenth and nineteenth centuries. Smaller areas of the Post Medieval Enclosure of Marsh HLC Sub-type are located along the Welsh border between Neston and Chester and are the result of land reclamation associated with the construction of the New Cut navigation (see Communications).

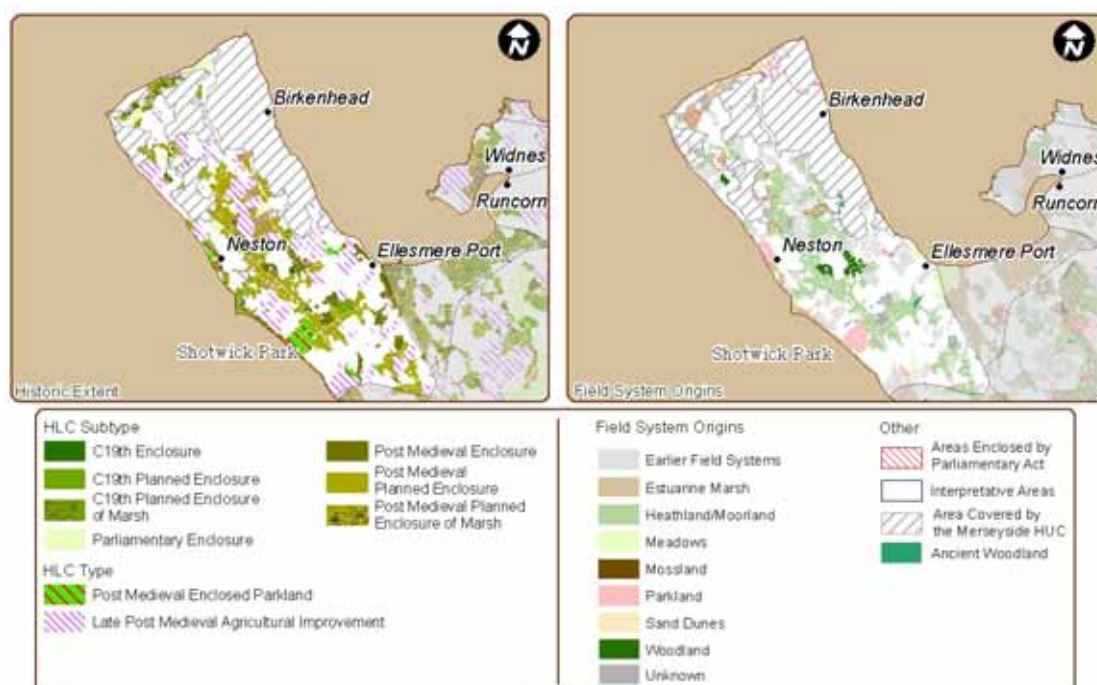


Figure 49: Area A

Areas of the Late Post Medieval Agricultural Improvement HLC Type are scattered throughout the Area A. A concentration around the villages of Raby and Thornton

²⁹⁷ Sylvester 1969, Roberts & Wrathmell 2000 & 2002

Hough seems to be related to the re-organisation of privately enclosed Open Field Arable. The medieval deer park at Shotwick was probably enclosed in this period.

There is considerably more Post Medieval Enclosure HLC Type than C19th Enclosure HLC Type on the Wirral, which is broadly equivalent to other areas which were once part of the forests of Mara, Mondrem and Macclesfield. However, disafforestation of the Wirral took place comparatively early (1376²⁹⁸) and it is perhaps surprising that so much unenclosed land should survive into the post medieval period. This apparent lack of expansion after disafforestation may reflect socio-economic circumstances; impoverishment was cited a reason for disafforestation²⁹⁹, but there is also the possibility that some of the Post Medieval Planned Enclosure HLC Sub-type is in fact re-organised field systems. These points will only be clarified through further research.

Area B

The landscape of this area comprises flat or slightly undulating glacial tills and is defined by the Cheshire Sandstone Ridge to the east, and the River Dee and Welsh border to the west. This was some of the most densely populated and agriculturally developed countryside in the medieval period and has a more nucleated settlement pattern than the rest of the project area³⁰⁰.

The project has recorded some of the lowest densities of post medieval field systems in the project area in Area B. Small areas of the Post Medieval Enclosure HLC Sub-type and Post Medieval Planned Enclosure HLC Sub-type are concentrated towards the southern and north-eastern parts of Area B. Field systems of the C19th Enclosure HLC Type are largely restricted to a number of small areas of the Parliamentary Enclosure HLC Sub-type, located in the north-eastern part of the area and fringing the former forests of Mara and Mondrem. It is probable that this represents the final enclosure of the small remaining fragments of township commons surviving from preceding centuries.

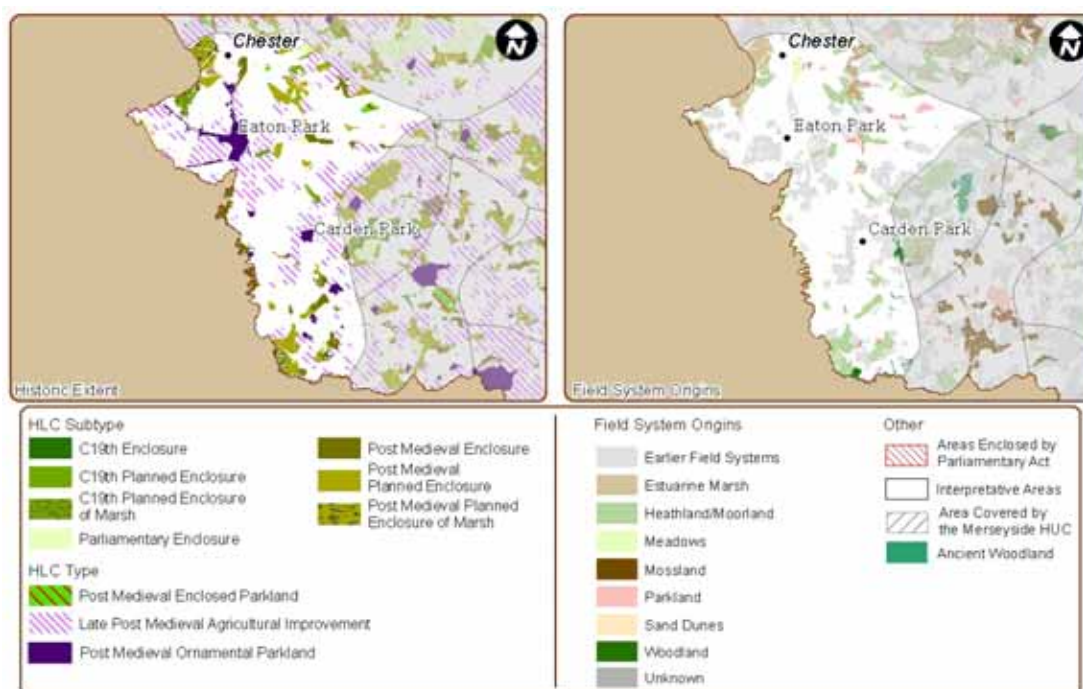


Figure 50: Area B

²⁹⁸ Green 1979

²⁹⁹ Green 1979

³⁰⁰ Sylvester 1969, Roberts & Wrathmell 2000 & 2002

Concentrations of the Post Medieval Enclosure of Marsh HLC Sub-type and C19th Enclosure of Marsh HLC Sub-type are located along the Welsh border to the west of Chester. They are the result of land reclamation associated with the construction of the New Cut navigation in the eighteenth century (see Communications) and the reclamation of Lache Eyes in the nineteenth century. Field systems of the Late Post Medieval Agricultural Improvement HLC Type are scattered throughout, although there are notable concentrations around Eaton and Carden Parks. It is probable that this is a reflection of estate management and improvement. The 'estate architecture', which is prevalent in the villages surrounding Eaton Park, would seem to support this supposition.

Area C

Area C lies at the northern end of the Cheshire Sandstone Ridge and is bounded by the River Gowy in the west and River Weaver in the east. To the north lies the Mersey estuary. This area contains almost exclusively Post Medieval Enclosure of Marsh HLC Sub-type and C19th Enclosure of Marsh HLC Sub-type resulting from the reclamation of estuarine marsh which had formed at the confluence of the Rivers Gowy, Mersey and Weaver.

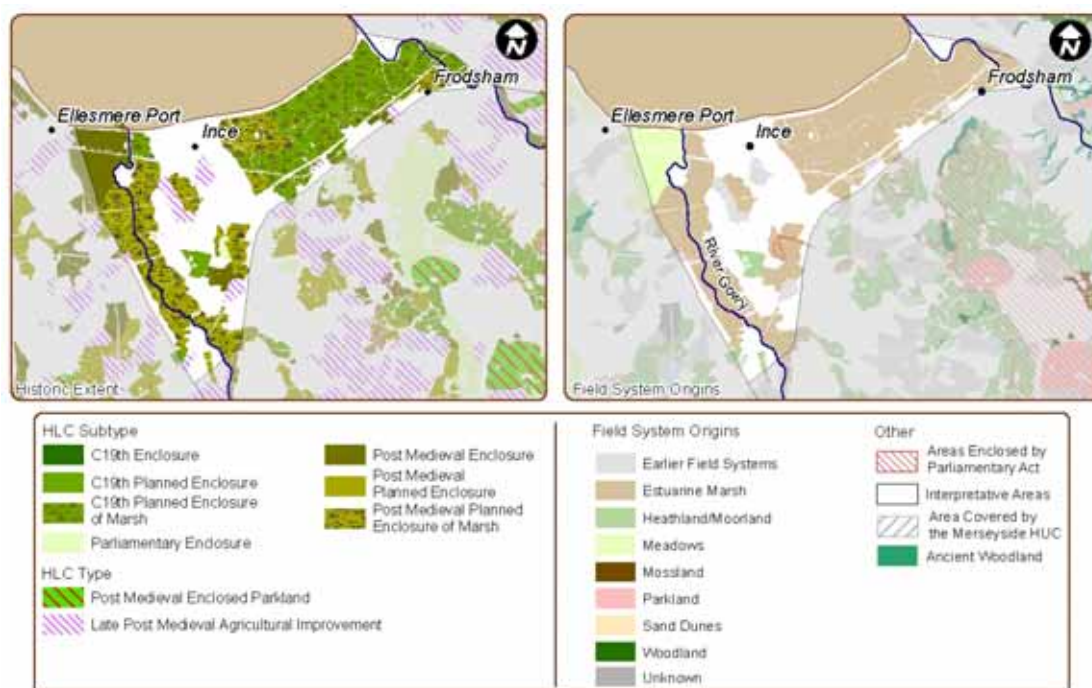


Figure 51: Area C

The Post Medieval Enclosure of Marsh HLC Sub-type with a small amount of the Post Medieval Enclosure HLC Sub-type lies in a narrow band to either side of the River Gowy. This reflects the drainage and enclosure of estuarine marsh in the seventeenth and eighteenth centuries and includes areas of rough pasture and meadow. This area is separated from the much more extensive Ince and Frodsham marshes to the east by an area of slightly higher ground. Limited attempts had been made to drain and enclose these marshes prior to the eighteenth and nineteenth centuries with little success. Parts of the marsh were enclosed at Ince in 1748³⁰¹, but the majority of these marshes were still un-reclaimed when Burdett surveyed for his map of Cheshire in 1777³⁰². The majority of the Frodsham marshes were reclaimed by the time of the Ordnance Survey 1st edition County Series map (1870-5). Construction of the Manchester Ship Canal between 1887 and 1894 (see

³⁰¹ Hodson 1978

³⁰² A Survey of the County Palatine of Chester PP Burdett 1777

Communications) created an effective flood defence to the reclaimed fields, ensuring their survival.

Area D

This area covers the northern part of the Cheshire Sandstone Ridge, parts of the Weaver Valley and Delamere. It comprises much of the lands which were formerly part of the Forest of Mara (see Woodland). East of the sandstone outcrops, which comprise the Sandstone Ridge, is a large area of glaciofluvial sands and gravels dotted with small mosses. This area is bounded by glacial tills to the west of the Ridge and by the Weaver Valley to the north. Settlement is scattered and dispersed, all the larger settlements such as Frodsham, Helsby, Kingsley, Kelsall and Tarporley are restricted to the edge of Area D.

Small areas of the Post Medieval Enclosure HLC Sub-type fringe Delamere. It is also present along the Cheshire Sandstone Ridge and where it is often associated with isolated farmsteads and areas of dispersed settlement. To the west of the Ridge, as the land descends to the West Cheshire Plain, areas of (predominantly) Post Medieval Planned Enclosure HLC Sub-type, C19th Planned Enclosure HLC Sub-type and Parliamentary Enclosure HLC Sub-type attest to the final enclosure of the small remaining fragments of township commons, which had survived enclosure in the preceding centuries.

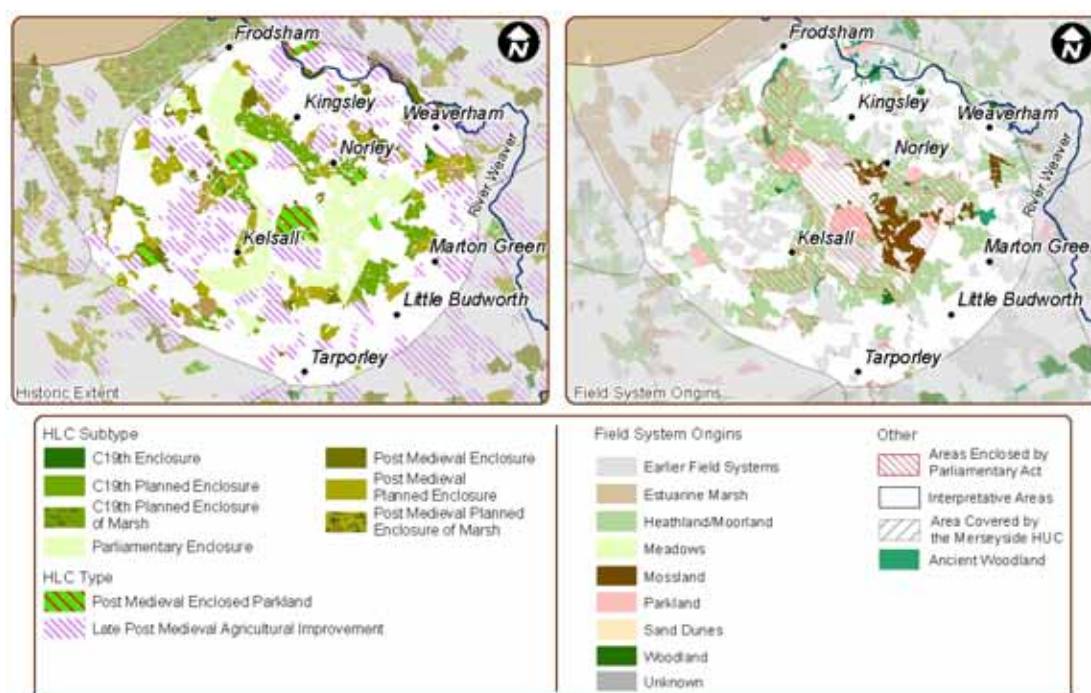


Figure 52: Area D

The area is dominated by a large area of Parliamentary Enclosure HLC Sub-type, resulting from the disafforestation of the Forest of Mara (See Woodland), and the enclosure of Frodsham and Kelsall commons from 1797. In the eighteenth century, the forest was an area of heath dotted with small mosses and its enclosure was first proposed in 1796³⁰³. It was intended that once the allotments to compensate the claims for common rights had been made, the rest of the land would be owned by the Crown. A third of this land could then be leased out, with the rest used for forestry (see the Woodland) to provide timber for the navy. The complexity of the claims to

³⁰³ Green 1979

common rights, with residents from fifty-seven townships making claims³⁰⁴, required amending Acts in 1814 and 1818 to allow partial awards to be made and the Crown lands to be enclosed³⁰⁵. The enclosure of the Forest was finally completed in 1819. This is the largest area enclosed by Parliamentary Act in the project area (c.3,576 hectares³⁰⁶). When the contiguous Cuddington, Frodsham and Kelsall commons are included this total rises to c.4,427 hectares³⁰⁷ and represents c.49% of the total area enclosed by Parliamentary Act in the project area.

Nationally, the size of fields created by Parliamentary Acts varied; generally they were between 2 and 4 hectares³⁰⁸. However some larger farms created enclosures of up to 25 hectares, which proved too big for grazing purposes and were usually subdivided at a later date³⁰⁹. Within the project area c.83% of surviving field systems of the Parliamentary Enclosure HLC Sub-type have field sizes below 4 hectares, with an average field size of 2 hectares. Within Area D, comparison between the Ordnance Survey 1st and 3rd editions of the County Series maps show areas where large fields have been subsequently sub-divided (Figure 53), suggesting the process described by Taylor was occurring here.

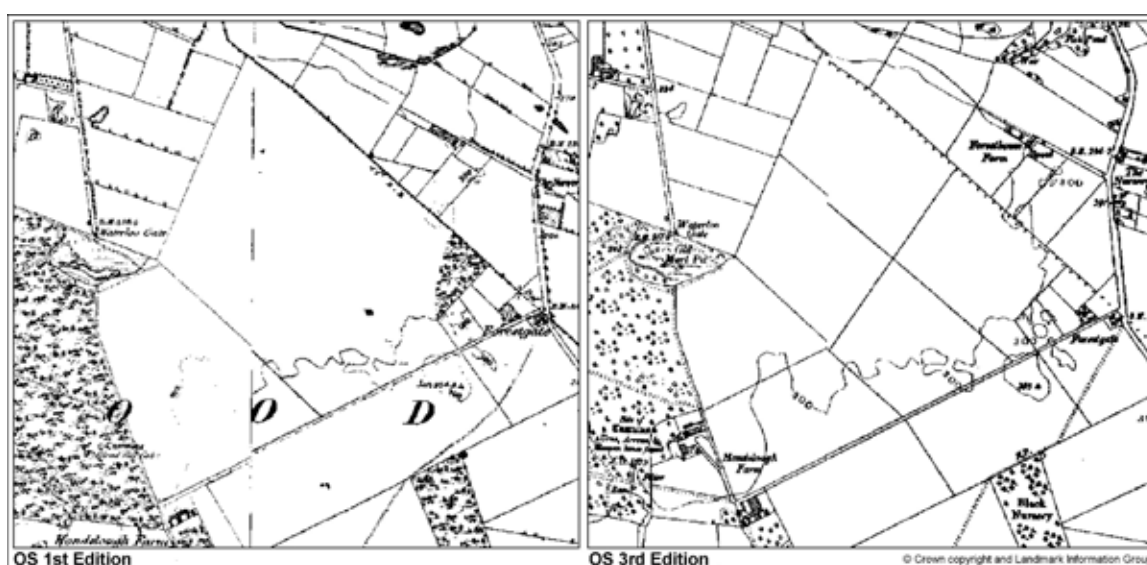


Figure 53: The Sub-division of Parliamentary Enclosures

Post medieval encroachment into, and enclosure of, the Forest of Mara are evident in the areas of the Post Medieval Enclosure HLC Sub-type and Post Medieval Planned Enclosure HLC Sub-type bordering the large area of Parliamentary Enclosure HLC Sub-type. It would appear that these activities were very limited, suggesting that the constraints relating to enclosure in the forest, whether legal or physical (see Ancient Landscapes), were still significant factors in the post medieval period. Comparison between the nineteenth century maps of the Enclosure Awards³¹⁰ and a map of the forest surveyed in the Restoration³¹¹ would suggest little change in the extent of the unenclosed land.

Located to the north and west of the area enclosed by the Parliamentary Acts, in townships such as Norley, Tarvin and Marton, are large areas of the C19th Planned Private Enclosure HLC Sub-type with smaller areas of the Post Medieval Planned

³⁰⁴ Scard 1981

³⁰⁵ Green 1979

³⁰⁶ HLC Project Data

³⁰⁷ HLC Project Data

³⁰⁸ Taylor 2000

³⁰⁹ Taylor 2000

³¹⁰ Cheshire and Chester Archives and Local Studies Ref: QDE1/1, QDE1/6, QDE1/9, QDE1/23, QDE1/48, QDE2/11

³¹¹ Cheshire and Chester Archives and Local Studies Reference: MR 640 (nineteenth-century transcript MPE 665)

Private Enclosure HLC Sub-type. The later C19th Planned Private Enclosure HLC Sub-type often extends to the straight township boundaries created by the Parliamentary Acts, suggesting that some part of the enclosure process had included defining the extent of the surrounding townships' commons. Presumably these areas were then enclosed separately, for example, by Parliamentary Act for Kelsall and Frodsham, and by private agreement for Kingley and Little Budworth.

Enclosed within this area are two deer parks which retain their distinctive boundaries: the medieval Old Pale and the seventeenth century New Pale (see Ornamental). There are also the enclosed remnants of a number of small enclosures associated with private hunting lodges such as Massey's Lodge. Significant amounts of the Post Medieval Agricultural Improvement HLC Type are evident in the vicinity of the River Weaver, Kelsall and Manley, resulting from the reorganisation of (often irregular) ancient field systems.

Area E

This area covers a flat area of the Weaver Valley (around 50m AOD) where glacial till predominates. The area runs from Beeston and the Cheshire gap in the west, to Church Minshull in the east, and from Nantwich in the south to the outskirts of modern Winsford in the north. This area comprises much of the lands which were formerly part of the Forest of Mondrem.

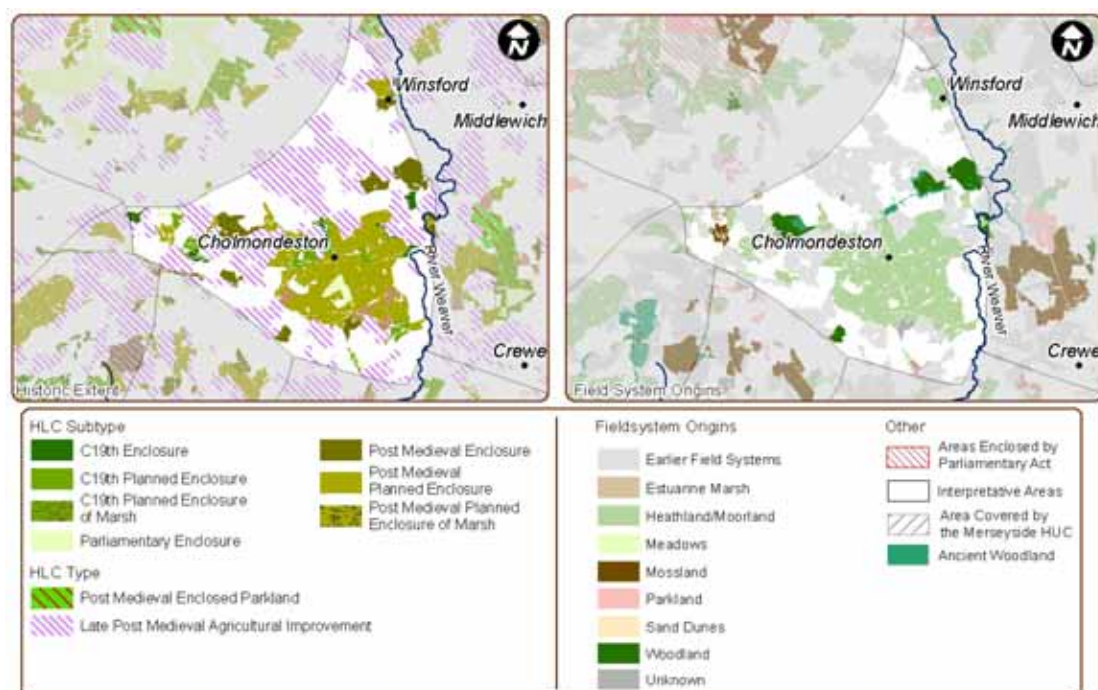


Figure 54: Area E

Located centrally in Area E is a zone of Post Medieval Planned Private Enclosure HLC Sub-type, with smaller amounts of the C19th Planned Private Enclosure HLC Sub-type and Parliamentary Enclosure HLC Sub-type. Burdett's map of 1777³¹² shows a number of small heaths in this area, at Calverley, Cholmondeston and Wettenhall. Surrounding the Post Medieval Planned Private Enclosure HLC Sub-type and C19th Planned Private Enclosure HLC Sub-type are extensive areas of the Post Medieval Agricultural Improvement HLC Type. This core of post medieval enclosure may represent the final enclosure of areas of open heath of the Forest of Mondrem. The road network associated with these field systems is reasonably regular, suggesting that they are contemporaneous. However, Cholmondeston and

³¹² A Survey of the County Palatine of Chester PP Burdett 1777

Wettenhall are known medieval settlements, which would be expected to have associated field systems. The township boundaries within this area are generally irregular and a number follow water courses. If this area was enclosed in the post medieval period, it may be reasonable to expect regular township boundaries in the area of new enclosure unless they had been defined in antiquity. There is no evidence as to the morphology of the earlier field systems in the areas of reorganisation, which makes their interpretation all the more difficult. Further work will be required to determine the origin of these fields and to ascertain the degree to which this reflects a genuine distribution.

Parts of Cholmondeston township are known to have been subject to an Act of Enclosure, but the documentation has been unavailable for study. However, Burdett's map of 1777³¹³ shows an area of unenclosed land to the south of Cholmondeston called Cholmondeston Green. This coincides with a distinctive block of regular fields, which has been interpreted as the area covered by the Parliamentary Act.

Scattered throughout are areas of Post Medieval Enclosure HLC Sub-type associated with woodland clearance. These correspond with areas of assarting in the Ancient Fieldscapes HLC Group and areas of ancient woodland survival (see Woodland). Further smaller areas of this sub-type and the C19th Enclosure HLC Sub-type are found scattered throughout Area E and are associated with encroachment of township common. There are extensive areas of the Post Medieval Agricultural Improvement HLC Type throughout Area E and in a number of cases these field systems retain earthworks and cropmarks indicative of ridge and furrow. The degree to which the distribution of this type is related to estate ownership requires further study.

Area F

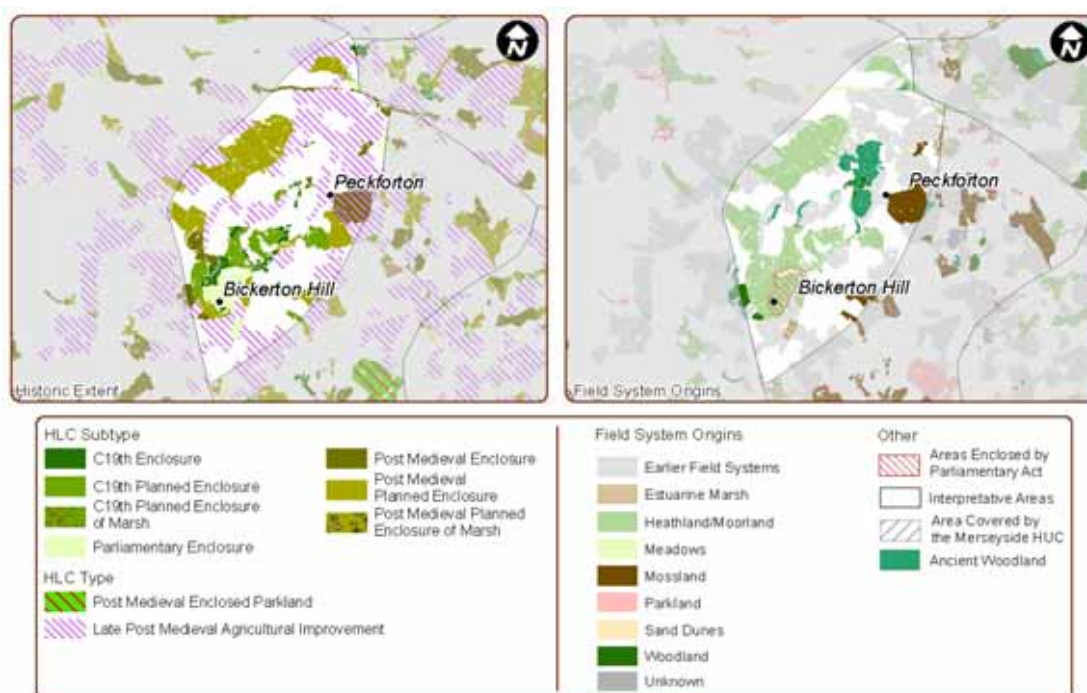


Figure 55: Area F

This area covers the Bickerton and Peckforton Hills, which comprise the southern part of the Cheshire Sandstone Ridge. Surrounding the Ridge is a landscape of gently undulating glacial tills with patches of glaciofluvial outwash. By the seventeenth century much of the Ridge would have been heathland managed as

³¹³ A Survey of the County Palatine of Chester PP Burdett 1777

rough pasture, with small mosses and wetlands to the east, remnants of which survive to this day. Settlement within this area was, and still is, very dispersed.

Along the lower slopes of the Ridge, areas of the Post Medieval Enclosure HLC Sub-type and C19th Enclosure HLC Sub-type are evident, associated with dispersed settlement and isolated farmsteads. C19th Planned Private Enclosure HLC Sub-type and Parliamentary Enclosure HLC Sub-type indicate the late enclosure of the remaining heath on the upper slopes of the Ridge. A large area of the Post Medieval Planned Private Enclosure HLC Sub-type is located in the north-west of the area near Tattenhall, and probably defines the extent of the township common. To the east of the Ridge, areas of the Post Medieval Enclosure HLC Sub-type, Post Medieval Planned Private Enclosure HLC Sub-type and C19th Planned Private Enclosure HLC Sub-type indicate areas of reclaimed moss.

There are extensive areas of the Post Medieval Agricultural Improvement HLC Type throughout this Area F, often replacing areas of irregular enclosure or enclosed Open Field Arable (although the morphology of the preceding field system cannot always be ascertained). It is probable that much of the reorganisation is related to the consolidation and improvement of the land holdings belonging to the nearby Cholmondley, Bolesworth and Peckforton Estates.

Area G

Covering the area to the immediate south-east of Bickerton Hill and the Peckforton Hills, this is a landscape of gently undulating glacial tills with patches of glaciofluvial outwash where small glacial meres and the remnants of small mosses and wetlands are a common feature. Here, the origin of both the Ancient Fieldscapes HLC Group and Post Medieval Fieldscapes HLC Group is predominantly moss and wetland, although enclosure from heath is evident in the south-west and north. To this day settlement is very dispersed.

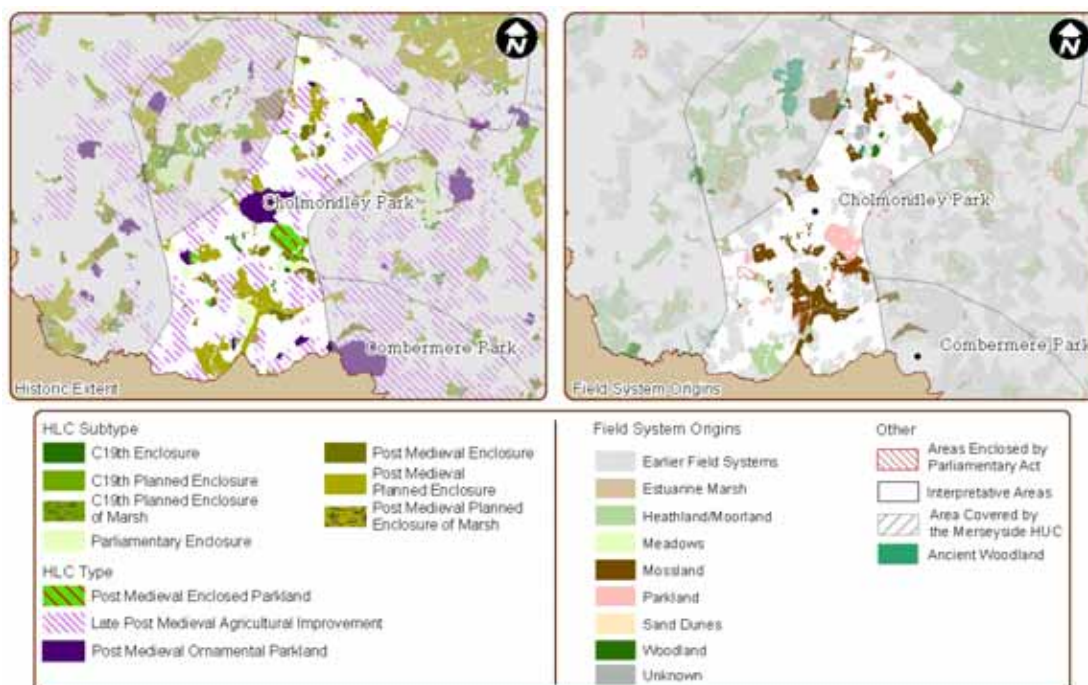


Figure 56: Area G

Field systems belonging to the Post Medieval Fieldscapes HLC Group are predominately of the Post Medieval Planned Private Enclosure HLC Sub-type, with small areas of the Parliamentary Enclosure HLC Sub-type in the south and areas of

the Post Medieval Enclosure HLC Sub-type associated with encroachment on to the mosses or heaths. Field systems of the Post Medieval Agricultural Improvement HLC Type are scattered throughout and are associated with the reorganisation of areas of older irregular enclosures. This may be related to the consolidation and improvement of the land holdings belonging to the nearby Cholmondeley and Combermere Estates.

Area H

Area H covers a landscape of gently undulating glacial tills with patches of glaciofluvial outwash located along the Cheshire-Shropshire border from Wrenbury to Audlem. Settlement is very dispersed, with the market town of Audlem the only settlement of any size.

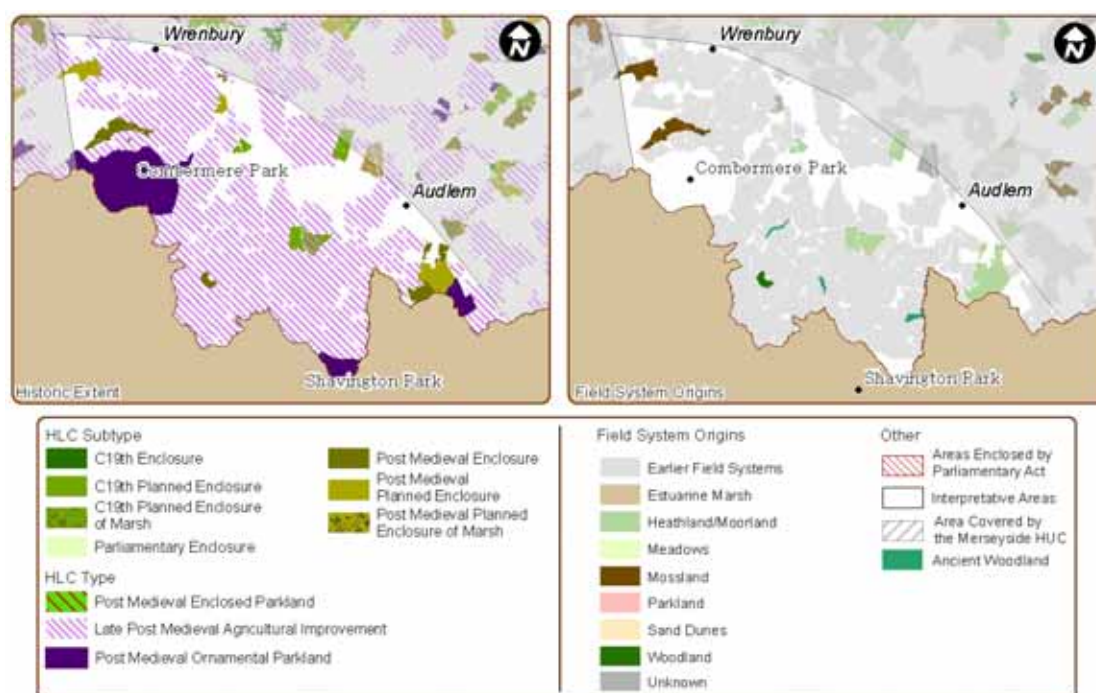


Figure 57: Area H

In this area, very small irregular fields survived into the nineteenth century (though the majority were subsequently re-organised), the fragments of once more extensive field systems created by the assarting of woodland in the medieval period. The morphology of these field systems would have made them poorly suited to the new agricultural practices of the post medieval period, and thus prime candidates for 'improvement'. It is also probable that this area lay within the estates of Combermere and Shavington (adjacent parks). This combination of large landowner and small fields may explain the dominance of the Post Medieval Agricultural Improvement HLC Type in this area.

Area I

Area I is bounded by Nantwich and Crewe in the north and Audlem in the south. The area is topographically varied, running from flat ground adjacent to the River Weaver in the north into a landscape of undulating glacial tills and flatter areas of glaciofluvial outwash in the south. Numerous small mosses and heaths are shown in this area on Burdett's map of 1777³¹⁴ and the remnants these are a common feature in the eastern part this area.

³¹⁴ A Survey of the County Palatine of Chester PP Burdett 1777

Field types of the Post Medieval Fieldscapes HLC Group are scattered throughout. Much of the area enclosed by the Post Medieval Planned Private Enclosure HLC Sub-type and C19th Planned Private Enclosure HLC Sub-type was once heath and township common. These sub-types are also apparent in the enclosure and reclamation of the numerous small mosses in the eastern part of Area I. Small areas of the Parliamentary Enclosure HLC Sub-type also occur throughout, but the only sizeable area to be enclosed by Parliamentary Act was Ravens Moor (west of Nantwich).

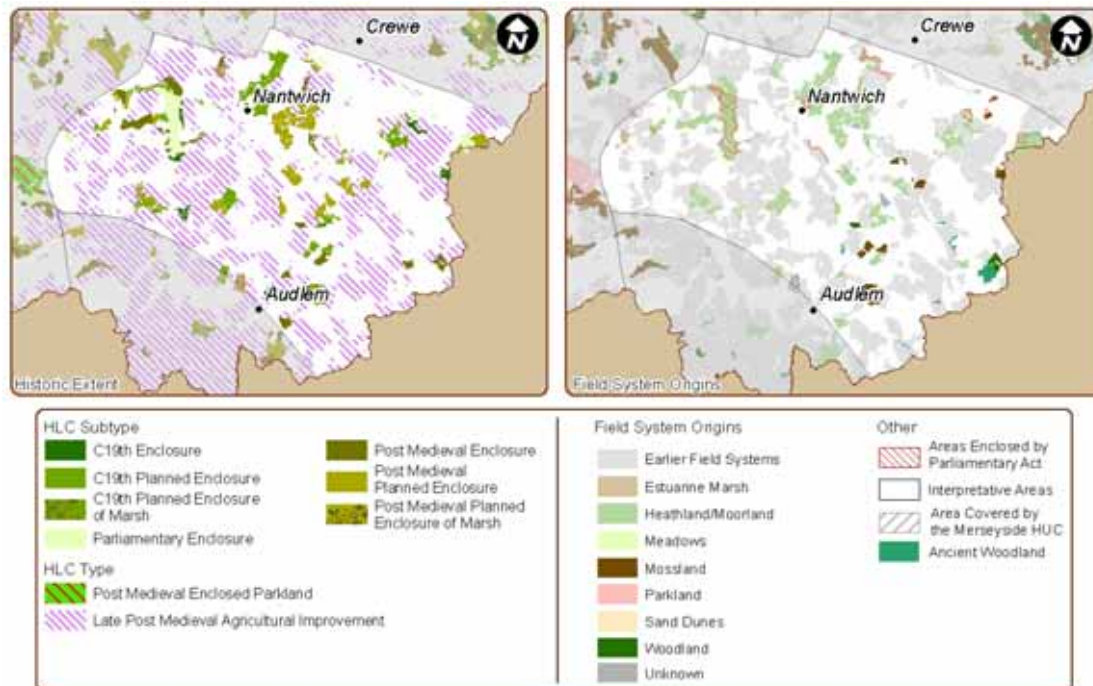


Figure 58: Area I

Area J

This area is bounded by the Rivers Weaver and Wheelock and the town of Knutsford in the west, the River Bollin in the north, Macclesfield in the east, and Crewe in the south. The area is topographically varied running from flat ground adjacent to the River Weaver in the west into a landscape of undulating glacial tills and flatter areas of glaciofluvial outwash which slowly rise to the east to meet the Peak fringe. Alderley Edge and Congleton Edge are ridges formed from outcrops of local sandstones and grits. Small areas of lacustrine deposits are scattered over the northern part of the area, with the largest concentration between Congleton and Alsager. The remnants of small mosses are a common feature in the south and the area contains some of the major mosses of the project area (Crewe, Congleton, Lindow, Danes, Oakhanger and Whites Mosses) (see Non-improved Land). Settlement is very dispersed, but the Area J also contains industrial towns such as Crewe, Middlewich, Macclesfield and Congleton (see Settlement).

HLC types of the Post Medieval Fieldscapes HLC Group are scattered throughout this area. The Post Medieval Enclosure HLC Sub-type occurs in greater densities to the south of Knutsford and is associated with the encroachment of heath, moss and on occasion woodland clearance. Similar patterns are evident at Congleton Edge, and the larger mosses. Sizable areas of the Parliamentary Enclosure HLC Sub-type are located at West Heath (Congleton), Alsager Heath, Coppenhall Moss (Crewe), Danes Moss (Macclesfield) and on the moors above Timbersbrook. These actions largely complete the process of enclosure, which had been going on for some time. The Act of Enclosure for Congleton Moss is interesting in that, in addition to creating

new regular enclosures, the boundaries of the Moss Rooms, which pre-date the Act, have been preserved.

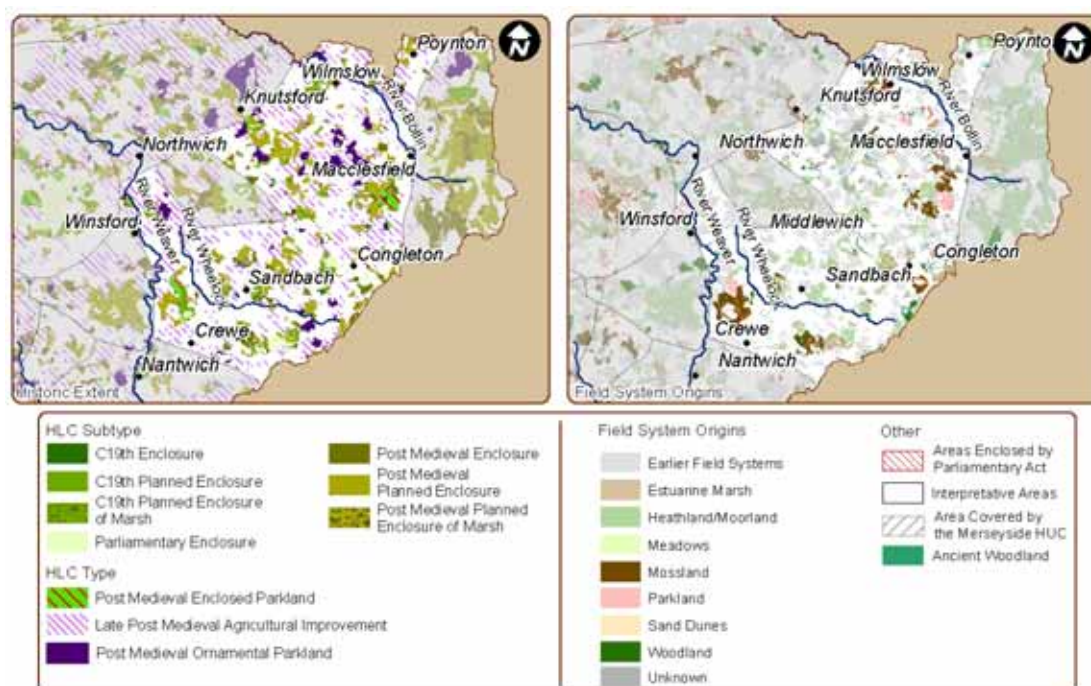


Figure 59: Area J

The density of the Post Medieval Agricultural Improvement HLC Type increases to the north of Macclesfield, between Wilmslow and Poynton, and is possibly related to the re-organisation of field systems associated with medieval assarting (see Ancient Fieldsapes). The degree to which this re-organisation is related to estate ownership and/or the preceding field systems requires further study, although it has been noted by Sylvester³¹⁵, amongst others, that there are a larger number of estates in this area in comparison with the rest of Cheshire.

Area K

This is a small area bounded by the River Dane to the east and south, and Northwich to the north. It is a relatively flat area of glacial tills and glaciofluvial deposits.

Much of the area was once covered by an extensive heath (Rudheath) (see Non-improved Land). Enclosure in the area is likely to have been extensive by 1300 AD (Higham 2004). However, significant areas would appear to have survived into the post medieval period. The western half of the area contains areas of the Post Medieval Planned Private Enclosure HLC Sub-type and Post Medieval Enclosure HLC Sub-type, often in significant blocks suggesting a mix of planned enclosure and encroachment. The eastern part of the area is dominated by an area of Parliamentary Enclosure HLC Sub-type and C19th Planned Private Enclosure HLC Sub-type in an area of glaciofluvial deposits, which corresponds with the area of heath still extant on Burdett's map of 1777. As with the enclosure of land at Delamere, a significant amount of the area of surviving heath was planted with trees (see Woodland).

³¹⁵ Sylvester 1958a

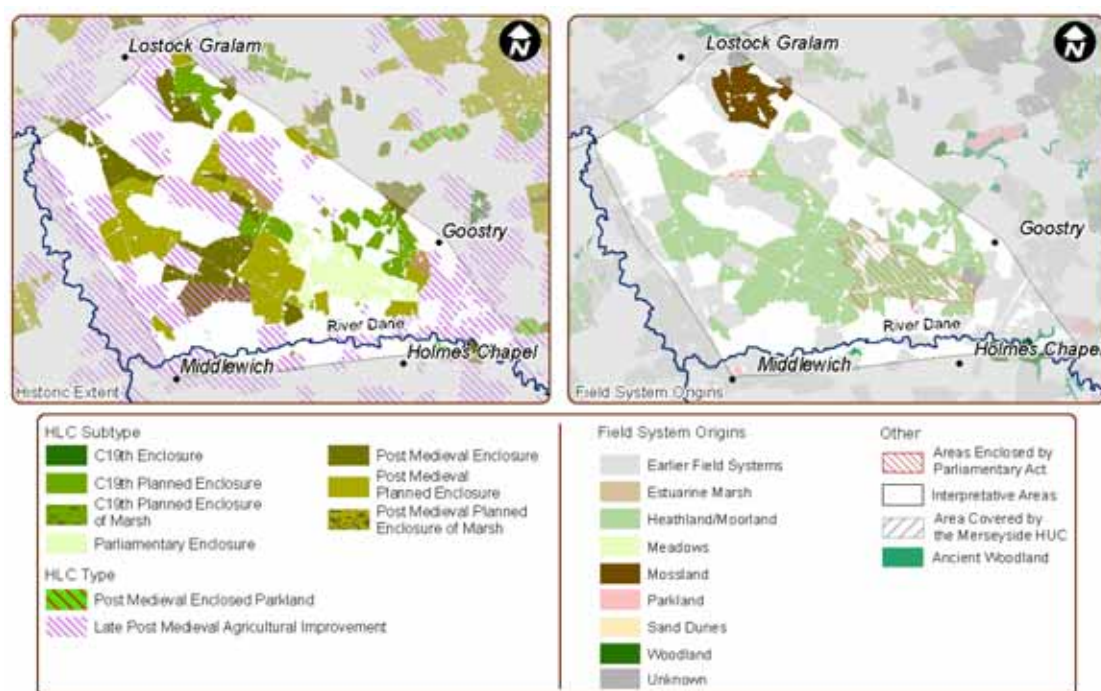


Figure 60: Area K

Area L

This area covers the far east of Cheshire and contains the highest ground in the project area. The landscape is steeply undulating with heights ranging from 100m to 550m AOD, with the land generally higher in the east. Some glacial and glaciofluvial deposits are located in the west and valley bottoms, however, the majority of the area comprises outcrops of sandstones and grits. Blanket peat is located on the higher ground to the south east. Settlement is concentrated on the lower ground to the west with only sparse settlement in the uplands of the east.

This area was once part of the extensive Forest of Macclesfield which was effectively disafforested in the late seventeenth century when Lord Derby acquired all the pasture and grazing located in the forest, land he had previously rented³¹⁶. The nature of the enclosure of this forest was very different to the methods employed to enclose the other Forest, Delamere, which survived into this period.

The Forest was important for sheep farming and by the sixteenth century enclosure and settlement was being encouraged in order to increase forest revenues³¹⁷. By the seventeenth century a significant proportion of the land up to up to 200m had been enclosed and settled³¹⁸. After the Civil War the enclosure and settlement of moors above this height was promoted and some of the places known to have been established in this manner (Lamaload, Sutton and Winkle) correspond with areas of the Post Medieval Enclosure HLC Sub-type. The new fields would be enclosed by dry stone walls and improved through drainage, the burning of heather and scrub, ploughing, and re-seeding. Some of this enclosure was closely associated with small scale coal mining which had been taking place since the sixteenth century³¹⁹ (see Industry) evidence of which often survives as earthworks. Estate records indicate that the pressure to undertake new enclosure was often coming from the tenant rather than from the landlord³²⁰.

³¹⁶ Green 1979

³¹⁷ Green 1979

³¹⁸ Davis 1960

³¹⁹ Davis 1960

³²⁰ Davis 1960

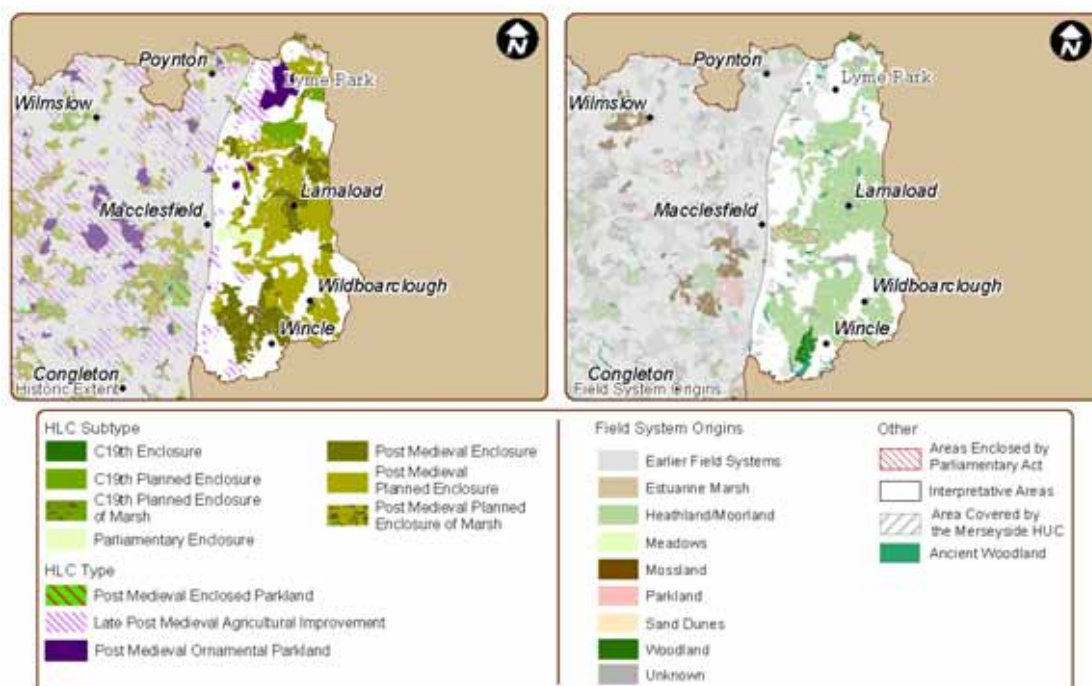


Figure 61: Area L

However it is readily apparent from the distribution of the Post Medieval Planned Private Enclosure HLC Sub-type that over extensive areas planned enclosure systems were being created, often for sheep, though it is inevitable that there will be potential overlap with other Post Medieval Enclosure sub-types. From the eighteenth century the moor around Wildboarclough became important for shooting and Lord Derby became increasingly reluctant to enclose and improve these areas³²¹. However by the late eighteenth century³²² the vast majority of Area L was enclosed.

To the west and south west of Lyme Park there is a concentration of the Post Medieval Agricultural Improvement HLC Type. The Domesday survey³²³ recorded a considerable amount of woodland in this area; therefore this (as with Area D) may be related to the re-organisation of small irregular field systems associated with medieval assarting by the Lyme Park estate.

Area M

This area comprises parts of the Mersey Valley and the gently undulating lands to the north. The southern extent of the Mersey Valley is defined by a sandstone ridge and areas of glacial tills. The valley bottom, including the Sankey Brook tributary, is defined by sands and gravels with areas of estuarine and fluvial silts and clays. To the north are further areas of glacial till, interspersed with brickearths and peat deposits in the north-west. Some of the largest mosses in the project area are located at Risley and Glazebrook, with the north-eastern edge of the project area bordering the extensive Chat Moss, all of which are clearly evident on Yates' 1786³²⁴ map or Greenwood's 1818³²⁵ map of Lancashire (see Non-improved Land).

³²¹ Davis 1960

³²² A Survey of the County Palatine of Chester PP Burdett 1777

³²³ Morris 1978

³²⁴ The County Palatine of Lancaster W Yates 1786

³²⁵ Map of the County Palatine of Lancaster CG Greenwood 1818

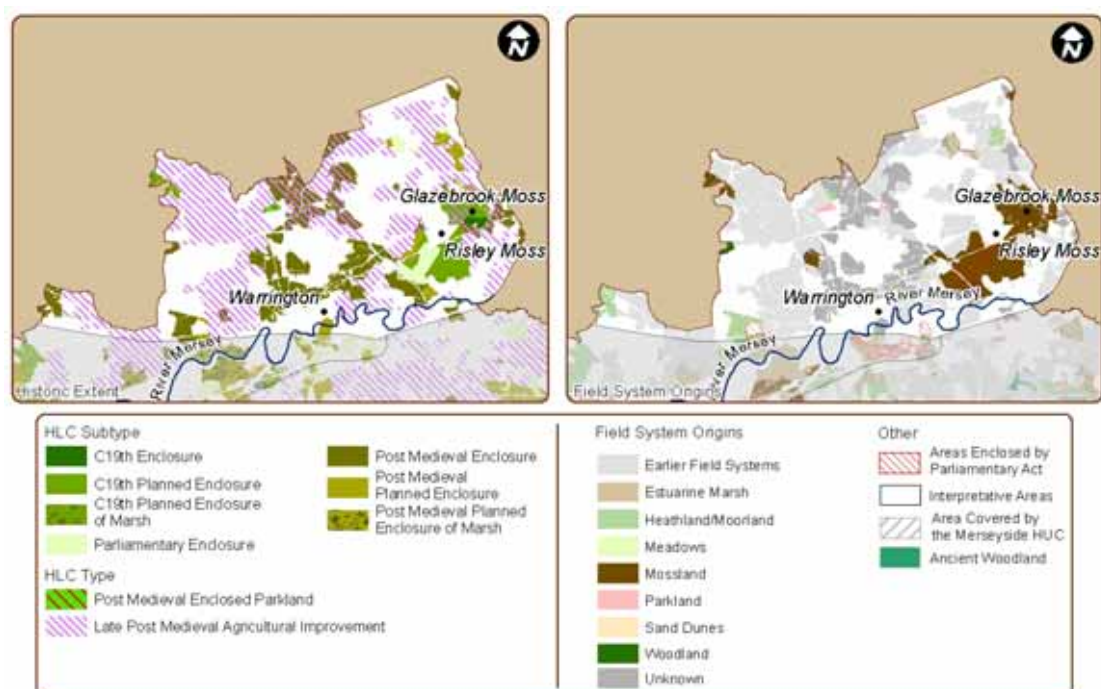


Figure 62: Area M

There is a marked similarity between field systems of the Post Medieval Enclosure HLC Sub-type and the C19th Enclosure HLC Sub-type and those of the Ancient Field System HLC type in Area M (see Ancient Fieldsapes). Therefore, within this area there is greater potential for overlap between these HLC Types and Sub-types than elsewhere in the project area.

Areas of C19th Planned Private Enclosure HLC Sub-type and the Post Medieval Planned Private Enclosure HLC Sub-type reflect the reclamation of the extensive mosses located (predominantly) in the east of this area. However, the Post Medieval Enclosure HLC Sub-type and the C19th Enclosure HLC Sub-type are also common reflecting piecemeal reclamation. To the west of the large mosses these HLC sub-types reflect encroachment of the area's heaths.

There are extensive areas of the Post Medieval Agricultural Improvement HLC Type in Area M. These are largely the result of the re-organisation of areas of Ancient Field System HLC Type and small areas of Medieval Town Fields HLC Type. This may be the result of agricultural intensification on the better quality agricultural land to facilitate the demands of the adjacent urban centres.

Area N

This is defined by the a low ridge in the north, the Weaver Valley in the south-west and Knutsford in the south-east. It is an area of undulating glacial tills terminating in a low sandstone ridge overlooking the Mersey Valley and with a wide band of glaciofluvial deposits running north-west/south-east through Knutsford. In the west the glacial tills are interspersed with a complex pattern of sandstone outcrops and glaciofluvial deposits. A large glacial mere is located at Budworth and the remnants of extensive mosses a common feature of the north eastern part of this area. Occasional small woods, heaths and mosses are depicted on Burdett's map of 1777³²⁶. Enclosure in the area is predominately from heath, with areas of moss enclosed at Whitley Reed, Sinks Moss and Halton Moss. These mosses were generally still extant on Burdett's map. Settlement within this area is very dispersed,

³²⁶ A Survey of the County Palatine of Chester PP Burdett 1777

but still contains the industrial towns of Northwich and Runcorn and the market town of Knutsford.

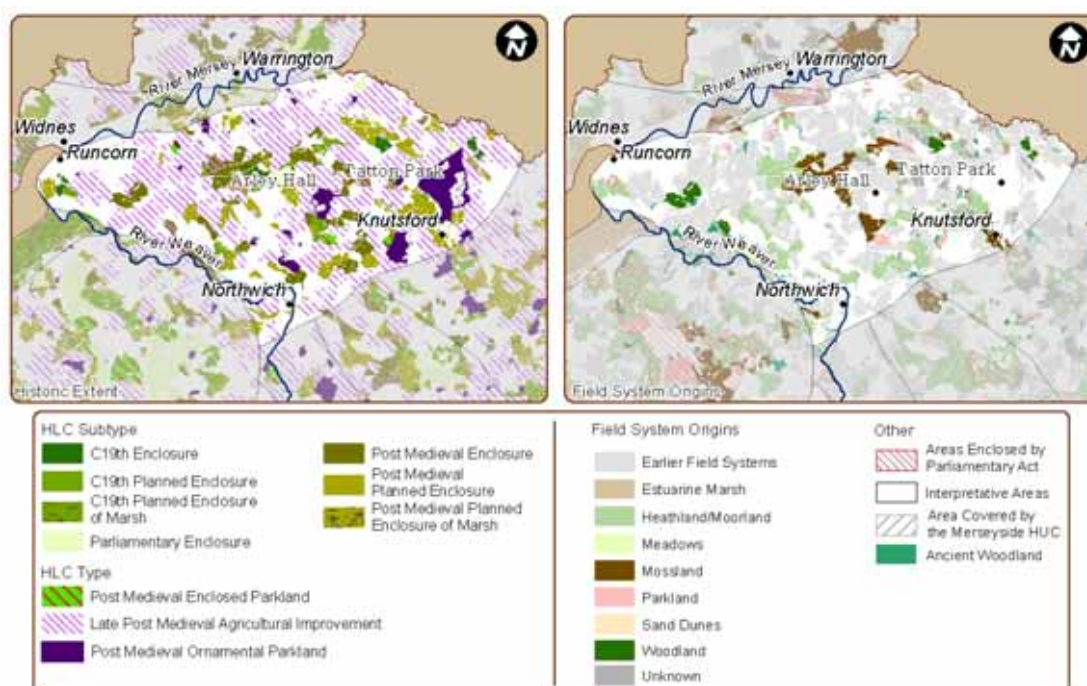


Figure 63: Area N

In many respects this area is similar to Area J. However, in Area N the Post Medieval Enclosure HLC Sub-type and the C19th Enclosure HLC Sub-type are much more common, with some extensive areas especially in the vicinity of Whitley Reed and Sinks Moss. It would appear that this is related to the piecemeal enclosure and reclamation of areas of heath and moss; although small areas of assarting are also apparent. Relatively sizable areas of the Parliamentary Enclosure HLC Sub-type are located at Rush Green (Lymm) and Whitley Reed.

Area N contains some of the most extensive areas of the Post Medieval Agricultural Improvement HLC Type in the project area, with the density increasing in the north. There is no evidence in the sources used as to the morphology of the preceding field systems for much of this area. However, major estates such as Tatton, Arley and Norton Priory are located here, and it is probable that this is the result of the 'improvement' of earlier field systems by these estates.

Area O

Area O comprises the low ground of the Mersey basin around Runcorn, Widnes and Warrington. The geology of the valley bottoms is defined by sands and gravels, with areas of estuarine and fluvial silts, and clays. This area contains almost exclusively the Post Medieval Enclosure of Marsh HLC Sub-type and C19th Enclosure of Marsh HLC Sub-type created by the reclamation of estuarine marsh. Smaller areas of the Post Medieval Planned Private Enclosure HLC Sub-type, C19th Planned Private Enclosure HLC Sub-type and Post Medieval Enclosure HLC Sub-type are located on the higher ground. There are extensive areas of the Post Medieval Agricultural Improvement HLC Type the west of this area associated the re-organisation of areas of the Ancient Field System HLC Type and Medieval Town Fields HLC Type and are probably, in part, associated with the Hale Park estate.

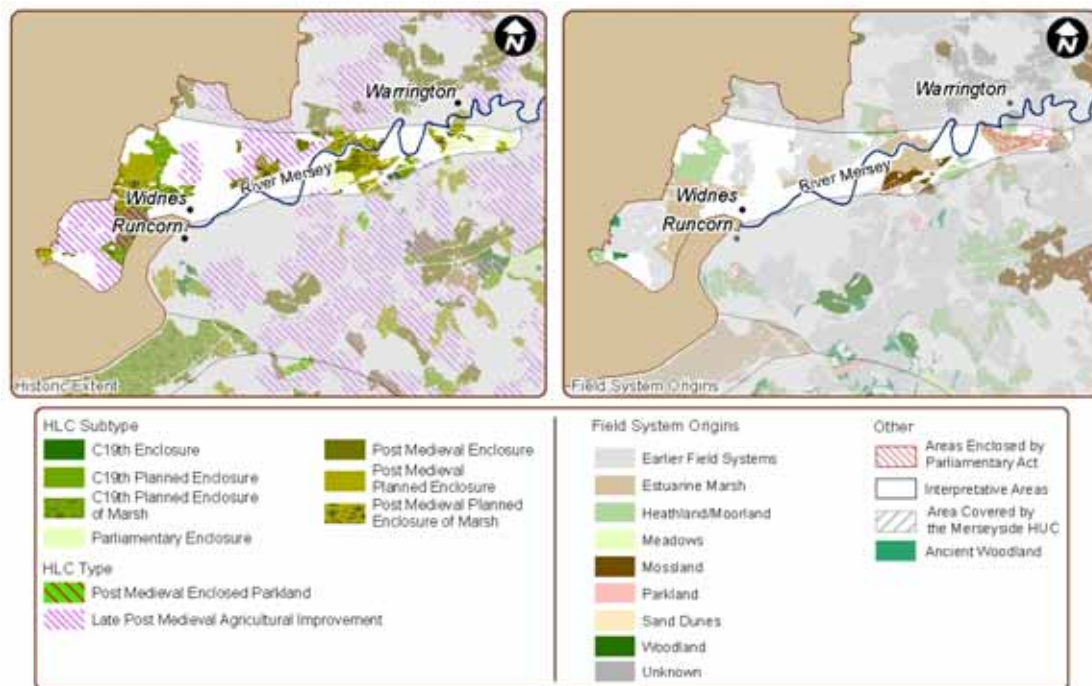


Figure 64: Area O

Characteristics of the Post Medieval Fieldscapes HLC Group

The Post Medieval Fieldscapes HLC Group is largely characterised by regular field patterns bounded by thin quickset hedges and straight drains and served by a system of straight roads. However elements of this HLC group are characterised by irregular field patterns associated with dispersed farmsteads and served by a network of small roads and other rights of way. All commonly lie adjacent to place names indicative of heath, moor or moss.

Areas of agricultural Improvement are characterised by new areas of semi-regular fields with straight hawthorn hedgerows (dry stone walls in the Peak fringe) or by enlarged fields bounded by the surviving boundaries of the previous field system, with infield trees (former hedgerow trees) marking the course of the preceding field systems boundaries. Despite re-organisation, the network of paths, tracks, lanes and settlement from the earlier landscape is retained. New estate farms, farm buildings and model farms dating from this period and often located on the sites of earlier farmsteads are common features in these areas.

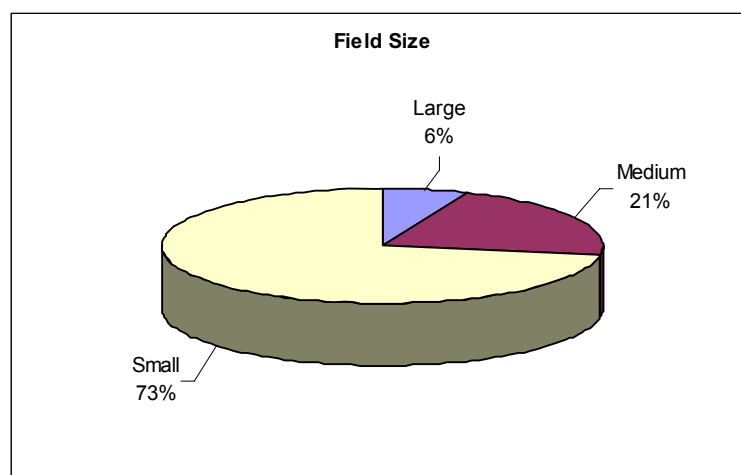


Figure 65: Post Medieval HLC Group; Field Size

The average field size is small (Figure 65), with 73% of the fields in this group 4 hectares or less. This rises to 85% if only 'new enclosure' (fields not deriving from the re-organisation or remodelling of earlier field systems) are included (Figure 66). A further 10% are between 4 and 8 hectares, with 5% above 8 hectares. Although large fields do occur, a proportion of these can be attributed to incomplete information on the Ordnance Survey digital mapping.

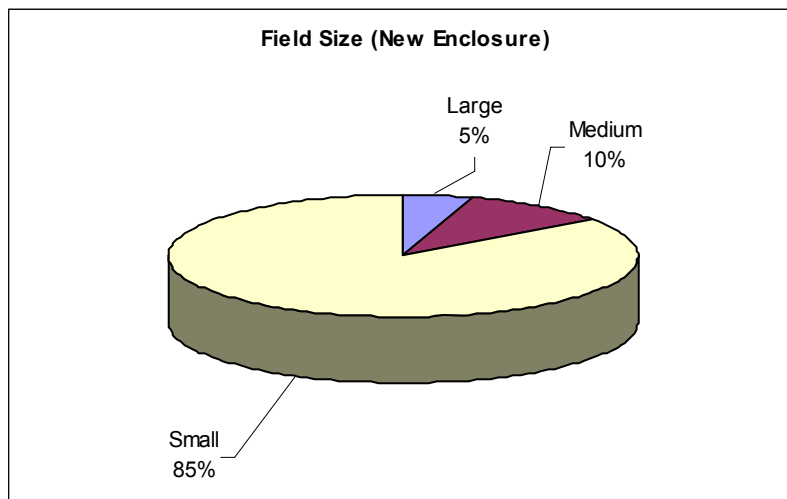


Figure 66: Post Medieval Fieldscapes HLC Group; Field Size ~ New Enclosure

These field systems utilise a wide range of field boundaries: dry stone walls are the prominent boundary features of the Peak fringe; sandstone walls along the Cheshire sandstone ridge; and ditches in the Frodsham marshes and Gowy meadows. The latter often retain a strong unenclosed character with few hedgerows and unimproved pasture. However the prominent boundary feature is the hedge, often found in combination with ditches, banks, fences and walls. These hedgerows will often contain standing trees placed at regular intervals, planted in the post medieval period in order to provide a source of timber in an area with few woodland resources and are potentially species rich.

Managing Post Medieval Fieldscapes

The Post Medieval Fieldscapes HLC Group has been divided into four types:

- C19th Field Systems
- Post Medieval Field Systems
- Late Post Medieval Agricultural Improvement
- Post Medieval Enclosed Parkland

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur in this HLC group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations which offer statutory protection to the landscape areas or features contained within the Post Medieval Fieldscapes HLC Group.

- Scheduled Monuments
- Sites of Special Scientific Interest (SSSI)
- Hedgerow Regulations
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.

C19th Field Systems

This HLC Type represents enclosures dating from the late eighteenth century. It covers c.3.2% (c.8382 hectares) of the modern landscape and is distributed throughout the project area. Marl pits occur in 20% of the area covered by this HLC type and average field size is small, with 86% below four hectares.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as model farms and associated structures and features, earthworks associated with field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, including that created by steam ploughing, species rich habitats, historic ecofacts and a wide range of archaeological sites.

This type is divided into four HLC sub-types:

Parliamentary Enclosure

This HLC sub-type comprises field systems enclosed through an Act of Parliament and is typically a surveyed geometric field system of regular rectangular fields with straight quickset hedgerows or, in the Peak fringe, dry stone walls. Within the project area, areas of Parliamentary Enclosure can vary greatly in size from the c.3,600 hectares of Delamere to the c.16 hectares at Hargrave. This sub-type covers c.1.2% (c.3120 hectares) of the project area and comprises 37% of the C19th Field Systems HLC Type. Marl pits occur in 15% of the area covered by this HLC sub-type, in addition localised clusters can often be found nearby in small plantations. Field size is small, with 83% of this type having an average field size of 4 hectares or below and with 15% between 4 and 8 hectares.

C19th Planned Enclosure

This HLC sub-type comprises regular planned field systems created in areas depicted as unimproved, unenclosed or woodland on Burdett's 1777 map of Cheshire³²⁷ and Yates' 1786 map of Lancashire³²⁸. This HLC Sub-type typically comprises a surveyed geometric field system of regular rectangular fields with straight quickset hedgerows or, in the Peak fringe, dry stone walls. However, the regularity of the field system will be tempered by constraints such as topography and ownership and where they are associated with the reclamation of moss, the field system will often be defined by a strong pattern of straight drains. This HLC Sub-type covers c.1.5% (3862 hectares) of the project area and comprises 47% of the C19th Field Systems HLC Type. Marl pits occur in 26% of the area covered by this HLC sub-type and average field size is small, with 84% of this type having an average field size of 4 hectares.

C19th Planned Enclosure of Marsh

This HLC sub-type comprises regular planned field systems created in areas depicted as unimproved or unenclosed estuarine marsh on Burdett's 1777 map of Cheshire³²⁹ and Yates' 1786 map of Lancashire³³⁰, such as the Frodsham marshes. This HLC sub-type typically comprises a surveyed geometric field system with straight, often deep, drainage ditches, with few hawthorn hedgerows and predominantly occurs in large cohesive blocks which retain a strong unenclosed character. This HLC Sub-type covers

³²⁷ A Survey of the County Palatine of Chester PP Burdett 1777

³²⁸ The County Palatine of Lancaster W Yates 1786

³²⁹ A Survey of the County Palatine of Chester PP Burdett 1777

³³⁰ The County Palatine of Lancaster W Yates 1786

c.0.3% (876 hectares) of the project area and comprises 10% of the C19th Field Systems HLC Type. Average field size is small with 94% of this sub-type having an average field size of 4 hectares or below.

C19th Enclosure

This HLC sub-type comprises field systems formed through the piecemeal encroachment of township common and waste in areas depicted as unimproved or unenclosed estuarine marsh on Burdett's 1777 map of Cheshire³³¹ and Yates' 1786 map of Lancashire³³². These field systems lack the regularity of the other HLC sub-types of the C19th Field Systems HLC Type and are often associated with areas of dispersed settlement. This HLC Sub-type covers c.0.2% (524 hectares) of the project area and comprises 6% of the C19th Field Systems HLC Type. Marl pits occur in 30% of the area covered by this HLC sub-type and average field size is small with 96% of this type having an average field size of 4 hectares or below.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To retain field boundaries and features associated with this HLC Type and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems and any associated relict field boundaries.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ❑ To encourage the planting of hedgerow trees, except in areas of the C19th Planned Enclosure of Marsh HLC Sub-type. Hedgerow trees are a vital part of the historic and landscape character of much of the project area. These trees are generally over mature and the planting of a new generation to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To have regard for the dispersed form of settlement associated with areas of C19th Enclosure HLC Sub-type when proposals are made for development.
- ❑ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

DP Burdett's 1777 Map of Cheshire³³³

W Yates' 1786 Map of Lancashire³³⁴

J McN Dodgson 'The Place-Names of Cheshire'³³⁵

³³¹ A Survey of the County Palatine of Chester PP Burdett 1777

³³² The County Palatine of Lancaster W Yates 1786

³³³ A Survey of the County Palatine of Chester PP Burdett 1777

³³⁴ The County Palatine of Lancaster W Yates 1786

³³⁵ Dodgson 1970a-b, 1971, 1972 & 1981a-b

Post Medieval Field Systems

This HLC type represents enclosures dating from post 1600AD and pre-dating the late eighteenth century. This HLC Type covers c.8.3% (c.21,784 hectares) of the modern landscape and is distributed throughout the project area. Marl pits occur in 36% of the area covered by this HLC Type and average field size is small with 86% below 4 hectares.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as model farms and associated structures and features, earthworks associated with field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, including that created by steam ploughing, species rich habitats, historic ecofacts and a wide range of archaeological sites.

It is divided into three HLC Sub-types:

Post Medieval Planned Enclosure

This HLC Sub-type comprises regular planned field systems created by the enclosure of heath or moss and the clearance of woodland. It typically comprises a surveyed geometric field system of regular rectangular fields with straight quickset hedgerows or, in the Peak fringe, dry stone walls. However, the regularity of the field system will be tempered by constraints such as topography and ownership and where they are associated with the reclamation of moss, the field system will often be defined by a strong pattern of straight drains. This HLC Sub-type covers c.5.5% (c.14,435 hectares) of the project area and comprises 66% of the Post Medieval Field Systems HLC Type. Marl pits occur in 38% of the area covered by this HLC sub-type and average field size is small, with 83% of this type having an average field size of 4 hectares.

Post Medieval Planned Enclosure of Marsh

This HLC Sub-type comprises regular planned field systems created by the enclosure of areas of estuarine marsh such as Ince Marshes. It typically comprises a surveyed geometric field system with straight, often deep, drainage ditches, with few hawthorn hedgerows and predominantly occurs in large cohesive blocks which retain a strong unenclosed character. This HLC Sub-type covers c.0.4% (c.1111 hectares) of the project area and comprises 5% of the Post Medieval Field Systems HLC Type. Average field size is small with 91% of this sub-type having an average field size of 4 hectares or below.

Post Medieval Enclosure

This HLC Sub-type comprises field systems formed through the piecemeal encroachment of township common and waste. These field systems lack the regularity of the other HLC Sub-types of the Post Medieval Field Systems HLC Type and are often associated with areas of dispersed settlement. This Sub-type covers c.2.4% (c.6238 hectares) of the project area and comprises 29% of the Post Medieval Field Systems HLC Type. Marl pits occur in 35% of the area covered by this HLC sub-type and average field size is small with 94% of this type having an average field size of 4 hectares or below.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To retain field boundaries and features associated with this HLC Type and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems and any associated relict field boundaries.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ❑ To encourage the planting of hedgerow trees, except in areas of the Post Medieval Planned Enclosure of Marsh HLC Sub-type. Hedgerow trees are a vital part of the historic and landscape character for much of the project area. These trees are generally over mature and the planting of a new generation to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To have regard for the dispersed form of settlement associated with areas of Post Medieval Enclosure HLC Sub-type when proposals are made for development.
- ❑ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

DP Burdett's 1777 Map of Cheshire³³⁶

W Yates' 1786 Map of Lancashire³³⁷

J McN Dodgson 'The Place-Names of Cheshire'³³⁸

³³⁶ A Survey of the County Palatine of Chester PP Burdett 1777

³³⁷ The County Palatine of Lancaster W Yates 1786

³³⁸ Dodgson 1970a-b, 1971, 1972 & 1981a-b

Late Post Medieval Agricultural Improvement

This HLC Type comprises field systems which have been created by the re-organisation and enlargement or replacement of earlier field systems, due to the rationalisation and improvement of land holdings to facilitate changes in agricultural practice. This type covers c.15.6% (c.41,054 hectares) of the project area and is widely distributed. Marl pits occur in 52% of the area covered by this HLC type, and ridge and furrow cultivation remains are recorded in 10% of the area. The average field size is mostly small with 63% of this type having an average field size of 4 hectares or below and with 30% of this type between 4 and 8 hectares.

This HLC Type has the potential to contain relict features or boundaries relating to a wide range of landscapes. Therefore, the preceding HLC Type should be considered in areas of Late Post Medieval Agricultural Improvement.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as model farms and associated structures and features, earthworks associated with relict field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, including that created by steam ploughing, species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To retain field boundaries and features associated with this HLC Type and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems and any associated relict field boundaries.
- ❑ To retain infield trees, many of which will provide indications of former field patterns.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ❑ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of the historic and landscape character for much of the project area. These trees are generally over mature and the planting of a new generation to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To have regard for the type, form and function of farm buildings associated with areas of Late Post Medieval Agricultural Improvement HLC Type when proposals are made for development.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

Post Medieval Enclosed Parkland

This HLC Type represents the field systems created upon the enclosure of deer parks and designed parkland, with conversion to a landscape where agricultural production is the primary purpose. Within these field systems former parkland features or earlier remains relating to previous land use may survive. Where former boundary features are not preserved, their course can often be traced in the boundaries of the new field system. This HLC Type covers less than c.0.7% (c.1829 hectares) of the modern landscape and is distributed throughout the project area. Marl pits occur in 61% of the area covered by this HLC type. The average field size is mostly small with 68% of this type having an average field size of 4 hectares or below and with 28% of this type between 4 and 8 hectares.

Landscapes of this HLC type may potentially contain:

Archaeological and historic landscape features associated with the former deer park or designed parkland, such as the park pale and tree plantings as well features associated with earlier and later agricultural exploitation; such as, field boundaries (drystone walls, hedgerows and ditches), ridge & furrow and species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and pursue options for the restoration of designed parklands.
- ❑ To retain boundaries and features associated with this HLC Type, such as the former park pale or follies and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems (ridge and furrow) and any associated relict field boundaries.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ❑ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of the historic and landscape character of much of the project area. These trees are generally over mature and the planting of a new generation to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 1st and 3rd edition County Series map (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

J McN Dodgson 'The Place-Names of Cheshire'³³⁹

³³⁹ Dodgson 1970a-b, 1971, 1972 & 1981a-b

C20th Fieldscapes



Figure 67: Modern 'Prairie' Fields near Warrington

The C20th Fieldscapes HLC Group is the dominant character in c.16% of the project area³⁴⁰ (c.41,698 hectares) and forms 26% of the Fieldscape groups. It contains all field systems believed to post-date the Ordnance Survey 3rd edition County Series map (1904-9).

Twentieth Century Agriculture

At the start of the twentieth century horses were still the main motive power in agriculture. However, steam power via traction engines was in widespread use for threshing and even ploughing. Agriculture was still relatively labour intensive, the more rural boroughs such as Chester or Crewe and Nantwich commonly had up to c.17% of their population employed in agriculture in 1900³⁴¹. From the end of First World War the pace of change intensified. In the 1920s and 1930s farmers throughout the United Kingdom faced economic hardship as cheap grain, dairy

products and meat were imported from as far afield as New Zealand and many farms began to mechanise. The effect to rural society was compounded as many farm labourers who lived in tied cottages, lost their homes as well as their jobs.

The need to reduce the dependency on imported food and to free ships to carry other supplies during the Second World War was to revive the fortunes of the industry. Farmers were encouraged to increase production and bring more land into arable cultivation or improve existing land³⁴². It is possible that a significant proportion of the parkland lost to arable agriculture occurred at this time. Some farmers already had tractors and were using bigger ploughs, cultivators, reapers and other machinery. Chemical fertilizers had first been developed in the 1930s and in the war years new types were introduced as well as insecticides.

In the immediate post war years, bigger machinery and new varieties of crops and animals were introduced. The widespread use of machinery had a significant impact on the numbers employed in agriculture. By 1951 c.10% of the population in the project areas more rural boroughs were employed in agriculture compared with around 2% by 2000³⁴³. More sizeable machinery also required a larger area to operate efficiently, which led directly to the removal of field boundaries, the effects of which were compounded by the reduced labour available to undertake maintenance³⁴⁴. It is estimated that between 1947 and 1985 175,000km of hedgerow and 7000km of stone wall were removed in England and Wales³⁴⁵.

³⁴⁰ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

³⁴¹ www.visionofbritain.org.uk

³⁴² Barker 1998

³⁴³ www.visionofbritain.org.uk

³⁴⁴ Barker 1998

³⁴⁵ Barker 1998

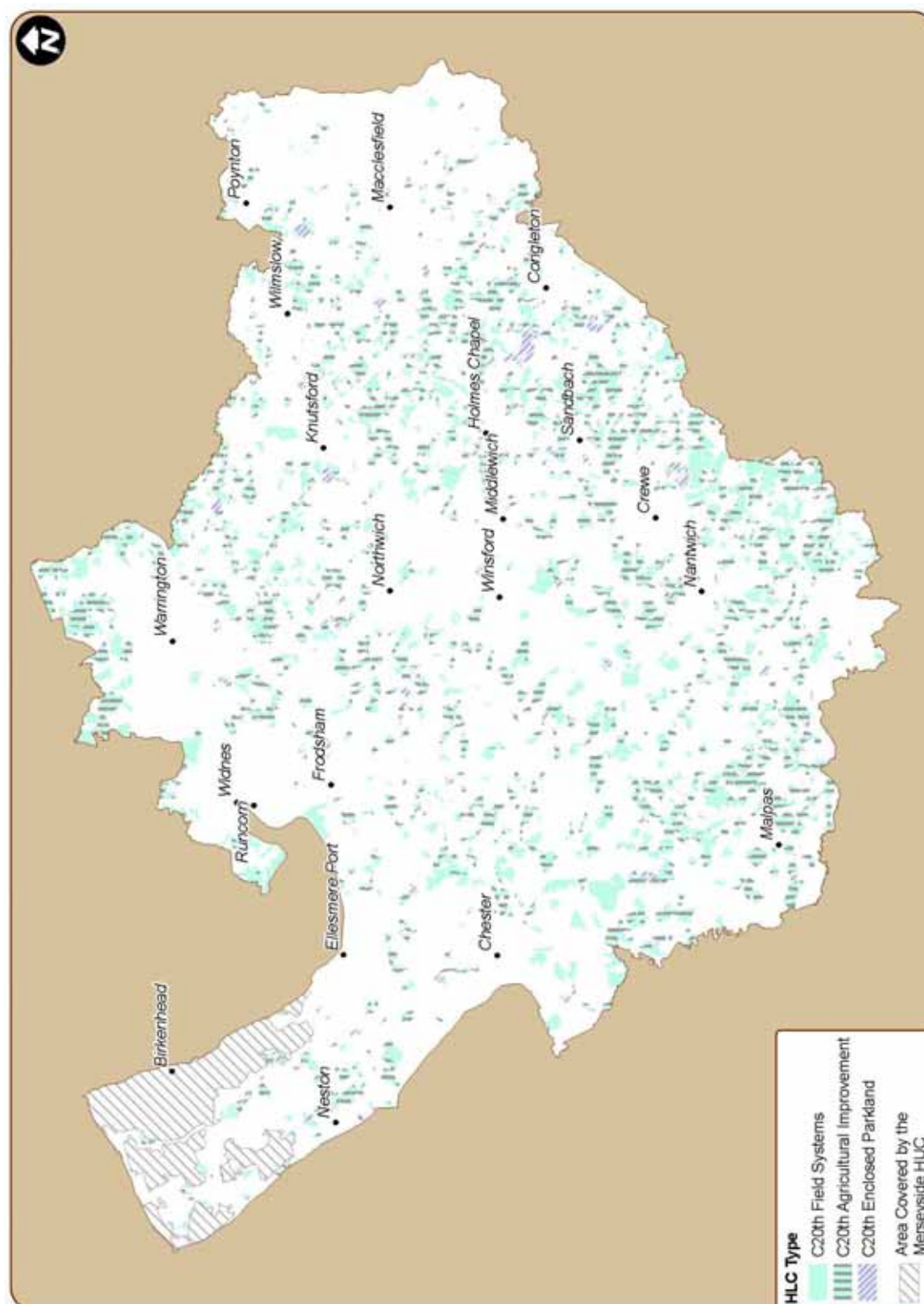


Figure 68: The Extent of the C20th Fields HLC Group

With the United Kingdom's membership of the European Economic Community (precursor to the European Union) in 1973 and the adoption of the Common Agricultural Policy (CAP), farming became increasingly distorted and politicised. CAP was intended to ensure cheap prices, stability of supply and farming incomes. However, the payment of subsidies for production resulted in farmers producing for the subsidies rather than the market. The result was 'mountains' of surplus food and 'lakes' of unwanted wine and milk, which could not be sold within the EU without creating a slump in the market price. In response to this problem, payments for the removal of land from production (set-a-side) and quotas for milk have been introduced creating problems of their own. Subsidies also led to the introduction of new crops such as oil seed rape and linseed whose bright yellow and blue flowers have had a significant impact on the visual landscape. In recent years negotiations have been taking place for reform of the CAP and the UK has been moving away from direct subsidy to agri-environment schemes which pay the farmer for stewardship of the landscape and environment.

C20th Fieldscapes HLC Group Structure

The C20th Fieldscapes HLC Group comprises the following HLC Types:

HLC Type	Description
C20th Field Systems	Large modern fields resulting from field enlargement and the re-organisation of existing field systems.
C20th Agricultural Improvement	Field systems where enlargement and re-organisation has substantively changed their character. However to some degree these field systems still retain their original character.
C20th Enclosed Parkland	Former deer parks and designed landscape parks converted to arable in the twentieth century. These fields have the potential to contain features relating to the parks these areas were once part of.

Table 3: Structure of the C20th Fieldscapes HLC Group

Of the C20th Fieldscapes group present in the modern landscape, 61% is assigned to the C20th Agricultural Improvement HLC Type, 35% to the C20th Field Systems HLC Type and 4% to the C20th Enclosed Parkland HLC Type (Figure 69).

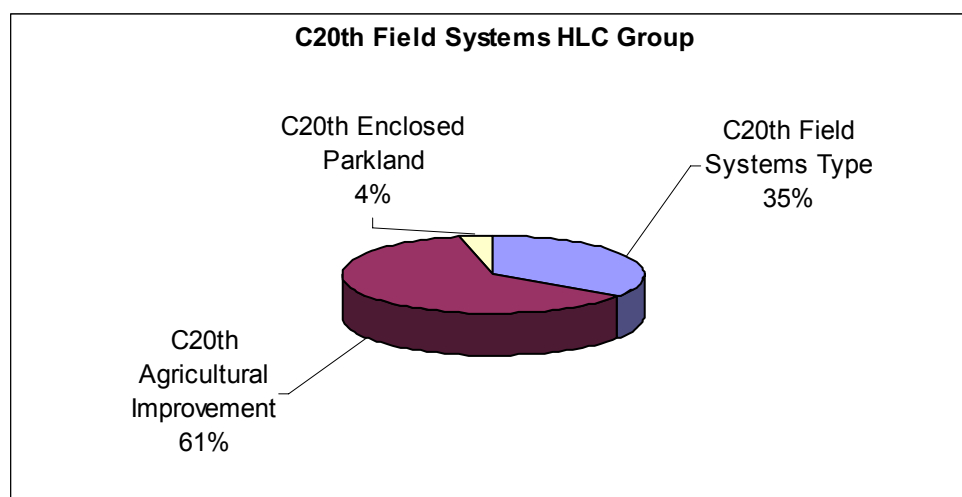


Figure 69: The Composition of the C20th Fieldscapes HLC Group

Field System Origin

It is apparent that a wide range of HLC groups recording a wide range of landscapes were the precursors to these field systems. Woodland clearance is largely restricted to the removal of small coverts and the reversion of areas of commercial forestry to agriculture. Only 36 hectares of ancient woodland has been lost to agriculture in this period.

However the majority of these landscapes were field systems (Figure 70). 52% of this HLC group is derived from the Ancient Fields HLC Group and 45% from the Post Medieval Fields HLC Group.

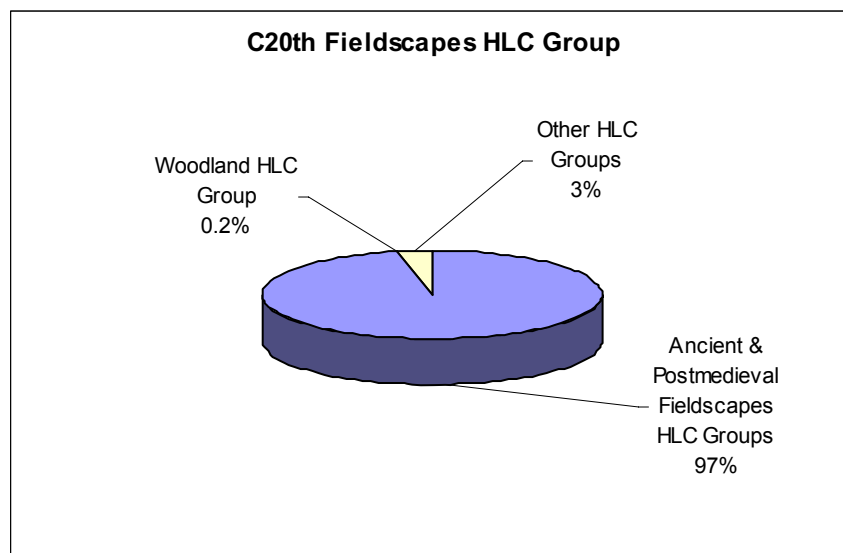


Figure 70: Origin of C20th Fields HLC Group; HLC Groups

The data for those field systems belonging to the C20th Fields HLC Group which derive from the Ancient and Post Medieval Fields HLC Groups can be broken down further. 54% of these fields derive from HLC Types which form part of the Ancient Fields HLC Group. (Figure 71). It is probable that this is due to the unsuitability of modern mechanised farming techniques in these small and often irregular field systems combined with the high cost of boundary maintenance. The majority of these field systems are assigned to the C20th Agricultural Improvement HLC Type which reflects re-modelling more than re-organisation. This may be an effect of the extensive livestock and dairy industry of the project area, which requires a less intensive mechanical input and close control of grazing. A significant proportion of the C20th Field Systems HLC Type is derived from the Late Post Medieval Agricultural Improvement HLC Type (Post Medieval Fields HLC Group). This is possibly due to the potential of these areas for intensive agriculture, with continued enlargement and improvement undertaken as crops and techniques change.

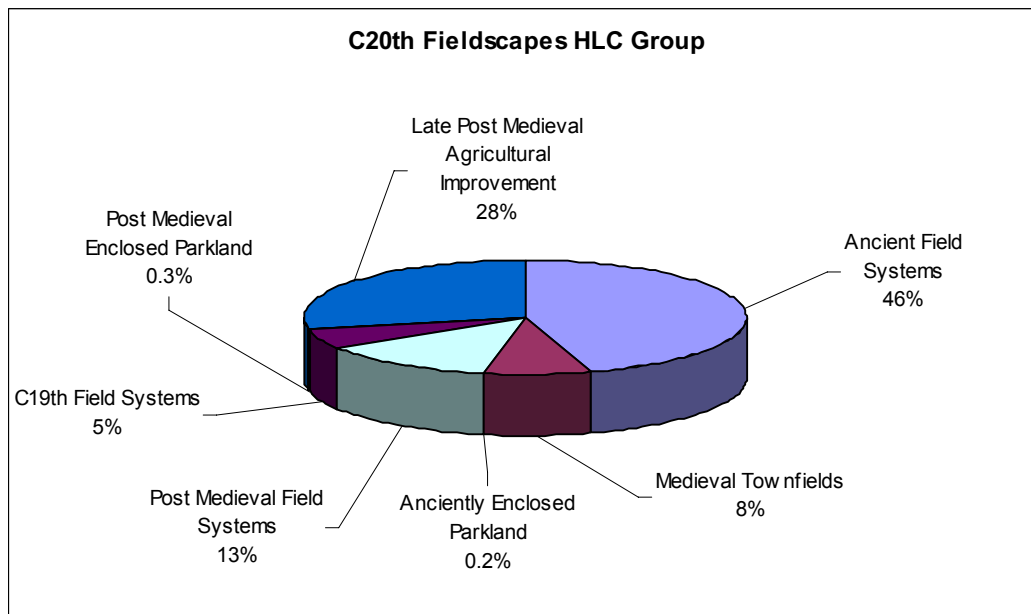


Figure 71: Origin of C20th Fieldsapes HLC Group; HLC Types of the Ancient & Post Medieval HLC Groups

Associated Landscape Features

Field systems of the C20th Fieldsapes HLC Group have the potential to contain relict features relating to a wide range of landscapes and agricultural practices, including marl pits and remains of ridge and furrow cultivation (Figure 72 & Figure 73).

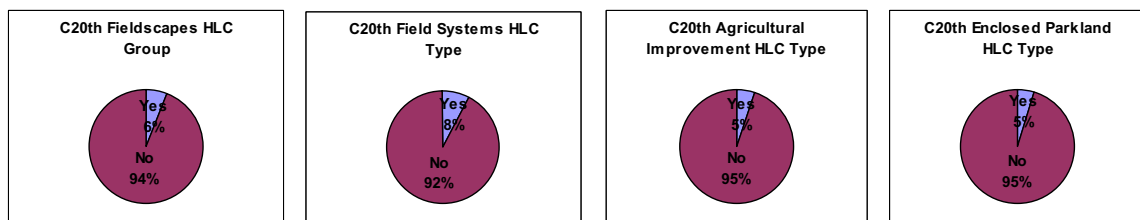


Figure 72: The Survival of Ridge & Furrow in the C20th Fieldsapes HLC Group

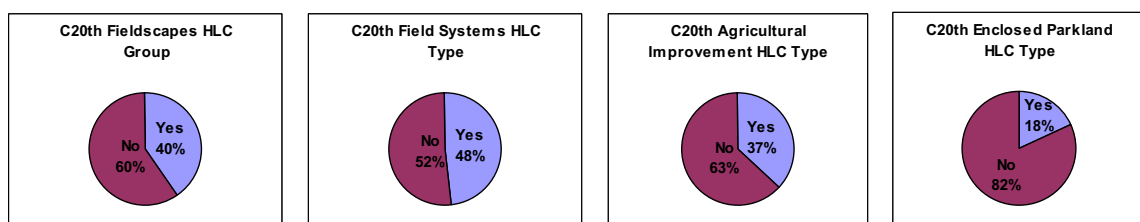


Figure 73: The Presence of Marl Pits in the C20th Fieldsapes HLC Group

In the areas characterised by glacial tills marl was dug to spread on the fields as an aid to soil fertility. This practice was undertaken from at least the thirteenth century in Cheshire³⁴⁶ and continued into the nineteenth century. Marl pits occur in 40% of the area covered by this HLC Group. The earthwork remains of ridge and furrow cultivation, produced by medieval and later ploughing techniques, survive in 6% of the area covered by this HLC Group.

³⁴⁶ Scard 1981

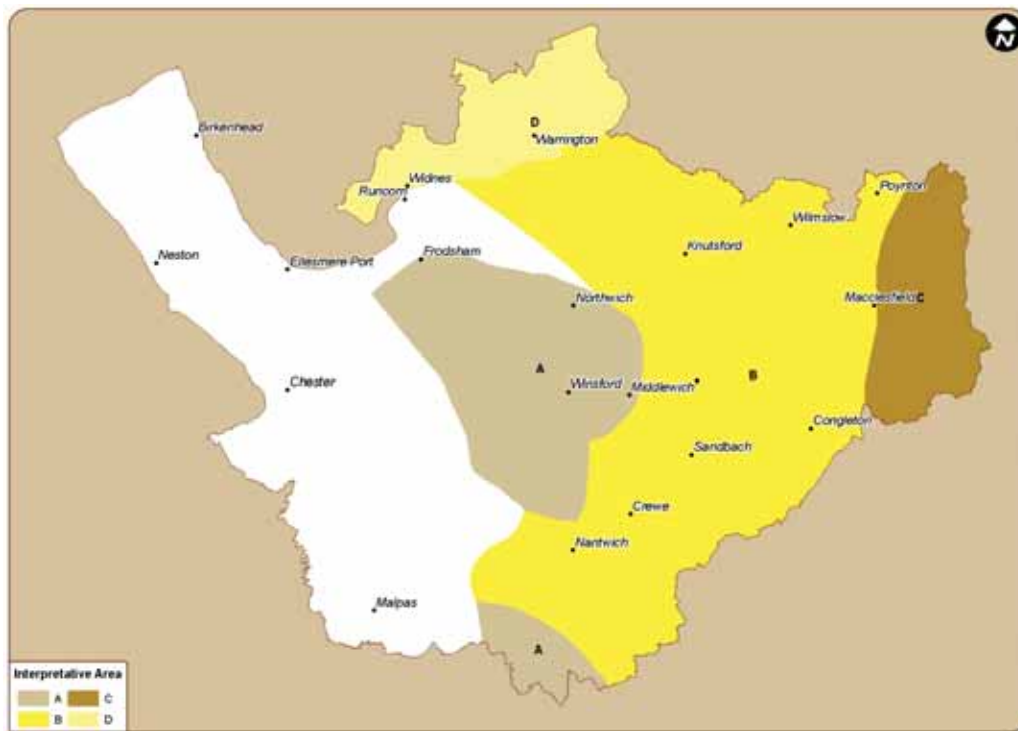


Figure 74: C20th Century Fieldscapes: Interpretative Areas

C20th Century Fieldscapes Overview

The C20th Fieldscapes HLC Group is distributed relatively evenly throughout most of the project area. However, a number of broad trends are evident in four areas. The extents of these areas are shown in Figure 74. It should be emphasised that in the two unlabelled areas no distinctive trends concerning these field systems were observed.

Area A

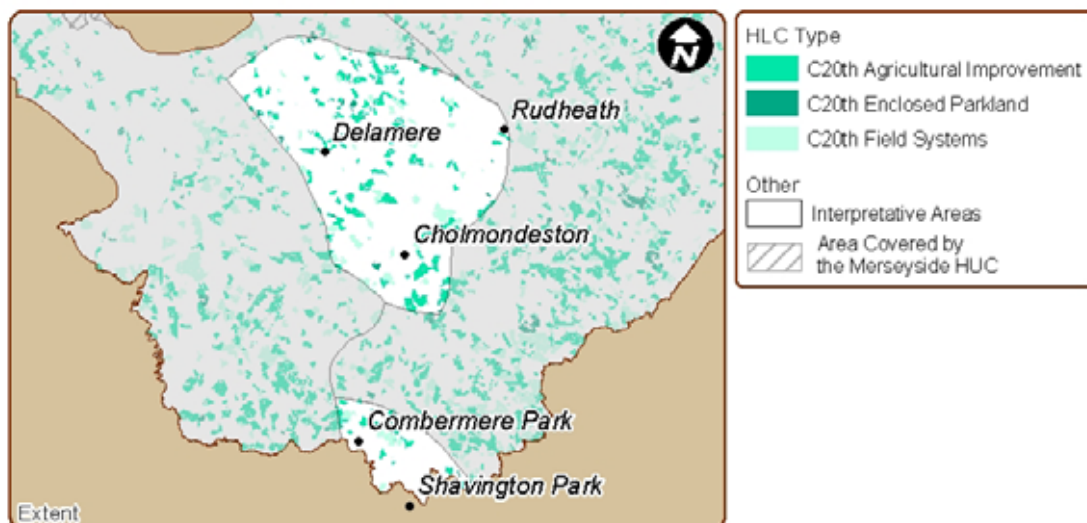


Figure 75: Area A

The HLC types of the C20th Fieldscapes HLC Group appear to be less frequent in some of the areas of extensive Post Medieval Field systems, such as at Delamere, Cholmondeston, Rudheath and the area between Combermere and Shavington³⁴⁷. This may be related to the types of field systems created during the late eighteenth

³⁴⁷ see Post Medieval Fieldsapes Overview, areas D, E, K. and H respectively

and nineteenth centuries which may be more suited to modern mechanised agricultural practices or current land use.

Area B

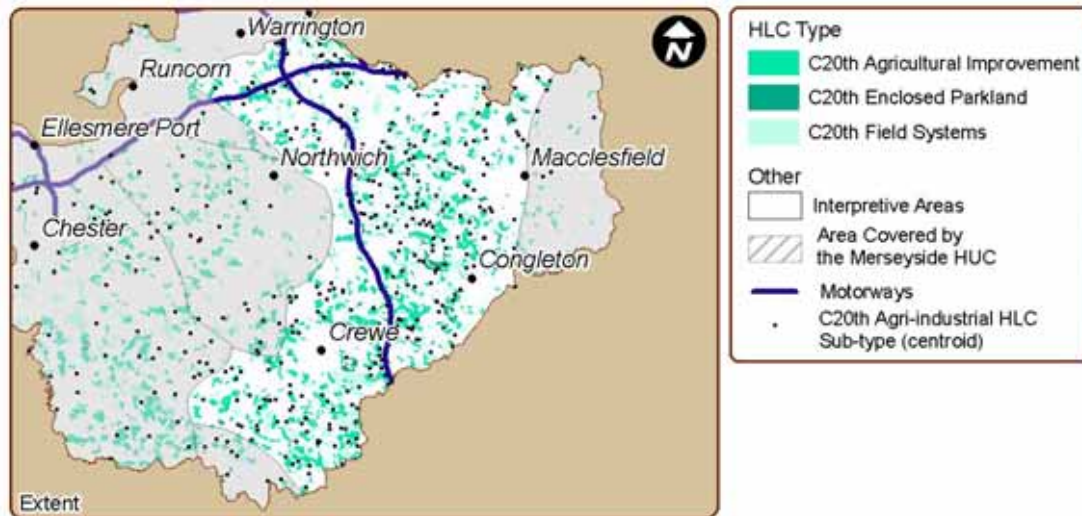


Figure 76: Area B

There is a greater frequency of HLC Types of the C20th Fieldsapes HLC Group here than in much of the project area. The previous landscape types of these twentieth century field systems mainly belong to the Ancient Field Systems HLC Type. These predominantly irregular and semi-regular ancient fields were enclosed from moss, heath and woodland. It is probable that the re-organisation and remodelling represented by the C20th Fieldsapes HLC Group results from the difficulty in applying modern farming techniques and machinery to these earlier field systems. Furthermore, the presence of high densities of the C20th Agri-industrial HLC Sub-type (nurseries and enlarged farms) in this area (see Industry), suggest differing agricultural practices or regimes (Figure 76). It is possible that this is related to the proximity of markets in the Manchester and Stoke conurbations facilitated by the nearby motorway system.

Area C

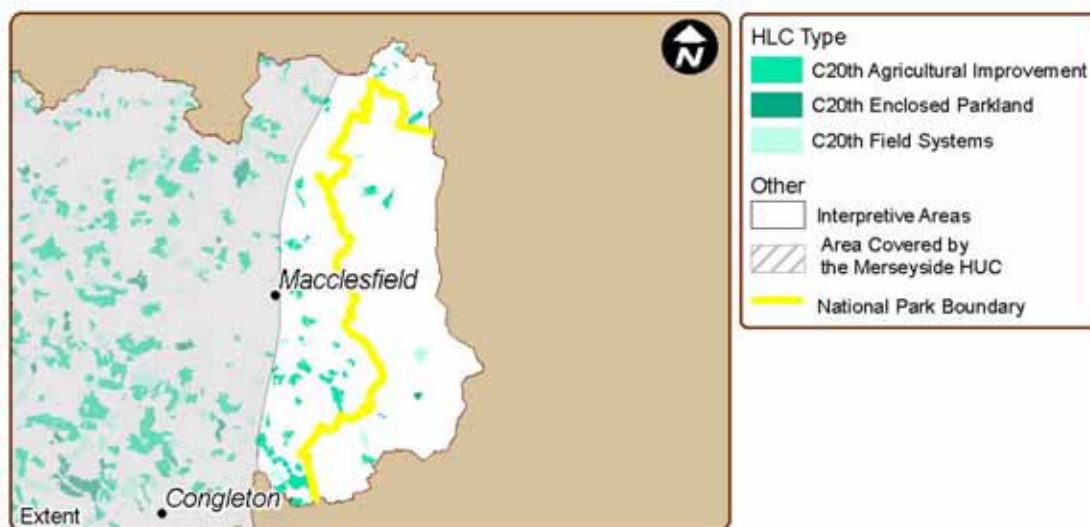


Figure 77: Area C

Remarkably little change has occurred in this area from the historic mapping. This may in part be related to the upland topography of the area making it ill-suited to

intensive arable agriculture. Pastoral farming has continued and the inclusion of part of this area in the Peak District National Park has no doubt significantly influenced farming practices.

Area D

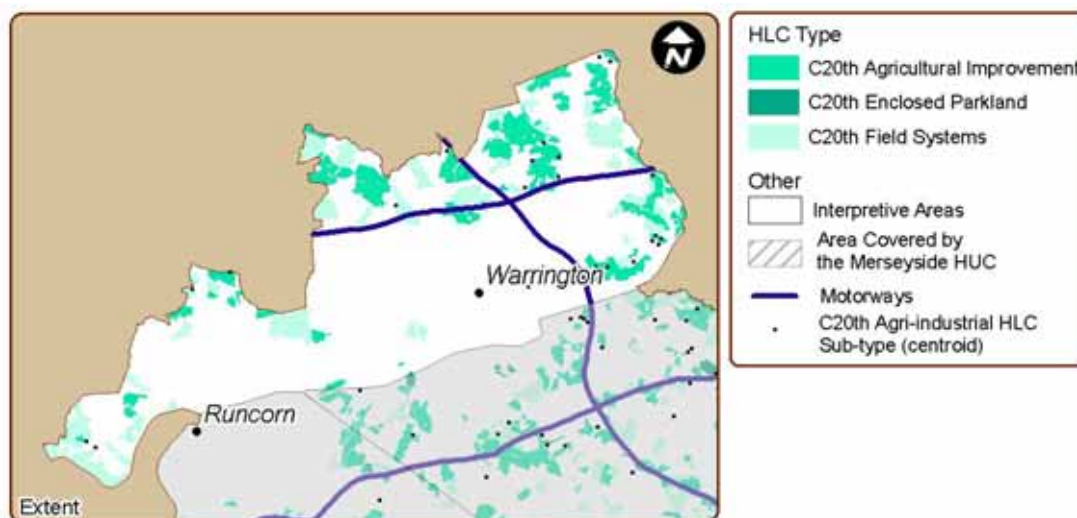


Figure 78: Area D

Despite extensive areas of the Post Medieval Agricultural Improvement HLC Type in this area, further development and re-organisation has occurred often associated with small, but significant clusters of the C20th Agri-industrial HLC Sub-type. This may reflect the potential of these areas for intensive agriculture, with continued enlargement and improvement undertaken as crops and techniques changed and it is probable that this is related, at least in part, to the urban growth in this area and the proximity to the major conurbations of the region.

Characteristics of the fields in the C20th Fieldsapes HLC Group

The C20th Fieldsapes HLC Group is characterised by large fields with few boundaries or areas of degraded earlier field systems. Typically the large 8ha plus fields will be bounded by new hedgerows and fences or boundaries retained from a previous field system. However many field systems of this HLC Group will consist of smaller fields, the degraded remnants of earlier field systems created by the removal of field boundaries. Many of these field systems have the potential, with sensitive boundary restoration, to recapture some of their former historic character. A wide range of field boundaries are evident in these areas utilising hedges, walls, ditches and fences, often in combination and of varying ages. Where hedgerows have been retained they may contain standing trees, and some hedgerow trees from earlier boundaries may also survive within the fields themselves. Notably within areas of this HLC Group the pattern of paths, roads and often settlement will often belong to an earlier landscape.

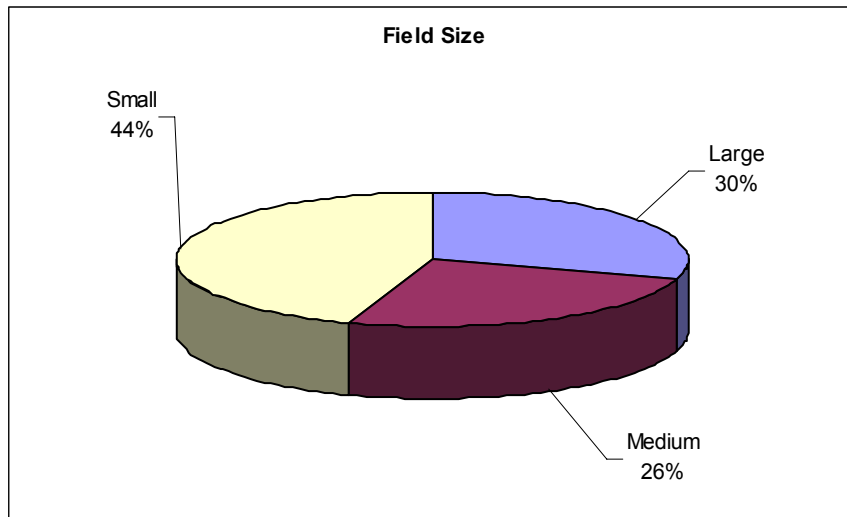


Figure 79: C20th Century HLC Group: Field Size

Field size within this group varies, with 44% having an average field size of 4 hectares or below, a further 26% are between 4 and 8 hectares, and 30% above 8 hectares.

Managing C20th Fieldsapes

The C20th Fieldsapes HLC Group has been divided into three types:

- C20th Field Systems
- C20th Agricultural Improvement
- C20th Enclosed Parkland

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the C20th Fieldsapes HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment, specialist advice should be sought.

Statutory protection

There is a range of designations which offer statutory protection to the landscape areas or features contained within the C20th Fieldsapes HLC Group.

- Scheduled Monuments
- Sites of Special Scientific Interest (SSSI)
- Hedgerow Regulations
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ☐ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Historic Environment Record.
- ☐ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.

C20th Field Systems

This HLC Type comprises the large modern fields, typically over 8ha created by extensive field enlargement and the creation of new field systems to facilitate mechanisation and other changes in agricultural practice. Little of the previous landscape character is expected to survive in these areas.

This HLC Type covers c.5.5% (c.14,534 hectares) of the project area and is distributed throughout the project area. Marl pits survive in 48% of the area covered by this HLC type, and ridge and furrow in 8%, though probably only as subsurface archaeological remains. Field size is large, with 85% having an average field size of over 8 hectares.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features associated with earlier landscapes, however the vast majority of archaeological sites will only survive as below ground features.

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ☐ To retain field boundaries and features associated with this HLC Type and maintain them in good condition. Any restoration of modern boundaries should reflect their existing form, rather than historic patterns.
- ☐ To retain the remains of former cultivation systems and any associated relict field boundaries.
- ☐ To retain infield trees, many of which will provide indications of former field patterns.
- ☐ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ☐ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 3rd edition County Series map (1904-9)

Ordnance Survey 1:10,000 scale maps

C20th Agricultural Improvement

This HLC Type comprises field systems where enlargement and re-organisation has taken place in the twentieth century to support mechanisation and improvements in agricultural techniques. Although the character of these field systems has been substantively changed they still retain features and elements of their previous character. These field systems have the potential, with sensitive boundary restoration, to recapture some of their former historic character. Therefore, the preceding HLC Type should be considered in areas of this HLC Type.

This HLC Type covers c.9.8% (c.25,626 hectares) of the project area and are distributed throughout. A wide range of field shapes exist within these field systems, although they are mostly semi-regular. Marl pits survive in 37% of the area covered by this HLC Type, and ridge and furrow remains are recorded in 5% of the area. The average field size is largely small, with 61% of this type having an average field size of 4 hectares or below, and 39% between 4 and 8 hectares.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features: such as farms and associated structures and features, earthworks associated with relict field boundaries, former township boundaries, historic field boundaries (drystone walls, hedgerows and ditches), ridge & furrow, species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ☐ To retain field boundaries and features associated with this HLC Type and maintain them in good condition.
- ☐ Promote sensitive boundary restoration in areas where this would serve to strengthen its historic character.
- ☐ To retain the remains of former cultivation systems and any associated relict field boundaries.
- ☐ To retain former marl pits. Marl pits are a defining characteristic for much of the project area.
- ☐ To encourage the planting of hedgerow trees, where applicable. Hedgerow trees are a vital part of historic and landscape character for much of the study area. These trees are generally over mature and the planting of new generation to become their successors, is to be encouraged.
- ☐ To retain infield trees, many of which will provide indications of former field patterns.
- ☐ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To have regard for the type, form and function of farm buildings associated with areas of this HLC Type when proposals are made for development.
- ☐ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 3rd edition County Series map (1904-9)

Ordnance Survey 1:10,000 scale maps

C20th Enclosed Parkland

This HLC Type represents the regular and semi-regular field systems created upon the enclosure of deer parks and designed parkland, with conversion to a landscape where agricultural production is the primary purpose. Within these field systems former parkland features or earlier remains relating to previous uses of the land may survive. Where former boundary features are not preserved, their course can often be traced in the boundaries of the new field system.

This HLC Type covers c.0.6% (c.1538 hectares) of the project area. Marl pits occur in 18% of the area covered by this HLC Type and ridge and furrow remains are recorded in 5% of the area. The average field size is mostly small with 59% of this type having an average field size of 4 hectares or below and 29% of this type between 4 and 8 hectares.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features associated with the former deer park or designed parkland, such as the park pale and tree plantings as well features associated with earlier and later agricultural exploitation; such as, field boundaries (drystone walls, hedgerows and ditches), ridge & furrow and species rich habitats, historic ecofacts and a wide range of archaeological sites.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes and pursue options for the restoration of designed parklands.
- ❑ To retain boundaries and features associated with this HLC Type, such as the former park pale or follies and maintain them in good condition.
- ❑ To retain the remains of former cultivation systems (ridge and furrow) and any associated relict field boundaries.
- ❑ To retain former marl pits. Marl pits are a defining characteristic for much of the study area.
- ❑ To encourage the planting of hedgerow trees. Hedgerow trees are a vital part of historic and landscape character for much of the study area. These trees are generally over mature and the planting of new generation to become their successors, is to be encouraged.
- ❑ To undertake assessments of field systems and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ❑ To increase awareness of the historical importance of this landscape type in planning strategy documents, such as Parish Plans, Local Development Frameworks and Regional Spatial Strategies.

Key Indicative Sources

Ordnance Survey 3rd edition County Series map (1904-9)

Ordnance Survey 1:10,000 scale maps

Military



Figure 80: Second World War Pill Box at Iron Ore Quay, Chester

The Military HLC Group covers c.0.3% (c.829 hectares) of the project area and covers a range of features from medieval castles to Second World War airfields and modern military barracks. Sites which only survive as sub-surface archaeological remains are not included in this HLC Group, as were the many sites too small to be included as part of the characterisation process.

Prehistoric

The earliest defensive features in the project area are a small number of late Bronze Age to Iron Age hillforts which occupy the Cheshire Sandstone Ridge, such as Beeston Castle and Eddisbury hillfort³⁴⁸. Archaeological excavations undertaken on hillforts throughout Britain suggest that these

types of sites were not only settlements. Some appear to have acted as markets and manufacturing centres, while others may be related to the definition of territory³⁴⁹. Excavations at Beeston Castle suggest that it may have been a specialist metal working centre³⁵⁰. The defences were undoubtedly meant to impress, and at many sites they still survive as earthworks. It is possible that these hill forts lie at the margins of the Cornovii tribe, whose centre was putatively the Wrekin in Shropshire and the Deceangli whose forts dominate the Clwydian Hills to the west³⁵¹.

Roman

By the Roman period many of the hillforts of the project area had already fallen out of use, though Romano-British deposits found in the ditches at Eddisbury may suggest the deliberate slighting of the defences in this period³⁵². The principal Roman military base in the area was the legionary fortress at Chester (Deva), the walls of which are still partly visible. Auxiliary forts were built at Northwich (Condate) and Middlewich (Salinae). It is possible that all these forts were constructed to support and supply Vespasian's campaigns in northern England and north Wales in the 70s AD³⁵³.

Early Medieval

In the early-seventh century a battle between Aethelfrith, King of Northumbria, and peoples referred to as Britons is known to have taken place near Chester around 613-616AD. A fort recently discovered at Heronbridge dates to the time of this battle and is likely to have been constructed by Aethelfrith³⁵⁴.

In the tenth century, the project area lay at the boundary of the Viking kingdoms of northern England, Anglo-Saxon Mercia, and the Welsh kingdoms to the west³⁵⁵. This made the project area a region of strategic importance for these competing

³⁴⁸ Cheshire County Historic Environment Record

³⁴⁹ Cunliffe 1974

³⁵⁰ Longley 1987

³⁵¹ Longley 1987

³⁵² Longley 1987

³⁵³ Strickland 2001

³⁵⁴ Mason 2004

³⁵⁵ Higham 1993

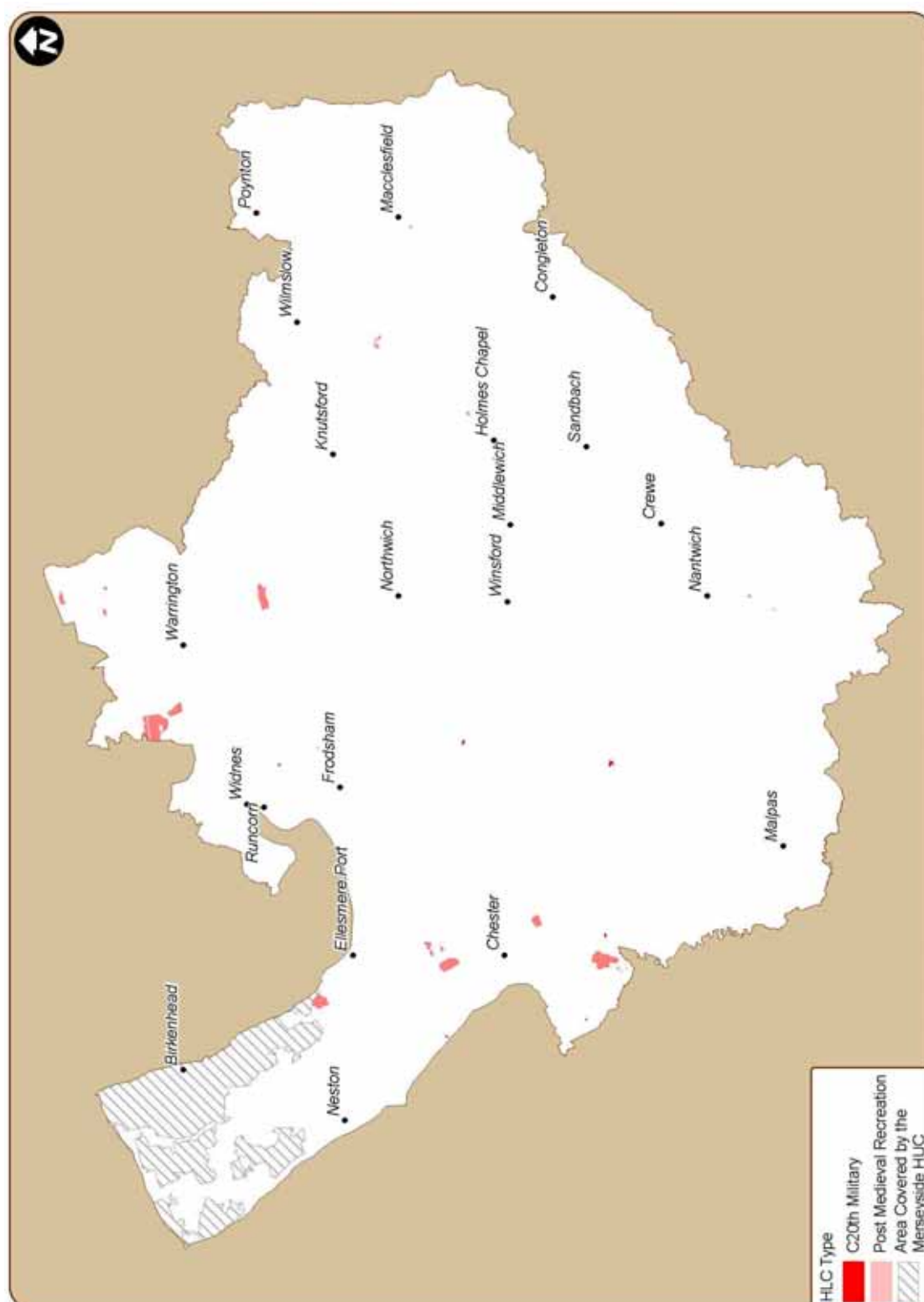


Figure 81: The Modern Extent of the Military HLC Group

kingdoms. The Anglo-Saxon response was the establishment of the burh. Throughout Mercia, burhs (defended settlements) were established, often at existing settlements, to stimulate and promote trade. Four burhs were founded in the project area between 907 and 919AD³⁵⁶. The burh at Chester utilised the remains of the Roman defences and at Eddisbury the ramparts of the Iron Age hillfort were repaired at this time³⁵⁷. Occupation at Eddisbury was short lived and no town developed with the burh being moved to Runcorn to control the Mersey crossings³⁵⁸, as did the burh at Thelwall to the east.

Medieval

With the Norman conquest of England from 1066 the castle was introduced to the project area. The majority of the early castles were constructed of earth and timber and the earthwork remains of many of these motte and bailey castles still survive, for example at Shocklach. Castles were strategically located, often in or close to towns (e.g. Chester, Nantwich and Macclesfield), or near river crossings, such as those next to the River Dee. In fact, this area contains a disproportionate number of castles when compared to the project area as a whole. The degree to which this is related to the relative wealth of the area or its proximity to the Welsh border and the strategic importance of the Dee, is uncertain, but does coincide with the location of many major Anglo-Saxon estates³⁵⁹. Some of the castles, such as Halton and Chester, were constructed in stone, possibly replacing earlier timber structures and Beeston Castle, constructed in the thirteenth century, utilised the defences of the prehistoric hillfort³⁶⁰. Many castles were used in the thirteenth century to support the English campaigns in Wales, Ireland and Scotland. From the fifteenth century had begun to fall into disrepair and were abandoned. However, some of the larger stone built castles were utilised again during the English Civil War.

English Civil War

The project area saw considerable military action during the English Civil War. In 1643 a small parliamentary force of cavalry arrived at Congleton with the intention of raising troops and garrisoning Nantwich. After a minor skirmish with a small Royalist force, Nantwich was occupied by parliamentary troops³⁶¹. This force rapidly set about improving the defences of the town with a network of trenches and earth ramparts (no upstanding remains of these defences survive³⁶²). In response, the Royalists brought troops in from Wales to guard the crossings of the River Dee and to increase the Chester garrison. Chester's defences were bolstered by the construction of a network of outworks comprising trenches and earth ramparts in the northern and eastern city suburbs (none of which now survive above ground level). Nantwich became a Parliamentarian base from which they could raid North Wales, Cheshire and Shropshire and thwart Royalist recruitment. Nantwich was also used to support attacks on Warrington and there was a minor engagement at Middlewich, which saw a small Royalist force routed from the town³⁶³.

Following a treaty between the Parliamentarians and the Scots, which included the support of a large Scottish army, Lancashire and Cheshire became an important focus for military operations³⁶⁴. Chester was a strategic Royalist base and a port of entry for reinforcements from Ireland. Beeston Castle changed hands several times, leading eventually to its capture by Royalist troops³⁶⁵. These forces then subjected

³⁵⁶ Higham 1993

³⁵⁷ Varley 1950

³⁵⁸ Cheshire County Council 2002i

³⁵⁹ Higham 1993

³⁶⁰ County Historic Environment Record

³⁶¹ Dore 1966

³⁶² County Historic Environment Record

³⁶³ Dore 1966

³⁶⁴ Dore 1966

³⁶⁵ Dore 1966

Nantwich to attack and then siege. A small force of Parliamentary troops from Lancashire initially tried to relieve the town, but this force was comprehensively defeated at Middlewich. The Battle of Nantwich was fought on 25 January 1644 to the north-west of the town, and saw the Royalists defeated by the combined Parliamentary relieving force and the Nantwich garrison³⁶⁶. The site of the battle is on the English Heritage Register of Battlefields.

Later in 1644 Chester came under increasing pressure of attack, and eventually siege, from Parliamentary forces. Following the capture of the suburbs in the following year, the Royalist troops retreated into the walled part of the city. Reinforcements headed by the King himself arrived and led to the battle of Rowton Moor on 24th September 1645. The site of this battle is also on the English Heritage Register of Battlefields. Royalist troops attempted to attack the Parliamentary forces from the south and from the city, but this attempt was to ultimately end in failure³⁶⁷. Thereafter, Chester's walls took a pounding from Parliamentary cannon. The city finally surrendered on 3rd February 1646³⁶⁸.

Second World War and Cold War

The majority of military sites in the project area are associated with the Second World War and the Cold War. Second World War sites include airfields and anti-aircraft emplacements for the protection of the project area and the conurbations to the north. The most prominent survivals are the former airfields, though few still retain their character. The largest military establishment was the ordnance works at Risley, Warrington. Cold War sites include nuclear bunkers and the vast US Army depot at Burtonwood, Warrington³⁶⁹ and active military sites largely centred on two army barracks located to the north and south of Chester.

Associated with these sites were numerous small features such as pill boxes, road blocks, and accommodation and storage buildings. These structures can outlive the main associated installation and some still exist today. In addition, many pill boxes and road blocks were never associated with major military installations, but formed parts of defensive 'stop lines' and were located at key bridges, roads and landscape features. Such features are too small to be included in the HLC, but a large number are recorded in the relevant Local Authority Sites and Monuments Record/Historic Environment Record.

³⁶⁶ English Heritage 1995

³⁶⁷ English Heritage 1995

³⁶⁸ Dore 1966

³⁶⁹ Cheshire County Historic Environment Record

Managing the Military Heritage

The Military HLC Group has been divided into two HLC Types:

- Other Military
- C20th Military

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the Military HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Military HLC Group.

- Scheduled Monuments
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record/Historic Environment Record.
- ❑ High quality habitats recorded on the relevant local authority Register of Sites of Biological Importance.

Other Military

This HLC Type includes all pre-twentieth century military installations and fortifications and covers less than c.0.1% (c.26 hectares) of the project area. It predominantly comprises prehistoric fortifications and medieval castles.

Landscapes of this HLC Type may potentially contain:

Archaeological deposits, historic buildings and structures and historic landscape features, relating to the site (e.g. earthworks, walls, fortified positions) and the wider landscape.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship schemes.
- ❑ To undertake assessments of military sites and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to wildlife, and to archaeological and historic landscape features.
- ❑ To increase awareness and understanding of the historical development of military structures, including their buried archaeological heritage.
- ❑ To promote the military heritage as a cultural resource, whether as a focus for community-based projects or in the development of visitor attractions.

Key Indicative Sources

Ordnance Survey 1st edition County Series maps (1870-5)

Local Authority Sites and Monuments Record/Historic Environment Records

C20th Military

This HLC Type covers all twentieth and twenty-first century military installations and covers c.0.3% (803 hectares) of the modern landscape. This includes a wide range of sites from Second World War airfields to small accommodation blocks associated with the nuclear bunker near Nantwich.

Landscapes of this HLC Type may potentially contain:

Archaeological deposits, historic buildings, structures and features relating to the site (e.g. hangers, fortified positions). Also isolated buildings, structures and features which form part of a wider system of defence (stop-lines, anti-aircraft defences).

This HLC Type has been divided into two HLC Subtypes:

C20th Military Active

These are active military sites and cover less than 0.3% (c.205 hectares) of the project area.

C20th Military Inactive

These are disused military sites whose character still defines an area due to the survival of associated buildings and features such as runways, bomb stores, etc. This HLC subtype covers 0.9% (c.598 hectares) of the project area and is largely made up of Second World War airfields and a number of much smaller barracks and depots.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To undertake assessments of military installations and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to structures and associated features.
- ❑ To increase awareness and understanding of the historical development of military structures, including their buried archaeological heritage.
- ❑ To promote the military heritage as a cultural resource, whether as a focus for community-based projects or in the development of visitor attractions.

Key Indicative Sources

Ordnance Survey 1:10,000 scale maps

Local Authority Sites and Monuments Records/Historic Environment Records

Council for British Archaeology 'Defence of Britain Project'³⁷⁰

B Lowry 'Twentieth Century Defences in Britain: an introductory guide'³⁷¹

C Dobinson 'AA Command. Britain's Anti-aircraft Defences of the Second World War'³⁷²

WD Cocroft & RJC Thomas 'Building for the Nuclear Confrontation 1949-1989'³⁷³

³⁷⁰ www.britarch.ac.uk/projects/dob/index.html

³⁷¹ Lowry 1995

³⁷² Dobinson 2001

³⁷³ Cocroft & Thomas 2003

Communications



Figure 82: The Manchester Ship Canal

The Communications HLC Group covers c.1.9% (c.4,889 hectares) of the project area. This group covers specific types of features associated with transport and comprises canals and river navigations, railways, modern roads and air transport.

All other historic routeways (e.g. pathways, tracks and roads laid out prior to the twentieth century), and including the remains of Roman roads and the turnpikes of the eighteenth and nineteenth centuries, are not included in this group. Apart from practical considerations of recording these routeways, to separate them from the surrounding landscape would create an artificial division. Large modern roads, such as motorways or bypasses, generally have a

considerable amount of associated landscaping, making these roads of sufficient size to be considered a separate landscape element.

Canals and River Navigations

The project area contains c.960 hectares of constructed historic waterways and includes a number of important river improvement schemes, initially authorised by Acts of Parliament between 1719 and 1732³⁷⁴. The Mersey and Irwell Navigation made the River Mersey navigable from Manchester down to Warrington. The Weaver Navigation made the Weaver navigable from Winsford to the Mersey and the New Cut made the Dee navigable from the north Wales coast to Chester. All these navigations involved the excavation of new channels and the construction of locks and weirs, some of which are still in use today.

The earliest canals in the project area were constructed in the 1770s. The Bridgewater Canal was extended from Manchester to Runcorn and connected with the Trent and Mersey Canal, from the Staffordshire Potteries, which opened in 1775³⁷⁵. The Chester Canal from Chester to Nantwich was opened in 1779³⁷⁶. However, it was not a success. The first section of Ellesmere Canal was opened in 1795, linking the failing Chester Canal to the Mersey and somewhat reviving the former's fortunes³⁷⁷. Later, it was connected to the Trent and Mersey Canal and eventually became part of the Shropshire Union system. Ellesmere Port developed as a direct result of the siting of wharves and warehouses at the terminus of this canal³⁷⁸. The Macclesfield Canal, which linked Manchester with the Potteries, was completed in 1831. The vast majority of this infrastructure is still in use today, with only 22 hectares recorded as disused.

The largest and latest canal to be built in the project area is the Manchester Ship

³⁷⁴ Ashmore 1982

³⁷⁵ Ashmore 1982

³⁷⁶ M Reid *Pers Comm*

³⁷⁷ Ashmore 1982

³⁷⁸ Cheshire County Council 2002g

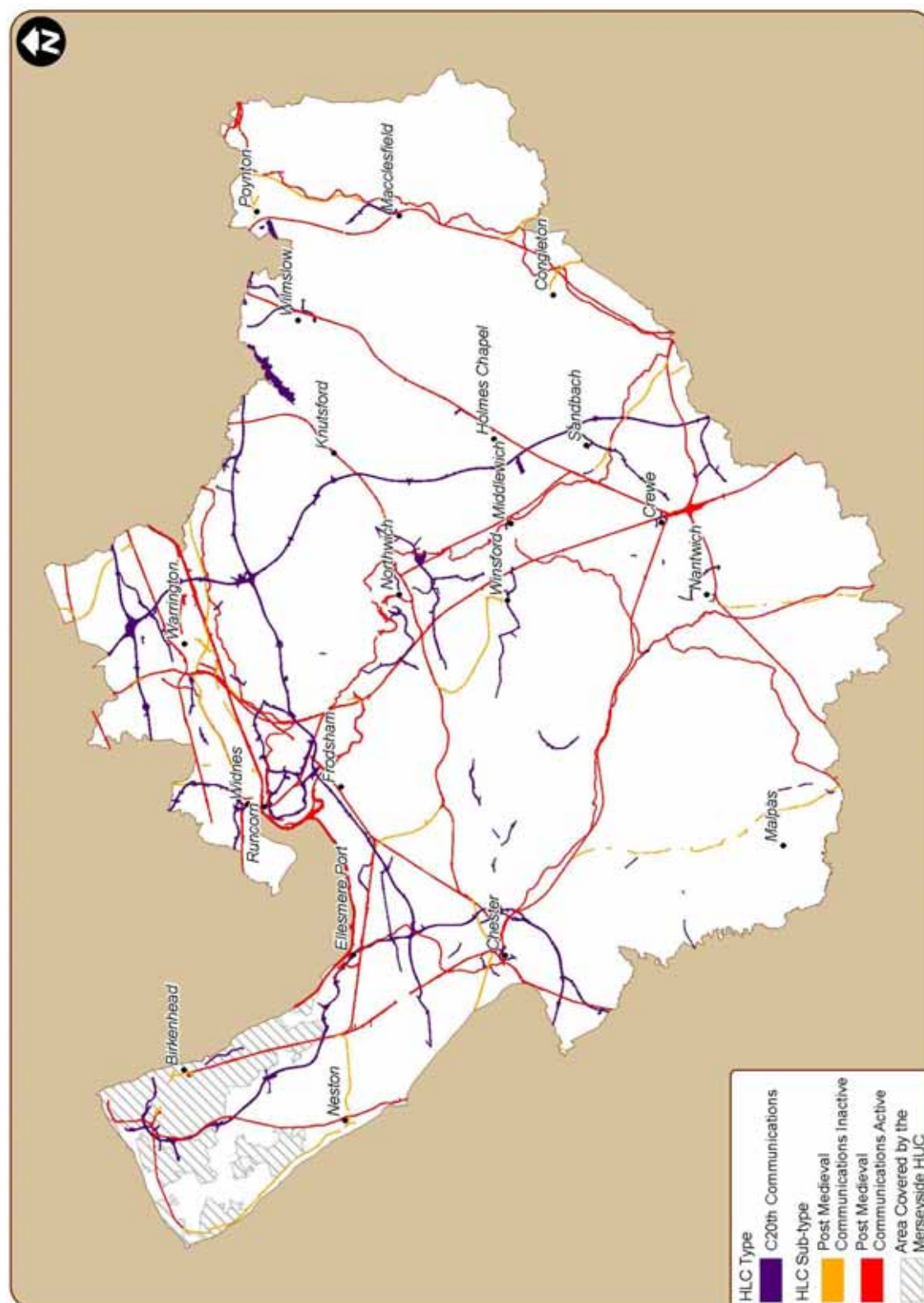


Figure 83: The Modern Extent of the Communications HLC Group

Canal built between 1887 and 1894³⁷⁹. The 55 kilometre-long canal allowed sea-going vessels to navigate from Ellesmere Port to the newly constructed docks at Salford and involved the construction of a large number of bridges and locks.

Railways

The railway network within the project area was largely constructed between 1820 and 1850 and included the worlds first intercity rail link. In 1826 Parliament gave permission, despite opposition by the owners of the Bridgewater Canal, for the Liverpool and Manchester Railway to begin construction on the line linking Manchester and Liverpool and it opened in 1830. The Grand Junction Railway linking the Liverpool and Manchester Railway to Birmingham was completed in 1837³⁸⁰. The creation of a direct line from Birmingham to Manchester by the Grand Junction Railway Company in 1843 led to Crewe becoming a major junction and the site of the Company's (later the London and North Western Railway) engineering works³⁸¹. The establishment of these works led to the development of the town. Chester was another important junction and originally had two mainline stations. At Chester, lines from the Wirral, Warrington, Widnes, Holyhead, Manchester and Crewe met the Great Western Railway's line from Shrewsbury. A considerable proportion of this network has now been closed.

Modern Roads and Air Transport

Modern road schemes include the M6, M56, dual carriage-ways and bypasses. The vast majority are located in the north of the project area, serving Wirral, Halton, Warrington and the neighbouring conurbations. Associated with these road systems are extensive landscaping and planting which results in c.2000 hectares being assigned as modern roads. Within the project area there are also two small airfields and a section of a runway forming part of Manchester Airport.

³⁷⁹ Ashmore 1982

³⁸⁰ Ashmore 1982

³⁸¹ Cheshire County Council 2002e

Managing the Historic Communication Network

The Communications HLC Group has been divided into two HLC Types:

- Post Medieval Communications
- C20th Communications

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the Communications HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations that offer statutory protection to the landscape areas or features contained within the Communications HLC Group.

- Scheduled Monuments
- Listed Buildings
- Sites of Special Scientific Interest (SSSI)

Material Considerations

There is a range of non-statutory lists and registers that record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ☐ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record or Historic Environment Record.
- ☐ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.

Post Medieval Communications

This HLC Type comprises all railways, canals and river navigations constructed prior to the twentieth century (those which are shown on the Ordnance Survey 1st and 3rd editions of the County Series maps). They cover c.1% (c.2,611 hectares) of the project area. It is important to note that many of the structures and buildings associated with this type have distinctive styles of 'railway' or 'canal' architecture.

Landscapes of this HLC Type may potentially contain:

Archaeological and historic landscape features associated with canals, including bridges, iron aqueducts like those at Congleton and Nantwich, weirs and water management features, locks, inclines and a large number of wharves and warehouses, with the vast majority of this infrastructure still in use today. Features and structures associated with railways range from large bridges, tunnels and cuttings, stations, signal boxes and freight marshalling facilities to signals and crossing gates.

This HLC Type is divided into two HLC Subtypes:

Post Medieval Communications Active

These are active canals and railways dating from the eighteenth and nineteenth centuries and cover c.0.9% (2,281 hectares) of the project area. Many of the waterways included in this group are still actively used for recreational purposes.

Post Medieval Communications Inactive

The majority of this subtype is made up of disused railway lines, with a small proportion of disused canals. This subtype covers c.0.1% (331 hectares) of the project area. In places these features have found new uses as footpaths and bridleways, and have even been considered for modern light railway and tram systems. The routeways within this subtype generally retain many of the associated features, such as bridges and signal boxes, and some, such as stations, have found new uses. Moreover, much of the major civil engineering elements are preserved and will retain their character.

Recommended historic environment management

in addition to any statutory controls

- ☐ To promote transport heritage as a cultural resource, wherever this is practicable, whether as a focus for community-based environmental projects or in the development of visitor attractions.
- ☐ To promote the retention and re-use of associated buildings and features, wherever this is practicable, especially those displaying the distinctive canal or railway architecture.
- ☐ To undertake assessments of communications and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 1st & 3rd editions County Series maps (1870-5 & 1904-9, respectively)

Local Authority Sites and Monuments Records/Historic Environment Records

C20th Communications

This HLC Type comprises all railways, roads and airfields/airports constructed in the twentieth century (which post-date the Ordnance Survey 3rd edition County Series maps). They cover c.0.9% (c.2,276 hectares) of the project area.

This type largely comprises large modern roads such as the M6, M56 (including service areas), dual carriage-ways and bypasses and associated landscaping. It also includes small airfields and those parts of Manchester Airport that lie within the project area, plus a small amount of modern railway construction.

Recommended historic environment management

in addition to any statutory controls

- ☐ To promote the use of locally derived species and methods of planting when undertaking new landscaping work.

Key Indicative Sources

Ordnance Survey 1:10,000 map

Industry



Figure 84: Chemical Works at Northwich, Cheshire

The Industry HLC Group covers c.5% (c.123,991 hectares) of the project area. It covers all forms of industrial and agri-industrial landscape from chemical plants and oil refineries to nurseries and fisheries.

The area has a long industrial history. Metals were mined at Alderley Edge from the Bronze Age and the salt-fields of Cheshire have been an important focus of industry since the Roman period. Coal has been mined in the Peak fringe and on the Wirral since the medieval period. In the eighteenth century the streams of the steep slopes of the Peak fringe provided the power for the textile industry.

The project area contains, or is located in the vicinity of, the Cheshire salt-fields, the Mersey, the south-west Lancashire coal fields and the Irish Sea, all of which are thought to be the key combination of factors leading to the industrialisation of the North West in the eighteenth and nineteenth centuries. The late twentieth century has seen a decline in many of the industries which had developed in this period, although the chemical industry continued to expand and new industries in light manufacturing, new technology and oil refining have been established.

Textile Industry

The textile industry was a major industry in the north-west of England from at least the thirteenth century. By the sixteenth century, a wool and linen and (later) cotton industry had been established, which was exporting to continental Europe via local merchants and the London markets. Prior to the eighteenth century, the important ports and textile centres had been in southern England. However, colonisation of North America and the Caribbean provided new markets and sources of raw materials, and increased the importance of the ports in the north west of England. Manchester was already a major centre for the production and finishing of cloth in the seventeenth century; the eighteenth and nineteenth centuries saw it become a major international centre³⁸².

The many streams of the Peak fringe meant that the area was well placed to capitalise on the new water-powered machinery introduced in the late eighteenth century³⁸³. However, the best sites were not always located within easy reach of established settlements. Consequently, mill owners often had to provide the housing and social institutions required to attract a workforce. Cotton weaving was to remain un-mechanised and largely carried out in worker's homes till the 1820s, as were silk and fustian production at an even later date³⁸⁴. The growth of mechanised forms of weaving coincided with the change from water to steam power. At first, beam engines were used to pump water up to the water wheel. However, this was soon replaced by direct drive engines, and by the 1840s steam power predominated.

³⁸² Ashmore 1982

³⁸³ Calladine & Frickler 1993

³⁸⁴ Ashmore 1982

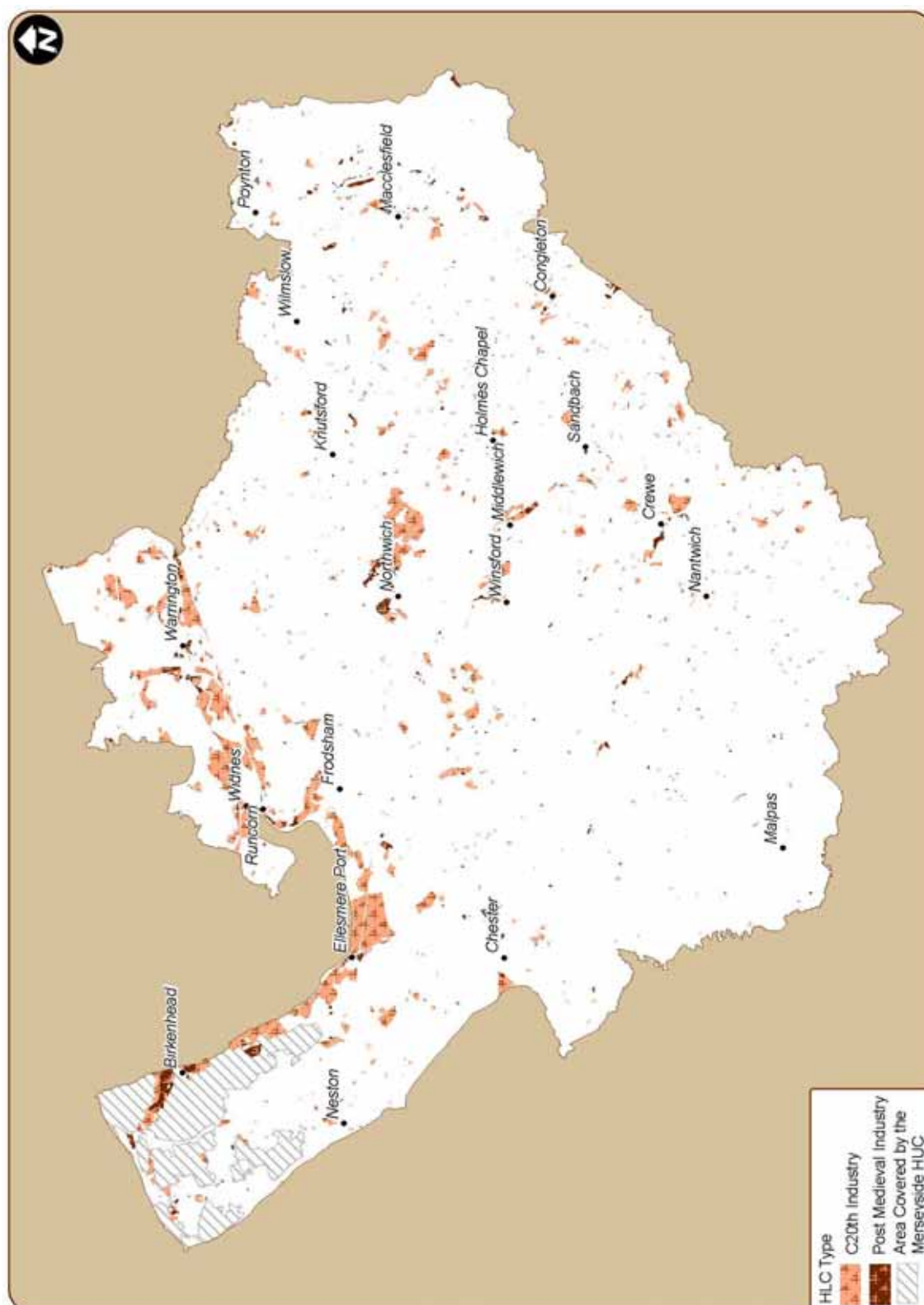


Figure 85: The Modern Extent of the Industry HLC Group

The manufacture of silk thread and cloth, often referred to as throwing, was the major industry of east Cheshire. The production of silk thread was taking place from the seventeenth century, associated with a domestic industry producing buttons, ribbons and lace. Silk was spun in England to produce a coarse thread suitable for the weft of a fabric (known as tram), but not of a quality suitable for the warp (known as organzine). This effectively prevented the development of an English silk weaving industry until the introduction of Italian-derived machinery in the mid-eighteenth century. The first water-powered mill based on Italian machinery was Park Green Mill in Macclesfield, constructed in 1744, and was followed by the Old Mill in Congleton in 1753³⁸⁵. They were two of the earliest mills of this type in England used for the production of organzine. The east Cheshire silk industry was centred on Macclesfield and Congleton³⁸⁶.

Cotton manufacture became established as an alternative to silk during the eighteenth and nineteenth centuries, with its main focus in the area around Bollington, Wilmslow and Disley³⁸⁷. This is evident in the high density of mill sites recorded in the HLC on the edge of the Peak fringe and few textile mills are recorded west of the rivers Wheelock and Dane. The main textile production centres of Congleton, Macclesfield and Bollington, were aided by a strong communications network (Figure 86), also linking the smaller numbers of mills at Wilmslow, Sandbach, Northwich and Warrington. The textile industry severely declined in the project area, and in the region as a whole, in the latter half of the twentieth century. This has led to many mills remaining derelict or being demolished and the land redeveloped for other uses.

Metal Working and Mining

The extraction of copper has been taking place at Alderley Edge, Cheshire, from the Bronze Age and peaked during the mid-eighteenth and mid-nineteenth centuries³⁸⁸. Copper was also extracted from Bickerton Hill near Malpas, Cheshire and a copper foundry was located in Warrington, though it was largely supplied from mines in Wales. Traces of these industries have been recorded by the HLC (Figure 86).

Documentary sources refer to forges producing iron in Macclesfield forest from the late medieval period, and the introduction of the blast furnace in the seventeenth century saw an increase in the production of iron in the project area as a whole. Burdett's map of Cheshire (1777)³⁸⁹ records seven forges, two furnaces and three slitting mills in the pre-1974 county of Cheshire³⁹⁰. A lead works located in Chester was supplied from mines in Flintshire. The works, with its tall tower, survive as a visible landmark. Warrington was a major centre for the bar-iron trade, tool manufacture and wire drawing.

Coal Mining

Within the project area the south-west Lancashire coalfield extends to north of Macclesfield and west of Wilmslow, while the Staffordshire coalfield extends under Congleton Edge. Extraction of coal on the Wirral stretches back over many centuries indicated by the finding of coal at the Romano-British settlement at Irby and documentary references to mining at Neston from 1184³⁹¹. Shallow pits, often referred to as bell pits, were excavated down to the coal seam, where galleries would be extended out as far as ventilation allowed. This method continued into the sixteenth and seventeenth centuries and is often indicated by the earthworks created

³⁸⁵ Calladine & Frickler 1993

³⁸⁶ Calladine & Frickler 1993

³⁸⁷ Calladine & Frickler 1993

³⁸⁸ Ashmore 1982

³⁸⁹ A Survey of the County Palatine of Chester PP Burdett 1777

³⁹⁰ Ashmore 1982

³⁹¹ Cheshire County Historic Environment Record & Merseyside Sites and Monuments Record

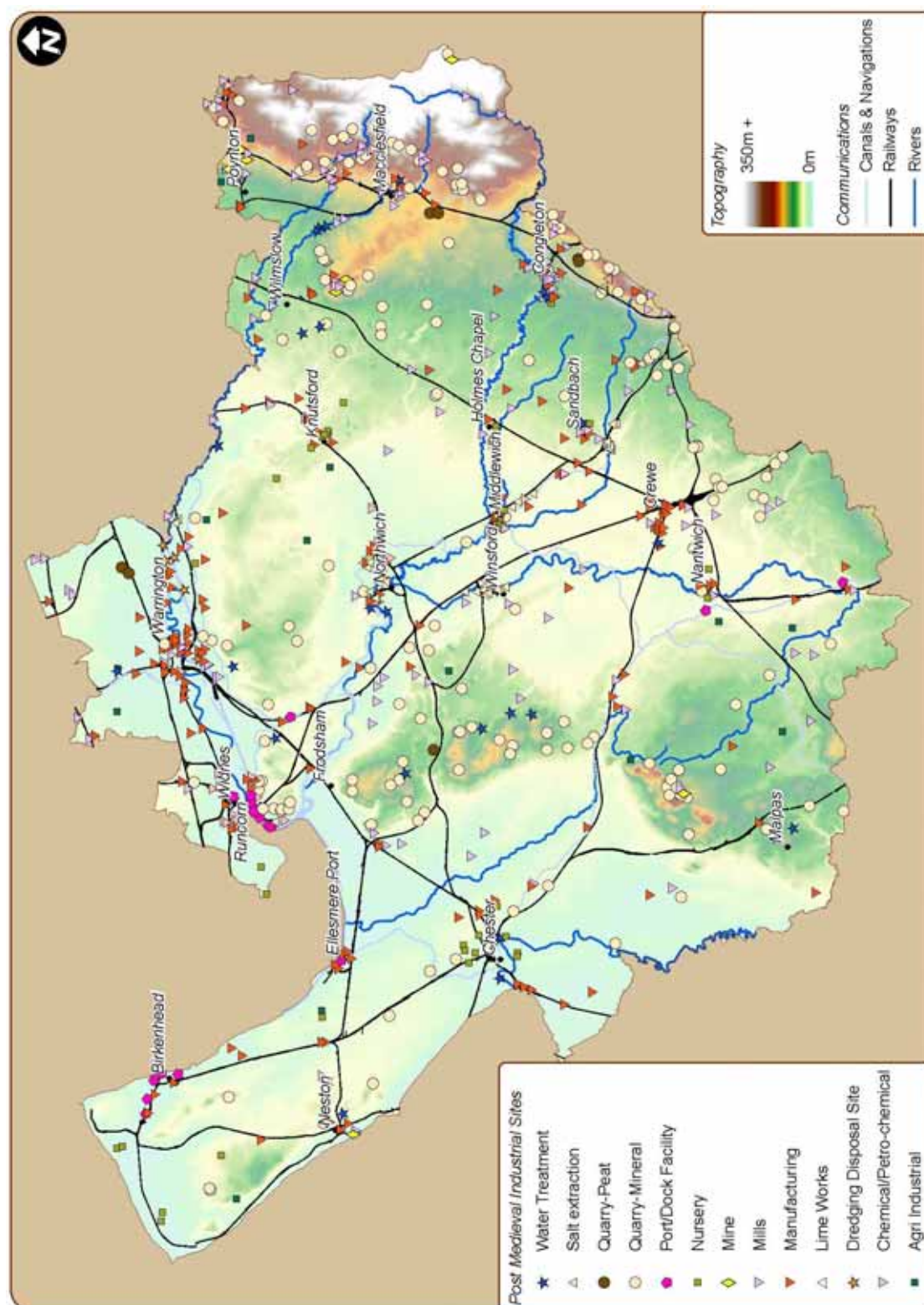


Figure 86: Post Medieval Industrial Sites

by the spoil surrounding the pit entrance. Such remains occur in the Peak fringe. The demand for coal in the eighteenth and nineteenth centuries for domestic, industrial and transport purposes led to a considerable increase in the size of mining operations. From the late-eighteenth century, horse drawn tramways and inclined planes were constructed to facilitate the movement of coal to the canals and later the railways. By the late-nineteenth century many mines were like factory complexes with winding houses, carpenters' shops, blacksmiths and coke ovens, etc³⁹².

At Neston, activity was largely centred on the Denna colliery, where the first commercial deep mining began between 1750 and 1760 using miners from Lancashire and Wales, and ended in the 1920s. Mining took place at the southern end of Congleton Edge at the Hall o' Lee colliery and at Biddulph (Staffordshire) nearby. Initially the coal was transported across Congleton Edge (via tramways, a small tunnel and inclined plane at Mow Cop) for distribution via the Macclesfield canal³⁹³. Mining continued at Biddulph into the 1980s.

The most important collieries of the project area were at Poynton and Norbury. Mining had been taking place here from at least the sixteenth century in shallow pits 12 to 18 metres deep. Deeper mining and an expansion in production took place with the introduction of steam engines to ventilate and drain the mines in the mid-eighteenth century. The development of the mining industry here was also facilitated by the construction of the Macclesfield canal and later the railway. Production peaked in the mid-nineteenth century at a quarter of a million tons per annum³⁹⁴. The collieries began to decline from the late-nineteenth century as the coal became more difficult to extract. The Poynton pits finally closed on 30 August 1935, bringing mining in the project area to a close.

Quarrying

Quarrying has been undertaken in the project area since the prehistoric period. In the eighteenth and nineteenth centuries the demand for stone from the expanding urban centres within and adjacent to the project area led to development of large scale quarries with good communication links. Such quarries were located at Kerridge and Runcorn in Cheshire and at Storeton on the Wirral. The quarrying of the sandstones of the Cheshire Sandstone Ridge and the sand and grit stones of Congleton Edge and the Peak fringe is clearly evident in the HLC data. Quarries along the Cheshire Sandstone Ridge seem to have been relatively small scale when compared to those of the east of the county or at Runcorn. Congleton Edge and The Cloud in the Peak fringe were specifically quarried for mill stones³⁹⁵; part carved stones are still visible in the rock face at Mow Cop on Congleton Edge. The network of north-south communications facilitated the transport of stone to Stockport and Manchester or south to Macclesfield, Congleton and the Potteries. A small number of these quarries are still in use today. Little limestone is located in the area. A limestone quarry and lime kilns were located at Astbury, Cheshire³⁹⁶ in the nineteenth century, and a few kilns utilising limestone imported from Derbyshire or Wales are also known³⁹⁷, but it was never a major industry.

Away from the sandstone and grit outcrops, numerous small, often short lived, sand and gravel pits or brick pits were scattered over the landscape for local extraction of aggregates or clay for bricks. Aggregate extraction has expanded in the project area, focussed on a number of tightly defined areas such as Delamere and Withington,

³⁹² Ashmore 1982

³⁹³ www.mowcop.com

³⁹⁴ Shercliff *et al* 1983

³⁹⁵ Cheshire County Historic Environment Record

³⁹⁶ Cheshire County Historic Environment Record

³⁹⁷ Davies 1960

Cheshire. This distribution is likely to reflect not only the availability of resources but also local and strategic planning policies. Many of the new quarries and some of the former peat quarries have been subsequently re-used for landfill and ultimately reclaimed for agriculture.

Peat (see Non-improved) had probably been extracted from mosses for fuel since prehistory. Complex rights of turbary, developed during the medieval period, regulated its extraction. Peat from the larger mosses started to be extracted in greater and more commercial quantities for agricultural use in the late eighteenth century. This industry has continued to this day at Lindow, Cheshire.

Salt

The area between Northwich and Nantwich in Cheshire has long been one of the main centres for salt production in Britain. Extensive archaeological remains of Romano-British salt production have been excavated at Middlewich and Nantwich, and to a lesser degree Northwich. Brine collected from springs was held in large tanks and then boiled in lead pans, evaporating the water and leaving the salt. Salt making continued in the medieval period, with Nantwich the centre of the trade until the late-seventeenth century³⁹⁸.

The seventeenth century was a period of great technological change in the salt industry, with machinery being installed to raise the brine, coal replacing wood as fuel and iron pans replaced lead ones³⁹⁹. In the late-seventeenth century rock salt was discovered at Marbury, to the north of Northwich. Its exploitation as a raw material increased during the eighteenth century and in turn this attracted new capital to invest in the industry. This, combined with the canalisation of the River Weaver (the Weaver Navigation see Communications) which meant that coal could be imported and salt exported far more cheaply, led to Northwich supplanting Nantwich as the centre of the trade⁴⁰⁰. The total number of rock salt mines in the Northwich area has been estimated as seventy-four, with only a dozen in operation at any one time⁴⁰¹.

From the eighteenth century, salt production started at Winsford after the discovery of a large brine reserve. The salt industry continued to expand rapidly in the nineteenth century, reaching a peak in the 1880s⁴⁰². From the late-nineteenth century salt was increasingly important in the provision of brine for the chemical industry (ibid). By the late-nineteenth century brine was being pumped directly from Northwich to the salt and chemical works on the river Mersey at Runcorn⁴⁰³.

Until the nineteenth century the amount of brine extracted was too little to have a significant effect on the underlying deposits. However, from the early-nineteenth century the large scale nature of exploitation led to subsidence⁴⁰⁴. Massive subsidence occurred to the north of Northwich, with these areas rapidly flooding to form Ashton's and Neumann's flashes (see Non-improved Land). Brine pumping also affected the deposits below Northwich town leading to the collapse and subsidence of buildings. Salt mining and production continues at Northwich, Middlewich and Runcorn and some of the disused rock salt mines have found new uses, such as salt cavity gas storage and as a dry environment for the storage of documents and archives.

The HLC records salt manufacturing sites at Northwich, Middlewich, Winsford and

³⁹⁸ Ashmore 1982

³⁹⁹ Cheshire County Council 2002m

⁴⁰⁰ Cheshire County Council 2002m

⁴⁰¹ Cheshire Libraries and Museums *undated a*

⁴⁰² Cheshire County Council 2002m

⁴⁰³ Cheshire Libraries and Museums *undated b*

⁴⁰⁴ Cheshire County Council 2002m

Wheelock. It is notable that no sites were recorded at Nantwich from the nineteenth century Ordnance Survey mapping.

Soap and Chemicals

The proximity of raw materials, such as coal from the south-west Lancashire coalfield and salt from the Cheshire salt-fields, provided the necessary stimulus for the growth of the chemical industry at Runcorn and Widnes. Other raw materials, including limestone, could be imported via inland waterways from North Wales and via local ports from Ireland and Spain. These routes avoided the monopoly of the St Helens Canal and Railway Company, whose rises in freight charges in the 1840s and 1850s threatened the viability of the St Helens alkali industry⁴⁰⁵. By 1816 two factories producing turpentine and soap had been constructed at Runcorn⁴⁰⁶. The factories proved to be a commercial success and expanded rapidly. At Widnes, chemical works were founded in 1849 and 1859⁴⁰⁷. From the 1850s onwards the Runcorn chemical industry worked closely with that of Widnes, consolidating and expanding production, though by the late-nineteenth century the industry was suffering from competition from other manufacturing areas using the new Brunner-Mond Solvay process⁴⁰⁸. Despite forty-eight chemical manufacturers merging to form the huge United Alkali Company, the local industry still declined. However, the establishment of the new Castner-Keller Alkali Company plant at Weston Point, which used new manufacturing methods, was to reverse the decline in Runcorn⁴⁰⁹. The focus of the chemical industry today is at Runcorn. At Widnes many former chemical plants have been re-developed for new industrial uses.

Merseyside and its surrounding area were well placed for soap manufacturing, with access to local coal and salt (and later synthetic soda), whilst more exotic ingredients, such as coconut oils, could be imported through the local ports⁴¹⁰. Widnes was also a major centre for soap manufacture. The William Gossage and Sons Soap Works opened in 1854 and by the end of the century supplied over 50% of Britain's soap exports⁴¹¹. William Lever started producing soap at Warrington in 1885, later moving to Bromborough Pool on the Wirral (Port Sunlight) in 1888⁴¹².

Petro-chemicals

From 1922, work began on the Stanlow marshes oil refinery, east of Ellesmere Port, for the Shell Oil company. By 1949 the complex had expanded into one of the largest and most comprehensive refineries in the world, covering an area of approximately 2,000 acres⁴¹³.

Docks & Ports

A major Roman port was established in the former tidal pool of the River Dee at the Roodee, Chester⁴¹⁴. The port at Chester functioned throughout the medieval period, but progressive silting of the River Dee and changes in sea level meant that 'satellite' anchorages had to be established along the Dee shore of the Wirral. These included Neston, Shotwick, Parkgate and Caldy⁴¹⁵. The canalisation River Dee (the New Cut) was undertaken between 1734 and 1737 (see Communications). This enabled larger ships to reach Chester and extended its life as a port. However, the port of Chester was facing stiff competition from Liverpool, which by the eighteenth century, had

⁴⁰⁵ Cheshire County Council 2002i

⁴⁰⁶ Cheshire County Council 2002i

⁴⁰⁷ Cheshire County Council 2002i

⁴⁰⁸ Cheshire County Council 2002i

⁴⁰⁹ Starkey 1990

⁴¹⁰ Ashmore 1982

⁴¹¹ Cheshire County Council 2002i

⁴¹² Ashmore 1982

⁴¹³ Cheshire County Council 2002g

⁴¹⁴ Mason 2001

⁴¹⁵ Ashmore 1982

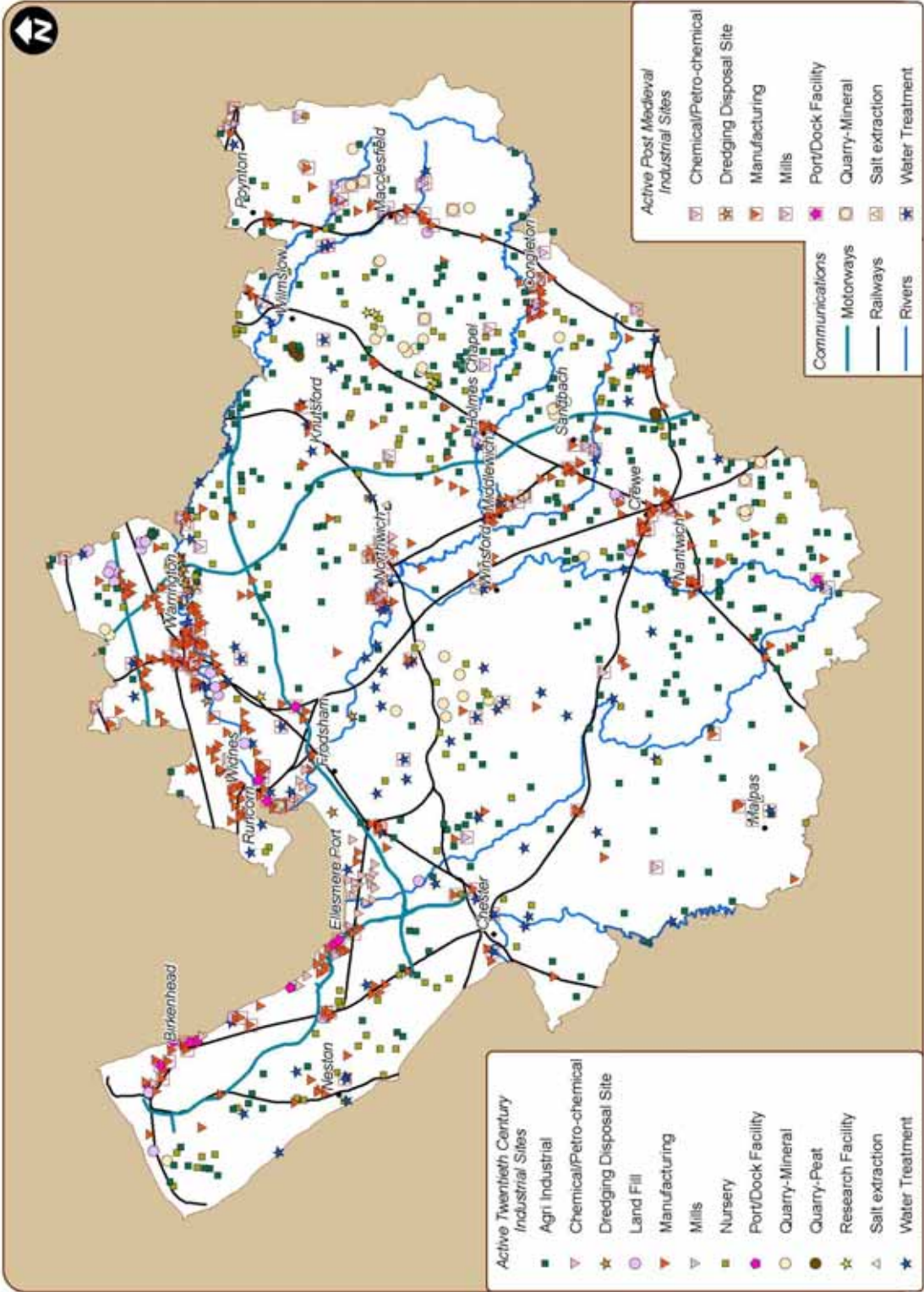


Figure 87: Active Industrial Sites in the Modern Landscape

become the third largest port in Britain. New ports were established in the project area in the nineteenth century. Three ports connected to the canal system were established at Runcorn⁴¹⁶. One was also founded at Widnes connecting with the canal and railway networks. Later, the Manchester Ship Canal allowed large ocean going vessels to reach Runcorn (see Communications). These ports supplied cotton to the textile industry, raw materials to the chemical and soap industries, and exported ceramics from the Staffordshire Potteries. A new port was also constructed at Ellesmere Port, where the Shropshire Union system of canals met the Mersey and traded iron ore and ceramics⁴¹⁷. The largest docks were created at Birkenhead. Although originally planned in the 1820s, they were not constructed until the late 1840s⁴¹⁸.

Runcorn and Birkenhead docks remain in use today. However, they have contracted from their former extent and some basins have been infilled. Birkenhead is still important for trade and ferry crossings to Ireland. Ellesmere Port docks remained in use into the twentieth century, though their use is now largely recreational. New docks and staging facilities have been constructed to the east and west of Ellesmere Port to facilitate the petro-chemical industry.

Other Manufacturing Industries

A significant number of manufacturing sites have been located close to the northern and eastern towns in the project area, especially around Crewe, Warrington, Widnes and Runcorn (Figure 86). Many of the sites at Crewe were associated with the locomotive works⁴¹⁹. A wide variety of industries are represented, these included glass making at Warrington, tanning at Runcorn, the Foden traction engine and steam lorry works at Sandbach and a factory for the construction of artificial limbs at Crewe. Manufacturing sites are recorded along the Wirral, associated with the docks at Birkenhead and Ellesmere Port. However this area is under-represented as only the modern landscape was recorded for the area to be covered by the Merseyside HUC. These industrial areas are all associated with a strong communications network. In the intervening rural areas and away from the communications network manufacturing sites are sparse.

Despite economic change and the decline of heavy industry, manufacturing sites have expanded in the Runcorn, Widnes and Warrington area and are concentrated along the north-east coast of the Wirral and include the Vauxhall car plant at Ellesmere Port. Manufacturing is also still clearly significant in Crewe, Congleton, Middlewich, Winsford and Northwich, though this should not be assumed to be the heavy industries of the past. A network of motorways and large roads has been constructed to serve these industries and the surrounding conurbations.

Nurseries

Nurseries, presumably for market gardening, are a key feature of the project area. Post medieval nurseries are restricted in their distribution. Small numbers are located around towns, such as Northwich and Nantwich, presumably catering for local markets. A cluster of sites are evident around Knutsford, which may be supplying the Manchester and Stockport markets. Similarly, there are some sites on the Wirral that may be supplying Birkenhead. The largest group lies near to Chester, with about ten nurseries recorded in the late post medieval period. This suggests a specialist nursery industry in this area. However, it must be noted that some, or even all, of these sites may have been producing plants for horticulture and agriculture.

⁴¹⁶ Cheshire County Council 2002i

⁴¹⁷ Cheshire County Council 2002g

⁴¹⁸ Ashmore 1982

⁴¹⁹ Cheshire County Council 2002e

The modern HLC data shows a huge increase in sites of this type, although this descriptive type does include garden centres. There are large clusters of nursery sites on the Wirral, north of Chester and in Delamere, while a wide band of nurseries in the east, between the River Weaver and the Peak fringe, may have been located there partly because of their proximity to the motorway network.

Managing the Industrial Heritage

The Industry HLC Group has been divided into two HLC Types:

- Post Medieval Industry
- C20th Industry

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the Industry HLC Group. It is also important to note that a number of species protected by law e.g. great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations which offer statutory protection to the landscape areas or features contained within the Industry HLC Group.

- Scheduled Monuments
- Listed Buildings
- Sites of Special Scientific Interest

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Sites and Monuments Record/Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ❑ Locally listed buildings; these are buildings which do not qualify for statutory listing, but are considered by the Borough Councils to be of local importance.

Post Medieval Industry

This HLC Type comprises industrial facilities constructed prior to the twentieth century (those which are shown on the Ordnance Survey 1st and 3rd edition County Series maps) and covers c.0.6% (c.1,666 hectares) of the project area. This type includes a wide range of structures and industrial facilities, such as mills, mines, quarries, salt works and the larger model farms.

Landscapes of this HLC Type may potentially contain:

Archaeological deposits, historic buildings and structures and historic landscape features relating to the site (e.g. mill ponds, tramways, earthworks).

This HLC Type is further divided into three HLC sub-types:

Post Medieval Industry Active

These are active industrial facilities whose sites have been in use since at least the eighteenth and nineteenth centuries, although the continuity of function cannot be guaranteed. This sub-type covers c.0.4% (c.1,053 hectares) of the project area.

Post Medieval Industry Inactive

These are inactive or derelict industrial facilities, which date from at least the eighteenth and nineteenth centuries. This sub-type covers c.0.2% (c.510 hectares) of the project area.

Post Medieval Agri-Industrial

These are agri-industrial facilities such as nurseries and the larger farm building complexes, which have been in use since at least the eighteenth and nineteenth centuries, although the continuity of function cannot be guaranteed. This sub-type covers less than c.0.1% (c.103 hectares) of the project area.

Recommended historic environment management

in addition to any statutory controls

- ☐ To undertake assessments of industrial sites and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to historic buildings, associated historic features and buried archaeological remains.
- ☐ Surrounding buildings and structures, especially the wider social fabric such as housing, associated with an industrial site should be given due consideration in relation to any development proposals or change in land use which may impinge upon them.
- ☐ To promote the retention and re-use of industrial buildings and associated industrial features, wherever this is practicable, especially those relating to the distinctive industries of the area, such as textile making and salt production.
- ☐ To increase awareness and understanding of the technological developments and social changes relating to these industries.
- ☐ To promote the industrial heritage as a cultural resource, wherever this is practicable, whether as a focus for community-based environmental projects or in the development of visitor attractions.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

Local Authority Sites and Monuments Records/Historic Environment Records

C20th Industrial

This HLC Type comprises industrial facilities constructed in the twentieth century (those which post date the Ordnance Survey 3rd edition County Series maps) and covers c.4.3% (c.11,325 hectares) of the project area. This type includes a wide range structures and facilities from the Stanlow oil refinery and manufacturing sites, to nurseries and larger farm complexes.

Landscapes of this HLC Type may potentially contain:

Archaeological deposits, historic buildings and structures and historic landscape features relating to the site and from the pre-industrial landscape.

This type is subdivided into four HLC sub-types:

C20th Industry Active

These are active industrial facilities which have been constructed in the twentieth and twenty-first centuries. This sub-type covers c.3.3% (c.8,757 hectares) of the project area.

C20th Industry Inactive

These are inactive or derelict industrial facilities which have been constructed in the twentieth and twenty-first centuries. This sub-type covers c.0.2% (c.433 hectares) of the project area.

C20th Agri-Industrial

These are agri-industrial facilities such as nurseries, fisheries and the larger farm complexes dating from the twentieth and twenty-first centuries. However, the latter has a high potential to contain agricultural buildings from earlier periods. This sub-type covers c.0.6% (c.1,670 hectares) of the modern landscape.

C20th Salt Gas Cavity Storage

These are facilities which store natural gas in cavities in the underlying halite (rock salt). In Cheshire these tend to be former mines. However, cavities can be made for the purpose by brine pumping. Although a largely subterranean industry, a complex of small structures and roads are made on the surface, changing the character of the existing landscape. Therefore, sites of this sub-type have the potential to contain relict features or boundaries relating to a wide range of former landscapes. This sub-type covers c.0.2% (464 hectares) of the project area.

Recommended historic environment management

in addition to any statutory controls

- ❑ To undertake assessments of industrial sites and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to historic buildings, associated historic features and buried archaeological remains.
- ❑ Surrounding buildings and structures, especially the wider social fabric such as housing, associated with an industrial site should be given due consideration in relation to any development proposals or change in landuse which may impinge upon them.
- ❑ To promote the retention and re-use of early twentieth century industrial buildings and associated industrial features, wherever this is practicable, especially those relating to the distinctive industries of the area, such as textile making and salt production.

- ❑ To undertake assessments of Salt Gas Cavity Storage sites where developments are proposed, in order to examine any structures or features relating to the pre-industrial landscape.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

Recreation



Figure 88: Golf Courses at West Kirby, Wirral

The Recreation HLC Group covers 2.6% (c.6,943 hectares) of the project area. It covers all forms of recreational landscapes from golf courses, public parks and sports facilities to zoos, racecourses and camp sites.

Post medieval recreational facilities were mainly established close to Chester and other large towns, especially Birkenhead. In addition, a small number of racecourses and polo grounds were located away from these towns. The racecourse at the Roodee in Chester, created in 1540, is particularly notable as it is one the very few early racecourses to have continued in use at its original location⁴²⁰.

During the nineteenth century increasing industrialisation and urbanisation, especially in the north of the project area, meant that many open spaces traditionally used for recreation rapidly disappeared. Public parks were created in response to this situation, some by wealthy philanthropists, others by public subscription following the Recreation Grounds Act of 1859 and other social legislation of the nineteenth century. These parks became symbols of civic pride and an integral part of the new urban landscapes. The project area contains the first publicly funded park in Britain, Birkenhead Park, which ‘...was influential on the design of public parks both nationally and internationally..’⁴²¹ including Central Park in New York. In the railway town of Crewe, the London North West Railway Company celebrated the Royal Silver Jubilee in 1896 by presenting the town with Queens Park, some 40 acres of trees, flower beds and a lake⁴²².

In the nineteenth century golf became a popular sport, but it was in the twentieth century that its popularity increased dramatically, demonstrated by a corresponding rise in the number of golf courses in the project area. Fifty two percent (3,600 hectares) of land in this HLC Group is used for golf, making up c.1.4% of the project area.

The twentieth century, especially since the Second World War, has seen a considerable increase in the development of recreational and leisure facilities across the project area, which are mainly distributed in and around the major settlements. Examples of particular note include Chester Zoo, Runcorn town park and Oulton Park Race Track.

⁴²⁰ Lewis 2005

⁴²¹ English Heritage 2001

⁴²² Cheshire County Council 2002e

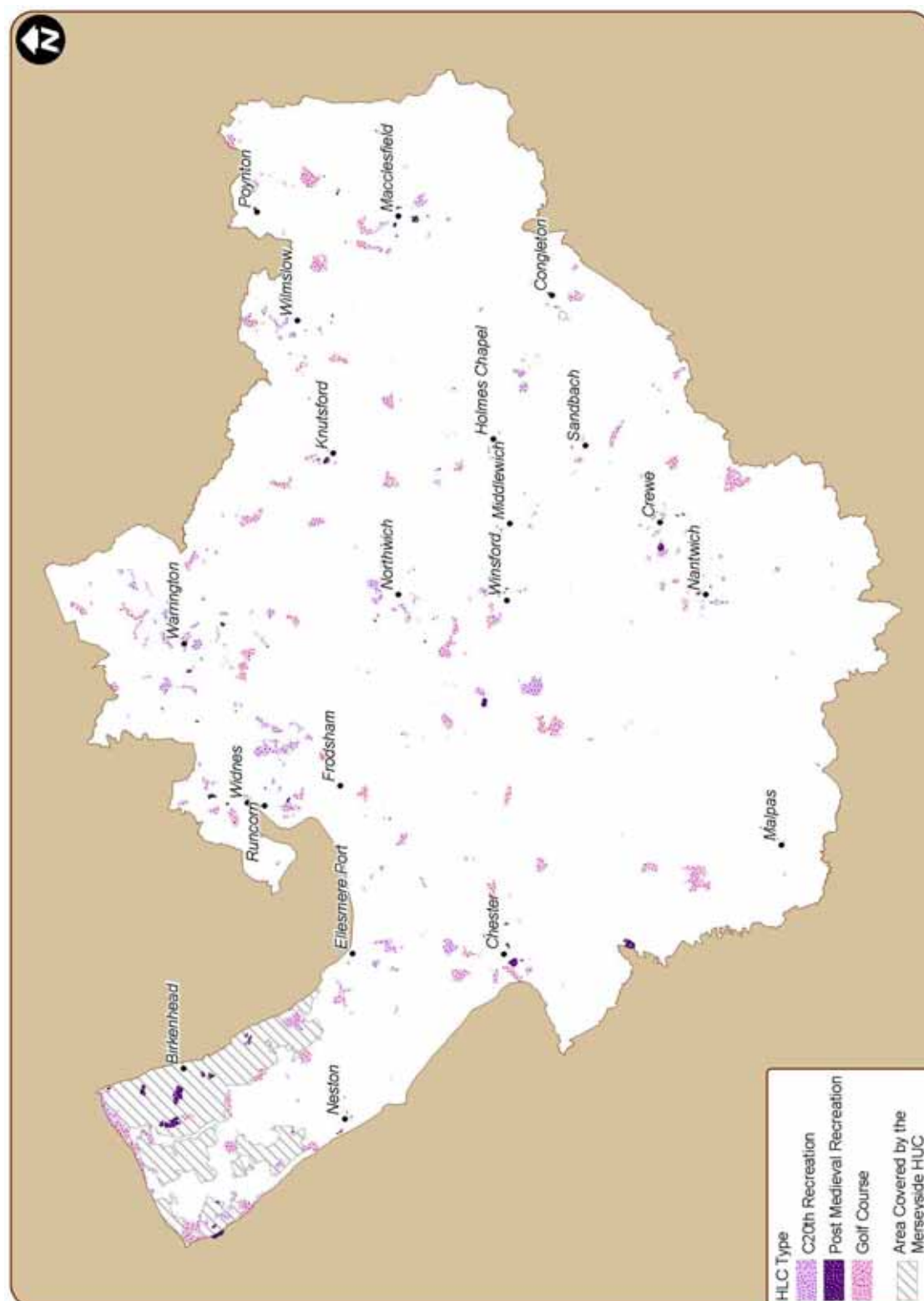


Figure 89: The Modern Extent of the Recreation HLC Group

Managing the Recreational Heritage

This HLC Group is divided into three HLC Types:

- Post Medieval Recreation
- C20th Recreation
- Golf Course

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within the Recreation HLC Group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations which offer statutory protection to the landscape areas or features contained within the Recreation HLC Group.

- Scheduled Monuments
- Listed Buildings
- Conservation Areas
- Sites of Special Scientific Interest (SSSI)
- Hedgerow Regulations
- Tree Preservation Orders

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ❑ Ornamental landscapes considered to be of national importance have been included on the English Heritage Register of Parks and Gardens.
- ❑ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Historic Environment Record.
- ❑ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ❑ Locally listed parklands; these are parks and ornamental landscapes which do not qualify for statutory listing but are considered by the Borough Councils to be of local importance.
- ❑ Locally listed buildings; these are buildings which do not qualify for statutory listing but are considered by the Borough Councils to be of local importance.

Post Medieval Recreation

This HLC Type comprises recreational facilities constructed prior to the twentieth century (those which are shown on the Ordnance Survey 1st and 3rd editions of the County Series maps) and covers less than c.0.2% (c.456 hectares) of the project area. This type includes town parks, such as Birkenhead Park (Birkenhead) and Queens Park (Crewe), racecourses, for example the Roodee (Chester), and many other small recreation sites.

Landscapes of this HLC Type may potentially contain:

Archaeological, historic landscape features and buildings created specifically for these parks, such as follies or lakes, historic ecofacts such as pollards and planting schemes of native and exotic trees. Also features associated with the pre-park landscape, such as relict field boundaries.

Recommended historic environment management

in addition to any statutory controls

- ☐ To undertake any landscaping work, including new planting, in a sensitive manner to enhance existing features.
- ☐ To carry out any building work, including repairs to historic structures, in a manner which will not detract from their existing design.
- ☐ To undertake assessments of post medieval recreational sites and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To promote public enjoyment, appreciation and understanding of historic recreational sites.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

English Heritage 'Register of Parks and Gardens'⁴²³

⁴²³ English Heritage 2001

C20th Recreation

This HLC Type comprises recreational facilities constructed in the twentieth century (those which post date the Ordnance Survey 1st and 3rd edition County Series maps) and covers c.1.1% (c.2,887 hectares) of the project area. This type includes recreation grounds and parks, sports grounds, marinas, camp sites and entertainment complexes.

Landscapes of this HLC Type may potentially contain:

Archaeological, historic landscape features and buildings created specifically for these parks, such as follies or lakes, ecofacts such as planting schemes of native and exotic trees. Also features associated with the pre-park landscape, such as relict field boundaries.

Recommended historic environment management

in addition to any statutory controls

- ☐ To undertake any landscaping work, including new planting, in a sensitive manner to enhance existing features.
- ☐ To carry out any building work, including repairs to historic structures, in a manner which will not detract from their existing design.
- ☐ To undertake assessments of recreational sites and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to archaeological and historic landscape features.
- ☐ To promote public enjoyment, appreciation and understanding of historic recreational sites.

Key Indicative Sources

Ordnance Survey 3rd edition County Series maps (1904-9)

Ordnance Survey 1:10,000 scale maps

Golf Course

This HLC Type includes all golf courses and covers c.1.4% (c.3,600 hectares) of the project area.

Landscapes of this HLC Type may potentially contain:

Archaeological deposits, historic buildings, structures and features relating to the course and the preceding landscape.

This HLC Type is divided into two HLC Sub-types:

Post Medieval Golf Course

This type includes all golf courses constructed prior to the twentieth century (those which are shown on the Ordnance Survey 1st and 3rd edition County Series maps) and covers less than c.0.1% (353 hectares) of the project area.

C20th Golf Course

This type includes all golf courses constructed in the twentieth century (those which post date the Ordnance Survey 3rd edition County Series maps) and covers c.1.3% (3,247 hectares) of the project area.

Recommended historic environment management

in addition to any statutory controls

- ❑ On courses of the Post Medieval Golf Course HLC Sub-type; to undertake any landscaping work, including new planting, in a sensitive manner to enhance existing features.
- ❑ On courses of the Post Medieval Golf Course HLC Sub-type; to carry out any building work, including repairs to historic structures, in a manner which will not detract from their existing design.
- ❑ To undertake assessments of courses of the Post Medieval Golf Course HLC Sub-type and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to wildlife and to historic landscape features.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

Water Bodies



Figure 90: The River Dee near Chester

The Water Bodies HLC Group covers c.0.5% (c.1414 hectares) of the project area⁴²⁴. This group covers a range of natural and anthropogenic features from rivers to reservoirs.

Natural Water Bodies

Natural water bodies are represented by the larger glacial meres, such as Budworth Mere in Vale Royal Borough, and major rivers such as the Dee and the Mersey. Smaller ponds and tributaries are excluded from the characterisation process due to their size. Outside the major river valleys, natural water bodies are concentrated in two main areas, around Delamere, and near Marbury in the south-

western part of Crewe and Nantwich Borough. Natural water bodies which have been incorporated into ornamental parkland, such as Comber Mere, have been characterised as part of the wider park⁴²⁵. The larger areas of open water within the Mersey and Dee estuaries have been excluded. Water bodies formed by subsidence (flashes) are included within this group where they now form part of a larger natural water body⁴²⁶.

Artificial Water Bodies

Artificial water bodies date from the medieval period to modern times. These features include reservoirs, flooded quarries, larger mill ponds and other ponds/reservoirs associated with industry or water supply. Reservoirs are largely restricted to the Peak fringe in the eastern part of Macclesfield District, with other artificial bodies located near to industrial centres. Associated features include bridges, leats and dams. River navigations and canals form part of the Communications HLC Group.

⁴²⁴ Calculated from the administrative area covered by each of the nine borough councils, therefore this includes parts of the Dee and Mersey estuaries.

⁴²⁵ See Ornamental Landscapes

⁴²⁶ See also Flashes in Non-improved Land

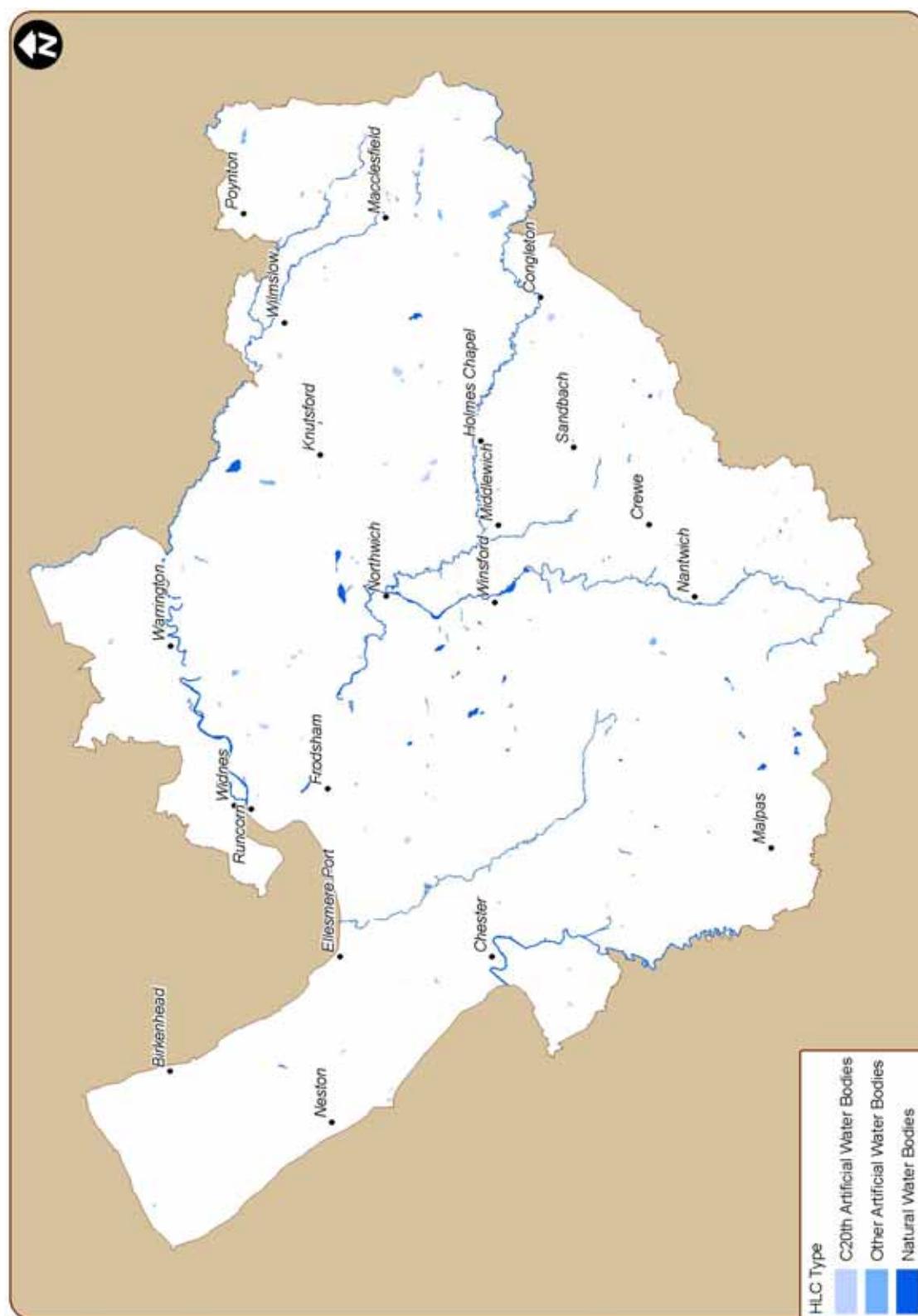


Figure 91: The Modern Extent of the Water Bodies HLC Group

Managing the Historical Aspects of Water Bodies

The Water Bodies HLC Group has been divided into three HLC types:

- Natural Water Bodies
- C20th Artificial Water Bodies
- Other Artificial Water Bodies

The following lists of statutory protections and material considerations are not intended to be exhaustive, but those which most commonly occur within this HLC group. It is also important to note that a number of species protected by law e.g. badgers and great crested newts, may reside within these landscapes. In all matters concerning the management of the natural and historic environment specialist advice should be sought.

Statutory protection

There is a range of designations which offer statutory protection to the landscape areas or features contained within the Water Bodies HLC Group.

- Scheduled Monuments
- Listed Buildings
- Sites of Special Scientific Interest (SSSI)

Material Considerations

There is a range of non-statutory lists and registers which record natural and historic environment features. Although this does not bring additional statutory controls, local authorities are required by central government to consider the importance of such features when determining planning applications, funding allocations and strategies that may affect them.

- ☐ Archaeological sites, finds, historic buildings and historic landscape features recorded on the relevant local authority Historic Environment Record.
- ☐ High quality natural habitats recorded on the relevant local authority Register of Sites of Biological Importance.
- ☐ Natural Habitats included on the Cheshire Habitat Inventories.

Natural Water Bodies

Natural water bodies cover c.0.4% (c.1,005 hectares) of the project area. No sites have been designated for their archaeological or historical value, but a number have been designated for their nature conservation value. This HLC Type includes the larger glacial meres and major rivers of the project area.

Many of the natural water bodies within the county have the potential to preserve chance archaeological finds, sites or landscapes buried by alluvium. Several log boats dating from the early medieval period have been recovered along the Mersey, and a prehistoric example has been found at Baddiley Mere. Many of the meres have extensive deposits which contain palaeo-environmental information on land use and landscapes of up to 12,000 years ago. The potential of these sites can be further demonstrated through the work of the North West Wetlands Survey⁴²⁷ and is illustrated by the extensive waterlogged remains of Roman and medieval date found adjacent to the River Weaver in Nantwich.

Landscapes of this HLC Type may potentially contain:

Archaeological sites and palaeo-environmental remains sensitive to erosion, changes in water levels, water quality and development or changes in land use in adjacent areas.

Recommended historic environment management

in addition to any statutory controls

- ☐ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ☐ To undertake assessments of water bodies and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to wildlife, archaeological and historic landscape features, and palaeo-environmental remains.
- ☐ To increase awareness of the history and archaeological potential of water bodies.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

Ordnance Survey 1:10,000 scale maps

North West Wetlands Survey⁴²⁸

Cheshire County Council Glacial Meres GIS Dataset

⁴²⁷ Leah et al 1997; Cowell & Innes 1994

⁴²⁸ Leah et al 1997; Cowell & Innes 1994

C20th Artificial Water Bodies

C20th Artificial Water Bodies HLC Type cover less than c.0.1% (c.221 hectares) of the project area. It includes features such as reservoirs, flooded quarries and balancing ponds associated with modern development and industry.

Landscapes of this HLC Type may potentially contain:

Archaeological sites and landscape features surviving from earlier landscapes.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To undertake assessments of water bodies and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to wildlife, and to archaeological and historic landscape features.

Key Indicative Sources

Ordnance Survey 1:10,000 scale maps

Other Artificial Water Bodies

This HLC Type covers less than 0.1% (188 hectares) of the project area. It includes features such as reservoirs, flooded quarries and larger mill ponds and other water bodies associated with industry.

Landscapes of this HLC Type may potentially contain:

Archaeological sites and landscape features surviving from earlier landscapes and archaeological remains, historic buildings and structures associated with the management and exploitation of the site.

Recommended historic environment management

in addition to any statutory controls

- ❑ To pursue active management through Natural England's Environmental Stewardship Schemes.
- ❑ To undertake assessments of water bodies and their immediate surroundings where they are threatened by development or changes in land use, in order to mitigate any potential damage to wildlife, and to archaeological and historic landscape features.
- ❑ To increase awareness of the historical and archaeological potential of water bodies. Upstanding archaeological remains (monuments) and other historic structures could be used as a focus for community-based environmental projects.

Key Indicative Sources

Ordnance Survey 1st & 3rd edition County Series maps (1870-5 & 1904-9, respectively)

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