



WARRINGTON: A LANDSCAPE CHARACTER ASSESSMENT



Agathoclis Beckmann
Landscape Architects
Onion Farm
Warburton Lane
Lymm
Cheshire
WA13 9TW

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1.0 INTRODUCTION AND APPLICATION OF THE REPORT

1.1 Context of the Borough

The Borough of Warrington is located in the northwest of England in the county of Cheshire. It has a population of approximately 190,800, with over 160,000 people living in the town centre.

Warrington is located centrally within the Borough and is surrounded by small village settlements and open countryside. The River Mersey runs through the centre of the area from east to west, passing through the town centre and dividing the borough roughly into two equal halves to north and south.

A location and context plan is illustrated on Figure 1 (page 9).

1.2 The Landscape of Warrington Borough

Warrington is seen now as a post-industrial town, with its urban core the legacy of the C19th. This does not do the town justice as it has far more complex origins than the Industrial Revolution. Warrington sits in an agricultural landscape of great variety, a landscape influenced as much by the town and its needs as by nature itself.

To the south of the area, a red sandstone ridge creates a prominent escarpment and ridgeline before gently sloping back to the south into the Cheshire Plain. The River Mersey, with its broad meander loops and tidal sections of mudflats and salt marshes, forms a central, low-lying area, with mainly arable farmland on more gently sloping land to the north.

Flat areas of peat moss intersperse the area, providing both rich areas of farmland and valuable habitats for flora and fauna. The main areas of mossland lie on the north side of the Mersey valley, but have considerably diminished in size over the last two centuries.

The area's industrial heritage and communication routes create further layers of character to the landscape and contribute to the creation of a local distinctiveness in Warrington's landscape. The rural settlements of the area have a long and varied history, which is reflected very much in their architecture.

1.3 Purpose of the Report

When reading this report, it should be borne in mind that landscape is dynamic. It has changed considerably to form the countryside we find familiar today and will inevitably contrive to change in the future. This is brought home by the poet and early environmentalist, John Clare, in the early 1800s when he witnessed the first major English field enclosures from what would, at that time, have been a much more open landscape:

"Inclosure, thou'rt a curse upon the land,

And tasteless was the wretch who thy existence plann'd"

Today we see the hedged field patterns of our landscape as fundamental to the structure of the countryside and almost sacrosanct.

This report is intended to provide an objective view of Warrington Borough's landscape as it stands today, to define its current landscape character and to recognise the pressures of change upon it. The report ultimately considers judgements and recommendations for management, which will assist in shaping Warrington's landscape for the future.

1.4 Planning Context

The Landscape Character Assessment (LCA) will form part of the evidence base for the preparation of Development Plan Documents. The LCA will provide the council and users of the planning system with evidence to inform planning policy, the issue of supplementary planning documents and advice on development proposals. Most importantly it will provide information on the status of the existing landscape, a 'snapshot in time', recording the existing and potential threats to the landscape.

It is important to note that a Landscape Character Assessment does not attach any values to any particular Landscape Type or Landscape Area. It is simply an objective assessment of the current (at time of writing) landscapes within the Borough of Warrington. Other attributes within these Landscape Types and Landscape Areas may indicate the need to preserve some features or elements of the landscape or even to remove them, but these attributes are not given any status within the Assessment.

Ideally, the LCA should be updated on a regular basis, but this is up to the Planning Authority and will depend upon significant changes in circumstances and the availability of resources.

The LCA will also provide base information on the visual status of the landscapes around Warrington, from which Visual Impact Assessments can be judged. These are increasingly important assessments and are required when visually dominant developments are proposed, such as landfill sites, new roads or large developments at the edge of villages or the town of Warrington itself.

The current policy framework is provided by the Adopted Unitary Development Plan (UDP) and associated Supplementary Planning Guidance (SPG) or Supplementary Planning Documents (SPD). The UDP includes several policies relevant to Landscape Character, including GRN3 (Development Proposals in the Countryside) and GRN22 (Protection & Enhancement of Landscape Features).

Supplementary Planning Documents include Design and Construction, which has a Landscape Design Guidance Section which looks at Landscape in New Development and Protection of Trees on Development Sites. Supplementary Planning Guidance includes Village Design Statements for Burtonwood & Collins Green, Grappenhall & Thelwall, and Lymm

A plan illustrating Parish boundaries is provided in Figure 2 (page 10).

1.5 Major issues affecting the landscape of Warrington.

Macro-scale issues:

- **Farming**

Farming has radically changed the character of Warrington's landscape over time. The first most notable changes occurred with the introduction of the Corn Laws, when farmers were able to plough large acreages for grain production. This necessitated the change to much larger field sizes. At the repeal of the Corn Laws, grain production began to decline, only for the two World Wars to increase the demand again. World grain demand is again rising. Increasing mechanisation of farming has resulted in pressure being exerted on trees and hedges, many having been totally removed.

- **Hedges and hedgerow trees**

Hedges and hedgerow trees in the landscape have been under pressure from farming for many years. The greatest period of losses of hedges and hedgerow trees appears to be in the 1950s and 1960s. It is very clear from the survey undertaken to prepare this report that few, if any, hedges in the area are being planted or even gapped up. It is also clear that traditional hedgerow management is in sharp decline with little or no hedge laying being undertaken. Most of the Borough's hedgerow trees are either mature or over mature and dying and, most importantly, there is no evidence of trees being replaced. Mechanical hedge cutting does not assist in the retention of saplings and the farmer appears to have little interest in taking extra time to cut around individual trees. Urgent action is necessary to encourage farmers to plant new trees in their hedges and to maintain the trees they already have.

- **Agencies for change**

1. Warrington Borough Council continues to be a major agent for change in the area. The Borough became a Unitary Authority on 1st April 1998. The major instrument for policy is the Warrington Unitary Development Plan (UDP) of 23rd January 2006, which replaces a number of part-area Local Plans approved in the 1980s. The UDP comprises of two parts, Part 1 being a written statement of general policies and proposals of strategic importance for the use and development of land. Part 2 is a written statement of policies and proposals and a Proposals Map showing site-specific proposals and area-based policies on an Ordnance Survey map base.
2. Warrington and Runcorn New Town / English Partnerships / Homes and Communities Agencies (HCA). Warrington and Runcorn New Town was designated in 1968 and finally wound up in 1988 when it handed on its completed works to Warrington Borough Council and future development work to English Partnerships (part of HCA since 2008). The New Town planned and built large areas of housing, shops and industrial premises, together with supporting infrastructures to the east, south and west of Warrington. To the east, the Birchwood area was created from the site of the former Royal Ordnance Factory; to the west, Westbrook and Gemini were formed from existing farmland and part of the site of Burtonwood airfield. To the south, Grappenhall Heys and Pewterspear were constructed on Green Belt land. In the latter case, the New Town adopted the unfortunate policy of aiming to

reach the skyline of the red sandstone ridge with development, which was achieved under English Partnerships. The New Town was unique in that it had a large landscape department at an early stage and produced policies favouring the use of native trees and shrubs. Many millions of trees were planted within the New Town designated area with profound effect.

3. The Mersey Forest Partnership is a more recently formed organisation which has actively promoted afforestation in the Mersey area. Much reclamation work to landfill sites and spoil heaps has been carried out with the aid of the Mersey Forest, who have actively contributed to various initiatives such as Biofuels and the Mossland Project.

- **Waste disposal and landfill sites.**

There are a number of such sites in Warrington, including Rixton Tip for industrial waste and Arpley Tip and Silver Lane for non-hazardous wastes. All of these sites are active and the owners of Rixton and Silver Lane are either considering submitting Planning Applications to extend the facility or are actively doing so. There are many planning issues concerned with these sites, not least of which is the adverse impact on the local landscapes.

- **Mineral Extraction**

There are limited areas within the Warrington area where mineral extraction could be viable. Extraction operations will require Planning Permission, which will in turn require studies into visual impacts, archaeological and ecological impacts etc. Restoration of mineral workings provides a great opportunity to create biodiversity and create amenity value. Colliery spoil is now a declining problem, but there are still a number of spoil heaps in the north west of Warrington which have not been addressed for reclamation.

- **Communications**

1. Roads

The major changes in the landscape involving roads in recent times relate to the construction of the motorways to the north, south and east of Warrington, together with their associated junctions. More recent works relate to the construction of a link road to the A49 at Winwick from the M6 and the construction of a new junction at Burtonwood on the M62. No further motorway works are currently planned. Other road development work relates to the areas developed by Warrington and Runcorn New Town, but these are almost entirely within the new urban area.

2. Railways

Many rural railway lines have been closed in the area; these generally related to collieries to the north of the Borough and to the former Royal Ordnance Factory at Risley. Most of these lines closed after WW2 and with the Beeching closures of the 1960s. The main west coast line, running through Warrington, has recently been upgraded to allow higher speed trains to run through the area.

3. Canals

The Manchester Ship Canal has not been used for commercial freight of consequence for a considerable number of years. Various organisations have promised to use the Ship Canal, but the total volume of traffic is very small.

The Bridgewater Canal has had a continuous increase in leisure craft traffic particularly over recent years. Other canals in the area are in need of restoration, notably the Sankey navigation, which could be re-linked to St Helens if landfill material was removed and new lock gates installed.

4. Bridleways

There is a considerable problem of interconnecting bridleways in Warrington generally. These are particularly absent in the north of the Borough and in the mossland areas.

5. Footpaths

As with bridleways there is a lack of interconnecting footpaths in Warrington generally. The mossland areas have historically had few paths through them.

- **Overhead cables and Pylons**

Many cable routes and pylons radiate out from Fiddlers Ferry Power Station. Others cross areas of landscape sensitivity, such as Risley Moss. North of Winwick and in the adjacent Sankey Valley are a number of overhead power lines that have an adverse visual impact on the landscape.

- **Wind Turbines**

Although Warrington's landscapes are generally low-lying, there are a number of locations which could be considered for the siting of wind turbines. Generally these are highly visible to a large portion of the population of Warrington, so there could be some substantial visual impacts.

- **Industry and Commerce**

Industrial and warehousing premises have been constructed in a number of areas either within, or visible from, the Green Belt. Many of these are reconstructions on the site of earlier buildings. Critical to the surrounding landscape is the form and mass of such buildings, especially where sited on important vantage points. New development at Daresbury in Halton Borough has been unfortunately located on the crest of the red sandstone escarpment and can be seen from over twenty miles away to the north.

- **Housing**

New housing within the village areas is a major issue with local residents. Village expansion often creates a threat to local identity and inadequate local facilities, particularly roads and parking availability, are seldom able to cope with the associated increase in population. Progressive sprawl into the open countryside which surrounds the villages has now been halted by the establishment of the Green Belt by the UDP.

- **Flooding**

Flood risks and flood prevention measures are increasingly significant as flood risks are increasing annually and will require a range of flood prevention measures.

- **Historic village centres and Conservation Areas**

Of the villages within the LCA, those of Lymm, Grappenhall and of Higher Walton are protected by Conservation Area status. Other villages with historic interest include Winwick and Croft. Development within the historic villages is often contentious as residents are keen to preserve the identity of these areas.

- **Community**

Community involvement in the landscape of villages has increased over recent years. Warrington Borough Council assisted many villages in drawing up Village Design Statements which ultimately gained SPG status.

1.6 Structure of the Report

The report is structured as follows:

Chapter 1 - Introduction and Application of the Report

Provides the area context and outlines the landscape of Warrington Borough. Also sets out the purpose and structure of the report and its planning context.

Chapter 2 - Methodology

Outlines the methods used to undertake the study.

Chapter 3 - Landscape Context

Explains the context of the national surrounding landscape character studies.

Chapter 4 - Physical Influences on the Landscape

Provides information on topography, geology, hydrology and pedology, exploring how these factors have affected the area's landscape.

Chapter 5 - Ecological Context

Provides an overview of the area's ecology and inter-dependence with the landscape.

Chapter 6 - Human Influences and Cultural History

Sets out the impact of human influences and historic events on the landscape.

Chapter 7 - Landscape Character Types and Areas

Sets out and describes, on an area by area basis, the Borough's distinctive landscape, its cultural history, landscape sensitivity and landscape change, together with recommended management and landscape objectives. The chapter also considers the area's settlement.

Chapter 8 - Management of the Built Environment

Provides an overview of the effects of the built environment on the landscape and planning, design and management issues discussed.

Chapter 9 - Landscape Overview and Issues Affecting the Future Landscape of Warrington

Provides a concluding overview of the study.

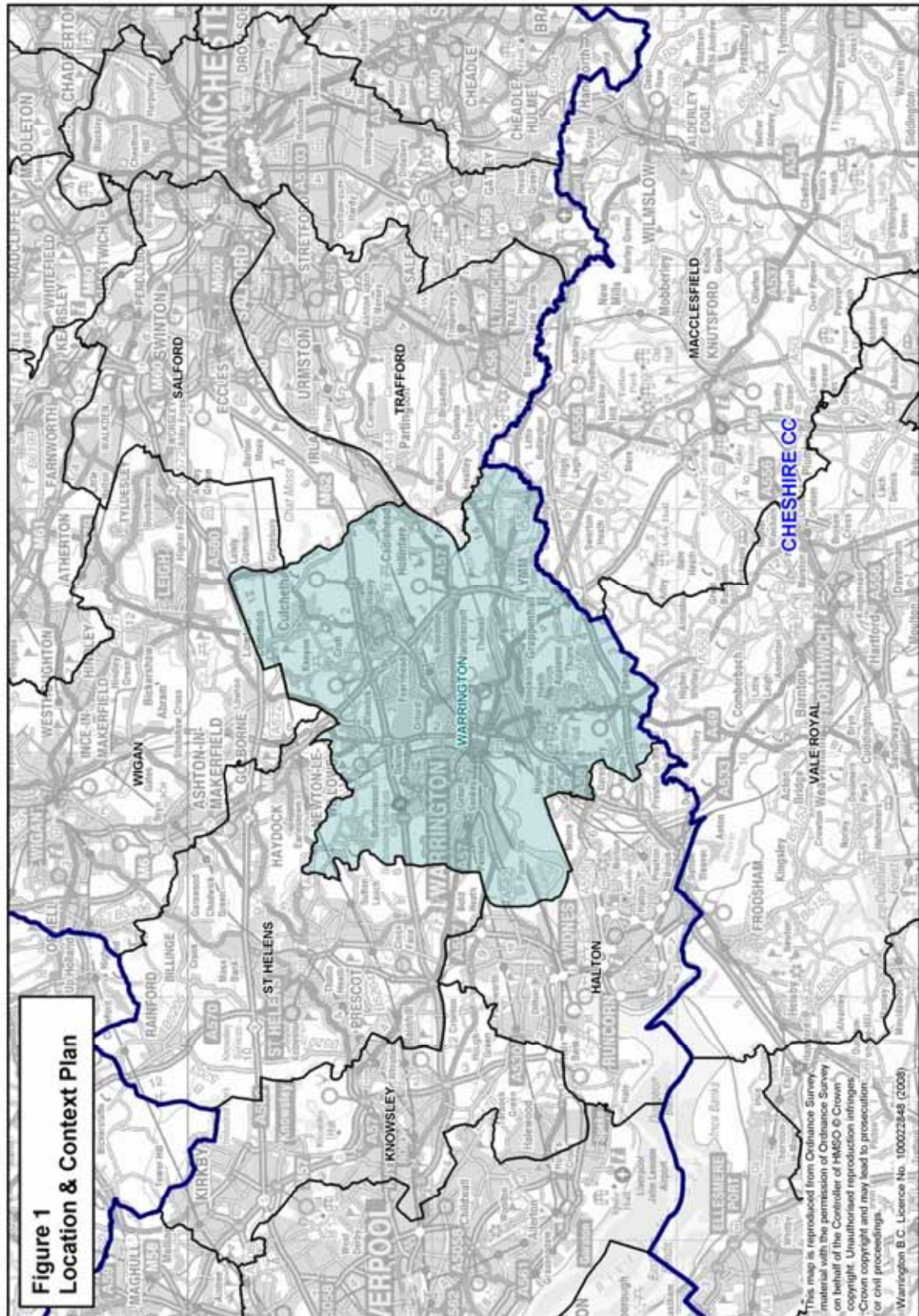
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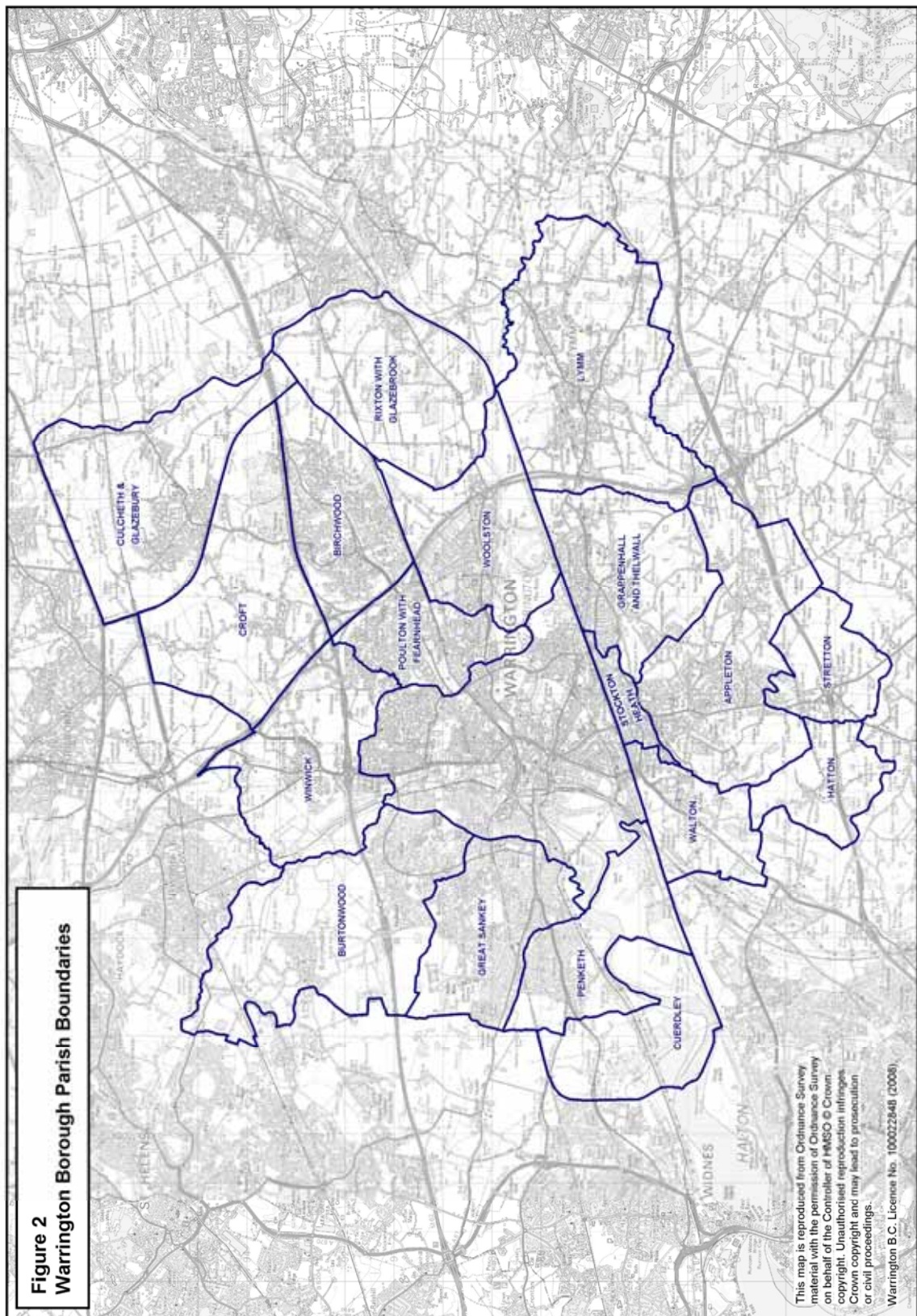
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Type 1	Undulating Enclosed Farmland	
1A	Stretton & Hatton	54
1B	Appleton Thorn	63
1C	Winwick, Culcheth, Glazebrook & Rixton	71
1D	Croft	90
1E	Burtonwood	96
1F	Penketh & Cuerdley	105
Type 2	Mossland	
2A	Rixton, Woolston & Risley Moss	120
2B	Holcroft & Glazebrook Moss	129
2C	Stretton & Appleton Moss	137
2D	Pillmoss	144
Type 3	Red Sandstone Escarpment	
3A	Appleton Park & Grappenhall	153
3B	Massey Brook	165
3C	Lymm	170
Type 4	Level Areas of Farmland & Former Airfields	
4A	Limekilns	181
4B	Former Burtonwood Airfield	186
4C	Former Stretton Airfield	192
Type 5	Flood Plain	
5A	River Mersey/Bollin (East)	201
5A	River Mersey/Bollin (West)	202
5B	River Glaze	215
5C	Sankey Brook	221
Type 6	Inter-Tidal Areas and Mudflats	
6A	Victoria Park to Fiddlers Ferry	230





2.0 METHODOLOGY

2.1 BACKGROUND

The methodology for carrying out the landscape character assessment follows the guidelines provided by the Countryside Agency and Scottish National Heritage as set out in their document '*Landscape Character Assessment Guidance for England and Scotland*' published in 2002.

2.2 THE PROCESS ENTAILED

- Scoping
- Desk top study
- Field survey
- Landscape classification and description
- Consultation
- Analysis, judgements and recommendations

2.3 BASE PLAN

Information was provided by Warrington Borough Council, together with Geographic Information System (GIS) and printing services.

2.4 SCOPING

A scoping exercise was initially carried out to ascertain the level of detail required and the aims and uses of the study, together with an outline of the form of report required. This was carried out in liaison and agreement with Warrington Borough Council Officers.

The study specifically excluded the main urban core and suburban areas associated with Warrington.

2.5 DESK TOP STUDY

Data and plans were collected from a variety of sources for several months prior to commencing field survey work. The major sources included:

- Landscape Character Assessment reports for surrounding Boroughs
- Warrington Unitary Development Plan
- A Nature Conservation Strategy for Warrington
- Agricultural Land Classification
- National Countryside Character
- Cheshire County Council Landscape Character Assessment
- A Landscape Strategy for Lancashire
- Solid and drift geology
- Ordnance Survey Plan 1:25,000

- The Cheshire Historic Landscape Characterisation
- Biodiversity Action Plan for Warrington

2.6 FIELD SURVEY

Field survey work was undertaken over a 6 month period between April and September 2007. This enabled an assessment of the landscape at different times of the year, providing a more balanced assessment of the landscape character. All parts of the Borough were either assessed or viewed from a series of field station points and a comprehensive number of photographs were taken, both across the Borough generally and specifically at the field station point. Locations of those photographs selected for use in this report, can be found in Appendix 3.

2.7 FIELD STUDY SHEETS

These were produced at every field station point, setting out and assessing the following:

- Topography
- Hydrology
- Communications
- Land Cover
- Trees & Woodland
- Buildings
- Boundaries
- Perception
- Local Materials
- Architectural Style
- Condition
- Key Characteristics

Copies of these can be found in the Appendix 1.

2.8 CLASSIFICATION AND DESCRIPTION

Desk top studies and field study work were combined to confirm various areas of differing landscape character, setting out the different landscape character types. Further site surveys confirmed the more detailed boundary line between each area within the character type. This information was plotted onto 1:25000 O.S. base plan which was considered appropriate for the level of study.

Although villages have been included within the landscape character type boundaries, no specific urban or suburban character assessment has been carried out.

2.9 AREA DELINEATION

It must be stressed that in most locations the Landscape Character Type does not form a neat junction line between one 'type' and another. The junction often forms a zone of transition which, in some instances, may be of considerable width.

The boundary lines illustrated on the Landscape Character Types and Areas Plan (Figure 15 on page 49) should therefore be viewed as approximate, although a careful judgement has been made of the boundary line on site in each case.

2.10 CONSULTATION

Consultation, mainly in the form of meetings, has continued throughout the study between February and December 2007. In addition, regular progress meetings have taken place with Warrington Borough Council Officers to ensure that the report fulfils the Council requirements.

The following individuals and organisations have been consulted:

- The Mersey Forest - Clare Olver, Project Development Officer
- Cheshire Landscape Trust - John Gittins, Director
- Cheshire County Council –
David Blackburn, Landscape Design Project Leader
Rob Edwards, Historic Environment Records Officer
- Warrington Borough Council -
Roger Haigh, Landscape Architect
David Ringwood, Minerals and Waste Planning Officer
Helen Lacey, Wildlife Conservation Officer
John Thorpe, Footpaths Officer

The aim of the consultation work was to provide input to the following stage of Analysis and Judgements.

2.11 ANALYSIS AND JUDGEMENTS

Following the description of specific landscape types and areas, it was possible to evaluate key points and negative elements and traits in the landscape. These were highlighted under the following headings:

- Landscape Sensitivity
- Landscape Change

Together they formed the basis for a series of Management and Landscape Objectives for each area, specifically tailored to either improve existing positive landscape character or mitigate against current adverse trends in management or development.

A similar analysis was made of the settlement areas, together with suggested guidelines for future development.

2.12 EVALUATION

The purpose of the evaluation work was to aid in strategic landscape planning and management and to assist in providing a more informed approach in responding to development proposals, both in the landscape and the villages.

3.0 LANDSCAPE CONTEXT

3.1 What is a Landscape Character Assessment?

This is described by the Countryside Agency as “a tool for identifying the features that give a locality its ‘sense of place’ and pin-pointing what makes it different from its neighbouring areas”.

Landscape character assessment provides a framework for describing an area in a systematic way. It lets different interest groups make better judgements by knowing what is present and what is distinctive so that any change can respect local character or add to it, or even change it if that is what is required.

3.2 Why does Warrington Borough’s Landscape Matter?

Warrington’s landscape has taken many thousands of years to evolve and develop into the form we see today. It is now perceived both as a setting for the built areas and as ‘given space’ in its own right. It provides an historic link to our past and affects people’s lives today – bringing a sense of identity, well-being, enjoyment and inspiration.

Farming is fundamental to the landscape and is still Britain’s largest industry. It has shaped most of the present landscape, which continues to evolve. As farming techniques become ever more efficient and mechanised, there is often a corresponding impact on the landscape.

Another feature of Warrington’s landscape is the exploitation of minerals, stone, sand and salt, as well as the deposition of waste materials, leaving scars which, in many cases, will have a permanent effect on the landscape.

The landscape is also vital for a healthy environment and for providing habitat for a diverse range of flora and fauna. In an economic sense the landscape also provides a vehicle for leisure and tourism.

It is therefore vital to understand the character of Warrington’s landscape and to manage and mitigate future changes in a positive way.

3.3 The Warrington Landscape Character Assessment in a Regional and National Context

Natural England have produced a Joint Character Areas (JCA) plan for England; identifying areas of similar landscape on a regional scale. The Warrington Borough areas fall within Area 60: Mersey Valley and Area 61: Shropshire, Cheshire and Staffordshire Plain. These areas provide a character assessment appropriate to a national scale

3.4 Cheshire County Council

Prior to local government reorganisation Cheshire County Council produced a “countywide” landscape character assessment. The document was completed in November 2008 and adopted by the County Council in February 2009. The document is now available on the Cheshire East website.

3.5 Landscape Character Assessments For Surrounding Areas

A number of boroughs surrounding Warrington have already produced landscape character assessments. Whilst these have been carefully considered, particularly where their character areas adjoin the Warrington Borough boundary, they have not affected the findings and conclusions of this study. It should be noted, however, that in most situations the descriptions and definitions of landscape character run in a reasonably seamless fashion across the Borough boundary.

Differences of approach and conclusions however have been highlighted to landscape areas adjoining the St Helens Borough.

The following completed or nearly completed landscape character assessments border the Borough of Warrington:

- Trafford Metropolitan Borough ‘Landscape Strategy’ (includes a Landscape Character Assessment) September 2004
- St Helens Borough Council ‘Landscape Character Assessment’ undertaken by Land Use Consultants. January 2006
- Vale Royal. ‘Landscape Character Assessment’ Undertaken by Land Use Consultants. May 2006
- Salford City Council ‘Landscape Character Assessment’ (Consultation Draft) September 2007

Landscape character assessments have not been prepared by the following authorities bordering the Borough of Warrington:-

- Wigan MBC (to the north of Warrington BC)
- Halton Borough (to the south-west)

3.6 Mersey Forest Landscape Assessment

The Mersey Forest Landscape Assessment was undertaken by The Mersey Forest Team together with Land Use Consultants and produced in 1992. It was an initiative of the Countryside Commission and the Forestry Commission with the support of Cheshire County Council, Ellesmere Port and Neston Borough Council, Halton Borough Council, Knowsley Metropolitan Borough Council, Liverpool City Council, St Helens Metropolitan Borough Council, Sefton Metropolitan Borough Council, Vale Royal Borough Council and Warrington Borough Council.

It was based on the 'Warwickshire Landscapes Project Approach' and contains three levels of assessment:

- Regional Areas
- Landscape Type
- Landscape Units

The Mersey Forest Landscape Assessment correlates with the Warrington LCA as follows:-

- Burtonwood MV4 = Burtonwood *Undulating Enclosed Farmland 1.E*
- Culcheth MV5 = Winwick, Culcheth, Glazebrook and Rixton *Undulating Enclosed Farmland 1.C*
- Glazebrook MV6 = Holcroft and Glazebrook Moss *Mossland Landscape 2.B*
- Warrington MV8 = Warrington Urban Area, including Lymm and Appleton.
- Moore MV16 includes River Mersey and River Bollin Flood Plain *River Flood Plain 5.A*
- Hatton CH2 includes Hatton *Undulating Enclosed Farmland 1.A* and the western part of Appleton Park and Grappenhall *Red Sandstone Escarpment 3.A*
- Bradley CH3 (grouped with CH2 above) includes the eastern half of Appleton Park and Grappenhall *Red Sandstone Escarpment 3.A*, Massey Brook *Red Sandstone Escarpment 3.B*, Lymm, *Red Sandstone Escarpment 3.C* and Stretton and Appleton *Undulating Enclosed Farmland 1.B*

It is noted that there are some differences between the Landscape Units identified by the Mersey Forest Landscape Assessment and those identified in the Warrington Landscape Character Assessment. These differences reflect the relative scale of the two assessments, one regionally based and the other locally based.

4.0 PHYSICAL INFLUENCES ON THE LANDSCAPE

4.1 Geology

The basic form of Warrington's landscape is fundamentally influenced by its geological glacial and fluvial history.

- Solid Geology

This is mainly represented by Triassic red sandstones with older Carboniferous coal measures heavily faulted upwards through the Triassic layers to the north of Burtonwood and Winwick. Evidence of small coal mining tips can still be found to the north of Burtonwood.

The Lower Keuper Sandstones form the red sandstone escarpment to the south of the River Mersey and were laid down in desert conditions 250-300 million years ago. They form a distinctive chain of hills south through Cheshire, including the cliff faces at Frodsham and Helsby, and a continuous ridge through to Peckforton and Whitchurch. The outcrop provided good building stone and was heavily quarried, particularly in the Hillcliff and Appleton areas.

The escarpment was formed by earth movements creating an uplift with a combination of tilting and faulting, raising the ridge above the surrounding lower lying areas to the north and south.

The high red sandstone escarpment escaped the later inter-glacial periods of clay, sand and gravel deposition which covered over all the remaining solid geology within the area. Inter-glacial features such as melt wash channels are, however, present and evidenced in the red sandstone escarpment. Regionally Important Geological Sites (RIGs) are present at Lymm Dam, the Dingle and Stockton Heath Rifle Range Quarry.

Areas of solid geology are illustrated on Figure 3 (page 21).

- Drift Geology

Drift material mainly deposited during the Quaternary Ice Age. The main deposition was glacial boulder clay, from which most of the Borough's top soil has derived. Within the clay deposits were left lenses of gravel and sand, together with outwash deposits and meltwater channels. Sand and gravel extraction has taken place locally wherever these materials were exposed and mining was undertaken on a large scale where appreciable deposits were found. An example of this is the deep pit, now water filled, at Middleton Hall adjacent to the M6.

As the ice melted and withdrew, numerous clay-lined depressions and basins were left in the landscape which quickly filled with water, bog vegetation and, in particular, sphagnum mosses. Over time this material built up to the peat mosses we see today at Rixton, Holcroft, Woolston, Glazebrook and Risley Moss. Much smaller examples are found south of the red sandstone escarpment at Stretton and Pillmoss.

Glacial meltwaters were also responsible for the deposition of large quantities of silt, particularly to the Mersey Valley and its estuary. In addition the erosive power of the River Mersey's tributary streams at the time was much greater than today and is particularly evidenced by the deep cleft valleys found in the red sandstone escarpment, e.g. Lymm Dam and the Dingle. These are now minor streams, incapable of major erosion of the valleys they now occupy.

The distribution of the various elements of drift geology are illustrated on Figure 4 (page 22)

4.2 Hydrology

All areas within the Borough lie within the catchment area of the River Mersey, which runs through the centre of the Borough area from east to west. In Warrington the river has reached its lower course and displays all the mature river features, such as broad meander loops, low gradients, braiding and potential flood risk. The river has been heavily controlled throughout the area with high levee banks, course straightening and upstream from Butchers Field has been combined into the Manchester Ship Canal.

The River Mersey forms a major element of Warrington's landscape, second only to the red sandstone escarpment to the south. In terms of view points and development however, it has been largely ignored as a visual asset with most roads, footpaths and buildings turning their backs to the river.

Tributary streams to the south of the Mersey tend to be relatively short, flowing quickly in steep sided valleys off the red sandstone escarpment in the northerly direction. These outfall into the Manchester Ship Canal before they reach the River Mersey. Tributary streams from the north follow a slightly more meandering route but with a strong tendency in a southerly direction. They tend to be streams or rivers of more substance and include the River Glaze, Sankey Brook and Penketh Brook. Interesting landscape features such as small river cliffs and terraces can be found along their routes.

The Manchester Ship Canal is arguably as dominant a feature in the landscape as the River Mersey. This is closely associated with the route of the river and functions as a major element in the area's river system drainage.

N.B. Ponds and water bodies have been assessed under the Ecology section.

The hydrology of the Borough is illustrated in Figure 6 (page 24).

4.3 Pedology

The area's agricultural land classifications are shown on Figure 7 (page 25)

The Borough contains three main soil types supporting a variety of agricultural uses. To the south, over the red sandstone escarpment soils, are generally well-drained sandy loams associated generally with pastoral land uses. The peat mosses of the area have, through artificial drainage, produced a very high quality and fertile agricultural soil suitable for arable, root crop and market garden uses.

The remaining areas, generally to the north of the River Mersey, have been heavily influenced by glacial till deposition and have resulted in predominantly clay loam, often requiring field drainage to improve permeability. These areas are mainly used for cereal crop production.

Alluvial silty soils are also present on a smaller scale associated with the River Mersey (east of the M6), Sankey Brook, River Glaze and River Massey. These often remain as pasture in close association with the water course.

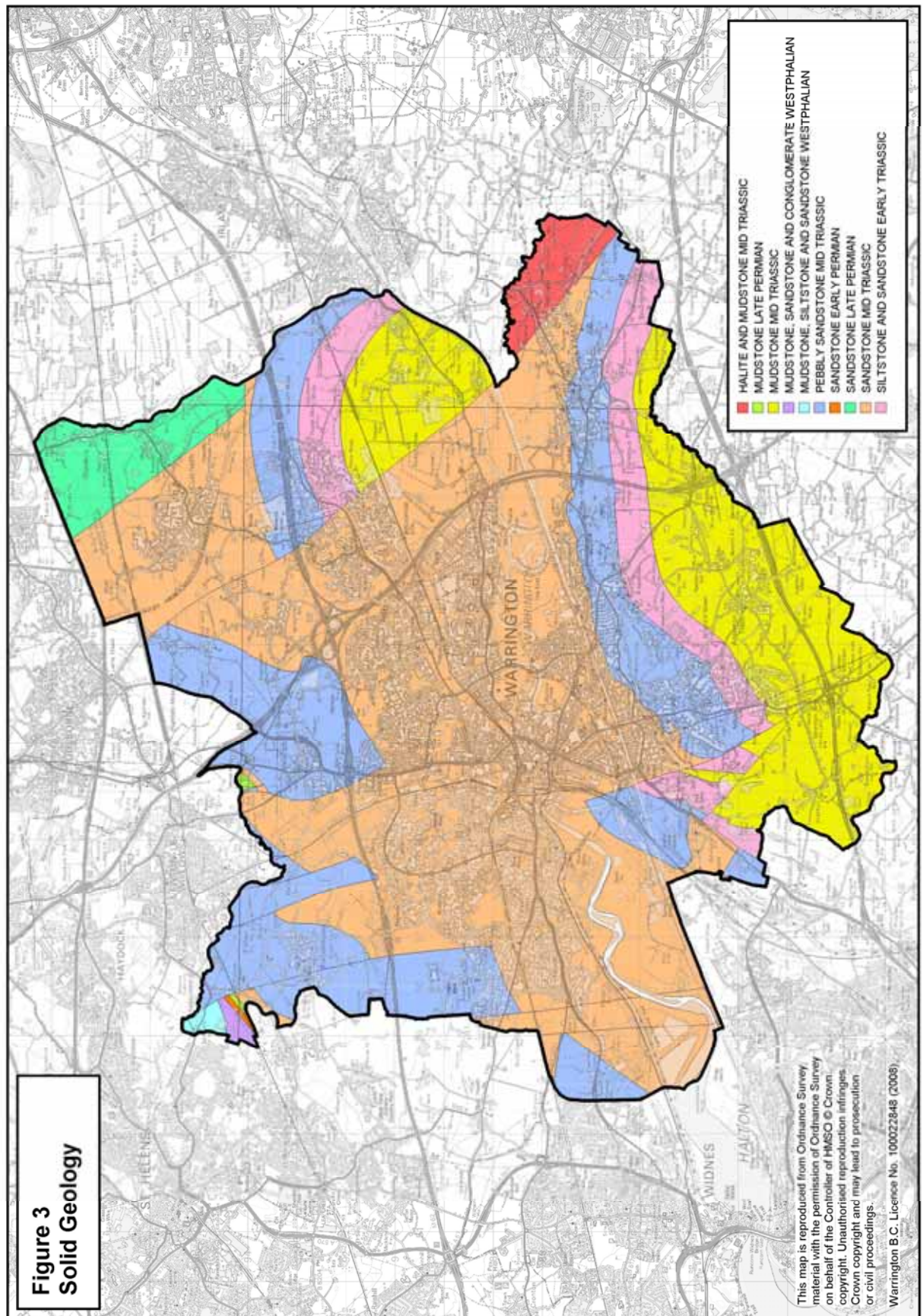
4.4 Topography

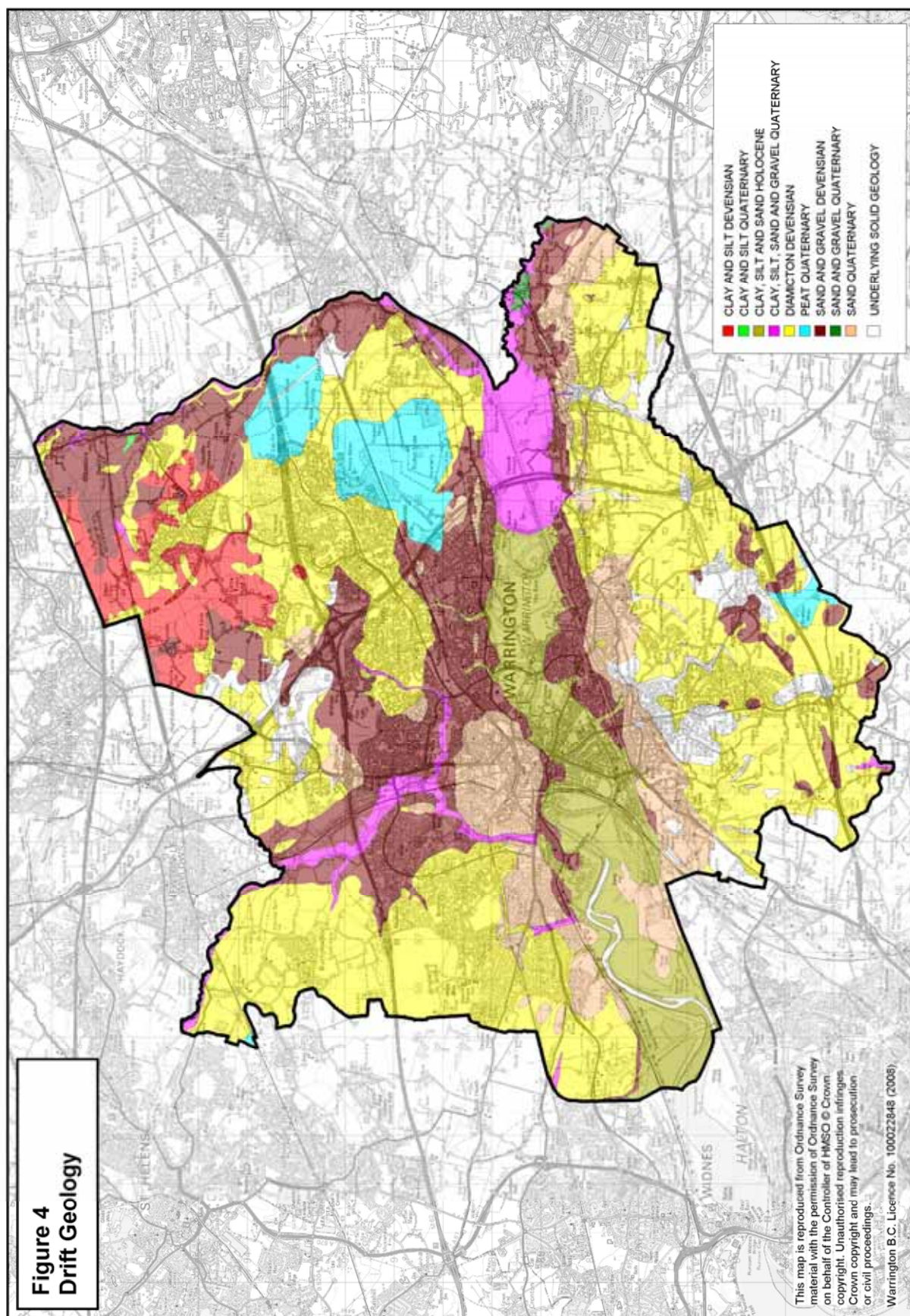
The topography of the area is a direct result of the influences of geology and hydrology previously discussed. The basic structure of the Borough's topography is reasonably straightforward and illustrated on Figure 5 (page 23).

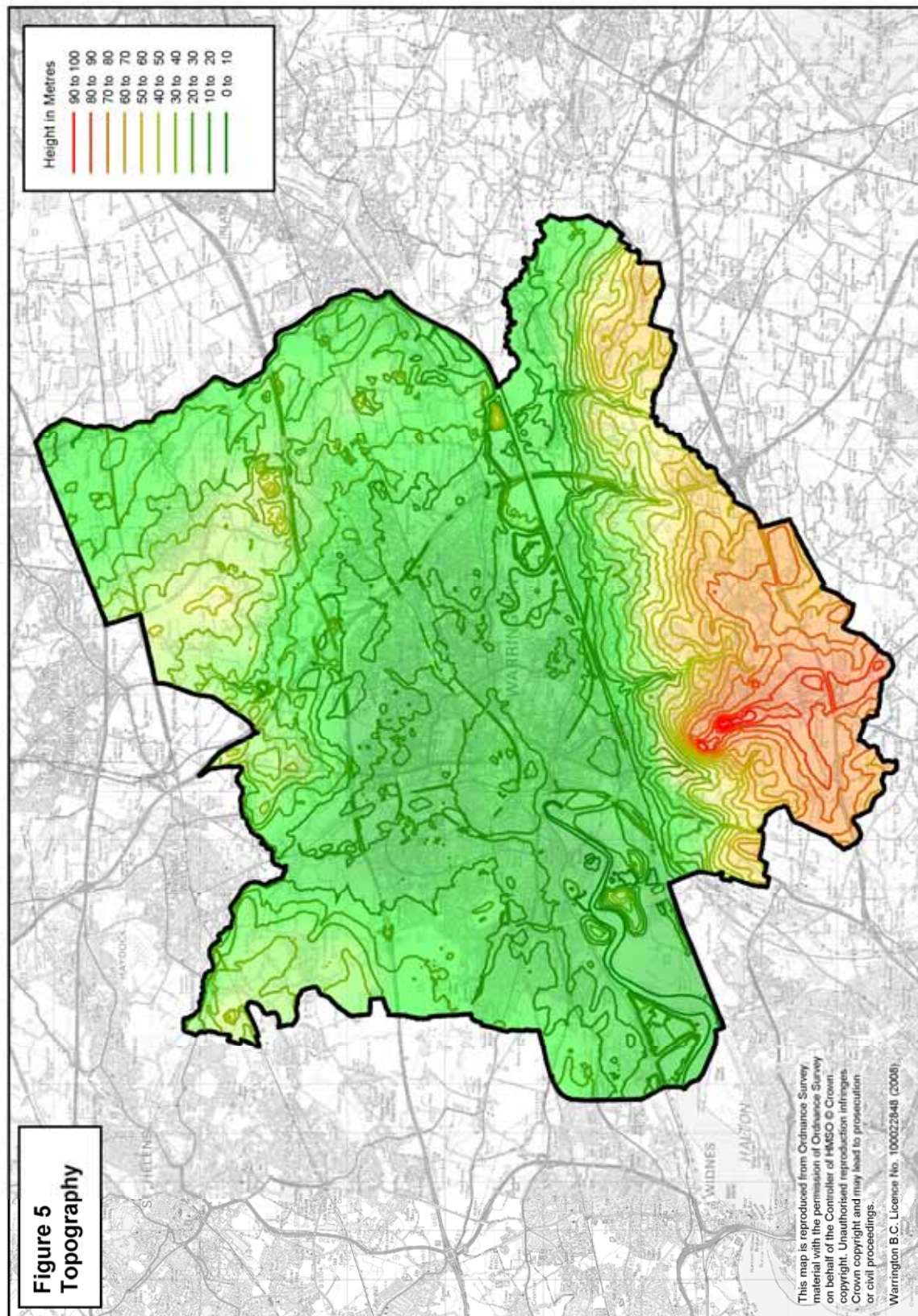
The highest land is formed by the red sandstone escarpment to the south of the River Mersey, creating a ridge line at approximately 80m, steeply sloping locally to the north and gently falling back to the south into the Cheshire Plain. Within this landform are incised deep stream valleys and unusual and prominent knolls such as Hill Cliffe, High Warren and Grappenhall Heys. Gradients generally lessen to the east.

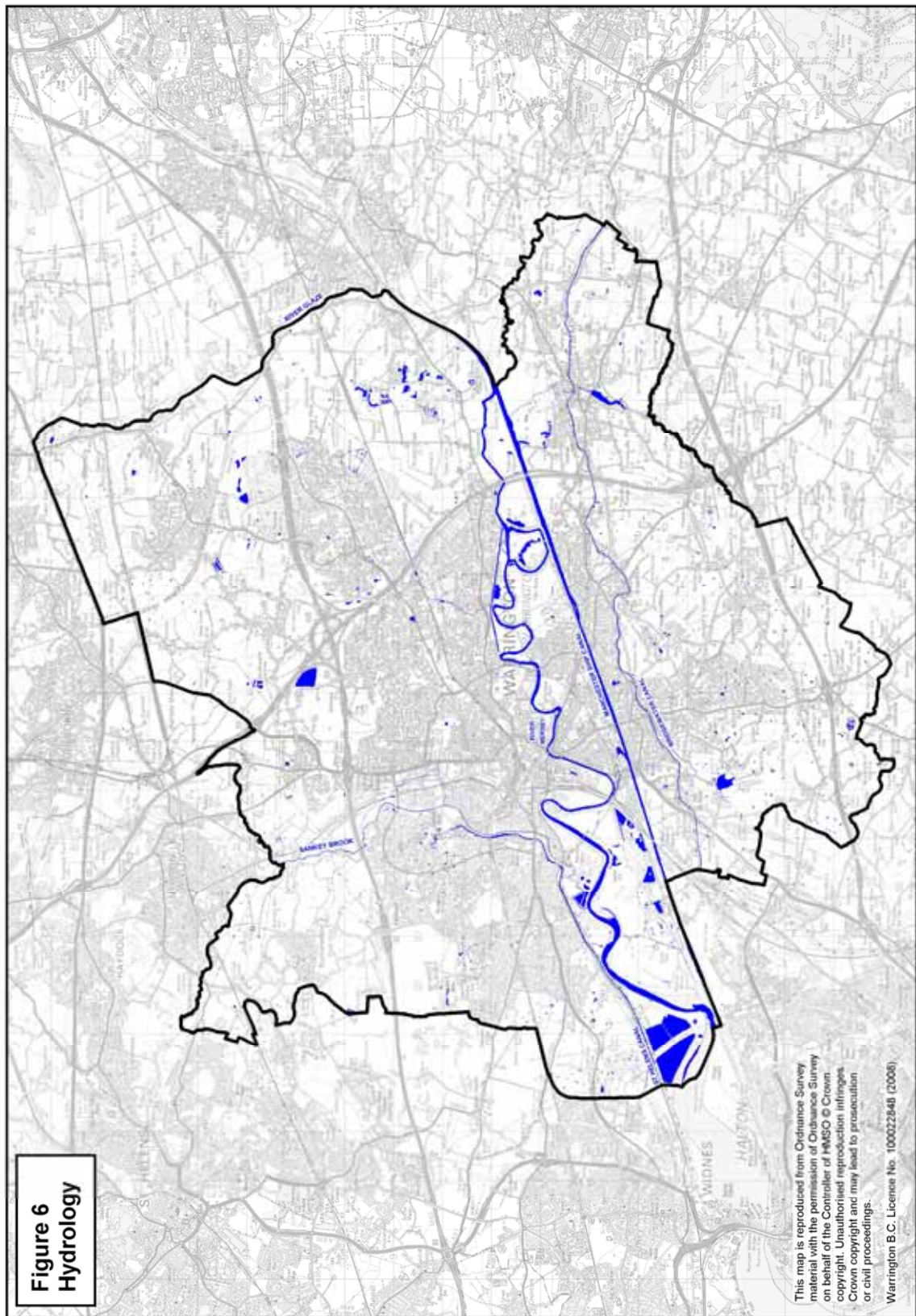
The River Mersey and its flood plain form a central band of low lying, reasonably level land, which divides the northern and southern halves of the Borough. To the north of the Mersey Floodplain the landform is less dramatic, with undulating land gently sloping to the south and heavily affected by glacial till deposition. Occasional features stand out, such as the extensive peat moss land to the east, the relatively higher land at Winwick and Burtonwood and the anomalies of locally incised valley sections of Red Bank/Hermitage Green and Phipps Brook. Land to the north of the Borough rarely exceeds 25-30m.

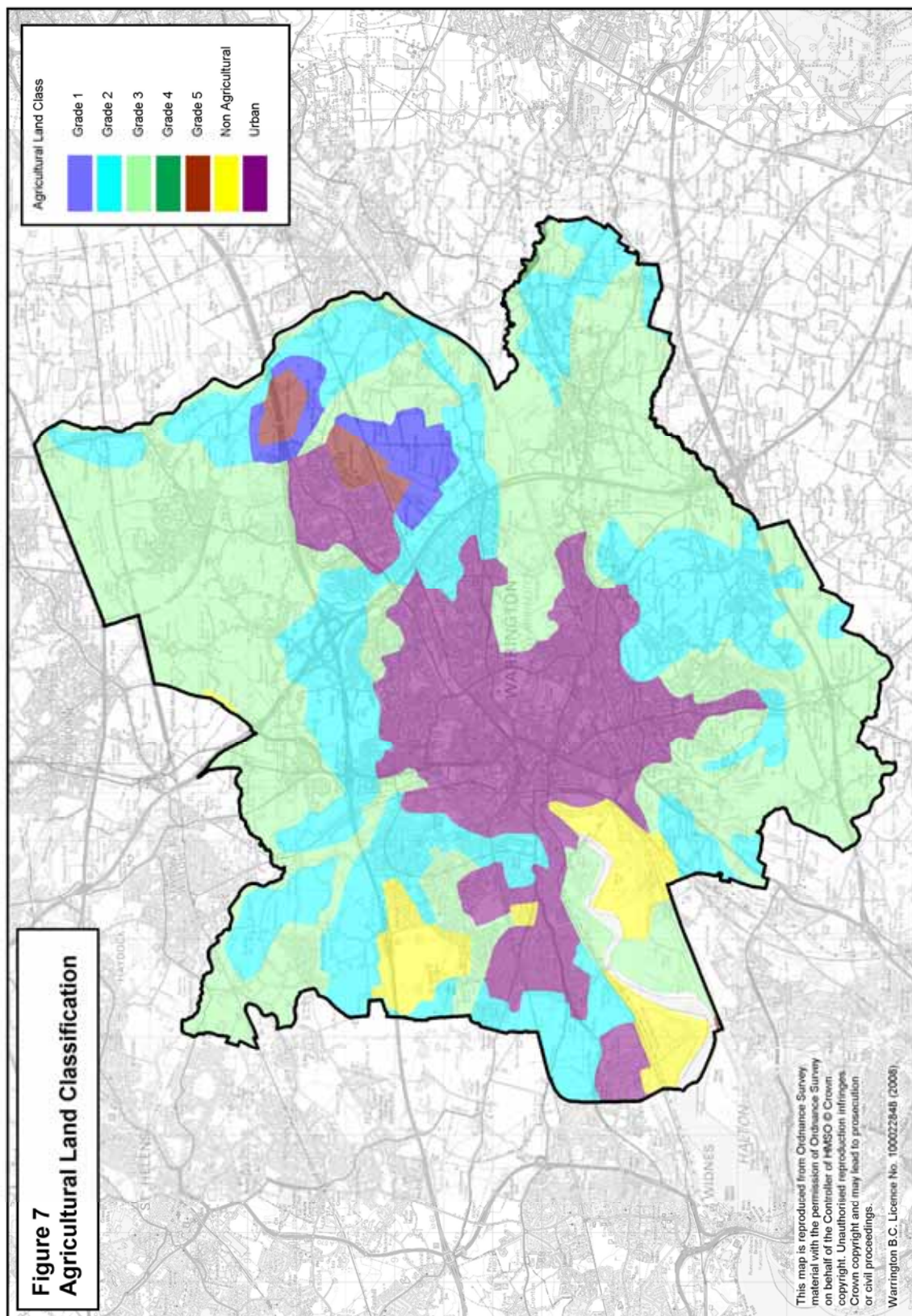
Further anomalies against the natural topography have been created by landfill/land-raise sites throughout the Borough, particularly those in the Mersey Valley floodplain and in the mossland areas.











5.0 ECOLOGICAL CONTEXT

5.1 Introduction

Warrington's ecology has a direct relationship with its landscape. Only very small areas of the Borough can be classified as 'natural' or semi-natural. These include the salt marsh and mudflat areas associated with the Mersey Estuary, isolated pockets of ancient woodland and small areas of undrained mossland. Most of Warrington's countryside is represented by agricultural land, which now forms a totally artificial landscape, modified by centuries of human management. Large areas of deciduous woodland which would have originally covered most of the area have progressively been removed.

The woods present today are mainly planted and are of a small and often isolated nature.

5.2 Habitats

Present day habitats across the Borough are rich and varied and their value and importance is being increasingly recognised. They include the following:

- Farmland

Farmland constitutes the largest area of wildlife habitat, comprising mainly pastureland to the south of the River Mersey and a more mixed regime of arable and pasture to the north of the river. Both areas are united with hedgerow field boundaries and varying numbers of hedgerow trees.

The native hedgerows, trees and associated uncultivated margins form an invaluable linear 'woodland' habitat, providing both food and cover for wildlife. They also provide 'wildlife corridors' enabling protected movement and migration of species between a variety of habitats such as woods, copses and wetlands. The hedgerows can contain more than 500 vascular plants, provide nesting sites for over 60 species of birds and are an invaluable habitat for our native mammals and invertebrates.

Unfortunately the survey work as part of the Landscape Character Assessment has shown that field boundary hedgerows and hedgerow trees are in decline throughout the Borough, due to neglect or inappropriate management. This is particularly the case in arable areas, where their function is unnecessary as a stock proof barrier and where their presence may be seen as a hindrance to crop growth or an obstacle to efficient mechanisation. Since the 1940's native field boundary hedgerows have been grubbed up and removed in a number of areas in order to achieve larger fields thus maximising crop yield. The maintenance and upkeep of hedgerows in arable areas is therefore often seen as an unnecessary cost, with little or no benefit to profit margins. Hedgerow decline can also be seen in some areas of pasture farmland where it has been found easier to maintain gapped or missing hedge sections with barbed wire or post and rail fencing. This is particularly noticeable where horse grazing paddocks are extending out into traditionally farmed areas, giving rise to browsing, bark removal on hedgerow trees, and parched ground.

Hedgerow trees are consistently found as mature or over-mature specimens and are not being replaced by new trees for future generations of wildlife.

This general decline in the area's hedgerows requires urgent attention, with a co-ordinated programme of protection, management and reinstatement. Without this action, the agricultural landscape will be altered considerably with the consequential decline and loss of both wildlife and habitat.

Arable land is geared to producing maximum crop yields through improved farming practices, including the use of pesticides, herbicides and fertilizers – all of which tend to reduce bio-diversity and the area's ecological value. Even so, growing crops can provide cover and nesting sites for birds such as grey partridge, skylark, corn bunting and tree sparrow (all UK Priority Species) The brown hare is also present in arable land, also a UK Priority Species. Arable fields are important for over wintering birds, such as those mentioned above and also twite (a UK Species of Conservation Concern), stock dove, reed bunting and chaffinch. Arable field margins are a valuable habitat for a range of wild flower species, such corn marigold, wild pansy, field pansy and tall ramping fumitory

Pastureland is also invaluable habitat for ground nesting birds such as skylarks and lapwings, whilst badgers also require pasture as part of their feeding territory.

- Wet Meadows

Very limited areas of wet meadow remain within the Borough due to policies of flood prevention and the construction of artificially high levee banks to the rivers. These areas were traditionally found in floodplain areas and associated with periodic river flooding.

The only significant area remaining is at Paddington Meadows. This site occupies low lying ground within a meander loop of the River Mersey and is currently being managed as a nature reserve to conserve the flora and fauna associated with wetland grassland.

Wet Meadows are important for breeding waders, such as redshank, curlew, snipe and lapwing (all UK Species of Conservation Concern), lapwing are often in this habitat over winter.

Wet meadows could potentially be brought back to limited areas associated with the Sankey Brook adjacent to the Gemini Employment Area/M62 crossing and along small sections of the River Glaze.

- Peat Mosslands

Most of Warrington's peat mosslands have been radically altered by drainage, peat extraction and farming and are now harnessed for agricultural production. They were originally formed under extremely wet conditions during Mesolithic times, through the growth and deposition of sphagnum moss forming lowland raised bogs. Residual areas still survive however as habitats of local, national and international importance. They are extremely sensitive to changes in the water table and are particularly valuable for their unusual flora and associated invertebrates.

Since the beginning of the C19th the extent of active raised bog has declined by 94%. The majority of raised bog has always been in north west England, but it is here that most has been drained and made into high grade agricultural land. In Lancashire, 98% of raised bog present at the beginning of the C19th has been turned into farmland.

Designated sites include parts of Holcroft Moss as a Site of Special Scientific Interest (SSSI), Risley Moss as an SSSI and local nature reserve, Woolston Moss as a Site of Biological Importance (SBI) and Burtonwood Moss also as an SBI. Risley Moss also contains an interpretive centre and educational facility.

Raised bogs are listed in Annex 1 of the EC Habitats and Species Directive and active areas are considered priority habitat for conservation under the Directive. They are also a UK Key Habitat. The nightjar, formerly common on the mosses is a UK Priority Species.

- Woodland

Warrington's woodlands are mainly sporadically dispersed within the agricultural landscape, although more recent plantings by the New town in the 1970's and '80s have also produced significant native woodlands as part of a structured open space within development areas of the suburbs.

Warrington's older woodlands, which have remained wooded since 1600 AD, are classed as Ancient Semi-Natural Woodland. These are particularly significant in ecological terms, supporting a rich diversity of flora and fauna. They include Bradlegh and Twig Wood at Burtonwood, Outer Wood at Walton, Yew Tree Farm Wood at Lymm, Denow Wood and the Brows at Appleton, together with Dingle Wood which is classed as an SBI and Rows Wood at Walton/Hatton, which is also classed as an SBI.

Most of the remaining woodlands were planted or contain trees from natural regeneration post 1600 AD. These are classed as Broadleaved Secondary Woodland. The most important of these with SBI status are Bog Rough at Appleton/Walton, Lymm Dam and The Bongs at Lymm and The Gorse near High Legh and Helsdale in Oughtrington.

All the woodlands however are extremely important as wildlife habitats. Lowland mixed broadleaved woodlands are important for a wide range of birds, mammals and invertebrate species, such as blackcap, willow warbler, chiffchaff, great tit, marsh tit, tree creeper, nuthatch, spotted flycatcher, sparrowhawk, tawny owl, great spotted woodpecker and green woodpecker (all UK Species of Conservation Concern). Mammals of interest include badger, grey squirrel and wood mouse.

- Rivers and Streams

The River Mersey is the main watercourse running through the centre of the Borough, becoming tidal as part of the Mersey Estuary at Howley Weir. Pollution levels in the river and its northern tributaries of the River Glaze and Sankey Brook are high but improving. It is both hoped and expected that these rivers will provide increasingly important habitats in the future. The River Bollin, to the south, is also polluted, but is rapidly improving.

The streams to the south of the River Mersey flow north into the Manchester Ship Canal. Where the red sandstone escarpment is steeply sloping, they have formed locally steep sided wooded valleys but for the most part flow through open pastureland. Pollution to the southern streams is less of a problem and these watercourses can support a diverse range of aquatic and emergent plants. Fauna of these streams include mallard and moorhen as well as roach and carp.

- Canals

Warrington's canals vary considerably in their ecological importance. The Manchester Ship Canal is commercially used and supports little marginal vegetation. Pollution levels are an issue and the canal currently has a limited habitat value.

The Bridgewater Canal is frequently used by leisure boats and although locally supporting marginal vegetation, contains a high proportion of sediment in suspension. Aquatic life is present however and the Canal is popular for fishing.

Canals to the north of the River Mersey however have evolved to create greater opportunities for nature conservation. The St Helens Canal has been largely restored and managed as a nature reserve whilst the Woolston New Cut, although disused as a water course, has been left to naturally create a rich habitat of wetland marginal vegetation and scrub.

Canals support a wide range of species, including some uncommon plant species of pondweeds. Bird species include mallard, moorhen, reed bunting, reed warbler, sedge warbler, kingfisher and grey heron. Invertebrates include emerald damselfly, blue-tailed damselfly, water snails, water beetles and crustaceans.

- The Mersey Estuary

Below Howley Weir the River Mersey becomes tidal and although constrained by man-made barriers and levees, naturally forms a series of habitats including mudflats, salt marsh and river channel. The mudflats provide important roosting areas for gulls and waders whilst the more limited salt marsh areas are used by wildfowl and wading birds. These include oystercatchers, turnstone, purple sandpiper, ringed plover, grey plover, knot, dunlin, redshank and curlew, all but the first of which are UK Species of Conservation Concern.

Unfortunately the Mersey Estuary is heavily polluted, although improvements are currently being undertaken and water quality is improving. The Estuary has been designated as a RAMSAR site, recognising its international importance for wildlife habitat.

- Lakes, Reservoirs and Ponds

The Borough contains a variety of water bodies, all of which are man-made. The dredging lagoons known as Woolston and Thelwall Eyes are a particularly rich and important habitat, containing large, quiet areas of both open water and marginal and scrub vegetation. They are nationally important for breeding waterfowl and were designated as an SSSI in 1985.

Moore Nature Reserve adjoins the Mersey Estuary and also contains artificial wetlands managed for bird life. It is situated on the flood plain on a 75 hectare site and also includes wild flower meadows, open grassland, scrub, newly planted and established woodland. The now disused Runcorn and Latchford Canal also passes through the Reserve providing further wetland habitat.

Appleton Reservoir and Lymm Dam also provide important wildlife resources, together with the large lake at Middleton Hall formed from flooded mineral extraction works.

Rixton Clay Pits form a series ponds from a former clay extraction site. These water bodies, together with associated naturally regenerated native woodland, have formed a nationally important area for wildlife and one designated as an SSSI.

Warrington's ponds are particularly noteworthy and are a distinctive part of the area's landscape. Their locations, mainly to the south of the Borough, are dictated by the underlying geology and were originally created following the excavation of marl for agricultural use in the 18th and 19th centuries. Once disused, the pits quickly filled with water and wetland vegetation colonised the margins. The marl pit ponds are located within the farmland and over the years have progressively been infilled by both natural silting processes and farm tipping.

The Borough has lost 1,500 of these ponds since 1870. This trend was reversed in the 1970s and '80s when Warrington New Town undertook work to restore many of the larger ponds by desilting and providing adequate water inlets and outlets. Vegetation from the southern side of the ponds was also removed to allow light to the water. The ponds form a valuable habitat for a wide range of creatures, including dragonflies, great diving beetles, ramshorn snail and the great crested newt and the water vole. The latter two species are UK Priority Species, the great crested newt occurring in some numbers in the Warrington area.

5.3 The Mersey Forest Initiative

The Mersey Forest is the largest of England's twelve Community Forests, covering 465 sq.miles of Merseyside and North Cheshire. The Mersey Forest is not a single site, but is a network of woodlands and other green spaces which provide social, economic and environmental benefits to local people. The Mersey Forest Partnership includes the Forestry Commission, Natural England and 9 local authorities (including Warrington Borough Council) and has created over 3,750 hectares of new habitat and planted around 10 million trees since 1994.

The Mersey Forest Plan (reviewed in 2001) guides the development of the Forest. Networks of woodlands and other habitat (such as the Mersey Forest) are increasingly being recognised as part of our green infrastructure (GI).

GI is defined in the North West GI Guide (see www.greeninfrastructurenew.co.uk) as "the region's life support system – the network of natural environmental components and green and blue spaces that lie within and between the North West's cities , towns and villages and provides multiple social, economic and environmental benefits".

The Upper Mersey Valley Forest Park is one of five significant clusters of woodland and other habitat around our towns, some of which are reaching maturity and can offer a range of benefits:

- Attract visitors and revenue
- Improve the image of forest park areas
- Create jobs
- Make a positive environmental impact
- Improve health levels through green exercise

The aim is for all woodlands within each Forest Park to be linked and equipped with visitor infrastructure (signage, interpretation etc). Each with unique character and attraction.

5.4 Wildlife Corridors

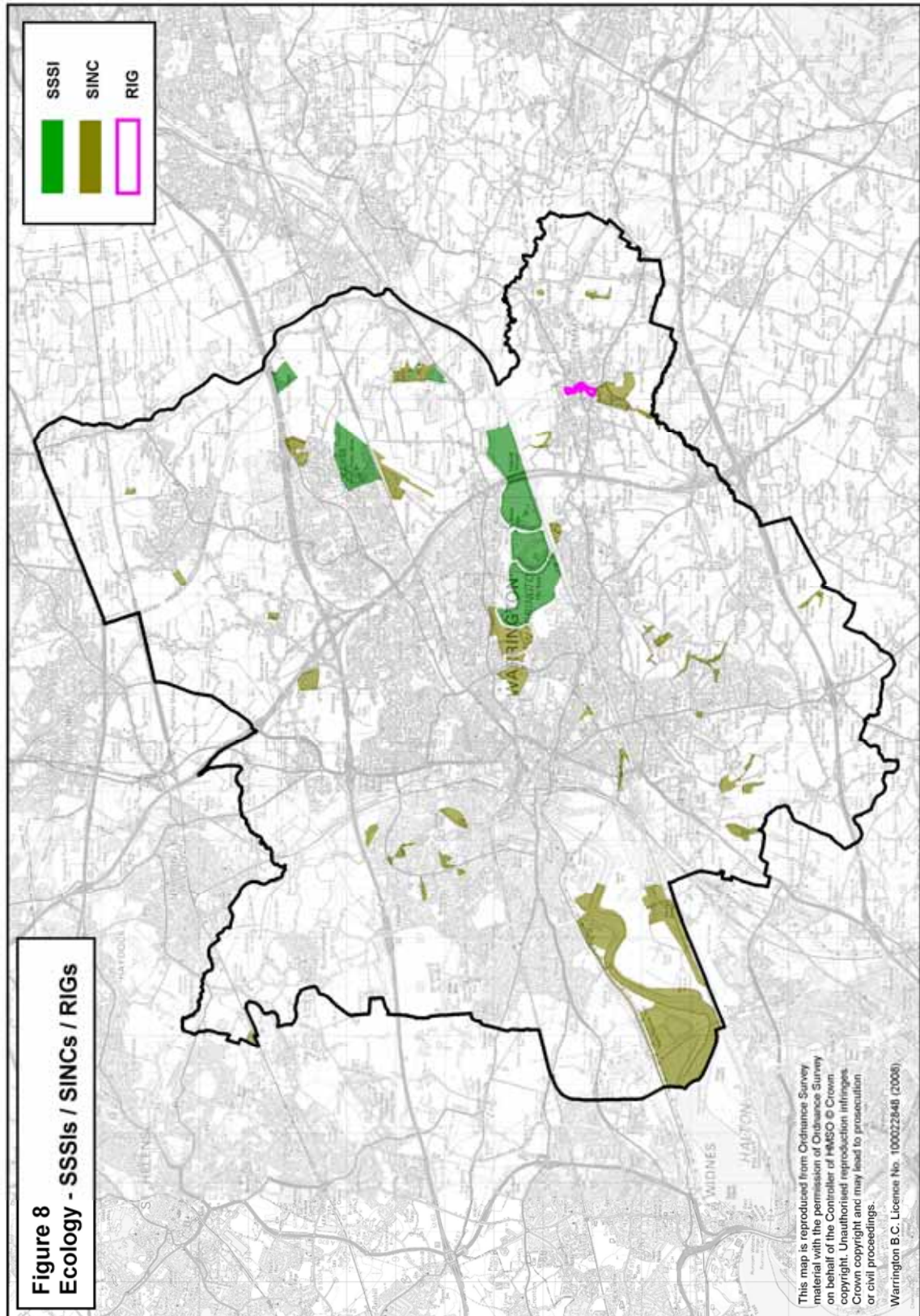
The Borough Council have identified a series of wildlife corridors which facilitate the movement of wildlife through the area and between varying habitats. These tend to follow major physical and geographic features. The main green corridors follow:

- a) The Mersey Valley
This crosses the borough from the flood plain of the River Bollin and Hollins Green to the east to the Mersey Estuary in the west. It forms a broad tract of land based on the river and its associated habitats.
- b) The Sankey Valley Linear Park
This forms an important band of 'natural' open space containing native planting which follows both the St Helens Canal and Sankey Brook. It was implemented in the 1970's by Warrington New Town Development Corporation and has now matured to form an important wildlife corridor.

Secondary levels of wildlife corridors have also been identified locally following rivers and streams, roadsides, pathways, canals, railways and hedgerows.

5.5 Designated Areas of Ecological Importance

SSSIs, SBIs and Ancient Woodlands are illustrated on Figure 8 (page 32) and have been previously discussed.



6.0 HUMAN INFLUENCES AND THE HISTORIC ENVIRONMENT

Introduction

The Landscape Character Assessment Guidance for England and Scotland defines 'Landscape' as the product of human interaction with the land over time. The landscape of Warrington is complex, involving not only rural communities but also the urban community and its association with the Industrial Revolution. The rural areas of Warrington have been greatly influenced by human exploitation and management, moulding the landscape we see today. The following paragraphs are a summary of the influences of human actions on the landscape of Warrington.

The Neolithic Period

Much of the landscape of Warrington would probably have been hostile and inaccessible for humans, comprising of large swathes of wet bog mossland to the north of the River Mersey and densely wooded clay lands. Dense, boggy woodlands would also have been present along the Mersey Floodplain. There is evidence of Mesolithic clearances to the woodland, made by burning, possibly to create grazing grounds for game. This evidence is found in mosslands in the area⁽¹⁾ It is probable that the clearings were relatively short-lived, but in later Neolithic times it is likely that some clearances were made for farming purposes. These would have been on the lighter soils such as on the Red Sandstone Escarpment.

The Bronze and Iron Ages

The clearances for farming referred to above accelerated through this period. By the end of the Bronze Age, tribal groupings of the Celtic peoples would have established the River Mersey as both a frontier and a probable trading route. North of the Mersey was held by members of the Brigantian confederation of tribes. South of the Mersey, most of modern Cheshire was held by the Cornovii. Although the precise tribal borders are generally unclear, the River Mersey would appear to be a reasonable supposition.

There is little evidence of the local tribes adopting iron working prior to the Roman invasion (Higham 1993), and this undoubtedly would have reduced the capacity of the local tribes to clear land for arable farming. Such arable farming as there was would have been on the lighter, sandy soils in the Borough, for example Southworth Hall Farm and the slopes of the Red Sandstone Escarpment. The Celtic 'ard' was a relatively primitive plough incapable of ploughing clay ground.

It is quite likely that the local tribes kept cattle and practised fairly extensive pastoral farming, but there is little archaeological evidence for this. The mosslands would have been possibly used for hunting, but it is likely they were regarded with some dread, as dark, mysterious places, the haunt of spirits. The human sacrifice at Lindow Moss, a short distance away to the east and other apparently sacrificial remains in bogs in the northwest suggest some form of Celtic religious belief commonly associated with wells and water bodies.

The Roman and Romano - British Period AD 43 - 410

It is highly likely that the Roman army, in invading the north west, would have halted, at least temporarily, on the line of the River Mersey. The lowest bridging point on the Mersey of Warrington would probably have been discovered by the Romans, who constructed the Roman Road, King Street, via the bridge at Bridge Foot, Warrington. A Roman road was also constructed to the south of Warrington, along the red sandstone escarpment, connecting the fort at Manchester to the Legionary fortress of Chester. This may have utilised part of an existing route along the ridgeline. It should be remembered that the primary use of Roman roads was for moving troops rapidly and not for transporting small, high value goods.

There is substantial evidence of Roman activity in the Warrington area. A large settlement, (which may have stretched over 10 ha.)⁽²⁾ existed at Wilderspool, associated with a pottery manufacturing area. Coal, used to fire the Wilderspool kilns, probably came from the Wigan / St Helens coalfield via the Sankey Brook. The River Mersey would have been used to transport bulky items to and from the fort at Manchester and via the River Dee, to the fort at Chester.

East of Lumb Brook, adjacent to Lousher's Lane, excavations have revealed enclosures and timber framed buildings as well as a round house, indicating Romano – British occupation of a former Iron-age farm. Roman arable farming activities would have been generally confined to the lighter soils of the Red Sandstone Escarpment. Roman ploughs, while more efficient than their predecessors, were probably not capable of tackling the heavier clay soils

At the close of the Roman era, much of the woodland clearance of the area had probably been accomplished and the area was generally being farmed. There are no villas discovered within the Warrington area, but there is evidence of a number of small, unenclosed farmsteads. The mosslands however remained largely untouched, used perhaps only for hunting and a limited amount of turf cutting for fuel.

The withdrawal of the Legions in AD 410 did not mean that agrarian systems changed and it is likely that many sites survived unchanged well into Saxon times. However, industrial scale production and trade did collapse very quickly, with the consequent impacts on areas of extractive industry, such as clay workings, mine workings etc.

The Anglo - Saxon Period AD 410 - 1066

The frontier of the River Mersey, between the Kingdom of Northumbria to the north and the Kingdom of Mercia to the south, was a prominent feature in the history of both Kingdoms. Numerous raids and attacks on each others territories probably used the bridge at Warrington and the upstream fords as the frontier crossings.

Evidence of Saxon activity within the Warrington area is considerable. At Southworth Farm, there is a cemetery of over 800 burials, focussed on a Bronze Age burial mound, but arranged in such a way as to suggest a building amongst them. Given the orientation of the graves, it is likely that they were Christian burials. The nearby Winwick Church is Saxon in origin and may well have been a Saxon Minster of considerable local importance.

Later in the period, the River Mersey was a great threat to the Kingdom of Mercia as it was a highway for Viking incursions. The Danish occupation of York and effective takeover of the Northumbrian kingdom meant that the Mersey frontier again became important. Invasion and counter invasion took place in the year 909.

As a result, Aethelflaed, the “Lady of the Mercians” established a series of defensive ‘burghs’ along the south side of the Mersey, including Runcorn in 915 and Thelwall in 919. These burghs proved highly effective in preventing Viking incursions.

Saxon clearances of woodland were very effective and larger areas of land were brought under cultivation. Much of the Saxon landscape is revealed in the Domesday Book entries for the Warrington area, which although post-Conquest, details previous lords and their lands.

The Medieval Period AD 1066 - 1499

Woodland clearances by the beginning of this period were probably at their maximum historic extent. Rackham,⁽³⁾ states *‘Even the bigger wooded areas were not uninhabited wildwood; it was nowhere possible in Norman England to penetrate into woodland further than four miles from some habitation’*. The clearances were carried out in a more organised way than previously, many villages ‘assarting’ (creating clearings) in woodlands for fields.

Medieval ‘townfields’ can still be traced in the landscape, particularly those around Thelwall Heys, as well as those on either side of ‘The Gorse’ south of Grappenhall Heys

‘Ancient Field Systems’, those fields enclosed prior to 1600 AD, include several former townfields. In Warrington, the most extensive area of these is in Croft, where the landscape is so specifically different that it has been allocated a separate character area in this study. Other areas displaying an ancient field system are located around Moss Side, Moore and around Denow Wood, south of Appleton Reservoir.

A large number of moated sites were built during the C12th and C13th. These are found in the areas which have clay soils, over parts of the Red Sandstone Escarpment, the area just west of the River Glaze, around Burtonwood and Old Abbey Farm, Risley. Associated with some of the larger halls were a number of deer parks.

The Post – Medieval Period AD 1499 – 1800

The latter end of this period saw the beginnings of the Agrarian Revolution and the Industrial Revolution.

In 1724, Daniel Defoe recorded Warrington as a *‘large populous old built town, but rich and full of good country tradesmen. Here is particularly a weekly market for linen...I was told ...all made in the neighbourhood of the place’*. This implies a degree of manufacturing, probably cottage based, as well as a substantial area of arable farming to support linen production. Towards the end of this period Warrington was also a noted producer of sailcloth.

The various navigational improvements on the River Mersey from 1730, the construction of the Bridgewater Canal in the 1770s and the construction of other subsequent canals greatly

improved the bulk transport of goods, stimulating manufacturing towards the end of the period.

The early Industrial Revolution in Warrington was marked by the establishment of a copper works in 1717. More metal working factories were established through the century including wire works in 1780 and 1799 and tanneries, glass works and other industries. These industries used coal and local mines were established at Burtonwood.

The Early Modern Period AD 1800 - 1900

This period saw a massive expansion in industrial manufacturing and the formation of the extended urban area of Warrington, with large numbers of terraced properties and many larger houses, particularly to the south of the Borough. Runcorn, Widnes and Warrington all had substantial alkali industries, linked, especially in the case of Warrington, with soap manufacturing. The result of this industrial expansion was a corresponding increase in the demand for raw materials and natural resources, such as coal, clay and especially water. All this had impacts on the local landscapes.

In the early part of this period grain production rapidly increased. The introduction of the Corn Laws in 1805 and again in 1815 encouraged British cereal farmers and the effect on the landscape of Warrington is clear, with hedgerow removals and the construction of many threshing barns. Cereal crops were used both for bread and, in the Warrington area, for brewing. The repeal of Corn Laws in 1846 saw a major change in agriculture due to the importation of foreign wheat.

Some of the most important features in the local landscape in this era were the result of the introduction of new and improved communications. The Manchester Ship Canal in 1894 in particular improved bulk shipping. The construction of Manchester – Liverpool railway line in 1830, and the construction of other lines throughout the C19th, radically improved the bulk transport of goods and materials as well as the movement of people.

The Modern Period AD 1900 – present

The arable farming of the previous century continued to expand, particularly with the impact of the two World Wars. Some areas of woodland, such as that which stood between Oughtrington Hall and the Bridgewater Canal (adjacent to Helsdale Wood) were entirely cleared during WW1, the timber being used for ammunition boxes and the land ploughed up for food production.

The invention of mechanical excavation plant facilitated major ‘reclamation’ works and drainage of the mosslands allowing farming of what were very rich soils. This process was accelerated during the two World Wars.

Communications in the C20th continued to improve with the construction of the A580 in 1934, the M6 in 1959, the M56 in 1968 and M62 in 1974. These roads further improved both freight and private transport.

Communications – General

The town of Warrington was founded on the north side of the River Mersey, originally in Lancashire. The River Mersey was for centuries a frontier between the Saxon Kingdoms of Mercia and Northumbria and, for a considerable period, the boundary between Cheshire and Lancashire. The River Mersey also served as a major communication route.

The chain of mosslands on the north side of the Mersey Valley heavily influenced the road pattern, with some smaller roads threading between them, while the main Warrington to Manchester road ran between the mossland and the Mersey valley floor. Only with Stephenson's construction of the Manchester to Liverpool railway line over the mosses in 1830 was the influence of the mosses on communications challenged. Subsequently, both the M56 and M62 were cut through substantial mossland landscapes.

Characteristic of the Warrington area is the number of communication routes running both north/south and east/west. Historically by far the most important route was the River Mersey itself, flowing through Manchester down to Liverpool. A number of important road and rail routes run east-west through the Warrington area; from north to south these are the A580 (East Lancashire Road), the M62 motorway, the Liverpool Manchester railway line, the A57 Manchester Road, the Manchester Ship Canal, the A56, the Bridgewater Canal, and the M56 motorway. Running north-south from west to east are the main West Coast railway line, the A49 and the M6. The locations of these communication routes were very much determined by the local topography. The A580 and the M62 run east-west along higher ground to the north of the Borough. The A57 runs east-west along a narrow strip of land between the River Mersey and Risley Moss.

The M56 runs east-west to the south of the Red Sandstone Escarpment to the south of the Mersey valley. Dramatically, the B5356 runs east-west just behind the crest of the escarpment along the line of a Roman road and more or less parallel to the M56.

Another Roman road, the A49 runs north-south, straight through Warrington town centre, crossing the Mersey at Bridgefoot, which was the lowest bridging point on the Mersey for many centuries. This road was strategically very important as it was the main north – south route to the west of the Pennine chain.

Communication routes generally are illustrated on Figure 11 (page 43)

HISTORIC LANDSCAPE CHARACTER

Cheshire County Council commenced a survey of the Historic Landscape Character of the county in May 2002. The County Council's Natural and Historic Environment Team carried out the work in partnership with English Heritage and the completed document was published in 2007. The section of the Cheshire HLC relevant to Warrington is attached as Figures 9.1 to 9.3 (pages 39-41)

Field enclosures

The Cheshire County Council Historic Characterisation map shows that to the north of the Mersey Valley there is a similarity between Post Medieval Enclosures (post 1600 AD) and

C19th Enclosures. These are difficult to tell apart and there may be some overlap. However, one area of Post Medieval Enclosures that is distinctive is the area around Croft, where the Town Field strips have been 'fossilised' in Post Medieval Enclosures. South of the Mersey Valley, there are extensive areas of Post Medieval Agricultural Improvement, the result of re-organising the previous Ancient Field Systems and small areas of Medieval Town Fields.

C19th Field systems are preserved in the mossland areas of Warrington, notably at Rixton and Holcroft Mosses, but there are some other, more isolated areas in the south of the Borough. There are also large areas of Late Medieval Agricultural Improvement, which reorganised earlier field systems, possibly because of urban growth pressure or because of land quality. These areas dominate the landscape to the south of the Borough and to the north of the M62. There is a single small area of Post Medieval Enclosed Parkland north of Daresbury Lodge on the Chester Road, Walton.

Woodland

Warrington does not possess many extensive areas of woodland. There are some small blocks of post Medieval plantations to the north of the Mersey, together with small areas of woodland associated with streams and rivers throughout the Borough.

C20th woodland has been established in several areas south of the Mersey, on the Red Sandstone Escarpment. Some of this was planted by Warrington and Runcorn New Town in association with new housing developments. Other areas, just north of the Ship Canal, have been planted under the auspices of Mersey Forest and were planted as amelioration planting to local landfill sites or, as in the Moss Side area of Norton Marsh as extensive amenity planting. The 'community woodland' of 'Spud Wood' at Oughtrington, was planted by the local community under the auspices of the Woodland Trust.

Ancient woodland is restricted to the areas south of the Mersey and generally confined to the steep-sided valleys on the Red Sandstone Escarpment. Notable areas of ancient woodland include Row's Wood in Walton, Denow Wood and The Dingle in Appleton, as well as woodland in Lymm along Mag Brook and Bradley Brook.

Designed Landscapes

Landscaped parks within the area are of two types:-

- Post Medieval Enclosed Parkland – These are mainly Victorian creations with examples at Walton Park and Grappenhall Heyes, to the south and Leigh Golf Course to the north.
- C20th ornamental parkland – These include substantial areas adjacent to new development created by Warrington and Runcorn New Town , such as Birchwood Park, Dipping Brook, Sankey Valley Park, Pewterspear Park etc.

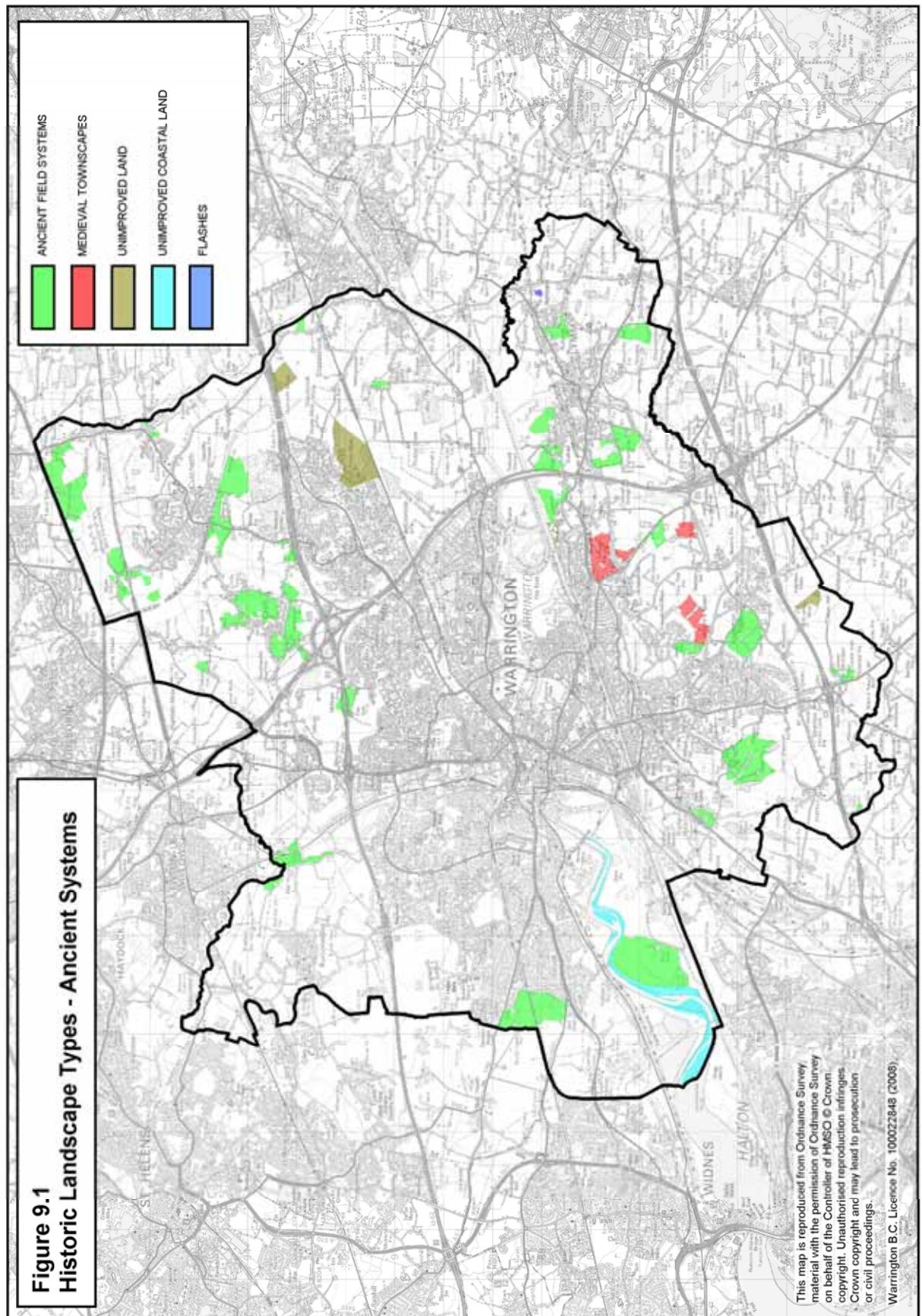
Military

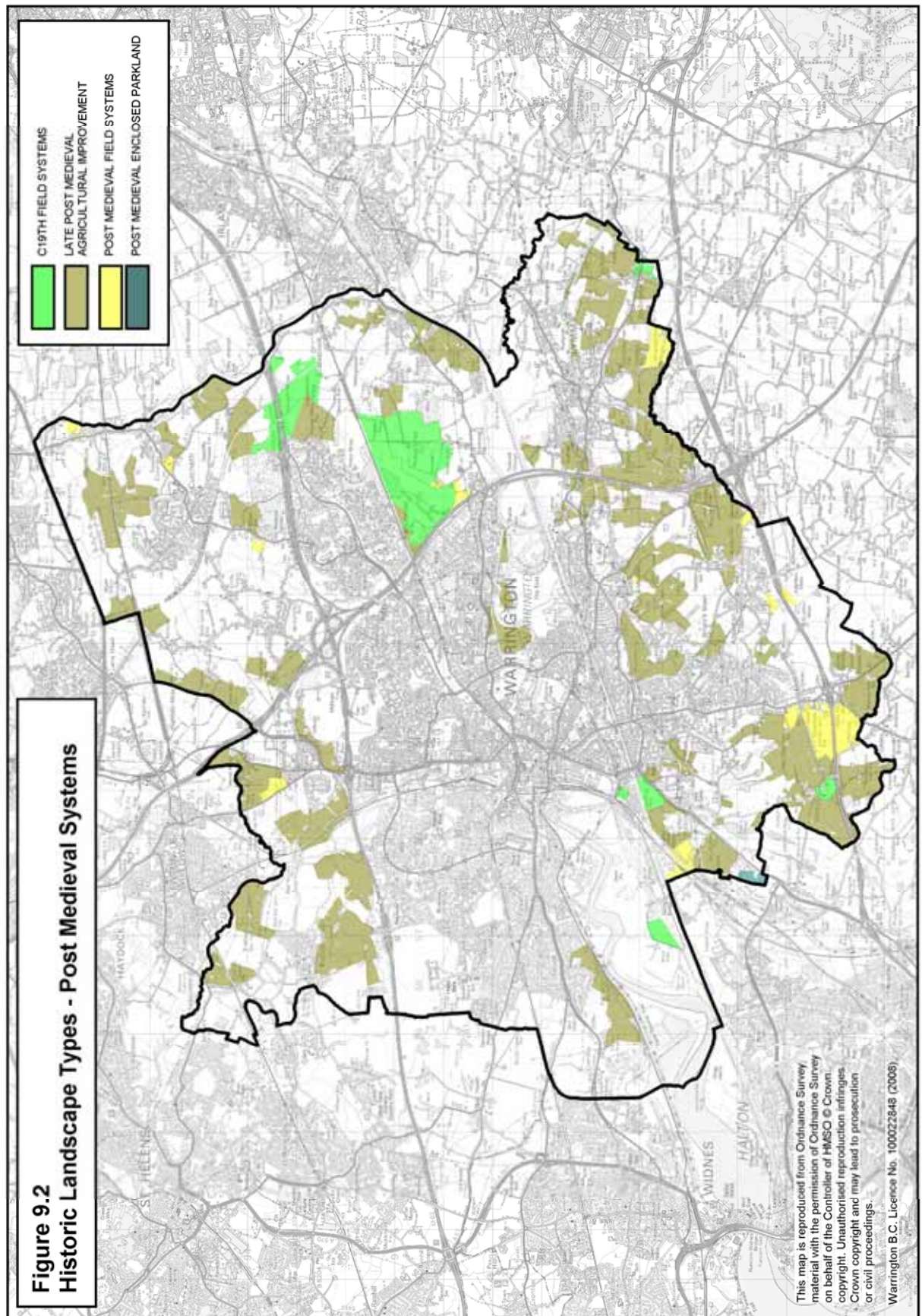
Landscapes of military origin include sites from WWII origin. These include the airfield at Burtonwood and associated facilities, the airfield at Stretton, the Royal Ordnance Factory at Birchwood evidenced by the Bunkers at Birchwood Park and the old reservoirs. Wartime

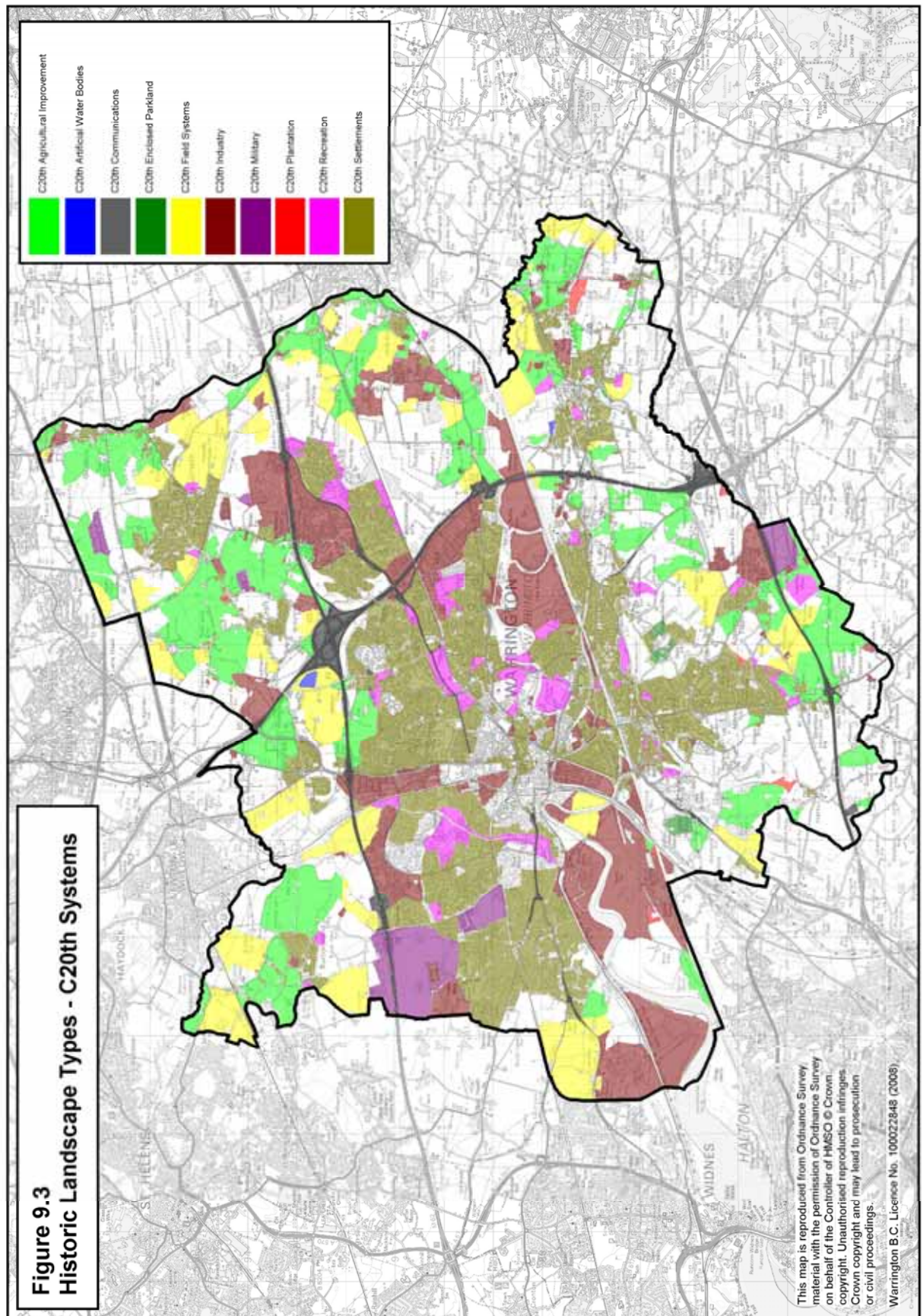
evidence can also be found at Carr Green (bunkers) and the historic reference plaque and shelter for the barrage balloon site near Moss Side Farm, Norton Marsh. Pill boxes are notable by their absence.

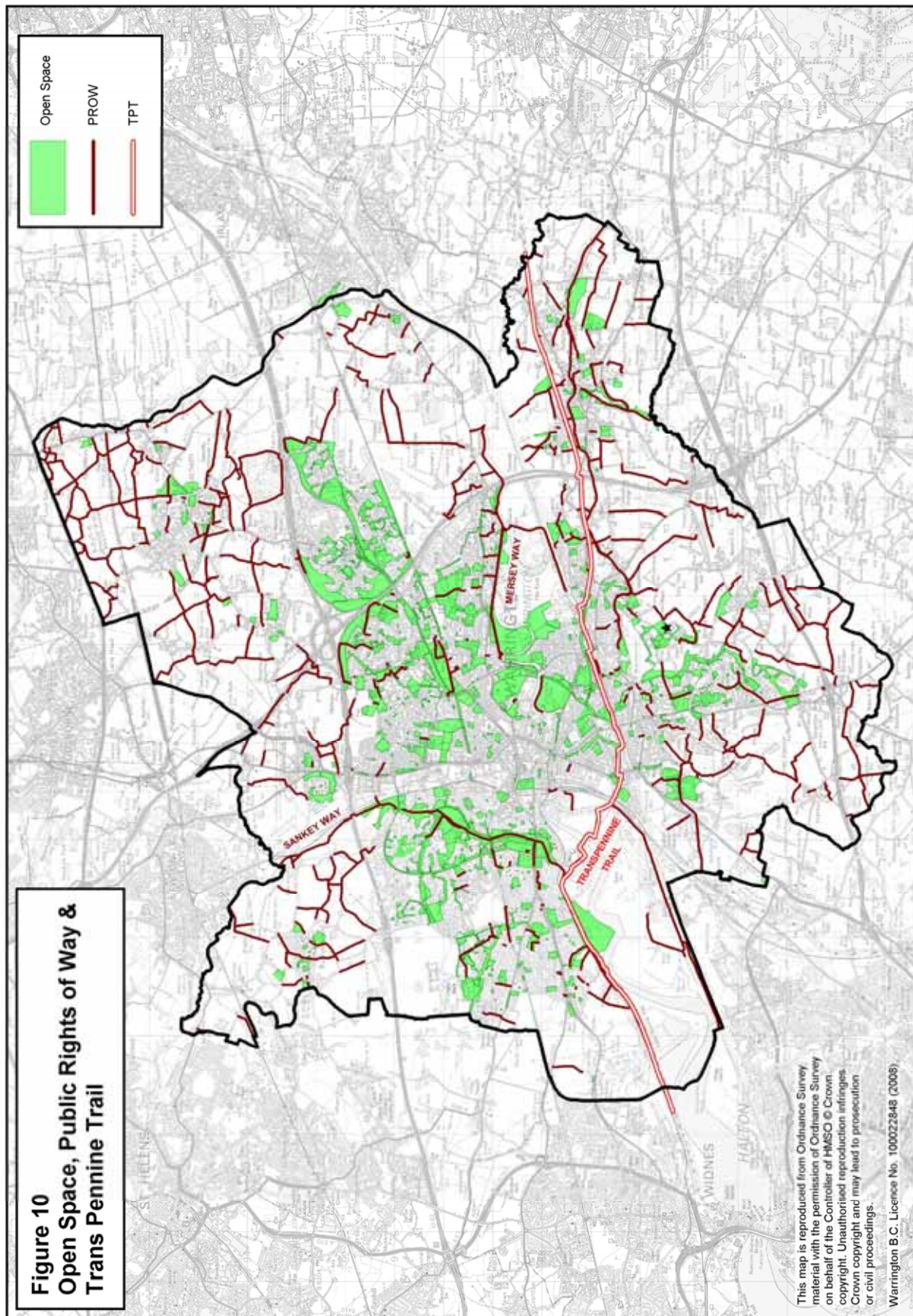
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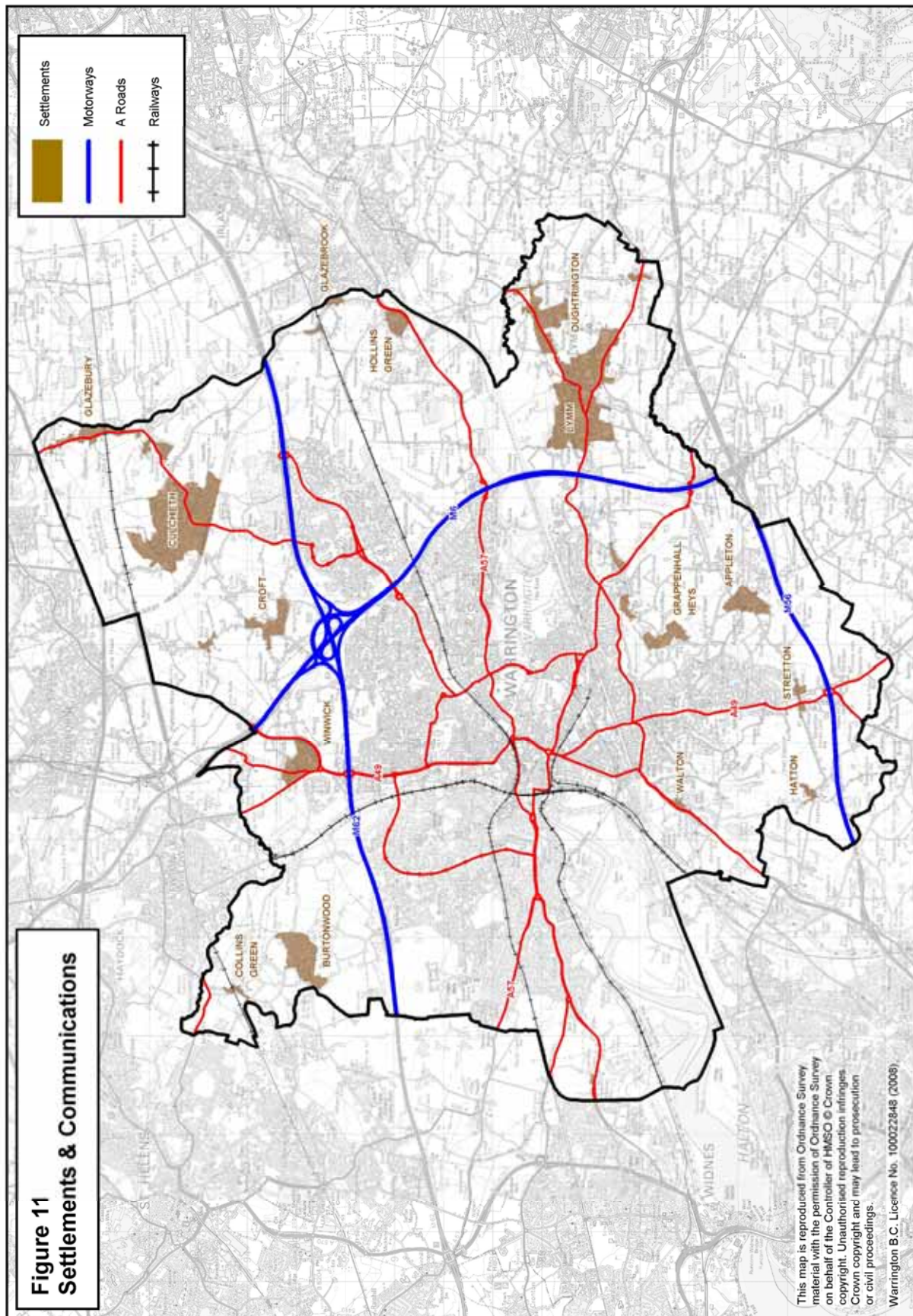
- (1) Leah MD, Wells CE, Appleby C and Huckerby E 1997, *The Wetlands of Cheshire: North West Wetlands Survey 4*. Lancaster Imprints 5
- (2) Higham, N.J. *'The Origins of Cheshire'* p47
- (3) Rackham O 1986 *'The History of the Countryside'* p. 78

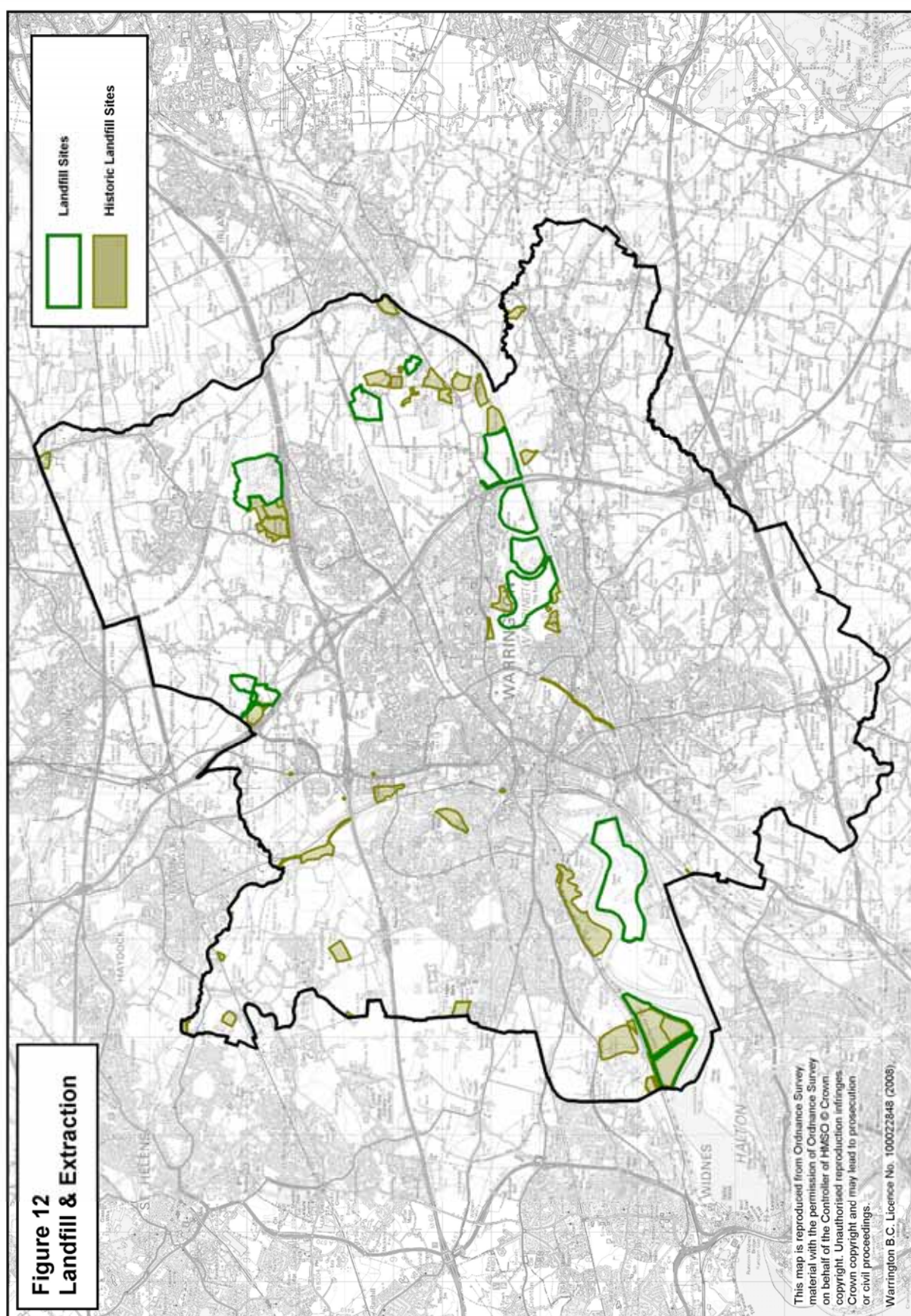


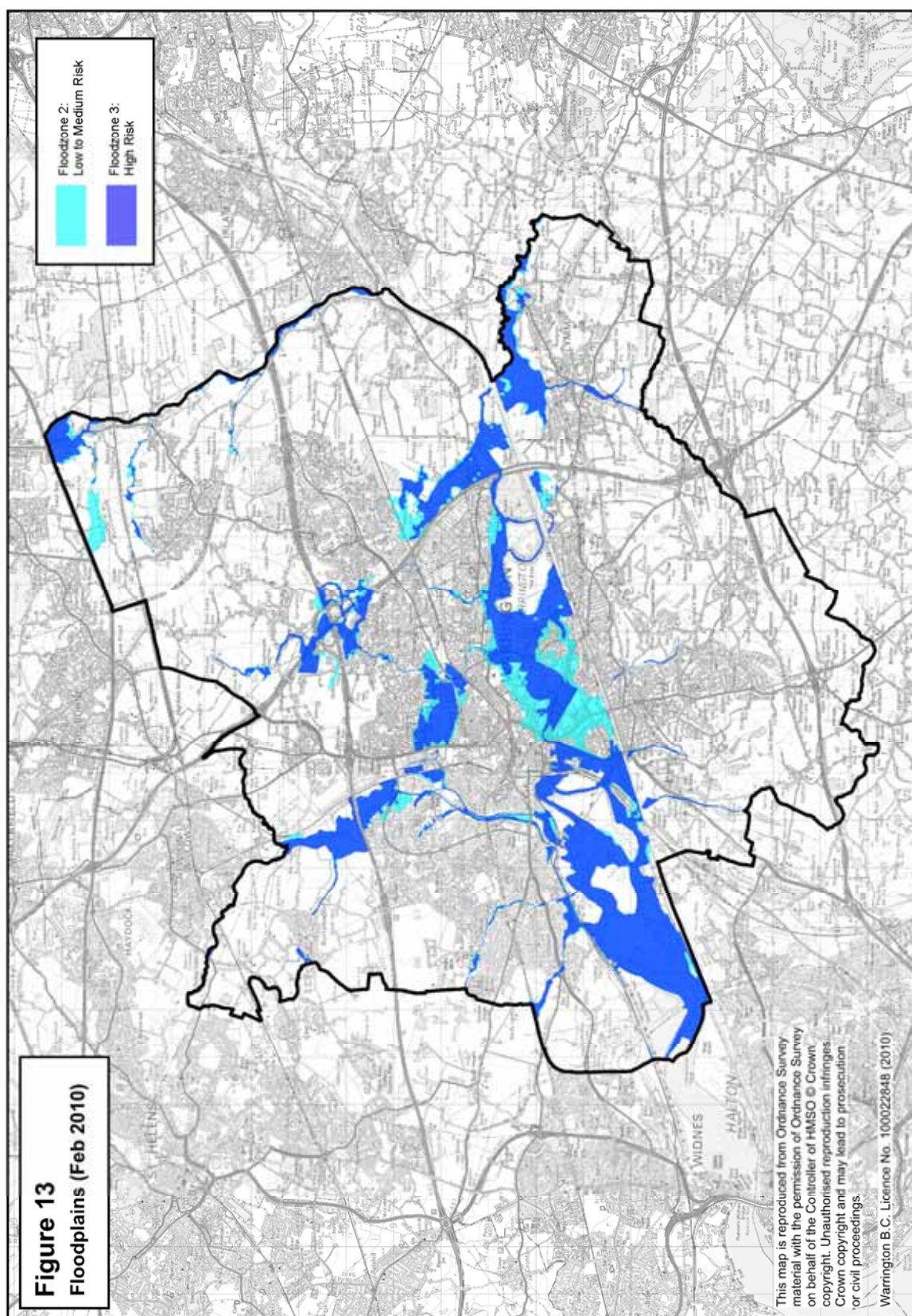












7.0 LANDSCAPE CHARACTER TYPES AND AREAS

Introduction

Warrington Borough's landscape has been characterised by the methods outlined in Chapter 2: Methodology.

After careful consideration, six distinct **landscape character types** have been discerned and are represented as follows:

Type 1	Undulating Enclosed Farmland
Type 2	Mossland Landscape
Type 3	Red Sandstone Escarpment
Type 4	Level Areas of Farmland and Former Airfields
Type 5	River Flood Plain
Type 6	Intertidal Areas

Each landscape character type represents an area of Warrington Borough which is readily recognisable with an homogenous character. This may be reflected in the area's topographical or geological characteristics, its ecology, land use or cultural history. In many instances it is a combination of all these factors.

Within the landscape character types lie **landscape character areas**. These bear all the fundamental characteristics of the landscape character type but also have a distinct recognisable local character and identity. The full list of landscape character areas is detailed below, under each landscape character type heading.

Type 1	Undulating Enclosed Farmland
Area 1.A	- Stretton & Hatton

- Area 1.B - Appleton Thorn
- Area 1.C - Winwick, Culcheth, Glazebrook & Rixton
- Area 1.D - Croft
- Area 1.E - Burtonwood
- Area 1.F - Penketh & Cuerdley

Type 2 Mossland Landscape

- Area 2.A - Rixton, Woolston & Risley Moss
- Area 2.B - Holcroft and Glazebrook Moss
- Area 2.C - Stretton & Appleton Moss
- Area 2.D - Pill Moss

Type 3 Red Sandstone Escarpment

- Area 3.A - Appleton Park & Grappenhall
- Area 3.B - Massey Brook
- Area 3.C - Lymm

Type 4 Level Areas of Farmland and Former Airfields

- Area 4.A - Limekilns
- Area 4.B - Former Burtonwood Airfield
- Area 4.C - Former Stretton Airfield

Type 5 River Flood Plain

- Area 5.A - River Mersey/Bollin
- Area 5.B - River Glaze
- Area 5.C - Sankey Brook

Type 6 Intertidal Areas

- Area 6.A - Victoria Park to Fiddlers Ferry

Landscape Character Types

Landscape Character Types comprise of one or more Landscape Character Areas of broadly similar character. Each landscape character type is dealt with in turn and is identified by a location plan illustrating both the **Landscape Type** and sub-divisions of **Landscape Areas**, followed by a description of the landscape and its setting.

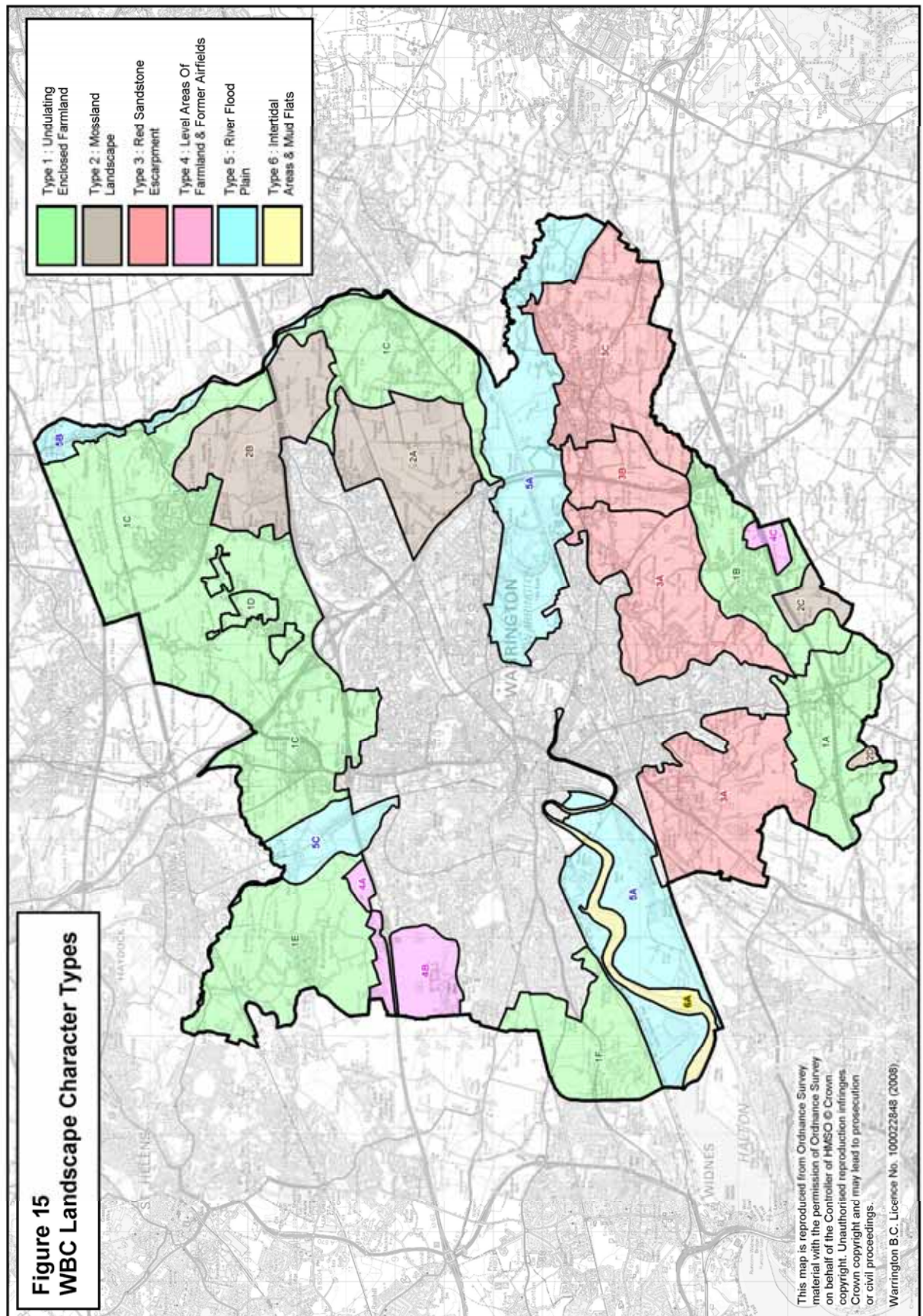
This is summarised by identifying the key characteristics which contribute to make the character type distinctive. The landscape description is followed by a brief overview of cultural history for the character type as a whole.

Landscape Character Areas

These provide a more detailed landscape description of the individual areas concerned and are again summarised by their key characteristics. This is followed by a more detailed description of each area's cultural history and its relationship with the landscape – summarised by the key cultural elements in the landscape.

The section continues to discuss landfill and mineral extraction sites where applicable, together with agriculture and soil classification.

- Landscape sensitivity considers the physical and visual features in the landscape which, if lost or altered, would change the area's character. The key elements of landscape sensitivity are summarised.
- Landscape change discusses those elements which are in the process of changing and have changed or contain aspects of the area's landscape character. These have been observed on site and have also been considered from the data provided by the Countryside Agency's Countryside Quarterly counts (CQC).
- Recommended Management and Landscape Objectives. This section considers the existing merits and de-merits of the area's landscape in relation to its sensitivity and existing or potential change envisaged. A series of management recommendations are made to retain, alter or enhance the present landscape.
- Settlement provides an overview of the settlement in the area.
- Photographs taken as part of the field survey work have been selected to illustrate the main landscape type and character areas together with other features which may be important to the text. These are inserted in their relevant positions.



TYPE 1. UNDULATING ENCLOSED FARMLAND

Description

This is the largest area of landscape type within the Borough. It includes a large arc of land between Burtonwood and Glazebrook to the north and north-east, a further large area of land to the south combining the areas of Hatton and Stretton, (south of the Red Sandstone Escarpment) and a smaller area of land to the west, in Penketh.

This landscape type is characterised almost entirely by arable farming with medium to large fields divided by hawthorn hedges. Many hedges and hedgerow trees have been lost in recent historic times as farmers have sought to produce more economically viable fields. Without stock, the need to maintain the hedgerows has been lost, often resulting in fragmented remnant hedge lines. The need for hedgerow trees has also been lost (as a source of shelter and firewood) and trees are notably fewer than in other areas.

There are a large number of former marl pits and ponds within the landscape, often identified by their fringes of willow and alder, as well as occasional isolated oak trees within fields.

This landscape is subject to high input farming and large heaps of paper waste, manures and similar organic materials may occasionally be seen. Some fields have recently been subject to 'set-aside' and left fallow supporting rough grassland and weed growth. In other areas the viability of the farming methods is clearly under pressure and land has been sold or leased for horse grazing and various leisure facilities.

The gently undulating ground can often be seen over a single or a group of fields, forming a subtle but characteristic 'wave' to views of cropped or ploughed landscape. There are often superb views out from these areas, particularly to the Pennines to the east and to the Red Sandstone Escarpment to the south. These views are most notable in the Burtonwood, Winwick and Culcheth areas.

Many features and landmarks are also prominent within these areas.

Key Characteristics:

- Undulating enclosed farmland
- Sweeping views from higher ground
- Mainly medium to often large-scale mainly arable fields
- Sparsity of hedgerow trees
- Hedgerows field boundaries often fragmented



Photo 19e. A view west from Clay Lane, Burtonwood. Arable farmland in the foreground - forestry in the background.

Cultural History

The medium to large sized fields area are of historically recent origin. The 1845 OS maps of these areas show a radically different landscape, with many hundreds of small fields over most of the area. The only exceptions are in those areas of lighter soils, where fields appear generally larger. This was a landscape of small farms, where pastoral farming was dominant with some arable farming on the lighter soils.

To the north of the Borough a number of visually prominent knolls have been used as the sites for farmsteads or for more notable buildings, such as Winwick church.

At least part of this landscape was the product of Parliamentary Enclosure. The Enclosure Acts first begin to appear around the year 1600, but there are several periods of more intensive Enclosure activity up to the late C19th. The intention of the enclosers was to create more efficient farms, where the land holding was not so dispersed as in the medieval three-field system and would enable higher returns. The myth that all modern enclosed farmland was created by Enclosure Acts has been disproved since 1911 when it was demonstrated that the Enclosure Acts actually had covered less than one fifth of England.

Cheshire in particular had a reputation in medieval times of being well-wooded, as did much of south Lancashire. Well-wooded did not necessarily mean that there was a great deal of woodland, but there could also have been a great deal of hedgerow timber.

By 1724, when Defoe visited the area, Warrington was a significant agricultural centre, producing flax for the local linen industry and the local sail cloth industry. The Corn Laws of the early C19th protected English grain production and encouraged large-scale production. Many of the smaller fields were amalgamated to produce larger, still more efficient fields and many hedges and hedgerow trees were removed. Large scale grain production was encouraged by the brewing industries, e.g. Greenalls Brewery and Burtonwood Brewery.

During the C20th, grain production had been significantly reduced, but the two World Wars stimulated food production and much of this farmland continued to be cultivated. After WW2, productivity again began to slide until the UK joined the European Union and grain prices were subsidised. Arable farmers in this area still produce predominantly grain crops but tend to rotate with potatoes and to diversify into oil seed rape, turnips etc. Climate change is becoming more problematic with time and cultivation of some of the heavier soils is beginning to be reduced.

This landscape type is crossed by several major communication routes. These run north-south or east-west. The oldest route is the A49, running north-south through the area, crossing the River Mersey by the bridge at Bridgefoot. This road was paralleled by the construction of the M6 motorway to the east, which now carries the bulk of road traffic moving north-south through the area. Some of the east-west roads are also ancient, such as the Stretton-Hatton road, which was Listed a Roman road. To the north of the Borough the more convoluted east-west route was replaced by the A580 East Lancashire Road and this in turn by the M62 motorway, running across the Borough a little further south. It is one of the characteristic features of the area that the major vehicular routes form a box around the town.

The rail routes around the town are very similar, Stephenson's Manchester to Liverpool railway line running east-west across the north of the town. A second east-west line was built later in the C19th, running through Warrington and creating Central Station. The main West Coast line was built in the 1840s running north-south and creating Bank Quay Station.

Key cultural elements in the landscape:

- The A49 major historic route north south
- Stephenson's Manchester to Liverpool railway line and other historic railway lines
- A580 East Lancashire Road

- The M6 motorway (1958)
- The M62 motorway
- Sand and gravel quarries
- Knolls used for farmsteads or churches (in the north of the area)
- Medium to large-sized fields, often growing wheat
- Winwick Church

Landfill and Mineral Extraction

This area has not been subject to landfill operations because of the difficulties in achieving acceptable landform. The historic land values have been considerably higher than those of the flood plain and mosslands which has precluded large scale landfill operations. However Rixton landfill sites fall within this area type.

Mineral extraction has been limited to quarrying. The red sandstone of the northern area around Winwick is extremely soft and easily dug out and worked. Sandstone has and is being quarried in the area to the east of Winwick around Southworth Hall Farm. Gravel has been dug from an area to the northwest of the M6 and M56 junction, creating a lake. Coal has been mined to the north and west of Burtonwood and Collins Green.

Agricultural Land Classification

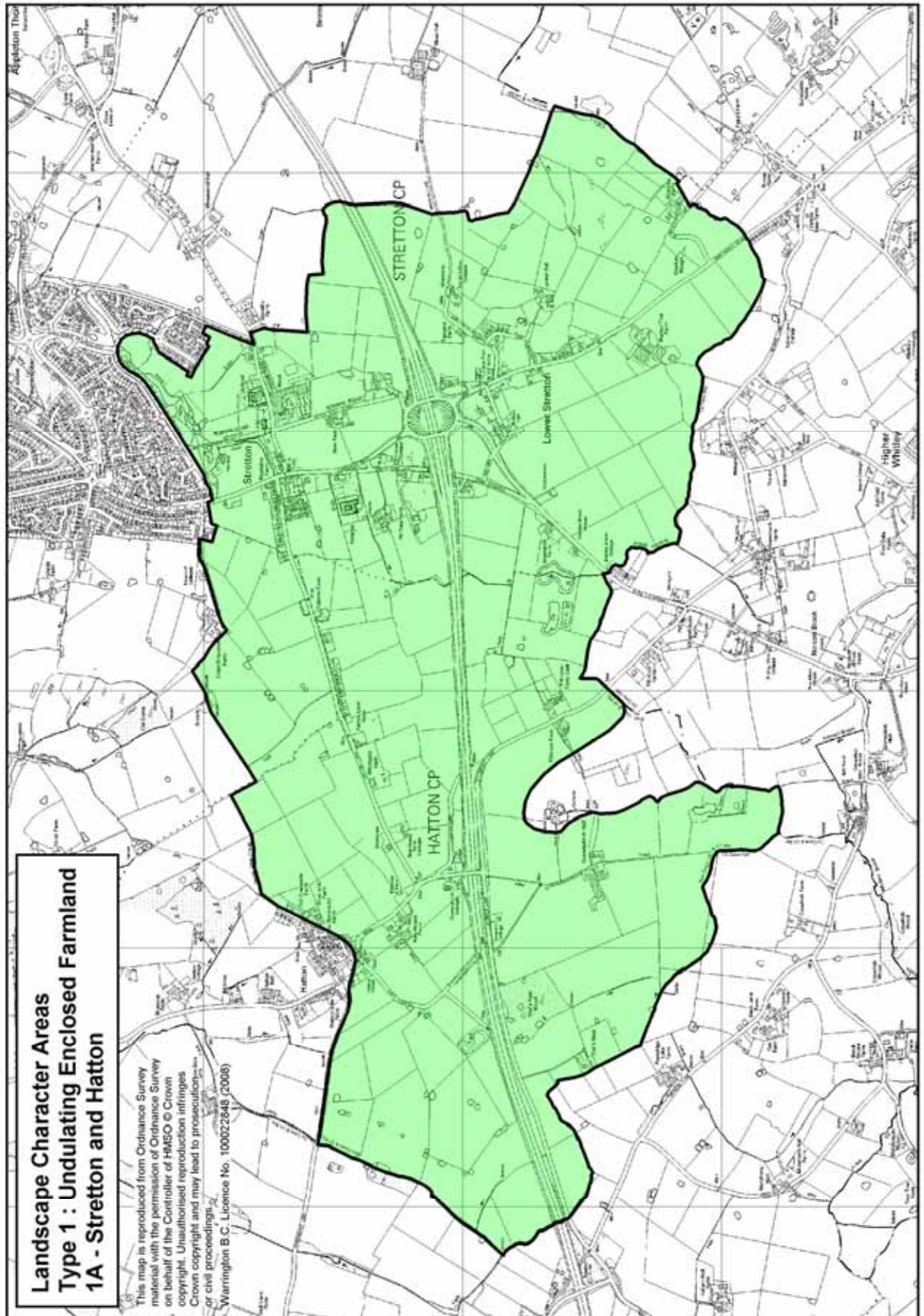
The whole of the undulating enclosed farmland is classified as Grade 2 or Grade 3.

Settlement

Burtonwood, Winwick, Croft, Culcheth, Glazebury, Glazebrook, Hollins Green, Appleton Thorn and Stretton are all villages occurring within the Undulating Enclosed Farmland LCA Type. Nearly all of them originated from a core of farms, some of which, as in Appleton Thorn, Stretton and Croft, still exist. Nearly all of them have experienced rapid expansion in the C20th, often with poorly-planned housing estates tacked on to the existing village or hamlet structure, without regard to the form of the village and especially without regard to the local vernacular architecture. The result is an architectural hotch potch of styles which has, to a varying extent, diluted the sense of identity of the villages. Culcheth, the largest of the villages, is a particular example of poorly-planned housing estate expansion.

Some villages, such as Collins Green, Burtonwood, Glazebury and Glazebrook, experienced considerable growth in the late C19th, the former two villages through coal mining and the building of miners' houses, the latter three through the coming of the railway and often the siting of a station nearby.

Hamlets such as Kenyon and Lower Stretton have stayed in much the same form over many years. Kenyon because the nearby station closed and Lower Stretton because the M56 took much of the passing traffic away.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.A STRETTON AND HATTON

Description

The Hatton area comprises of a broad, gently undulating agricultural landscape situated to the south-west of the study area. To the north, the land forms the crest of the Red Sandstone Escarpment and from this crest, the land gently falls to the south. The area is strongly influenced by the M56 motorway which runs through the area just to the south of the crest of the Escarpment. Hatton Lane, just north of the M56, is built on the line of a Roman Road.

The farmland is a traditional mix of pasture and arable although more recent changes include noticeable areas of horse grazing, fishing ponds and a farm shop development.

Settlement is represented by the attractive village of Stretton, and just outside the area, Hatton - both highlighted by their church towers set on the ridgeline.

The character type merges with a similar area to the south, identified by the Vale Royal LCA as Type 4E: *Frandleigh Undulating Enclosed Farmland*.

Key Characteristics:

- Gently undulating landscape containing small to medium-sized regular fields
- Locally dominant visual and audible effect of M56
- Mixed farming with 'gapped' hedgerows
- Relatively few hedgerow trees, mainly stunted oaks limited to highway boundaries
- Quiet rural character except where exposed to the M56
- Red brick farms in Victorian vernacular style
- 19th century plantation woodland
- Small orchards associated with farmhouses
- Distant views of red sandstone ridge skyline outside the Borough, to the south-west

- Small scale marl pits often characterised by surrounding willow and alder vegetation
- Settlement pattern comprises of scattered farms and hamlets retaining much of their original character
- Presence of narrow sunken lanes with hedgerows restricting views



Photo 157. View east along Pill Moss Lane, showing hedgerow trees along the highway, but not in the fields.

Cultural History

Stretton is sited on the junction of two Roman roads, one running north-south – aligning with and partially covered by the A49 - and known as King Street, runs close to the Parish church. The other ran along the ridge line. Over the centuries the north-south road moved a few metres to the west and this is now the centre of the village. The name 'Stretton' probably refers to 'Street or Stret' and 'tun' or village.

Stretton church, dedicated to St Matthew, is built on the site of a Commissioners' Church of 1827 designed by Philip Hardwick. The present church was designed by George Gilbert Scott and built in 1870, incorporating elements of both the previous church and some later additions. It is Listed Grade II. To the north-east of the road junction is a recreation ground with a cricket square and pavilion, part of the Pewterspear development (to the north) built by Warrington Runcorn Development Corporation.

Lower Stretton is on the south side of the M56 and contains Stretton Hall, seat of the Starkey family from the reign of Henry II until C18th. The present building was built in 1664, with C19th restoration and extension. The C17th oak frame is brick-nogged; the building is Listed Grade II. Stretton House, Northwich Road, has a mixture of alterations from the 1788 original, a central portion of c. 1800 and gabled left portion of c. 1830. It is Listed Grade II, as is a former barn in the grounds, built 1769, now a garage for historic vehicles.

Tanyard House, Well Lane, is an early C18th farmhouse, Listed Grade II. Firtree House, Tarporley Road is another farmhouse, of the late C18th with a C19th extension to the rear, it is also Listed Grade II.

'The Hollow Tree' is a fine Georgian building, a public house standing on a cut-off section of Tarporley Road (following construction of the M56). It is otherwise known as Wallspit, built 1791 with later additions. It has a blocked opening in the centre of the frontage third storey, painted to resemble one of the adjacent windows. Immediately to the south is a small, fine, contemporary red sandstone stable, with hay loft above with vent slots in the gable ends. This is probably late C18th and is Listed Grade II.

There is also a large, barn-like structure, to the north-west of the M56 Tarporley Road junction, recently built and very much in view from the east-bound traffic from the M56. Regrettably, this appears to have been built speculatively, in the hope that planning permission for residential development may eventually be forthcoming.

Construction began on the M56 in 1968, the section J9 to J11 (Runcorn E / Warrington A56) was opened in 1971.

Key cultural elements in the landscape:

- The A49 major historic route north-south
- The Stretton Road / Hatton Road (probable Roman Road)
- King Street Roman Road
- The M56 motorway
- Historic Halls and associated buildings
- St Matthew's Church Tower
- The incursion of Warrington and Runcorn New Town housing to the north

Landfill and Mineral Extraction

No landfill operations have taken place in this area and there has been no quarrying or mineral extraction.

Agricultural Land Classification

The whole of this area is classified as Grade 3 agricultural land.



Photo 154. The 'Cat and Lion' Public House, London Road, Stretton, with fine ashlar Red Sandstone façade.

Landscape Sensitivity

The area lies on the crest of the Red Sandstone Escarpment and is sensitive to creating skyline views to surrounding areas. At present only the Hatton village church tower creates a focal point breaking a skyline of trees and hedgerows. To the south the land drops gently away towards Pill Moss with the result that much of the area is overlooked from the roads to the north and especially from the M56 traversing the area.

The Hatton area is comparatively quiet and rural in nature, apart from the physical and audible intrusion of the M56 motorway.

The landscape of the area appears to have undergone less change over the past 200 years than other parts of the Borough and still retains an old agricultural character, emphasised by sunken narrow lanes, small field patterns and managed hedgerows with scattered hedgerow oaks. The village of Hatton reiterates the rural character, with its linear form of attractive brick houses and cottages, church, public house and farm buildings. Little new development has taken place to disrupt this quality. The village of Stretton has a similar rural character, although has a much busier feel due to the presence of the busy A49.

Farm buildings, although not appearing to prosper, still retain much of their original character and quality, constructed typically in vernacular style with red brick and Welsh slate roofs. They fit comfortably into the landscape without many of the later additions of incongruous, more modern barn structures, slurry tanks, hoppers etc.

The distinctive small scale and rural/historic landscape of the area is rare within the Borough and particularly sensitive to change. Adjoining areas of Stretton and Appleton have already lost this character by enlarged field sizes, the loss of hedgerows and hedgerow trees and, in particular, by the expansion of new roads and housing areas.

Key elements of landscape sensitivity:

- Skyline location
- Strong rural/historic agricultural character
- Narrow lanes
- Small scale field patterns
- Hedgerows and hedgerow trees
- Cohesive village character
- Small scale farms and associated buildings

Landscape Change

Although change to the landscape appears to be slower in this area, a combination of fieldwork and evidence from CQC (Countrywide Quality Counts – sponsored by the Countryside Agency, DEFRA, English Nature and English Heritage) reveals the following forces for landscape change.

Landscape change to the area is summarised as follows:

- Past impact of M56 motorway

- Decline and loss of hedgerow trees, particularly within field boundaries
- Steady decline in maintenance and upkeep of hedgelines
- Decline and loss of small orchards associated with farms
- Silting, infill and general reduction in marl pit ponds
- Pressure to provide horse grazing paddocks with associated fencing
- Steady improvement of grassland by drainage and fertiliser application resulting in consequent loss of species rich meadows



Photo 151: 'The Hollow Tree' Public House, otherwise known as Wallspit, built 1791 with later additions.

Recommended Management and Landscape Objectives

The fundamental rural landscape character of the area still remains and is both attractive and relatively cohesive. The main landscape objective should therefore be to conserve and enhance the existing landscape and village settlements.

Management of the landscape:

- Retain existing historic small field boundary pattern

- Retain existing native hedgerows. Protect from damage, manage and infill gaps with new plants
- Conserve and manage remaining hedgerow trees, introducing new hedgerow oak trees to gapped and absent hedgerows
- Increase bio-diversity, re-introducing specie rich meadows. Particularly relevant to marginal land adjacent to Pillmoss, where continuing drainage and fertiliser use could be relaxed
- Encourage the retention of traditional pastoral grazing, resisting the spread of horse grazing paddocks
- Encourage existing equine users to respect, conserve and enhance original field hedgerow boundaries and trees (through the use of secondary fences to minimise browsing)
- Encourage horse owners / paddock owners to carry out cyclical grazing regimes, alternating cattle with horses
- Promote the restoration, conservation and reinstatement of local orchards, particularly those which are farm related
- Protect and conserve the rural character of the lanes, opposing the introduction of road widening, kerbs and large scale or inappropriate signage and lighting
- Conserve and reinstate the old marl pit ponds, de-silting to reinstate open water, removing rubbish and debris. Generally remove tree and scrub growth to the southern and western margins of the ponds to allow light penetration, maximising habitat and wildlife potential. Where possible, connect isolated 'island' ponds to adjacent headlands or hedgerows with a strip of uncultivated land to provide cover for amphibians
- Conserve and manage existing woodlands to encourage habitat diversity
- Consider new small scale native woodlands to screen the M56 motorway and as wildlife corridors to provide inter-area links, e.g. providing a link between Pillmoss and the existing woodland of Owls Nest Wood
- Maintain and enhance skyline views of Hatton and Stretton Churches

Settlement

The village of Stretton is a linear settlement running east-west along the line of Hatton Lane and Stretton Road (B5356), centering on the junction with London Road (A49). Both these roads are former Roman roads, the original junction being just west of Stretton Church. The older buildings of the village are centred on the road junction.

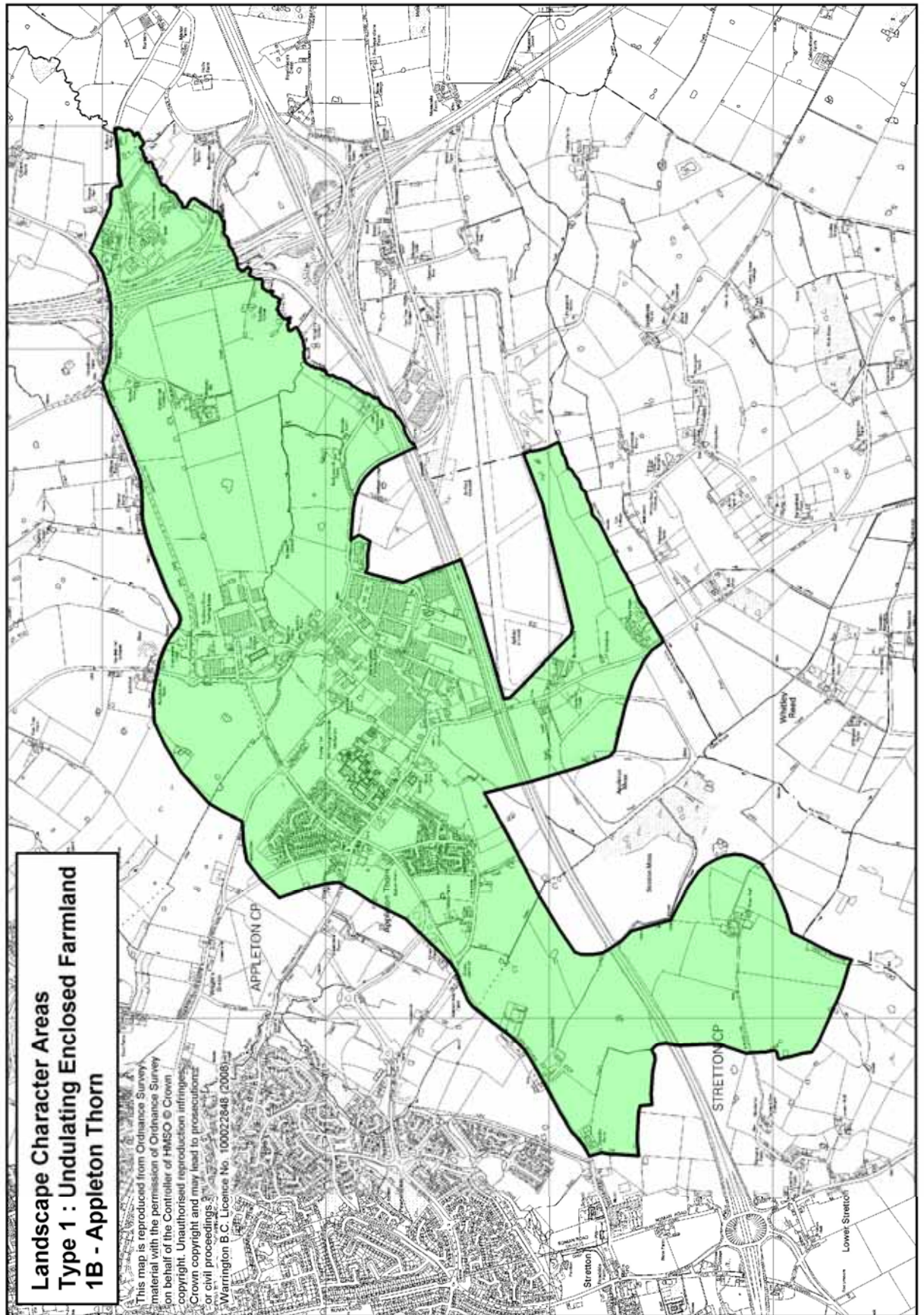
By far the greatest number of houses in Stretton are along the line of Hatton Lane (B5356), enjoying good open views to the South.

Lower Stretton is a hamlet on the south side of the M56, centering on the junction of Northwich Road and Tarporley Road, which are linked by Hall Lane. Houses and farms built along Northwich Road, Hall Lane and the small lanes to the east, create an intimate and extremely attractive landscape.

In the northern part of Stretton are two substantial building complexes, a large hotel to the east of the junction of Spark Hall Close and Stretton Road, now The Park Royal Hotel, and a BUPA hospital to the west of Tarporley Road.

There are a number of farm complexes of note in the area, including Newhouse Farm, Queestybirch Hall, Walnut Tree Farm, Lower Hall and Stockley Farm.

Throughout the area farm buildings, although not generally appearing to prosper, still retain much of their original character and quality, constructed typically in vernacular style with red brick with Welsh slate roofs.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.B APPLETON THORN

Description

The area is situated to the south-east of the study area and contains a larger scale of landscape relative to the adjoining Hatton area. To the north lies the gentle crest of the Red Sandstone Escarpment, with the land notably falling back to the south. In common with the adjoining Hatton area, it is split into two halves by the M56, running in an east-west direction.

Farmland is generally undulating and slopes down to reasonably level areas of mosslands known as Appleton and Stretton Moss. Agriculture is mainly arable and is characteristically composed of very large fields with a sparsity of hedgerows.

Settlement is mainly represented by the attractive village centre of Appleton Thorn, highlighted by its church tower set on the ridgeline and by the 'village extension' of Appleton Thorn Trading Estate.

Farm complexes tend to be larger than those found on surrounding areas, possibly reflecting the improved agricultural production related to the mosslands.

The character type merges with a similar area to the south identified by the Vale Royal LCA as *Type 9B: Arley Lowland Farmland and Mosses*.

Key Characteristics:

- Broad expansive agricultural landscape lacking hedgerows
- Strong visual and audible effect of M56
- Noticeably gently sloping land to the south
- Views of Pennine skyline to the east
- Skyline imposition of commercial development on ridgeline at Appleton Thorn
- Ridgeline feature of Appleton Thorn church tower

Cultural History

Appleton is an ancient village forming part of the parish of Great Budworth. It appears in the Domesday Book as 'Epeltune' – the tun of the apples. It belonged to Geoffrey Dutton during the reign of Henry II but much later passed, together with Budworth, to Sir Peter Warburton. The village continued its association with the Egerton Warburton family into recent times, their seat being at Arley Hall, some three miles to the south. It was known as the Higher Town of Appleton to distinguish it from Appleton Lower Town, but has since come to be known as Appleton Thorn.

Running through Appleton from east-west was the road running along the ridgeline from Lymm to Chester, now the B5356. The Arley Road from the south and Lumb Brook Road from the north met in the centre of the village. In the C18th, to the north-west of this junction was 'The Thorn' public house with two smithies on the opposite corners.

In the centre of the village was Spen Heath Common. Running around the southern edge of the common was Pepper Street. Hatton Farm stood just to the north of Pepper Street and there was a windmill in the farmyard.



Photo 130a. A view north from the crest of the escarpment at Reddish Hall Farm, Cartridge Lane.

There is a local legend that a hawthorn at Appleton Thorn was a cutting from the Holy Thorn of Glastonbury, itself supposed to have sprung from the staff carried by Joseph of Arimathea. A replacement tree was planted in recent times. 'Bawming the Thorn' was a medieval ceremony involving decorating the thorn tree as part of the 'Walking Day' event. The Reverend Egerton Warburton is presumed to have re-introduced the ceremony in the C19th, but the ceremony died out in the 1930s to be revived in 1967 by the local Headmaster, Mr Bob Jones.

In 1764 an Enclosure Act was passed for the enclosure of fields within the village of Appleton, but this may relate both to the Higher and Lower Towns.

The original Parish Church for Appleton Thorn is the Church of Saint Mary and All Saints, Great Budworth, but within the village is the more recent parish church of St Cross, opened in 1887, an attractive smaller church.

Within the village enclave is a prison, HMTOI, a Young Offender Institution, the presence of which has had some impact on the village. Although not in the village centre, the Institution is very close and the distinctive institutional architecture is relatively oppressive. This prison was the first to introduce the US style 'Boot Camp' to young offenders, involving discipline, military style drilling and physical education. The prison is low-rise so the visual impacts are relatively local.

To the east of the village is the large Barleycastle Trading Estate, based on land which was formerly part of the Stretton Airfield, having been cut off from the rest of the airfield through the construction of the M56 motorway. This is a large mixed use Trading Estate with large, metal clad units and with secure yards. There is a considerable volume of large articulated tractor units using this estate, but the bulk of such traffic exits to the north and then onto the M6 / M56 junction.

North of the Barleycastle Trading Estate is the Appleton Thorn Trading Estate, a smaller mixed use Trading Estate. This estate does have a major visual impact on the area, being located directly on the ridgeline of the escarpment.

Bradley Hall, an attractive group of farm buildings is sited on the summit of the escarpment. An ancient moated site lies in the grounds. The site is very similar to that at the nearby Reddish Hall. Moss Hall, another attractive farmstead lies in the south of this area, on the western side of Stretton Moss.

Tanyard Farm farmbuilding on Barleycastle Lane and Barleycastle Farmhouse, Barleycastle Lane are both Listed Grade II, as are Booths Farm farmhouse and Booths Farm Shippon on Barleycastle Lane, sited opposite the trading estate.

In 1959, construction commenced on the Warrington section of the M6 motorway, while construction began on the M56 in 1968. The section from J7 (Altrincham) to J9 (the M6) opened in 1974 and the section J9 to J11 (Runcorn E / Warrington A56) in 1971. Poplar 2000, a recently constructed motorway services facility occupies the extreme eastern end of this landscape type, but is separated from the remainder of the area by the cutting occupied by the M6.

Key cultural elements in the landscape:

- The Thorn Tree and 'The Thorn' public house
- St Cross Church
- The M56 motorway
- The M6 motorway
- Appleton Thorn prison, formerly accommodation for Stretton Airfield
- Barleycastle Trading Estate and Appleton Thorn Trading Estate
- Bradley Hall Farm

Landscape Sensitivity

The Stretton and Appleton areas present a broader scale, more open landscape in comparison to the adjoining Hatton area. Dividing field boundaries have been lost to form larger fields and more extensive field patterns. More recent, starkly intrusive development has also taken place on the skyline crest. The original, attractive village centre of Appleton Thorn has greatly expanded to include new housing estates, whilst an expansive industrial and warehousing estate has also been amalgamated with the old village centre to the south.

The original focal point and landmark of Appleton Thorn Church has now been joined by both new housing and large warehouse blocks which break the skyline crest.

Farm buildings are generally larger in scale with more recently constructed outbuildings, barns and associated structures. Agricultural use is mainly arable with multi-gapped or poorly managed hedgerows with few remaining hedgerow trees. Whilst the farmland is well-tended, the overall quality of the landscape has declined.

The M56 motorway again splits the area into two halves and, with little or no associated screen planting, forms a dominant visual feature.

Many of the key elements of sensitivity outlined in the Hatton area have already been lost or degraded.

Key elements of landscape sensitivity:

- Skyline location
- Remaining hedgerows
- Remaining views of Appleton Thorn Church on skyline
- Marl pit ponds



Photo 144a. New housing on the skyline at Pewterspear, viewed from Stretton Road

Landscape Change

Substantial changes have occurred throughout the landscape of the area. The creation of larger agricultural fields has formed more economically sized field units for arable crops and negated the need for functional stock proof hedges. Hedgerow trees have also been lost as “unnecessary” obstacles and creators of shade. The development of new housing and industrial areas has also been at the expense of the agricultural landscape. A rapid acceleration of landscape change and development appears to have taken place during the C20th – in part related to the Second World War Airfield and its subsequent redevelopment as an industrial estate.

The village of Appleton Thorn has been severely and adversely affected by the visual impacts of both the industrial estate and the prison. This has had a major impact on the village structure and its immediate environs.

Landscape change to the area is summarised as follows:

- Past impact of Stretton Airfield
- Past impact of M56 motorway
- Substantial reduction in hedgerows and hedgerow trees
- Decline in management of remaining hedgerows and hedgerow trees
- Encroachment of housing and development imposing onto the skyline
- Constant improvement of soil fertility for arable crops by drainage and fertilisers
- Tipping in marl pit ponds

Recommended Management and Landscape Objectives

Although much of the original agricultural landscape of the area has been lost to development and agricultural 'modernisation', a basic framework of field patterns can still be improved and restored to improve the landscape quality. The restoration and management of hedgerows, together with the re-introduction of hedgerow trees, would greatly strengthen the landscape structure and improve the visual appearance of the area.

A strong control of the type, quality and location of new development should aim to reassert the village centre and prevent further skyline intrusions to the crest line. The emphasis for the landscape management of the area should therefore be one of restoration and

enhancement. Native woodland screen planting should also be considered for the more obtrusive aspects of the industrial estate, together with the more exposed sections of the M56.

Management of the Landscape:

- Restore and enhance the remaining field pattern by additional hedgerow planting
- Reintroduce hedgerow trees to the hedgerows
- Conserve and manage remaining hedgerows
- Consider additional native woodland planting as a screen to exposed sections of M56 and Stretton Industrial Estate. Particularly in connection with obtrusive skyline views
- Conserve and reinstate the old marl pit ponds, de-silting and creating open water. Generally remove tree and shrub growth for the south and west aspects to allow light penetration to maximise habitat and wildlife potential
- Support opportunities to increase bio-diversity by native woodland planting to field corners and reducing herbicide use to field margins and streams

Settlement

Appleton Thorn village is sited adjacent to the crest of the Red Sandstone Escarpment at the junction of the B5356 Stretton Road (the former Roman Road running along and just behind the escarpment crest) and Green Lane / Arley Road. The village core is an attractive complex of buildings, including St Cross Church and the primary school and 'The Thorn' public house. The rest of the village is sited in two distinct areas.

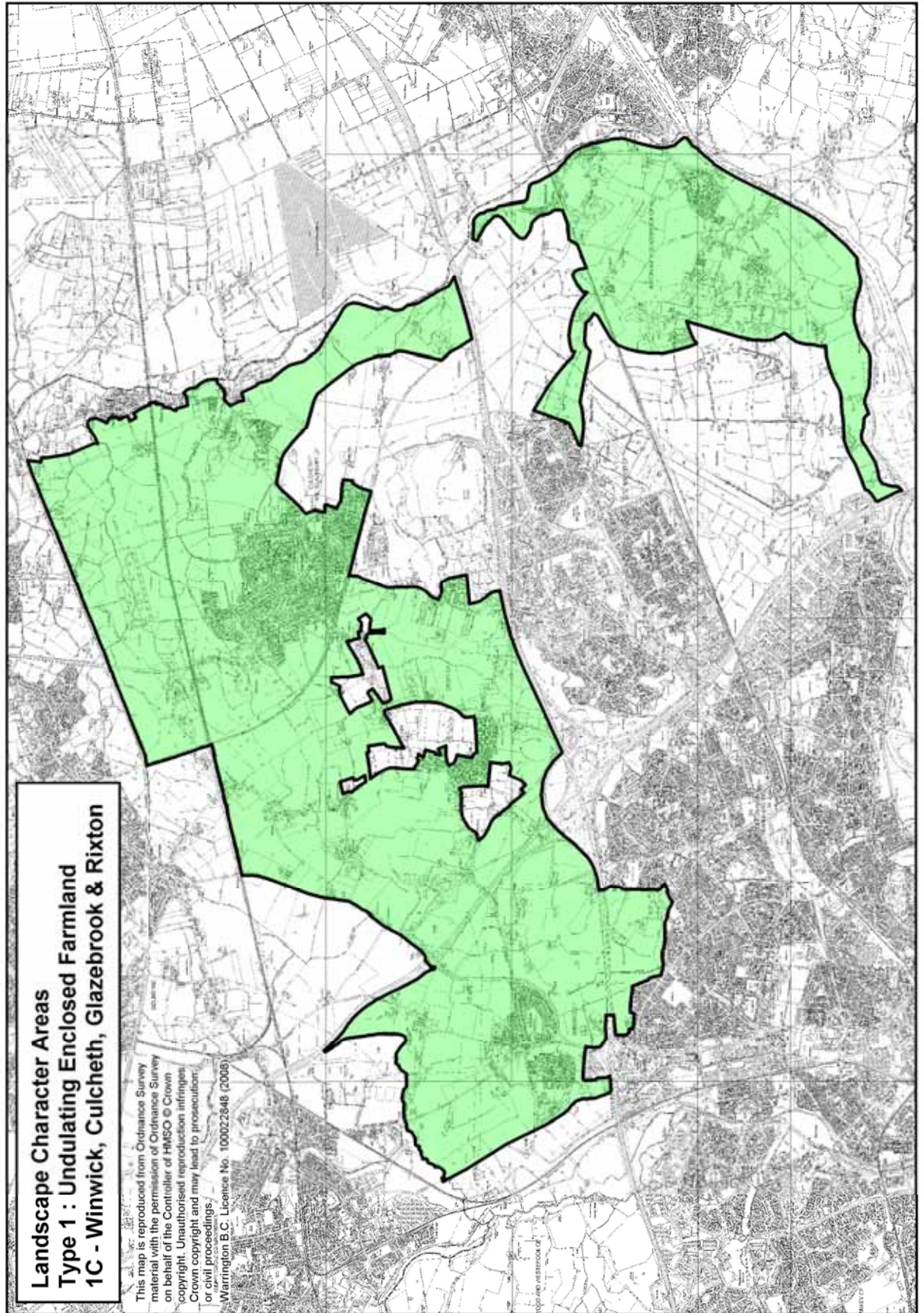
The northern area is slightly older, but contains some modern housing estates to the north. The southern area, built to the south edge of Pepper Street, also contains a number of modern estates. To the east of is the Appleton Thorn prison, a complex of mainly 1960s buildings which visually blights the village.



Photo 139: St Cross Church, Appleton Thorn undergoing building works.

Barleycastle Trading Estate and Appleton Thorn Trading Estate, located to the east of Appleton Thorn, are substantial estates of warehousing, within an overall height and scale that dwarfs the village.

The village of Hatton reiterates the area's rural character with its original nucleated form of attractive brick houses and cottages, church, public house and farm buildings and scattering of farms and farm buildings outside the village core. Little new development has taken place to disrupt this quality although some C20th housing has been built in the village, which is relatively undistinguished. There are also a number of older houses, several dating from the C17th, when brick was first introduced into the area. The 'Hatton Arms', formerly the 'Red Lion' (a converted C17th cottage) is Listed Grade II.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.C WINWICK, CULCHETH, GLAZEBROOK AND RIXTON

Description

These areas typify undulating enclosed farmland with a medium to large-scale field pattern.

The area stretches in an arc from the River Mersey in the south, through Glazebrook to Culcheth in the north and finally wrapping around Winwick in the west.

The agriculture predominantly consists of arable fields, intensely cropped, with poorly maintained remnant hedgerows with few hedgerow trees. Small deciduous woodlands form backdrops to views within the landscape.

Areas of heavy clay soils have necessitated comprehensive land drainage systems although these are not always effective, leading to ephemeral areas of standing water in low areas at times of heavy rainfall. Other areas of lighter soils, particularly those just east of the village of Winwick, around Southworth, are better drained and heavily cultivated.

The area contains three significant knolls to the north-west of this area, one is the large knoll on which Winwick Church stands; a second to the north, is defined by Cop Halt Farm and the third is at Wood Head Farm just west of the Parkside Road crossing of the M6. The A49 road north from Warrington runs just to the west of Winwick Church over the larger knoll and then just to the east of Cop Halt Farm before crossing Oswald's Brook at Red Bank. It therefore follows the line of higher ground.

Associated with these knolls is another unusual feature, Oswald's Brook, forming an anomaly within the gently undulating landscape. The Borough boundary to the north of Winwick follows the line of Oswald's Brook, a fairly deeply incised stream running from the east and discharging into Newton Brook which in turn discharges into Sankey Brook. The valley of Oswald's Brook is narrow, wooded and contains low exposed red sandstone cliffs.

West of Hollins Green are the Rixton Clay Pits, an area of disused clay pits, some flooded, some partially flooded and some partially filled; these pits have been colonised by native species, creating a rich melange of habitats and a visually complex series of intimate spaces.

Immediately north of Rixton Clay Pits and abutting Risley Moss to the west is Rixton Landfill Site. This is a domestic refuse facility, which currently presents a whaleback form with a high

ridge running north – south. The landfill site is visually very prominent in the landscape, particularly dominating Rixton Moss to the west. Views from the south however are screened by Rixton Clay Pits. There appears to be little or no mitigation works to reduce the impact of the site.

North of Southworth Hall is a large sand quarry, screened by mounding and planting. This sand pit adjoins an old colliery tip to the north and to the west, part of which (adjacent to the M6) has been reclaimed.



Photo 32a . South elevation of the historic Winwick Church - a very conspicuous landmark.

Key Characteristics:

- Sweeping views to the north and east from the areas of Culcheth and Glazebrook
- Sweeping views to the south from the Winwick area
- Medium to often large-scale mainly arable fields
- Lack of hedgerow trees
- Hedgerows between fields often fragmented
- Deciduous wooded backdrops
- Rixton Clay Pits
- Rixton Landfill Site

Cultural History

Two important roads pass north-south through this area, the A49 through Winwick and the B5212 Holcroft Lane / A574 through Glazebury. Winwick Road was a former Roman Road of great strategic importance leading down to the bridge over the Mersey in Warrington. Holcroft Lane, to the east, was of lesser strategic importance, but took people through the relatively narrow gap between the mosses of the north side of the Mersey occupied by the River Glaze. This was the route taken by the Duke of Cumberland in December 1745 in pursuit of the retreating army of Bonnie Prince Charlie. Holcroft Lane is to the west of the River Glaze valley leading from Wigan down to the ford of the River Mersey at Warburton. Both roads were also important from ancient times for the movement of salt northwards from the Cheshire saltpans.

A third important road runs east-west through the south of the area, the A57 Manchester Road. This road follows the high ground north of the River Mersey flood plain and to the south of the great basin formed by Rixton Moss. The road connects with the M6 to the west and with the B5212 to the east. It is a long-established road and has some important historic sites along it. Rixton Old Hall is just south of the road at the edge of the Mersey flood plain; Rixton New Hall is just to the east. Hollins Green, a small village just north of the road contains a churchyard on an ancient circular-plan site with a footpath called 'The Weint' running around it –suggestive of a pre-Roman origin. The lowest ford on the Mersey was at Warburton and the road from Warburton joins the A57 just west of Hollins Green.

A fourth, locally important road runs east – west to the north of the area, connecting Winwick, Croft, Culcheth and Glazebury. Although classed today as a minor road, it connects with the more important north-south roads referred to above and is significant in that a number of moated or high status sites are located either at the roadside or close to the route. These include Winwick Church, Myddleton Hall, Southworth Hall and the former sites of Old Kingnall Hall and Kingnall Hall. A tumulus is sited just north of the road near Myddleton Hall. This evidence suggests that the road is probably ancient.

Winwick, the local high point, has clearly been the site of habitation for some time. A group of five barrows or burial mounds have been discovered at Winwick, two in the late C19th and two in modern times. One of these barrows, much disturbed, revealed Beaker pottery.

Another barrow was discovered at Southworth Hall Farm, Croft, east of Winwick, comprising a more extensive cemetery of over 800 burials possibly focused on the Bronze Age burial mound.

There are also a number of medieval manors scattered throughout this area, based on local halls. These include Culcheth, Holcroft, Peasfurlong, Risley, Kenyon and Southworth, of which Culcheth was the principal manor. Parts of these manorial holdings reached into the adjacent mosslands and it is probable that the mosses were exploited for hunting and for fuel. There are references to Culcheth having four plough-lands in 1212. Holcroft and Hurst appear to have had a number of water mills, implying a fairly substantial area of cereals. The site of at least one mill is probably close to Holcroft Hall - to the south of the Hall in the southern arm of Crow Wood. The 1832 Tithe Map records the name of this arm of woodland as Mill Ground. The picture of medieval Glazebrook, Culcheth and Winwick appears to be of mixed farmland, as now, with cereals being grown on the lighter soils such as around Southworth and grazing being practised on the heavier clay soils.

Holcroft Hall is one of a chain of probably early medieval sites (many of the others being moated) which stood along the line of Pennington Brook / Glaze Brook and running north – south along the road between Wigan and the Mersey ford at Warburton. These building complexes would have had some strategic value as is confirmed by the recent discovery of a Bronze Age promontory fort and settlement at nearby Little Woollen Hall on the eastern side of the River Glaze (just outside the Borough boundary).



Photo 69. Holcroft Hall viewed from Holcroft Lane, Chat Moss in the distance.

Holcroft Hall has some local fame through its connection with Colonel Thomas Blood of Crown Jewels fame. Colonel Blood married Maria Holcroft in 1650, the daughter of the owner of Holcroft Hall, Colonel John Holcroft.

Colonel Holcroft was a staunch Parliamentarian and was in command of the garrison of Lancaster when the Earl of Derby besieged and took it in 1643. In 1648, Blood served under Colonel Holcroft, during the pursuit of the Scots Army, ultimately defeated by Cromwell at Worcester. On the death of Colonel Holcroft, Blood engaged in an unseemly and murderous struggle for the possession of Holcroft Hall, but was beaten to it by his brother-in-law, Thomas Holcroft.

The present building at Holcroft is the core of what was evidently a large manor house built around a central courtyard. Little remains of the original buildings, but part of the original structure is probably incorporated in an old barn to the west of the house, now in a ruinous state.

Winwick Church, standing on the elevated ground north of Warrington dominates much of the area. The present structure was built probably around the early 1300s and extensively rebuilt around 1530, the famous architect A.W.N. Pugin designed the chancel in 1847-8. The church is dedicated to St Oswald and the church site is probably far older than the existing structure. It certainly existed in the Domesday Book and commemorates King Oswald of Northumbria, a prominent Christian, killed in battle at Maserfield or Macerfeld (site unknown, possibly on or near St Oswalds Brook, bordering Ashton in Makerfield north on the A49.

Much academic argument states that it was most probably near Oswestry) fighting against the ferocious pagan King Penda of Mercia and his Welsh allies in 641AD. Winwick was in Saxon times the centre of a large ancient parish of eleven townships, forming the southern half of the hundred of Newton, including the royal estate centre of Newton itself.

The high ground around Winwick had great strategic importance as it was the nearest defensible ground north of the Warrington bridge over the River Mersey. Certainly King Penda and his army could have marched through here to attack King Oswald of Northumbria (if a battle did indeed take place at Ashton in Makerfield) and local legends of a great Saxon battle near here could be realistic. St Oswald's Well and Oswald's Brook to the north of the area could possibly commemorate such an action – on the same site as the battle of the Red Bank?

The strategic importance of the area again was emphasised in the Civil Wars, Warrington was held at this time by the Earl of Derby for the King, but the town was taken by Parliamentary troops in 1643. On 23rd May 1643, the Roundhead troops of Colonel Assheton routed a body of Royalists at Winwick. *'Whilst the duty (of prayer and fasting) was in performing tidings came of the taking of Winwick Church and steeple, they on the steeple standing on terms till God sent a deadly messenger out of a fowling piece to one of them; also a strong hall [the rectory] possessed by professed Roman Catholics and stored with provision, as if it had been purposely laid in both for our supply and ease';* Civil War Tracts (Chet. Soc.), 138.

From: 'Townships: Winwick with Hulme', A History of the County of Lancaster: Volume 4 (1911), pp. 140-42.

In 1648, a battle took place at Red Bank, adjacent to Newton Brook at the crossing with the A49 former Roman military road. The Duke of Hamilton invaded England at the head of an allied army of Scottish Covenanters and north country Royalists, having evaded Cromwell and his troops in Scotland. Cromwell dispatched troops to pursue the Scots, particularly his powerful cavalry, inflicting a heavy defeat on the Scots at Preston and destroying their allied Royalist cavalry, Cromwell's cavalry harried the until then largely unscathed Scots forces on their way south.

Unsurprisingly, the Roundhead cavalry on several occasions caught up with the Scots, who detached a powerful force to hold up Cromwell's cavalry while the main force marched through Warrington and broke the bridge to force Cromwell to a crossing further to the east .



Photo 40. Cop Halt Farm, the Scottish HQ in 1648, viewed from the north near Newton Brook.

The detached rearguard held a narrow pass on the A49 road at Red Bank, where the road crossed the small but steep sided Oswald's Brook valley via a small bridge, close to the confluence of Oswald's Brook with Newton Brook. The Scottish forces constituted of a group of pike and muskets, numbering at least 4,000, under command of Major-General William Baillie who traditionally is supposed to have his headquarters at Cop Halt Farm behind the Scots army's left flank. The south bank of Oswald's Brook / Newton Brook constituted a formidable obstacle to the Roundhead cavalry and so attacks were delayed until the Roundhead infantry came up. On 19th August 1648, there came a fierce battle where the infantry of both sides charged each other with pikes while musketeers of each side engaged on the flanks. The battle was resolved when the powerful Roundhead cavalry crossed Oswald's Brook to the east via a lane, (now the A573) and then turned right to take a line parallel to the course of the brook through the fields, crashing into the right flank of the Scots infantry. The Scots carried out a dogged retreat south until they reached an area close to Winwick Church, which they then defended until finally forced to surrender.

Cromwell's own account of the action was, *'We could not engage the enemy until we came within three miles of Warrington, and then the enemy made a stand at a pass near Winwick. We held them in some dispute till our army came up, they maintaining the pass with great resolution for many hours, ours and theirs coming to push of pike and very close charges, and forced us to give ground; but our men, by the blessing of God, quickly recovered it, and charging very home upon them, beat them from their standing, where we killed about a thousand of them and took (as we believe) about two thousand prisoners, and prosecuted them home to Warrington town';* Civil War Tracts, 264.

Cromwell also stated, *'...and the commissioners deputed by me have received and are receiving all the arms and ammunition; which will be, as they tell me, about 4,000 complete arms: and as many prisoners: and thus you have their infantry totally ruined'*.

Civil War Tracts 287-8.

A further account states: *'The greatest stand they (the Scots) made was between Newton and Winwick, in a strait passage in that lane that they made very strong and forcible, so that Cromwell's men could not fight them. But by the information of the people thereabouts and by their direction they were so guided into the fields that they came about so that they drove them up to that little green place of ground short of Winwick church and there they made a great slaughter of them, and then pursued them to Warrington'*.

Lancs. War (Chet. Soc.), 66.



Photo 34. Church Green, Winwick, the site of mass slaughter of Scots by Cromwell's troops.

It is a local tradition that Gallows Croft, a small area on the Newton side of Red Bank was the spot where a number of Scots / Royalist prisoners were summarily hung at the end of the battle.

This is Warrington's only recorded battlefield. Although it is not on the English Heritage Register of Battlefields, the significance of what was clearly a substantial action – not a mere skirmish, in terms of casualties and prisoners - and the unspoilt nature of the area suggests that the site of the Red Bank Battle and pursuit should be afforded some protection.

Kenyon Hall, indicated on the 1849 O.S. is now incorporated into Leigh Golf Club, Culcheth and the extensive parkland is now a golf course.

Culcheth was originally a small village probably founded after 1066 (it is not mentioned in Domesday) but was certainly in existence in 1212 when the de Culcheths built a Hall. In 1246 the last male de Culcheth died, leaving his estate between four daughters, whose descendants became the Holcrofts, the Risleys and the Peasfurlongs, the remaining daughter retaining the name 'de Culcheth'.

A water mill is mentioned in a deed of 1270, presumably powered by water from one of the local streams. It may be that it was on the site of Daisy Bank Mill, a cotton mill, (rare in this area) demolished in recent times. In 1751 an Enclosure Act enclosed some of the land around the village. Culcheth is unusual in that it retains its village green; although this is somewhat broken up, it is well used and popular.

In 1774, the last of the Culcheth family died without an heir and the estate was sold to the Withington family in 1824. The Withingtons planted many groves of trees in the area, including trees along Culcheth Hall Drive.

In 1560 a church was built in Culcheth, named New Church to distinguish it from the old church of St Oswald at Winwick, the original parish church. In 1903, New Church was burnt down and another church was built on the site to replace it. A workhouse was established near the village centre around 1660. In 1903, the Salford Board of Governors built the Culcheth Cottage Homes as an orphanage. It was converted to a hospital for mentally handicapped people after WWII, but this closed in the 1970s. The buildings have been refurbished and sold as private homes in recent times.

A local High School was built in 1932 at the junction of Withington Avenue and Warrington Road and this school is still flourishing.

Rixton was a small village held by Allan de Rixton from the Duke of Lancaster. His seat was a great hall at Rixton Hall, extended and improved in the C17th. In the period 1658 – 1748, New Rixton Hall or Little Hall, was built.

The Warburton family held the manor of Glazebrook, but in 1384, they ceded it to Hamo de Mascy, Lord of the manor of Rixton. The combined manors became known as Rixton-with-Glazebrook from then on. The Tempest family owned most of Rixton-with-Glazebrook, as well as Broughton Hall, throughout the C18th and C19th. By 1750, the Tempests were sharing the estate with the Patten family, while the Tinsley brothers owned Glazebrook Hall with 137 acres.

Thomas Patten bought Glazebrook Hall and 600 acres of woodland and 33 acres of farmland and the chapel. Thomas Patten died in 1874; Wilson Patten inherited the estate and further developed it in the 1880s.

The imposing structure of Mount Pleasant, close to the junction of Glazebrook Lane and Manchester Road, was built in 1851 for Charles Tempest, and had 40 acres of land attached.

Many of the local Lords of the Manor were Catholics and suffered at the hands of the Protestant majority between Elizabethan times and Roundhead times. These recusants were often deprived of their lands or fined by losing part of their lands. This caused some disruption to land holdings during this period.

The Manchester – Liverpool railway line, now operated as a secondary line, was opened in 1830, its creator being the great engineer George Stephenson. It crosses the area running east west just north of Culcheth, having run through Glazebury to the east on an embankment. Stephenson had great difficulties in crossing Chat Moss to the east with the railway. Originally designed as a cable railway i.e. with static engines at each end and cables between, it had particularly easy gradients of up to 1:2,000. When the 'Rocket' won the Rainhill Trials in 1829, it was assigned to this line, becoming the first locomotive powered railway in the world. Stations on this line originally stood at Kenyon Junction (built between 1833 and 1837, closed 1961) and at Glazebury and Bury Lane (closed 1958).



Photo 61a. Culcheth Carrs storage facility.

A second main railway line running east-west through the area and through Glazebrook was constructed later in the C19th by the Cheshire Lines Committee and is now the main line between Manchester and Liverpool. Two other railway lines, now disused, were also constructed in the C19th. One of these joined the main line just west of Glazebrook and ran through Holcroft Moss before emerging into this area again south of Culcheth. Part of this disused railway is now Culcheth Linear Park. The park unfortunately does not extend along the full length of the track. The other disused track is the Bolton and Leigh Railway, built in 1828 (before the Manchester – Liverpool line), which ran to the west of Culcheth Carrs. Both of these lines were extensively used for coal traffic.

The A580 trunk road was opened by King George V in 1934 and was England's first intercity highway, linking Manchester and Liverpool. The name East Lancashire Road refers to the original and unattained objective of ultimately extending the road into East Lancashire.

A section of the road adjoins the boundary of Warrington Borough north of Culcheth Carrs and runs east to the junction with Warrington Road at Lately Common. This is built on an embankment to overcome the marshy ground problems of Culcheth Carrs.

The M6 motorway now replaces the A49 and Holcroft Lane as the strategic route through the area. The M62 is a similarly important strategic route running east-west through the area and the junction between the two motorways occupies and visually dominates a substantial area.

In WWII, an ammunition storage facility was constructed on Culcheth Carrs, accessed from a railway line (now closed) to the west. This facility, now in private ownership, with its concrete bunkers surrounded with soil is still in use as storage. It now has a prominent row of lightning conductors along the roofs. The name Culcheth Carrs refers to the large marshy area in which the store was built, drained by Carr Brook flowing to the east.

There were a number of military camps in the villages in the area. In Croft there is a disused camp to the east of Lady Lane. In Glazebrook there are two disused and now heavily overgrown campsites south of Bank Street. In Culcheth, two camps were built in the village, Ariel East and Ariel West, Ariel West was occupied by the Fleet Air Arm. Culcheth Hall was occupied by the army throughout WWII.

Winwick Hospital, closed in 1998, was one of the largest mental health hospitals in Europe. Almost all of the original buildings have now been demolished and replaced by a large-scale development of private housing. The Winwick Hospital site is designated as a SBI (Site of Biological Importance) Grade C.

Rixton Clay Pits is an extensive area of excavations from which boulder clay was extracted and used in the local brickworks. Clay is still extracted from the north of the area, but the bulk of the workings, some 13.99 ha., ceased to be used for extraction in the 1960s. The resultant landform is a complex mosaic of ponds, mounds, woodland and clearings and is exceptionally rich in wildlife. The site was designated as an SSSI (Site of Special Scientific Interest) because of the presence of great crested newts (*Triturus cristatus*) and is locally designated as an SBI (Site of Biological Importance) Grade A. There are a number of wild flower species of some interest, including marsh orchids, sedges and centaury. The site is managed by Warrington Borough Council as a nature reserve.

Key cultural elements in the landscape:

- The A49 major historic route north south
- Historic Halls and associated with the River Glaze
- Winwick Church
- Ancient burial sites around Southworth Hall
- Red Bank (Winwick) English Civil War Battlefield
- Stephenson's Manchester to Liverpool railway line and other historic railway lines
- A580 East Lancashire Road
- Culcheth Carrs WWII munitions storage site

- Kenyon Hall Parkland
- Winwick Hospital (site of)
- Rixton Clay Pits

Landfill and Mineral Extraction

There are no landfill operations within this area, however, there are visual impacts to the area from adjacent landfill sites. There are two active landfill sites adjacent to the area. The first at Silver Lane, has an impact on land to the north and east with a slightly lesser impact to the west. The second is at Rixton, having a visual impact on land to the east, around Hollins Green.

To the south of the area, within the River Mersey floodplain, there are two other landfill operations. The first is a non-hazardous wastes operation at Butchersfield, now complete, restored and planted. It has a high domed form and is visible from areas to the south up to the M62 motorway. The second is an adjacent landfill area to the west, formed from dredgings from the Manchester Ship Canal. This is now colonised by scrub, but permission has been sought to deposit additional material in this area and works have recently commenced.

Mineral extraction within the area comprises of sandstone extraction adjacent to Southworth Hall Farm and clay extraction west of Moat Lane and at Chapel Lane, Hollins Green. On completion of the extraction from the Southworth Hall site, which is well screened with planted embankments, the pit will be backfilled with inert fill and the land restored to agricultural use. Adjacent to the sand pit and close to the M6 motorway is a former colliery spoil heap which has now been reclaimed.

Map evidence suggests that the area around Winwick Church was widely used for quarrying on a small scale. These quarries appear to have been filled in during recent times. Other areas of land north-east of Winwick Church are possible small sand quarry sites, pre-dating the larger workings at Southworth Hall Farm. A substantial lake between Myddleton Hall Farm and the M6 is the result of gravel extraction in the recent past.

North-west of Hermitage Green is a colliery spoil heap which is sited outside the Warrington Borough boundary and therefore outside this character area. However, this spoil heap does have a visual impact on the character area. This spoil heap is a relic of the former Parkside Colliery and occupies an area of land formed by an elbow bend in Newton Brook. A planning application has recently been submitted (2007) for this area which impinges into the Warrington Borough.

Agricultural Land Classification

The bulk of the land around Winwick, Culcheth, Glazebrook and Rixton is Grades 2 and 3, reflecting a mixture of soil types, from sandy soils to the west to heavier clay soils (derived from brick earths) to the east. A further area of Grade 3 land is currently occupied by Rixton

Clay Pits together with a few fields to the east. A strip of land around the B5212 running south from Glazebrook down to Hollins Green is Grade 2.



Photo 54. View southwest from Sandy Brow Lane, showing the landscaped bunding around Southworth sand quarry in the left background.

Landscape Sensitivity

The Glazebrook, Culcheth and Winwick areas form a large tract of land with a similar character. The largely open countryside, dominated by arable crops, leads to long wide vistas. Although the land is gently undulating, any vertical structure or building stands out in the landscape as a dominant element. Views are also unrestricted by the scarcity of hedgerows and hedgerow trees, often suggesting a 'prairie like' simple landscape of waving crops or ploughed fields in winter. They are therefore generally visually sensitive to development.

Current visually intrusive elements to this landscape are the landfill sites within and adjoining these areas at Rixton, Butchersfield next to the River Mersey and at Silver Lane, Risley. These are huge, single mounds breaking through the surrounding gently undulating landscape and standing out incongruously as major features. The mounding associated with the sand extraction site at Kenyon is more subtly integrated into the landscape following a much lower and undulating profile.

Woodlands in the Glazebrook, Culcheth and Winwick areas tend to be the exception in the landscape and are generally on a small scale and isolated. Where woodlands are present, particularly in the Glazebury and north Culcheth areas, they help to create backdrops and form a more interesting landscape, breaking down long, uninterrupted views.

Key elements of landscape sensitivity:

- Wide, open vistas
- Simple, low, undulating landscape sensitive to vertical forms, particularly on local high points

Landscape Change

In common with the Stretton and Appleton areas, the landscape has tended towards the amalgamation of fields into larger units, with the resulting loss of hedgerows and hedgerow trees. The remaining hedgerows and hedgerow trees have little function within the arable, agricultural landscape and are often gapped and poorly maintained.



Photo 92b: An active clay pit at Rixton.

To maintain arable crop production, drainage to the clay soils has been essential, particularly at their margins with the adjoining mosslands of Holcroft, Glazebrook and Rixton Moss.

Woodland cover has also been reduced to maximise crop production and although often small and well scattered, woodlands now provide an important recreational resource. These are well used often with footpath connections to the surrounding villages.

Considerable landscape change has occurred locally in the Rixton area, through the extraction of clay for brick making. Most of these workings have left a landscape of discarded spoil and deep pit excavations now filled with water. The discarded spoil areas have naturally regenerated, largely with native trees and shrubs, and the area has become an important wildlife habitat and recreational resource for walking and fishing.

Communication routes have also substantially changed the landscape, carving it into ever-smaller parcels of land, requiring bridges, cuttings and embankments. The M62 and M6 motorways are particularly dominant features, cutting through the Winwick, Croft and Glazebrook areas with 2 main railway lines running east-west through Glazebury to the north and Glazebrook to the south – forming major obstacles to accessing farmland to either side.

A disused railway line runs from Wigan through Golborne and Culcheth to Glazebrook Moss, where it originally joined the main Manchester to Liverpool line. This has now been left as an historic feature in the landscape – easily recognisable by its linear vegetation clad embankments and cuttings running through the arable farmland. A section of the route has been utilised as a recreational footpath known as Culcheth Linear Park.

The construction of pylon routes have been additional impositions on the landscape and are common, intrusive features to the arable landscapes of Winwick and Kenyon.

Other landscape changes took place during the Second World War and can be evidenced today by the mounds and bunkers at Culcheth Carrs along the Borough's north-eastern boundary. Relatively new changes in the landscape have occurred in order to improve the viability of farming. Former agricultural land is now under consideration for alternative uses such as fishing ponds, golf courses, driving ranges and horse grazing. Fishing ponds and a driving range have now developed near Culcheth whilst demand for horse grazing paddocks is widespread adjoining the main village centres.

Landscape change to the area is summarised as follows:

- The imposition of landfill sites
- The past impact of roads and railways
- The past impact of pylons and power lines
- The enlargement of field sizes

- Substantial reduction in hedgerows and hedgerow trees
- Decline in management of remaining hedgerows and hedgerow trees
- Constant improvement of soil fertility for arable crops by drainage and fertilisers
- Pressure for horse grazing
- Changes from farmland to fishing and golfing facilities
- Disused railway lines
- Former Second World War munitions storage bunkers
- Clay extraction and restoration

Recommended Management and Landscape Objectives

Although much of the area's original small-scale field patterns have been lost, a strong framework of medium to large field boundaries is still present and forms a major part of the landscape's character. In order to retain this character, it is imperative to encourage the retention, enhancement and better management of the remaining hedgerows, together with the re-introduction of new hedgerow trees. Horse keeping should not be encouraged at the expense of traditional farming and in particular the destructive effects of horses browsing trees and frequently de-barking trees should be monitored.

The battlefield site of Red Bank should be preserved in its current, largely unspoiled state and opportunities should be considered for wider interpretation of this site, together with the associated Winwick Church.

The area's woodlands should be seen not only as important visual elements in an otherwise open landscape, but also as important recreational assets. The careful consideration of additional and woodland extension plantings should therefore be encouraged.

New development can be seen to have a major impact on the landscape, particularly where structures of mass and high elevations are concerned. The siting and size of such structures should therefore be carefully considered through visual impact studies and potential landscape mitigation.

The existing landfill sites currently form artificial dome or whaleback shaped profiles in the landscape. Flatter, lower and more undulating profiles appear to blend more sympathetically with the existing landscape. Elevations should be as low as feasibly possible, if necessary taking a greater area of land to minimise their visual impact. Restoration landscape schemes for such areas should not only consider wildlife and 'amenity space' but should also look to retain the land for productive use. Timber and biomass fuel production should be considered.

Management of the Landscape:

- Restore and enhance remaining field patterns by additional hedgerow planting

- Reintroduce hedgerow trees
- Conserve and manage existing woodlands to encourage habitat diversity
- Conserve and manage remaining hedgerows
- Consider additional native woodland planting
- Consider the use of native planting to soften and screen new development
- Investigate an extension of Culcheth Linear Park to the south, following the old railway line towards Glazebrook

Settlement

Settlements in the area include Hollins Green, Glazebrook, Glazebury, Fowley Common, Culcheth, Croft, Kenyon, Hermitage Green and Winwick.

Hollins Green is a small, nucleated settlement adjacent to the west side of junction of Manchester Road and Glazebrook Lane. There are very few older properties in the village, most are modern houses in a cul-de-sac development. The village occupies a generally flat site just north of the Mersey flood plain.

Glazebrook is a linear settlement along Glazebrook Lane, centred on the bridge over the Manchester/Liverpool railway line at Glazebrook station. It comprises of a small number of older properties and a number of modern houses and bungalows, occupying an area between Glazebrook Moss to the west and the edge of the flood plain to the River Glaze to the east.

Glazebury is essentially a linear settlement built along the A574 Warrington Road and sandwiched between the floodplain of the River Glaze and the extensive, formerly marshy area of Culcheth Carrs. It has a predominance of terraced housing built perhaps 100 years ago. There is a large garden centre, Bents, located to the east of the main road. At the northern end of the village, to the south-west of the junction between the A574 and the A580 (East Lancashire Road) is Lately Common, a flat area of common ground.

Buildings of note in the countryside around Glazebury include the north barn at Hurst Hall c. C15th, formerly a hall building Listed Grade II*; south barn at Hurst Hall c. early C17th, Listed Grade II and the Church of All Saints, Warrington Road, Glazebury, built 1851 and Listed Grade II. South of Glazebury, Holcroft Hall built in the late C15th – early C16th, with many alterations is Listed Grade II* and is the relict of a far larger courtyard site of the same period.

Fowley Common is a hamlet adjoining Glazebury, comprising of a small group of older properties and a public house with additional properties built after WWI. Fowley Common is located in a gently sloping south-east facing hollow, a tributary valley of the valley of the River Glaze. To the east of Fowley Common is a Local Authority housing estate built around Churchill Avenue. The estate comprises flat-roofed houses, which look particularly alien and locally quite visually dominant when viewed from the south.

Culcheth is a large nucleated settlement based around the junction of Warrington Road, Wigshaw Lane and Common Lane. Originally the settlement was close to the road junction, where a few older buildings are located. The settlement has been augmented by a series of conventional private housing estates of low architectural merit, many interconnected through a maze of loop roads. The village is sited on a generally gently north sloping area of undulating land.

Buildings of note in the countryside around Culcheth include Kenyon Hall, an early C19th building in Twiss Green, Listed Grade II, together with the contemporary Lodge to Kenyon Hall and associated gate posts, Listed Grade II. Brookhouse Farmhouse, Wigshaw Lane, built c. 1744 is Listed Grade II. On Warrington Road, south of Culcheth are a number of Listed buildings, including Hope Farmhouse, an early C19th farmhouse, Listed Grade II, the associated barn at Hope Farmhouse, a late C17th building Listed Grade II and Newchurch Old Rectory, a former rectory now a private house, Listed Grade II.

Croft was a dispersed settlement which historically began to coalesce around Lord Street and later infilled along Smithy Lane and Lord Street. A large estate occupies the area east of Pasture Drive and much of the village area is of similar housing type.

Croft is sited on undulating, gently south sloping land, north-east of the wide, flat floored valley of Cockshot Brook, now almost entirely occupied and certainly dominated by the M6 and M62 motorway junction. Within the village, the Catholic Church of St Lewis, Mustard Lane, built 1827 is Listed Grade II. St Lewis Presbytery, Mustard Lane, contemporary with the church is also Listed Grade II. The parish church of Christ's Church, Lady Lane, built in 1833 is Listed Grade II.

Just south of Croft, Eaves Lane Farmhouse c. 1703, on Spring Lane is Listed Grade II, as is Springfield Farmhouse, Spring Lane, a late C18th Grade II building.

Kenyon is an attractive collection of three small hamlets, Kenyon, New Lane End and Turret Hall. Both Kenyon and Turret Hall comprise of a small group of farm complexes. New Lane End is a similar group of farm complexes augmented with a few detached properties. Kenyon and New Lane End are located on almost flat ground, while the hamlet around Turret Hall is sited on the north-west side of Cockshot Brook.

Hermitage Green is a small hamlet on the junction between Hermitage Green Lane, Golborne Road and Parkside Road. In common with Kenyon, it is a small collection of farms augmented with some detached houses and a Public House. It is sited in a shallow valley, overlooking the steeper sided valley of Newton Brook to the north-west.

Winwick is a nucleated village standing to the east of the local high point, dominated by Winwick Church. The church is of great architectural significance, dedicated to St Oswald, it dates from the early C13th and has elements designed by Pugin in Victorian times. It is Listed Grade I. The oldest part of Winwick is clearly adjacent to the church. Generally, the older houses of the village are sited along Myddleton Lane and Golbourne Road. A series of infill estates have been built around the junction between these roads at various dates. A relatively modern bungalow estate forms the south-eastern edge of the village. The village has been greatly augmented with the development of the Winwick Hospital site, but this is detached from the body of the village and can almost be considered as a separate satellite development. Within the Winwick Hospital site is a Roman Catholic church, built c. 1900 and Listed Grade II.

Buildings of note in the countryside around Winwick include Myddleton Hall c 1658, Listed Grade II*, Myddleton Hall Farmhouse c. 1656, Listed Grade II, the Manor House, Golborne Road c. 1717, Listed Grade II, Church House Farmhouse, Golborne Road, early C17th, Listed Grade II and Ivy House, Delph Lane 1840, Listed Grade II. Southworth Hall and Turret Hall near Winwick are also of some importance, being more recent buildings on older sites.

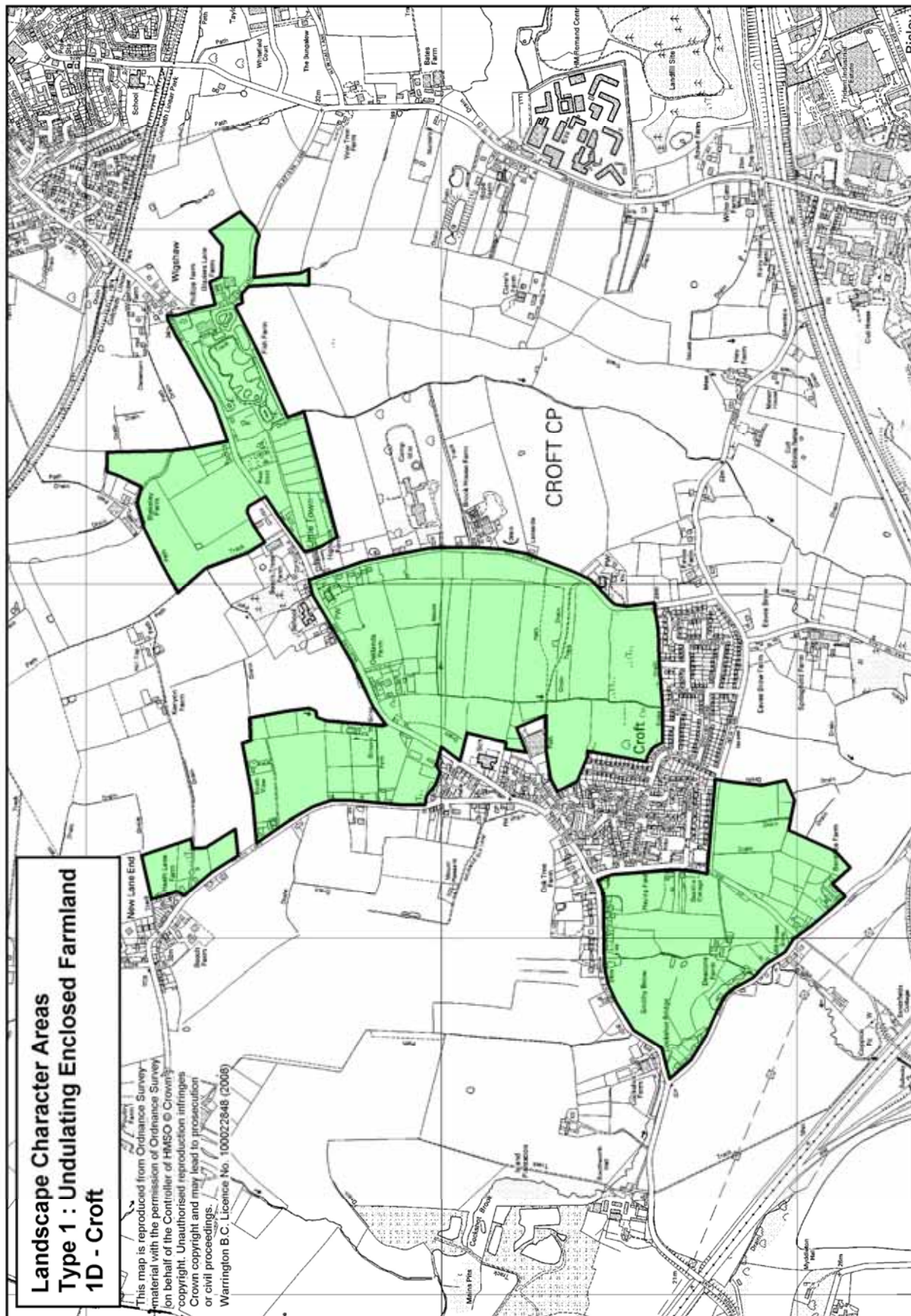
Farmsteads of note as aggregated groups of agricultural buildings include Clare's Farm in Croft, Mount Pleasant Farm in Rixton, Milverton and Ormerod Farms in Rixton, Hole Mill Farm in Holcroft and Dukinfield in Glazebury.

Cop Halt Farm, sited on a knoll south of Newton Brook and east of Sankey valley is a particularly visually dominant farmstead, seen from the Sankey Valley as well as from Winwick and from Wargrave to the north.

Within the area are three building complexes with significant landscape impact. Two of these are to the east of Warrington Road - Risley Remand Centre, with its high escape-proof walls, associated secure areas and car parking the and the Taylor Industrial Estate a gated private industrial estate. The third complex is the former Mental Hospital at Winwick, the original buildings of which have now been largely removed and replaced by a three storey housing complex.



Photo 94. An angler at one of the former clay pits at Rixton, now a tranquil and very beautiful pond.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.D CROFT

Description

The village of Croft and its surrounding landscape is situated to the north of the study area between Culcheth and Winwick. Its landscape comprises of a series of small, linear fields closely associated with the village and contrasts markedly with the larger, and more rectangular, field patterns of the surrounding land defined under Area 1.3 Glazebrook, Culcheth and Winwick.

Many of Croft's fields are long and narrow, bordered with ditches and divided by hawthorn hedges frequently containing groups of mature hedgerow trees. Views are linear and strongly contained between the field hedges. They are clearly medieval in origin, 'fossilised' in the landscape through later enclosure and exhibit the characteristic 'S' shape in plan as the result of years of ploughing by oxen or horses.

Judging from historical maps, it is clear that the small scale field pattern was once a lot more extensive but due to the removal of hedgerows and field boundaries in more recent times, a more expansive, large scale field system has developed to the surrounding areas.

The soil type around Croft is heavy clay with fields used both for arable and pasture farming. The smaller field system has, in many cases, led to larger extended linear gardens with a number of the pasture fields succumbing to the demand used for horse grazing.

Key Characteristics:

- Historic field patterns
- Gently undulating landscape containing intimate scale linear strip fields
- Gapped and fragmented hedgerows supplemented by post and wire fencing
- Numerous hedgerow oaks in groups or isolated
- Predominantly pastureland
- Association of fields to adjoining properties or gardens or horse paddocks
- Red brick and sandstone farms
- Limited and often linear views

- Settlement pattern of older properties reflected in the field patterns



Photo 53. A view of one of the former strip fields at Croft with the characteristic 'S' shape to the hedgerow clearly visible.

Cultural History

The Manor of Croft was for many years held with the neighbouring Manor of Southworth by the lords of Makerfield. Towards the end of the C17th both manors were held as one. Like several other manors in the north of Warrington, some of the inhabitants appear to have been recusants and to have been duly punished or fined, sequestration of land occurring more than once. This may have contributed to the apparent plethora of ownerships in such a small village. In 1817 an Independent Methodist Chapel was built in the village, while in 1839 a small chapel was built by the Unitarians. A number of boundary disputes are recorded in the Parish of Croft, one at least dating back to 1287. The overall impression is that this Parish was very much divided and lacked a powerful lord, who would otherwise have been in a position to enforce enclosures.

The field patterns of this area are represented in the landscape as post medieval enclosure of a medieval strip system. Where in other villages the owners of the strips collaborated in the exchange of strips to provide themselves with a larger agglomeration of land, in Croft they clearly did not. The result was a series of long narrow fields.

This was probably not as entirely bad for farmers as it might suggest, since the heavy clay land was more appropriate for dairy farming than for arable farming.

Part of this area of Croft, known as Croft Grasslands is an SBI (Site of Biological Importance) Grade C.

Key cultural elements in the landscape:

- The post medieval strip fields

Landfill and Mineral Extraction

There are no landfill or mineral extraction operations within this area.

Agricultural Land Quality

This area is scheduled grade 3 agricultural land, with a small amount of grade 2 land to the extreme south.

Landscape Sensitivity

The linear, small-scale field patterns which characterise this part of the Croft area are dependent on the retention of the current hedgerows. The Croft landscape is therefore extremely sensitive to both the neglect and/or removal of hedgerows and their associated hedgerow trees. The distinctive Croft landscape occupies relatively small vestigial areas associated with the village. It is therefore very sensitive to the loss of land due to changes in land use, such as village expansion and new building.

Key elements of landscape sensitivity:

- Strong rural/historic agricultural character
- Small scale linear field patterns
- Hedgerows and hedgerow trees

- Loss of land due to changes in land use/building

Landscape Change

The Croft landscape and field patterns have, in essence, changed little from the Ordnance Survey map of 1854. This retention of the core of an old agricultural landscape is extremely rare within the Borough and a significant asset worthy of retention. Changes to the landscape are, however, slowly occurring resulting in a weakening of the field patterns. A number of the hedgerows are poorly maintained and gapped, some with hedgerow sections missing. The original field patterns can still be discerned however by remaining mature 'hedgerow' trees left in a linear form.



Photo 53b: Another view of the Croft fields showing the beginnings of deterioration as the hedge becomes gapped and posts and wire are used to make up.

Major landscape changes have occurred to all the agricultural areas surrounding Croft, due to the use of the land for arable crops. As a consequence, hedgerows have become less functional and fields have been enlarged. Croft however appears to have returned to its use of pasture land and grazing, with less demand for larger field sizes. Grazing patterns are now changing with an increasing demand for horse paddocks, particularly adjacent to the housing areas. This does not appear to be directly threatening the field patterns but is giving

rise to more post and wire fencing and an acceleration of the neglect in traditional hedgerow management and upkeep.

Hedgerow trees are browsed by horses and livestock generally, resulting in a landscape of mainly mature trees with few young trees to take their place. Trees left in pasture without their original hedgerow protection are exposed to damage to bark, roots and general 'poaching' and are also in decline.

Red brick and sandstone farm buildings are now less used as working farms and in a number of locations have been restored or converted for private dwellings.

Landscape change to the area is summarised as follows:

- Slow but continual neglect of hedgerows and hedgerow trees
- Pressure to provide horse grazing paddocks with associated post and wire fencing
- Reduction in the number of working farms and their conversion to private dwellings

Recommended Management and Landscape Objectives

The main character of the area is based on small scale linear pasture fields bounded by hedgerows and hedgerow trees. The main landscape objective should therefore be to retain, enhance and restore the existing historic and intimate character of the landscape.

Management of the landscape:

- Retain existing hedgerows and hedgerow trees
- Support and encourage traditional hedgerow management
- Support and encourage new hedgerow and hedgerow tree planting to infill gaps and missing hedge sections
- Protect exposed mature trees in pasture from further damage by browsing stock
- Protect new hedgerow and tree planting from browsing damage by grazing stock
- Encourage the retention of traditional pastoral grazing as opposed to changing to horse grazing paddocks

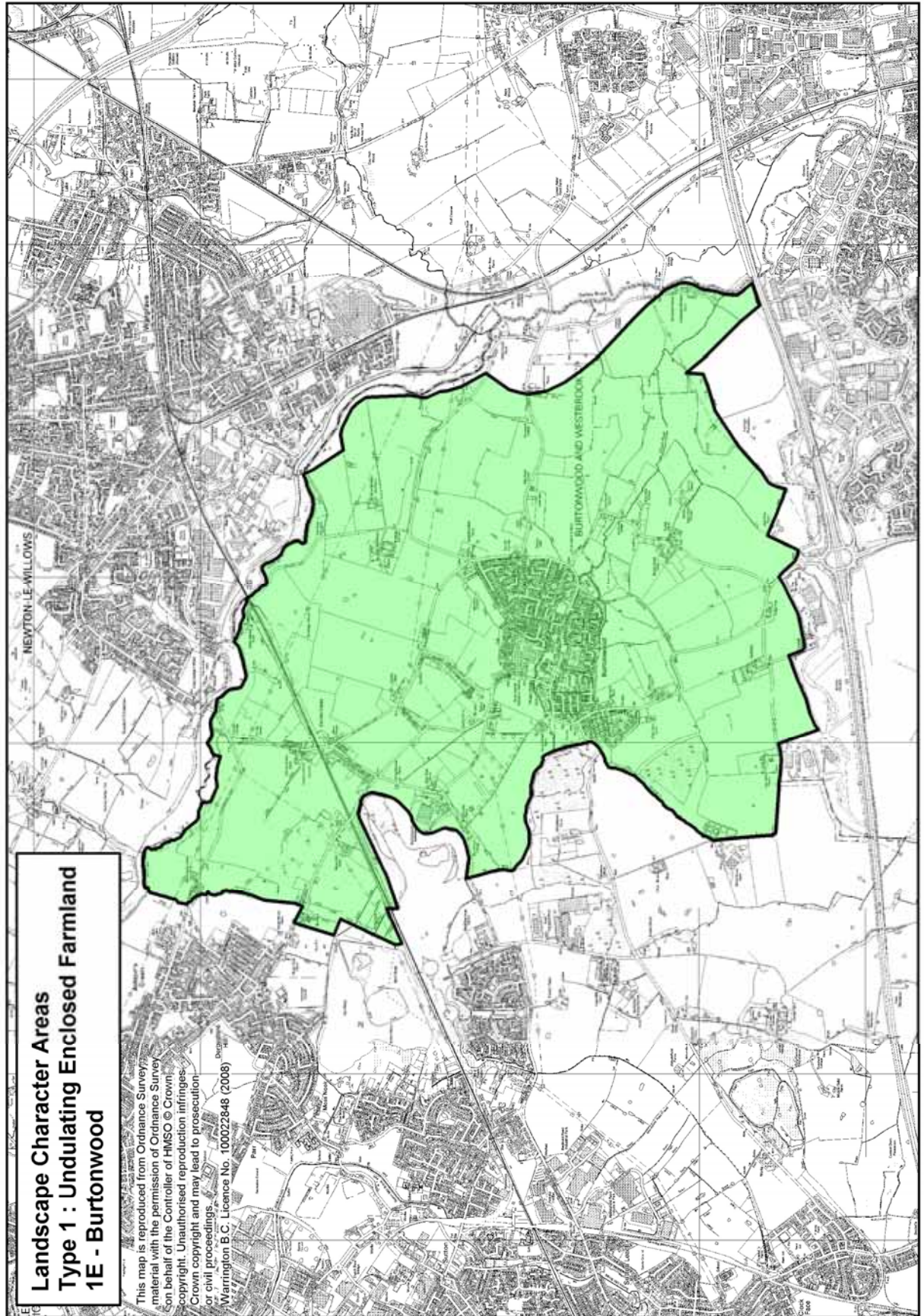
- Promote the restoration and replanting of local orchards

Settlement

The village of Croft is built around a triangle of roads, New Lane (to the south), Lady Lane (to the east) and Smithy Lane, Lord Street and Mustard Lane (to the west and north). Originally the core of the village was built around the latter three roads, but it has expanded from 1850.

Croft was a dispersed settlement which historically began to coalesce around Lord Street and later infilled along Smithy Lane and Lord Street. A large estate occupies the area east of Pasture Drive and much of the village area is of similar housing type. Croft is sited on undulating, gently south sloping land, north-east of the wide, flat floored valley of Cockshot Brook, now almost entirely occupied and certainly dominated by the M6 and M62 motorway junction.

The settlement associated with the medieval fields is east of Heath Lane and on the village perimeters. It often comprises of small farms with the medieval fields attached.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.E BURTONWOOD

Description

The landscape in the vicinity of Burtonwood is similar to that found in the Winwick, Glazebrook, Culcheth and Rixton areas (Area 1.C), although field sizes are noticeably larger. Many fields have been amalgamated with a continuing trend in the reduction of cohesive hedgerows and hedgerow trees. Farmland is predominantly arable. The topography rises from the west, south and east towards Burtonwood village and undulates very gently, affording wide expansive views. The landscape has a resulting exposed and open character.

Views are mainly towards the Pennines to the east although the area is also influenced by the industrial and urban character of Newton le Willows to the north. The views to the north-west are dominated by colliery spoil heaps outside the Borough boundary. The presence of pylons, power lines, cables and telegraph poles are particularly prominent. To the north-west of Burtonwood village, a railway embankment runs across the area, linking to the Nine Arches Viaduct across the Sankey Valley. The embankment is well-wooded and forms an important feature in the landscape.

Around the fringes of Burtonwood village the landscape character changes to include horse grazing paddocks and the more suburban influence of privet hedges with poplar used as roadside/hedgerow trees. The village itself is situated on a minor hillcrest. The local topography becomes a little more varied to the south of the village including the small valley of Phipp's Brook.

In a narrow triangle of land enclosed by the railway embankment and part of Bold Colliery Tip is the small remnant of Burtonwood Moss. This comprises marshy vegetation and scrub important for wildlife habitat. It originally formed part of the much larger Bold Moss, Parr Moss and Sutton Moss complex, to the west of the area and outside its study area.

Key Characteristics:

- Exposed, open, large scale, arable fields
- Good views to the east
- Absence of, or highly-fragmented, hedgerows between fields
- Change of landscape character immediately around the fringes of Burtonwood village due to horse grazing and suburban landscape
- Noticeable appearance of pylons and telegraph poles

- Dominant presence of the well-wooded Nine Arches embankment north-west of Burtonwood village and through the middle of Collins Green
- Interesting, more varied, topography of Phipp's Brook valley

Cultural History

In 1228, the village of Burtonwood formed part of the Royal Forest between the Ribble and the Mersey. In 1229 it passed to the Earl of Chester and shortly after to the Ferrers, Earls of Derby. Part of the land was granted to the Abbey of Tiltney in Essex, including 120 acres of land with woods and pasture for their stock and 'plough beasts'. In 1251 William de Ferrers had a charter of free warren within the manor. The monks of Tiltney built a grange to the south of the area, known as 'beau site' corrupted now to Bewsey. Bewsey Hall became the seat of William le Boteler, Lord of Warrington, who bought the monks' land before 1280. In 1328, Bewsey is referred to as the old park of 'Beausi' and there is a description of the park boundaries.



Photo 18: Horse grazing land abutting housing to the south of Burtonwood village.

A fine levied in 1332 indicated that the manor contained at least fifty messuages, 250 acres of land and meadow and 114 acres of woodland. The presence of a substantial area of woodland appears again in 1331. In 1580 Edward Butler transferred his land in Burtonwood to Thomas Ireland, who acquired thirty messuages, 1,200 acres of land, meadow and pasture and 210 acres of moor, moss and wood in Bewsey and Dallam. It remained as part of the Bold family estate until 1861, after which the estate appears to have been broken up.

Like other nearby villages, Burtonwood appears to be associated with a number of religious groups. The church of St Michael and All Angels, founded in 1606, rebuilt in 1716 and Listed Grade II, has registers going back to 1668, but almost certainly there was an earlier church in the village. In 1690, the 'Red House' was licensed as a dissenter meeting place. In 1886, the Passionist Fathers of Sutton built the Catholic school-chapel of St Paul of the Cross



Photo 7: Burtonwood Brewery.

The Manchester – Liverpool railway line, now operated as a secondary line, was opened in 1830, designed by the great engineer George Stephenson. The Sankey Navigation Company objected to Stevenson's proposed bridge, insisting on a 60ft clearance of the canal. This then required Stevenson to construct massive approach embankments to the

viaduct, using locally won materials. This massive embankment still dominates the landscape to the north of Burtonwood, with the village of Collins Green split on either side of it.

The 1851 census indicated a number of Irish agricultural workers resident in the area, many in a row of cottages, Hindley's Row, known locally as Irish Row. The coming to the area around Burtonwood of industrial enterprises meant that many of the village inhabitants were working in Earlestown at the Vitriol Works or at the famous Vulcan Foundry in Vulcan Village or other similar enterprises in Newton-le-Willows.

Coal mines were opened in the Collins Green area to the north of Burtonwood in the C19th. Small coal mining activities had taken place in the area in the early C17th, but these were probably shallow adits, cut into local valley sides. The colliery shale from one such pit forms a mound near Pennington Lane Farm in the north-west corner of the Borough. The Collins Green Colliery Company operated in the area and at nearby Bold, in St Helens, when the company purchased Bold Colliery, a far larger pit, whose spoil is very evident on Bold Heath. Collins Green Colliery closed in the early 1930's and Bold Heath in the 1980's.

Many colliers lived in Burtonwood and the village suffered from some intense hardship in periods such as the 1926 strike, when voluntary soup kitchens were set up and the Miner's Soup Kitchen Fund appealed for funds.

The Collins Green Company also owned a brickworks in Burtonwood, including a machine which could produce 10,000 bricks a day. In the late C19th, 154 '*working men's cottages*' were built in the village using locally-produced brick. These houses were built on three parallel streets, Mercer Street, Fairclough Street and Jackson Street and are typical by-law terraces (post 1875 Public Health Act). A social club and bowling green were also built by the Collins Green Company. These streets run north south and are close to the junction of Clay Lane, Phipps Lane and Chapel Lane.

Burtonwood Brewery, a dominant feature in the landscape of the area, was founded in 1867. The company was one of the largest independent brewers in the north-west. In 1999 it formed a new company with Thomas Hardy to form Thomas Hardy Burtonwood Ltd. The brewery is located to the north-west of Burtonwood.

To the extreme west of Burtonwood, Burtonwood Moss is a small area of mossland, originally part of the larger Bold Moss, Parr Moss and Sutton Moss complex. It is an SBI (Site of Biological Importance) Grade B.

Key cultural elements in the landscape:

- The Manchester – Liverpool railway line
- The Church of St Michael & All Angels
- The Catholic School –Chapel of St Paul the Cross
- Burtonwood Brewery

- Colliery waste sites to the north, associated with the Collins Green and Bold Heath Collieries
- The Collins Green Company built terraced houses of Mercer Street, Fairclough Street and Jackson Street

Landfill and Mineral Extraction

There are no landfill operations within the Burtonwood area. Mineral extraction was limited to coal mining and all mining operations in the area have now ceased. However, there are a number of spoil heaps in the area and adjacent to it. Immediately north-west of the Burtonwood Brewery is the large mass of colliery waste left from Bold Colliery, now at least partially planted. Immediately north-east of Fleet Lane is a further extensive area of colliery spoil, which has been subject to some 'reclamation' works but which remains in a relatively raw state. North of Pennington Lane, right in the corner of Warrington Borough, is a smaller area of colliery spoil, now entirely grassed over.

The Collins Green landfill site, adjacent to Broad Lane, was constructed on a former colliery spoil heap but was overfilled and not re-graded. Although naturally re-vegetated, this retains an alien form in the landscape.

Agricultural Land Classification

Land in the Burtonwood area is divided between Grade 2 and Grade 3 quality. The Grade 2 land is located sloping down to the Sankey Valley in the east and to the south towards the former Burtonwood airfield site.



Photo 8: Colliers Green viewed from Burtonwood.

Landscape Sensitivity

The Burtonwood area follows the same basic pattern of undulating landscape character as previous areas but occupies a unique crest location. This combines with the area's sparsity of hedgerows and hedgerow trees to create an open and exposed landscape surrounding the village of Burtonwood. The area is therefore open to views and exposed to wind. The landscape sensitivity is therefore one of exposure.

'Visually the parish of Burtonwood is a 'skyscape' – cloud patterns and light being of considerable importance in defining, in part at least, Burtonwood's sense of place and contributing to its local distinctiveness.'

Burtonwood and Collins Green Village Design Statement (March 2004)

Key elements of landscape sensitivity:

- Location of the village on crest line
- Open landscape with sparsity of hedgerows and hedgerow trees
- Exposed to views and weather

Landscape Change

Landscape change is mainly evidenced by the area's large-scale field pattern and the consequential loss of dividing field hedgerow boundaries. The dominance of arable crops to the area has also led to the general neglect of remaining gapped hedgerows and the sparsity of hedgerow trees. Woodland cover is only associated with the upper reaches of Phipps Brook, adjacent to the village of Burtonwood, although a great deal of new tree planting has taken place outside but immediately adjoining the Borough boundary to landfill restoration and extraction sites.

Adjacent to the village, the agricultural character of the landscape merges to a more suburban feel with the planting of privet hedges and avenues of poplars. These are now reasonably mature and form dominant elements to the northern and western parts of the village.

Since 1989 Burtonwood Parish Council, the community, Warrington Borough Council, the University of Manchester, Mersey Forest and Cheshire Landscape Trust have been working in partnership to produce and implement a Parish Landscape Strategy and Action Plan. This unique document has paved the way for many landscape projects in the Parish including the major project which led to the creation of the Burtonwood Nature Park. This initiative is worthy of duplication in the Borough and beyond.

Landscape change is also occurring adjoining the village of Burtonwood, particularly to the south, through the change of use from arable farming to horse grazing. A number of large fields now appear to be solely used for horse grazing and have developed a typical character of post and wire fencing field sub-divisions and generally neglected hedgerows.

Further change is evidenced by the distant view north-east to the Sankey Viaduct and the dominating tree clad embankment to the west as well as by two dominant lines of large pylons both running across the open landscape in an approximate east/west direction to the north of Burtonwood village.

Landscape change to the area is summarised as follows:

- The enlargement of field sizes

- Substantial reduction in hedgerows and hedgerow trees
- Decline in management of remaining hedgerows and hedgerow trees
- Landscape restoration schemes and tree planting adjacent but outside the Borough boundary
- The impact of pylons
- Constant improvement of soil fertility by fertilisers
- Pressure for horse grazing
- Previous impact of railway and viaduct construction
- Planting of poplars and privet hedges within the village centre, in place of native trees and hedges

Recommended Management and Landscape Objectives

The currently exposed landscape without its cohesive original hedgerow field boundaries suggests a fairly bleak character. The fundamental landscape objective should be to reinstate and alter this image, emphasising the existing field patterns by restoring hedgerows and hedgerow trees. This would also provide a degree of shelter and reduce soil wind blow in winter. Consideration should also be given to a substantial extension of the Phipps Brook woodland and potential open space areas surrounding the village. This would not only provide much needed shelter but also soften the less than attractive views of the village outskirts. Woodland connections could also be made to the adjacent land reclamation plantings already undertaken in the St Helens Borough to the north.

In 2003-4 Burtonwood, encouraged and assisted by Warrington Borough Council and The Cheshire Landscape Trust, produced '*Burtonwood and Collins Green Village Design Statement*'. This document produced valuable design guidelines and these are completely endorsed in this document.

Management of the landscape:

- Restore and enhance remaining field patterns by additional hedgerow planting

- Reintroduce hedgerow trees to the hedgerows to create shelter
- Consider additional native planting as an envelope to the village of Burtonwood
- Consider a visual impact study to reduce the negative views of pylons
- Encourage traditional hedgerow management and protection within horse grazing paddocks
- Retain open views towards Sankey Viaduct, together with selected longer views to the east and south
- Consider stream associated native trees and shrubs to Phipps Brook through farmland to the confluence with Sankey Brook
- Consider removal of privet hedges where possible and replacement with hawthorn, holly, etc.

Settlement

The village is located on the south-eastern end of a very gently sloping spur of land running north-north-west to south-east. At the south-east of the village is the relatively deep valley of Phipp's Brook, which runs south-east to the Sankey Brook. To the north-west the land falls gently away to Colliers Moss.

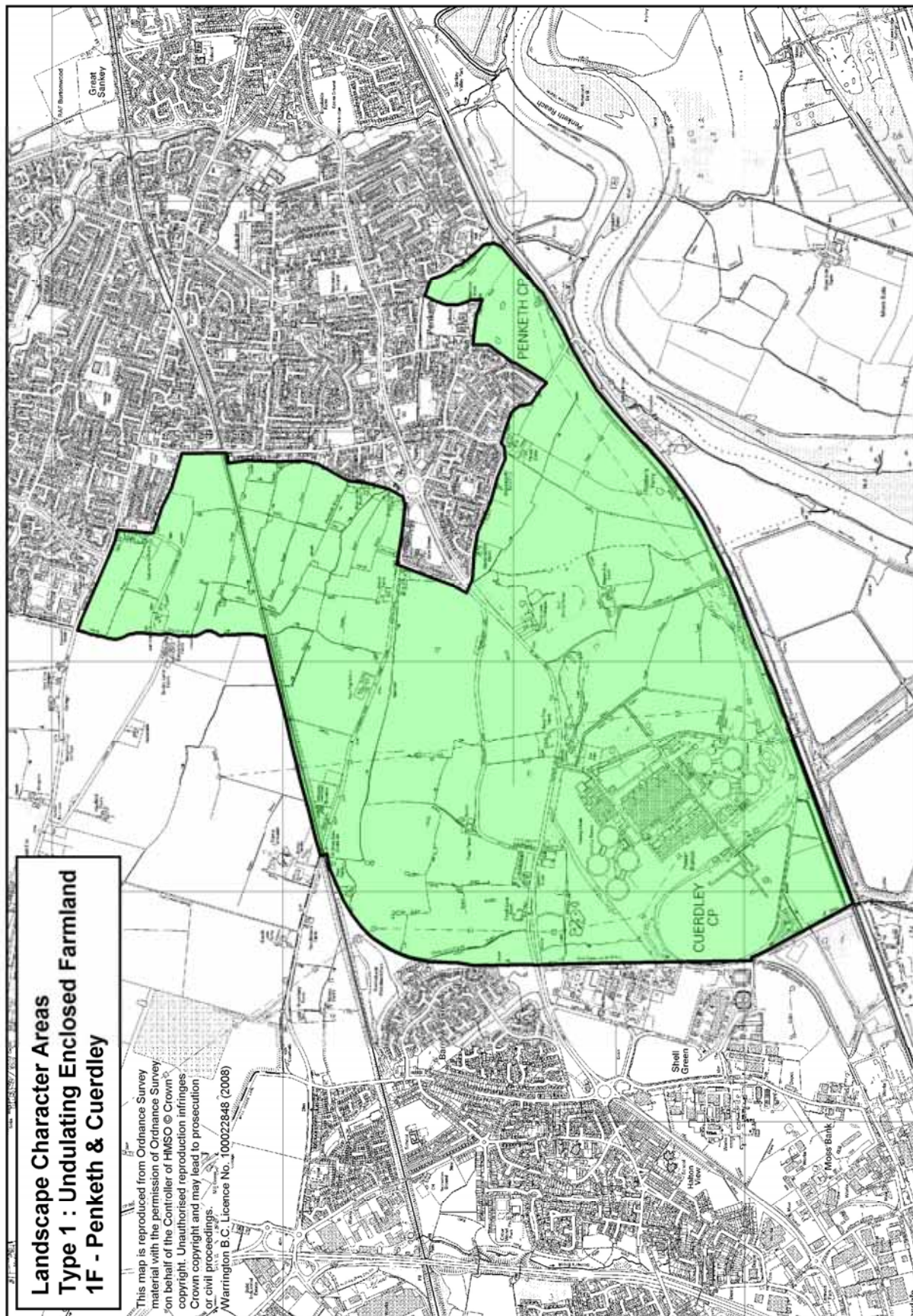
The original village of Burtonwood, until the late C19th was a linear settlement built along Clay Lane, Phipps Lane and Chapel Lane. The current village plan is rather more complex, with the original village streets being augmented by several housing estates to the east and south.

An area to the south-west of the village, including Milnthorpe Road and Hawkshead Road, linking onto Jackson Street is 1950s-1960s speculative housing with detached, semi-detached and bungalow development. To the north-east is a far larger estate of 1960s – 1970s housing with a tortuous street pattern. None of this housing has architectural merit and detracts from the original village character. A later development of 29 dwellings off Sunningdale Close is open plan and has gabled houses. This is a considerable improvement although not in vernacular style.

An industrial estate is located off Phipps Lane. The Thomas Hardy Burtonwood Brewery building, to the north-west of the village centre, is built at the end of Back Lane, where it joins Bold Lane.

Collins Green is a small linear settlement on the B5204, bisected by the Nine Arches embankment, under which the road runs via a bridge. Most of the housing is late C19th to pre 1914 terraces. It did have a station and Post Office although these are now closed.

Causeway Bridges Farm (Grade II Listed) is probably C17th. The moated Bradlegh Old Hall, although cased in brick in the C18th, has late C16th elements including a stone gatehouse of 1460. Bradlegh New Hall Farm is worthy of note, as are Clayton's House Farm, Old Lodge Farm and the Brook Head Farm / Forest Farm complex.



TYPE 1. UNDULATING ENCLOSED FARMLAND

AREA 1.F PENKETH AND CUERDLEY

Description

This is a discreet area of landscape sandwiched between the suburban and urban/industrial areas of Penketh to the east and Widnes to the west. It is bounded neatly to the south by the St Helens Canal and by the Borough boundary to the north. To the north of the A562 there is a pleasant green area of gently undulating farmland consisting mainly of arable crops with a medium to large-scale field pattern. Hedgerows and hedgerow trees are noticeably sparse. Penketh Brook can be identified in the landscape by its narrow band of associated tree-lined banks. To the south of the A562 much of the land use has recently been changed from farmland to golf facilities. An area to the south of 21 acres has recently been planted as woodland using Forestry Commission grants. Remaining fields are utilised for horse grazing.

The area is dominated by middle/foreground views of Fiddlers Ferry Power Station although more attractive views also exist to the south towards the higher ground of the Red Sandstone Escarpment in the vicinity of Daresbury. The farmland areas have a more enclosed character and are less exposed, in strong comparison with the more open and exposed Burtonwood landscape (Area 1.E).

Fiddlers Ferry Power Station is the single most dominant landmark in the Warrington area. Even if the cooling towers are out of sight, the plumes of steam from the towers are visible from many miles away, particularly on cool winter days.

Penketh (Area 1.F) borders the adjoining landscape character assessment area undertaken for St Helens Borough Council known as WFE4 – Wooded Former Estate, Bold Heath.

Key Characteristics:

- Forms a buffer of agricultural open-space between surrounding urban, suburban and industrial development
- Visually dominant effect of Fiddlers Ferry Power Station
- Expansive views across the Mersey Valley to the south
- Predominantly arable land with a medium to large-scale field pattern
- Absence of cohesive hedgerows and hedgerow trees
- Golf facilities and horse grazing paddocks to the south of A562

- Penketh Brook and associated tree lined banks



Photo 27b: View south west from Laburnum Lane, Fiddlers Ferry Power Station in the background.

Cultural History

Cuerdley appears to have had an uneventful history and there is little written history for the area. William Smith of Cuerdley rose to become Bishop of Lichfield in 1492 and of Lincoln in 1495. He founded Brasenose College, Oxford, a fellowship at Oriel and a grammar school at Farnworth. Captain John Smith of Virginia fame was another member of the same family.

Tannery Lane is named after the Penketh Tannery. This was outside the LCA area, but recorded on the 1896 Ordnance Survey maps and built on the site of Penketh Brewery. The tannery extended considerably in size, until in 1989, occupying nearly half the Tannery Lane frontage to the east. Shortly afterwards, the tannery was demolished and housing built on the site.

Along the southern boundary of the area, the Widnes – Warrington Railway was built by the St Helens and Runcorn Gap Railway Company, opening in 1853 to link with the Warrington and Altrincham Junction (Warrington and Stockport) Railway at Arpley. The railway is still heavily used in transporting goods, particularly coal to Fiddlers Ferry Power Station, which has its own sidings.

Fiddler's Ferry Power Station was built between 1965 and 1970 and is a 1989MW coal fired electricity generating power station, owned and run by Scottish and Southern Energy plc. The coal is delivered by train from Liverpool docks. It is intended that Fiddlers Ferry Power Station will be fitted with an FGD (Flue Gas Desulphurisation) plant in an effort to reduce effluent emissions.

In 1984, one of the cooling towers at Fiddlers Ferry collapsed in a freak high wind. It has since been rebuilt. Fiddlers Ferry produces a large quantity of fuel ash and this is lagooned at Cuerdley Marsh in the Mersey flood plain.

Most of the farms in this area originally had small orchards attached to them as evidenced in the 1849 Ordnance Survey map. These have almost entirely disappeared. Field sizes have also altered from small field patterns giving way to a number of very large fields with a consequent opening up of views across the land.

Key cultural elements in the landscape:

- Fiddler's Ferry Power Station
- The Widnes – Warrington Railway
- Widnes Road
- The Manchester – Liverpool railway line

Landfill and Mineral Extraction

There is a current landfill operation in the area, at Fiddler's Ferry Golf Club, where inert fill is being deposited to an average depth of 2m. A new golf course is being created on top. Associated with the course is a golf driving range, constructed as a ramped form and unfortunately sited on the western skyline when viewed from Penketh. The structure is dwarfed by the cooling towers and general mass of Fiddler's Ferry Power Station. The golf course reflects the land form under it and has little visual impact apart from its peripheral planted mounds on the south side of Widnes Road.

Adjacent to Farnworth Road, a compound area encloses plant to extract coal bed methane.

Agricultural Land Quality

This area is scheduled Grade 2 agricultural land. It is mixture of deep loams, stony clay and peaty soil in lower areas.



Photo 192a: Fiddlers Ferry dominates the views south from South Lane.

Landscape Sensitivity

The Penketh area of farmland north of the A562 is an important green buffer between suburban housing to the west and the industrial areas of Widnes and Fiddlers Ferry Power Station to the west. The area is less than a mile across and therefore extremely sensitive to surrounding development. The farmland is visually dominated by the scale of the power station and this is exacerbated by the lack of substantial field boundary divisions and tree cover. The golf driving range to the south of the A562 is also currently exposed to the visual

impact of the power station, although after associated planting becomes established views from the east will be appreciably softened.

Much of the farmland is under suburban pressure for passive recreation and locally suffers from domestic and garden fly tipping.

Views to the south are marred by power lines and pylons connecting to the power station.

Key elements of landscape sensitivity:

- Locally open vistas
- Pressures from the urban fringe
- Dominance of Fiddlers Ferry Power Station
- Power lines and cables

Landscape Change

Farmland in the south of Cuerdley and the Penketh area has declined significantly due to a number of reasons. Removal of hedgerows and trees has opened up larger fields improving access for large-scale mechanised farming. The soil, although clay based and heavy to work, is classed as Grade 2 and is therefore of fairly high quality. Certainly north of Widnes Road

the soil is still of high quality, supporting several farms. South of Widnes Road however, the soils appear to be considerably poorer with more stones. It is suggested that the high use of fertilizers and evident lack of organic content has denaturised the soil. In conjunction with this, a number of exceptionally wet winters and dry summers have exaggerated the worst features of this soil, making farming less profitable.

Some farm diversification has taken place in the area, with a stables taking over Martinscroft Farm and extending grazing over much of the land near Tannery Lane and to the south of Penketh. Marsh Lane Farm has a caravan storage facility. In 2002, Cross Lane Farm commenced the construction of a driving range and nine-hole golf course and in 2004 extended to construct a full eighteen-hole course. A further large area of land to the south of the golf course has been planted as native woodland.

In common with most areas, the hedgerows and associated hedgerow trees are at best neglected and at worst missing altogether, exposing views to both industrial and suburban areas. Woodland is not represented, although recent changes in the development of the golf driving range and associated planting will ensure a much more wooded and softer feel to the southern half of Penketh. All the former associated orchards in the area have been lost.

Communication routes have substantially altered the area in the past, reducing the scale of the farmland still further and introducing noise and movement. Routes crossing the area include the main Manchester to Liverpool railway line, the A5080 and A562. The area is also bordered to the south by the St. Helens Canal.

Landscape change to the area is summarised as follows:

- Reduction in agricultural land due to pressure for industrial and suburban uses
- Reduction in agricultural land due to pressure for recreational uses
- Substantial reduction in hedgerows and hedgerow trees



Photo 27: View south at Laburnum Lane showing the problems associated with the urban fringe – fly tipping.

- Decline in management of remaining hedgerows and hedgerow trees
- Enlargement of field sizes
- The past impact of roads, railway and canal
- Loss of farm associated orchards
- Pressure for horse grazing
- The past impact of pylons and power lines
- Topsoil degradation south of the A562

Recommended Management and Landscape Objectives

The Penketh area of farmland serves an extremely important function as a green buffer between Widnes and Warrington. Unfortunately it is a very small and narrow belt of land under considerable pressure for change. The landscape objective is clearly to retain this

area of land as undeveloped, improving the quality of the buffer strip. Whether or not farmland will remain viable in the future is open to question. The following recommended objectives assume the remaining farmland areas will be viable. If farming ceases however, recreational uses could be considered for the land, based on the main structural landscape elements currently present. Common to either outcome, should be the introduction of belts of native woodland, softening and forming a partial screen to the power station and other unfavourable views.

Management of the landscape:

- Restore and enhance remaining field patterns by additional hedgerow planting
- Reintroduce hedgerow trees
- Conserve and manage remaining hedgerows
- Consider the application of woodland planting to housing and power station boundaries
- Investigate the feasibility of recreational open space uses with links to the Mersey corridor
- Consider additional tree planting and habitat diversity associated with Penketh Brook
- Develop counter measures to restrict fly tipping

Settlement

For the purposes of this study the suburb of Penketh has been included within the urban area of Warrington. Only the little hamlet of Cuerdley Cross occurs within the area to the west opposite the Fiddlers Ferry Power Station. This has little architectural interest.

A number of farm complexes are of some interest. Cross Lane Farm Cottages on Widnes Road is originally C18th. The farm buildings to the south are now part of Fiddlers Ferry Golf Club. Fowl Farm and Clock Lane Farm both in the west of the area are interesting in that the buildings enclose reasonably extensive farmyards.

To the east of the area, a number of buildings front Tannery Lane. These include Martinscroft Farm, (which has a substantial stabling facility), Woodscroft Farm and a farm complex at Three Elms. Between Martinscroft and Woodscroft Farms is Newspaper House, a three storey, red brick office block which dominates the western side of Tannery Lane and is a very unsympathetic element in the landscape.



Photo 187: Horse grazing near Station Road, Penketh, viewed from south of the railway line.

TYPE 2. MOSSLAND LANDSCAPE

Description

The mossland landscape constitutes a distinctive character comprised of almost flat land divided into medium to large-sized arable fields interspersed with small areas of moss woodland. The largest areas of mosslands at Rixton and Holcroft are located to the east of the Borough, occupying low lying areas between 15 and 25 metres. The larger mossland cores are characterised by their perceptibly very gently sloping basin form. These basins often fill with low-lying mists and fogs on cooler nights, sometimes causing problems on adjacent roads and motorways.

Smaller mossland areas are located to the south of the Borough at Pill Moss and between Stretton and Appleton.

Hedgerows and hedgerow trees are notably absent and replaced by a rectangular pattern of ditches forming the field boundaries. The resulting mainly open nature allows sweeping long distance views in all directions. The presence of houses and farms on the mosslands are infrequent due to the difficulty of construction on the deep peat. Major roads also tend to avoid the mossland areas, leaving many areas within the mosses as tranquil open spaces favoured by wildlife.

Older roads and tracks tend to fringe the mosses and these were used by farmers for access to cultivate the mossland edges. The advent of large scale mechanisation enabled farmers to undertake substantial drainage and 'reclamation' schemes resulting in the straight drainage ditches and tracks seen today. Shrinkage of the drained peat (which also tends to blow away in summer winds) has resulted in land levels being lower than they were when first drained. Lanes and tracks within the mossland, reinforced with hardcore and hard surfacing, are therefore often noticeably higher than adjacent land.

The main core mosslands are defined by their dark, organic, peat soil although mossland landscape characteristics often tend to fade imperceptibly into adjoining areas. For the purpose of this study, the 'mossland landscape' therefore includes areas of peripheral land, which display the same character as the mossland type proper.

Key Characteristics:

- Relatively flat land
- Arable fields or 'moss' woodland
- Absence of hedgerows and hedgerow trees
- Wide expansive and sweeping views
- Open and exposed

- Often containing tranquil areas
- Dark peaty soil to mossland proper
- Frequent occurrence of low-lying mists and fogs
- Lack of important roads through the area
- Elevated farm tracks
- Use of open ditches as field boundaries
- Importance to wildlife

Cultural History

The mosslands of the Warrington area fall into two distinct areas. The first and largest both by area and number of mosses are those which flank the Mersey Valley, forming a part of a great chain of mossland stretching from Ashton Moss in the east. Most of these mosses are on the north side of the River Mersey, but Carrington Moss and Warburton Moss are to the south, the latter close to the Borough boundary.

The second area of mossland occurs within the Cheshire Plain, to the south of Warrington, south of the Red Sandstone Escarpment. These form a collection of mosslands often smaller and more scattered, occupying local depressions in the landscape. East of Warrington is Lindow Moss near Wilmslow, a good example of such a moss.

All of these mosses are of a type known as raised bogs. Raised bogs occur when a depression fills with water and is colonised by sphagnum mosses and other acid-loving wetland vegetation. Over a long period of time this vegetation builds up and slowly consolidates to form peat. The peat continuous to build up until the original bog is entirely subsumed within the bulk of the peaty deposits.

Additional plants of the raised bog community include cotton-grass (*Eriophorum angustifolium*), heather (*Calluna vulgaris*) and cross-leaved heath (*Erica tetralix*). As the raised bog matures, other species such as hairy birch (*Betula pubescens*) begin to colonise. In almost all of the mossland in Warrington an area of birch woodland exists, usually in a much reduced form.

In ancient times the mosses were regarded as dangerous wildernesses, with deep dark pools of acidic water, treacherous areas of boggy ground, mists and fogs and the haunt of wild animals. As such, these areas were good for hunting (on foot) but were to be avoided at other times. The spiritual dread with which these wildernesses were regarded may readily be guessed at with the discovery of a corpse known as the 'Druid Prince', whose amazingly well preserved remains were dug out of the peat at Lindow Moss. The fact that he appears to

have been possibly drugged and then ritually sacrificed gives some indication of how Iron Age man may have regarded the mosses.

In 1726, the writer Daniel Defoe passed through the area, journeying from Warrington along Manchester Road, recording his visit in a book published a year later.

'From hence, on the road to Manchester, we passed the great bog or waste called Chatmos, the first of that kind that we see in England, from any of the south parts hither. It extends on the left-hand of the road for five or six miles east and west, and they told us it was, in some places, seven or eight miles from north to south. The nature of these mosses, for we found

there were many of them in this country, is this, and you will take this for a description of all the rest. The surface, at a distance, looks black and dirty, and is indeed frightful to think of, for it will bear neither horse or man, unless in an extremely dry season, and then not so as to be passable, or that any one should travel over them. What nature meant by such a useless production, tis hard to imagine; but the land is entirely waste, except for the poor cottager's fuel, and the quantity used for that is very small.'

Defoe, Daniel 'A Tour Through The Whole Island of Great Britain' published in three volumes 1724 – 1726.

Defoe's opinion of the mosses shows that perhaps little had changed in nearly 2,000 years. The mosses were still dreadful places, to be avoided at all costs.

Defoe mentions the 'poor cottager's fuel' and this is perhaps a reference to peat, which had a widespread use as a low quality fuel. In the C19th and early C20th, peat was dug at Risley for fuel and a small narrow gauge railway was used for pushing cartloads of fuel to a point where it could be loaded onto horse-drawn carts.

Medieval and post Medieval farmers tried to drain some of the mosslands, 'assarting' - clearing the mosslands around the fringes in order to cultivate the rich peaty soils. Clearly, unless the 'valley bog' - the original depression in which the peat formed - could be drained any efforts to drain the perimeter would be fraught with difficulty. For this reason many of the original peripheral field shapes were in plan like the slices of a pie, cutting into the moss.

The large chain of mosses along the Mersey effectively channelled many of the roads through the area into the gaps between them. In the Warrington area the B5212, runs north-south, following the line of higher ground to the west of the River Glaze which runs between the great expanse of Chat Moss and Holcroft Moss. The A57 Manchester Road runs along the north side of the River Mersey on similar higher ground on the fringe of Risley Moss.

The strategic importance of this string of mosses was extremely high, as the blocking of these road gaps would cause major problems for troops moving north or south through them. Added to the formidable obstacle of the River Mersey, the mosses acted as a gigantic barrier to forces moving north or south through north-west England. For example, in 1745, the Jacobite army of Bonnie Prince Charlie marched south through Carlisle and Preston towards

Warrington, but at Wigan the army turned east towards Manchester. This is almost certainly because news had reached the Jacobites that on 25th November 1745, Brigadier Douglas and the Liverpool Blues (a militia unit) had demolished the two central arches of the Warrington Bridge. The option available to the Jacobites of crossing the Mersey at the Warburton ford was not a realistic alternative as at any time a relatively small group of government troops could block the passages between the mosses adjacent.

In the early C20th, farmers finally had the tools to deal with the mosslands. Mechanisation meant that long, deep drainage trenches could be cut through the mossland in a relatively short period of time, when the moss had dried enough to support the weight of a tractor. The rich peaty soils, once drained, were very productive. Farmers who had land on the perimeter of the mossland, as well as in the mossland itself, benefited greatly and were able to remove hedges and trees on the perimeter land to facilitate mechanised farming. Many of the mossland farms, especially on the reclaimed areas were relatively small, reflecting the high quality of the land, the ability to grow high quality crops (particularly vegetables) and especially the proximity of good local markets.

Much of the mossland, where it is drained, is Agricultural Land Classification Grade 1 or Grade 2. In the second half of the C20th farmers continued to grow high quality crops on this land, extensively using inorganic fertilisers. However, with the advent of supermarkets and their colossal buying power, farming of vegetable crops on the mossland appears to have taken a downturn. Farmers on the mossland were unable to produce the volumes, consistency and out of season availability which other supermarket suppliers could.



Photo 82e. Typical mossland landscape, leaning poles, flat, exposed fields and raised trackway – Rixton Moss near Woodend Farm.

The current situation of farming on the mossland is subject to some fluctuation. The high quality of the drained land remains, but the drainage has to be renewed after five to ten years, as the drying of the peat and soil loss through wind-blow and shrinkage slowly makes the existing drains shallower in the soil. This inevitably results in the drainage pipes being ploughed out. These drainage costs are relatively high for a farmer. Traditionally, farmers alternated their crops on the mossland, so that they would not be too vulnerable to financial hazard through the risks associated with monoculture.

More recent weather patterns pose a problem for mossland farmers. Periods of exceptionally heavy rain make the mossland incapable of withstanding the weight of farm machinery as well as causing rot in root crops and mildews in grain crops. Exceptionally hot, dry summers cause problems for farmers in irrigating their crops; although water is present in the deep drainage ditches, it has to be pumped onto the crops for irrigation. This reduces the water table under the peat, causing further ground shrinkage etc.

The mosslands are extremely important for wildlife. In Europe, intact lowland raised bogs are one of the rarest and most threatened habitats. (They are listed in Annex 1 of the EC Habitats and Species Directive.) North West England had the largest proportion of this habitat, a total area which has fallen by 94% since the beginning of the C19th. There is a very specialised range of both flora and fauna in the mosslands, including birds such as the

nightjar (*Caprimulgus europaeus*), curlew (*Numenius arquata*) and snipe (*Gallinago gallinago*) and insects such as the downy emerald dragonfly (*Corulia aenea*) and the large heath butterfly (*Coenympha tullia*).

It is particularly noticeable that there is a paucity of footpath provision through the mossland areas, reflecting the centuries through which the mossland was impassable and the difficulties of passing over often very deep and wide ditches. This lack of visitors is to the benefit of the wildlife, which is relatively undisturbed.

For the last two hundred years, the unreclaimed mosslands have been seen as the perfect place to locate landfill sites, with very clear deleterious effects on the landscape. These effects include polluted runoff into the mossland and especially the visual intrusion of what are often very high landfill sites.

Recently a group of organisations, including Mersey Forest and Red Rose Forest, the Councils of Warrington, Wigan and Salford, Natural England North West, the North West Development Agency and a number of other parties, created a project called the 'Mosslands Action Group' to look at the mosslands. The Action Group appointed consultants to produce a 'Draft Vision for the Mosslands' to resolve current conflicts and produce a sustainable land use pattern for the area. Their report, 'The Mosslands Project – The Vision', deals with the group of mosses to the east of Warrington, including Risley Moss, Rixton Moss and Holcroft Moss and the larger group of mosses comprising Chat Moss to the east.

Key cultural elements in the landscape:

- Extremely valuable and increasingly rare habitat
- Regrettably common use of the type for landfill sites
- Historically forbidding, dark appearance and sense of dread felt by all visitors
- Strategic value of the impassable nature of the mosses
- Lack of agricultural use prior to 'reclamation' in the late C19th
- Disused peat cuttings
- Long, deep drainage ditches of the C19th reclamations

Landfill and Mineral Extraction

Peat extraction for use as fuel has been practised in the mosslands for centuries. The growing realisation of the public to the threat posed to mossland through peat extraction and use in horticultural composts is beginning to reduce the volume of peat extraction nationally. Similarly, the production of composted bark and similar peat substitutes is increasing.

Almost every mossland area within Warrington Borough has been either the recipient of landfill operations or has been otherwise adversely affected by them. These vary from inert fill in Stretton Moss (surplus material from the M56 construction), to industrial waste adjacent to and impinging on Rixton Moss and to domestic refuse at Silver Lane, impinging on Pestfurlong Moss.

The adverse effects of landfill operations are varied, but include:

- Introduction of an artificial landform
- Visual intrusion
- Contaminated groundwater
- Noise and vibration through mechanical plant movement
- Air pollution and fumes
- Introduction of large numbers of scavenging species (on domestic refuse sites)
- Changes in water levels

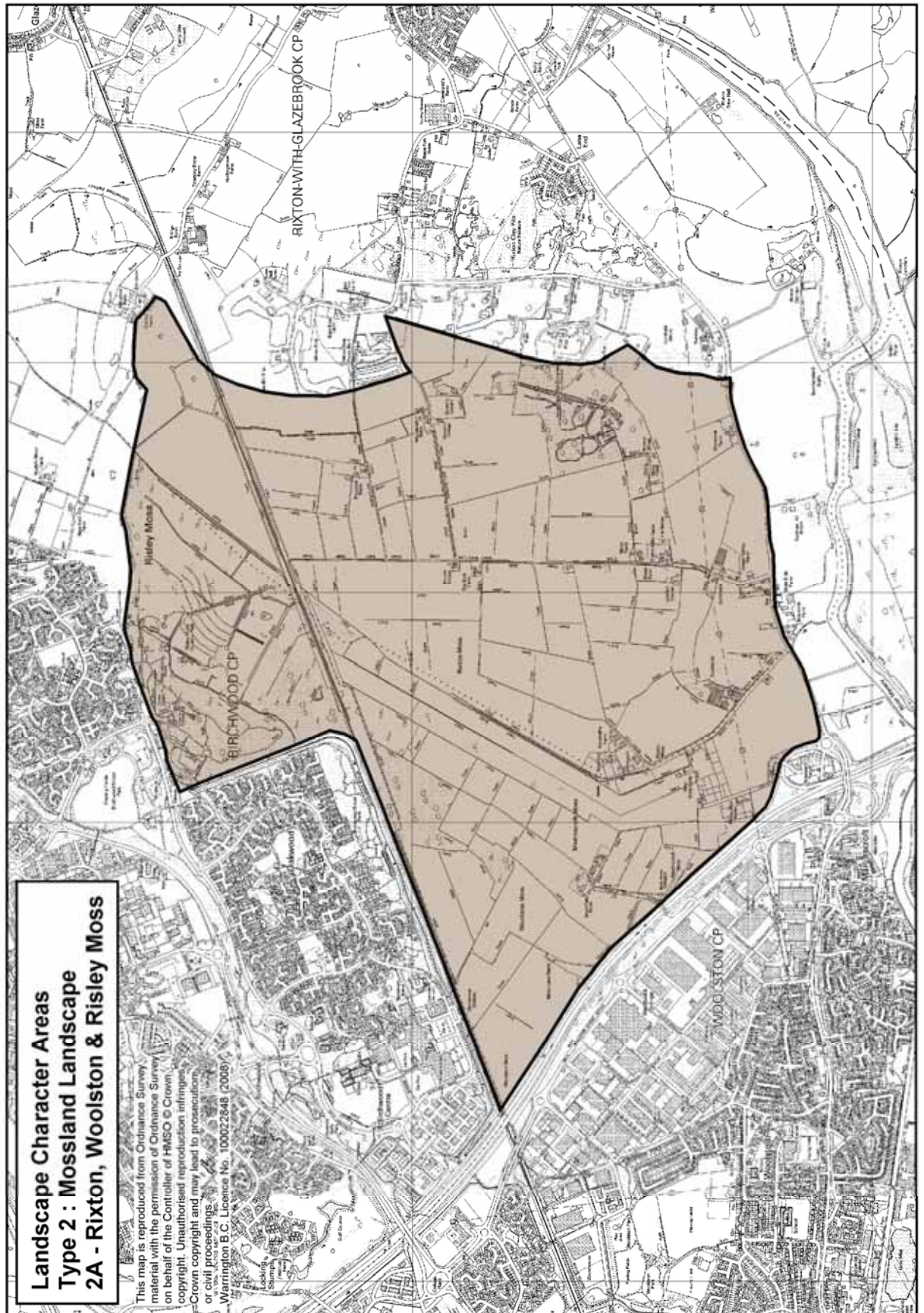
Agricultural Land Classification

The wet areas of the mosslands are unclassified. Where drainage reclamation schemes have taken place the bulk of the mosslands are Grade 1 agricultural land. Where the mossland borders other soil types the land is usually Grade 2 agricultural land.

Settlement

By its very nature the mossland core cannot support settlement as the underlying peat moves with the water table. There are a few isolated farms on Rixton Moss, but several of these show signs of subsidence. The galvanised steel barns are more resistant to subsidence, being lighter structures, but it is clear that most farmers do not wish to build permanent structures on the peat.

On the periphery of the mossland core there are a number of isolated farmsteads, usually quite small.



TYPE 2 MOSSLAND LANDSCAPE

AREA 2.A RIXTON, WOOLSTON AND RISLEY MOSS

Description

The Rixton, Woolston and Risley Mosses form an homogenous area of mossland, east of the M6, spreading northwards from the A57 Manchester Road and separated from Holcroft Moss by only a narrow causeway of higher land between Milverton Farm and New Hall Farm.

This is the largest single extent of mossland in the Borough, sparsely populated and with a somewhat isolated character. Occasional properties within the mossland areas show signs of residence.

The peaty soils support arable crops and market gardening whilst the isolated woodlands within the mossland are a haven for wildlife. The woodlands within the mossland at Moss Head and Risley Moss comprise of mainly birch with a greater range of native deciduous species on locally higher ground. Rhododendron ponticum provides an invasive understorey to the Moss Head Wood and creates a dramatic feature when in flower in late May. Risley Moss is a local nature reserve.

Agricultural field patterns are rigidly angular, defined only by numerous open ditches confirming the continued wetness of the area. The land appears flat with wide horizons, unrestricted by hedgerows.

Key Characteristics:

- 'Level' basin form to mossland areas
- Expansive views towards North Wales
- Straight water-filled ditches defining rectilinear fields
- Dark peaty soil frequently exposed due to the intensity of cultivation
- Leaning telegraph poles and property subsidence
- Scattered presence of polytunnels
- General absence of hedgerow and hedgerow trees
- Elevated trackways, usually flanked by deep ditches
- Tranquility within core areas
- Open and exposed
- Presence of woodlands with a high conservation/wildlife value



Photo 95. Another view of a typical mossland landscape, leaning poles, flat, exposed fields, water-filled ditches and raised trackway – Rixton Moss near Moss Farm.

Cultural History

Risley Moss used to be considerably larger than its current size. In 1845, when the first OS sheet of the area was prepared, it extended further north, into the area now known as Birchwood and considerably further to the west, where Woolston Moss, the western arm of Risley Moss extended over the area occupied by the Grange Industrial Estate and the M6 motorway. At this time, much of the fringe of Risley Moss had been encroached upon by local farmers, who had established a series of small fields, intersected by a large number of small lanes radiating out from the moss and linking to peripheral lanes and roads. Later in the C19th a small railway was constructed to take peat out of the moss for use as fuel. The wagons were probably drawn by ponies.

At the beginning of World War Two, the Royal Ordnance constructed a factory for the production and storage of munitions in the north-west corner of the moss, covering most of the areas now known as Birchwood, Oakwood and Gorse Covert. An area of 3.8 km² (927 acres) was cleared for the construction with the peat being bulldozed to the south, onto the

surface of the original mossland. The Royal Ordnance Factory (ROF) Risley was a large facility, linked by rail to the main line to the south, which also cut through part of the moss.

The factory employed large numbers of people and included a number of large munition storage bunkers. Over 1,000,000 mines and 500,000 high explosive bombs were produced by Risley ROF throughout WW2. The bunkers were covered with soil for camouflage and designed so that if the munitions exploded, the force would be expended upwards rather than outwards, to minimise the risk of a chain of explosions. Two of the original bunkers were retained in Birchwood District Park. The factory was bombed once during the war, but did not sustain serious damage.

Also retained was the old brick faced reservoir originally constructed to hold water for fighting fires. This was converted into a walled garden in the 1980s by the New Town. It can be found within open space parkland opposite Oakwood Gate petrol station.

In 1956 the north west side of the Royal Ordnance Factory was sold to the United Kingdom Atomic Energy Authority (UKAEA) and the remainder put on the market in 1963. In 1968, Warrington New Town purchased the site and began a large scale demolition project, followed by the development of the present Birchwood area, with housing, shops, leisure facilities and the construction of a new railway station at Birchwood.

In 1978, as part of the works undertaken by Warrington New Town, an area of moss woodland at Risley to the east of Birchwood was re-watered, in an attempt to preserve the core of the moss in a condition approximating to its original pre-ROF state. This was very successful and the area was later designated as Risley Moss Nature Reserve.

Key cultural elements in the landscape:

- Risley Moss Nature Reserve
- Remnants of The Royal Ordnance Factory (ROF) Risley
- Peat workings within the Risley Moss Nature Reserve

Landfill and Mineral Extraction

There is a substantial landfill site for the deposit of non-hazardous waste at the eastern edge of the mossland at Moss Side, impinging on the Mossland/Undulating Enclosed Farmland boundary. This landfill site has a substantial negative visual impact on the mossland as no restoration works have currently taken place. The overall appearance of the site is of a substantial mound of clay with little or no vegetation on it.

To the north of the above site, and within the mossland, planning permission exists for clay extraction and backfilling with waste materials on land adjacent to Ormrod Farm.

Peat was cut at Risley Moss in historic times, but no further peat cutting has taken place.

Agricultural Land Quality

The bulk of the mossland area is of Grade 1 agricultural land. To the east of the M6 and north of Manchester Road is an area of Grade 2 agricultural land.

Landscape Sensitivity

The mossland farmland is very fertile and intensively used for arable crops, particularly potatoes and other root crops. It is also particularly sensitive to changes of water level and problems of wind erosion can occur over areas of bare ground under dry and windy conditions. The peat soils are also unstable when structures are placed on them and cannot support weight without foundations extending down to the clay beds beneath. This accounts for the sparsity of buildings within the peat moss areas. Even properties on the mossland fringes often show signs of subsidence. Telegraph poles in particular are often seen leaning at various angles.

The flat open landscape, without visual protection of hedgerows, is also sensitive to expansive views with little opportunity to screen any feature in the landscape, either permanent or temporary. The mosslands are therefore also poorly equipped to absorb any recreational use and would suffer from erosion of footpaths based directly on the peat. Public footpaths within the Rixton and Woolston Moss are few and far between and limited to the hardcore trackways serving the agricultural areas.

The mossland woodlands are also sensitive to changes in water level. The water table in the peat woodlands is normally high and can support only surface rooting species such as birch, rhododendron and goat willow. These species dominate in such areas but often die before reaching maturity if the water levels are too high. At Risley Moss Nature Reserve the water levels are carefully managed by a series of sluices to the drainage channels and a full range of trees, scrub, wetland grassland and open water are maintained to maximise habitat diversity.

Areas within the Reserve at a slightly higher level support a more diverse range of native tree species. These areas, although once part of the peat mossland, were reclaimed with imported clay and cinder and formed part of the old Risley Ordnance Factory.

The flat mossland landscape is also very sensitive to the visual impact of high or mounded structures. The landfill site at Moss Side presents a particularly unnatural element in the landscape.



Photo 82. Rixton Moss near Woodend Farm showing polytunnels and ‘market garden’ agriculture.

Key elements of landscape sensitivity:

- Very sensitive to water levels and drying out
- Prone to windblow and erosion
- Prone to subsidence of structures and buildings
- Open, unrestricted views
- Potential footpath erosion on the peat
- Mossland woodlands and little frequented areas are a haven for wildlife but sensitive to disturbance.
- Visually extremely sensitive to the imposition of high structures and/or mounding

Landscape Change

The mossland areas have changed dramatically over the centuries, originally presenting as hostile or dangerous, swampy and unhealthy areas, devoid of habitation. Even today the main roads can be seen to skirt around the mossland fringes. Originally the mosslands would have been largely wooded with birch, willow and alder and probably interspersed with open water and marshland.

Progressive stages of drainage 'reclaimed' the mosses for agricultural use and most of the woodlands were felled and grubbed out. In common with nearly all the landscape in the Borough, the mossland landscape of today is entirely man-made. However the residual woodlands at Moss Head and in part at Risley Moss, represent a close likeness to the 'original' natural landscape.

Peat cutting and the intricate, geometric pattern of open ditches, have contrived to create the landscape seen today. This formality is reinforced by the associated raised hardcore tracks forming straight access routes.

More recent changes have seen large-scale landfill at Moss Hall Farm and the extraction of clay for brick manufacture on the fringes of Rixton Moss. Peat cutting at Risley Moss ceased following its purchase by Warrington New Town. The landscape at Risley Moss then changed radically during the 1970s and 80s, following its management for scrub clearance and re-introduction of higher water levels. Its designation as a nature reserve endeavours to retain the diversity of landscape and habitat seen today.

Other changes in the Mosslands include the construction of the Manchester to Liverpool railway line, separating Rixton from Risley Moss, and the construction of the M6 motorway. The M6 now defines the western extent of Woolston Moss.

Landscape change to the area is summarised as follows:

- Drainage of the mossland areas altering the landscape from marsh and wet woodland to mainly agricultural land
- Little to no change experienced in the mossland woodlands apart from the spread of *Rhodendron ponticum*
- Cessation of peat cutting
- Creation of raised hardcore tracks, with assorted open drainage ditches, accessing the area
- Landfill sites
- The extraction of clay for brick making

- The creation of nature reserves at Risley Moss and Rixton Clay Pits
- Past construction of Liverpool to Manchester railway and the M6
- Recent additions of polytunnels to encourage early crops



Photo 92a. An active clay pit off Moat Lane, Rixton, showing the flat mossland landscape in the background.

Recommended Management and Landscape Objectives

The mossland landscape is very distinctive and special. It is also extremely sensitive to change and should be managed carefully to maintain an environmentally stable and sustainable landscape. The mosslands of today provide a rich agricultural resource but also contrive to provide invaluable and diverse habitats for wildlife. The following objectives are broadly designed to conserve this balance.

- Retain, monitor and adjust current water levels within the mosslands to avoid fluctuations, drying out and potential wind erosion

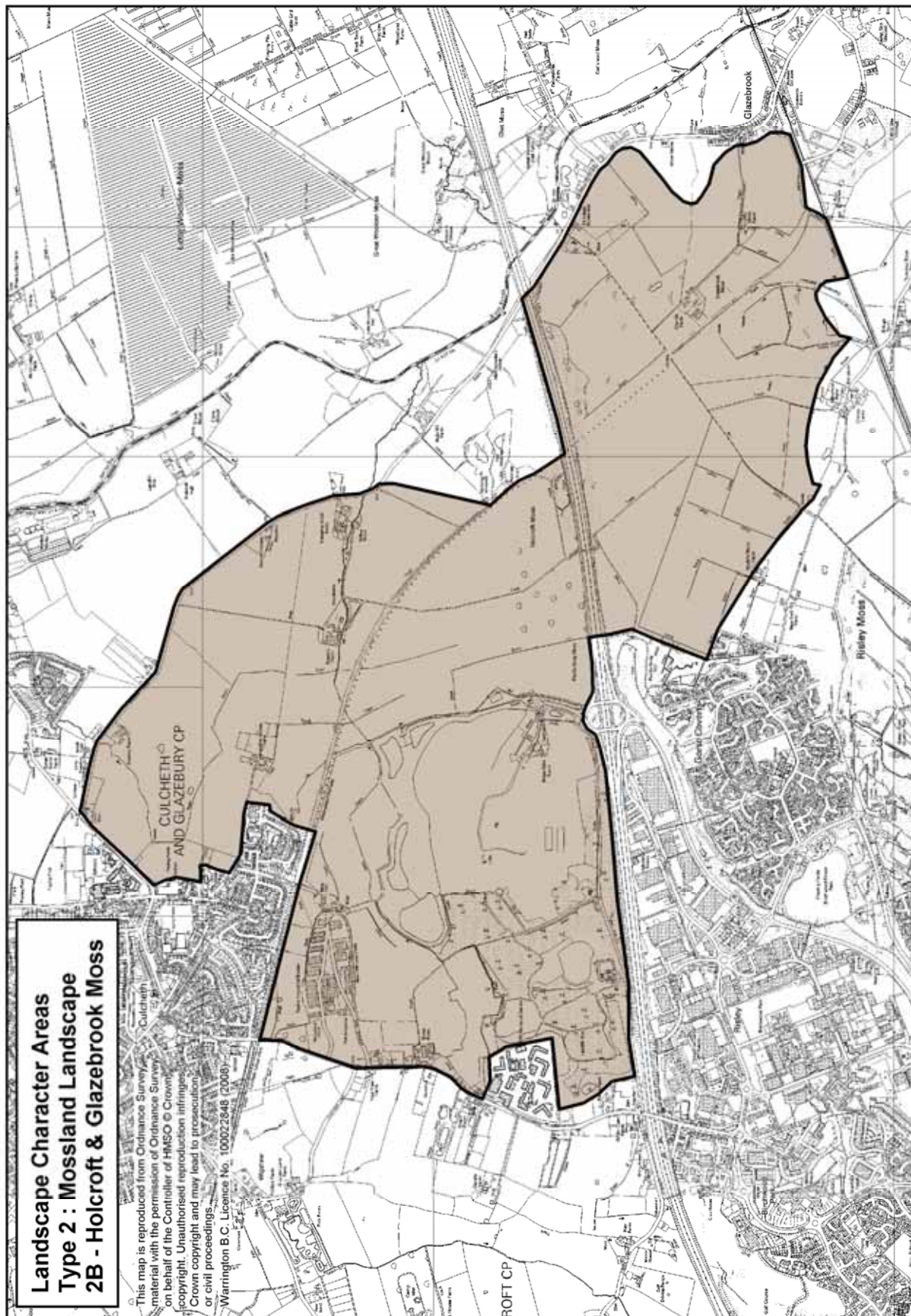
- Consider the balanced needs of both agriculture and wildlife habitat
- Consider the merits of higher water levels in areas of less productive mossland, promoting greater habitat diversity and wildlife value
- Retain the existing quiet and tranquil character of the mosses without encouraging excessive recreational use or built development.
- Urgently consider methods of mitigation to reduce the visual impact of the landfill site at Moss Side
- Encourage the management of Moss Head woodland, diversifying habitat for wildlife. Explore possible land extensions and linking to Rixton Clay Pits
- Retain the basic landscape structure of the mossland fields and ditches, whilst encouraging a greater diversity of native flora to the ditches and trackway verges

Settlement

There is very little settlement within this area. A few farms are scattered around the edges of the moss, in most cases on the drier, non-peaty soils.



Photo 96 View east from Holly Bush Lane across Rixton Moss to Moss Head woodland. Note the predominance of birch and *Rhododendron ponticum* understorey.



TYPE 2 MOSSLAND LANDSCAPE

AREA 2.B HOLCROFT AND GLAZEBROOK MOSS

Description

Holcroft and Glazebrook Moss form a continuous area of mossland separated from Risley and Rixton Mosses to the south-west by a narrow causeway known as Old Hall Lane, situated on slightly higher land between Milverton Farm and New Hall Farm.

Their landscape character is similar to that of the adjacent Rixton Moss, although field sizes become larger from south to north with fewer dividing ditches. Arable crops appear more extensive and less varied. The impression of 'isolation' within the area is less marked with views tending more towards the east and the Pennines.

The edges of this mossland are indistinct, visually feathering into bordering areas.

The landfill site at Silver Lane is a dominant and alien feature in an otherwise flat landscape. The site is currently active, although completed sections are now 'over soiled' and planted with mainly native woodland species.

Key Characteristics:

- 'Level' basin form to mossland areas
- Expansive views towards the Pennines
- General absence of hedgerow and hedgerow trees
- Predominantly expansive arable farmland
- Visually dominant elevated sections of a disused railway
- Visually dominant landfill site at Silver Lane
- Open and exposed

Cultural History

At the core of the Holcroft and Glazebrook Moss area is Holcroft Moss, part of which was bought by Cheshire Wildlife Trust in 1990 as a wildlife reserve. This is a relatively small area of woodland, scrub and rough grassland. It represents the only area of lowland bog in Cheshire which has not been cut for peat although the water level has been reduced by

drainage ditches. To the east of Holcroft Moss and just west of Hole Mill Farm is an area of former peat cuttings. Holcroft Moss is an important area for bird watching and possesses a number of rare mossland plant species.



Photo 78a. Hoyle's Moss Farm, near Risley Moss looking north across Holcroft Moss

In common with Risley Moss there were numerous small fields around the moss edge in 1845 with many lanes and tracks radiating out from the moss. Today there is little evidence of these and almost the whole area is farmed. The M62 cuts through the mossland areas and is in a cutting for much of its length, adversely affecting the conservation of the moss by increasing the effects of drainage and physically severing the mossland to either side.

A disused railway line also runs across the mossland, from Culcheth down to the southeast of the area, formerly joining the Manchester/Liverpool railway line near Glazebrook station. This line is broken by the M62 motorway route, running east-west across the area. To the north of the M62, the line is elevated on an embankment, whilst to the south it is approximately at ground level. The disused line becomes the Culcheth Linear Park to the north of the area.

Risley Remand Centre opened in 1964. In 1990, it was designated a Category C Male Training Prison and continues in that role. It has a high, roll-topped concrete perimeter security wall, with visitor parking to the Warrington Road frontage and is now partially screened from view to the south and east by the mass of the Silver Lane landfill site.

Taylor Business Park was originally built as a Ministry of Supply depot to house workers employed at the Risley Ordnance Factory. Known as the Newchurch site, it became a naval supply depot when Risley Ordnance Factory ceased production. In 1962, the Ministry of

Supply Department of Atomic Energy, who were then using the site, were moved to new premises at Risley as part of the newly established Atomic Energy Commission. The Taylor family then purchased the site to house their Lathom Engineering Company Ltd. The Taylor Business Park was formed on the sale of Lathom Engineering Co. Ltd some time shortly after 1970.

Key cultural elements in the landscape:

- The Holcroft Moss Nature Reserve
- The M62 motorway
- Silver Lane landfill site
- The disused railway line (connecting to Culcheth Linear Park)
- Disused peat cuttings
- HM Remand Centre, Risley
- The Taylor Business Park
- The Manchester – Liverpool main railway line

Landfill and Mineral Extraction

A very substantial area of landfill occupies land north of the M62 motorway to the north of Silver Lane. A large part of this site has already been seeded and planted, but there is currently no public access due to security problems associated with methane gas recovery and power generation. The landfill has been progressed from west to east and has involved covering listed buildings (see 'Settlement' below). The landfill operations are currently at the eastern end of the site, in clear view of observers throughout this landscape area. The landform has a major adverse impact when viewed from Junction 11 on the M62.

Peat-cutting operations have historically taken place on Holcroft Moss, but these have now ceased.



Photo 73. Landfill at Silver Lane, Risley viewed from the disused Culcheth railway line near Frank's Farm.

Agricultural Land Classification

The wet area of Holcroft Moss, centering on a zone around the M62, is unclassified. All around this area is a zone of Grade 1 agricultural land. North and south of this area is an area of Grade 2 agricultural land. To the north it is on the north-east side of the disused railway line. To the south there is a small zone of Grade 2, extending into the adjacent landscape area. The remainder of the area is Grade 3 agricultural land.



Photo 70: Suburban edge –Housing at Culcheth viewed from the footpath near Ratcliffe House farm – across a mossland landscape.

Landscape Sensitivity

The landscape sensitivity of the area is very similar to that of the adjoining Rixton, Woolston and Risley Mosses. The function of the arable land is totally dependent upon drainage and water level management, with potential problems of ‘wind blow’ erosion to exposed soils in dry, windy weather.

As with all mosslands, buildings are located around the mossland fringes, where firmer foundations can be more easily achieved. Large fields of mainly grain crops predominate with very few public footpaths. The scale and openness of the landscape does not appear welcoming to recreational use, although views out of the area towards the Pennines are extremely attractive. The flatness of the landscape is very prone to the impact of large scale mounding and it is therefore unfortunate that the mosslands have been selected for landfill, as evidenced by the very large site at Silver Lane, Risley.

Key elements of landscape sensitivity:

- Very sensitive to water levels and drying out
- Prone to windblow and erosion
- Prone to subsidence of structures and buildings
- Open, unrestricted views
- Potential footpath erosion on the peat
- Mossland woodlands and undisturbed areas are a haven for specialised wildlife but sensitive to disturbance.
- Sensitive to the imposition of high structures and/or mounding

Landscape Change

In common with the adjoining mosslands, these areas would originally have been seen as uninhabitable and dangerous prior to drainage, with the access road skirting the mossland fringe between Glazebrook and Culcheth (B5212). The construction of the main Manchester to Liverpool railway later in the C19th by the Cheshire Lines Committee and the more recent M62 motorway, have both been undertaken through the moss, largely in cuttings. This has further reduced the water table and created more workable and productive farmland.

A more visually prominent railway line through the area is the now disused line which ran from Leigh and connected with the Manchester to Liverpool railway near Glazebrook. Construction across the moss was undertaken here on an embankment, forming a notable linear feature, now tree clad, through the flat arable landscape.

The landfill site at Silver Lane, Risley is a more recent change in the landscape on a large and dramatic scale. This has fundamentally and unfavourably altered the flat landscape of the moss by introducing a visually intrusive, isolated high mound.

Landscape change is summarised as follows:

- Drainage of the mosslands altering the landscape from marsh and woodland to agricultural land
- Past construction of Liverpool to Manchester railway line and M62 motorway
- Past construction of Leigh branch line railway embankment

- The imposition of landfill

Recommended Management and Landscape Objectives

- Retain, monitor and adjust current water levels within the mosslands to avoid fluctuations, drying out and potential wind erosion
- Consider the balanced needs of both agriculture and wildlife habitat
- Consider the merits of higher water levels in areas of less productive mossland, promoting greater habitat diversity and wildlife value
- Retain the existing quiet and tranquil character of the mosses without encouraging recreational use or built development
- Consider methods of landscape mitigation to reduce the visual impact of the landfill site at Silver Lane, Risley
- Retain the basic landscape structure of the mossland fields and ditches, whilst encouraging a greater diversity of native flora to the ditches and trackway verges

Settlement

There is very little settlement within this area. A few small farms such as Franks Farm, Church Farm and Ratcliffe House Farm are scattered around the edges of the moss, in most cases on the drier, non-peaty soils. Old Abbey Farmhouse, Silver Lane was an early to mid C17th Farmhouse built on an earlier moated site and Listed Grade II. Associated with this was a nearby barn which was probably late C17th, also Listed Grade II. Both buildings have been covered by the landfill at Silver Lane.



Photo 73c: View across Holcroft Moss from the disused Culcheth railway line near Frank's Farm.



TYPE 2 MOSSLAND LANDSCAPE

AREA 2.C STRETTON AND APPLETON MOSS

Description

Stretton and Appleton Mosses form one contiguous, reasonably level area of mossland drained by a main ditch through the centre of the area to the south. The ditch forms the parish boundary between the two parishes of Stretton and Appleton. The mossland extends outside the Borough boundary to the south, into Vale Royal, forming part of Vale Royal LCA *Type 9B: Arley Lowland Farmland and Mosses*.

At the core of the mossland is an extensive area of wetland woodland, mainly containing birch. Peripheral areas have been reclaimed through drainage for arable land. Field patterns are defined by ditches rather than hedgelines and notably large with sweeping views into the 'basin' area.

The M56 motorway cuts through the northern perimeter of the mossland and much of the area has been affected by spoil deposition from the motorway construction. The mossland is clearly viewed from the M56.

Key Characteristics:

- Basin form to 'level' moss area
- Expansive views to south west from the M56
- Straight ditches defining rectilinear fields
- General absence of hedgerows and hedgerow trees
- Open and exposed farmland
- Core of moss woodland
- The M56 motorway

Cultural History

Stretton and Appleton Mosses are separated by an ancient Parish boundary in the form of a stream, Gale Brook. Like the other mosses in the area, there is strong landscape evidence of gradual reclamation of the mossland from the peripheral farms.

In 1968, construction commenced on the M56 motorway, which runs across the northern part of the mossland.



Photo 147b: View across Stretton Moss from the M56 bridge near Mosswood Hall – the area of mossland reclaimed during the construction of the M56, when levels were raised with surplus fill.

Key cultural elements in the landscape:

- Valuable and increasingly rare habitat
- Regrettably common use of the area for landfill
- Lack of agricultural use prior to ‘reclamation’ in the late C19th.
- Increased intensity of farming following landfill operations when the M56 motorway was built in 1968

- Long, deep drainage ditches of C19th reclamations.

Landfill and Mineral Extraction

A large section of Stretton Moss was 'reclaimed' as a by-product of the construction of the M56, when material from local cuttings on the M56 was deposited in the area, re-graded and spread with peaty topsoil to produce a table-like plateau.

Peat may have been cut in the area in historic times, although no evidence of this can be found.

Agricultural Land Classification

The core of the area of Grade 2 agricultural land, including the reclaimed area following construction of the M56 motorway. The remainder of the area is Grade 3.



Photo 146: View west along the M56 from the bridge near Mosswood Hall, showing part of the original Stretton Moss mossland to the left

Landscape Sensitivity

The Appleton and Stretton Mosses are located in a distinct basin-like area and unlike the major areas of mossland found to the north of the Borough, they create a relatively small and discreet landscape of arable farmland with a core of moss woodland. Views into and out of the area are restricted to farm access tracks and footpaths and the M56 motorway which slices through and dominates the northern part of the mossland.

The area however still manages to retain a feeling of separation, distinctiveness and seclusion, which would be sensitive to intrusion. The large field patterns, together with lack of hedgerows and hedgerow trees, reinforce the openness of the landscape and its visual sensitivity.

Although much of the land has already been disturbed by the motorway construction, the core of the area and its associated woodland will be sensitive to further drainage and water level changes.

Footpaths through the area do not appear to be heavily used and skirt the area of mossland woodland, minimising disturbance to wildlife.

Key elements of landscape sensitivity:

- Sensitive to changes in water level
- Open, unrestricted views into the area from peripheral areas
- Farm building and other structures exposed to views
- Discreet, partially secluded area
- Moss woodland, a haven for wildlife but sensitive to disturbance
- M56. Area sensitive to exposed views and audible effect of traffic

Landscape Change

The main changes in the area's past have been the steady removal of mossland woodland through reclamation and drainage. Most of the land now supports arable crops, leaving only

a residual area of wet woodland on the area's southern boundary. The construction of the M56 motorway not only visually affected the area, but it is understood that large quantities of excavated material was also deposited and spread over the northern half of the mossland area, to the south of the M56.

In contrast with the adjacent landscape area of Hatton (Area 1.A), farms and their associated outbuildings are less compact – tending to be larger, more spreading and visually dominant elements in the landscape.

More recent change is being experienced through farm diversification. Signs from Stretton Road seasonally advertise a crop maze, introducing the public into the area over a bridge crossing the M56. Land to the south-west has been allocated for horse riding facilities.

Landscape change in the area is summarised as follows:

- Drainage of the mossland areas altering the landscape from marsh and wet woodland to mainly agricultural land.
- Past construction of the M56 motorway and the associated spreading of excavated materials.
- Enlargement of farms and farm buildings
- Farm diversification creating a crop maze and horse riding facilities.

Recommended Management and Landscape Objectives

The area's main quality is its discreet basin-like form, visually separated from other adjoining areas.

The remaining mossland woodland is also an extremely valuable asset for wildlife and will require consideration and management.

Less positive aspects of the landscape are the exposed views of the M56 motorway and spreading farm buildings.

The following objectives are designed to retain and enhance the area's main character and quality:

- Retain the balance of water levels between the arable farmland and wet mossland woodland
- Encourage the conservation and management of the mossland woodland, diversifying habitat for wildlife
- Consider the creation of native screen planting to the M56 and locally to soften the impact of farm buildings



Photo 142a View west across Stretton Moss from New Hall Farm, New Lane, showing the Borough and Parish boundary on the left.

Settlement

There is no settlement within this area. A few small farms are scattered around the edges of the moss on the drier, non-peaty soils.

TYPE 2 MOSSLAND LANDSCAPE

AREA 2.D PILLMOSS

Description

Pillmoss is an area of mossland to the south-east of the Borough, the bulk of which lies outside the Borough boundary, within Vale Royal. It forms a shallow basin to the south of the M56 motorway, west of the A49, and immediately east of Queestybirch Hall Farm.

This is the smallest area of mossland within the Borough, with much of its margins reclaimed as pasture and arable farmland through drainage schemes.

The field patterns are regular and continue from the hedges around the margins to become ditches. A small core of deciduous woodland marks the northern limit of the moss.



Photo 158: The centre of Pillmoss viewed from Summer Lane to the north.

Key Characteristics:

- Surrounding basin form to moss area

- Open views into the basin area
- Straight, water-filled ditches defining broad, rectangular fields
- Presence of wetland reeds in arable land and in rough pasture
- Open and exposed

Cultural History

There is little written history for this area, probably because the moss is so small and the area sparsely settled. It potentially has considerable value as a wildlife habitat, although this has not been verified.

Key cultural elements in the landscape:

- Potentially a valuable wildlife habitat.

Landfill and Mineral Extraction

There are no landfill or mineral extraction operations within this area.

Agricultural Land Quality

This area is scheduled Grade 3 agricultural land.

Landscape Sensitivity

Pill Moss is the smallest of the Borough's mosslands. In common with Stretton and Appleton Moss, it retains a core of wet mossland woodland, although surrounding fields have now been drained and reclaimed for farmland. Unlike the Stretton and Appleton Moss however, the landscape bordering Pill Moss is largely used for pasture with reclaimed fields showing distinct signs of poor drainage supporting rough grazing. Inadequate drainage may now be altering the moss area back to a wetter condition, resulting in less viable farmland pasture.

No footpaths occur within the area and the moss remains a quiet and undisturbed area, attractive to wildlife. Views into the area are only possible from Pillmoss Lane, where it is elevated to cross the M56.

Key elements of landscape sensitivity:

- Sensitive to changes in water level
- Moss woodland, a haven for wildlife but sensitive to disturbance

Landscape Change

In common with other mossland areas, previous agricultural drainage has led to a reduction of the woodland cover. Previously drained farmland is now reverting back to marshy rough grassland.

Landscape change in the area is summarised as follows:

- Reduction in woodland cover through drainage
- Reversion of drained pasture to wet, rough grazing

Recommended Management and Landscape Objectives

The area is somewhat isolated within surrounding farmland and retains a quiet, undisturbed character which should be respected. The reversion of drained pasture to wet rough grazing will also be a positive attraction to wildlife and provide habitat diversity.

The following objectives are designed to retain and enhance the area's main character and quality:

- Explore the possibility of expanding the mossland woodland, considering a linkage of a woodland corridor to Queestybirch Wood to the north-west.
- Investigate the effects of water level adjustment to the woodland and surrounding farmland.
- Consider increasing the value of the rough grazing for conservation and wildlife purposes.

Settlement

There is no settlement within this area. A few farms are scattered around the edges of the moss, in most cases on the drier, non-peaty soils.

TYPE 3. RED SANDSTONE ESCARPMENT

Description

The Red Sandstone Escarpment dominates the landscape to the south of the Borough, south of the Manchester Ship Canal. The escarpment slopes generally down to the north with crest elevations of 70-85 m above O.D., and frequently affords excellent long distance views to the north and east. From the escarpment crest, the land falls more gradually back to the south, forming the Cheshire Plain. The Triassic red sandstone geology underlying the area heavily influences the landscape character and is often exposed as rock outcrops in cuttings or present in the construction of older vernacular houses and walls.

The degree of northerly slope varies considerably from often deeply dissected steep slopes to the west in the vicinity of Appleton, to more gentle and generally undulating slopes in the east around the village of Lymm. The northerly slopes tend to be mainly used for pasture, with some arable land toward the escarpment crest.

A number of streams cut into the escarpment and also strongly influence the local landscape character. To the west, in the Appleton area, these are characterised by their northerly direction, lack of tributary streams and locally deeply incised valleys. To the east, however, the streams have a greater number of branching tributaries and run through a more gently undulating landscape with a lower secondary escarpment ridge running to the north.

Although the area has a strong unity of character, subtle changes are identified travelling from west to east. These changes are considered sufficient to warrant the sub-dividing of the character type into three areas described as Area 3.A Appleton Park and Grappenhall, Area 3.B Massey Brook and Area 3.C Lymm. The key characteristics listed below describe the linking elements to all three areas.

Key Characteristics:

- Escarpment runs along a generally east/west axis
- Dominant slope down to the north, with a more gentle slope to the south
- Red sandstone outcrops, cuttings and quarries
- Red sandstone walls and older buildings
- Locally excellent views to the north and east
- Red sandy soil exposed in ploughing
- Mainly pasture on the escarpment face with arable land towards the crest
- Mainly deciduous woodland, generally in linear form down the slope
- Presence of small marl pit ponds



Photo 128d. A view along Cinder Lane, Thelwall, typical of the Red Sandstone Escarpment.

Cultural History

The crest of the Red Sandstone Escarpment of the south side of the Mersey Valley has been used as an east-west routeway from ancient times. The modern B5356 along the crest, follows the alignment of a Roman Road which almost certainly follows the route of an earlier road. A second Roman Road, King Street, runs north-south, at right angles to the escarpment and meets the east-west route at Stretton in the immediate vicinity of the church. King Street follows a gentle declination to the Mersey Valley floor via the knolls at High Warren and Hillcliffe. The road must have crossed the River Mersey at Bridgefoot having run along Wilderspool Causeway, where a Roman pottery is known to have existed.

In the Domesday Book, Lymm (Lime), Appleton (Epletune) and Grappenhall (Gropenhalle) were held for the Earl of Chester by Osbern Fitztezzon, who also held land in Warburton, Dutton and Winnington in Great Budworth. Clearly Fitztezzon was a local magnate, whose main landholdings seem to have been along the Red Sandstone Escarpment. The lighter, arenaceous soils derived from red sandstone would have been easier to work for pre-Roman and early medieval farmers and the escarpment would have been one of the first areas of

Warrington to have farms established on it. Farming on the summit of the ridge is mainly arable, but where the ground is more steeply sloping and broken up by streams, cattle grazing would have been practised until recent times.

The road running along the escarpment was situated to the south of the ridgeline, presumably taking advantage of some shelter while using the drier ground upslope of the Cheshire Plain to the south. A chain of settlements ran along the line of the crest road, beginning at Hatton in the west and running east through Stretton and Appleton Thorn. In addition to these settlements, a number of moated sites and halls are located to both sides of the road. From west to east, these include Spark Hall, Stretton; Mosswood Hall, Appleton; Reddish Hall and Bradley Hall. The moats were probably fed from the spring line on the escarpment.

The red sandstone of the area is extremely soft, easily dug out and worked. While 'green' i.e. before hardening in the atmosphere it can be cut with a knife, but hardens reasonably quickly. It was used from Roman times for building works of all types, from the bridges on the Bridgewater Canal to footings for timber framed medieval houses. The deeper bands of stone were generally the hardest and most durable and the best to produce sawn ashlar walling stone. The shallower bands of stone were used to produce rubble walling and hardcore. Conversely, red sandstone is brittle, cannot easily be used second-hand and is particularly prone to erosion from salt spray.

In 1759, the famous engineer James Brindley began construction of the Bridgewater Canal for Francis Egerton, the third Duke of Bridgewater. The canal dominates the landscape of the lower escarpment, running approximately along the 25m contour. A major feature of the Bridgewater Canal was that it had no locks for some 22 miles, allowing for fairly swift barge travel.

The Manchester Ship Canal was constructed in 1894, effectively canalising much of the River Mersey and cutting through the base of the escarpment. In more recent years the Ship Canal has lost much of its commercial function.

In 1958, construction commenced on the Warrington section of the M6 motorway, the longest motorway in the UK. The motorway used part of the Massey Brook basin as a more gentle way of crossing the Red Sandstone Escarpment. This only involved a shallow section of cutting at the Lymm junction and avoided the need for an extensive embankment before crossing the Mersey flood plain on the Thelwall Viaduct.

Key cultural elements in the landscape:

- Roman road running along the crest of the escarpment
- Roman road (Kings Road) running north – south through Stretton
- The Bridgewater Canal (1759)

- The M6 motorway (1958)
- The Warrington and Stockport Turnpike of 1821 (now the A56)
- Lymm Dam (1824)
- The London and North Western Railway line of 1853, closed 1989, (now the Trans-Pennine Trail)
- Red sandstone quarries
- Red sandstone buildings, walls, quoins etc
- Large, mainly C19th estates, such as Grappenhall Heys, Oughtrington Hall etc.
- Old houses and properties.

Landfill and Mineral Extraction

There are no landfill operations because of the difficulties in achieving acceptable landform. The escarpment would accentuate the visual effect of any mounding. Historic land values are also considerably higher than those of the flood plain and mosslands and this has also dissuaded large-scale landfill operations.

Historically, mineral extraction has been limited to quarrying.

Agricultural Land Classification

The whole of the escarpment is classified as Grade 2 or Grade 3. The Grade 2 land is in four distinct groupings; to the east around Heatley and east of Broomedge, to the east of Lumb Brook in a large area around Grappenhall Heys, to a smaller area around Hurst Farm, Appleton and to the area west of Chester Road, Walton.

Settlement

Most of the settlements and buildings within the escarpment area have red sandstone featuring very heavily in the vernacular architecture. The red sandstone is extremely soft when first cut, but 'cures' in the atmosphere to become reasonably hard and durable. Many churches in the escarpment area are built from red sandstone and some of the older houses. However, sandstone was expensive to produce as a building material and many domestic dwellings were originally built as wattle and daub timber framed houses constructed on a plinth of red sandstone. In later years, as brick became more readily available the wattle and daub was either replaced with brick or the entire structure was encased in brick.

Thatched roofs were common as evidenced by the steep pitches of the gables in surviving older domestic buildings. Red sandstone was commonly used for quoins and lintels in some Georgian brick houses, but in many cases these were later painted to arrest the natural weathering of the stone. Wallspit (1791) a listed building on Tarporley Road, Stretton is a good example of a stone quoined Georgian brick building with a possibly older entirely stone dovecote immediately adjacent. Bellfield Farm, Appleton is a good example of a local farm built partially in red sandstone and partially in brick. The red sandstone quarries were located on the north side of the escarpment, probably in the Hill Cliff area. Some of these quarries are particularly ancient. Quarries for instance in the Pin Mill area of Lymm, have stones marked in pre-Roman times.

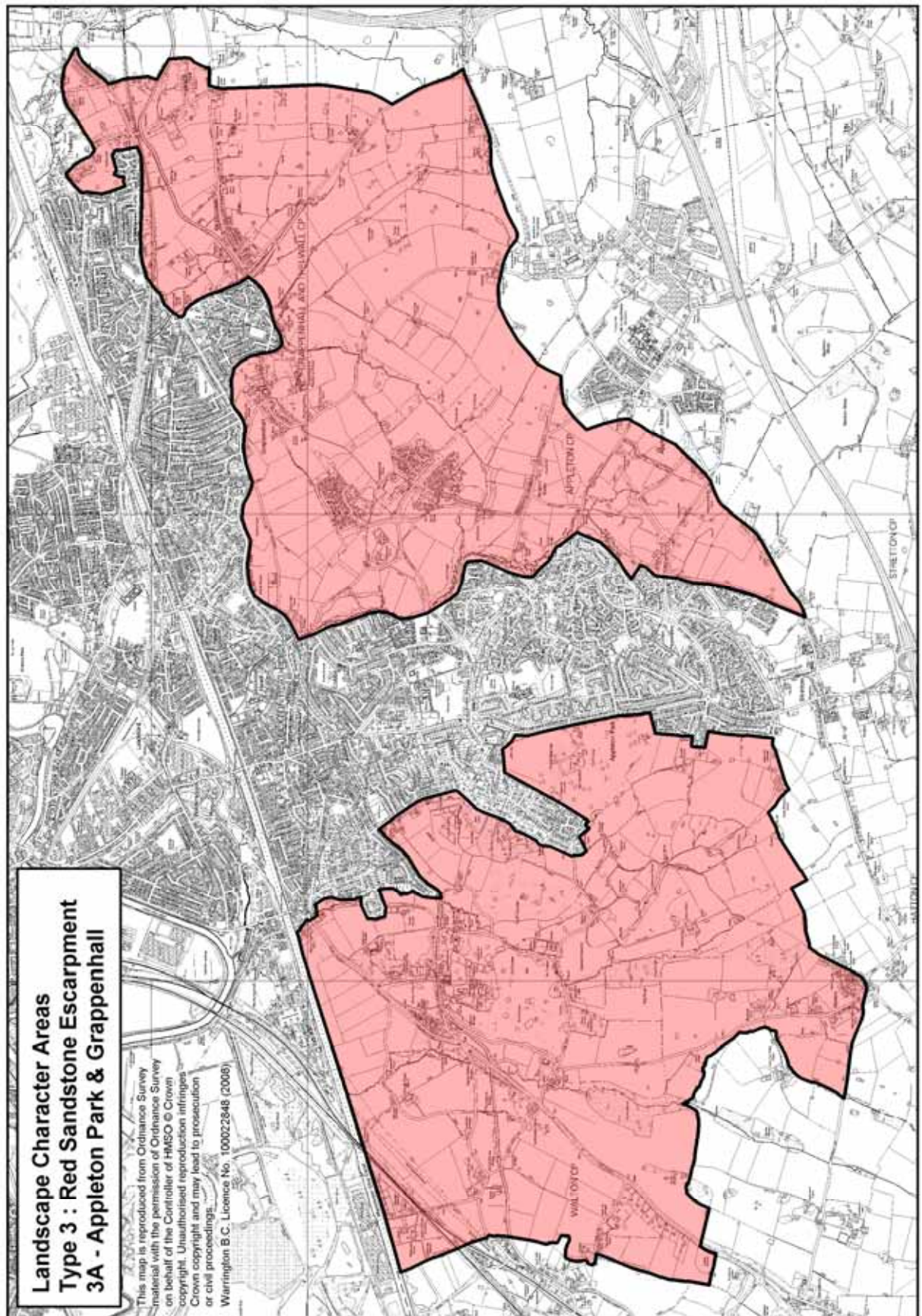
The villages of Oughtrington, Lymm, Thelwall, Grappenhall and Appleton are sited either at the base of the escarpment or halfway down the northern slope. These locations are linked by a lateral road, the A56, as well as the Bridgwater Canal. Roads running north-south intersect with the lateral road and these form the centres of the villages. The A49 runs through Appleton, the A50 through Grappenhall and the B5158 (Cherry Lane) into Lymm. The B5159 (Burford Lane) crosses the A56 and joins the A6144 at Heatley, 2.5km north of the A50.

Some of the villages have clearly expanded outwards from a village centre by ribbon development along the main roads, while later expansion has been by infilling and small housing estates.

Warrington New Town established the principle of development reaching up to and on the southern skyline of the escarpment. English Partnerships, and then the HCA, the successor organisations to the New Town continued this policy and slowly released land for housing development. Unfortunately, some of the later housing is three storey and is not as well screened with landscaping as the earlier New Town development. These buildings appear starkly on the escarpment crest and can be seen from several miles away. Entrance features and infrastructure are in place on the Stretton Road for further expansion at some future date.



Photo 106a: View west along the Bridgewater Canal from Agden Bridge, showing the open views of the Red Sandstone Escarpment's northern face.



TYPE 3 RED SANDSTONE ESCARPMENT

AREA 3.A APPLETON PARK AND GRAPPENHALL

Description

The Appleton Park and Grappenhall areas form two parcels of land of similar character split by housing development associated with the A49 London Road. These areas are bordered to the south by the distinct ridgeline crest and the ridge road running between the villages of Hatton, Stretton and Appleton Thorn and to the north by the flood plain of the River Mersey, marking the bottom of the escarpment slope. The western boundary is formed by Warrington Borough boundary at Moore and the eastern boundary by a subtle landscape character change on the spur line to Massey Brook basin.

The landscape character of these areas comprises of strongly sloping land to the north, affording sweeping long distance views, occasionally restricted by the presence of linear deciduous woodlands, coverts and tree groups. The incised wooded valleys of Lumb Brook, its tributary Dipping Brook and the streams feeding Appleton Reservoir are also strong features in the landscape. All the streams flow almost due north with minor tributary streams fed from spring lines just below the escarpment crest.

The presence of red sandstone frequently punctuates the landscape in the form of outcrops to road and canal cuttings, quarries and in the building of vernacular houses and walls. Raised 'knolls' at High Warren, Hill Cliff, Hurst Farm and Grappenhall Heys provide exceptional viewpoints and stand out in the landscape. Marl pit ponds occur frequently in random locations within the farmland and are often highlighted by overgrown margins of alder and willow. The farmland comprises mainly of pastureland with arable fields to the gentler sloping ground. Hedgerow trees are present but not in great numbers.

Areas of 'parkland' can still be found associated with Walton Hall, Appleton Park Golf Course, Grappenhall Heys and Thelwall Heys. Advanced landscaping to areas designated for housing development around the Pewterspear, Dipping Brook and Grappenhall Heys were planted by Warrington New Town and latterly English Partnerships. These include avenue tree plantings, shelter belts and some infrastructure works, such as new roads and drainage. A characteristic of these areas is also the use of entrance features at key points.

Focal points include the communication mast at High Warren, reservoir embankments at High Warren and Hillcliffe and, with longer views to the north-west, Fiddlers Ferry Power Station.

Key Characteristics:

- Sweeping northerly views
- Strongly sloping land to the north
- Incised stream valleys running in a northerly direction

- Exposed red sandstone in outcrops, walls and older buildings
- Gorse in hedgerows and sandy banks
- Numerous small ponds in the farmland
- Linear woodlands, coverts and tree clumps
- Raised knolls
- Sparsity of hedgerow trees (mainly oak)
- Hedges running along contour lines or at right angles to them
- ‘Advanced’ landscaping and ‘entrance’ features relating to proposed housing development



Photo 135. A conifer plantation near Broad Lane, looking towards Grappenhall village.

Cultural History

Thelwall is an ancient township. A 'burgh' or fortress was founded here by King Edward the Elder in 923 to defend Mercia from Viking incursions up the River Mersey. After the Norman conquest the land was held by the Lacys, the barons of Halton, who in turn held it from Hugh Lupus, Earl of Chester. A gunpowder works was established in Thelwall and was in use for many years.

Thelwall Heys, Listed Grade II, was built in 1864 and designed by the great architect Alfred Waterhouse (architect of Manchester Town Hall). It was altered in the C20th.

Grappenhall, whose name derives from the Old English '*Grop*', '*grepe*' (ditch or drain) and '*halh*' (flat alluvial land beside a river) is a small nucleated village towards the foot of the escarpment. In the Domesday book it is recorded as '*Gropenhalle*'. The Parish Church of St Wilfrid is Norman in origin. In 1860 a flat Early Bronze Age axe was discovered under a log near the Dog and Dart Inn. Between 1930 and 1934 further Bronze Age remains were discovered. These consisted of first a cinerary urn in a field belonging to Wheeler's Farm and secondly a further cinerary urn in a mound and five cremation remains and two further cinerary urns just outside the mound on the line of Euclid Avenue just north of the old village centre. These finds are suggestive of fairly intense human activity in the area, unsurprising given the arenaceous and easily ploughed soils of the area.

The core of Grappenhall village was cut off from later development with the construction of the Bridgewater Canal. This has left a characterful area with a cobbled Church Lane, surrounded by Georgian and early C18th houses as well as those built in Edwardian times and the 1930s. There are some fine sandstone walls to Church Lane. Grappenhall is a Conservation Area, which has been twice extended in recent times. There are a number of listed buildings and structures within the conservation area, including Church Cottage East and Church Cottage West (Listed Grade II), stocks at the entrance to St Wilfred's Churchyard, Church Lane (Listed Grade II), the Hall with its gates and forecourt walls on Church Lane (Listed Grade I) and the Rectory on Church Lane with its gate piers (also Listed Grade II). On Canal Side are further Listed buildings, including the Church of St Wilfred (Listed Grade I), the sundial in the churchyard (Listed Grade II) and a house, 'Greenbank' (Listed Grade II).

Grappenhall Heys Estate was created around 1830 by Thomas Parr, a member of a Lancashire banking family. Parr bought up several farms in the area to assemble the estate which eventually covered 150 acres. He built the hall at Grappenhall Heys and then a walled garden, which appears to have been built around three pre-existing marl pits. The walled garden comprises of a formal Kitchen Garden and an informal pleasure garden. Dairy Farm, adjacent to the main house was built to the west, as the home farm.

After 1941, the Parr family no longer lived in the hall and in 1951 the house and gardens were sold to the British Transport Commission. In 1975, the Warrington and Runcorn Development Corporation bought the house and surrounding land, but had to demolish the house as being too ruined to be worth renovating. The Development Corporation began to develop the adjacent land for housing, but this was carried out in a carefully phased way, with houses being built following the construction of roads and infrastructure. Much of the area is as yet undeveloped.

Lumb Brook is named from a Saxon word 'Lumb' meaning deep valley, indicative that the area has been occupied since at least Saxon times. It runs northwards down the escarpment and its western side forms the boundary the suburban settlements of Stockton Heath and Dudlows Green, both lying outside the area of study.



Photo 132. Grappenhall village and church.

Recently constructed housing estates and roads built by Warrington New Town breached the north-south barrier of the Lumb Brook / The Dingle valley by extending Lyons Lane and connecting Grappenhall Heys with the Dudlows Green area. Private housing under the New Town has been constructed in the Grappenhalls Heys area and under the New Town's successor organisation, English Partnerships. At present there are three distinct groups of new housing centred on Grappenhall Heys. None display any local vernacular and the variety of different housing developers has resulted in an amorphous and disparate character with little relevance to the area.

Reddish Hall Farm is an isolated farm complex at the junction of Broad Lane and Cartridge Lane. There are two small cottages adjacent and the remains of the moated site of Reddish Hall. Chester Road (A56) is a major road of some antiquity, connecting with the strategically important A49 'Kings Road'. The road climbs from the crossing of the Manchester Ship Canal to the southwest along the line of the spur occupied by the village of Daresbury.

The Bridgewater Canal was constructed through the area in the 1770s, originally to transport coal from Worsley to Liverpool for transhipment elsewhere. Along the canal are a number of listed buildings and structures, including Church Lane Bridge over the Bridgewater Canal, (Listed Grade II) and Halfacre Lane Viaduct, (Listed Grade II).



Photo 164. Part of Bellfield Farm, Appleton, showing red sandstone ashlar and brick walls.

Walton Parish is divided into Higher and Lower Walton, formerly Over Walton and Nether Walton respectively. Higher Walton is south-west of Lower Walton and strangely, occupies lower ground. Higher Walton village is protected by Conservation Area status and was very much part of the estate of Walton Hall.

Until the 1960's the village comprised of Victorian and Edwardian buildings - a post office, three pairs of semi-detached cottages, the parish hall and attached cottage, a small works, the church and three detached houses. It is an attractive small village, much of its character formed by the unity of architectural style of its buildings. The bulk of Higher Walton is largely covered by the estate of Walton Hall. Walton was part of the fee of the Baron of Halton, but in 1190 there was a Walton family in the area who probably held part of the manor. Thomas Merbury, born in 1607, sold his estates, including Over Walton, a half share of Nether Walton and land at Appleton, Hull and Stockton to Sir Peter Brooke of Mere (d. 1685). The Brooke family held the manorial rights until around 1840, when the rights were sold to the Greenall family who had already purchased most of the estate.

Walton Lee Hall was built on the site by the Crossfield family, soap manufacturers of Warrington. It was demolished by the Greenall family and rebuilt as Walton Hall.

The present Walton Hall and its parkland dominates the area of escarpment to the west of Appleton. The Greenall family, of brewing fame, bought the Walton Estate in 1812 and in

1832 built the present Hall in mock Elizabethan style. In many respects Walton Hall mirrors the development – and decline - of nearby Grappenhall Heys. In 1870, the clock tower and an additional Gothic style wing were added. In 1941, the Greenall family sold the estate and Warrington Council purchased the park and the area of the present golf course, which they developed later. The Hall became largely derelict so the main building was demolished, leaving the east wing and the clock tower, now also belonging to Warrington Council.

Appleton Reservoir was built in the shallow valley above Walton Hall to supply the estate with water. There are two covered reservoirs in the Appleton area, one at Hill Cliffe, the other is sited on top of one of the local knolls at High Warren in Appleton Park. High Warren itself is a relict name from the days of the Appleton Estate. In 1765, 'Old Warrens' was recorded on a map of the Appleton area and probably relates to the medieval keeping of rabbits in enclosed, artificial 'warrens' by the lord of the manor. High Warren also has an obelisk at its summit, Listed Grade II.

The steeply sloping land to the west of Hill Cliffe, now partially occupied by the Hill Cliffe burial ground, was in called Hill Cliffe Common in 1765. Still further west, in part of the Walton Hall Estate area is Walton Lea Crematorium, occupying an area surrounded with woodland.

Appleton Park Golf Course, a private course, founded in 1903, occupies the high ground around High Warren and enjoys superb views in all directions. Walton Hall Golf Course, a public course, is sited within the grounds of Walton Hall and has a superb, mature landscape around and within it. It has good views to the west

The village of Hatton stands at the extreme southern edge of this landscape area. It is a small village with a strong character at its core. Most prominent is The Hatton Arms Public House, which once incorporated the post office and a village store. It is Listed Grade II.

Hatton appears to have enjoyed a peaceful and trouble-free history. Hatton Hall, a little to the north of Hatton village, was burned down in the C19th and most of the current building is a later construction, built c1830 but incorporating vestiges of C17th work in the rear wing. It is Listed Grade II. Hatton church is an attractive small church with a dominant spire.

Key cultural elements in the landscape:

- Grappenhall Village Centre (Conservation Area)
- The A56 Chester Road
- Walton Hall and the former Walton Hall Estate
- Walton Village (Conservation Area)

- Grappenhall Heys Estate
- The Bridgewater Canal and its bridges, aqueducts
- The former London and North Western Railway – now the Trans Pennine Trail
- Appleton Reservoir
- Golf courses at Appleton Park and Walton Hall
- Various vernacular farm complexes, including Bellhouse Farm, Hillside Farm, Hurst Farm, Hollyhedge Farm and Porch House Farm
- Grange Green Manor

Agricultural Land Quality

The bulk of the Appleton and Grappenhall area is of sandy loam, scheduled as Grade 3 agricultural land.

Landfill and Mineral Extraction

There are no landfill or mineral extraction operations within this area. Quarrying for red sandstone was locally common but has long since ceased. The main extant stone quarry is just off Quarry Lane, Appleton and has now been integrated into the urban area.

Landscape Sensitivity

In a borough-wide context, both these areas are reasonably well-wooded with a diversity of features in the landscape, including small ponds, ridges, knolls and incised stream valleys. The agricultural landscape including hedgerows appears generally well-maintained and the area presents an attractive rural quality. Both these areas however are particularly sensitive to further building development.

Larger tracts of land in the Appleton and Grappenhall areas are designated for housing development and much of the road and drainage infrastructure is already in place. Much of the existing landscape will therefore be lost. Although areas of advanced planting have taken place, this development is planned as blanket coverage, ignoring particularly sensitive parts of the landscape such as the knolls and crest lines to the escarpment. The effect of 'planning blight' has also had the effect of proposed land having been left unfarmed for several years.

The crest line of the escarpment is particularly important as this forms the main horizon to views south from the northern half of the Borough. The traditional isolated focal points of church towers along the crest are slowly being occluded by development. A prime example of this is the Daresbury Business Park, just outside the Borough. Most of these buildings stand out on the crest line and are particularly noticeable by their roofs, which reflect the sunlight. If development occurs all along the crest line, the currently attractive rural horizon views will be lost and the importance of traditional focal points will be subsumed.



Photo 162a. A cutting through Red Sandstone at Firs Lane, Appleton.

Key elements of landscape sensitivity:

- Building development on the crest/skyline
- Loss of agricultural landscape for housing development

Landscape Change

Major changes to the landscape have taken place over recent years following the planning designations for house building. Large areas of agricultural land have been lost to housing estates and this trend is set to continue on a large-scale in the Appleton and Grappenhall areas. Associated with the developments has often been the planting of advanced strips of native woodland. These will break up the housing mass but the existing landscape will be entirely changed. Few other major changes since the Enclosure Acts have affected the present day landscape. Previous dramatic change to the landscape on a local scale also occurred following the construction of Appleton Reservoir and the covered reservoir on the crest at High Warren.

Warrington and Runcorn Development Corporation has radically altered the landscape in this area through its development for housing. This has already taken place over high grade farmland (Grade 2) mainly to the immediate east of Lumb Brook and this policy is progressing to the south up to the ridgeline adjacent to Appleton Thorn. The knoll adjacent to Grappenhall Heyes has already been subsumed by new housing thus devaluing it as a landscape feature. The new housing has little visual relationship with the local vernacular, and its layout is often unsympathetic to the landscape.

Parkland areas have dramatically changed to reflect new ownership and recreational pressures. Substantial elements of the parkland landscape at Walton Hall have now become a golf course whilst remnant areas of parkland at Grappenhall appear to be in steady decline under agricultural use. The walled garden at Grappenhall Heyes has been restored and is open to the public.

The area's hedgerows are still reasonably intact and managed, although occasional hedge lines have been lost to make larger fields. There does appear, however, to be a slow trend towards hedge gaps with fenced sections and a general decline in hedgerow trees. Marl pit ponds have similarly been left to gradually silt up and become vegetated. They have also often been used as a tip for farm debris. Many of these ponds were de-silted by Warrington and Runcorn Development Corporation and retained within the proposed housing development areas as part of the public open space infrastructure.

Landscape change is summarised as follows:

- Absorption of farmland landscape by large-scale housing development
- Slow decline in hedgerows and more notably hedgerow trees
- Degradation of marl pit ponds
- Localised decline of parklands
- The additional of small native woodlands and public open space as part of the new housing development areas

Recommended Management and Landscape Objectives

The main objective for these areas should be to aspire to retain their present status as a well-managed agricultural landscape. The currently proposed large areas of housing development however works against this objective and will cover some of the most attractive landscape in the Borough. Development in particular on the escarpment crest lines and knolls should be prevented or screened by woodland planting. The remaining landscape will require a continuance of good agricultural management practices, together with the encouragement of enhancement works such as replacement of hedgerow trees and the restoration of marl pit ponds.

There will inevitably be pressure on the farmed land for the introduction of horse keeping, particularly on fields which may be too small to be economically viable. This should be resisted in favour of additional woodland planting to provide additional screening to housing development.

Wherever possible new planting should connect to existing areas of woodland or hedges to encourage wildlife.

Management of the Landscape:

- Control planned housing development, pulling back construction on the skyline crest
- Encourage hedgerow retention and restoration
- Encourage the replacement of new hedgerow trees
- Encourage the restoration of marl pit ponds

Settlement

Thelwall village centre is located close to a bend in the former course of the River Mersey, at the foot of the escarpment. It is therefore north-facing, although the escarpment at this point is fairly gently sloping. The old core of the village has been designated a conservation area with later development generally to the west. These areas are considered part of Warrington's urban mass and therefore outside the area of study.

Grappenhall village centre was cut off from later development by the construction of the Bridgewater Canal. Unlike Thelwall, Grappenhall was originally sited half-way down the north facing slope of the escarpment, on the eastern side of a spur. At the summit of the spur is a knoll occupied by the housing of Grappenhall Heys. The bulk of Grappenhall village is again considered as part of Warrington's urban mass and therefore outside the area of study.

The New Town housing at Grappenhall Heys occupies the north-western side of the summit of the knoll and is separated from Warrington's urban mass of Appleton by the deep valley of The Dingle and Lumb Brook.

Wright's Green is a small row of houses along Lumb Brook Road of little architectural interest, with the exception of Wrights Green House, Listed Grade II.

The New Town housing at Pewterspear is generally outside the area under consideration, but when completed, new development areas to the east of Pewterspear and west of Appleton Thorn will create a substantial block of housing. Some of this housing has been

constructed recently and is three-storeys high with major visual impacts to the surrounding area.

A group of houses along Weaste Lane, close to the junction with Knutsford Road effectively form a ribbon development with little depth to it, comprising of generally modern houses.



Photo 144a: New housing at Pewterspear viewed from the south at Stretton Lane.

TYPE 3 RED STANDSTONE ESCARPMENT

AREA 3.B MASSEY BROOK

Description

The catchment area of Massey Brook forms a sheltered landscape valley basin cut into the Red Sandstone Escarpment. The area is bisected and visually dominated by the M6 motorway running north/south between the Thelwall Viaduct and the M6 Stretton interchange at Junction 9.

The landscape has broad open views both internally and to the north and east. The area appears more exposed than the adjoining Areas 3.A and 3.C with fewer hedgerow trees present. Agriculture is mainly arable with gapped hedgerows. A narrow linear band of deciduous woodland is associated with Massey Brook.

Key Characteristics:

- Open views internally and to the north and east
- Domination of M6 motorway
- Gapped hedgerows with few hedgerow trees
- Mainly arable landscape
- Distinctive 'valley basin' land form
- Lack of exposed red sandstone

Cultural History

The Massey Brook forms the parish boundary between Lymm and the parish of Thelwall and Grappenhall. Much of the history of the area is therefore similar to the two adjoining escarpment areas. In 1821, the Warrington and Stockport Turnpike Trust was formed to construct a new road, now the A56, between the two towns. The A56 (Stockport Road in Thelwall and Camsley Lane in Lymm) crosses the area at the north (lower) end of the valley via a small bridge, close to which is the junction of Warrington Road leading to Statham. In 1853 the London & North Western Railway opened a line running east/west through the

northern end of this area. The trackbed has now been converted to a footpath and forms part of the Trans Pennine Trail. Massey Brook has been subject to some short term but intense flooding as a result of storms and flows down a relatively small stream from a substantial catchment area.

Buildings of note in the area include the farm complex of Home Farm, Stockport Road, where the threshing barn, cart shed and stables are Listed Grade II. The farm complexes of Howshoots Farm, Boothshill Farm and Higherhouse Farm are also visually interesting.

Thelwall Grange is a substantial building in the landscape and dominates an area to the west of Massey Brook.

To the immediate east of Massey Brook the gigantic pillars of the Thelwall viaduct dominate the area as the viaduct crosses Warrington Road and Camsley Lane. The viaduct was opened in 1963 and a second parallel viaduct in July 1995.

Key cultural elements in the landscape:

- The M6 motorway
- Thelwall Grange
- The A56 formerly the Warrington and Stockport Turnpike Road c 1824
- The Bridgewater Canal and its bridges and aqueducts
- The former London and North Western Railway – now the Trans Pennine Trail

Landfill and Mineral Extraction

There are no landfill operations within this area, but ADS Waste Transfer and Recycling Facility is located off Camsley Lane, close to Thelwall Bridge. This produces transitory mounds of recycled material which vary in height of up to 8m but which are well-screened.

There are no mineral extraction operations in the area.

Agricultural Land Quality

The bulk of the Massey Brook basin area is of Grade 3 agricultural land. To the west of the basin, in the Parishes of Grappenhall and Thelwall is an area of Grade 2 agricultural land.

Landscape Sensitivity

The area's landform and lack of woodland on higher ground reinforces the open views into the basin area. Any structure or development would therefore be exposed to views. The boundaries of the area are formed by ridgeline roads or tracks – Cherry Lane to the east and Cinder Lane to the west. The northern section of the eastern boundary is also formed by the edge of the village of Lymm. The village, however, is not seen from within the Massey Brook basin and does not contribute to its character.

Only a small number of properties are located within the area and these are mainly on Booths Lane. A single footpath accesses the land from north to south to the east of the M6 motorway.

The landscape of the Massey Brook basin is therefore essentially visually exposed, rural and agricultural, with few buildings in the landscape. It is also, however, visually dominated by the M6 motorway.

Key elements of landscape sensitivity:

- Visually sensitive to any form of building development within the basin or, in particular, on the ridgelines to the east and west
- Currently sensitive to the presence of the M6 motorway, both visually and audibly

Landscape Change

The most imposing change to the area's landscape has been the construction of the M6 motorway, effectively cutting the area into two halves and radically altering what would originally have been a peaceful agricultural landscape.

Agricultural changes towards arable farming have led to the progressive decline in hedgerow trees and gapped hedgerows. The expansion of the village of Lymm to the west has currently stopped just before it affects the area. Only the development of a few properties along Booths Lane have marginally affected the landscape.

Landscape change is summarised as follows:

- Past construction of M6 motorway
- Slow decline in hedgerows and more notably hedgerow trees

Recommended Management and Landscape Objectives

The main landscape objective should be to soften the harsh imposition of the M6 motorway wherever possible by associated native woodland planting. This may be achieved in part by reinforcing the narrow linear belt of trees associated with Massey Brook, running close to the western side of the motorway. A reduction in the visual and audible impact of the motorway would assist in returning the area back to its original and strongly agricultural character. It is also important that the current lack of construction, in what is a visually exposed area, should continue - particularly to the exposed ridge lines.

The restoration of the quality of the agricultural landscape should also be encouraged through hedgerow management and replanting to gapped sections. The new planting of hedgerow trees would similarly restore the area's visual amenity and wildlife value.

Management of the Landscape

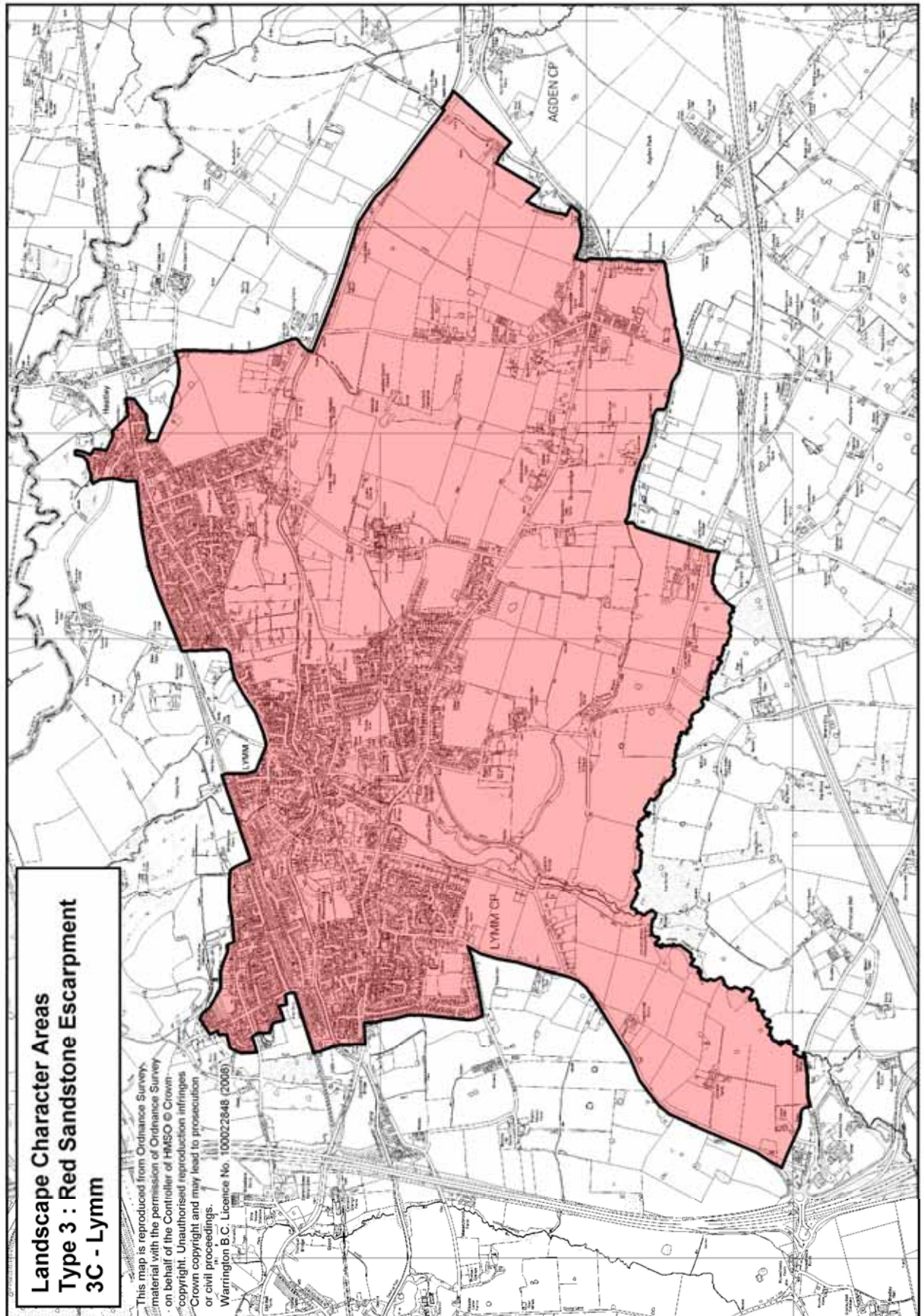
- Restrict building within the area, particularly on or immediately below the ridge lines
- Encourage hedgerow restoration
- Encourage the replacement of new hedgerow trees
- Consider feasibility for native linear woodland planting to soften the impact of the M6 motorway, including planting to Massey Brook

Settlement

The Massey Brook area is sparsely settled. A small number of farm complexes however are noteworthy, together with Thelwall Grange.



Photo 128a. View from Cinder Lane, Thelwall south towards Howshoots Farm on the escarpment crest.



TYPE 3 RED SANDSTONE ESCARPMENT

AREA 3.C LYMM

Description

The boundaries of the area are formed by the Massey Brook basin to the west; the Warrington Borough boundary to the south and east and by the Bridgewater Canal to the north. The land again falls generally to the north but is of a more rolling and undulating nature occasionally with back falls to the south. The agriculture is a balance of both pastoral and arable farming.

The streams passing through the area are more branched than in the adjoining areas, with tributaries running parallel to the ridge line. Stream valleys are generally shallow with only Bradley Brook forming a steep sided valley passing through Lymm and in the vicinity of Lymm Dam.

The area's topography creates an intimate landscape, often self-enclosed by woodlands and hedgerow trees. Views from the area are therefore less extensive with few internal views of note. Lymm water tower and St Peter's Church, Oughtrington are exceptions, forming local landmarks. To the east of Lymm, around Oughtrington, the landscape is more open and land less dissected by streams.

The main red sandstone ridge identified in Areas 3.A and 3.B runs outside and to the south of the Warrington Borough boundary towards the village of High Legh. There is a secondary, lower, ridgeline to the north at a lower elevation, running from east to west at 60-55m O.D. between the hamlet of Broomedge and the village of Lymm.

Vegetation in the area generally is notably vigorous and healthy, particularly when compared with the rest of Warrington Borough. Hedgerows and hedgerow trees appear more luxuriant, larger and more well-formed and include a more diverse range of species, including chestnut, lime, beech and willow, to accompany the more universally found common oak.

Key Characteristics:

- Smaller scale, more intimate rural landscape
- Luxuriant hedgerow trees with diverse range of species
- Rolling landscape
- Restricted views
- Strong feeling of high landscape quality

Cultural History

Lymm village probably existed in Roman and possibly in pre-Roman times. The core of the village was based on a waterfall where a small stream cut back into the Red Sandstone Escarpment, producing a cliff.

Red sandstone was quarried here throughout historic times and the stone was used extensively in the local area. Pepper Street in Lymm is probably on the line of the original Roman Road, which ran through Oughtrington towards Heatley and probably crossed the River Bollin at or near the present crossing of the A6144.



Photo 104: View of Lymm Cross – sited on an outcrop of Red Sandstone.

In the centre of the village is The Cross, a distinctive feature marking the site of a market. It possibly dates back to the C14th, but has had several alterations over many years. It stands on top of a remnant pyramid of red sandstone, the sides of which have been sculpted into steps, much worn through use. It is Listed Grade I. Adjacent to The Cross are some restored stocks (Listed Grade II). The Moat House, the bridge over the moat, the moat walls and the cottage at Lymm Hall are Listed Grade II, Lymm Hall, the site of the original manor house of Lymm is Listed Grade II*. Much of the area of the centre of Lymm is designated as a conservation area.

There are a number of remaining fustian cutters cottages in Lymm, the most intact being nos. 13 – 19, Church Lane, Listed Grade II. These are three storey buildings, the third storey being used communally as a workshop by the individual cottage owners. A slitting mill was operating in the Lower Dam area on Slitten Brook in the 1750s, using the power generated via a water wheel.

The Bridgewater Canal was constructed through Lymm in the 1770s, originally to transport coal from Worsley to Liverpool for transhipment elsewhere. Along the canal are a number of listed buildings and structures. Near the junction of Stage Lane and Burford Lane is the Burford Lane canal warehouse, (Listed Grade II) now rare example of one of the earliest canal buildings. The bridges of Grantham's Bridge (near Stage Lane), Lloyd Bridge (Sandy Lane) and Lymm Bridge (The Cross) are very characteristic of the Bridgewater Canal, as are the aqueducts at Burford Lane, Bridgewater Street and Barsbank (all Listed Grade II).

Adjacent to Lloyd Bridge is a converted sawmill, used during WWI to manufacture ammunition boxes from the plantations around Oughtrington Hall, which were almost entirely felled. In front of the sawmill is a ruin of the office reputedly used by James Brindley during the construction of the canal. Near the market place in Lymm, a dry tunnel is located south of the Bridgewater Canal, projecting some 25 metres into the sandstone (Listed Grade II). It was probably constructed as part of aborted works associated with the nearby Bridgewater Street aqueduct.

In 1821, the Warrington and Stockport Turnpike Trust was formed, to construct a new road, now the A56 between the two towns. In 1824, the Turnpike Trust built a dam over the Dingle valley to carry the new road, creating a substantial water body.

In 1853 the London and North Western Railway opened a line running east-west through Lymm. This was much used as a passenger line, but reverted to goods traffic only in the 1960s before being closed in 1989. The track bed has now been converted to a footpath and forms part of the Trans Pennine Trail. The influence of the railway was dramatic. To the east of Lymm, Heatley saltworks had its own sidings from the line. Many small orchards in Lymm, Oughtrington and Heatley supplied fruit to the markets in Manchester throughout the late Victorian and Edwardian eras. Few, if any, of these orchards are now left, although a small orchard was planted for the Oughtrington Primary School, now the Oughtrington Community Centre. Many of the now familiar local building materials, such as Welsh slate roof tiles, Accrington brick etc were brought in by rail.

In 1894, the Manchester Ship Canal was opened. Its route is to the north of Lymm, above the general level of the Mersey flood plain and cuts into the base of the Red Sandstone Escarpment.

The most characteristic feature of Lymm village is the valley in which it stands. To the south of the village Lymm Dam has created a large recreational water body with a spillway into a steep-sided section of the valley known as The Dingle. The bridge over the spillway on Church Road is Listed Grade II. In the centre of the village is the lower dam, from which the stream falls steeply into Slitten Brook. In all these features red sandstone is exposed, perhaps most dramatically near the lower dam where a cliff approximately 10m high stands behind adjacent cottages. Lymm Dam is a Site of Biological Interest (SBI) as well as containing a Regionally Important Geological Site (RIGS). The dam is fed by Mag Brook and

Bradley Brook via a well-wooded valley. The woodland associated with Bradley Brook has been designated as ancient woodland and is also scheduled as a Site of Biological Interest. The bridge over the brook and the dell at the head of Lymm Dam are Listed Grade II. The core of Lymm village and the envelope around Lymm Dam are protected as a Conservation Area.

The present Lymm centre is mainly of Victorian construction and complements the development built alongside the Bridgewater Canal in Georgian times, for example the fine houses at 1A and 3, Lymm Bridge, Listed Grade II. The Victorians also built a number of large houses along Higher Lane – the main Warrington to Altrincham road, running along the edge of the sandstone escarpment. Lymm remained a small village until recent times, when expansion was rapid.

North-west of Lymm is Statham, once a small independent village based on a secondary road into Lymm from Thelwall. This is now connected to and largely absorbed by Lymm. Statham contains the Statham Lodge Hotel, a fine Georgian building (Listed Grade II) with landscaped views to the south up the Red Sandstone Escarpment.

To the east of Lymm is Oughtrington, a satellite village which retains a distinctively different identity. It appears to have originally been sited at the junction between Sandy Lane and Rushgreen Road, but on construction of the Bridgewater Canal extended back up Sandy Lane to its crossing of the canal via Lloyd (Dog) bridge. At the same time, a canal staging station (now demolished) was built off Stage Lane for changing draught horses pulling barges along the canal. At the junction of Stage Lane and Oughtrington Crescent is the Oughtrington Community Centre, formerly Oughtrington Primary School, an attractive late Victorian building. At the upper end of Sandy Lane is Lymm (formerly Oughtrington) High School, occupying the site of Oughtrington Hall, Listed Grade II, a large Georgian building with a lodge (Listed Grade II) guarding the access off Sandy Lane. The visually dominant St Peter's Church (Listed Grade II) was consecrated in 1872, the gift of local landowner Charles Dewhurst. Just south of the church are two pairs of attractive Arts and Crafts period semi-detached cottages.

East of Oughtrington is Heatley Flash, a former brine pumping site, now flooded and a Site of Biological Interest (SBI). To the north of Heatley Flash new housing occupies the site once occupied by the saltworks. South-east of Oughtrington is Newhay's Plantation, planted as part of the Oughtrington Hall estate around the old quarries which were the source of stone for the nearby St Peter's Church. This woodland is also a Site of Biological Interest (SBI) and has recently been added to by a new community woodland known as 'Spud Wood'.

East of Oughtrington is the satellite village of Heatley. This a small village which appears to have been originally built at the junction of Birchbrook Road and Mill Lane, close to the crossing of the River Bollin. Heatley Manor stands very close to the road junction and is a Listed Grade II Georgian building. When the railway was built, a small station was located off Mill Lane and this led to the construction of The Railway public house, a rare example of an unspoilt country pub and a local landmark immediately north of the railway. South of the railway, several Victorian semi-detached houses were built, having the locally rare feature of 'side aspect' rather than the conventional front and rear aspect.

East of Lymm and based on the junction of Higher Lane with Burford Lane / High Legh Road is the hamlet of Broomedge.

In the more open country around Lymm are a number of outstanding buildings, including Burford Lane Farmhouse, a barn, granary, shippon, stable and cartshed building, all Listed Grade II. Wildersmoor Hall Farmhouse, associated barn, icehouse and well to the rear are all Listed Grade II. Lymm Water Tower, a distinctive feature on the summit of the lower red sandstone ridge is Listed Grade II.

Key cultural elements in the landscape:

- Lymm Cross
- The Bridgewater Canal and its bridges, aqueducts, warehouses etc.
- The former London and North Western Railway – now the Trans Pennine Trail
- Lymm Dam
- The Dingle, Lower Dam and Slitten Brook
- Lymm Hall

- Lymm village centre (Conservation Area)
- Large Victorian villas / houses around Lymm
- St Mary's Church, Lymm
- St Peter's Church, Oughtrington
- Heatley Flash
- Oughtrington Community Centre

Landfill and Mineral Extraction

There are no landfill operations within this area, but there are negative visual impacts from adjacent landfill sites, notably the Butchersfield site. This has a very prominent and artificial domed landform, partially mitigated by recent planting.

Mineral extraction was confined to quarrying red sandstone, but active quarries have long since closed. A group of small quarry pits are located in Helsdale Wood, Oughtrington (from

which St Peter's Church was reputedly built). Quarrying also took place in Lymm, possibly around the lower dam, but certainly around Slitten Brook.

Agricultural Land Quality

The bulk of the Lymm area is of Grade 3 agricultural land. To the east of Oughtrington and running out to the south-east, parallel to the River Bollin is an area of Grade 2 agricultural land.

Landscape Sensitivity

The nature of the landscape, with its luxuriance of hedgerows and hedgerow trees and more intimate landform, creates a less sensitive environment in which to absorb small scale development. The recent housing expansion of Lymm however into greenfield sites has fundamentally altered and reduced the rural character of the area for which it is renowned.

Although the Lymm area can be described as having a high quality landscape, it is nonetheless sensitive to changes in agricultural practices and development. Passive recreational uses within the landscape are more easily absorbed due to the screening offered by both landform and the well-vegetated nature of the area.

Key elements of landscape sensitivity:

- Prone to development expansion of Lymm village
- Vulnerable to changes in agricultural practices



Photo 105s. View north from near Burford Lane Farm, showing the listed Burford Lane Canal warehouse on the Bridgewater Canal at Agden in the foreground and the long views over northern and eastern Warrington.

Landscape Change

Main areas of landscape change have been through the expansion of Lymm village, which has now absorbed many of the smaller outlying settlements. In consequence large areas of the rural landscape have now been lost. Previous changes have also included the construction of the Bridgewater Canal and Lymm Dam reservoir to the south of the village.

Further changes have seen the alteration from commercial to leisure uses on the Bridgewater Canal entailing pleasure craft and fishing. Fishing has also become exceptionally popular at Lymm Dam.

Apart from the loss of landscape to building development, the remaining areas of agricultural land have changed little since the Enclosures. This is, in part, due to the retention of the hedgerows as a barrier to stock.

Landscape change to the area is summarised as follows:

- Loss of agricultural land to the expansion of Lymm village
- Construction of Lymm Dam
- Construction of the Bridgewater Canal
- Increase in pleasure boats and fishing

Recommended Management and Landscape Objectives

Although the Lymm agricultural landscape is arguably one of the best in the Borough in terms of quality and condition, this position could easily change with alterations to the farming economy. It is therefore important to monitor future change with a view to safeguarding the areas of hedgerows and hedgerow trees in particular. The hedgerow trees are virtually all at a mature stage in life and will require a programme of progressive new planting to ensure continuance of the present landscape character.

The area is well-endowed with woodlands, mainly in linear form, in association with Bradley, Mag and Kaylone Brooks. The existing landscape character would be strengthened and visually improved if gaps and missing woodland sections were planted to create continuous

linear woodland links leading back to Lymm Dam. The expansion of the existing footpath system to follow the woodlands should also be considered.

Management of the Landscape

- Monitor existing hedgerows and hedgerow trees
- Encourage a rolling programme of new hedgerow tree planting
- Investigate and encourage the creation of new native woodland planting to provide continuous woodland links along Bradley Brook, Mag Brook and Kaylone Brook
- Encourage traditional management of ancient woodland
- Investigate the opportunities for extended footpath systems associated with the brooks and linear woodland

Settlement

Lymm village is built on the northern slope of the sandstone escarpment, with the oldest part of the village centred on the small but steep-sided valley known as the Dingle. It has expanded along the secondary ridgeline (Higher Lane – Church Road) as well as to the south of the ridgeline, along Cherry Lane. It has also expanded to the north-west, to Statham and to the east towards Oughtrington.

Oughtrington is also built on the northern slope of the sandstone escarpment, but unlike Lymm, it is not centred on a valley, but on a road, Sandy Lane. Heatley is similar to Oughtrington based at the junction of Mill Lane with Birchbrook Road. The settlement of Broomedge is sited again around a road junction, at Higher Lane/ Burford Lane (which becomes Mill Lane north of the Bridgewater Canal).

TYPE 4. LEVEL AREAS OF FARMLAND AND FORMER AIRFIELDS

Description

These areas consist of large, even and reasonably flat land creating their own distinctive landscape character. Such areas are unusual within the Borough and can be found at Limekilns and at the former airfield sites of Burtonwood and Stretton. Although the construction of the airfields during WW2 involved large-scale levelling operations, the choice of location was clearly strongly influenced by the original, generally flat topography of these areas.

The airfield at Burtonwood has now largely been demolished with only the remnants of runways and hangars still left to the north of the M62 at Limekilns.

Stretton Airfield is also disused, although the runways appear to be still largely intact to the south of the M56. The original agricultural landscape character of this land has been lost, creating large expansive open sites. Each site area, however, has its own character and has been described separately.

Key Characteristics:

- Level ground
- Open expansive and often exposed areas
- Historic land use
- Often a lack of visible agricultural heritage

Cultural History

These areas include the former airfield sites of Burtonwood and Stretton, created during WW2. Their operational use ceased following the construction of the M56 and M62 motorways during the 1950s and 1960s.

Significant quantities of hardcore were reclaimed during demolition of the former Burtonwood Airfield by crushing the concrete runways.

Key Cultural Elements in the Landscape:

- Use of the land for airfield and ancillary buildings
- Use of the areas for motorway routes

Landfill and Mineral Extraction

No landfill or mineral extraction operations have taken place in these areas.

Agricultural Land Classification

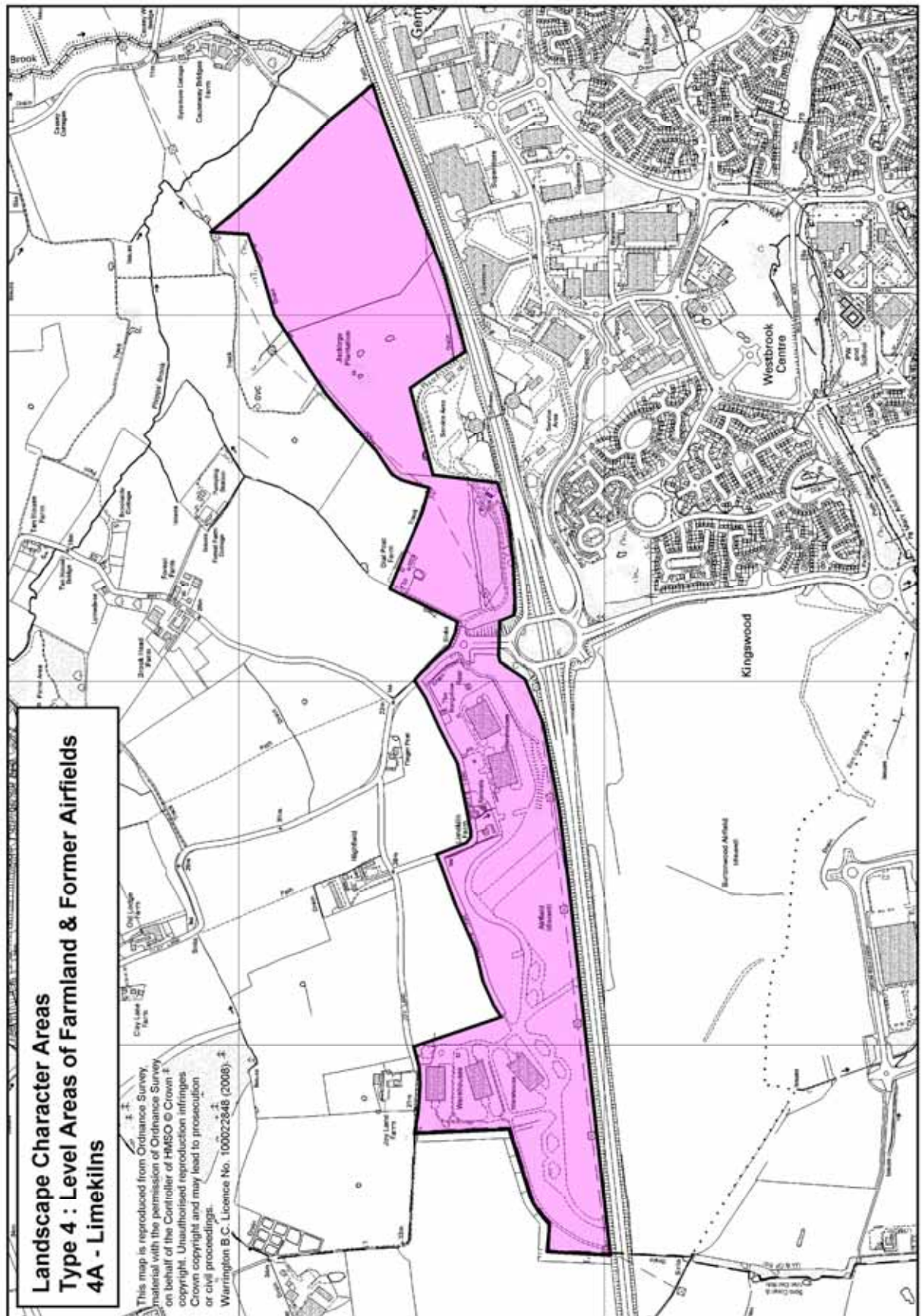
The Stretton Airfield area is classified as Grade 3. The Burtonwood airfield and the Limekilns area is classified as non-agricultural. The ground here comprises of disturbed heavy clay sub-soil.

Settlement

Settlement within the airfield areas is limited due to its previous use. The bulk of the Burtonwood area is scheduled for development as part of the Omega development site.



Photo 24a: One of the original hangars at Limekilns in the former Burtonwood Airfield site, now in rather poor condition.



TYPE 4 LEVEL AREAS OF FARMLAND AND FORMER AIRFIELDS

AREA 4.A LIMEKILNS

Description

The area of Limekilns is located to the north of the M62 adjacent to the Burtonwood Service Station and includes a linear strip of the former Burtonwood Airfield, together with adjoining arable farmland to the east. The former Airfield land includes remaining sections of runways and 5 aircraft hangars currently used for warehouse storage. Linear mounding and associated native planting screen the site from the M62, although traffic noise and a busy access road to the service station strongly influence the area's character.

The unmanaged rough grass areas in association with the former Airfield are in stark contrast with the level areas of well-tended arable farmland to the north of the service station. The presence of large pylons dominate both areas.

Key Characteristics:

- Level ground
- Contrast between unmanaged grassland, associated with the former Airfield, and well-tended arable land to the east
- Remnants of historic landscape/land use (runways and hangars)
- Visual and audible dominance of M62 motorway
- Visual dominance of pylons

Cultural History

Limekilns is an area of Burtonwood Airfield cut off by the M62 Motorway. The retention of the aircraft hangars and sections of the former runway provide an iconic view of the former Airfield for travellers along the M62. Although the businesses now located in the hangars are haulage and container storage and rather unsightly, it is difficult to see any other business located in the area which would preserve the hangars. The hangars all have a characteristic curved roof. Two of these are shell concrete structures, while the remainder steel-framed are clad in corrugated iron.

The history of the airfield is already covered under the section entitled Burtonwood Airfield. Redevelopment of this area may be hampered by subsidence problems associated with the former Bold and Collins Green Collieries' workings to the north.

A motorway services area was constructed within the area contemporary with the motorway.

Associated with this is small belt of screen planting to the north. Recently a new motorway junction has been developed just to the west of the service area, principally to serve the new Omega development area to the south. Access however is also afforded to Burtonwood village.

Key cultural elements in the landscape:

- Remnant sections of Burtonwood Airfield
- Hangars dating from WWII

Landfill and Mineral Extraction

There are no landfill operations or mineral extraction operations within this area.

Agricultural Land Quality

A section of the area to the east of Limekilns is Grade 2 agricultural land. The section to the west, where the remnant airfield elements are is not classified.

Landscape Sensitivity

Limekilns covers two contrasting areas in terms of land use. The former section of Airfield bears little resemblance to its previous agricultural landscape, whilst the adjoining area of agricultural land to the east has retained much of its pre-war character.

Both areas however have been sensitive to the construction of the M62 motorway and service station and are heavily influenced by its noise and visual intrusion. As much of the former airfield site is in a state of poor management, it could be argued that the landscape sensitivity of the site has a low value. In a historic context however, the remaining elements of the airfield structure can be considered as highly sensitive to change as these represent the last reminders of the former airfield. In common with many areas of the Borough, the flat areas of agricultural land to the north of the service station have seen a decline in the quality and extent of hedgerows and hedgerow trees. This has exposed views of the service station and made the development a more sensitive element in the landscape.

Key elements of landscape sensitivity:

- Both areas open to view from the north
- Historic site – last remaining evidence of former airfields

Landscape Change

The main landscape change occurred with the destruction of the former agricultural area associated with Limekiln Farm and the construction of the Burtonwood Airfield during World War 2. The more recent construction of the M62 motorway and service station has also radically altered the character of the area.

The remaining agricultural land associated with Dial Post Farm also appears to have changed its character. Field sizes have become much larger and a number of hedgerow boundaries have now been removed. The resulting larger-scale open fields of arable crops now merge with the exposed landscape of the Burtonwood area (Area 1.E). The remaining hedgerows and hedgerow trees are now in a generally poor condition and serve little functional purpose to the farmer.

Landscape change to the area can be summarised as follows:

- Former construction of Burtonwood Airfield
- More recent lack of land management to the section of the former Airfield site
- Former construction of M62 motorway and service station
- Enlargement of agricultural field sizes with the loss of hedgerows
- Decline in the maintenance and upkeep of remaining hedgerows and hedgerow trees

Recommended Management and Landscape Objectives

This is considered separately in relation to the two distinct areas of the former Airfield site and the agricultural land to the east.

At the former Airfield site, whilst some mounding and tree planting has taken place to soften the effects of the M62 motorway, views of the site from the north are left exposed, adjoining open farmland. A woodland planted envelope should therefore be considered to the northern boundary of the site as a visual buffer to the farmland.

The merits of retaining a heritage link with the area's past should also be considered, incorporating both building upkeep and grounds maintenance. More positive views from the M62 may then be explored, possibly removing a section of the screen planting.

The agricultural land to the east is similarly exposed to poor views of the Burtonwood Service Station from the north and planting could again be beneficial, in association with the northern boundary of the Services.

Encouragement should also be given to retain, enhance and better manage the remaining hedgerows to the field boundaries, together with the replacement of new hedgerow trees.

Management of the landscape:

- Investigate viable heritage links and possible related uses for the former Airfield site
- Consider native woodland screen planting to the northern boundary of the former Airfield with the farmland
- Consider native woodland screen planting to the northern boundary of Burtonwood Services
- Encourage hedgerow restoration
- Encourage the replacement of new hedgerow trees

Settlement

There is no settlement within the area.



Photo 24: The Limekilns hangars with the M62 motorway to the left.



TYPE 4. LEVEL AREAS OF FARMLAND AND FORMER AIRFIELDS

AREA 4.B FORMER BURTONWOOD AIRFIELD

Description

The area mainly covers land which was formerly part of a section of the World War II Burtonwood Airfield to the south of the M62. This has now been demolished with all hard materials removed and the area reinstated to grassland awaiting redevelopment for commercial/industrial uses. Central areas previously occupied by the runways remain as large tracts of open grassland, whilst in peripheral areas the natural regeneration of small copses and individual mature trees has been allowed to develop creating a “wooded” fringe to the area.

The area is awaiting development for commercial and industrial uses, but currently affords broad internal sweeping views and is a haven for wildlife.

Key Characteristics:

- Level ground
- Visual and audible dominance of M62 motorway
- Presence of ‘fringe’ deciduous trees/woodland
- Central open space/grassland
- Very large scale with open views
- Absence of agricultural heritage

Cultural History

Burtonwood Airfield was constructed in 1940 and became a famous American airbase during WW2. Up to June 1942 it was the base of No. 37 Maintenance Unit for the storage and modification of British aircraft. Later in this period the airfield became the RAF centre for the repair of US built aircraft. Britain was by then receiving American aircraft under the ‘Lend-Lease’ arrangement. In June 1942, Burtonwood was transferred to the USAAF as Base Depot 1 (BAD1) but the RAF remained on the site until October 1943. RAF Burtonwood was the largest airfield in Europe during WW2, with the most USAAF personnel and the longest runway. Burtonwood airfield was famous as the principal landing place for aircraft crossing

the Atlantic en route for the air campaign against the Axis powers. It therefore made good sense that these aircraft were overhauled at Burtonwood before forward transfer to their operational airfields elsewhere in the UK and later in Europe.

Most of the USAAF aircraft flying into Burtonwood were long-range types, such as the famous B24 Flying Fortress, which went into action bombing German cities from bases in southern England. These large aircraft would necessarily require very long runways, as they could not realistically be shipped from the US. By the end of WW2, 18,000 servicemen were based at Burtonwood, but by the end of WW2 Burtonwood was returned to the RAF. Shortly after the end of WW2 and with the advent of the Cold War, Burtonwood became the reception base for the C54 Skymaster aircraft used during the Berlin airlift. In November 1946 six B29 Superfortresses from the USAAF Strategic Air Command 43rd Bombardment Group were sent to Burtonwood and then on to forward bases in Germany. In May 1947 additional B29s were sent to Burtonwood, ostensibly as part of a training programme. In reality, it is more likely that these aircraft formed part of a deterrent against possible Soviet aggression in Europe.

With the acquisition of the nuclear bomb by the Soviet Union, there was yet another lease of life for Burtonwood. Between 1953 and 1959, Burtonwood was the base for the 53rd Weather Reconnaissance Squadron, equipped with WB29 and then WB50D Superfortress aircraft. The Military Air Transport Service (MATS) was also based at Burtonwood until 1958. In April 1959 all flying to and from Burtonwood ceased.

When in 1966 France withdrew military support for NATO, Burtonwood became the main receiving base for NATO supplies from both the former French bases and the US. In 1967 the airfield was transferred to the US Army and was used by the 47th Area Support Group being renamed Burtonwood Army Depot. The main warehouse at Burtonwood, not within this area, was by this time described as the largest building under a single roof in Europe. Its function was to supply kit to US troops coming into the UK as part of a NATO deployment. Although this never occurred, the base did function during the 1991 Gulf War.

The final closure of the Burtonwood Army Depot was in June 1994. The Burtonwood Airfield effectively ceased to exist with the construction of the M62 Motorway in 1971. This drove across the main runway on an embankment, leaving the control towers, a rear gunner training dome, aircraft hangars and the warehousing to the south and a number of old hangars to the north. The control towers, runways and other structures, were demolished in the 1980s by the Warrington and Runcorn Development Corporation and the area scheduled for redevelopment.

A motorway services area, contemporary with the motorway, was constructed within the area. Recently a new motorway junction has been developed just to the west of the service area, principally to serve the new development area to the south.

The demolished airfield is now scheduled for redevelopment and is known as the Omega Site. This is being actively marketed by the successor organisations to the Warrington and Runcorn Development Corporation. A number of large warehouse facilities have already been built and others are planned.

Key Cultural Elements in the Landscape:

- Site of former Burtonwood Airfield

Landfill and Mineral Extraction

There are no landfill operations or mineral extraction operations within this area.

Agricultural Land Quality

There is a small area of land to the southwest, which is Grade 2 agricultural land.

Landscape Sensitivity

Following the demolition of all hard structures and surfaces in the 1980s, the land was advertised as the largest single area of development in Europe.

A new motorway slip road has more recently been built at Limekilns, in part to service the site, and views into the area from the M62 have been left open for marketing purposes. The site has previously been considered to have a somewhat low landscape sensitivity.

Certain areas of the site nevertheless can be argued to have a high landscape sensitivity. Following the Airfield's construction in 1942, many peripheral parts of the main functional areas were left unmanaged and these were slowly colonised by the natural regeneration of tree species. Many of the trees were oaks. In the 1980s, during the Airfield's demolition, substantial efforts were made to both retain and protect these trees from damage by the demolition contractors. Today they have matured and form a substantial landscape asset to the area but are still vulnerable to potential lack of control in the planning, design and site development phases.

It is hoped and expected that most, if not all, the retained trees and woodland on the site will be integrated into any new development planned. In addition to the treed areas, small ponds were also retained with connecting inflow and outflow ditches. These features not only provided interest and variety in the landscape but are a rich haven for wildlife.

An ecological survey was carried out in the 1980s and the area was found to be very rich in wildlife, with diverse and valuable habitats. The area was well used by ground nesting birds and many of the poorly drained sub-soil areas were also rich in a diverse range of flora. Purple orchids were found in large drifts on specific areas of cinder.

Key elements of landscape sensitivity under threat:

- Mature oak woodlands and individual trees
- Wildlife ponds and their associated inflow and outflows
- Wildflower and orchid areas

- Wildlife habitat generally



Photo 25a: View southwest towards Fiddlers Ferry Power Station across the former Burtonwood Airfield from the M62 bridge at Limekilns.

Landscape Change

The landscape of the former Burtonwood Airfield has probably undergone more change over the past 60 years than any other area of the Borough. The area originally formed part of a continuous swathe of agricultural fields between Great Sankey and the village of Burtonwood. The construction of the Airfield irrevocably removed this landscape, altering its character from peaceful and rural to being one of construction, development, noise and activity. Following the closure of the Airfield, the site declined to a scene of unmanaged land and derelict buildings, resulting in an area readily colonised by wildlife.

The construction of the M62 motorway in 1971 also radically altered the site – effectively cutting the Airfield into two halves.

The 1980s again brought much activity to the area during the demolition work. Vast storage piles of crushed, graded concrete from the runways were produced and re-sold as hardcore, and all the disturbed ground was re-graded, stone picked and seeded for hay crops ready for re-sale for development.

Development has already commenced with the construction of the Royal Mail Distribution Warehouse and the United Utilities' building at Lingley Green.

Landscape change to the area is summarised as follows:

- Originally rural agricultural land
- Construction of Airfield
- Construction of M62 Motorway
- Demolition of Airfield
- Reinstatement to grassland and retention of trees
- Commencement of redevelopment for commercial/industrial use

Recommended Management and Landscape Objectives

It is important that the proposed redevelopment of the area takes into account the remaining landscape assets and features such as the existing mature trees, woodland and ponds.

Areas of unusual or interesting flora should also be retained wherever possible, integrating such areas with peripheral open space at the planning/layout stage. It should be noted that the drifts of purple orchids present in certain areas of the site are also sensitive to alterations

in the water table and that merely avoiding direct development in these areas may not necessarily result in their retention.

Management of the Landscape:

- Ensure landscape and ecological surveys are undertaken and taken into account prior to development proposals
- Ensure development retains and integrates important landscape features such as trees, woodland, ponds and rare flora
- Ensure appropriate protection of landscape features during construction

Settlement

There is no settlement within this area.

TYPE 4 LEVEL AREAS OF FARMLAND AND FORMER AIRFIELDS

AREA 4.C FORMER STRETTON AIRFIELD

Description

The former Stretton Airfield occupies an area of level ground situated adjoining the Appleton Thorn Trading Estate. In common with Burtonwood Airfield, the site is split into two sections by motorway construction. To the north of the M56 a trading estate has developed over former runways. To the south of the M62 however, no new development has taken place and the airfield remains a very large open expanse of grassland intersected by concrete runways.

The land is unrestricted by any notable tree growth and is dominated by the M56 along its northern boundary.

Access to the site is restricted.

Key Characteristics:

- Level ground
- Visual and audible dominance of M56 motorway
- Very large scale, open area of largely grassland with few trees
- Absence of agricultural heritage

Cultural History

Construction of Stretton Airfield commenced in response to German bombing of Manchester and Liverpool during the 'blitz' in the early years of WW2. The airfield had three runways, an RAF pattern Control Tower and a number of fighter dispersal pens around the edge of the airfield. It was built to accommodate night fighters to intercept the German bombers, but proved surplus to requirements when the blitz eased as a result of the German invasion of Russia.

Stretton Airfield was commissioned as a Royal Navy Air Station, 'HMS Blackcap' on 1st June 1942, following negotiations between the Admiralty and the RAF over exchanging airfield facilities. HMS Blackcap employed civilians from the surrounding area and had a complement of nearly 1500 staff. Accommodation for some of these staff included Grappenhall Heys and Grappenhall Hall for the Wrens and 'Eagle', one of five purpose-built accommodation sites, now the site of Appleton Thorn Young Offenders Institution.

Four large Aircraft Maintenance Yards (AMY) workshops were built adjacent to Barley Castle Lane for aircraft maintenance. These have now been subsumed into the Barleycastle Trading Estate. Two large workshops were built by Fairey Aviation which modified and flight-

tested Fairey Barracuda torpedo bombers prior to issuing them to operational squadrons. The two workshops still exist.

Towards the end of the war, HMS Blackcap was used as a breaking up facility for American Naval Aircraft such as the Gruman Hellcat, the Gruman Wildcat and the Chance Vought Corsair. After WW2, the AMY facilities were servicing one third of all Fleet Air Arm aircraft and all spare engines.

In 1947, the Royal Navy Volunteer Reserve (RNVR) 1831 Fighter Squadron was formed and based at Stretton and in 1952, 1841 Anti-Submarine RNVR joined it. Both squadrons were disbanded in March 1957. In November 1958, HMS Blackcap was 'Paid Off' and Stretton Airfield closed.

Construction began on the M56 in 1968 and the motorway cut the airfield in half, the northern section becoming part of the Barleycastle Industrial Estate and the HMTOI, a Young Offender Institution. The southern section remains in a disused, derelict state.

Key cultural elements in the landscape:

- Remnant sections of Stretton Airfield runway
- Relict buildings from the former airfield

Landfill and Mineral Extraction

There are no landfill operations or mineral extraction operations within this area.

Agricultural Land Quality

The whole of this area is scheduled Grade 2 agricultural land.

Landscape Sensitivity

The area is visually somewhat isolated with no public footpaths running through it or public roads overlooking the area. A security fence runs around the site and access is prohibited. Its function as an airfield appears to have been impaired by the construction of the M56 motorway, which has removed vital parts of the runway.

Airfield associated buildings have either been absorbed into the trading estate to the north of the motorway or have been demolished. The main runway remains largely intact to the south of the motorway.



Photo 140: View east from New Road (near the M56 crossing) directly along the former main runway at Stretton.

In terms of the area's visual isolation and featureless grassland character, the area would appear to have a low level of landscape sensitivity. It should be noted however that access across the site has not been afforded and that an ecological survey would be required to confirm this supposition.

The area's location on the crest of the Red Sandstone Escarpment ridgeline however would make the site highly sensitive to development. Large structures would create a focal point by breaking the skyline and should be avoided.

Key elements of landscape sensitivity:

- Location on the crest of the Red Sandstone Escarpment

Landscape Change

Landscape change was dramatic in the area following the Airfield's construction during W 2. The area appears to have previously been a quiet, rural, agricultural landscape of a similar nature to the Hatton area (Area 1.A).

A plethora of small-scale fields can still be seen adjoining the Airfield boundary to the south. This landscape was totally destroyed in the construction of the Airfield and all trees and hedgerows were removed. The construction of the M56 motorway cut the Airfield in half with areas to the north becoming infilled by commercial and industrial development. The remaining former Airfield land to the south is now open and relatively featureless.

Landscape change to the area is summarised as follows:

- Originally rural, agricultural land
- Construction of airfield
- Construction of M56 motorway
- Development of trading estate to north of motorway
- Remaining section of airfield left disused to present day

Recommended Management and Landscape Objectives

The site would appear to have few restrictions in landscape terms for future development apart from its skyline location. Following further study, it may be possible to develop the site with low level structures in such a way as to avoid creating a dominant focal point on the ridge line. Alternatively landscape reinstatement and enhancement would upgrade the site, leaving the area with potential for rural recreation.

Management of the landscape:

- Detailed landscape/ecological survey required
- Avoid skyline development
- Landscape reclamation and enhancement planting to agricultural land and M56 boundaries

Settlement

There is no settlement within this area.

TYPE 5. RIVER FLOOD PLAIN

Description

The Borough contains three main river flood plain areas associated with the River Mersey (and its confluence with the River Bollin), the River Glaze and Sankey Brook.

Most of these water courses are artificially constrained through their flood plains by artificial banks and levees, sheet piles and walling and in the case of the River Mersey, by sections of canalisation forming parts of the Manchester Ship Canal.

The flood plains form linear corridors of flat, alluvial land which have either been extensively developed for industrial, commercial or residential use or, to a lesser extent, remain as permanent grassland pasture. A number of very large areas within the River Mersey floodplain have also been used for landfill and dredging deposition. Many of these have now matured to form quiet and distinctively 'wild' areas of natural regeneration and native planting, which are particularly attractive to wildlife.

Much of the industrial history of the area is associated with the flood plains. The Manchester Ship Canal, Sankey and Bridgwater Canals all lie within the River Mersey flood plain. The town of Warrington itself is built largely within the Mersey flood plain, together with its associated industry, historically requiring large amounts of water extraction from the river.

Key Characteristics:

- Flat, linear, alluvial areas
- Often developed on used or permanent pasture
- Close association with water course
- Raised levees and river channel restrictions
- Contain a multitude of communication links – canals, roads, railways etc.
- Bridge and viaduct crossings

Cultural History

The flood plains of the Mersey and Bollin rivers are in marked contrast to each other. The valley of the Bollin is relative 'unspoilt', being undeveloped and having had little in the way of extractive industry or landfill within it. The Mersey is very different, having been subjected to

navigational improvements since the C18th, to landfill operations (some very large) since the beginning of the C20th and to large-scale industrial development since the C19th.

The flood plains of the River Glaze and the Sankey Brook have a similar contrast. The River Glaze flood plain is fairly narrow and does not begin widen out until the river reaches the vicinity of Holcroft Hall. With the exception of the crossing of the M62, the flood plain of the River Glaze is relatively unspoilt. The valley of the Sankey Brook, like the River Mersey flood plain, has been subjected to navigational improvements, landfill operations and large-scale industrial development. The opening of the Sankey Valley Park has in measure restored to the area an importance lost since the closing of the Sankey Navigation in the 1960s.

The historic land values on the flood plain have been considerably lower than those on the adjacent Red Sandstone Escarpment to the south or on the Undulating Enclosed Farmland to the north because of flooding risks. The use of the flood plain for landfill therefore becomes more economically attractive.

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Photo 123a: View to the west from Thelwall Eye over the weir at the Eyes

Key cultural elements in the landscape:

- River meadows, used for grazing over a period of at least 1,000 years
- Navigational improvements to the River Mersey over a period of 300 years
- The M6 and M62 motorway crossings
- The Warrington and Stockport Turnpike of 1821 now the A56
- The London and North Western Railway line of 1853, closed 1989 and now the Trans Pennine Trail
- Use of the area for landfill operations
- Crossing points of major communication routes
- Sankey Navigation Canal

Landfill and Mineral Extraction

Within the Mersey flood plain, mineral and landfill operations have occurred over a considerable period. The first large-scale landfill operations started when the Manchester Ship Canal Company commenced lagooning the silt dredged from the Ship Canal on the Thelwall Eyes, an operation which extended over much of the area of the Eyes during the last century.

A limited amount of mineral extraction has taken place within the flood plains, including gravel workings in the valley of the River Glaze, now fully worked out and restored. There may be potential sand and gravel sites elsewhere within the flood plains, but so far these have not been exploited. 'Wild' brine pumping has taken place within the Bollin Valley and salt was pumped from a site in Heatley, forming Heatley Flash as a result.

Agricultural Land Classification

The whole of the flood plain is classified as Grade 3 or Grade 4. The Grade 3 land occurs throughout the whole area in the absence of landfill operations. A small section of the River Bollin flood plain is classified as Grade 4 to the extreme east of the Borough.

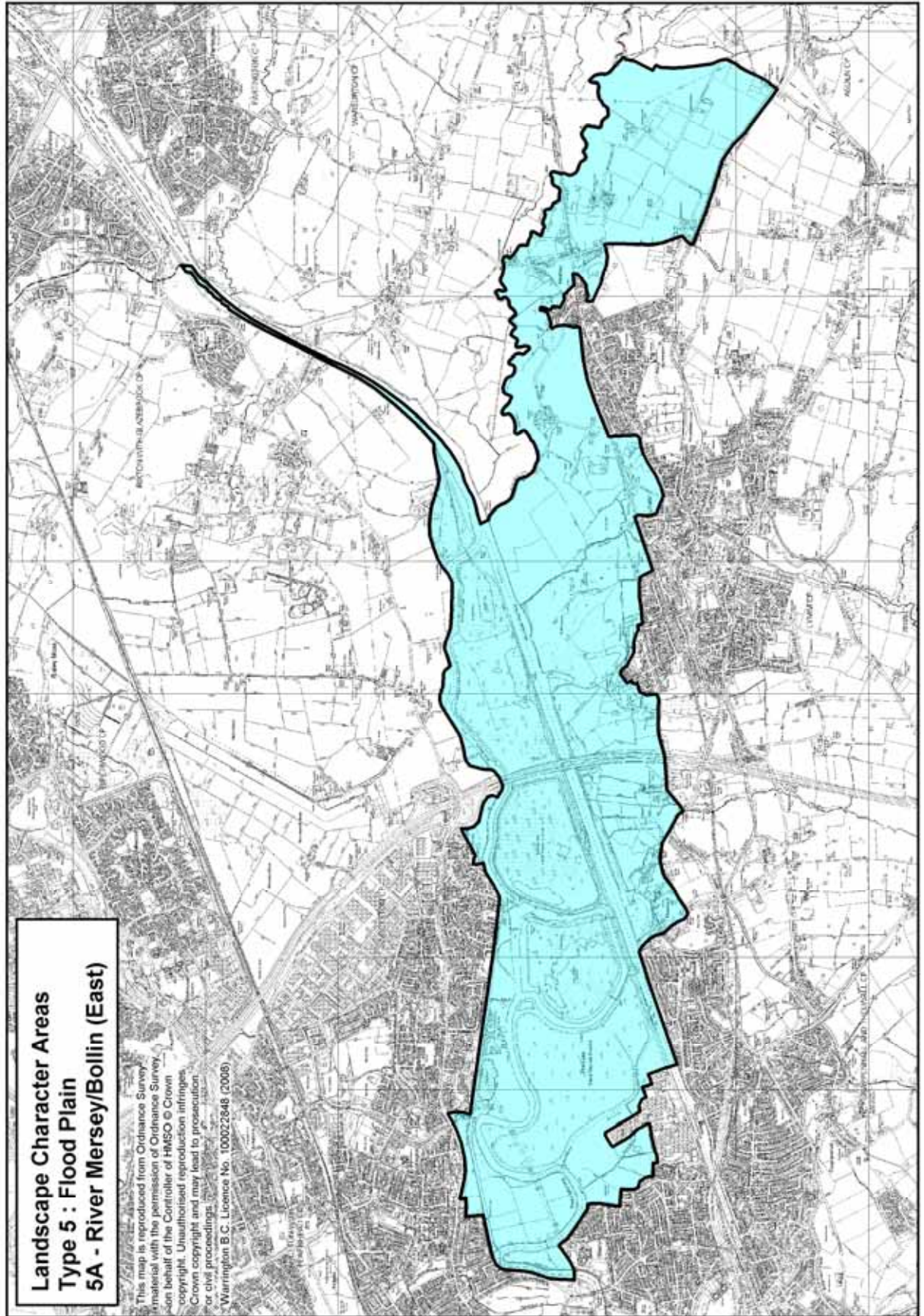
Settlement

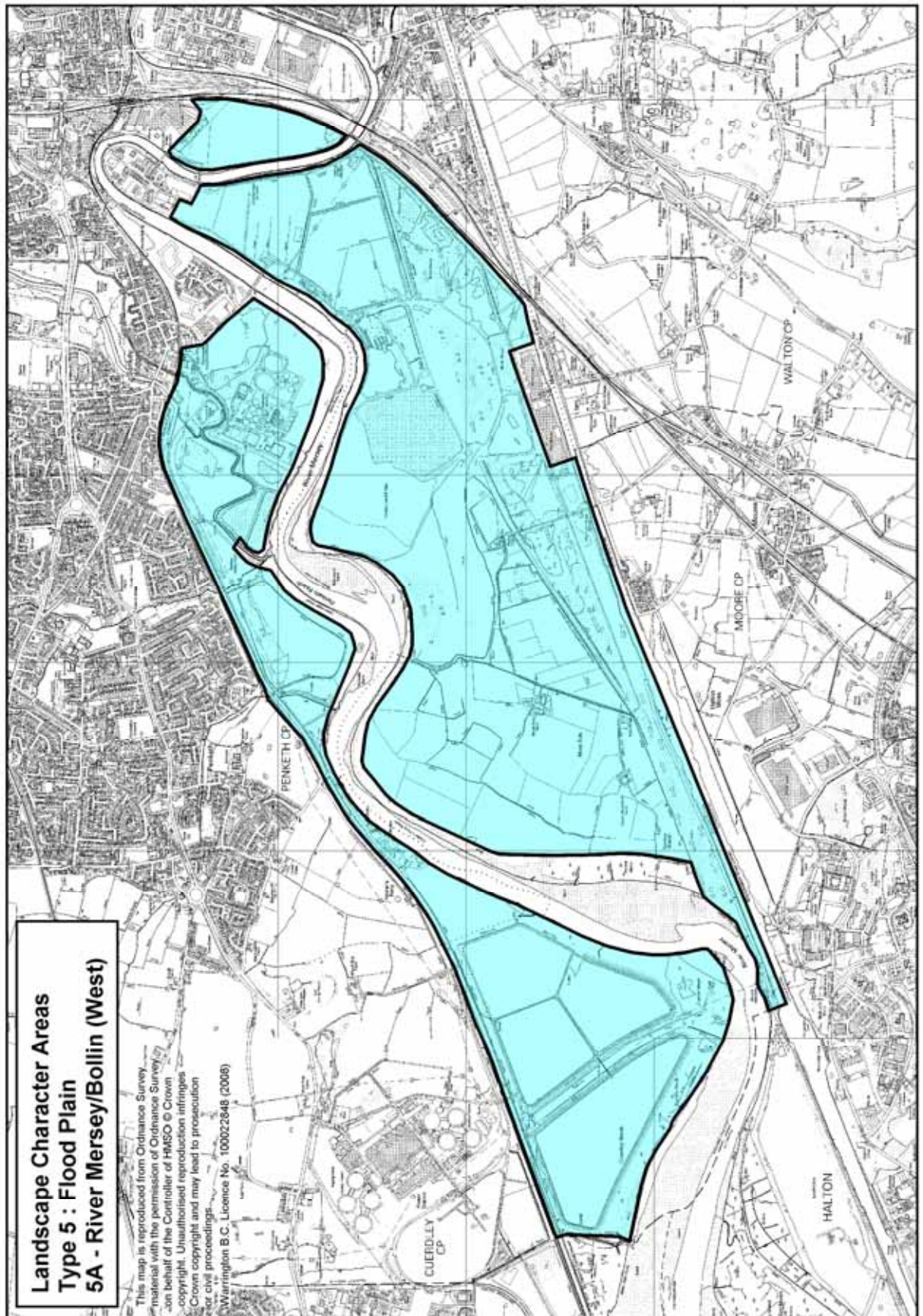
Settlement within the flood plain areas is limited because of the inherent threat of flooding. The exception however is in the Mersey flood plain, where the town of Warrington has expanded to develop over large swathes of the flood plain, in many places right up to the river itself.

Development has been protected from flooding by a variety of raised flood embankments and walls. Potential flood risk areas within the flood plain are illustrated on Figure 13 on page 45.



Photo 122. Plants at Thelwall Eye. Giant Hogweed and Indian Balsam create an attractive mix





TYPE 5. FLOOD PLAIN

AREA 5.A RIVER MERSEY/BOLLIN

Description

The River Mersey and its broad floodplain forms a major landscape character, dividing the Borough into roughly two halves on an east/west axis. The River Bollin flood plain merges with the Mersey floodplain from the east. The Mersey displays the typical characteristics of a lowland mature river, winding across a broad floodplain with large meander loops. Much of the river has been prevented from naturally flooding onto its floodplain by the creation of artificial levee embankments, whilst its channel has also been occasionally straightened or restricted by sheet piling, walls or other hard structures. A section of the river upstream from Butchers Field, Rixton has also been canalised to form part of the Manchester Ship Canal.

Within the Borough boundary, only small areas of original flood meadows still survive. These are located to the south of the river in the Penketh area, to the north of the river within a meander loop at Paddington Meadows and at the confluence with the River Bollin between Warburton and Lymm. The remainder of the Mersey flood plain has been heavily developed for residential and industrial uses, particularly in the areas of Martinscroft, Woolston, Padgate, Orford, Westy, Latchford, Wilderspool and Sankey Bridges. All of the above areas are highlighted by the Environment Agency as Areas of High Risk of Flooding. Development has, in many areas taken place to the very edge of the River Mersey, although mainly 'turning its back' physically and visually to the river itself.

Other major uses of the Mersey floodplain are for major landfill, notably at Arpley and Sankey Bridges and at Rixton, adjacent to the Manchester Ship Canal. The resulting high mounds, some now treated with woodland planting, create an alien landform overlaid on the original flat flood meadows.

Undeveloped floodplain land is a rich haven for bird life, notably where access is limited. The slurry and dredging lagoons at Woolston and Martinscroft are particularly valuable together with the quiet areas of meadowland at Moss Side and Arpley, where nature reserves have been established restoring wild flower meadows and introducing and managing wetlands and native woodland.

Other key elements in the Mersey floodplain are its communications links and bridge crossings. Notable features include the Acton Grange Viaduct and the road bridges at Bridgefoot and Latchford. Also of particular note are the swing bridges over the Manchester Ship Canal at Wilderspool, Stockton Heath and Latchford and the high level bridges at Latchford and Warburton.

The Manchester Ship Canal forms a major feature in the landscape and runs in close association with the River Mersey, downstream from the confluence of the River Bollin. The Ship Canal is constructed at the boundary between the Red Sandstone Escarpment and the Mersey Flood Plain and at numerous points can be seen to cut directly through the sandstone, creating vertical cliffs rarely found elsewhere.

A number of smaller canals also run through the floodplain, often in close association with the River Mersey. These include the restored St Helens Canal to the north of the river, together with the disused Woolston New Cut and the Runcorn and Latchford Canal.

The Thelwall M6 viaduct is also a major visual element, creating a focal point in the landscape due to its scale and elevation. The Mersey Way long distance footpath is an important recreational route, closely following the river and floodplain.

The River Mersey/Bollin floodplain landscape is extremely diverse, particularly in comparison with the other landscape areas identified within the Borough.

Key Characteristics:

- The River Mersey and River Bollin
- The Manchester Ship Canal
- Mounded landfill sites
- Slurry and dredging lagoons
- Importance for nature conservation
- Dominance of floodplain crossings (road and rail bridges)
- Residual floodplain meadows
- Widespread residential and industrial development on the floodplain
- Artificial levee and channel constraints to the river
- Lack of visual importance of the river (normally screened from views)
- The Mersey Way recreational footpath.

Cultural History

The most strategically important feature of this area is the bridge at Bridgefoot, which has been for centuries the lowest bridging point on the River Mersey. The Mersey has a particularly large tidal range and historically this, associated with flooding generated

upstream, made the Mersey floodplain a particularly hazardous area. It is almost certain that the first bridge on the Mersey was a Roman structure, accessed via Wilderspool Causeway.

The river was the frontier between the Saxon Kingdoms of Mercia, to the south, and Northumbria, to the north, and was probably a frontier between the Celtic kingdoms before the Roman conquest. As well as being a frontier, the river was the major transport route for the north-west of England and was probably used as such in ancient times. The Mersey was navigable as far as Manchester, but the braided nature of the river course would have severely reduced the available draught for ships. The lowest ford on the Mersey was at Warburton, above the tidal point of the river. Ships cannot have ever had a draught deeper than wading depth.

In Roman times, the River Mersey was probably used for the transport of goods up to the fort at Manchester. In 1770, some Roman finds were made in the Lumb Brook area, during the cutting of the Bridgewater Canal, but in 1787, more extensive finds were made. Excavations in 1930-35, 1966-67 and in 1974 at Wilderspool Causeway revealed a substantial Roman industrial site, making pottery. This would have been shipped along the River Mersey. A number of Viking raids were made along the Mersey, at least one directed at Manchester, which, if by longship, must have passed Warrington on its way upriver.



Photo 116: The ferryman's cottage at Thelwall, landing stage to the right.

One of the key features of the Mersey flood plain is the 'eyes', a word derived from the early Saxon word 'ēg' (West Saxon 'iēg') meaning 'island', but more commonly used to denote an area of raised ground in wet country. The Eyes are therefore the land within the loops of the River Mersey. A substantial area of the Mersey floodplain belonged to the township of Thelwall of which, during medieval times, one third was owned by the Clayton family and remainder belonged to Norton Priory. The Eyes appear to have been used as water meadows and the Claytons are regularly referred to as 'of Shepecroft', implying sheep grazing in the area.

Norton Priory owned the fishing rights for the south side of the River Mersey, which may have been fairly lucrative. In May 1749, catches of 19lb and 23lb salmon were made - substantial fish. Salmon were common in the River Mersey, as evidenced by the C16th salmon fishery smoke house on Ferry Lane near Thelwall Old Hall.

Gunpowder mills with associated workers cottages were built on one of the Eyes in 1755, a suitably isolated location for a hazardous manufacturing facility. In 1855 the gunpowder mills were destroyed by an explosion and the location was left vacant.

At various times efforts were made to improve the navigability of the River Mersey. In 1677, Thomas Patten, a merchant, wrote that it would be an advantage if the Rivers Mersey and Irwell were made navigable around Manchester. By 1697 the Mersey had been made navigable from Liverpool to Warrington. In 1712, Thomas Steers, an engineer, proposed eight locks on the Mersey and a cut at Butchersfield to cut off a loop near Lymm. After a late start, the improvement works to the river were fully open in 1736, although possibly only five vessels were used in the first years. A cut was made at Latchford to cut off a hairpin loop in the Mersey, known as Hell Hole and Howley Lock was built in the channel; below this lock the Mersey remained tidal.

More loops in the course of the Mersey were cut off following this work. Woolston Old Cut, half a mile long, was constructed at Thelwall thus shortening the Mersey by two miles. The lock at its lower end, Powder Mill Lock, was built in 1755 and named after the gunpowder mills at Thelwall. The cuts made in the Mersey within the Warrington area were as follows:-

- Howley c. 1720, a hairpin bend in the Mersey was cut off and a lock constructed in the cut.
- Runcorn and Latchford Canal, completed 1803, which by-passed the Mersey between Runcorn Gap and Warrington, negating the effects of neap tides.
- Woolston Old Cut, c. 1755
- Woolston New Cut, opened 14th February 1821, replaced Woolston Old Cut and by-passed several more loops in the Mersey. Paddington Lock was constructed at the lower end and Woolston Lock at the upper end.
- Butchersfield, which had two cuts dug, the first in 1760 had a single lock in it, Old Lock. The second, in 1829, had a double lock at its lower end and was known as the Butchersfield Canal.

In 1759 the Bridgewater Canal was constructed, creating a rivalry between it and the Mersey navigation. Passengers could sail from the Cathedral steps in Manchester down to Liverpool and there were races between boats on the Bridgewater Canal and those on the River Mersey. Despite the lengthier course of the Mersey, there was no speed restriction and a 'flat' under full sail could move at far greater speed than the horse drawn barges on the Bridgewater Canal.

In 1816, packet steamers were introduced, speeding up services, although the opening of the Liverpool - Manchester railway line in 1830 meant that these were rapidly made redundant. However bulk cargo was still carried in other boats. In 1872, the Mersey and Irwell Navigation and the Bridgewater Canal were bought out by a railway syndicate. In 1882, the Ship Canal Company was formed and the following year applied to construct a Ship Canal. This failed, as did a second application in 1884. In 1885 a third application succeeded and in 1887 the Ship Canal Company took over the Mersey and Irwell Navigation and the Bridgewater Canal, beginning the cutting of the Ship Canal in the same year. On 1st January 1894, Queen Victoria opened the Manchester Ship Canal.

After the opening of the Manchester Ship Canal, two functioning sections of the Mersey and Irwell Navigation continued to be run by the Ship Canal Company. These were as follows:-

- The Navigation from Rixton Junction to Bank Key via the river Mersey, Butchersfield Canal and Woolston New Cut.
- The section of the Runcorn and Latchford Canal from Latchford Lock to the Wilderspool (Stockton Heath) junction with the Ship Canal.

In addition, there was a new branch from the River Mersey at Arpley, through Walton Lock to the Ship Canal.

A ferry crossed the Ship Canal at Thelwall, landing passengers at the Canal side of The Eyes on the north bank. The ferryman's hut is of historic interest and can still be seen.

Shipbuilding has been practiced at various places along the north bank of the River Mersey. At Sankey Bridges the firm of Clare and Ridgway built boats for over 120 years. Mersey Flats, a type of freight barge, were built by this firm and their 'Eustace Carey' jigger flat was still being used up until 1965, when it beached off Spike Island. The Mersey Flat had been slowly evolving in the area from around 1700, centred on the Port of Liverpool. These were sailing barges, but when halted through adverse winds, they were hauled by 'bankhaulers' in the earlier years and later by horses. Initially the flats could carry 30 to 35 tons, with a draught of 3 ft, later the flats were carrying up to 80 tons with a correspondingly greater draught.

In 1850 the famous Vulcan foundry in Wargrave was connected by rail to Warrington and the Bank Quay Foundry Company was set up. This company designed and built the large iron sailing ship '*Tayleur*' (named after Vulcan Foundry's owner) which was launched in 1854. The ship was carefully sailed down the Mersey using the tide to clear the shallow river channel. She was handed over to her new owners, The White Star Line, in Liverpool and sank with heavy loss of life, on her maiden voyage to Australia, hitting the rocks of Lambay

Island. This appears to have been the only shipbuilding of note from Bank Quay, since the yard closed in 1860.

During the First World War, shortages of timber, steel plate and especially skilled labour in the UK's shipbuilding industry reached crisis point. Concrete vessels were built at two areas in the UK, one on the Ribble in Preston and the other at Fiddler's Ferry, Warrington. The Concrete Seacraft Company was based at Fiddlers Ferry and after the war continued to build pre-fabricated houses.

During WWII, the River Mersey appears to have been used for navigation by the Luftwaffe as part of the air campaign against the UK. Liverpool or Manchester could easily be found by following the Mersey, as could Warrington itself. As a result a number of defensive belts were set up to prevent the Luftwaffe traversing the area. These included anti-aircraft batteries and barrage balloon belts. Within the floodplain area only one balloon station site remains, in the fields near Moss Side Farm, Moore.

Flooding occurred at various times on the Mersey, especially prior to the construction of the Ship Canal. The rapid industrialisation of Manchester and Salford and the construction of factories and dwellings close to the rivers resulted in constriction of the channels of the Irwell and Mersey with occasionally disastrous consequences. The last serious flood was in 1946. The Ship Canal acts as a flood relief channel, but the tributary streams to the River Mersey still cause problems locally.

The British Hydrological Society has records confirming that significant floods occurred in 1881, 1911, 1928 and 1933. In 1990 tidal flooding affected Warrington, when the flood defences were overtopped and seventeen residential properties and 8,000m² of commercial

floor area and a school were flooded. The Environment Agency has identified that 1,700 residential properties and over 100,000m of commercial space are at risk from tidal flooding within Flood Zone 3 (Warrington). See Figure 13 (page 45).



Photo 190 The Mersey at Fiddlers Ferry Reach, near the lock connection to the St Helens Canal.

The Eyes and Thelwall Eye have been designated as sites of Special Scientific Interest (SSSI) and have a very rich diversity of flora and fauna. Land to the west of Moor Lane Bridge between the Runcorn and Latchford Canal and the Manchester Ship Canal is designated as a Site of Biological Interest (SBI), as is part of the St Helens Canal and a

remnant of Cuerdley Marsh adjacent to the Fiddlers Ferry pulverised fuel ash lagoons. The whole of the Mersey Valley floodplain and the River Bollin floodplain are designated as wildlife corridors in 'The Nature Conservation Strategy for Warrington' 1995.

The River Bollin is not suitable for navigation and this has greatly reduced human pressure on the river and its flood plain. The Bollin flood plain is broad, flat and relatively unspoilt. The Warrington boundary runs along the centre of the river from its junction with the River Mersey at Bollin Point / Rixton Junction up to the confluence with Agden Brook. This area and the area on the Trafford side of the river have been used as river meadows for many hundreds of years. Some of the land on the Trafford side belonged to Dunham Massey, but on the Warrington side the land appears to have been farmed by a small number of large farm complexes. These include Wetgate Farm, Wetgate Lane Farm, Heatley Heath Farm, Platt Farm and Reddish Hall.



Photo 91b. The view west from Warburton Toll bridge of the Mersey Ship Canal. The former river course rejoined the canal to the left of the picture some distance behind the electricity pylon

The flood plain has been subjected to ‘wild’ brine pumping, where a small drilling rig would be brought in, a shaft sunk and the brine pumped out until exhausted. The rig would then be moved on to another site. The sites of this pumping are unknown, but there have been a number of cases of subsidence in the area and there are a number of small ponds probably formed as a result of these operations.

There was a large Georgian / early Victorian water-powered mill at Warburton Bridge until the 1980s when operations ceased and the site was sold. After a period standing empty, the mill was demolished and a 'replica' mill built, containing apartments, while the mill outbuildings were replaced by conventional houses. The area of rock on which the mill stands was probably the only outcrop in the lower Bollin valley and made a strong foundation for the mill and contained the mill race which ran under the building past the wheel. The mill wheel was powered by river water held back by a weir.

The same rock outcrop was a suitable base for the Warburton Bridge carrying the A6144 between Lymm and Trafford. This attractive stone-built bridge, with a load limit of a mere 7.5 tons is regularly crossed by far heavier vehicles. West of the road bridge are a number of flood channels running under the road, which allow for the River Bollin to flood on either side of Warburton Mill.

North of Warburton Bridge, the Bollin river meadows have been cultivated in recent times, following the construction of low levees during WWI.

Sewage works are sited at a number of points along the Mersey flood plain. Lymm sewage works is located near Reddish Lane, Lymm. The main Warrington sewage works is at Gateworth.

Lymm Golf Course, founded 1907, is one of a large number of golf courses within the wider area of the Mersey flood plain. Recent weather patterns have meant heavier rainfall, causing serious problems of waterlogging, which has been addressed by the club.

Angling is very popular throughout the floodplain area. Angling facilities exist at Grey Mist, Woolston, at Meadow View Fisheries, Statham, on the St Helens Canal and all along the River Bollin and the original course of the River Mersey.

Key cultural elements in the landscape:

- Historic sites on either side of the flood plain
- Historic quays and loading areas - associated in many cases with manufacturing facilities
- The use of the area for navigational improvements, including locks
- Historic ferries and fords
- Historic crossing points over the River Mersey
- Historic ship building
- Use of the area for manufacturing, including using water power
- The use of the flood plain for water meadows
- Use of the area as a fishery
- The presence of Sites of Special Scientific Interest (SSSIs) and RAMSAR site
- The presence of sewage works in the valley
- The use of the area for landfill sites
- The use of the area for settlement lagoons
- Use of the Bollin Valley for brine pumping

Landfill and Mineral Extraction

Deposition of dredgings within the Mersey flood plain appears to have commenced with the establishment of a lagoon area during the 1920s at Butchersfield for the dumping of silt dredged from the Manchester Ship Canal. Subsequently, more such silt lagoons were

established at Thelwall Eyes and then at The Eyes, south of Woolston. Farming on the Eyes stopped as the deposition progressed. The last farm ceased operations during the 1950s.

The old course of the River Mersey between the two major Eyes is being infilled, cutting it off from the present river course through the construction of a dam.

Other landfill developments include Butchersfield, near Rixton, (now completed and restored), at Arpley Meadows (still active) and at Gatewarth Tip. Butchersfield, although 'naturalised' with the planting of trees and supporting a well-established grass sward, is far from natural in form. The irregular rounded landform is exceptionally alien to the surrounding landscape and is a highly prominent feature.



Photo 183b: Arpley landfill site viewed from Gatewarth landfill site.

Arpley Landfill is an extremely large active landfill site, currently approximately 1km by 2km, and covering 130 hectares. Landfill gas from the site is extracted and used to generate power.

It is intended that on completion the landfill site will revert to Public Open Space, commensurate with adequate safety for the public.

Gatewarth Tip is completed and capped. Currently the summit of the site is fenced off from public access, but in general it has been planted and seeded.

An elevated path around the shoulder of the site affords good views over the River Mersey, particularly over the adjacent Richmond Bank, a sandbank on the Mersey.

To the south of Fiddlers Ferry Power Station, the extensive pulverised fuel ash settlement lagoons project out into the Mersey flood plain on the site of Cuerdley Marsh. This is a by-product of power production at the nearby power station. Proposals exist to use this material as secondary aggregates, no reduction in the size of this area has occurred as this report was prepared.

Agricultural Land Quality

The bulk of the Bollin flood plain is Grade 3 agricultural land with areas of Grade 5 at the western edge of the plain. There is a small area of Grade 4 agricultural land immediately adjacent to the River Bollin to the extreme east of the Borough. Where agricultural land is available to farm in the River Mersey flood plain it is uniformly Grade 3.

Landscape Sensitivity

The flood plain in general has been extensively developed and altered without consideration to its landscape sensitivity. Much of its character is now heavily influenced by industry and

communication links. A small number of residual flood meadows, however, remain at Moss Side, opposite Fiddlers Ferry, Paddington Meadows and along the River Bollin floodplain between Heatley and Warburton.

The Moss Side and Paddington Meadows sites have been recognised for their wildlife and habitat importance and now form nature reserves. The Moss Side site is a quiet, little advertised, area of farmland now managed in particular for bird life and in association with the adjoining intertidal areas of the River Mersey. Wildflower meadows have also been introduced. The area would be sensitive to wildlife disturbance if visitor numbers substantially increased or if more active recreational pursuits were introduced. At Paddington Meadows, the nature reserve faces more immediate pressures of use, disturbance and vandalism from the adjoining housing estates at Bruche, Fairfield and Paddington.

The River Bollin floodplain retains a more traditional agricultural landscape of cropped fields and hedgerows and, in terms of the landscape sensitivity, is more akin to those elements described in the adjoining Lymm area (Area 3.C).

Areas of more recently created landscape, such as the slurry and dredging deposition lagoons, have now naturalised to form attractive and valuable landscapes in their own right.

Although they form artificially raised areas over 15m above the surrounding floodplain they are flat-topped and in some respects therefore echo the more level horizon of the floodplain. Vegetation has been allowed to colonise the embankment, often creating an envelope of mature woodland to the marsh and open water areas they contain. These features have

matured to form a rich habitat for birdlife and have benefited from the restricted/prohibited public access due to safety.

Parts of the lagoon areas have become a nature reserve. Public access is allowed to limited areas by a footbridge at Woolston Weir and the elevated footpath around the edges of the lagoons. This forms a quiet, attractive route with rewarding views, although the area is also close to the housing areas of Woolston and Martinscroft and is sensitive to disturbance and anti-social behaviour.

Landfill sites are particularly prone to creating a visual intrusion of the flat floodplain landscape, even following restoration planting on completed areas. This is particularly the case to the north and south of the Mersey at Arpley and further east at the Rixton landfill site.

Key elements of landscape sensitivity:

- Important areas of wildlife and habitat are sensitive to disturbance and vandalism
- Low, flat floodplain sensitive to high mounded landform
- Continued development of building in the flood plain

Landscape Change

The landscape of the Mersey floodplain has altered substantially throughout its history. The area would originally have been allowed to flood naturally over flood meadows and the river would have followed an ever-changing and unrestricted course. The landscape would have had a tranquil nature dominated by pasture land and grazing stock.

The development of the town of Warrington irrevocably altered this scene and natural river flooding was largely prevented by raising river banks and levees, channel straightening and artificial walling. Many of the old flood plain areas were then developed for residential and industrial uses and, more recently, large tracts of flood plain have been allocated as landfill sites. Small areas of residual agricultural land remain under pressure from the urban areas and have either succumbed to housing development or are now managed as nature reserves. Only areas associated with the River Bollin floodplain have retained their agricultural use.

Landscape change to the area is summarised as follows:

- Development of Warrington across the natural floodplain
- Flood prevention and the loss of natural flood meadows
- Prevention of natural river channel movement
- Development of industrial uses over the flood plain
- Allocation of land landfill sites on the floodplain

- Management of former agricultural and urban/industrial land for nature reserves.

Recommended Management and Landscape Objectives

A great deal of the remaining Mersey floodplain landscapes have been badly damaged or altered and require either careful management or, in many cases, substantial mitigation works. Areas of important habitat or wildlife value have already been recognised and are receiving appropriate management. Many other areas of former industrial land remain in an unmanaged and derelict state, whilst the various landfill sites unfortunately continue to build higher and with a domed profile alien to the floodplain landscape.

Management of the landscape:

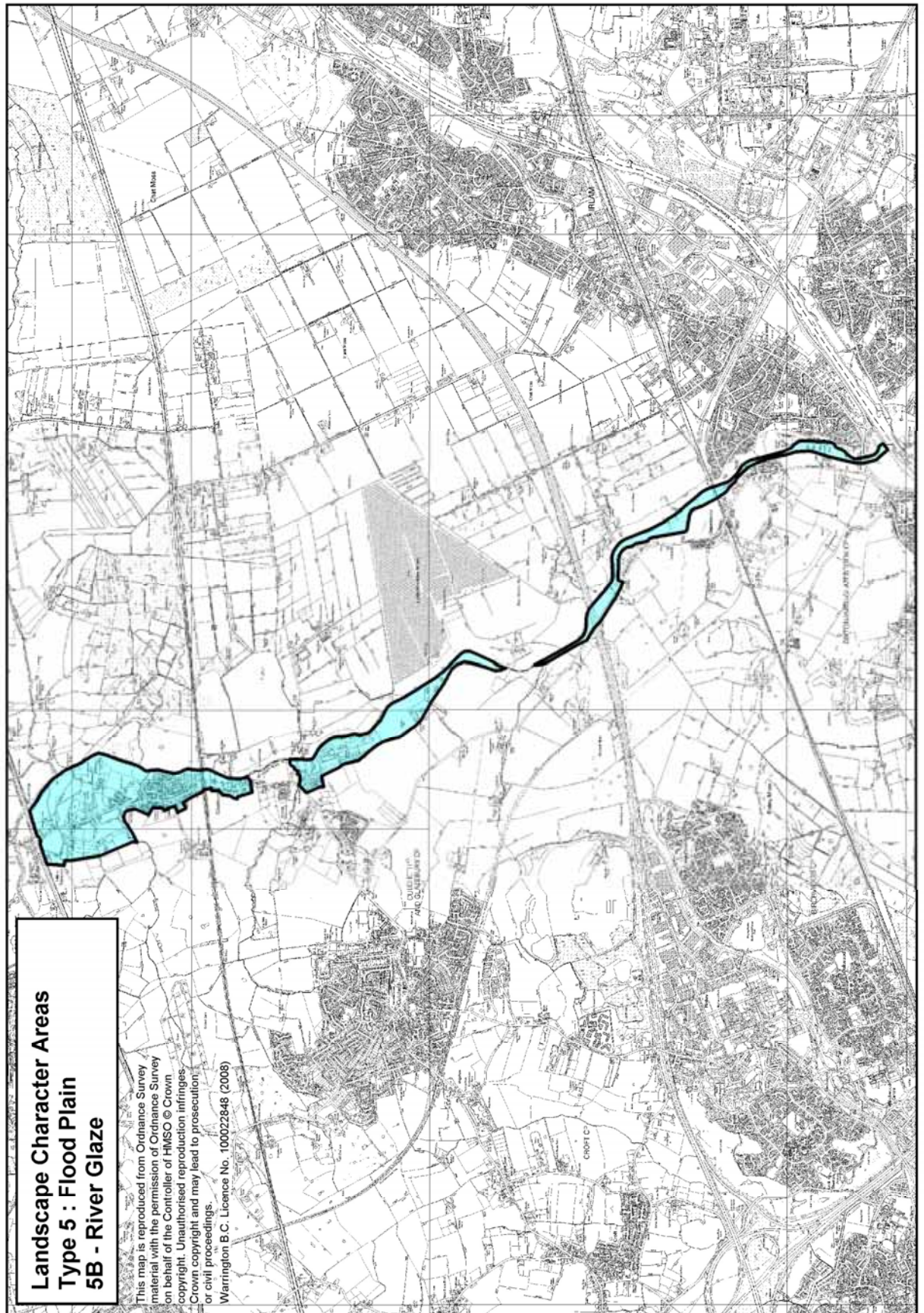
- Discourage visually intrusive landfill operations in the floodplain
- Encourage more appropriate landform and restoration to existing landfill sites.
- Support existing nature reserve management
- Encourage long-term wildlife habitat and conservation management for active lagoon/slurry deposition areas
- Promote integrated and sensitive landscape reclamation schemes for derelict land

Settlement

Settlement within the flood plain area is, for obvious reasons, limited and mainly represented by farms. These include Moss Side Farm and a small number of farms close to Thelwall, Statham and Lymm, including Laskey House and Woodacre Farm, Thelwall, Pool Farm and Whitbarrow Farm, Statham and Reddish House and Hall, Lymm.

A small industrial estate is located on the south side of Woolston New Cut, east of Grey Mist.

Much of the core urban area of Warrington is built within the floodplain of the Mersey.



TYPE 5. FLOOD PLAIN

AREA 5.B RIVER GLAZE

Description

The River Glaze forms the north-eastern boundary to the Borough, flowing in a southerly direction from Lately Common, Glazebury in the north to its confluence with the River Mersey adjacent to Hollins Green in the south. The river has cut a small discreet valley profile locally with low 'river cliffs' and has a narrow, discontinuous floodplain. This has created linear enclosed views along the river.

The floodplain areas present an attractive, largely rural character consisting of grazing pasture although small areas of residential and commercial land have also been developed on the floodplain at Lately Common. Trees to the riverbanks are noticeably absent.

The river appears to have been straightened artificially in some sections and flows mainly between raised levee banks. Its character however, still retains a 'natural' feeling, being set in a rural landscape. Roads and development generally have 'turned their backs' to the river, affording little in the way of views or access. However a footpath route known as the Glazebrook Trail runs adjacent to the river on the eastern bank outside the Borough boundary.

The river is relatively narrow and crossings by small bridges to farms and farmland are easily afforded. More substantial bridges include the A580 Pennington Bridge, the railway bridge at Glazebury, the M62 bridge at Holcroft Moss and the A57 bridge at Hollins Green.

Key Characteristics:

- Flat land associated with the floodplain
- Narrow, linear river corridor
- Small scale
- Mainly rural character
- Small 'river cliffs' and levees
- Enclosed views
- Associated linear footpath route
- Notable absence of trees to the river bank

Cultural History

The flood plain of the River Glaze has no settlements within it, but there is a tradition of ancient and historic sites immediately adjacent, in most cases making use of the defensive barrier of the river. The B5212, Holcroft Lane, follows the course of the river on its western side and represents the latest usage of a key passageway through the adjacent mosses of Chat Moss to the east and Holcroft Moss as well as Culcheth Carrs to the west.

There is some evidence that the great reservoirs formed by the adjacent mosslands did in historic times on occasion fail.

‘Thus Chat Moss burst, with an eruption of peat mud, a little before the time when Camden visited Lancashire during the reign of Queen Elizabeth, when, as he tells us, ‘the great peat moss or swamp of Chat Moss burst, and sent down a torrent of peat, earth and water, into the River Irwell,’ through the pretty little valley of Glazebrook’.

Baines, T. ‘Lancashire and Cheshire’ Vol.1.1867.

The effect of such a cataclysmic event can only be guessed at, but it may be significant that there are no historic buildings within the flood plain. They are all safely above flood level.



Photo 75b: The gentle setting of the River Glaze looking south from the bridge to Great Woollen Hall.

Immediately east of the valley of the Glaze, Great Woolden Hall stands just south of the M62 bridge. An adjacent area of land has been the site of some archaeological interest since the 1980s when the presence of a double ditched promontory enclosure dating to the late Iron

Age was noted. This has subsequently been the subject of excavation and the site has been given the status of Scheduled Ancient Monument. The site occupies a steeply sloped promontory on the east side of the River Glaze. Great Woolden Hall is accessed via an attractive small bridge.

On the north side of the M62 and again on the east side of the Glaze, Little Woolden Hall is an attractive Georgian building standing in the remains of a designed landscape.

Holcroft Hall is located on the western side of the Glaze and is Listed Grade II. It may well have had a moat or moats associated with it but any evidence for this has been expunged with the use of the area as a gravel pit. Crow Wood on the south side of Holcroft Hall has a number of overgrown wet areas within it, thought to be millponds from a series of mills which are recorded in association with Holcroft Hall in late medieval times.

The floodplain has been used as water meadows for a long historic period. Although the floodplain is still largely used for grazing, flooding seldom occurs due to the artificial levee banks.

Adjacent to Great Woolden Hall is a section of the river known as 'Germans'. During the First World War German prisoners sought permission to excavate a section of the river and straighten it so that they could enjoy a swim in warmer weather. This section is no longer used for swimming.

North of Holcroft Hall a modern sewage works occupies much of the valley floor. Still further north, the river valley is in close proximity to Glazebury, but has few features of note within it and is apparently devoid of cultural associations.

South of Glazebrook, which like Glazebury has few associations with the river, is another sewage works on the Irlam (Salford) side of the river.

Key cultural elements in the landscape:

- The presence of a number of historic sites on either side of the flood plain
- The use of the flood plain as water meadows
- The presence of sewage works in the valley

Landfill and Mineral Extraction

There are two landfill operations which have taken place within the flood plain in recent times. The first, a small area of inert fill immediately south-west of the M62 crossing of the River Glaze has been deposited within the last 5 years. The second, sand and gravel

extraction to the area immediately north of Holcroft Hall, on the west side of the river valley, has subsequently been backfilled with inert waste and returned to agricultural use.

Agricultural Land Quality

The whole of the flood plain is considered Grade 3 and locally suffers from autumn/winter flooding.

Landscape Sensitivity

The valley of the River Glaze and its flat floored, gently meandering course remains as a reasonably continuous linear feature in the landscape. This quality only breaks down where it is served by development such as the sewage works in the Glazebury area.

Within the agricultural areas, the artificial levee banks only appear to protect narrow pasture fields and serve to diminish the traditional rural character of the area.

Key elements of landscape sensitivity:

- Sensitive to severance by development
- Artificial levee banks and channel straightening degrade traditional flood meadows

Landscape Change

The landscape of the area has altered little following the enclosures. Only where development has taken place into the floodplain has the landscape character been radically altered. Small lengths of channel straightening and levee construction have, in part, diminished the area's overall character and created a more dangerous channel in terms of higher and steeper bank sides. Flood meadows have been lost as a consequence. Riverside trees and shrubs may also have been lost during this work.

Landscape change to the area is summarised as follows:

- Levees and straightening to the river channel
- Loss of flood meadows
- Previous bridge constructions
- Previous development into the floodplain in the Glazebury area
- Loss of riverside trees and shrubs

Recommended Management and Landscape Objectives

The existing character over much of the area is attractive and rural with the river forming a unifying element. The low river cliffs in particular create a very small scale (in terms of width) and distinctive landscape. In order to retain these qualities, it is essential to prevent any further development in the flood plain. The area's landscape and nature conservation value can be vastly improved by the reintroduction of meander curves, differential bank profiles and the removal of levees where practicable. Similar work to this has been undertaken by the Environment Agency to Whittle Brook.

In addition, tree planting to the riverbanks would greatly enhance the appearance of the valley and diversify habitats.

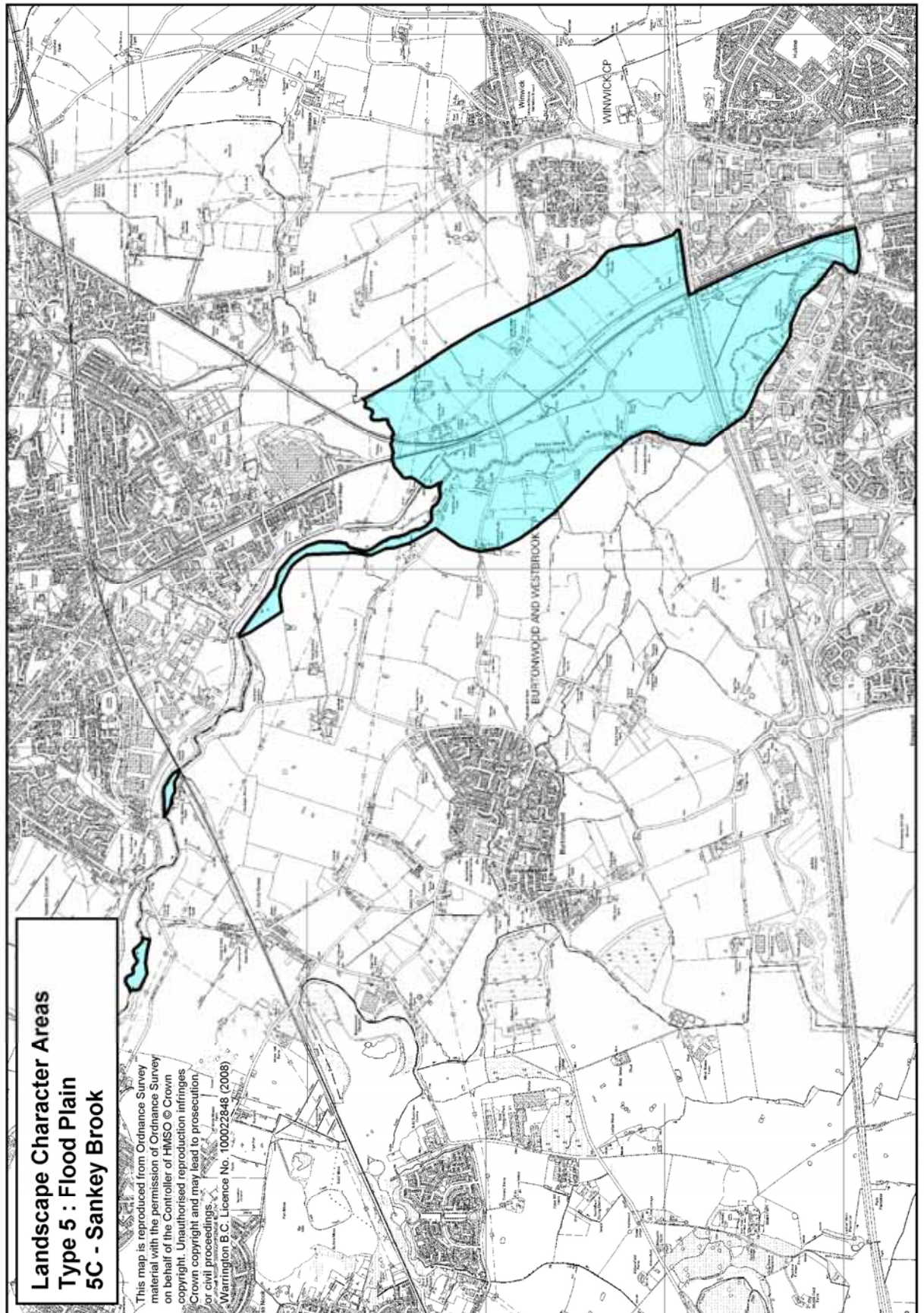
It would appear unfortunate that the Glazebrook Trail footpath is mainly situated out of sight of the river, parallel to but just outside the river corridor. The existing valley of the Glaze could easily 'absorb' in visual terms an increase in passive recreation and a repositioning of the footpath closer to the river would form an excellent alternative alignment for the trail.

Management of the landscape:

- Investigate, with the Environment Agency, opportunities for the reintroduction of meander curves, differential bank profiles and the selective removal of levees
- Consider opportunities for the re-establishment of water meadows
- Investigate and encourage opportunities for tree planting to the riverbanks
- Investigate the opportunity of re-aligning the Glazebrook Trail within the river valley.

Settlement

There is no settlement within the area.



TYPE 5. FLOOD PLAIN

AREA 5.C SANKEY BROOK

Description

The Sankey Brook is a small river forming the Borough's boundary to the north-west separating the built up areas of Newton le Willows from the agricultural land within the Borough to the south. The river's broader floodplain landscape however only develops downstream between the Alder Root Golf Course and the Gemini Business Park. The landscape is characteristically flat with broad expansive areas of flood plain in the vicinity of Causey Bridge. These areas are mainly used for arable crops within large-scale field boundaries similar in character and merging with Areas 1.C and 1.E.

South of the M62 a section of the floodplain remains undeveloped around the Gemini Business Park. This area has either been planted as part of an envelope of open space around the development or has been left as unmanaged grassland. The Sankey Brook has been straightened in many sections and has notably steep to precipitous banks, often with additional levee bankings. Very few trees and shrubs are associated with the banks of the Brook, reducing its status as a major feature in the landscape. Associated with the brook to the east is occasional surface evidence of the old Sankey Navigation or St Helens Canal which has now been filled in. This is often identified by uneven raised and unmanaged ground.

The Sankey Way footpath generally follows the line of the St Helens Canal, which has been restored to open water to the south of Bewsey and north, outside the Borough, through Newton le Willows.

Incorporated in the area just to the east of Sankey Brook is the main West Coast Railway Line, running from Warrington Bank Quay to Wigan. This track is heavily used by mixed freight and passenger traffic. The Alder Lane bridge over the railway line forms a major visual feature of the central section of the flood plain.

Key Characteristics:

- Broad, sweeping flat land associated with the brook
- Agricultural character north of M62
- Public open space, development, woodland and unmanaged grassland south of M62
- Linear landfill areas of the Sankey Navigation
- Associated linear footpath route
- Few trees and shrubs associated with the Brook
- Open views

- West Coast Railway Line



Photo 2: The view from underneath Stephenson's majestic Nine Arches Viaduct.

Cultural History

Sankey Valley contains several historic features of note. On the eastern side of the valley, the flood plain is bounded by a Roman Road, running south through Ashton in Makerfield, Newton-Le-Willows and along the course of the present A49 into Warrington.

Causeway Bridges Farm, Listed Grade II is a C17th farmhouse close to Causeway Bridge Listed Grade II. Both are fine structures.

In 1757 the Sankey Navigation was opened, enabling coal to be carried down to the River Mersey via Warrington. This was one of the earliest canals to be built in the UK. Sadly, sections of the by then disused canal was filled in with industrial waste following closure of the canal in 1963. The whole length of the canal from Winwick Quay to the Borough boundary adjacent to Red House Farm is now filled in. The line of the former towpath forms the Sankey Way footpath through Sankey Valley Park extending from Sankey Bridges into St Helens.



Photo 3: Nine Arches Viaduct viewed from the south, showing the high embankment to the west.

In 1830, the celebrated engineer George Stevenson built the famous Sankey Valley Viaduct (Grade I Listed) known as the Nine Arches. This carries the Manchester - Liverpool railway line over the Sankey Valley. The Sankey Navigation Company objected to Stevenson's proposed bridge, insisting on a 60 ft clearance of the canal to allow barges to sail up and down the canal. As a consequence, Stevenson was obliged to construct massive approach embankments to the viaduct, using locally won materials.

The embankments still dominate the landscape to the south adjacent to the village of Burtonwood. The sandstone viaduct is an extremely attractive piece of historic Industrial Revolution architecture.

Just east of Sankey Brook is the main West Coast Railway Line. This was built in the 1840s and is the UK's busiest mixed traffic line, 43% of Britain's freight using this line. It is being improved and will eventually have a 125mph capacity for tilting trains, capacity for longer passenger trains and for increased freight traffic.

On the eastern side of Sankey Valley to the north of the Borough is a Leblanc process alkali waste site known as the 'Mucky Mountains'. The alkaline ground has resulted in the site being of botanical interest, while a little further south is the Vulcan Village and Vulcan Foundry (no longer a foundry). These are of historic interest through their connection with

the Industrial revolution. Vulcan Foundry manufactured steam locomotives and during WWII, the famous 'Matilda' tank.

North of the Nine Arches, the western side of the floodplain is very narrow, with steep embankments. The eastern (St Helens) side of the flood plain is wider and forms a well-used area of the Sankey Valley Park. Implementation on the Sankey Valley Park commenced in 1977. In Warrington it extends south from near Red House Farm through the urban area to the River Mersey near Sankey Bridges. St Helens Council have also continued the Sankey Valley Park north-west from Nine Arches into the town centre. The two Authorities have provided a fifteen mile walking route, through a classic landscape of the Industrial Revolution, although the connecting section of the Park, mainly north of the M62, has yet to be started.

The Sankey Canal Restoration Society (SCARS) celebrated the 250th anniversary of the Sankey Canal in 2007 and are committed to the restoration of the Sankey Canal. They are a very active group and have already managed to rescue boats and restore a number of locks.

Alder Root Golf Course is a relatively new facility, centred on Alder Root Farm and extending out of the area to the east. Alder Root Riding School is based at the same farm.

Key cultural elements in the landscape:

- The Sankey Canal
- The West Coast Railway Line
- The Nine Arches Railway viaduct of 1830
- Causey Bridges
- The landfill site in the Sankey Navigation
- Alder Root Golf Course

Landfill and Mineral Extraction

There is no mineral extraction within this area, although the northern sections of the flood plain are overlooked by colliery waste heaps and east of the brook (outside our area) are the Leblanc Waste heaps of Mucky Mountains.

The most significant landfill of the area is associated with the Sankey Canal, filled in with industrial waste following the closure of the canal in 1963. This material fills almost the entire length of the Sankey Canal through the flood plain. It not only fills the canal bed, but the adjacent land to the east as well, creating a raised area of land within the flood plain. This material is known to have toxic elements within it and is likely to require specialist handling if removed for restoration work.

Agricultural Land Quality

The Sankey Valley is classed as Grade 3 agricultural land, excluding areas of landfill.

Landscape Sensitivity

To the north of the M62 and up to Alder Root, the landscape character of the area is not strongly cohesive and blends imperceptibly with the undulating agricultural landscape of Burtonwood (Area 1.E) and Winwick (Area 1.C). It is therefore subject to similar pressures and sensitivities. In common with these areas, the agricultural land is predominantly arable and has an 'open' character with large scale fields and a sparsity of hedgerows and hedgerow trees. The area is therefore exposed to open views, particularly from the higher ground at the east and west.

To the south of the M62, the landscape is more sensitive to the pressures of development and remaining undeveloped land has proved agriculturally non-viable.

Key areas of landscape sensitivity:

To the north of the M62:

- Open landscape with a sparsity of hedgerows and hedgerow trees.
- Exposed to views, particularly from the east and west

To the south of the M62:

- Sensitive to pressures of development
- Enclosed views (by development and M62 embankments)



Photo 23: View north up Sankey Brook from Causey West Bridge, landfill to the right.

Landscape Change

Areas north of the M62 have undergone a substantial loss of hedgerows due to the enlargement of fields for arable crops. Remaining hedgerows and sporadic hedgerow trees have suffered a decline in their health and management, leaving a resulting open and exposed landscape. Vegetation has also been lost from the banks of Sankey Brook, probably to facilitate dredging and straightening.

The construction of the Sankey Navigation Canal and the main north-south Glasgow to London railway line, took a route through the eastern side of the floodplain and, at the time, would have greatly changed the character of the area. The line of the now disused and filled in canal can still be seen as an unmanaged strip of rough ground over former landfill. The railway is a feature less obvious in the landscape, being mainly in cuttings.

The construction of the M62 further reduced the cohesive character of the floodplain visually and physically, splitting off a small parcel of agricultural land to the south. This has now become non-viable and is left unmanaged adjoining the Gemini Business Park. The Business Park, and its associated open space linking to Sankey Valley Park, were developed by Warrington New Town in the 1970s and 80s.

Landscape change to the area is summarised as follows:

To the North of the M62:

- Enlargement of field sizes
- Substantial reduction in hedgerows and hedgerow trees
- Decline in management of remaining hedgerows
- Previous impact of canal and railway construction running north/south
- Previous impact of M62 motorway construction
- Landfill and lack of management to line of original Sankey Navigation Canal
- Loss of brook-side related trees and shrubs

To the South of M62:

- Decline and disuse of agricultural land

- Impact of adjoining industrial/commercial and recreational land use
- Straightening and deepening of Sankey Brook
- Loss of brook-side related trees and shrubs

Recommended Management and Landscape Objectives

To the north of the M62, the remaining landscape framework of hedgerows surrounding the fields requires consolidation with the encouragement of new planting and good management. New hedgerow tree planting will also be necessary to ensure the present landscape character continues into the future.

Sections of the Sankey Navigation and St Helens Canal have already been restored to the north and south of the area. However, the central canal section through the Sankey Brook floodplain has been left as a derelict strip of land, although features such as stone copings to canal basins and canal edges can still be seen on the surface. A restoration scheme to link both sections of the canal should be considered a priority associated with the Sankey Way footpath. This project would not only complete the link of open water but also reinstate the derelict land running through the floodplain.

The Sankey Brook to the north and south of the M62 is strongly flowing, extremely steep sided with often vertical sides and high levees. This is not only unattractive but particularly dangerous. To the south of the M62, it is also associated with recreational open space and the Sankey Way footpath. It is therefore recommended that a similar study is carried out to that suggested for the River Glaze. This would involve the feasibility of removing sections of levee and allowing the redevelopment of flood meadows, decreasing and varying the gradients of the channel bankings and reintroducing curves and meanders. This may be especially relevant to areas of disused agricultural land immediately to the south of the M62.

In addition, streamside trees, presently sparse to absent, could be introduced through planting schemes.

Management of the landscape:

- Encourage the restoration and enhancement of remaining field patterns by additional hedgerow planting
- Encourage the reintroduction of hedgerow trees through new planting schemes
- Investigate with the Environment Agency opportunities for the reintroduction of meander curves, differential bank profiles and the selective removal of levees
- Investigate and encourage opportunities for stream associated tree planting to Sankey Brook
- Consider opportunities for the re-establishment of water meadows

- Undertake a feasibility study to complete the restoration of the Sankey Navigation Canal linking to the open water at the St Helens Borough Boundary

Settlement

There are no major settlements within the area. Alder Root Farm is the only farm entirely within the flood plain of Sankey Valley and now forms part of Alder Root golf course.

TYPE 6. INTER-TIDAL AREAS AND MUDFLATS

Description

The inter-tidal areas within the Warrington Borough are associated with the River Mersey and extend from the weir at Victoria Park downstream to the wider Mersey Estuary at Fiddlers Ferry Power Station.

They consist of open water, mudflats and small linear strips of saltmarsh. In combination with the tides and weather, these areas present an ever-changing landscape of great beauty, with particular value to estuarine waterfowl.

Views, particularly downstream, tend to be expansive and open although are often framed by industry and development.

Further towards the sea, the river channel becomes less artificially constrained and is allowed to naturally spread, meander and braid. These areas create a locally distinctive, estuarine, 'wilderness like' character.

Key Characteristics:

- Landscape appearance constantly changing with the tides and weather
- Views of estuarine areas downstream from Bridgefoot, progressively wider and more expansive to the west, contrasting with the more constricted river channel upstream
- Meandering channel with river braiding
- Large flocks of wading birds and gulls in the downstream areas
- Naturalistic landscape
- Relatively undisturbed areas of international importance for nature conservation

- Views interrupted and framed by industrial skylines

Cultural History

The River Mersey is tidal up to a point close to the Thelwall Viaduct for the M6 motorway. The tidal flow is however greatly restricted by weirs, especially the Howley Weir (near Bridgefoot) and the Woolston Weir further upstream.

The inter-tidal areas and mudflats on the River Mersey have been a hazard for navigation for hundreds of years. The construction of the Manchester Ship Canal meant that at least for the upper reaches of the river, this hazard ceased to be such a problem. Following the Canal's construction, the river was allowed to return to something close to its natural form.

In 1982, water quality in the River Mersey had become so bad that one UK Government Minister called the river 'an affront to civilised society', prompting two decades of concentrated effort to improve water quality. One indicator of improvement at least is that a salmon was seen ascending the mill weir at Warburton in 2004. At Woolston Weir in 2001, between October and November, 26 salmon were caught.



Above: Photo 184: Richmond Bank directly adjacent to the Arpley Landfill site viewed from the Gatewarth Tip.

Estuaries are listed in Annex 1 of the EC Habitats and Species Directive and are a UK Key Habitat. The whole of the River Mersey estuary is designated as a Ramsar site (Site reference 3UK096), including the section within the Borough of Warrington. (The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an inter-governmental treaty which provided the framework for national action and international co-operation and wise use of wetlands and their resources.) The EC Birds Directive and the Ramsar Convention cover the bird species of this habitat; many are UK species of Conservation Concern.

Estuarine habitats are at risk from organic enrichment of sediments, which increases the food supply for birds but results in artificially high populations of a few tolerant species near the source of enrichment. Such enrichment can benefit the tolerant species, but ultimately results in a loss of diversity. Warrington has such a location, at both Richmond and Penketh Banks, where sewage effluent and effluent leachate from the Gateworth Landfill Site have entered the River Mersey. The artificially high population of herring gulls, blackback gulls and crows scavenge by day both on the banks and on the landfill site and as predatory species must have a negative impact on the populations of other wading bird species.

Key cultural elements in the landscape:

- Tidal hazards for navigation
- Pollution levels
- Wiers, bridges and associated engineering
- Importance for wildlife

Landfill and Mineral Extraction

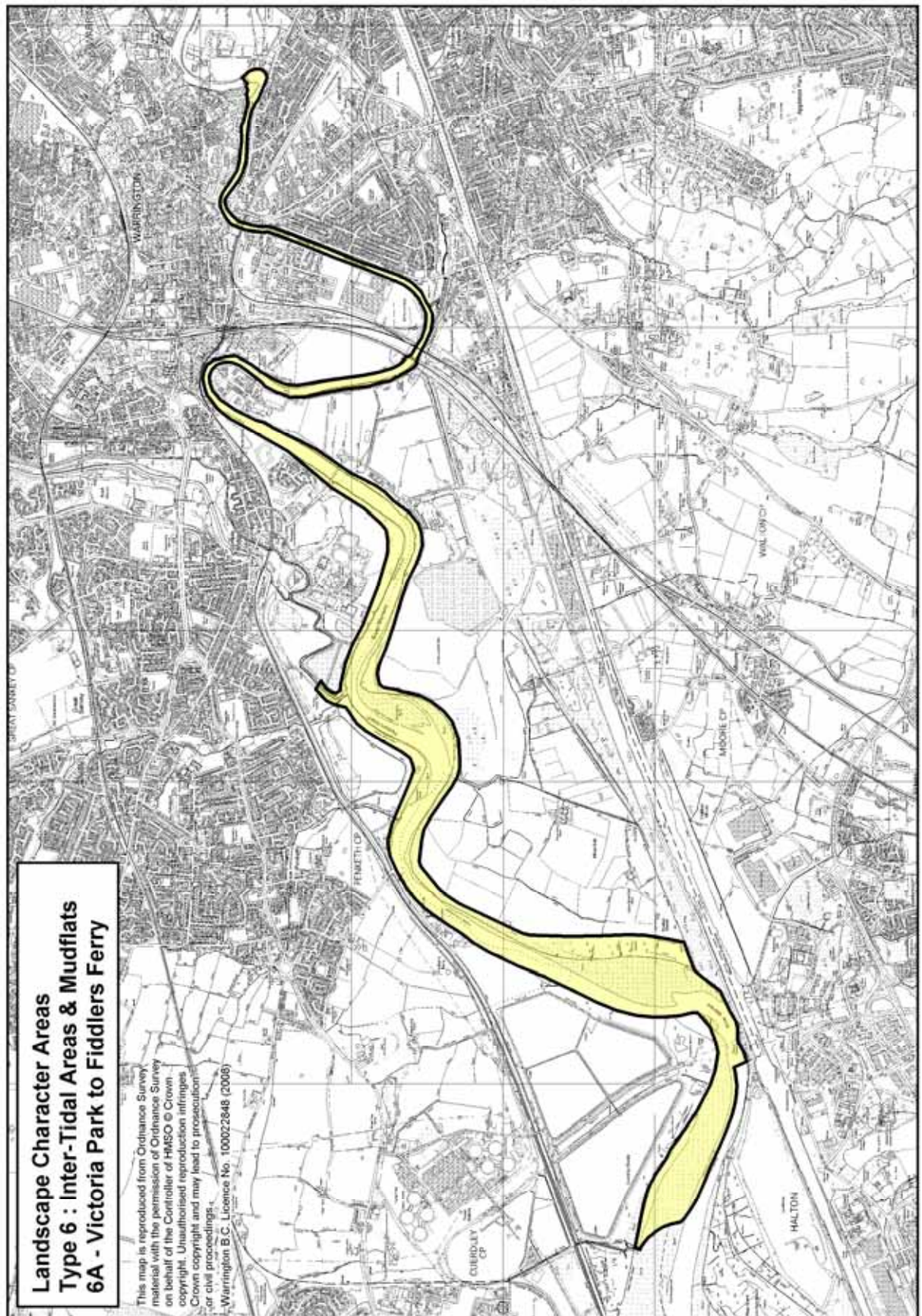
Although partially surrounded by landfill sites, none occur directly within the area.

Agricultural Land Character

Not applicable.

Settlement

There is no settlement within the area.



TYPE 6. INTER-TIDAL AREAS AND MUDFLATS

AREA 6.A VICTORIA PARK TO FIDDLERS FERRY

Description

The inter-tidal areas in association with the River Mersey extend from the weir at Victoria Park to the Borough boundary in the Mersey estuary opposite Fiddlers Ferry. Most of the river's course within this section is heavily restricted by steep levee banks, together with sheet metal piling and other hard structures upstream towards the town centre. The inter-tidal section of the river is mainly separated and screened from views and access, particularly within the built up areas of the town. More recent, C20th development has effectively turned its back on the river as its navigable use declined.

Mudflats and small areas of salt marsh are restricted to areas downstream from the Gatewarth Sewage Works. Below this point the river channel is less restricted, creating a braided course with extensive mudflats at low tide attracting large numbers of wading birds and gulls. These areas arguably provide the wildest, most natural landscape within the Borough, even though they are heavily surrounded by industry and landfill.

Key Characteristics:

- Wild, almost remote, expansive areas downstream
- Restrictive river channel and inter-tidal margins upstream
- Presence of large flocks of bird life on the wider estuary
- Restrictive views and access to the river from inner town areas upstream
- Dominance of surrounding industrial use and landfill downstream
- Relatively undisturbed areas with important nature conservation value

Cultural History

The most important feature, historically, of the River Mersey has always been the bridge at Bridge Foot. The 'bridge of the Mersey at Warrington' is named in a charter of 1305. *'In 1364 it was at least intended to reconstruct it; but possibly the work was not carried out, for although John Boteler in 1420 left 20 marks for the repair of the bridge, in 1465 it is spoken of as a thing of the past – ubi pons quondam stetit'.* (VCH). *'A passage was then maintained by boats;'* Duchy Pleadings (Rec. Soc. Lancs and Ches.)

The Archbishops of Canterbury and of York, in 1453, granted indulgences to all who would contribute to the building and re-erection of the bridge across *'the great and rapid water commonly called the Mersey'* Beaumont 'Lords of Warrington'. ii, 278. The Earl of Derby later undertook the work and bequeathed 300 marks for the redemption of the rents and tolls of the bridge. 'Lords of Warrington'. ii, 353, 363. The later Earls of Derby took on the responsibility for maintaining the bridge, but after the English Civil War, the Derby estate was too impoverished.

In 1649, Cromwell in pursuit southwards of the Scots army, the infantry arm of which which he defeated at Winwick, reported that *'...I could not go over the River Mersey within ten miles of Warrington with the army,...'* Civil War Tracts, 287-8. It is clear that the Mersey was a major hazard to people crossing it. The bridge and especially possession of the bridge was highly important. Tolls could be charged on the passage over the bridge, fugitives from justice apprehended and even armies denied access.

There was a ford over the Mersey at Latchford, but its location is not precisely recorded. Another ferry existed for many years upstream at Warburton. Ferries also existed to cross the Mersey, the best known of which was at Fiddlers Ferry.

The braided, tidal nature of the course of the Mersey and the hazards of navigation prior to dredging and canalisation of the river have been a recurrent feature of the history of Warrington.

'In 1753, the ship Sacharissa which... had a cargo of sugar on board, having left Liverpool for Bank Quay eight days before, was wrecked on the Long Duck Stakes near Sankey...; and the ordinary protest such as is now made on the loss of a sea-going vessel, had to be made on the Sacharissa,,'

Beaumont, Hale and Orford 229, quoted in VCH The Parish of Warrington.

Dredging was a necessity in the estuary for shipping until the construction of the Manchester Ship Canal (which itself required dredging). In particular, the entrance to the Sankey navigation from its opening in 1757 would have required constant dredging to ensure adequate depth of water in the Mersey at the entry to the Sankey Navigation lock. At a later date, dredging would have been necessary to ensure that vessels built at Bank Quay, such as the *'Tayleur'* could be navigated downstream through what must have been a fairly narrow

channel. The concrete boats built at Fiddler's Ferry would also have required dredging in the vicinity of the launching slips.

The whole of the Mersey estuary is designated as a Ramsar site and the section within Warrington, from the western boundary of the Borough to a point adjacent to the Gateworth Sewage Works is also designated as a Site of Local Importance for Nature Conservation. Penketh Bank and Richmond Bank are sand banks which are important habitats for wintering and passage waders and wildfowl. These include oystercatcher (*Haematopus ostralegus*), grey plover (*Pluvialis squatarola*), knot (*Calidris canutus*), dunlin (*Calidris alpina*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*) and redshank (*Tringa tetanus*). All but the first of these species are UK Species of Conservation Concern.

Key cultural elements in the landscape:

- Howley Weir
- The bridge at Bridgefoot
- The railway bridges at Walton New Junction and Walton Old Junction
- Bank Quay, Atherton's Quay and disused landing stages
- Penketh Bank and Richmond Bank
- Sankey Navigation lock and canal entrance

- Runcorn Latchford Canal
- Sankey Valley Park entrance
- Cuerdley Marsh pulverised fuel ash lagoons (related to Fiddler's Ferry Power Station)
- Norton Marsh
- Gatewarth and Arpley Landfill sites
- Gatewarth Sewage works

Landfill and Mineral Extraction

There are no landfill sites within this area, but it is dominated by a series of large landfill sites on either bank of the Mersey. These are dealt with under their respective character areas.

Agricultural Land Quality

There is no agricultural land within the area.

Landscape Sensitivity

The landscape of the intertidal areas has been reduced by the pressure of development to the minimum area to accommodate the river channel and tidal flood. This has resulted in a narrow linear area highly sensitive to views mainly of an urban and industrial landscape on either side. In terms of habitat, the area's estuarine wildlife is also extremely sensitive, particularly to waterborne pollution and disturbance.

In the upper tidal reaches of the river in Warrington centre, the tidal channel is reduced to an absolute minimum with unsightly artificial channel walls and sheet piling. Views and access to the river are mainly avoided with adjoining land often supporting Himalayan Balsam and Japanese Knotweed.

Key areas of landscape sensitivity:

- Visually exposed to mainly urban and industrial views
- Habitat sensitive to pollution and disturbance
- Bankings and immediate environs in the upper reaches of the river tend to be poorly managed and unsightly



Photo 179: View northwest of the Mersey from adjacent to the railway bridge at Walton New Junction.

Landscape Change

Considerable landscape change has taken place to the inter-tidal areas, keeping pace with the development and expansion of Warrington. Inter-tidal areas would have once occupied a much broader tract of land associated with the river and merging with the Mersey floodplain. Braided river channels, mudflats and salt marsh would have originally spread in a broad band between Penketh to the north and Moore to the south, extending through much of the lower, flatter areas of Warrington such as Wildespool, Howley, Latchford and Westy. These areas would have imperceptibly merged with the floodplains and water meadows upstream.

The industrial areas bordering the inter-tidal zone have only been allowed to expand by artificial constraints such as flood walls and raised bankings. Former saltmarsh areas have been drained and reclaimed for either agricultural use (in the Moore/Moss Side area) or for industrial and urban development elsewhere. The more recent use of landfill has taken place at Gatewarth and Arpley (now outside the inter-tidal areas). The present landscape of the

inter-tidal zone therefore represents a fraction of its former size and dominance and would originally have supported much greater numbers of estuarine birds and wildlife.

Landscape change to the area is summarised as follows:

- Mainly affected by the pressures for development
- Progressive alteration from a broad expanse of inter-tidal area to a narrow band, often visually constrained by development
- Construction of artificial flood banks such as levees, walls and sheet piling
- Drainage and destruction of large areas of saltmarsh
- Reductions of estuarine habitat, birds and wildlife
- Pollution

Recommended Management and Landscape Objectives

The scale of urban and industrial development over the former inter-tidal areas, and in particular the landfill operations, has irrevocably damaged and reduced the quality of the original inter-tidal landscape.

The previous loss of habitat and wildlife is, in part, being addressed by the new emphasis on nature conservation management of the farmland at Moss Side and development at the Moore Nature Reserve, although this does not redress the direct loss of inter-tidal areas and their unique habitats.

Footpaths through the area currently respect the need to limit disturbance to feeding and roosting estuarine birds and are located well back from the main river channels. The footpath over the landfill site at Penketh Reach has been carefully considered to afford periodically excellent views of the estuary to the west whilst also creating a partially disguised route by mounding and native hedgerows to restrict disturbance to wildlife on the mud flats opposite.

Recommended management would endorse the current regimes employed at Moore and Moss Side, whilst carefully considering the environmental impacts that any new public access might have to the area.

New initiatives for landscape restoration and habitat improvement should be considered, including the widening of the inter-tidal zone where practicable, to allow the reintroduction of tidal flooding and establishment of salt marsh. Small areas where this may be possible are located to both sides of Fiddlers Ferry and along the tidal margins towards the Gatewarth Sewage Works. Levees would need to be removed from their present positions and relocated further back to continue the prevention of flooding to development and the St Helens Canal.

The current policy of treating the river as a negative element should be reversed. This is particularly important with regard to new development in the town centre. Here development should focus on the river, highlighting its positive effect and historic links with the town. In tandem with this should be a reassessment of the visual quality of the river banks and artificial constraints, including landscape management of the adjoining environment. New environmental improvement schemes should be considered in consultation with the Environment Agency.

Further downstream, away from the town centre and beyond Wilderspool Causeway, the value of the area in nature conservation terms dramatically improves and any further development within or adjoining the area should be discouraged or severely restricted.

Management of the landscape:

- Restrict any further development in or immediately adjoining the intertidal areas.
- Support present initiatives for nature conservation at Moore Nature Reserve and Moss Side.
- Restrict public and private disturbance to sensitive habitat and wildlife areas, particularly downstream from Wildespool Causeway.
- Consider environmental improvement schemes to the river, its channel and immediate environs within the town centre, to include on-going landscape management.
- Positively encourage views and new development to face and interact with the river within the town centre.

- Explore opportunities for landscape restoration to enlarge the intertidal area, enlarging and reintroducing salt marsh areas.

Settlement

There is no settlement within this area.

8.0 LANDSCAPE OVERVIEW AND ISSUES AFFECTING THE FUTURE OF WARRINGTON

THE PRESENT

The report has highlighted the varying distinctive landscapes in the Borough of Warrington together with a range of issues which are changing or have already changed the landscape of the area. These are summarised as follows:-

Farming

Farming is the largest industry in the UK. Farmers manage 75% of the area of England and almost all of the landscape around Warrington. Very little of the Green Belt is managed by any other substantial organization, (with the exception of the Borough Council and Mersey Forest). Farming in England is greatly influenced by the European 'Common Agricultural Policy' (CAP) and this is controversial in its effects on both the landscape and society in general.

Crop changes are inevitable with global trading and global warming. Those crops which are produced more economically elsewhere are disappearing from farms as foreign, particularly European, crops are imported into the UK. Conversely, crops generally produced in more southerly climates are being introduced into the UK. Already in the south of England, olives are being grown, vineyards are becoming more common, grain maize and outdoor tomatoes are being grown. In the Warrington area lavender is being grown, something which only ten years ago would have been regarded as at best marginally viable. The change in climate will mean that more exotic species will be introduced into the area provided that markets can be found. In the Warrington area ostriches and alpaca are already being reared, albeit not on a large scale.

The introduction of exotic species does have some implications on the landscape. Several commonly regarded as native species resident in the UK include some which are actually exotic, such as the rabbit and the pheasant, although both species have lived in the UK for many centuries. There is a risk of some exotic species either breeding with UK native species or escaping and colonising on their own. The grey squirrel is one such, now regarded as a pest. The implications of some exotic plants doing the same thing is a cause for some concern. Rhododendron ponticum and Japanese knotweed are two widely known exotic nuisance species whose eradication costs are very considerable.

Growing biofuel crops is another crop change with implications on the landscape. The burning of biofuels based on rapeseed and maize has been found to produce more greenhouse gases than they save. Rapeseed and maize biodiesels respectively produce 70% and 50% more greenhouse gases than fossil fuels and are therefore likely to be phased out in favour of other crops

Some farmers in Warrington are diversifying with a degree of success, with maize mazes, farm shops etc. The implications of such diversification remain to be gauged, but increased car parking and vehicle movements are one potential problem. A number of farm shops have opened in the Warrington area over recent years, but these have had mixed fortunes. Some have significant passing trade, others operate by offering a wider range of goods than merely those produced on the farm.

The loss of dairy farms ⁽¹⁾. There is clear evidence from our site visits that some farms are struggling and within Warrington, although not noted for dairy farming, there are trends away from dairy farming and towards horse keeping and riding facilities in general. This is often assumed to be part of a degenerative process associated with the urban fringe; degenerative because horses destroy trees and are often associated with the unsightly construction of shelters, stables and temporary buildings.

An integral part of dairy farming is the presence of hawthorn hedges. Cheshire as a whole has a long established reputation for dairy farming because of the permanent pasture of the Cheshire Plain. The area in the Borough to the south of the Red Sandstone Escarpment – the edge of the Cheshire Plain – does support some dairy farming, but this is clearly not extensive. Loss of dairy farms will inevitably mean loss of stock-proof hedges and a substantial change in the appearance of the countryside.

The incidence of disease is growing among livestock farms, with outbreaks of Foot and Mouth increasing in frequency and with Blue Tongue currently spreading rapidly across the UK. These increases in frequency may be partially due to climate change and the lack of sustained winter frosts, in the case of Blue Tongue, allowing mosquitoes which carry the disease to survive the winter in climates where their populations were previously very low. Bovine TB is another area of concern, (with the associated threats to the badger population). There was recently a threat of 'Bird flu' which could pass from the bird population to the human population and cause a pandemic. The effect of the increased disease frequency is to place increased pressure on livestock farmers, already under pressure from imported meats. Loss of livestock farming again will result in stock-proof hedge reduction and the loss of associated trees.

Livestock production of nitrogen and particularly methane are subjects of some concern and Defra is funding new research into new pasture systems and feeding strategies to reduce such emissions. All ruminants produce these gases as a result of regurgitating semi-digested matter; methane gas production is generally considered far more dangerous to global warming than carbon dioxide production. The results of this research are clearly yet to be found, but it may well be that fodder crop regimes change.

It is probable that anaerobic digester plants, located on farms, will be built in or around the Warrington area. For example, the Biogen on-farm anaerobic digestion plant in Bedfordshire processes 12,000 tonnes of pig slurry and 30,000 tonnes of food waste a year, to produce biogas. This runs a generator with an electrical output that's enough to power 600- 800 homes. The scale of such development may create many challenges, both in terms of vehicle movements, visual impact etc, but there is little doubt that such plants will undoubtedly reduce gas emissions.

Organic issues are becoming an area of increasing concern. The use of herbicides and pesticides, while not as bad as forecast in Rachel Carson's famous 'Silent Spring', is leaving residues which are being ingested by humans with little known effect. Recent legislation has reduced the range of approved herbicides and pesticides, but it is likely that at least some of the 'approved' chemicals may still be toxic or carcinogens. As research into these residues continues, it is probable that the range of approved herbicides and pesticides will be further reduced with consequent impact on farming crop regimes.

Fertiliser use has increased in recent times on arable crops and this has been mainly inorganic fertiliser, which, while boosting crop growth, does have serious side-effects. High inorganic fertiliser input farming regimes also degrade soils, such as those clay based soils to the west of Warrington. These include wide-spread water pollution from run-off, but there are other, more insidious effects, such as the loss of selenium from soils. (Selenium deficit in humans probably results in functional deficits in immunity and an increased rate of mutation

of certain viruses in humans and animal species). Further controls on fertiliser use and types are likely, again impacting on crop regimes.

The demand for organic produce is growing, a rate of 40% per annum was recorded in 2000 by the CPRE. The speciality food sector supports nearly 60,000 jobs and this is also increasing. Farmers markets have also rapidly increased, particularly through the 1990's. Organic farming very much preserves the countryside and should be encouraged. Speciality food producers tend to operate on a small scale and certainly have no negative effect on the countryside. Farmers markets are a good way of supporting local producers and encouraging local production and again should be encouraged. Specialised food production and farmers' markets inevitably encourage diversity, again beneficial to the countryside.

Mechanisation and machinery - Larger and more efficient machinery on farms increases the pressure on fields with several different effects:-

1. Compaction of soil through the use of larger machines in wetter conditions means that yields may fall. Machinery designers are considering larger tyres to reduce ground pressure and at least one farmer, in Holland, is using tractors with a much wider wheel base; claims are being made that this can result in as much as a 10% increase in crop yield.
2. Larger and more powerful flail hedge-cutting machinery cuts hedges in a very rough manner although with increased efficiency. This leaves shattered stems more prone to disease and fungal infection and often destroys young saplings, which could potentially form the next generation of hedgerow trees.
3. Larger machinery is obviously more efficient on larger fields with fewer hedgerows and farmers will be tempted to remove more of them. This is despite grants being available for hedgerow management from Stewardship.
4. Deeper ploughing by ever more powerful tractors also means that more and more archaeology is being disturbed.

Set aside land has had great environmental benefits. However, set aside has been suspended recently because of the greatly increased world demand for cereal production. Until recently, farmers were encouraged to:-

1. Leave awkward corners uncultivated.
2. Leave a level of set-aside land which connects various farm habitats.
3. Identify smaller areas of rotational uncropped land which will support wild plants and birds using the land.

In addition to this, farmers are still advised to leave the following areas of land uncultivated:-

1. Adjacent to water as the growth will capture run-off, nutrients and spray drift.
2. Where valuable species of plant, animal or bird have been identified.
3. Areas of archaeological interest.

4. Steep slopes and other areas where mechanical cultivation is unsuitable.
5. The longer the land is uncropped, the greater the environmental value.

This latter advice is increasingly being followed by farmers who are advised by the National Farmers Union (NFU) and Country Land and Business Association. As the advice is taken up, more farmland will look like the landscape being described in the advice. However, it is a matter of some concern that with the suspension of set aside, the pressures will again be on farmers to maximise profits by removing hedges, especially if the hedges are very gapped or vestigial as many hedges in the Warrington area are.

Global warming will result in new crop species being introduced into the landscape. The current trends for biomass fuels could have important implications. Currently 3% of total UK energy is from biomass sources. This could be increased greatly in future and there could be opportunities for introducing woodland specifically managed for biomass on areas of derelict land and on reclaimed landfill sites. Biofuel crops fed with nitrogen fertiliser have been found to release 3 – 5% of the nitrogen as nitrous oxide, 296 times more powerful as a greenhouse gas than carbon dioxide. Clearly a period of careful consideration of biofuel crop options is required and it may be that a different palate of crops will be used, including such plants as miscanthus (a tall grass-like species, native to Japan). Currently experiments with growing Eucalyptus species favour the widespread planting of the species as a biofuel. This may cause some problems as the species is both exotic and would have to be planted on a massive scale for commercial viability.

There is a very clear problem with redundant farm buildings generally. Many of these are of historic interest and are crumbling. Farm buildings made of local bricks and local red sandstone are becoming rare. Conversions of such buildings into dwellings or for other functions should be considered. The traditional features of such buildings, such as pitching windows and especially the door piers on C19th threshing barns should be retained.

Climate Change Issues Relating to Landscape

Mosslands

Estimates have been made that peat stores twice as much carbon as forest areas. The UK has some 15% of the world total of peat areas. Peat land, in the form of various types of bog absorbs and stores carbon, but degrading peat bogs (those drying out) release carbon into the atmosphere. Little research has been carried out on this subject and there is need for new funding and co-ordination of research. (see article 'Preserve Peat Bogs for Climate' of summer 2007 in 'The Acorn' pub. Cheshire Landscape Trust.) In the UK, since 1800 the area of active 'raised bog' (as distinct from 'blanket bog' of the Pennine hills etc.) has declined from 95,000 ha. to 6,000 ha. a reduction of 94%. Most of this has been for farmland and this is particularly the case in Warrington. Raised bogs are listed in Annex 1 of the EC Habitats and Species Directive and are active examples are considered as priority habitat for conservation under the legislation.

The raised bog areas in Warrington are clearly under threat, partially from agricultural improvement, but mainly from the encroachment of landfill sites, which have several seriously deleterious impacts on the bogs. There may well be areas of peat land adjacent to landfill sites which can be retained in a condition akin to the conditions under which the peat was formed i.e. waterlogged, and this would provide a superb habitat for wildlife as well as carbon storage.

Soil carbon loss, an issue related to mosslands (above), is an important issue of concern. Carbon is being lost from soil at an average of 0.6% per annum, the richer the soil, the greater the loss. (Mossland soils are therefore the highest losers of carbon.) *'In the past 25 years the average temperature has increased by half a degree centigrade and the growing season of the northern hemisphere has been extended by almost 11 days. Warmer soils have encouraged greater microbial activity so more rapid decay of organic matter in the soil, leading to greater discharges of gases':*

[http://\(www.guardian.co.uk/science/2005/sep/08/sciencenews.research\)](http://(www.guardian.co.uk/science/2005/sep/08/sciencenews.research))

The scale of the problem is perhaps best illustrated by the estimate that three-quarters of the planet's soil carbon is trapped in the temperate zones. There has been as yet no government advice or intervention on this issue, but currently increased levels of cultivation for cereals will inevitably result in increased soil carbon loss.

Woodland Trees

Changing weather patterns as a result of global warming are likely to produce wetter, stormier conditions during spring and autumn, drier summers and wet winters. Periods of heavy snow are likely to diminish and frost days are likely to be reduced. The impact on trees is dramatic. Saturated soils reduce the holding ability of tree roots and more and more trees are being blown over in periods of high winds after heavy rain. Waterlogging of newly-planted trees in their pits is becoming more frequent, with subsequent losses of young trees. Similarly, rising water tables in some areas are killing larger trees.

Health and Safety issues relating to highway and hedgerow trees are becoming more of a problem. In 1999, Birmingham City Council were fined £140,000 following an accident when a tree fell across a road, killing three people. Tree owners have a duty of care *'To take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour'*. This is reinforced by the Occupier's Liability Act 1957. Most trees in hedgerows on secondary roads in the Warrington area should be considered as 'Moderate Risk' trees and should have a risk assessment carried out on them every four years. Clearly, busier roads require more frequent risk assessments etc. In the future it is likely that more hedgerow trees will be removed as a result, as well as many parkland trees, golf course trees and other trees in areas where the public may be at risk. The negative impact on the landscape of such removals could be immense.

Changing weather patterns also increases the frequency of pathogenic infections. Wetter conditions favour many pathogens and fungal species and lack of powerful winter frosts means that many of these pathogens are not killed off during the winter periods. Oak wilt, a disease which has arrived from North America, has been found in the UK and Rhododendron is a host species which will assist the disease to spread. Currently, Oak Wilt is under control, but there is a risk that such a disease could spread, like Dutch Elm disease in the 1970's, through the entire stock of UK oaks, with devastating results. Horse chestnuts (fortunately not a widespread tree in the Warrington rural landscape, but occurring in some numbers in and around the rural villages) are subject to a bleeding canker, a pathogen which can kill a tree within 6 weeks. Some horse chestnuts in the Lymm area have already succumbed to this disease. Alder is no longer planted by the Environment Agency because of the prevalence of a pathogen which kills the species.

It is important that a wide range of preferably native species is planted to replace trees killed by various pathogens and that careful note is taken of which pathogens or diseases are active in the area and where they have killed trees. There is a considerable risk of a disease such as Oak Wilt, devastating the English landscape. Warrington Borough would suffer just as badly.

Wood as a fuel is being invested in by the Forestry Commission. The FC Woodfuel Strategy for England aims to bring an annual two million tonnes of wood into the market above the present level by 2020. Wood is already being used as fuel to heat schools in Bristol and in Oldham. Bristol is also heating a large plant nursery. Envirolink Northwest and CFNW publishes a Directory of 'Biomass Fuel Supply in England's Northwest'. The only problem with wood as a fuel is its bulk, causing problems with storage and transport. Pelleted sawdust is being produced as fuel, the advantage being that it is more energy dense than woodchip thus requiring less storage. Short rotation coppice or miscanthus, harvested forestry materials or residuals from forestry, tree surgery, sawmilling or agriculture can be used to produce pellets. However, it will become increasingly used as it is a cost effective fuel. It is likely that more and more short rotation coppice material will appear in the landscape, particularly on poorer land. Inevitably, the use of derelict land, landfill sites, colliery waste heaps etc, are likely to be subject to such coppice regimes.

Landfill

Throughout the Borough, north of the edge of the Red Sandstone Escarpment, landfill sites frequently dominate the skyline. Their effect is only partially mitigated by planting and profiling / reclamation and merely make the sites look slightly more natural to a casual observer. Residents are only too aware of the intrusiveness of such landfill sites, not only visually but also in terms of associated noise, smell and vermin.

An unfortunate feature of the landfill sites is that several are located on the perimeter of mosslands or in the Mersey floodplain and their size and form contrast starkly with the flat landscape adjacent. This is the most inappropriate of all Warrington's landscapes into which landfill sites, 'restored' as isolated and unsympathetic hill features, should be situated.

There is still a requirement for more landfill sites for non-hazardous waste within the Merseyside area, although the Gatewarth site has capacity for a few more years. On completion of this site, other sites will have to be selected within the Merseyside area. Such selection will require substantial planning preparation and is unlikely to gain planning permission without considerable public debate. There is therefore some risk of such a site being located within the Borough of Warrington, although the Borough has already accommodated a considerable volume of such landfill in a number of locations.

Leisure Facilities

Golf facilities have expanded in Warrington in recent years, the Fiddlers Ferry Golf Club site is nearing completion, having been constructed on inert fill. This site already has nine holes open and a driving range. On completion it will have an eighteen hole course and driving range.

A driving range has been built recently in Croft, near the M62. A further eighteen hole course has been built at Alder Root Farm and the Alder Root Golf Course is very popular. At the same time, existing courses built in river valley flood plains or on retentive heavy soils are struggling with waterlogging problems. Demand for golf facilities remains strong, but many courses in the wider area urgently require upgrading or in the future possibly even re-locating.

Fishing facilities have expanded in the Warrington area recently, with ponds being established at Moore, Culcheth and in Lymm, all in either heavy soils or in floodplain areas. Angling is the most popular sport in the UK and coarse fishing is the most popular area of the sport. There is every possibility that more fishing facilities will be required in future, with resultant parking pressures, ancillary building requirements etc.

Football facilities are always required, often replacing playing fields which have had to be encroached upon elsewhere. There is a need for such pitches as there is for other sports facilities, but their location and impact on the landscape should be carefully considered. Floodlit pitches and other sports facilities are a source of much irritation to surrounding residents and great care should be exercised to ensure nuisance is not caused.

Flooding

Flooding events have greatly increased over the last few years. The Environment Agency monitor flooding events and produce an annual map indicating areas at risk of flood (see Figure 13). Flooding as a result of heavy rainfall and unusually high tides has occurred in the urban areas of Warrington and it is likely that these will recur. Flooding events may well increase in the next few years. Flooding is exacerbated through development in the flood plains. This has often been in the form of new housing and industry and, in the case of Warrington, also through extensive landfill operations.

Flood prevention measures taken to date on the upper reaches of the Mersey and its tributary, the Irwell, have included large scale detention lakes, where flood waters are allowed to flood areas such as sports fields or public open space for limited periods of time. Such detention lakes may become a feature of the landscape on the lower reaches of the River Mersey.

Micro-scale issues:

- **Historic buildings in the countryside**
A number of these are listed, but the listing does not prevent owners from carrying out some inappropriate planting and fencing around them.
- **Telephone masts**
These are generally discretely located, but there is some demand to locate more. Locations such as those on the red sandstone escarpment are visually dominant and should be avoided if possible.
- **Floodlighting**
This is becoming an important issue, particularly in relationship to the red sandstone escarpment. Lights such as those at Lymm High School, located on the ridgeline, can be seen from many miles away outside the Borough.
- **Japanese Knotweed**
Is evident throughout the Borough, particularly on railway embankments in the disturbed areas and in the vicinity of roads, rivers and wet areas. Many are smaller colonies which are, as yet, relatively isolated and could be dealt with relatively easily. A systematic programme of eradication should be strongly considered throughout the Borough starting with a survey to ascertain its current spread.
- **Himalayan Balsam and Rhododendron ponticum**
These two species are not as invasive as Japanese knotweed. Rhododendron ponticum appears to be locally confined to certain mossland areas and is relatively controllable. Himalayan Balsam is colonizing wet or waterlogged grounds throughout the Borough, but currently is found in relatively small colonies.
- **Leylandii hedges**
These are not as widely planted now as they once were but still create an adverse visual impact in localised situations to Warrington's countryside. It is a species which is totally alien to the Warrington countryside and it should be removed wherever

possible. Consideration should be given to creating a Planning Advisory Notice to deal with it.

- **Other intrusive features**

Intrusive features in the Green Belt include items such as high close-boarded fencing, laurel hedging and similar species replacing original hawthorn hedges. These features are increasing in frequency and should be discouraged.

Footnotes:

- ⁽¹⁾ See John Gittins' article of Summer 2007 in 'The Acorn'

