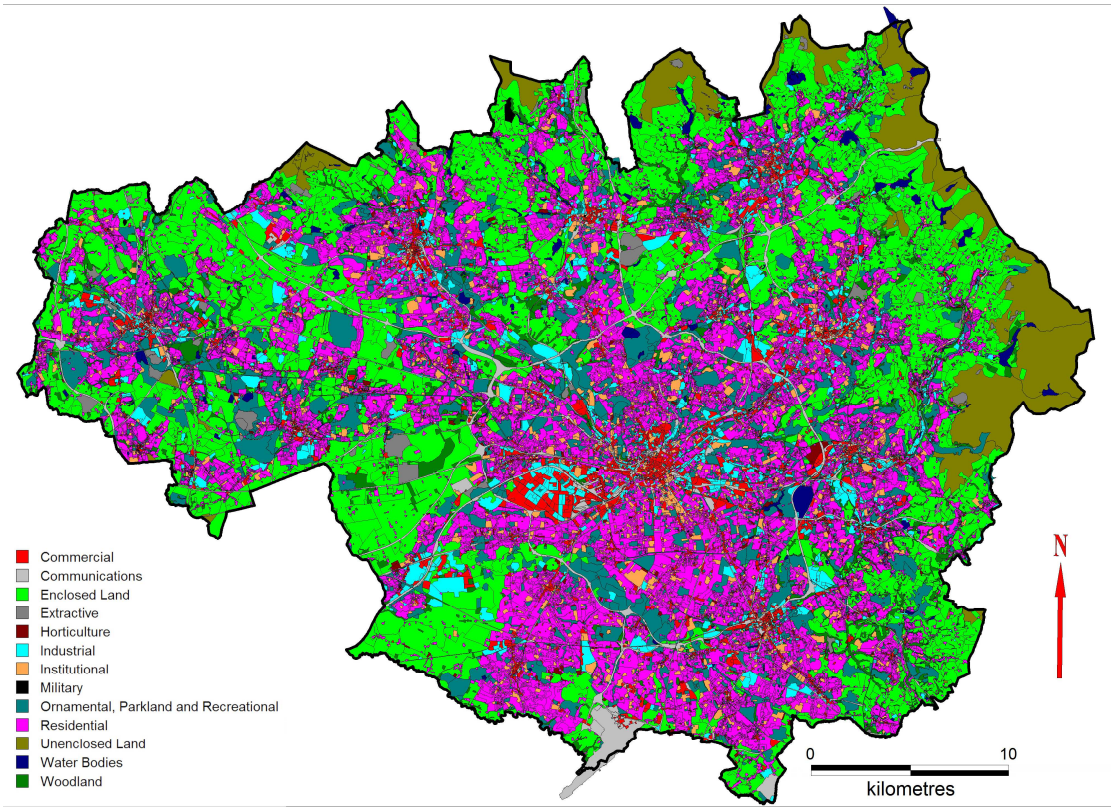
Greater Manchester Urban Historic Landscape Characterisation

English Heritage Project Number 4664 Main

Final Report



March 2012

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1.0 Executive summary

This report provides an overview of the Greater Manchester Urban Historic Landscape Characterisation Project from its inception in 2007 to its completion in 2012, and also looks beyond this to outline the potential the data could have for future management of the historic environment and for research.

The first half of the report sets the project in its national context as part of the English Heritage HLC Programme. It states the original aims and objectives of the project before describing the characterisation methodology. The dissemination of project results and measures taken to engage with local authority users and the wider HLC community are summarised. Following on from this, the evolution of the project is set out in some detail. This base is built upon by the next section, where limitations and potential inconsistencies within the data are identified and discussed.

The second half of the report presents the main findings of the project and showcases some of the uses to which the HLC data can be put. A summary is given of the broad historic landscape character that can be observed from the county-wide map, and timeslice mapping for Greater Manchester is presented. The report then goes on to present a series of studies that use the HLC data to examine specific topics, namely:

- the rural landscape and its surviving historic elements
- the pace of industrial development and later decline
- understanding the evolution of suburbs.

A specially commissioned piece of research then takes a close look at how the local authorities of Greater Manchester are making use of the HLC data, discussing both the success stories and the perceived barriers. A second study examines the potential of the data to inform Conservation Area appraisals and identify potential new areas for designation.

The concluding section revisits the project objectives and demonstrates how each has been met, or where work has begun that it is hoped will continue beyond the lifetime of the project.

2.0 Timing, staffing and budget

The Greater Manchester Urban Historic Landscape Characterisation Project (GMUHLC) was carried out between July 2007 and March 2012 by the Greater Manchester Archaeological Unit. GMAU is based at the University of Manchester and acts as an advisory body to the ten authorities of Greater Manchester.

GMAU's Norman Redhead (Director and County Archaeologist) and Lesley Mitchell (Historic Environment Record Officer) managed the HLC project. Characterisation work and the writing of district reports was undertaken by two full-time project officers (initially Karl Lunn and Lesley Mitchell; Lesley was later replaced by Elizabeth Forster) and was supervised by the Historic Environment Record Officer (initially Elizabeth Chantler (née Rowe) and later Lesley Mitchell), who also contributed to the work. Three additional members of staff were taken on at various points in the later stages of the project to undertake some of the characterisation. These were Carolanne King, Samantha Rowe and Jo Hill (née Clark).

This report has been compiled by Lesley Mitchell and Norman Redhead with contributions from Jo Hill, Alan Kidd, Carolanne King and Kerry Walmsley.

The project was funded principally by English Heritage with contributions from the ten local authorities of Greater Manchester.

3.0 Project background – the national context

In the early 1990s, an awareness grew amongst those concerned with managing the historic environment that scale of change within the landscape is a key factor affecting overall character. English Heritage developed characterisation as a way of understanding the processes that have created current landscapes. This understanding can help in the setting of sustainable levels for change that will allow character to be maintained.

County-wide Historic Landscape Characterisation (HLC) projects form part of a national programme supported and developed by English Heritage but carried out by local government, chiefly county council historic environment services. They aim, through a desk-based programme of GIS mapping and analysis, to achieve an archaeologist's understanding of the historical and cultural origins and development of the current landscape. They seek to identify material remains at landscape scale which demonstrate the human activities that formed the landscape as it is seen today.

HLC projects give broad-brush overviews of complex aspects of the historic environment. They provide a neutral and descriptive general understanding of the cultural and historical aspects of landscapes, and thus provide both a context in which other information can be considered and a framework for decision-making. Projects can be used to inform a variety of planning, conservation and management-led initiatives and strategies. Their objective is to promote better understanding and management of the historic landscape resource, to facilitate the management of continued change within it, and to establish an integrated approach to its sustainable management in partnership with relevant organisations.

Development of the national programme

The concept of assessing landscape character first emerged in the mid-1980s. Prior to this the emphasis in landscape studies had been on evaluation, which aimed to assign relative values to different areas, identifying which landscapes were 'better' than others (Swanwick, 2002). The idea of defining character was important to early landscape assessment work, but was implicit rather than explicit.

A major catalyst for the development of HLC was the Government's White Paper *This Common Inheritance*, published in 1990, which invited English Heritage to consider compiling a national register of landscapes of special historic importance. This was to complement the existing Register of Parks and Gardens of Special Historic Interest (Ede with Darlington, 2002). Accordingly, research into existing approaches to historic landscape was commissioned by English Heritage, and was undertaken in 1993 to 1994. The research project concluded that it would be better to assess and understand historic landscape character overall, and that a national register of 'special' landscapes would not be an appropriate way forward. The idea of assigning relative values to landscapes was rejected. Looking at the landscape as a whole provides an integrated, dynamic definition of historic landscape, and is conceptually very different from an approach dealing with discrete areas (Fairclough, 1996).

The first full-scale county HLC project, which was paper-based, commenced in Cornwall in 1994, towards the end of the initial research project (Aldred & Fairclough, 2003). Subsequent projects were encouraged to adapt and improve on earlier methodologies, borrowing successful aspects but also testing new approaches and techniques. The rapid development of GIS from the later 1990s onwards was a catalyst for this process. The

emphasis on continuing development of HLC methodology from the very beginning of the national programme means that there are many differences between the projects. The evolution of methodologies was examined by Aldred in a study of 2002, by which time as many as four 'waves' of development could already be identified (Aldred & Fairclough, 2003). The scope for adding time depth into a project was one element that increased as GIS capability became more sophisticated.

HLC projects in the first stages of the national programme had an emphasis on the characterisation of rural areas. Indeed, the current 'Historic Landscape Character' page on the English Heritage website opens with the assertion that

> "*England's rural landscape is one of the jewels of our national heritage*."
> (English Heritage, nd1)

More detailed surveys of historic towns are being undertaken as a separate programme to HLC, with intensive surveys covering the centres of 35 major towns and cities, and Extensive Urban Surveys (EUS) examining the smaller historic towns on a county-by-county basis. Towns that are not deemed to be of historic interest are not covered by the surveys. The national HLC and EUS programmes have both sought to understand the development of the historic environment and both seek to formulate strategies and frameworks for the future management of this resource.

The intensive historic town surveys focus on below-ground archaeological remains and on surviving monuments and buildings dating from up to the 17th century, and many have resulted in the creation of a freestanding Urban Archaeological Database (UAD). Databases for some towns may be incorporated into the local Historic Environment Record. (Information taken from English Heritage, nd2.)

In the early stages of the programme, which commenced in 1992, Extensive Urban Surveys focused on the below-ground archaeology and the historic development of towns. In the Cheshire survey, for example, carried out between 1997 and 2002, reports divided the towns into historic plan components and summarised the potential for below-ground archaeological remains (Cheshire West & Chester Council, nd).

The Lancashire EUS, commenced in 2001, took the concept of characterisation and applied the technique to its chosen towns. The majority of the towns in the project had remained relatively small until the mid-19th century but had developed significantly by the end of the 19th century as a result of industrialisation. It was therefore considered that the principal archaeological interest of the towns was in the above-ground built fabric rather than below-ground deposits, and so characterisation was considered an appropriate way of defining and describing the archaeological resource. The areas representing development in the industrial era, including large areas of gridiron terraced housing and industrial complexes (particularly textile mills), were key elements of the historic character of those towns. Such areas tended to be covered in less detail by the more traditional types of EUS project.

As the national HLC programme progressed and projects for many of the more rural counties had been completed, attention turned to the more complex metropolitan areas with their high percentages of urban land-use. For such areas, the traditional HLC approach of considering urban areas as separate from rural was considered inappropriate. In 2003, English Heritage thus commissioned a new kind of project. The Merseyside Historic Characterisation Project was the first to develop and explore a methodology for the characterisation of a large metropolitan conurbation (Sarah-Jane Farr pers. comm.). A

project beginning the next year in South Yorkshire was named a 'Historic Environment Characterisation' project to reflect its status as a unified project (Marchant et al, 2008). With a similar philosophy, the present project is entitled the Greater Manchester *Urban* HLC to reflect its methodology, integrating the modelling approach of Historic Landscape Characterisation with that of Extensive Urban Survey. An urban project was also started in the Black Country in 2004 (covering Dudley, Sandwell, Walsall and Wolverhampton).

A key element of the national characterisation programme has been the dialogue and interaction between the people working on projects in different parts of the country. It has been common for staff from a local authority where a project is in the initial stages to communicate with ongoing projects in other areas about methodologies and to make a visit to view databases and mapping. The project staff from Greater Manchester visited Sheffield to find out about the South Yorkshire project during the first month of the Manchester project, and were in turn visited by representatives from East Yorkshire, staff from the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), and a new staff member taken on in the later stages of the Merseyside project, amongst others. In November 2008 the Greater Manchester project hosted a National Metropolitan HLC meeting. As well as representatives from HLC projects around the country, this was attended by ten officers from Greater Manchester authorities.

In 2008 a Historic Seascape Characterisation (HSC) programme was launched by English Heritage, mapping the impact of past human activity on the present coastal and marine environment. Major recent changes in marine policy have provided a receptive framework for the application of HSC, and this is timely given the increase in the pressure on coastal and offshore resources. Types of development contributing to this pressure include the construction of wind farms, extraction of aggregates and fossil fuels, port expansion and new coastal defences. By 2011, coverage had extended to about 60% of the area of the seas around England and adjacent UK Controlled Waters (English Heritage, nd3).

By the time the Greater Manchester HLC was finished in 2012, it joined an almost complete national set of HLC projects. A few gaps in national coverage remain, with projects still ongoing in West Yorkshire, East Yorkshire, Tyne & Wear and Birmingham, or on the verge of starting in Wiltshire and Oxfordshire, leaving major gaps only in East Berkshire and a handful of major cities (Graham Fairclough, pers. comm.). The national coverage is illustrated in Figure 3a.

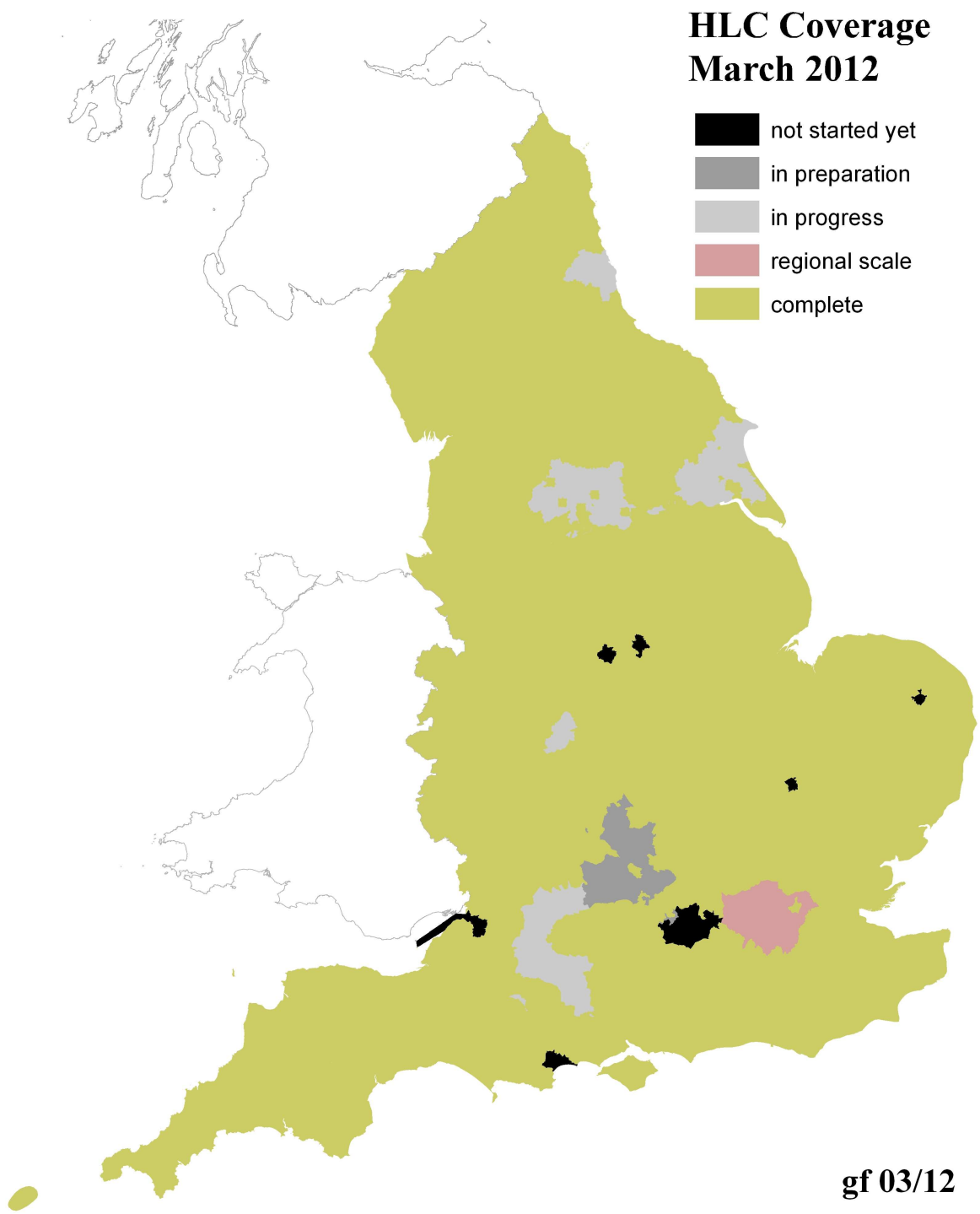

Figure 3a Coverage of the national HLC programme by March 2012

4.0 Aims and Objectives of the Greater Manchester Urban HLC Project

4.1 Overall aim

The overall aim of this project was to undertake a broad-brush characterisation of the landscape of Greater Manchester using GIS and a linked database which can be interrogated on a wide variety of data, and thus encourage the management and understanding of the landscape through the planning process and the formulation of research strategies.

4.2 Project objectives

Five project objectives were set out in the original Project Design in 2007. Those that applied to individual districts rather than the project as a whole were summarised in the district reports, and were addressed during the characterisation and report-writing phase for each district. The project objectives and the points at which they were addressed (either at district level during the main phase of the project or county-wide in the initial and final phases) are set out below:

1. Characterisation of the visible historic environment of Greater Manchester. This will involve:
    - Identification of relevant source material and the precise level of data to be collected. *(County-wide)*
    - Definition of character types and areas. *(County-wide)*
    - Recording of character areas and their constituent attributes and components on the GIS database. *(District level)*

2. Analysis and interpretation of the characterisation data. This will involve:
    - Assessment of the relationship between present character, past historical character and its context. *(District level)*
    - Analysis and identification of landscape character types and historic character areas. *(District level)*
    - Identification of the potential for archaeological remains (both above and below ground), the historic importance and the current condition of the character areas and their key components. *(County-wide, through the Management Recommendation tables)*
    - Identification of the 'forces for change' acting on the character areas and their components. *(County-wide, through the Management Recommendation tables)*

3. Formulation of management and research strategies, including managing change in the Greater Manchester historic environment. This will involve:
    - Advice on using the characterisation in planning to influence regeneration and other re-development proposals. *(County-wide, through the Management Recommendation tables)*

- Adoption of the results as Supplementary Planning Guidance and in Development Frameworks. *(District level, to be achieved by individual councils)*
- Consideration of how the results will be reviewed in the future, in order for changes over time to be monitored. *(County-wide)*
- Identification of further research objectives. *(County-wide; although specific recommendations may be made for individual districts, this was to be done at the final analysis and report stage)*

4. Outreach and Dissemination throughout the life of the project. This will involve:

    - Promotion of the ongoing work of the project via displays, presentations, web pages etc, to encourage support from stakeholders including the wider public. *(District level)*
    - Publicising the final results to the public via leaflets, press releases, web pages and seminars. *(County-wide)*
    - Dissemination of the project results and promotion of the resource to the ten districts of Greater Manchester, the University of Manchester and the relevant regeneration agencies.
    - Production of a CD-ROM. *(County-wide)*
    - A formal publication of the results. *(County-wide)*

5. Archiving and Maintenance of the Database:

    - Creation of an archive both digitally and paper-based in line with relevant standards and practice, which will be deposited with the most appropriate archive repository. *(County-wide)*
    - Formulation of a strategy for the ongoing maintenance of project data. *(County-wide)*

Broader objective

The HLC had one farther-reaching objective than those of the project itself, which was not necessarily fully achievable during the lifetime of the project:

- To facilitate learning, understanding, awareness and appreciation of the historic environment and thus the promotion, preservation and protection of the resource.

5.0 Characterisation methodology

This section presents a summary of the finalised characterisation methodology, used throughout most of the project's main characterisation phase. Key stages in the development of the methodology are outlined and discussed in **Section 7** below.

5.1 The character types

Character types can be defined at two levels, allowing mapping to be analysed at a broader or a more refined level of detail. For the Greater Manchester project, categories in the upper level were referred to as 'Broad types'. Examples of these include 'Enclosed land' and 'Industrial'. Each of the Broad types encompasses a set of more specific 'HLC types'. For example, 'Industrial' HLC types included Textile mills and Metal trades (heavy). The full set of character types identified during a specific HLC project will differ according to the particular county or area that is the subject of that project.

The project design identified twelve Broad types that had been chosen for the characterisation. It also listed 107 'Historic Environment character types' that it envisaged would be encountered during the project. (These were referred to as 'Historic Landscape Character types'/HLC types during the project itself.) It was, however, anticipated that a few additional character types that had not been foreseen would be added during the pilot phase and over the lifetime of the project. This proved to be the case, although the number of additional types was perhaps greater than expected; the final list included 174 different character types. Two further Broad types were also added to the list in the early stages of the project and one was removed, bringing the total to thirteen. The number of HLC types within a given Broad type ranged from three (within the 'Horticulture' Broad type) to 25 (in the 'Residential' Broad type). Short definitions of the Broad types identified in Greater Manchester are given in Appendix 1, and the HLC types occurring within each Broad type can be found in Appendix 2.

Each of the historic landscape character types has a distinct and recognisable common character. Sets of up to eight attributes for each Broad type were identified in the project design. The different values for these attributes would help to define the relevant HLC type. For example, an attribute associated with the Enclosed land Broad type was 'boundary loss'. The values that could be assigned to this attribute were 'little' (less than 15%), 'some' (15-40%) or 'much' (more than 40%). The attributes associated with each Broad type are given in Appendix 2.

The distribution of the landscape types can be mapped using GIS to define polygons. These are supported by written descriptions of the types and the historical processes that they represent.

5.2 HBSMR

The digital characterisation was undertaken utilising the HLC module of a system known as HBSMR. This is a database, GIS and photographic management system developed by exeGesIS Spatial Data Management Ltd specifically for local authority sites and monuments records (now more usually known as Historic Environment Records, or HERs). HBSMR utilises SQL Server and/or Microsoft Access for the database, and either MapInfo or ArcGIS

for the GIS component. The system installed at GMAU uses MapInfo. The HLC module comprises a set of tables and data entry forms, and allows the polygons created for character areas to be linked easily with the related data. Using HBSMR has the further advantage that the HLC data can readily be viewed alongside existing HER data relating to archaeological sites, events and statutory designations. Some types of data, including references to sources such as historic mapping, can be linked to the HLC records where appropriate.

5.3 Defining character areas

Polygonisation for the GMUHLC was carried out by first looking at the current landscape using OS 1:10,000 mapping (dated 2005) to identify discrete blocks of character. These could include, for example, the grounds of a school or hospital, or the extent of a housing estate of a particular date, looking at the layout of the streets and the types of houses to judge the approximate date at which it was built. The available historic mapping was then consulted to ascertain the previous land uses of the site and to confirm the date of origin of the type.

Where a specific date for a character area was not available, the 'date from' and 'date to' fields were completed with reference to map editions. For example, for an area of terraced housing that was not shown on the 1891-94 map but was present by the time of the 1907-10 edition, 1891 would be entered into the 'Date from' field (as the earliest possible date at which the housing was known not to have been present) and 1910 would be entered in the 'Date to' field.

Time-depth was added to the record for each individual character area by identifying from mapping the character of the area in the past, assigning it to one of the character types from the defined set. If a site had been redeveloped or its use substantially changed more than once, further previous character types could be entered into the database, going as far back in time as examination and interpretation of mapping allowed. For example, a modern private housing estate could have been built on an area cleared of 19th century terraced housing which was in turn built on enclosed land, giving one current character type and two previous types. A brief summary of the present character, its date of origin and the key previous types was entered into the 'Summary' field in the record form. Where features had been present in the past that were worthy of note but not significant enough to warrant the assignment of a further previous type, such as a single coal pit within an area of enclosed land shown on mid-19th century mapping, this feature was noted in the 'Summary' field and/or in the 'Notes' field associated with the relevant previous type.

Where the extent of an area of modern character covered different character types that were extant at the same time in history (for example a modern residential estate covering the former site of a 19th century cotton mill as well as contemporary terraced houses and a villa set in a large garden), the predominant previous character type was identified and entered into the 'Previous type' field, and the presence of the other types was mentioned in the 'Notes' directly associated with this field.

5.4 Creation of polygons

Polygons were generally drawn using the detailed MasterMap mapping. Care was taken to ensure that the edges of polygons were as neat as possible given the time constraints of the project, and that edges joined up without leaving gaps that could cause the 'leakage' of subsequent polygons into inappropriate areas. Wherever possible, the nodes identifying points along the edges and at the corners of the polygons were 'snapped' to nodes present on the MasterMap mapping. This meant that land boundaries forming the edges of properties (whether residential, industrial or institutional), or field boundaries defining the edge of an area of enclosed land, would form the precise edges of the new HLC polygons. Where character areas of different types were separated from one another by roads, the edges of the polygons were brought out to meet in the centre of the road, except where the road was itself a significant landscape feature forming a character area in its own right, such as a motorway.

Once a polygon had been drawn, the previous types and the attributes of the area it covered were defined and any existing HER records with GIS points within the area of the polygon were linked to the HLC record. Any sources referred to in the summary or notes were then linked to the HLC record, or new 'Source' records compiled and linked where these did not already exist.

The data fields present in the HBSMR form are presented in Appendix 3.

5.5 Site visits

Because of the limited timescale of the project and the fact that it was designed primarily as a desk-based mapping exercise, only two days for field visits (four person days) were scheduled into the characterisation programme for each district. This was mitigated against to some degree in the later stages of the project by the availability of Bing Maps and Google Street View (see **Section 5.7** below).

Prior to the availability of these detailed online resources, field visits were used to target areas where clarification of the mapping evidence was needed. For example, field observation could help to establish whether a building was indeed a historic structure where changes to the footprint shown on successive map editions were ambiguous. Field visits were also an opportunity for project officers to familiarise themselves with the character of a town, settlement or area on the ground, and to take photographs showing good examples of character types for the project archive and with which to illustrate the district reports.

5.6 Report writing

At the end of the characterisation phase for each district, a report was written that summarised the findings for that district. Each 'Broad' type was considered in a dedicated section of the district reports, with its defining characteristics outlined. The HLC types that occurred in a specific district were then examined for each Broad type in turn, and the role of the most significant types within the landscape was considered and discussed. The district reports include management guidance tables, developed with input and feedback from the Greater Manchester Conservation Officers Group (GMCOG). See Appendix 4 for an example of one of the tables.

5.7 Sources used during the characterisation

Mapping

A wide range of resources were used during the course of the Greater Manchester Urban HLC project. To define current character, reference was made to the OS MasterMap. As this is regularly updated, a copy of the mapping as it appeared in 2006 was used throughout the project to ensure consistency; this was the most up-to-date available at the start of the project. Post-1999 development was indicated by a comparison between MasterMap and the Cities Revealed aerial photographic survey of 1997-99.

Of principal importance for ascribing dates of origin to current character types and for defining previous character were the historic Ordnance Survey 6" and 25" maps and the 25" National Survey of mid-20th century date. Editions covering parts of the old counties of Cheshire, Derbyshire, Lancashire and Yorkshire covered the area of present-day Greater Manchester. The maps of the different County series in the 19th and early 20th centuries were produced in different years, so that the dates of the editions used in different parts of the present-day Greater Manchester differ considerably. This means that the dates ascribed to the 'timeslice' reconstructions are an approximation rather than a precise date across the whole area.

Yates's 1786 map of Lancashire was generally the earliest map consulted, although other more localised maps and plans, such as those covering the Smithills estate in Bolton, were also available. The Cheshire tithe maps of 1836-51 are available online, on a website provided by the Cheshire councils (see Bibliography for details). Large-scale mapping (at 60" to one mile) was available for some of the principal towns of the area. Details of all the maps consulted can be found in Appendix 5.

The Greater Manchester Historic Environment Record (GMHER)

The information stored within the GMHER provided additional detail and archaeological depth. The HER contains records on archaeological investigations, monuments and stray finds, statutory designations such as Listed Buildings, Registered Parks & Gardens and Conservation Areas, and historic buildings of local interest. The entry of non-designated heritage sites, which would include the bulk of the archaeological sites recorded in the HER, affords them a level of recognition and protection that is acknowledged by the planning system as a material consideration under the requirements of Planning Policy Statement 5. The HER is also a key starting point for understanding Greater Manchester's heritage resource so that it can be managed properly, and can be a trigger for community engagement.

In undertaking the Urban Historic Landscape Characterisation project for Greater Manchester it has become apparent that for several of the districts, the archaeological resource is not properly represented by the Historic Environment Record. Coverage across the county is uneven and quality is variable. This is due to a lack of dedicated research; most updates to the HER arise from planning-led interventions such as archaeological excavations and building recording in advance of development works rather than from work commissioned to address gaps in the coverage of the HER. GMAU recommend that for the districts concerned a dedicated enhancement survey is undertaken. The availability of the resources utilised during the HLC project would make enhancement easier and more efficient than has been the case previously. Some of these, particularly digitised historic mapping, were obtained by GMAU specifically for the project. Others have become

available only recently, such as Google Earth and Street View as well as Bing Maps, all of which would be invaluable to this process.

The state of the HER data for each district is as follows:

Bolton: built up in an ad hoc way so that a few areas are well researched and heritage assets appropriately represented, but many areas are not. No formal enhancement survey has ever been commissioned, although GMAU submitted a proposal several years ago.

Bury: an enhancement survey of the mid-1990s gives a fairly good coverage and representation of non-designated and designated heritage assets in the borough. A comprehensive survey of buildings as part of the process of compiling a local list for the district was undertaken in 2007-08, but other aspects of the borough's heritage are in need of an update survey.

Manchester: an enhancement survey in the early 1990s did not record a lot of industrial period remains. The district requires an update survey.

Oldham: built up in an ad hoc way so that a few areas are well researched and heritage assets appropriately represented, whereas many areas are not. No formal enhancement survey has ever been commissioned, although GMAU submitted a proposal several years ago.

Rochdale: built up in an ad hoc way so that a few areas are well researched and heritage assets appropriately represented, whereas many areas are not. No formal enhancement survey has ever been commissioned, although GMAU submitted a proposal in recent times.

Salford: a large-scale enhancement survey was undertaken in 1989 but was of variable quality. In great need of improvement and review as many historic buildings have disappeared since the survey was undertaken and industrial period sites are under-represented. GMAU submitted a proposal about two years ago but no work was commissioned.

Stockport: reliable and relatively up-to-date HER data set, which resulted from an enhancement survey commissioned by Stockport MBC several years ago. This was part of the evidence base and heritage audit prepared to inform Stockport's Conservation and Heritage Strategy. This borough has the highest quality HER in Greater Manchester, although locally listed buildings have not been entered onto the database.

Tameside: built up in an ad hoc way so that some areas are well researched and heritage assets appropriately represented, whereas many areas are not. No formal enhancement survey has ever been commissioned, although the Tameside Archaeological Survey, undertaken by the University of Manchester Archaeological Unit, has published a number of books on the archaeology of the borough. No funding has ever been allocated to put the books' research onto the HER.

Trafford: an enhancement survey was undertaken in 1997 and the borough has fairly good coverage, although an update is desirable.

Wigan: built up in an ad hoc way so that some areas are well researched and heritage assets appropriately represented, whereas many areas are not. Many of the early records from a borough-wide survey in the 1980s are out of date, poorly researched and even mapped at the wrong locations. Furthermore, the non-statutory local list of buildings of interest in Wigan is not yet entered onto the HER.

In summary:

- Stockport is the district with the most up-to-date and best HER coverage.
- Trafford and Bury have good coverage from enhancement surveys in the 1990s (and more recently for buildings in Bury) but generally could do with updating.
- Manchester has reasonable coverage but needs reviewing to better represent its remarkable industrial period heritage.
- The HER coverage in Bolton, Rochdale, Oldham and Tameside is good in a few places but inadequate in many areas, and enhancement is strongly recommended.
- Wigan and Salford had surveys in the 1980s but the quality of entries and accuracy of grid references is very uneven, whilst industrial heritage is under-represented. These districts are in great need of an update survey.

Published and unpublished literature

A few other key sources were referred to for the whole of Greater Manchester or for relevant parts of more than one district, some in the day-to-day characterisation and some whilst writing the district reports. These included:

- the *North West Wetlands Survey* (Greater Manchester volume; Hall *et al*, 1995)
- *A Guide to the Industrial Archaeology of Greater Manchester* (McNeil & Nevell 2000)
- *The Buildings of England: Lancashire: Manchester and the South East* (Pevsner Architectural Guides: Buildings of England; Hartwell, Hyde & Pevsner 2004)
- the 1985 book *Country Houses of Greater Manchester* (*The Archaeology of Greater Manchester Volume 2,* edited by Walker and Tindall)
- *Cotton Mills in Greater Manchester* (Williams, M & D A Fernie, 1992)

Publications relating to a specific district or town included the following:

- *History of Manchester to 1851*, 1967 (by W H Thomson; Altrincham)
- *City of Manchester Plan*, 1945 (by R Nicholas; Manchester Corporation)
- *Manchester: The Hidden History*, 2008 (by M Nevell; The History Press Ltd)
- *History of the Parish of Rochdale*, 1889 (by H Fishwick)
- *Stockport. A History*, 1997 (by P Arrowsmith; Stockport Metropolitan Borough Council)

- *Tameside 1066-1700; Tameside 1700-1930; Tameside Before 1066* (all by M Nevell and published in the 1990s by Tameside Metropolitan Borough Council with GMAU)
- *The Archaeology of Trafford*, 1997 (by M Nevell; Trafford Metropolitan Borough Council)
- *The Archaeology of Wigan* (forthcoming, by I Miller; The Archaeology of Greater Manchester, Vol. 5)
- *Discovering* Coccium*: The Archaeology of Roman Wigan* (by I Miller & B Aldridge, 2011; Greater Manchester's Past Revealed, Vol. 3).

The above is by no means a comprehensive list of all the sources used. Full details can be found in the individual district reports. Some 'grey literature' reports on archaeological fieldwork for specific sites and areas were also consulted, but in general this was kept to a minimum during the day-to-day characterisation as there was not time to look at individual sites in detail.

The internet

Some use was made of the internet from the earliest stages of the project. The revised project design notes that whilst the function of a building can usually be ascertained from labels on MasterMap or from interpretation of the building form, it was sometimes the case that a named building did not have an obvious function. It could be unclear, for example, whether a building was in use as a private house, offices or a residential home. The internet was therefore used in some cases to find out the current function.

Partway through the project, Bing Maps became available online. This provides oblique aerial photographs. During the lifetime of the project, most of the urban and suburban areas of Greater Manchester could be viewed from four different directions on this coverage, although coverage of more rural areas tended to be at a lower resolution and available from fewer directions. Subsequently, Street View became available within Google Maps, and this allowed even closer examination of most buildings from street level, although again, coverage of rural areas was slightly less comprehensive.

Bing Maps and Street View were not consulted as a matter of course, but were instead used to clarify issues that were ambiguous on mapping, particularly character type and date. For example, they could be used to confirm whether a building had a historic or modern appearance where a period of origin was unclear from mapping, or could confirm whether a converted villa was in use as a residential nursing home or a business. These online resources thus increased the level of confidence when identifying character types.

6.0 Communication and dissemination

6.1 The steering group

Progress meetings were held approximately every four months throughout the project. These were attended by the project officers (other than the first meeting in early July 2007) and by either Graham Fairclough or Roger Thomas, respectively Head of Characterisation and Head of Urban Archaeology at English Heritage. Other English Heritage representatives also attended from time to time. Paul Hartley of Stockport Metropolitan Borough Council was another key member of the steering group, and Andrew Eadie of Rochdale MBC also attended several meetings. Other representatives from the authorities of Greater Manchester were invited to attend specific meetings towards the beginning of the characterisation phases for their particular districts, to find out more about the project and the timescale for the district.

6.2 Presentation of the results during the project

As well as local authority representatives being kept informed through the steering group meetings, the project team arranged a special meeting at the offices of each local authority once the data for a district was ready for presentation. As many interested parties as possible from the council staff were invited to attend, including conservation officers, planning officers and GIS specialists. Here, the results of the characterisation and the potential of the data were demonstrated. Technical sessions were delivered separately for some of the districts, to explain in more detail how the data could be used to create different themed maps and other products.

The HLC project officers gave a presentation about the project to the Greater Manchester Conservation Officers Group in November 2008. The COG members were subsequently consulted on the content of the management guidance tables as these were developed (see Appendix 4). There were also some presentations to elected members. Table 6a summarises the key presentations and meetings that took place over the lifetime of the project.

Date	District/ Audience	Event
March 2008	All	Presentation to SPIG (Greater Manchester Strategic Planning & Information Group) by Norman Redhead
April 2008	Trafford	Seminar for 22 planning officers at Trafford MBC
September 2008	Bury	Seminar for 10 planning officers at Bury MBC
November 2008	All	Presentation to Greater Manchester Conservation Officers Group
November 2008	All	National Metropolitan HLC seminar hosted at the University of Manchester. 27 attendees, including 10 from Greater Manchester authorities.
February 2009	University	Presentation on the project delivered to postgraduate students within the Planning and Landscape department at the University of Manchester
February 2009	Bolton	Presentation to elected members

Date	District/ Audience	Event
March 2009	Regional	Presentation at the 'Historic Landscape to Future Landscape' workshop at Manchester Town Hall (organised by Countryscape for Natural England and English Heritage)
March 2009	All	Workshop for Conservation Officers Group on the HLC management guidance tables
March 2009	Regional	Attendance at Landscape Matters seminar in Wigan, organised by Natural England
June 2009	Manchester	Presentation to 25 planning officers at Manchester City Council
June 2009	Regional	Project staff helped deliver training on urban characterisation at a HELM (*Historic Environment Local Management*) workshop in Manchester
July 2009	Bury	GIS workshop delivered for planning officers at Bury MBC
August 2009	Bolton	GIS workshop delivered for planning officers at Bolton MBC
October 2009	Oldham	Councillor Buckley visited the university to view the Oldham HLC data
November 2009	Oldham	Presentation to planning staff at Oldham MBC
May 2010	Rochdale	Presentation to approximately 30 planning staff at Rochdale MBC
June 2010	Regional	Project staff attended a NW Landscape Character Framework seminar in Manchester
September 2010	Salford	Presentation to staff from Urban Vision, Salford CC Heritage and Design Team, Urban Regeneration Company and other representatives, including the Heritage Champion (30 attendees)
October 2010	Rochdale	Training session for IT officers at Rochdale MBC
December 2010	Tameside	Presentation by Norman Redhead on the potential for HLC data to be applied to Conservation Area appraisals during a Tameside Members Scrutiny Panel meeting
February 2011	Stockport	Presentation to 20 planning staff at Stockport MBC
March 2011	Local groups (Stockport)	Presentation by Karl Lunn to the Stockport Conservation and Heritage Forum, made up of local heritage group representatives
May 2011	Tameside	Presentation to 12 planning staff at Tameside MBC
August 2011	All	Norman Redhead delivered an update on the HLC to SPIG
December 2011	Wigan	Presentation to planning staff at Wigan MBC

Table 6a Key presentations and meetings

HLC was also promoted by Norman Redhead during other meetings with local authority staff and elected members, and particularly during workshops on the new PPS5.

7.0 How the project evolved

7.1 The project design

A project design was written in 2007 by Robina McNeil, Norman Redhead and Elizabeth Chantler (County Archaeologist, Assistant County Archaeologist and Historic Environment Record Officer respectively at that time), prior to the appointment of project officers. Advice on the project design was taken from English Heritage, with details of the characterisation methodology based on the South Yorkshire and Black Country projects. The lists of Broad character types and narrow HLC types established at the start of the Greater Manchester project were based on those used by these two projects. Data from the South Yorkshire project were used to calculate a timescale for the Greater Manchester project. The South Yorkshire project had commenced in 2004 and was thus well underway when the Greater Manchester HLC was designed, and it was considered that polygonisation rates for this county would provide a useful benchmark.

The project was originally timetabled to be completed over three years, finishing at the end of June 2010.

7.2 The pilot phase

A pilot phase was undertaken between July and October of 2007. Characterisation of four separate areas occurred between July 9th and September 18th and was followed by a short phase of report writing and a brief analysis and revision of the methodology.

The areas chosen for the pilot study were carefully selected to cover as diverse and complex a range of Greater Manchester environments as possible. Each area was characterised by a different intensity of occupation, a process directly related to the complexity of spatial structure and time depth. The four pilot areas were:

Bolton – a medieval market town with considerable industrial and domestic expansion in the 19th century

Watergrove Valley – a relict rural upland industrial landscape and adjacent moors

Cheadle – a small village with a medieval core and with considerable expansion in the 19th and 20th centuries as it became a commuter town

Stalybridge – a textile town largely created in the 19th century.

Although it was intended that the methodology used during the pilot phase would be reviewed and amended for the ensuing principal phase of the project, the fact that only a very small amount of Bolton town centre could be characterised within the allocated time came as something of a surprise. However, the original methodology continued to be used for the three other areas examined during the pilot phase so that a valid comparison could be made, although with one minor refinement prior to commencing characterisation of the fourth area, Stalybridge (see '**Refinement within the pilot phase**' in this section, below).

It was clear that the level of detail aspired to during the pilot phase could not be maintained during the rest of the project. It was estimated that if characterisation continued at this level of detail, it would take the two project officers six years to complete the project.

Table 7a below shows the area of intended coverage for each pilot area, the area that was actually covered during the available time (measured in square kilometres and as a

percentage), the density of polygons per square kilometre, and the number of person days spent.

Name of area	Area of intended coverage (km^2)	Area covered (km^2)	% of intended area actually covered	Polygon density (per km^2)	No. of person days
Bolton	22.50	1.20	5.33	170.00	20
Watergrove	10.47	11.63	111.08	4.21	2
Cheadle	8.96	5.54	61.83	50.00	5
Stalybridge	4.65	4.12	88.60	64.32	12

Table 7a Area of land covered in each of the pilot areas

The project had been designed with reference to data from the South Yorkshire project, anticipating different polygonisation rates (in hectares per day) for urban and rural areas, scaling up to reflect the significantly more extensive urban coverage in Greater Manchester, and also taking into account the "more fragmented nature of the countryside and urban fringe". It had therefore not been anticipated that a radical change of the methodology would be needed, and there was no time built into the project for a formal phase of testing altered methodologies, or for revisiting with a refined methodology areas that had been characterised earlier on. The level of detail used did fluctuate somewhat in the districts of Bolton and Trafford, and this is a notable point of variation within the database.

The four pilot area reports and a revised project design had been written by the 8th of October, less than three weeks after the end of the pilot area polygonisation phase. Characterisation of the main part of Bolton district commenced on the same day.

A common theme for discussion throughout the project was how the level of detail could be reduced and time could be saved whilst maintaining an equivalent level of coverage across all districts and delivering a final product that would be of use to stakeholders. From an early stage of the project, efforts were made to provide extra person days within the planned timescale by devoting additional staff hours to the characterisation. From late November 2007, Elizabeth Chantler (HER Officer) spent part of her time on characterisation as well as on HER duties. This commitment continued with the change of staff in early 2009.

Methodology during the pilot phase

During the pilot phase, characterisation was undertaken using broadly the method outlined above in **Section 5**, but with the following key differences:

- The 'Description' field was filled in in some detail, with just a very brief entry in the 'Summary' field (see Figure 7a). The description field was unlimited, whereas the summary box was restricted to 254 characters. After the pilot phase the description field was almost never used other than for exceptional areas where further information was available that would enhance a record. Using the summary box instead meant that the text had to be concise, limiting the amount of words that could be written about a particular area and creating a better focus. Another important

point that was not appreciated during the pilot phase was that the exports from HBSMR that would be supplied to the local planning authorities for their own use would not include any of the text from the 'Description' field, but would show the contents of the 'Summary'.

- The 'Notes' field for each previous type was generally not filled in, and where data was entered, it was minimal.
- Where the extent of an area of modern character covered more than one previous character type, for example a modern housing estate covering the former site of a cotton mill, a gas works and back-to-back houses, the estate would be subdivided into three separate polygons with the same current Broad type and HLC type but with different previous types. The three polygons in this example would thus show up as the same colour on a map of current character, but would be of different colours reflecting the previous use of the site on mapped timeslices. This method resulted in the creation of polygons which had an odd shape when viewed over modern mapping, but which reflect both current and previous character. The reasons for the shapes of polygons would become apparent when viewed in conjunction with historic mapping layers.

This aspect of the methodology – subdivision according to previous character – was taken from the South Yorkshire project (see Marchant et al, 2008).

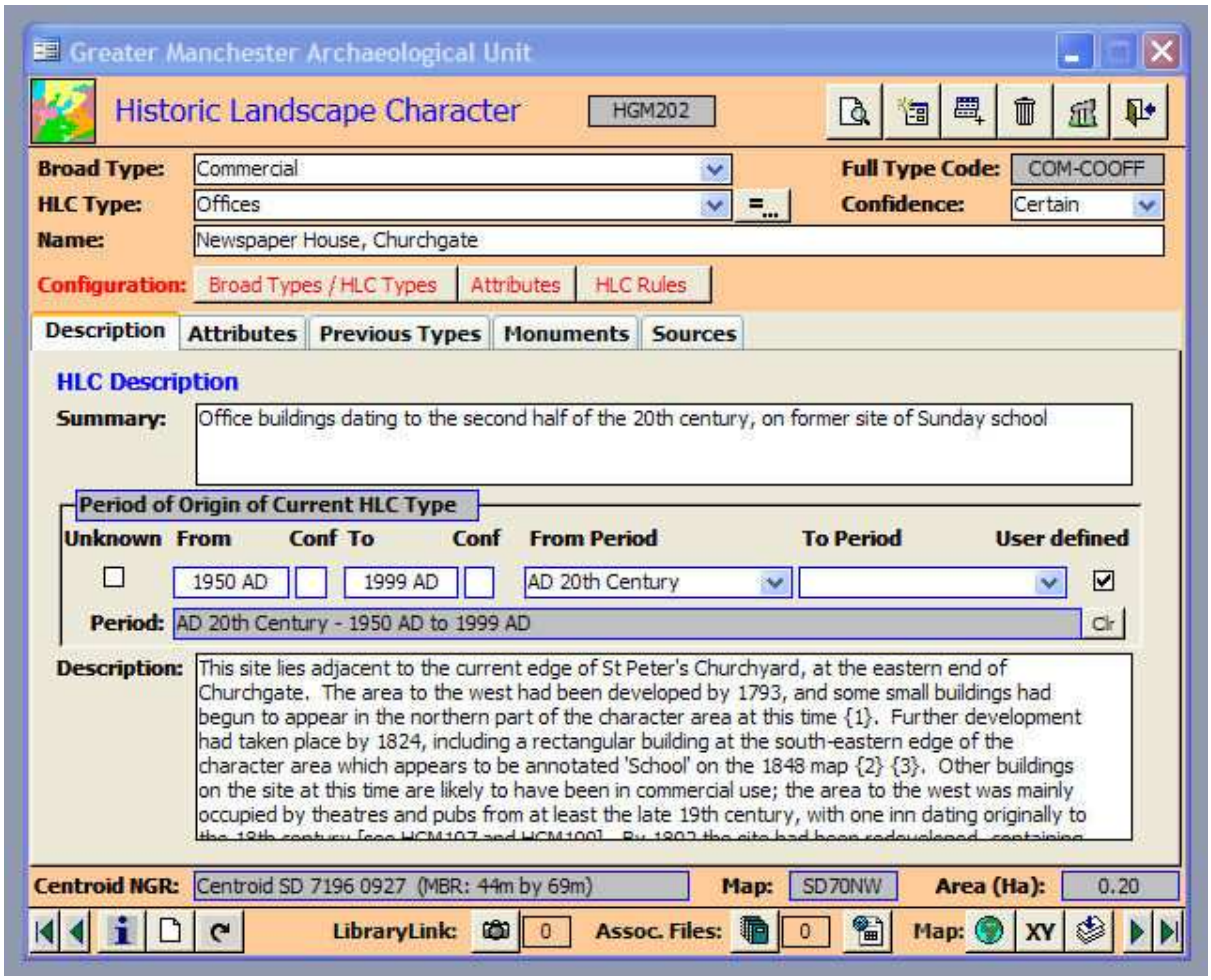

Figure 7a A record from Bolton in the pilot phase, with a lengthy description and a short summary

It was initially envisaged that the Attributes could be grouped together into 'rules' which would define the HLC types for the user once the Broad type had been chosen and the Attributes themselves defined. The HLC type could be generated by the HBSMR system, by clicking on a button within the form once the required data fields had been filled in. However, in practice this was not found to be helpful as the characterisation was intuitively being done at the HLC type level; the project officers would in most cases have identified the HLC type during the process of defining and digitising the polygons, as part of the basic characterisation process. After discussions towards the very beginning of the pilot phase, the tool for determining HLC type was not used during characterisation.

A key factor in the amount of time spent on characterisation was the size of individual polygons and by implication the level of detail at which the characterisation was done. For example, many areas peripheral to town centres are by their very nature diverse, featuring buildings of different functions and from different periods side by side rather than in large blocks with a single easily defined character. This was also found to be the case for areas originating as 19th century ribbon development, where piecemeal redevelopment had often occurred.

During the pilot phase the project officers found that, particularly with the emphasis on reflecting past character within the polygonisation, large numbers of small polygons were created within the urban and suburban areas. A high level of detail had been anticipated within urban areas and the project had been designed with this in mind. The creation of polygons at a fine grain allows detailed analysis and would therefore be of value in complex areas with historical interest, such as urban cores. However, it was acknowledged that the project would not be completed within the three-year timescale if the level of detail seen in the records for the centre of Bolton was to be maintained.

Refinement within the pilot phase

Before characterisation of the fourth pilot area, Stalybridge, commenced, it was agreed that it was not appropriate for individual buildings which could be converted into point data on the HER to trigger a separate polygon, but that they should instead be mentioned in the descriptive text. Where public houses occurred in context, for example as part of a contemporary development of 19th century terraces or within a 1960s housing estate, they could be listed as an attribute of the larger character area, making it seem less appropriate to single out other isolated public houses for individual polygons.

Mixed areas made up of individual buildings of different character types and dates, such as the areas mentioned in the previous sub-section, were still generally characterised with a high density of polygons. There were some character types, such as Historic settlement cores and Commercial core – urban, where the character was by definition quite mixed. However, many areas of ribbon development along main roads had a different emphasis. Rather than being linear settlements, as such, these were loose collectives of buildings and did not have an identity (as a named settlement core) or a common purpose (as a commercial core). It was therefore more difficult to create a character type that would encompass these kinds of areas, all with unique elements, and this was not done.

7.3 Alterations to the characterisation method arising from the pilot phase

Whilst characterisation in the Stalybridge area proceeded more quickly than it had in the previous pilot areas, with a high percentage of the defined area being characterised (although in twelve rather than the proposed ten days), it was nonetheless realised that the process was still too time-consuming and that the methodology would need to be altered.

It was found that the actual drawing of polygons was not the most time-consuming aspect. Filling in the information for each character area, particularly the 'Description' field, was what took time. Naturally, the more polygons were drawn, the more descriptions would need to be filled in, describing small areas rather than generalising about larger areas. It was possible to copy records where some fields such as Attributes, Broad Type, Sources and Previous Types were the same, and to copy and paste elements of text from one description to another, but work still had to be done to ensure that these accurately reflected the characteristics of the new area, and the succession of historic maps needed to be checked again.

It was concluded that the best way forward would be to summarise the key aspects of past and present character in the 'Summary' field and to ensure that a descriptive sentence was included in the notes for each of the previous types. This would allow the 'Description' field to be left blank. The new method was tested during the first month of the characterisation phase for Bolton district, treating the borough as an informal second phase pilot.

To ensure that characterisation was completed at a broad brush level for the entire study area, it was proposed in the revised project design that the altered methodology should be applied in an initial characterisation of each district, and that once this had been done, the remaining time allocated for characterisation of that district would be spent in focusing in on areas of special interest. Good examples of landscapes such as historic town cores, industrial areas and historic rural landscapes were to be selected for showcasing the potential of the detailed HLC methodology to provide a powerful tool for research and other applications. A broad-brush characterisation to provide an overview of the whole area had indeed been proposed in the original project design. However, at the second steering group meeting in October 2007, concern was expressed that doing broad-brush areas and then specific target areas would give uneven coverage.

At the time when the project was designed, Greater Manchester had been assessed as comprising 51% urban areas and only 49% rural. The 'Greater Manchester Urban HLC' project was thus originally conceived as a detailed survey of the urban areas continuing seamlessly from characterisation of the surrounding non-built-up areas. A broad-brush approach to the whole county followed by a phase of focusing in on areas 'worthy' of more detailed coverage would seem more to have reflected the approach of a rural style traditional HLC project followed by an EUS for historic towns. There was particular concern that once the whole area had been completed at a less detailed coverage, only a limited number of areas would be revisited for the detailed study. The level of coverage could therefore have varied considerably from town to town and between the authority areas. Since the local planning authorities were all contributing equal funding to the project, the same level of coverage needed to be guaranteed for each district.

The 'broad brush initially and more detail later' approach was thus rejected. Instead, an approach involving minimal detail whilst reflecting perceived character was maintained, in order to minimise the amount of records (and therefore polygons) created whilst giving a

useful grain of characterisation, and ways of reducing the amount of detail contained within each individual record were explored.

7.4 Further changes to the methodology after the beginning of the main characterisation phase

After one month of implementing the revised, less detailed methodology, completing summaries with a maximum length of 254 characters rather than filling in a free text box, it was clear that the process was still too time consuming and that a more broad brush approach would be needed to complete the project within or close to the original timetable. Further changes to the levels of detail involving both the grain of characterisation and the content of individual records were therefore proposed in the last phase of formal adjustments. Some of the proposed points proved to be more practicable and more useful than others; Appendix 6 gives full details.

The level of diversity encountered within Manchester's urban areas and particularly urban fringes and areas of ribbon development was much greater than had been anticipated, and resulted in the creation of some very small polygons despite the best efforts of the team to create larger polygons wherever possible and to include small features within larger areas. This level of diversity was not accounted for in the predicted polygonisation rates. In practice, polygonisation rates were found to differ markedly between different areas. Even after characterising several of the Greater Manchester districts, it proved impossible to accurately predict the number of polygons that would be created for other districts.

By June 2008 it was apparent that the project would not be completed within the three-year timescale originally budgeted for. Funding was secured for a further year from English Heritage and from the ten authorities of Greater Manchester, with the proportion of funding from each the same as it had been for the first three years. Sufficient funding had been allocated at the start of the project for the later analysis and reporting phase for the project to continue beyond July 2011.

8.0 Analysis – limitations of the data resulting from aspects of the methodology and other factors

8.1 Introduction

The HLC database for Greater Manchester comprises almost 54,000 records, and the vast majority of these include details of one or more previous HLC types as well as a summary of the past and present character of the area and a series of defined attributes. The value of this immense data set is rightly acknowledged and it is hoped that the information will prove useful for a variety of organisations, groups and individuals (see **Sections 13** and **14**). However, it is important that the limitations of the database are understood so that expectations of what can be done with the data as it stands are realistic.

Examples of what can be provided by different analyses of the data include overviews of the proportions of each Broad type, both within individual districts and across Greater Manchester as a whole, maps showing all of the HLC types or selected sub-sets, and approximate figures for the area of land covered by each type. Timeslice mapping can be generated to show how land use developed over time, at a county-wide level and in more detail for districts or smaller areas. However, analyses such as these can only give approximate rather than exact figures. This is more the case for some HLC types than others, and is particularly so for reconstructions based on previous HLC types, showing land use at earlier points in time. The reasons for this are set out in detail below.

One criticism that has been levelled at HLC data is that it is not useful at an individual site level for development control purposes. This is because HLC projects are not designed to provide a site-by-site analysis with a detailed history for each building plot or field, but instead give a broad overview, defining areas with a common character.

8.2 Factors affecting the accuracy of analyses by Broad type or by HLC type in the present landscape and in the past

In order to fit the characterisation phase into the period of time for which funding was available, efforts were made to create fewer polygons wherever possible – see the detailed accounts in **Section 7** above and in Appendix 6. One way of achieving this concerned types of sites that could have been assigned a character polygon in their own right, but could also be included as a feature or an attribute within a larger polygon.

For example, ‘Public house’ is an HLC type within the Commercial Broad type, and the database includes 1127 records for this type in the current landscape. Many of these cover the larger pubs that have associated car parks and beer gardens. Others, however, are small historic pubs that now stand isolated amongst vacant plots following the demolition of the contemporary streets around them, or within areas of later redevelopment. In addition to being a character type in its own right, the presence of a public house could also be recorded as an attribute of any area within the Commercial or Residential Broad types.

Due to an unforeseen issue with the filtering of attributes within HBSMR (see **Section 8.5** below), it is not possible within the program to show how many records record ‘presence of public house’ as an attribute. This issue, together with the fact that public houses can be recorded either as a character area or as an attribute, makes it impossible to conduct a meaningful analysis of, for example, the number of surviving historic public houses or the area of land covered by pubs in the present landscape. Historic public houses can be

regarded as 'point data' rather than character areas and such buildings should ideally be identifiable through the wider HER database, but the structure of the HLC data set and the recording of many public houses as character areas implies that such an analysis could be done through the HLC.

Churches could also be recorded as an attribute of Residential areas, primarily to obviate the necessity of creating a polygon for the small chapels that proliferated in the 19th and early 20th centuries, many occupying tiny plots with no burial ground. However, the majority of churches and chapels were assigned a record and a character polygon in their own right.

In addition to public houses and churches, there were a small number of other HLC types that were recorded either in their own right or as features of larger polygons according to the different circumstances in which they occurred. These types could not be recorded as 'attributes' but instead their presence was noted in the text of the record where space allowed. These types included:

- *Car parks*, which are often created as an integral part of the site they serve. Although they often covered large areas, car parks associated with sites such as supermarkets, sports centres and retail parks were included as part of the character polygon for these sites. However, there were some car parks that were not directly associated with the surrounding or adjacent land and were therefore recorded as separate character polygons in their own right.
- *Reservoirs*, often found as integral parts of historic industrial sites. Where this was the case, the reservoirs were not separated out from the industrial complex. Other water features such as *Artificial lakes* were often found within parkland areas, and these were also not separated out.
- *Woodland*, frequently found as a feature within ornamental or recreational land. Patches of woodland within or between areas of other character types, such as farmland or housing estates, were recorded in their own right. Wooded areas within parks and golf courses were generally not separated out, even where relatively large, but were instead considered to form part of the recreational area.
- Individual *Canal locks*. Only groups of canal locks on a significant scale were recorded as separate character polygons. Single or widely spaced locks were regarded as features of the canal on which they occurred.
- Small *Train stations*. Many local railway stations are small and do not have significant groups of associated buildings, or large car parks. They were thus included as part of the railway line where they appeared to have a low impact on the landscape.
- *Low-rise flats*, which very often formed integral parts of social housing developments, sometimes alternating with blocks of houses. These were not picked out as individual areas where they occurred within larger estates.
- Some HLC types occurring within commercial town cores. Such areas are diverse and individual buildings are often not named on mapping. Some buildings representing other HLC types within these areas will not have been separated out, either because they were not named on mapping and were thus not identified, or because they were simply too small and it was not appropriate to create a separate

character polygon. Examples of these kinds of sites include *Entertainment sites* such as theatres and cinemas, and commercial buildings such as *Hotels* and *Offices*.

For a time, farm sites were included as features within larger areas of Enclosed land. However, it was felt that analysis of rural settlement patterns would benefit from the inclusion of working farmsteads as discrete character polygons.

As described above in **Section 7.2**, it was originally intended that areas of present-day character would be subdivided where more than one concurrent land use had occurred within an area, and this was trialled during the pilot phase. However, this proved unacceptably time-consuming, and subsequently only the most significant land use at a particular point in time (covering the larger proportion of the area) would be recorded as a previous HLC type. This means that the 'timeslice' mapping showing character in, for example, the mid-19th century will be less detailed than the mapping of present character.

8.3 Issues of form and function

Within the Broad types, some of the HLC types were defined by their form and others by their function or status. This was particularly so for the Residential Broad type. Examples include:

- *Social housing*. Assigning the type 'Social housing development' to an area referred to its status when built. It was acknowledged that the majority of estates that were built as social housing during the 20th century now comprise a mix of social and owner-occupied housing, as a result of the 'right to buy' initiative introduced in 1980. Some debate was held regarding whether these estates should still be classed as social housing. However, it would not be possible to distinguish privately owned houses within an estate during a project of this kind, designed to rely heavily on mapping, nor desirable to pick out individual properties such as these within the characterisation. Furthermore, the 'social housing' type had effectively been intended to identify purpose-built council estates of the 20th century and had been stretched to include smaller areas of likely council housing and later housing association developments. The type was not intended to identify the current status of housing, but to identify a particular historic form on mapping. Social housing was thus characterised as Social housing development wherever it could be identified, except in the case of *High-rise flats*.
- In the 20th century *High-rise flats* were most often built as social housing, although more recently high-rise city-centre and waterside apartment blocks have been built for owner-occupation or private rental. High-rise flats, therefore, are classified by their form rather than their status.
- *Semi-detached housing* overlapped with both *Private housing estate* and *Social housing development*. Many social housing estates included both semi-detached housing and short terraced rows, as well as flats in some cases. As a general rule, private housing that was entirely semi-detached (often built as ribbon development along major new roads in the mid-20th century) was classed as *Semi-detached housing*. However, social housing that was entirely semi-detached was characterised as social housing as this was deemed to be its principal defining

character. Where it was not clear whether an area of semi-detached houses had been built to function as social or private housing, the area was characterised by its form as *Semi-detached housing*.

- Semi-detached houses could be recorded as the HLC type *Villas/detached housing* where they were built at a low density (with noticeably large garden plots) and were clearly of higher status.

For some areas, it was difficult to decide from mapping alone whether housing had been built as social or private. This was true for large estates of the interwar period and mid-20th century as well as for areas of high-density modern housing. When Bing maps and Google Street View became available partway through the project, this meant that some ambiguous areas of semi-detached housing could be verified as former council housing.

Another issue relating to form and function was that where the use of a building had changed but the original fabric remained significantly unaltered, or appeared from its mapped footprint to be unaltered, the HLC type that was to be recorded during the project needed to be standardised. Discussions were held during the early stages of the project as to whether a cotton mill, for example, that had been sympathetically converted for residential apartments should be recorded as a *Textile mill* in the Industrial Broad type or as a Residential *Conversion*.

Figure 8a Regent Mill, Failsworth, Oldham – an early 20th century textile mill reused as a warehouse

The view that a building converted for residential use does have a different character from the one it originally had when in industrial use prevailed, and was upheld for less clear-cut cases. For example, a former textile mill that has been converted into smaller industrial units for multiple occupation or has been reused as a warehouse still has an 'industrial' character, even though it is no longer in its original specific use (see Figure 8a above). However, it was

considered that recording sites like this as ‘textile mills’ in the current landscape would give the misleading impression of the quantity of sites still operating as actual textile mills within the county. One of the intended outcomes of the project was to be able to use the data to document changes in land use over time.

The issue of precisely how ‘character’ should be defined under such circumstances is a legitimate point of debate and the matter serves as an illustration of the different ways in which character can be perceived and interpreted by different people, and of the kind of factors that should be made clear to those using the data.

8.4 Inconsistencies, ambiguity and misfits

Although in theory each of the HLC types has a “distinct and recognisable common character” (as noted on page 9), some were more distinct and recognisable than others. Also, despite the large number of HLC types available to choose from, there were a small number of areas that did not fit comfortably into the predefined categories. Some level of interpretation was thus inevitable.

In the early stages of the project, consistency between the two project officers was maintained by ensuring frequent consultation and the discussion of issues that arose during characterisation, leading to agreement on what should be done under particular circumstances. This was more difficult to maintain later on as more people became involved with the characterisation and also as the pressure to work faster increased. Although new workers were most certainly encouraged to ask questions whenever they felt unsure, some discrepancies arose that were not foreseen when some of the character types were interpreted in unexpected ways. Some were encountered much less frequently than others, and with a total of 174 HLC types available it was inevitable that there would be some inconsistencies between individuals and sometimes, over the considerable time-span of the characterisation exercise, by the same individual.

The following are some examples of sites that could fit into more than one HLC category according to individual circumstances or according to interpretation:

- Woodland HLC types in particular overlapped in their definitions, and some of the types were difficult to identify from mapping. The district reports acknowledge the overlap between *Semi-natural woodland* and *Clough*, for example. Cloughs are defined as woodland that has developed on the steep slopes of a valley side, but the type could also legitimately be described as ‘semi-natural’.
- Sites marked ‘Depot’ on mapping could be recorded as either *Distribution centre* or *Storage*, both in the Commercial Broad type. There was also an overlap with the *Warehousing* HLC type; many warehouse sites act as both storage and distribution centres. The word ‘Depot’ on mapping was generally taken to indicate the presence of a distribution centre, although some depots appeared to be purely for storage and were thus recorded as the *Storage* HLC type. Judgements were made on the nature of a site from the sources available. Municipal depots were recorded under the Institutional Broad type, with the HLC type of *Municipal depot*.
- The primary function of vicarages and rectories was deemed to be residential, and it was considered that such a building would be perceived as a higher-status residence by the community. They were thus recorded as *Villas*/*detached housing* within the

Residential Broad type. However, since such buildings were clearly connected with the Church and it was not unusual for them to be located adjacent to churches or within the same grounds, some examples were characterised as *Religious (other)* (i.e. religious buildings not used for worship) within the Institutional Broad type. Presbyteries tend to be found as a much more integral part of a church site, often being built in the same style as a church and sometimes adjoining the actual church building, and these were not generally separated out from their associated places of worship.

- Retirement bungalows and sheltered housing complexes should have been recorded as *Social housing development*. However, some sites include communal facilities and low-rise blocks that may or may not be subdivided into self-contained flats. These sites were sometimes interpreted as the Institutional HLC type of *Nursing home*/*almshouse*/*hostel*.
- Smithies, in the Industrial Broad type, were recorded as either *Craft industry* or *Metal trades – light*. Although there are very few in the present landscape, 49 records included a smithy in the past and of these the previous HLC type was recorded as *Craft industry* for 22 and *Metal trades – light* for 27.

The scope of a small number of the HLC types was altered in the early stages of the project as particular issues came to light, and some new HLC types were added. For example:

- Orchards were initially included in the Woodland Broad type, but were later deemed to have more in common with Horticultural sites. A new category for Orchards was thus entered within the Horticultural Broad type (and all of the existing records updated from Woodland).
- The HLC type *Conversions* initially included apartments and was presumably envisaged as covering large buildings such as mills and churches, where conversion usually entails the creation of numerous individual apartments. In some districts there was also a high occurrence of developments that involved both the conversion of a historic villa or other large house for multiple occupation and the construction of new low-rise private apartment blocks within the grounds to the villa. However, it was recognised that new-build apartments were quite different from converted historic buildings and could more appropriately be recorded as low-rise or high-rise flats, and also that buildings converted into a smaller number of dwelling units, for example farm buildings, did not have the character of 'apartments'.
- *Social housing development* was originally named 'Planned estate (social housing)'. Both this and 'private housing estate' would imply an area of housing of a significant size, but there were smaller areas of housing that also needed to be accounted for, so the category was amended.
- The HLC type *Waste ground* was introduced part-way through the project as it became clear that there were areas of land that could not be fitted into existing categories. *Urban green space* was also created during the project, within the Ornamental, parkland and recreational Broad type. 'Urban green space' referred to areas that appeared to be in informal recreational use. Many represented sites where an industrial building, railway sidings or housing had been cleared and the

land had not been redeveloped, and could thus be regarded as 'waste ground'. However, there are other areas of waste ground that could not be classed as being in recreational use, for example those that are fenced off and clearly inaccessible. These sites were recorded under the new *Waste ground* HLC type within the Industrial Broad type, although they did include plots where the previous use had clearly never been industrial. The project staff did not feel it was appropriate to create a 'Waste ground' HLC type within more than one Broad type, so the new type was classed as 'Industrial' despite the potential for non-industrial sites to be included.

Residential caravan sites did not fit exactly into any of the existing HLC types, but a new category was not created. Instead, they were recorded as the HLC type *Romany or other traveller community site*, as they clearly share certain characteristics. However, this is unsatisfactory as a static caravan site that is occupied permanently is clearly not the same as a site provided by a council as a facility for the travelling community.

8.5 Scope for analysis of 'Attributes'

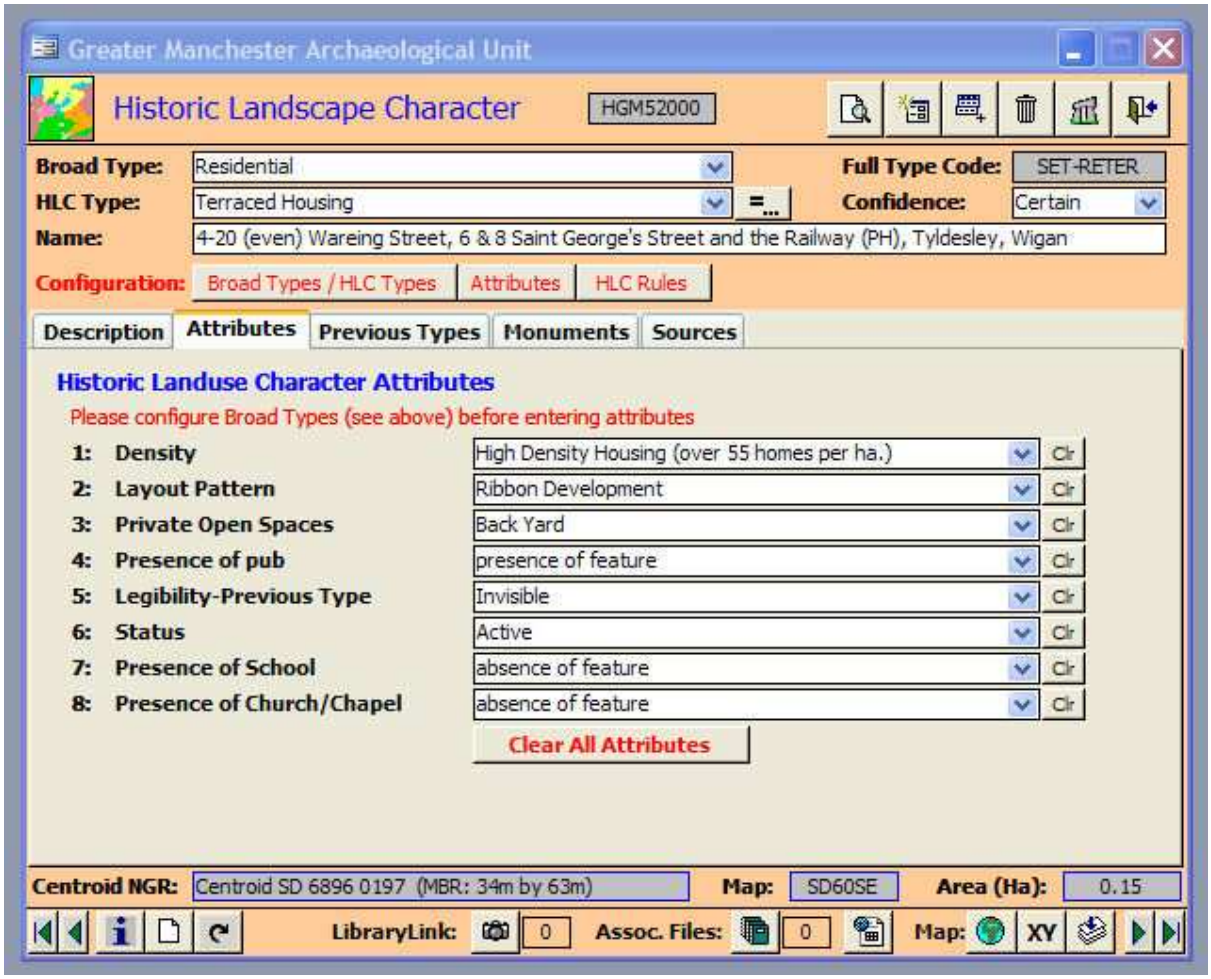

Figure 8b An HLC record showing the attributes associated with the Residential Broad type

It was intended that the attributes could be interrogated to give highly detailed analyses of the data, and for some this is indeed the case. For example, average field size in an area of Enclosed land can be filtered as small, medium or large (with set definitions), or Extractive

sites can be mapped according to their product type. However, the database structure causes inherent problems with interrogating some of the other attributes. Two issues in particular have proved disappointing:

- The attributes cannot be ordered or interrogated effectively by the HBSMR system. For example, in the Residential Broad type the presence or absence of a church, public house or school can be recorded as an attribute (see Figure 8b above) and in the Commercial Broad type the presence or absence of a pub or a bank can be recorded. Several attributes for Ornamental, parkland and recreational areas also have this format. However, in the filter options available within HBSMR, the attributes 'presence of' or 'absence of' cannot be related to a specific item. When filtering Residential records for 'presence of', therefore, all of the records that have a church, a pub or a school will be returned in the filter operation.
- Another attribute records the degree of 'legibility' of previous types, allowing character polygons with a significant legibility of historic character (where tangible elements of past uses are present within an area) to be identified. However, this attribute is not linked to a specific previous type within the record, and this is a problem for any site with more than one previous type. For example, at a site in Tyldesley, Wigan, an early 20th century billiard hall (HLC type 'Entertainment site') was later reused as a warehouse and was thus recorded as the HLC type 'Warehousing' in the current landscape. The characteristics of the billiard hall were still evident, and thus the value assigned to the 'legibility of previous type' attribute was 'significant'. However, the billiard hall had itself been built on the site of the late 18th or early 19th century Tyldesley Cotton Mill, of which no trace remained within the character polygon. When interrogating the database for former mill sites with a 'significant' legibility, this record is returned with the results of the search because there is indeed a significant legibility of a previous type. However, in this instance, the attribute refers to the original use of the current building as a billiard hall and not to the 19th century textile mill that is no longer extant.

Another problem was that some attributes could not easily be identified from mapping or aerial photographs (including Google Street View) and will thus have been applied inconsistently. This was particularly the case for some of the attributes relating to Enclosed land, including the boundary type, and the status of the land as 'improved' or 'rough' pasture. It would be possible to map areas of current Enclosed land according to their boundary type, for example, but the data set would be incomplete and individual records potentially inaccurate.

8.6 Sources of error

The data set would have benefited from a phase of consolidation and authentication of characterisation data following on from the main characterisation phase and preceding report-writing, ideally for each individual district and prior to the writing of the final report. A short phase of data checking was undertaken on completion of characterisation for each district, but no time was allocated for this and it was effectively taken out of the three weeks (30 person days) allowed for writing each district report. The checking involved the

elimination and rectification of obvious errors and omissions, such as spurious or missing dates. Two other issues that came to light during random checks of the data were:

- Duplication of records in error, when a person accidentally copied a record and did not notice that this had occurred. There may be a number of accidental duplicate records with no associated polygon that have not yet been discovered within the database.
- Copying a record deliberately in order to create a new record for an area with similar characteristics, but only changing some of the requisite data – for example forgetting to change the previous types to reflect the new area, or forgetting to change the dates.

8.7 Discussion

The varied treatment of some HLC types as either 'attributes', 'features' of larger areas, or character areas (polygons) in their own right leads to inaccurate figures in terms of the area covered by and the number of incidences of these HLC types. To a certain extent such figures should in any case be regarded as approximate for all HLC types, as the technique aims only to give broad coverage. However, the fine-grained nature of some of the data in a project such as this, where the broad-brush HLC approach is combined with a relatively detailed urban approach, may give a misleading impression that the data are capable of being analysed and used at this level. The inconsistencies entailed in the points made in **Section 8.2** are perhaps an inherent issue of the 'metropolitan' type of project.

Whilst those defining the Broad types and 'HLC' types at the start of the project tried to be as objective as possible, formal definitions of some of the character types were never written down. Some types evolved during the course of the project and a few remained ambiguous. The pressure to characterise as quickly as possible meant there was no provision within the timetable for days spent reviewing character types and formalising definitions. In retrospect this was probably a mistake, and the lack of written material to support characterisation choices was noticeable whenever new staff were introduced to the project. A table of comprehensive, fixed definitions of the character types is conspicuous by its absence from the district reports. Whilst within the reports each Broad type is introduced at the start of its subsection and some effort was made to explain how some of the character types had been defined, this was still not comprehensive or easily accessible.

A list of character types was needed at the start of the project so that the methodology could be tested. However, it was impossible to predict all of the character types that would be encountered until some work had been done in the area, and some types did need to be added during the project. This was also the case during the South Yorkshire HEC. The project report states "*These lists* [of types] *evolved from the types stated in the initial project design, as further categories were found to be necessary in the early stages of the project*." (Marchant et al 2008). It was anticipated that most areas would fit in with the available character types on the list, as it would be undesirable to continually add types throughout the project. A comprehensive review and definition phase following on from the pilot phase should have been included in the original project timetable.

Many more polygons were created during the project than had been projected at the start. It is difficult to judge how far this was a product of the unexpected complexity found in urban

and suburban areas in many of the districts, and how far it may be due to staff characterising areas in 'too much detail' and unconsciously moving away from the broad-brush approach over time. As mentioned earlier, the philosophy of trying to create as few new records (and therefore polygons) as possible was maintained throughout the project, and the number and density of polygons calculated at the end of certain districts was met with some dismay. Table 8a on the next page shows the area of each district, the number of records created for that district, and the average density of polygons per square kilometre for each district. Data for the pilot areas is included for comparison. The districts are listed in the order in which they were characterised, which was alphabetical with the exception of Trafford.

It can be seen that the polygon density did generally increase as the project progressed. It had been anticipated that Manchester district would have the highest density of polygons, as figures used in the project design showed that Manchester had by far the highest proportion of urban land of all the districts, at over 96%. However, some of the districts characterised later had higher polygon densities than Manchester. Although the percentage of land deemed 'urban' in Manchester was very high, the characterisation revealed that 21% of the district comprised land within the Ornamental, parkland and recreational Broad type, and the polygon densities in these areas would be much lower than for truly 'urban' land. This is the highest percentage of Ornamental & recreational land of all the districts by a significant margin, and indeed was more than twice as high as the percentage of Ornamental & recreational land for three districts (Bury, Oldham and Rochdale).

District	**Area (km^2)**	**No. of records**	**Average density** (polygons per km^2)
Bolton *pilot – Bolton town centre*	*(1.20)*	*(204)*	*(170.00)*
Whole district	139.80	3844	27.50
Trafford	106.03	3165	29.85
Bury	99.48	3343	33.60
Manchester	115.65	5635	48.72
Oldham	142.35	5106	35.88
Rochdale *pilot – Watergrove*	*(11.63)*	*(49)*	*(4.21)*
Whole district	158.08	6034	38.17
Salford	97.19	4973	51.17
Stockport *pilot – Cheadle*	*(5.54)*	*(277)*	*(50.00)*
Whole district	126.06	6698	53.13
Tameside *pilot – Stalybridge*	*(4.12)*	*(265)*	*(64.32)*
Whole district	103.17	5874	56.94
Wigan	188.19	9395	49.92

Table 8a Number of records and polygon density for each district

This illustrates the difficulty in predicting polygon densities based on a simple division into 'urban' and 'rural' land. The areas chosen for the pilot phase did not include any of the particularly complex and diverse ribbon developments and fringe areas that were to require so much more characterisation time than had been expected.

Over the whole of Greater Manchester, 53,966 character polygons were created during the HLC project, covering an area of 1276km^2. This equates to a density of 42.29 polygons per kilometre square.

For comparison, the Black Country covers an area of 356km^2 and the project for this area resulted in the creation of 12,664 polygons. This equates to a density of 35.57 polygons per kilometre square.

Whilst the differences in polygon densities for different districts, which tended to increase over the lifetime of the project, may be partly attributable to staff changes and a tendency to be 'drawn in' to a detailed level, it is likely that the differences are at least partly a reflection of the different character of the districts. Wigan, for example, had a relatively high percentage of rural land, and this may explain why the polygon density here was lower than it had been for the previous three districts characterised (Salford, Stockport and Tameside). However, the density was still much higher than had been predicted for the district, and this could perhaps be accounted for by the different land use patterns seen here. Wigan has a high number of medium-sized discrete settlements that are separate from the main conurbation around Wigan town, and its rural areas are also more fragmented than was seen in other districts due to its exploitation on a large scale for coal in the 19th and 20th centuries.

The second part of this report gives a broad overview of the character of Greater Manchester as a whole, and highlights a few of the differences between the districts that are illustrated by the characterisation mapping. It has not been possible to undertake a full analysis of all of the Broad types within the time available for the production of the report. However, **Sections 10**, **11** and **12** within Part Two examine specific topics in detail, and the overview includes some observations on the Broad types that have not been covered within these sections.

PART TWO

9.0 The historic landscape character of Greater Manchester – an overview

9.1 Broad character across Greater Manchester in the present day

This section refers to the Broad character map on the next page (Figure 9a) to make some observations on each of the Broad types across the ten districts. The relative percentages of Broad types making up the land of each district and for Greater Manchester as a whole are given in Appendix 7.

The Residential HLC type is certainly the one that draws the eye when looking at the present-day broad landscape character map of Greater Manchester, dominating the central and southern areas of the county in an almost continuous block and spreading out into Bolton to the north west and Oldham to the north east. The towns of Rochdale and Bury also draw the eye at this scale as large, discrete residential areas. Smaller settlements are found throughout the edges of the county, in the eastern parts of Stockport, Tameside and Oldham districts, in the western parts of Trafford and across the district boundary in Salford, and also in Bury and Bolton districts, with the relatively large area of Heywood forming a discrete block in Rochdale. A few of the smaller settlements on the higher ground to the east are in a linear form, particularly in Oldham and Tameside. In Wigan, the residential pattern looks somewhat different. Here, although there is a significant amount of residential land around the largest town of Wigan, there are a higher number of medium-sized discrete settlements that are separated from the conurbation spreading out westwards from the city of Manchester and across the district of Salford.

The main central Residential block is divided in some places by Ornamental and recreational land, particularly a large band between two of the residential zones of Manchester district, extending north westwards into Trafford. Small and medium sized Ornamental sites can be found throughout the residential areas, with larger sites generally on the edges. Other than the wide band in Manchester district and Heaton Park, also in Manchester, the largest areas of Ornamental land occur in Wigan, including several within the open area encircled by the main settlements.

Zooming in a little closer, most of the discrete areas of pink residential land can be seen to be centred on red and pale blue Commercial and Industrial areas. For the most part these represent town centres, including Manchester, Stockport, Ashton under Lyne, Oldham, Rochdale, Bury, Bolton, Leigh, Wigan, Swinton and Salford. Towns tend to have a central commercial zone with a peripheral band of small industrial sites, and extensive residential zones forming an outer ring. Larger Industrial sites occur at some distance from the town and city centres, often between or at the edges of Residential areas. Many of the larger Commercial sites throughout the county can be found in zones alongside these Industrial sites.

Away from the main urban centres, small Commercial cores are dispersed throughout the suburban residential areas across the county. Institutional sites are also dispersed throughout areas of suburban housing. However, Institutional sites also form important elements of town and city centres.

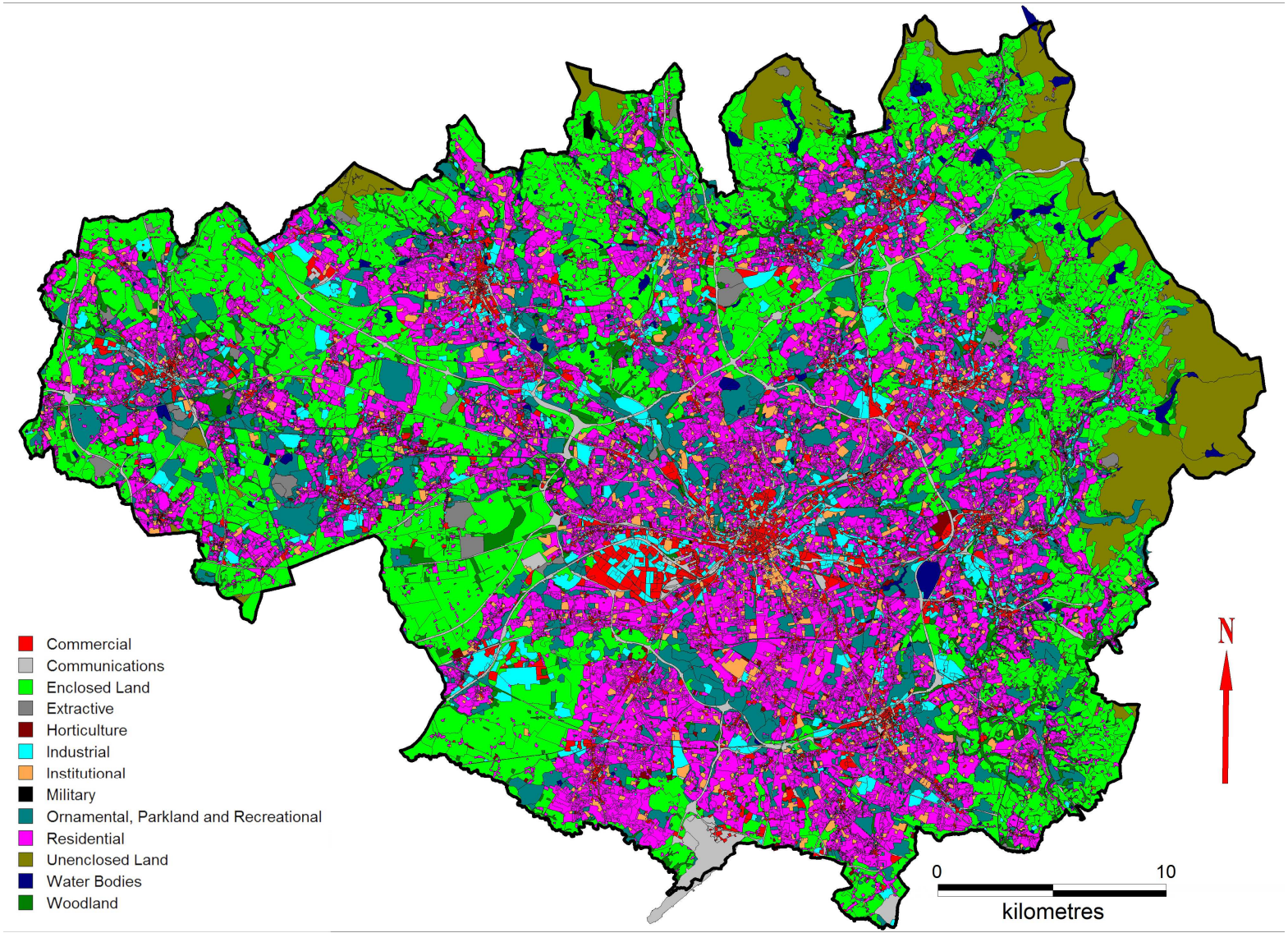

Figure 9a Map showing the historic landscape character of Greater Manchester by Broad type

The largest Communications sites in Greater Manchester are Manchester International Airport and Woodford Aerodrome, at the southern edges of Manchester and Stockport districts respectively. Barton Aerodrome in Salford district is also a large site. Another important modern communications feature in the landscape is the M60 motorway, forming an outer ring encircling the Manchester city area. Whilst some of the land alongside the motorway is in ornamental or recreational use, almost all of the non-ornamental land has now been developed as Commercial, Industrial, Institutional or Residential land, with very little green Enclosed land visible within the circle of the M60 on the character map. Where they are not situated within or close to the principal town centres, some of the larger zones of Industrial and Commercial development are situated to take advantage of Communication networks, including major roads, railway lines and the Manchester Ship Canal.

Most of the Extractive land recorded in the present landscape lies in the northern part of the county, with very little in the districts of Trafford, Manchester and Stockport. Some small and medium sized Extractive sites can be found in the moorland areas around the eastern and northern edges of the county. A few larger ones are apparent in the non-moorland parts of the northern and western districts. These include two adjoining sites on the eastern edge of Bury district (one extending slightly into Rochdale), a medium sized site at the south eastern edge of Bolton district, two large sites on the Wigan/Salford border, and several further sites in the central and western parts of Wigan. There is also a relatively large site to the north east of the town of Oldham. Although present as features in the landscape, most of the Extractive sites recorded as current HLC types are no longer working sites. Many sites have not been reclaimed or put to alternative uses (such as recreational), but have simply been abandoned. These sites were recorded with an attribute of 'inactive', and accounted for almost 80% of the 184 Extractive sites recorded in the present landscape.

Few Horticultural sites of a significant size are apparent in the modern landscape. Sites that stand out include an area to the west of Ashton-under-Lyne in Tameside, crossed by the M60 motorway (at Ashton Moss), and some sites on the mossland fringes in Salford and Trafford. Smaller sites can also be seen within and close to residential areas, including a few small clusters in Wigan and Bolton districts and some larger sites at the edges of Trafford's suburbs. Most of these will be allotment sites – over 84% of Horticultural HLC records were for allotments.

The only significant area of Military land in the present-day landscape is at Holcombe Moor, in the northern part of Bury district. Although each of the other districts does have a tiny amount of Military land, no other site has such an impact at a landscape scale.

Enclosed land, as noted above, is generally not present within the circle of the M60 motorway, but instead tends to be found toward the edges of Greater Manchester. To the east it lies between the Residential areas and the Unenclosed moorland. It can also be found between settlements, including along the borders between many of the Greater Manchester districts. In Wigan the Enclosed land is dispersed through the district to a greater extent than is generally found elsewhere. Manchester district has almost no Enclosed land. On the whole the areas of Enclosed land are dotted throughout with small dispersed settlements, which will include farms and hamlets. The former mossland areas of Trafford and Salford tend to have fewer settlements than farmland in other parts of the county.

Unenclosed land is prominent along the eastern edge of Greater Manchester and in some patches to the north. These areas represent parts of much larger expanses of moorland

extending beyond the county boundary, as can be seen on the map below that puts Manchester into its regional context (Figure 9b). Rochdale, Oldham and Tameside have the largest amounts of Unenclosed land, whilst Bolton and Bury have smaller areas that are nonetheless noticeable on the character map. In historic times, the main areas of Unenclosed land in the remaining five districts were lowland mossland rather than the moorland flanking the edges of the eastern and northern parts of the county. These were largely drained and enclosed in the 18th and 19th centuries. Enclosed and Unenclosed land, including mossland, is discussed in further detail in **Section 10.**

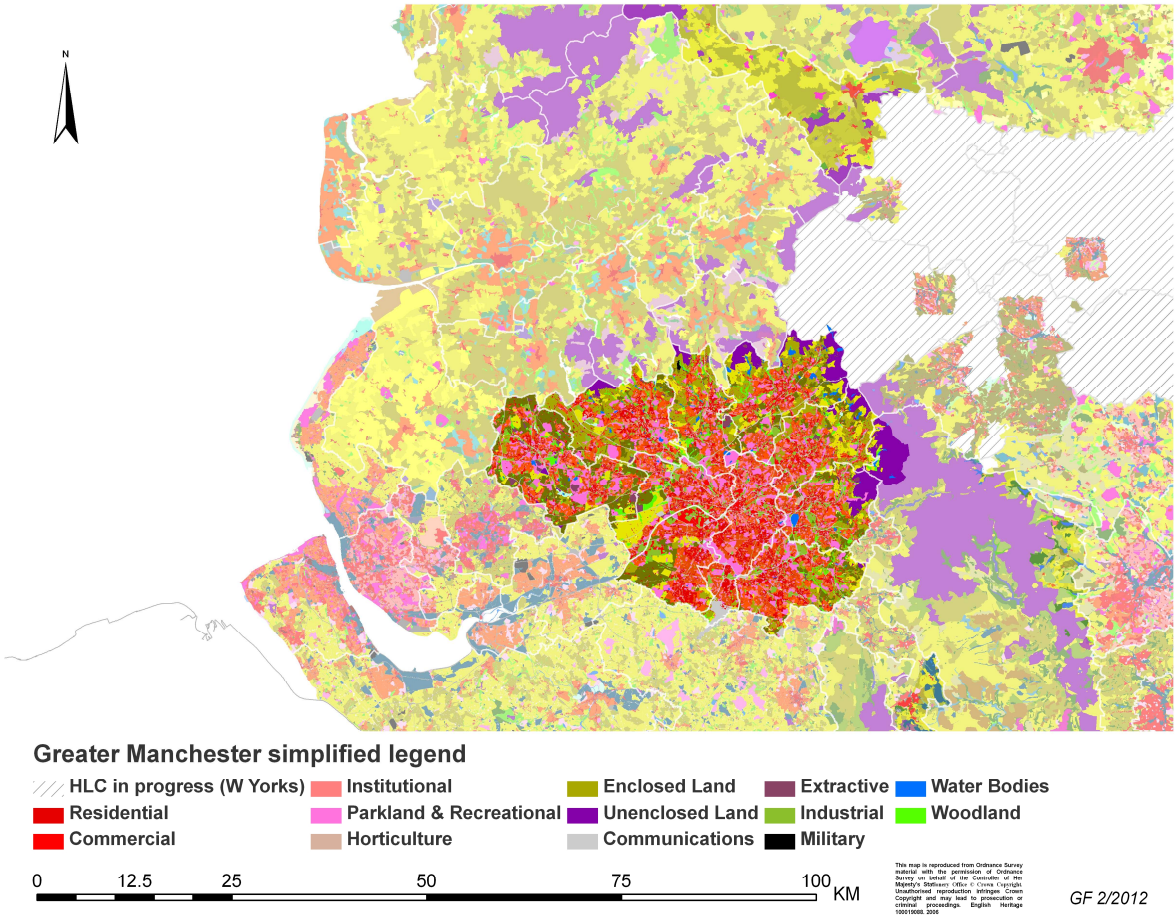

Figure 9b Map of a simplified output from the HLC showing the Greater Manchester area in the context of its wider region. The classification used is primarily 'Broad type' (the highest level of simplification in the HLC). Part of a more detailed level of classification – 'HLC Types' – are also shown (in shades of green/yellow and red respectively) for two classes, the rural areas of 'Enclosed fields' and the urbanised areas of 'Residential' character, but these finer distinctions are not shown in the legend. The contrast between the relatively simple earliest and largely rural HLCs and the greater detail and sophistication of the new HLC for Greater Manchester also illustrates how much the HLC method has been expanded and developed over the past 15 years

Water bodies are mainly concentrated in the north-eastern part of the area, in Rochdale and Oldham districts. These are mainly reservoirs concerned with the drinking water supply, and occur within enclosed land and moorland areas. Some are linear features, presumably

shaped by the contours of former valleys that have been flooded. Elsewhere, the Audenshaw Reservoirs in Tameside and Heaton Park Reservoir on the border of Bury and Manchester districts are also large features. Other reservoirs are dotted through Wigan, Bolton and Bury, but there are very few substantial water bodies in the districts of Manchester, Salford, Stockport, Tameside and Trafford.

Woodland is generally found as linear features within the more rural parts of most of the districts, particularly Stockport, Tameside, Oldham, Bury and Bolton. This reflects a tendency for woodland to remain or to regenerate as cloughs along the steep sides of narrow valleys. Regeneration of woodland on former industrial sites has been a significant landscape element in some districts. Larger blocks of woodland are also found in some of the other districts, and particularly in former mossland areas in Salford and Wigan.

9.2 Broad character in the past – the timeslice mapping

The modern-day character map of Greater Manchester can tell us a great deal about land-use within the county and reveals settlement patterns common to many of the districts as well as unique characteristics of individual districts. However, mapping the county according to previous types gives snapshots of character at different times in the past and allows the depiction of a progression of 'timeslices'. This mapping can allow observations to be made about the development of an area over time.

It should be borne in mind that the old County Survey map editions for Lancashire, Cheshire, Derbyshire and Yorkshire and the tithe maps of Cheshire have different survey and publication dates. The dates for the earliest available mapping across the area of present-day Greater Manchester range from 1836 for the Cheshire tithe maps to 1882-94 for the first edition 6" mapping of Derbyshire. Whilst Derbyshire and Yorkshire cover relatively small parts of the current area of Greater Manchester, the reader should nonetheless be aware of the differences between the map dates as this will have implications for the precision of the dates ascribed to timeslice reconstructions.

Timeslice mapping for districts and smaller areas can be produced at closer intervals where the available map editions allow. At the county scale, however, it was felt that four timeslices could most accurately reflect the available map editions. These are dated at about 1852, 1912, 1967 and the present day (2006). The timeslice maps are presented below as Figures 9c to 9f.

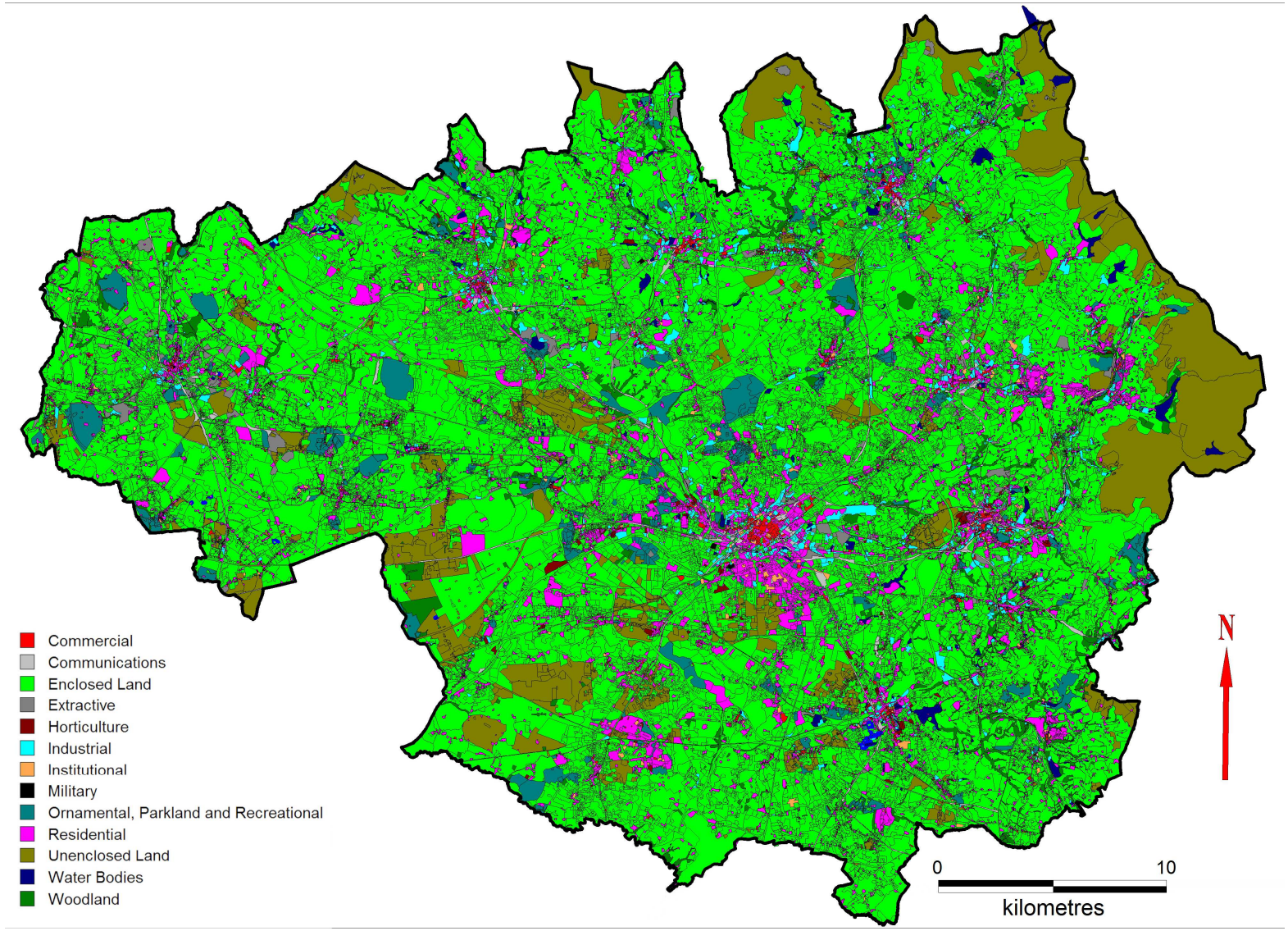

Figure 9c Broad types timeslice mapping for Greater Manchester: 1852

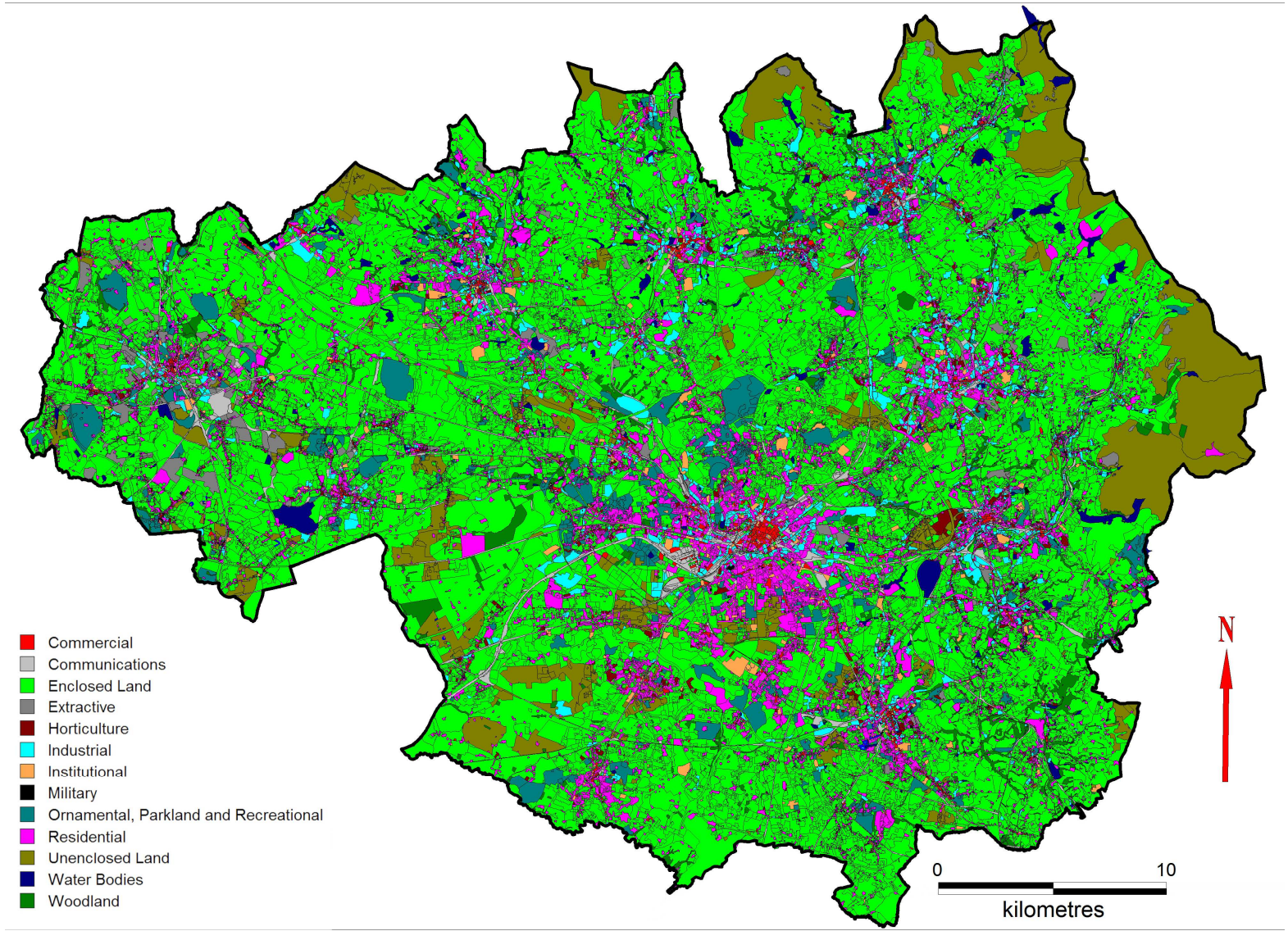

Figure 9d Broad types timeslice mapping for Greater Manchester: 1912

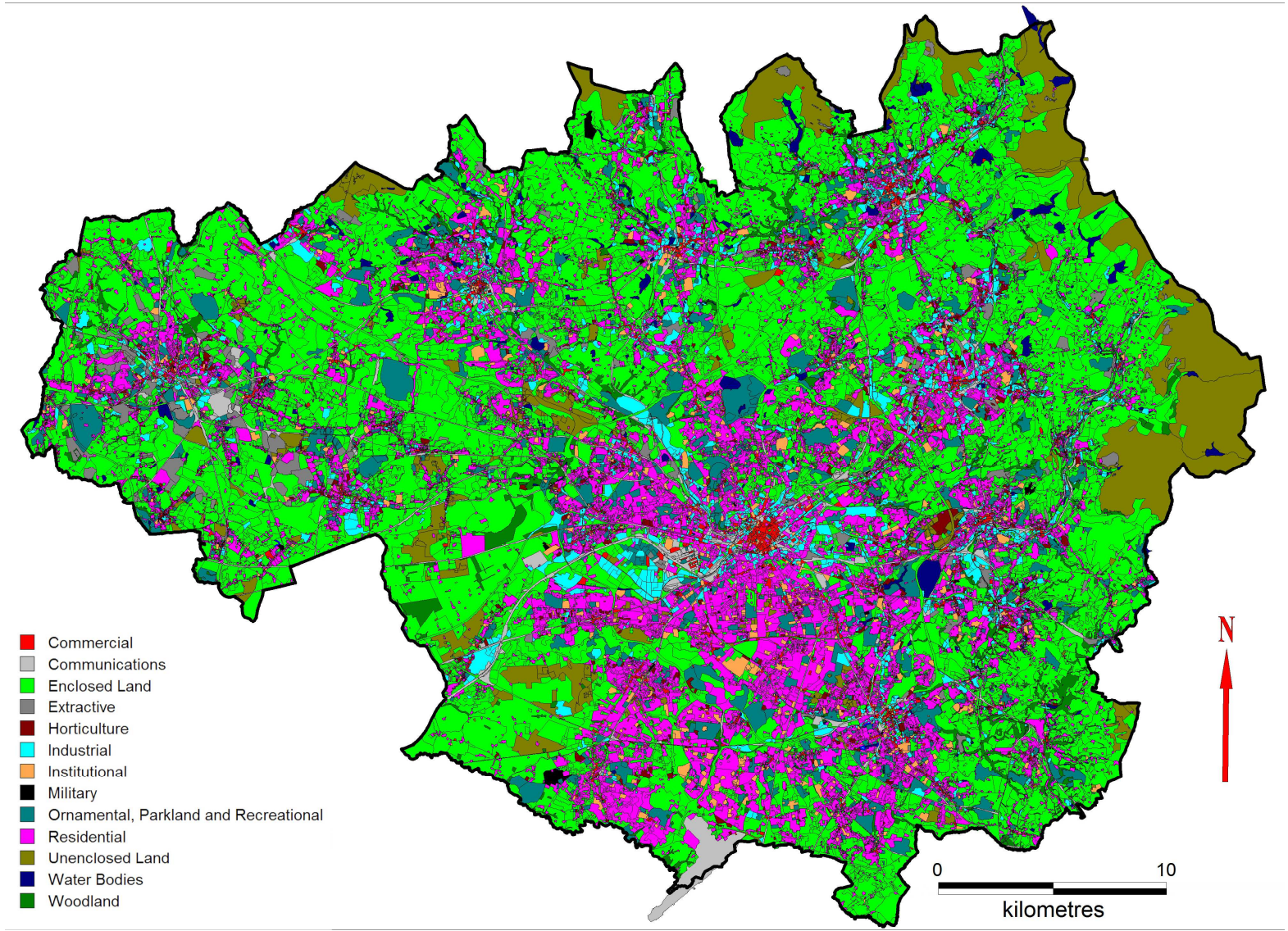

Figure 9e Broad types timeslice mapping for Greater Manchester: 1967

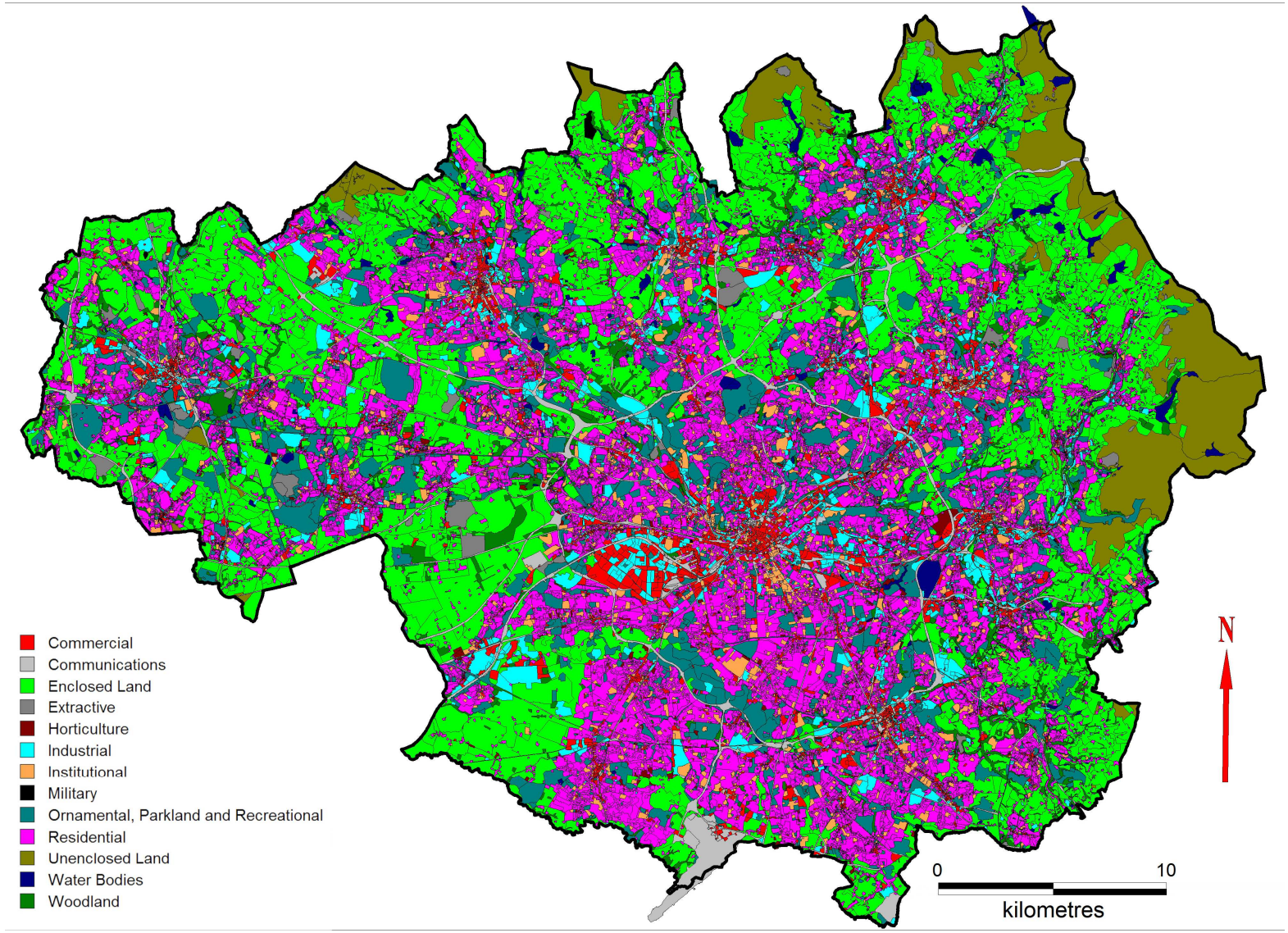

Figure 9f Broad types timeslice mapping for Greater Manchester: 2006

10.0 Rural landscapes of Greater Manchester

Carolanne King
Freelance heritage consultant

Please note – references indicated in this section are listed in ***10.6***

10.1 Introduction

Created by the local government boundary reorganisations of 1974, the county of Greater Manchester is made up of parts of the old counties of Cheshire and Lancashire along with small elements from Derbyshire and West Yorkshire. Though now thought of as predominantly urban, until the advent of the Industrial Revolution the area was essentially rural and well over 35% of Greater Manchester can still be considered as such. The rural landscape of the new county is one of great contrasts, focused on one of the most intensely urban areas of Britain. The cities of Manchester and Salford and some of the towns have early origins as part of a medieval landscape. Today, the central city zone is surrounded by industrial centres, residential commuter belts and suburbs which merge with those of surrounding towns.

All these sit within countryside that ranges from open uplands to the north and east to bleak featureless farmland on the drained mosses of the central and western lowlands. Patches of more undulating land with irregular fields are interspersed through these landscapes. Scattered farms and hamlets are found throughout the countryside and these are interspersed with woods and fields, divided by hedges and drystone walls (see Figure 10a). This diversity is a reflection of a complex and long history with little if any land within Greater Manchester that has not been managed at some stage in its past.

Before attempting to analyse and interpret the rural landscapes characterised by the HLC, it is important to have some understanding of the major factors that have defined these landscapes. Much of the current land usage is dictated by topography, which is in turn dictated by the underlying solid and drift geologies that are discussed elsewhere (see for example Tonks et al 1931). Greater Manchester encompasses part of the Mersey Basin. To the west the land is generally flat as it runs towards the coast. The districts of Wigan, Manchester, Salford and Trafford fall mainly within this area. Mossland developed on much of the flatter wet ground, especially in the hollows formed by the retreat of the ice at the end of the last ice age about 12,000 years ago. The mosses were once a defining characteristic of the land to the south and west, but are now mostly drained; these areas are interspersed with ridges of sand and gravel and low sandstone outcrops.

To the north is the curving range of the Rossendale Hills, whilst to the east lies the main north–south range of the Pennines, with its fringes within the county. Bolton, Bury, Rochdale, Oldham, Tameside and to a lesser degree Stockport all have elements of these uplands. In places these rise to well over 300m Above Ordnance Datum (AOD), reaching over 500m AOD on Saddleworth Moor in Oldham. 250m AOD is often taken as the level beyond which viable arable agricultural regimes are no longer possible. The discrete geographic feature created by the watersheds of the uplands and the curving basin that lies to their west is often referred to as the ‘Manchester Embayment’. The wider geographic setting has very much dictated the nature of the rural land in the past and also the extent to

which it has survived. The flatter and better drained areas have proved the most vulnerable as these provided the better building land for the explosion in residential development of the 20th century.

Figure 10a Enclosed farmland around Mellor Church viewed from Cobden Edge, Stockport

After the retreat of the ice the region developed extensive woodlands, but these have gradually been eroded under the pressures for agricultural land. It seems for much of its history the region had a pattern of extensive rather than intensive settlement and agriculture. Mixed farming regimes did develop, especially on the lowlands, but in general stock rearing dominated, particularly on the higher ground. What had evolved by the medieval period was a landscape of widely scattered farms and hamlets with the occasional larger population centre of village or town status, but these larger settlements were very few. Between the scattered settlements were occasional large estates and many more small gentry estates centred on halls. Surrounding the farms and settlements were areas of marginal land and woodland, all of which were managed to provide resources for the local communities. These were linked by a network of roads and trackways.

Across the western and southern lowlands the great mosses stood out as wild untamed areas. The agricultural land advanced and retreated according to climatic change as well as population growth and decline. Increasing pressures from the 16th century onwards led to gradual then accelerated reorganisation of the countryside; encroachment into woodland and onto moorland was extended and commons and wastes were enclosed. The mosses survived until relatively late, but most had been drained by the late 19th century.

In the mid-19th century the rural landscape still made up over 80% of the county (see the first 'timeslice' map of Broad types, Figure 9c). It was essentially post medieval in character with some pockets of medieval fields surviving. This is the landscape encapsulated in the first edition Ordnance Survey maps that formed the primary sources for identification of previous character types in the HLC, ranging in date from about 1851 to about 1886 according to specific map sheets (see Appendix 5).

10.2 Applying the HLC data to rural landscapes

The HLC has enabled a broad overview of the level of survival of the mid-19th century landscape within the current landscape. The data set created will form a basis for much more detailed studies of how that landscape has changed with the impact of the industrialisation of the region. This section of the report comprises an initial appraisal that takes a broad-brush approach to analysing the current nature of the rural landscape as revealed through the HLC.

Within the HLC there was not a Broad character type for 'rural' land, as this is a very general category. For the purposes of this study, therefore, 'rural' is taken to be undeveloped land either used for agriculture or forming part of open countryside. The Broad character types that cover these areas are Enclosed and Unenclosed, which together cover almost 445km^2, over a third of the total area of Greater Manchester (1276km^2). However, to gain a true appreciation of the extent and evolution of the countryside other character types also need to be considered. These include the Broad types of Woodland, which covers 3.6% of Greater Manchester, and Horticulture, which covers 0.5%. It is also important to look at some of the HLC types that fall within the 'Ornamental, parkland and recreational' Broad type such as Country park, Deer park, Golf course, Playing fields/recreation ground, Private parkland and Public park. Such land usually has rural origins and can be considered as 'undeveloped'.

The rural land is not distributed evenly across the county. Enclosed lands (fields) are primarily located in the flatter western and southern districts with further large areas on the lower Pennine fringes to the north and east. The Unenclosed land is predominantly on the uplands beyond these fringes, where it survives as moorland. Oldham and Rochdale are the most rural districts in the county. These are the two districts with the highest percentages of Unenclosed land due to their large moorland areas, and both also have significant areas of Enclosed land. Adding these two Broad types together, the HLC data indicates that Oldham is just over 55% rural and Rochdale just under 55%. Manchester stands out as the least rural district, having only 2.79km^2 of Enclosed land and no Unenclosed land. However, it does have the largest proportion of Ornamental, parkland and recreational land in the present landscape, at just over 21%.

Ornamental, parkland and recreational

Considerable areas recorded as the Ornamental, parkland and recreational HLC types sit on the fringes of the urban zones, buffering and adding to the character of the rural land that lies beyond the suburbs. The total current area for the Ornamental, parkland and recreational Broad type is some 158.5km^2, just over 12% of the county. This figure needs to be treated with caution though as one of the HLC types making up the area is Urban green space, which covers areas used for informal recreation and includes a proportion of derelict land. In Wigan for example, much of this may constitute land reclaimed from colliery waste

tips. Country park is another Ornamental HLC type that often includes areas of derelict land associated with industry or extraction. In Bolton district, Moses Gate Country Park includes the former sites of chemical works, a paper mill, sewage works and collieries. In Wigan, large areas of open water created by mining subsidence, known locally as 'flashes', are a distinctive part of the landscape. Many are now used for recreation, including watersports, and are managed as nature reserves. Pennington Flash forms the main element of a country park (see Figure 10b).

Figure 10b Pennington Flash, Wigan, formed by coal mining subsidence at the turn of the 20th century

With the Ornamental and recreational areas taken into account, including some potentially derelict land, 40% of the county is made up of either rural or undeveloped land. This is perhaps not a statistic that is currently well known as the intensely urban nature of Greater Manchester's towns and cities counters the fact that they are surrounded by a rural landscape and have green spaces within them.

Golf courses cover a total of some 25.7km^2, approximately 2% of the total land in Greater Manchester. They are fairly evenly distributed across the county, although Bolton and Stockport have the most in terms of area at 5.05 and 5.03km^2 respectively – about twice as much as the average of the other districts. Many of the golf courses in the county include a previous type of Enclosed or Unenclosed land although several, such as Hindley Hall Golf Course in Wigan, were created from Private parkland.

Some historic Ornamental and recreational sites, such as areas originating as Private parkland and Deer park, may have retained a similar character for hundreds of years and

still be maintained as open space. This is particularly so for the private parks or portions of parkland estates that have been donated to townspeople or purchased by local authorities for the creation of a public park, a not uncommon occurrence in the later 19th and early 20th centuries. Examples include Heaton Park in Manchester district, Farnworth Park in Bolton, Queens Park in Rochdale, and Oakwood Park in Salford. Although maintaining an element of rural character, many of these sites now form islands within urban and suburban settings. The site of Royton Hall in Oldham is now a small area of open green space (characterised as Urban green space). Although the hall was demolished in 1939, below-ground archaeological remains are still present and it was recently the site of a community excavation (see Figure 10c).

Figure 10c The remains of Royton Hall, Oldham, being excavated as part of the 'Royton Lives through the Ages Project'. The site of the hall and gardens forms a green space within the town centre

Private parkland was recorded in the current landscape at only a few sites in Greater Manchester and covers just 2.93km^2, less than a quarter of a percent of the whole. The largest single site, Winstanley Park in Wigan, accounts for almost two thirds of this land. Much of its mid-19th century extent remains intact, although it has been truncated to the west by the M6 motorway.

There is only one Deer park still in this specific use in Greater Manchester and thus recorded as a current HLC type. This forms part of the Dunham Massey estate, at the south western

edge of Trafford district. A deer park associated with Chadderton Hall in Oldham that is now lost is shown below in Figure 10d.

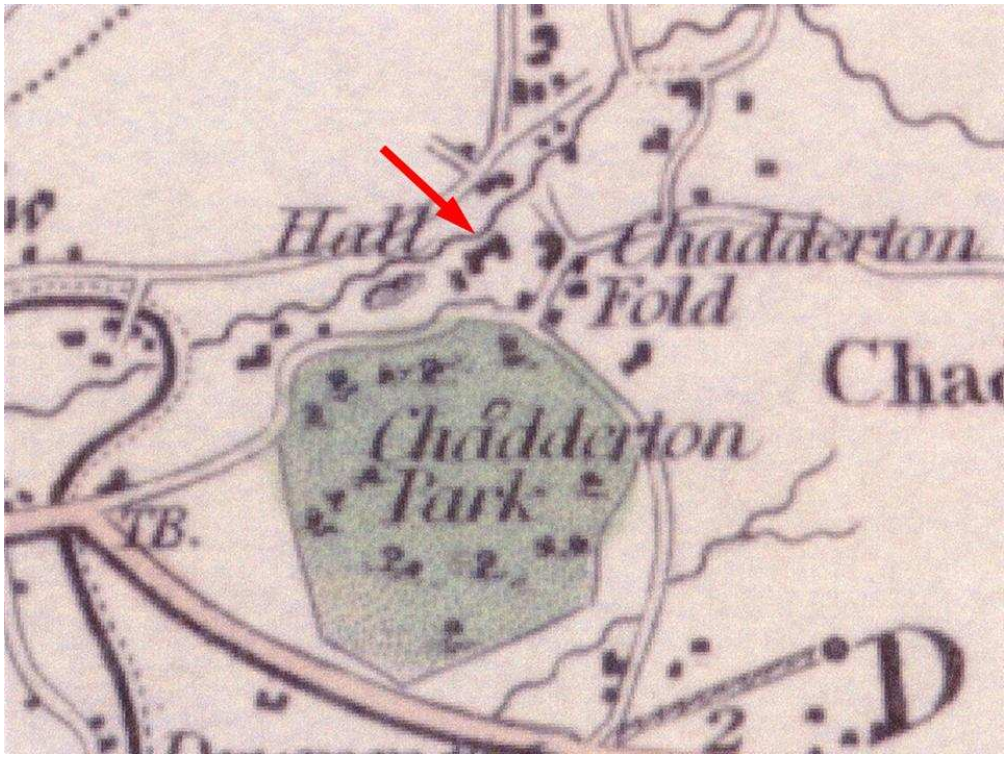

Figure 10d Hennet's Map of Lancashire (1829) shows Chadderton Hall in Oldham (arrowed red) and associated deer park (in green). The hall has been demolished and its site and grounds now form a municipal park, whilst the deer park has been built over

Horticulture

The Horticulture Broad type includes the HLC type of Allotments, which are a feature of urban and suburban areas. However, most allotment sites derive from previous agricultural land and were intended to provide a connection with the land for industrial workers only one or two generations removed from agricultural labouring. Allotments can also be considered as undeveloped land, which has implications for the survival of below-ground archaeological remains. It is significant that 1945 records across the county have a past type of Allotments, making up some 19.6km^2. In the present day allotments cover an area of only 4.2km^2, and this equates to a considerable loss of undeveloped land within the towns and cities of the county. Over half of the area identified as former allotments (around 11km^2) is now under residential development.

Enclosed land

By the end of the 20th century the dominant surviving HLC type for Enclosed land was Piecemeal enclosure, making up 11% of Greater Manchester (approximately 142km^2). This type is characterised by small irregular fields with boundaries that often follow natural features such as streams, gullies and contours. For the purposes of the project the type was given a default date of origin of AD 1540, although it is likely that some field systems originated well before then. Figure 10e shows the distribution of the three most commonly occurring Enclosed land HLC types across Greater Manchester.

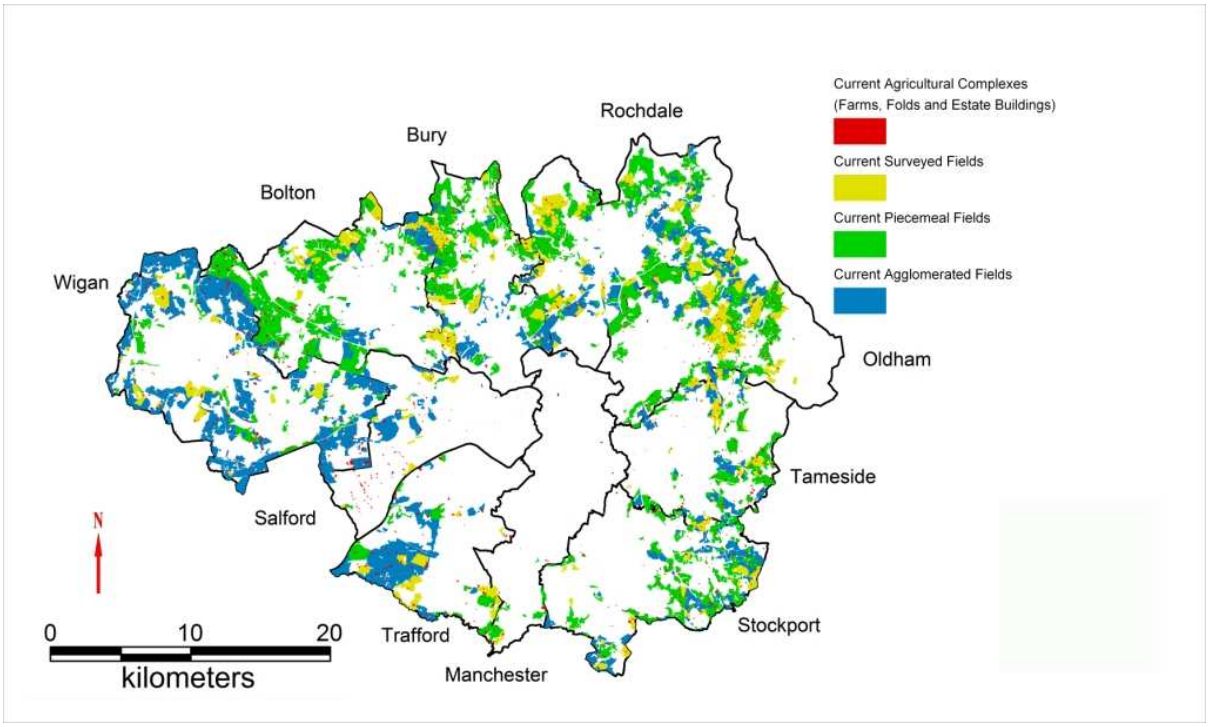

Figure 10e HLC generated map showing the extent and nature of the three most commonly occurring Enclosed land HLC types across Greater Manchester. Farms and folds are also plotted

The Enclosed land of Bolton, Bury, Oldham and Rochdale is mostly made up of Piecemeal enclosure and the same is true of Tameside and Stockport, although to a lesser degree. The type was often used as the default for irregular field systems, but it may contain remnants of medieval and earlier fields. Although they still have significant areas of farmland, Salford, Trafford and Wigan have relatively little surviving Piecemeal enclosure. Manchester district has very little Enclosed land; although 68% of what survives is Piecemeal enclosure, this covers an area of just 1.87km^2. Most of Manchester's farmland lies towards the very southern end of the district near Manchester International Airport, with just a few fragments near the northern district boundary. The land now covered by the airport (an area of several square kilometres extending across the boundary into Cheshire East) was previously Piecemeal fields.

At the start of the project the presumption was that Agglomerated fields would be the principal Enclosed land type in the present-day landscape, reflecting the pressures that industrial cities can put on their surrounding agricultural land. Instead, the dominant survival of Piecemeal enclosure indicates that significant evidence of mid-19th century land use is still present across Greater Manchester's rural landscapes. The historic character of many rural areas has thus been preserved, and this is a significant factor that should be taken into account when managing these landscapes.

Agglomerated fields were in fact the second most common Enclosed land type, covering some 9.6% of the county (almost 123km^2). This HLC type is very much a result of the 19th and 20th century enlargement of fields, either through the neglect and abandonment of field boundaries or their deliberate removal. Despite this damage to boundaries, previous features may be retained within an area of Agglomerated fields. Interior boundaries may be

retained as fossilised features such as short lengths of tree lines or earthworks, and external boundaries can be retained.

Wigan district has the largest area of Agglomerated fields with over 52km^2, approximately 41% of the total for the county. At least two-thirds of this area derived from former Piecemeal enclosure, mainly in the 20th century. Agglomerated fields also make up a higher proportion of the Enclosed land in Wigan than in any other district, at 73%. The district with the next highest proportion of Agglomerated fields is Trafford, where this HLC type makes up almost 55% of the Enclosed land. Trafford is an interesting case as its agricultural land has two main origins, being either part of the Dunham Massey Estate or the result of the 19th century drainage of a series of large mosses.

The prevalence of Agglomerated fields in Wigan is probably because this district has some of the best agricultural land in the area and has retained its farming regimes into the 21st century. The modern trend is for areas of larger holdings where the land of several farms has been amalgamated. Despite the removal of a great many hedges and field walls during the agglomeration process, Wigan does still show some evidence for earlier field patterns. Indeed, elements of potentially medieval strip fields have been identified at several locations in the district, including Lowton.

The social upheavals of the 19th and 20th centuries coupled with land and inheritance taxes put a great deal of strain on surviving large estates and many were sold off or broken up. Some, especially the small gentry estates, were sold on to wealthy industrialists, whilst others were given or sold to municipal or national bodies to become recreational resources. These estates have left their mark in the landscape. Estate and park boundaries may survive within field patterns and have been tentatively identified at various sites. This is predominantly found in the west of the county, although there may be indications of a large deer park with a moorland element at Hollingworth in Tameside, to the east.

The Dunham Massey Estate originated as a deer park in the medieval period. The estate today, which is far more extensive than just the park, continues under the ownership of the National Trust, to which it was given by Lord Stamford in the latter half of the 20th century. The National Trust manages the country house and park as a visitor attraction whilst the farms and farmland are managed under agricultural regimes, along with a range of farm-based businesses. The medieval fields of the estate were agglomerated in the early 19th century with most of the internal hedges removed. However, the pattern of roads and tracks that runs between the large 19th century fields is still basically medieval. A few other large estates in the area such as that at Smithills in Bolton district have survived in a limited form into the 21st century.

After Agglomerated fields, Surveyed enclosure is the next most extensive enclosed land type with 54.83km^2, some 4.3% of the total land in Greater Manchester. Rochdale and Oldham have by far the largest areas of Surveyed fields, at 11.66 and 12.62km^2 respectively. Much of this was created by the 18th and 19th century enclosure of commons by Act of Parliament. The land was formally divided up using maps as a base, which resulted in large fields with straight boundaries. These types of fields are prevalent on the fringes of the Pennine uplands with smaller areas on the drained mosses of the lowlands. Surveyed enclosure was also newly created in the 20th century, especially in Wigan where there are surveyed fields on some reclaimed colliery sites.

In some areas significantly earlier enclosure by agreement has been identified where the fields, though very regular, are much smaller. This occurs for example at Harrop Edge in Oldham and at Quick Edge in Tameside (Figure 10f). Enclosure by agreement appears to have started in the 16th century as part of a more general land reorganisation. By the end of the medieval period the manorial system was breaking down and tenants and owners found it difficult to make a living out of small land holdings. Many began to look for ways of diversifying and turned to the textile trade as a means of doing so. The 'putting-out' system, where merchants supplied raw materials to local weavers who then produced cloth for the open market, began to develop across the region and independent farmers and merchants became wealthy from the profits. They could afford to buy up land and build new houses, and as a consequence from the 16th century onwards the countryside was gradually reorganised.

Figure 10f Aerial photograph of Quick Edge, Tameside, looking south, showing small regular fields. These represent early enclosure by agreement

The effects of this reorganisation are especially noticeable in the sheep farming areas of the Pennine fringes in the north and east of the county with intakes and enclosure of the open moors and commons. Intakes, characteristically large, straight-sided enclosures on the moorland fringes, cover 15.26km^2, just over 1% of the county. The districts with the most land covered by Intakes are Rochdale (6.84km^2) and Oldham (5.63km^2). Intakes, by their nature, tended to be created on very marginal land and many were abandoned when hill farms became unprofitable. Tameside and Oldham show evidence of the retreat from marginal land with the abandonment of 18th and 19th century intake fields to the encroaching moorland.

Perhaps the most significant field types surviving in the present-day landscape are those that have almost certain medieval origins. These are Assarts, Strip fields and Open fields, which together make up 6.6km^2, only 0.5% of the total area of the county. Assarts have a

distinctive form, comprising a sub-circular or oval enclosure subdivided internally into smaller fields, and often with a small farmstead in the centre or towards one side. Such enclosures were created by the piecemeal clearance of woodland. Recent research in the Mersey Basin suggests that in the region a few of these oval enclosures, especially the larger ones, may have Roman or Saxon estates at their hearts (Cowell & Philpott, 2000). The HLC recorded Assarts within the current landscape in Oldham, Salford, Stockport, Tameside and Wigan. An example at Birchenough in Stockport has survived virtually unaltered into the 21st century and is a typical example of this field type (see Figures 10g & 10h). Assarts were consistently recorded across the county as a past type, especially in the areas with better-drained soils.

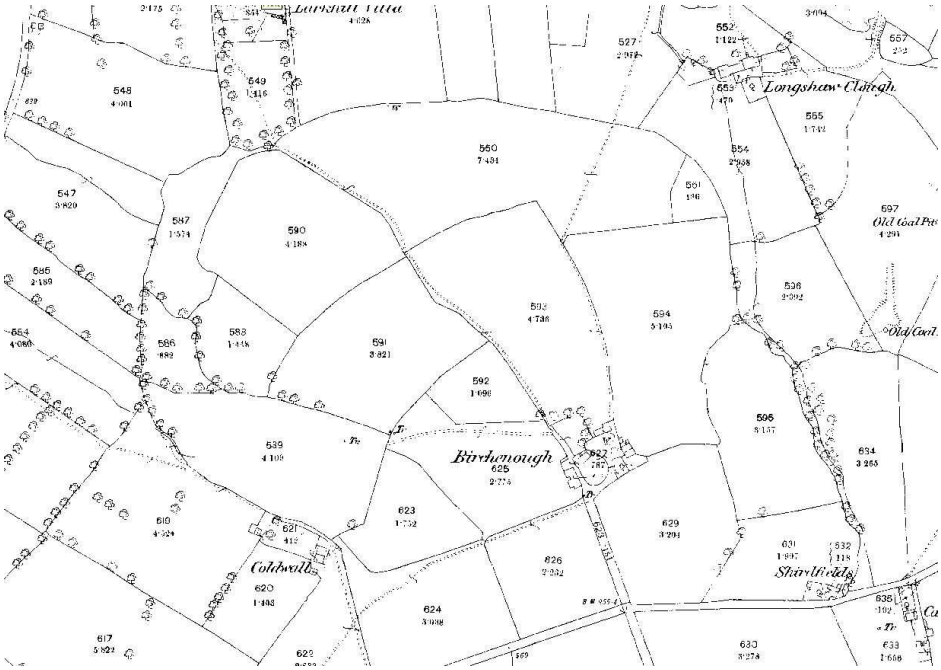

Figure 10g An Assart at Birchenough, Stockport (Derbyshire 1st edition 25" OS map, 1880-86)

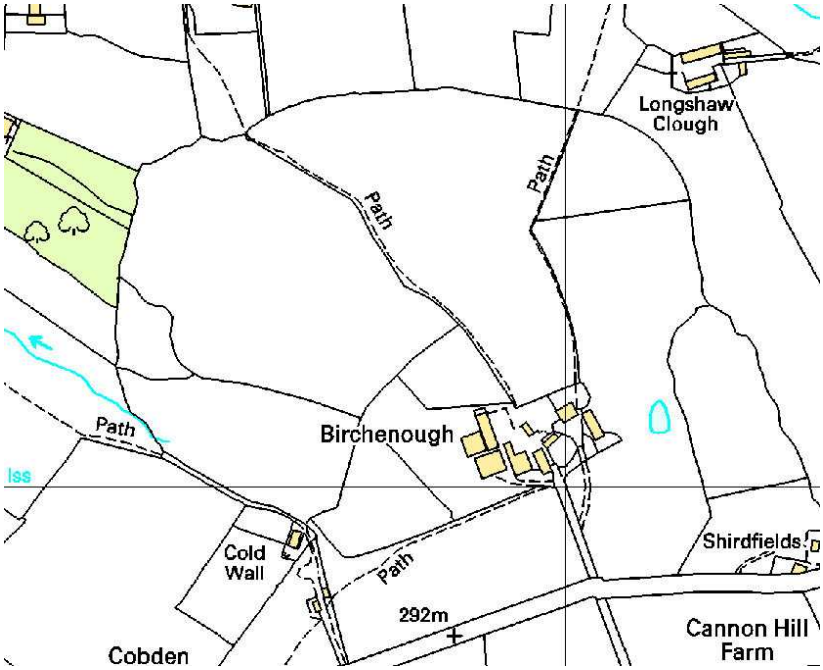

Figure 10h An Assart at Birchenough, Stockport (OS 1:10,000 mapping, 2005)

Only Bury, Tameside and Trafford have Open fields in the present-day landscape whilst Bolton, Stockport, Tameside and Wigan have Strip fields. Together these HLC types cover just 3.5km^2. In Mottram in Longdendale, Tameside, open and strip fields are visible on the mid-19th century mapping. To the west of Eccles in Salford on mapping of the same period can be seen the fossilised field patterns of a possible planned medieval village at Patricroft (see Figure 10i). Strips survive aligned at right angles to the B5207 at Golborne in Wigan, although these may be post medieval planned fields. Strip fields and Open fields were usually associated with reasonably large nucleated medieval settlements. These are uncommon in the region.

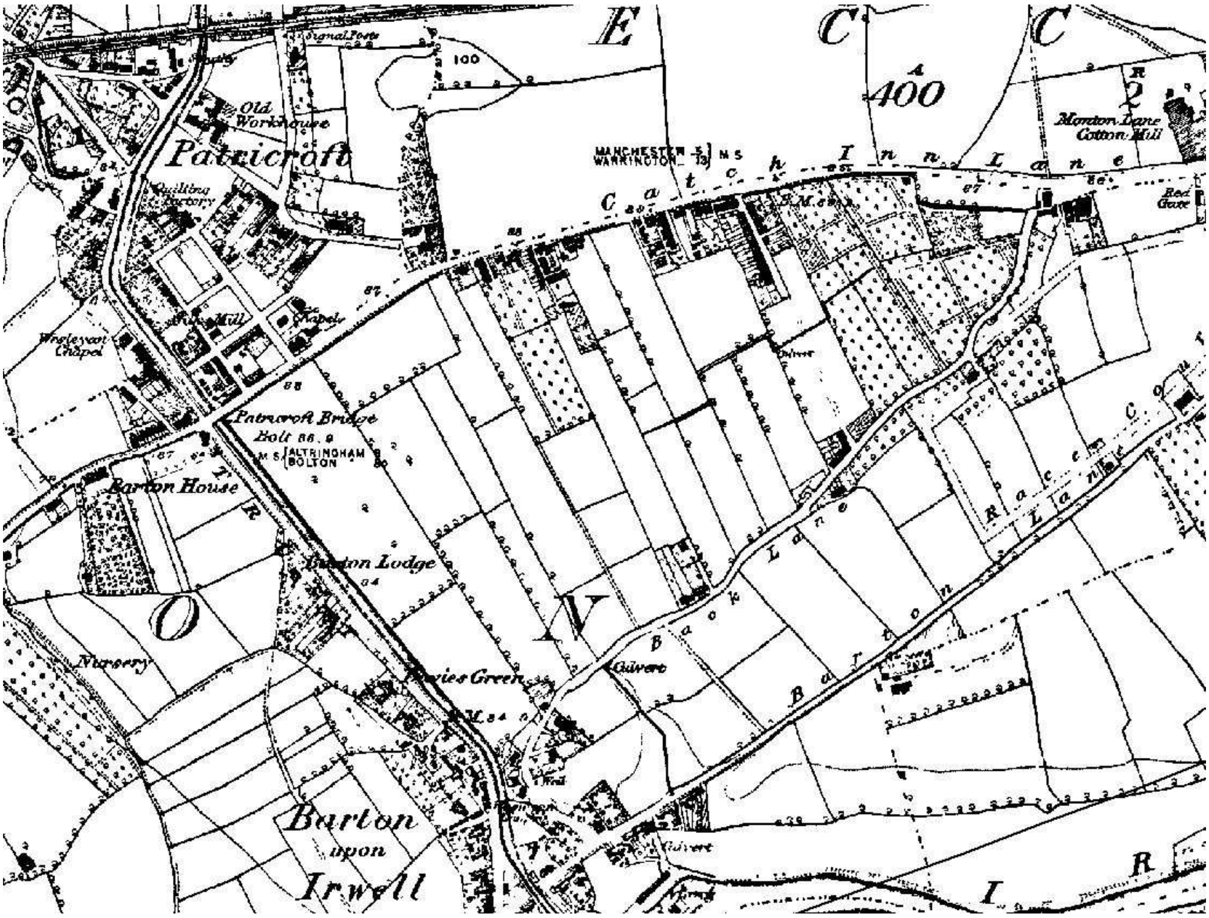

Figure 10i Fossilised field patterns of a possible planned medieval village at Patricroft, Salford (Lancashire 1st edition 6" OS map, 1848-51)

Just 3km^2 of Paddocks and closes were identified during the project. These made up less than 0.3% of the county, but as they are closely associated with settlements they are probably subject to the most change. Old paddocks can be subsumed by development or reorganised by the removal and rearrangement of wire fencing, but new ones are still created.

Only 2km^2 of Valley floor meadows were recorded in the current landscape. These are difficult to identify from mapping, and like some other Enclosed land types are probably under-represented. Over half of the area of Valley floor meadows recorded by the HLC lay along the river Douglas in Wigan.

The HLC project did not identify any prehistoric field systems either in the present landscape or as a past type. This may not necessarily be because none are present, but rather that they are very difficult to identify within the complex pattern of irregular fields that dominates in the area.

Wetland areas

The wetlands within the region were recorded as Drained wetland fields in the Enclosed land Broad type and as Mossland and Wetland common within the Unenclosed land Broad type. The use of the term 'common', though indicating unenclosed land, implies the use of the land as a common resource which means that to some extent, though very limited, the land was managed for its resources.

Drained wetland covering an area of 24.7km^2 was recorded by the HLC. By far the largest area of this HLC type was in Salford where it covers some 15.4km^2, about 16% of the whole district and about two-thirds of the district's Enclosed land. No other district had anything approaching this amount. Almost all of the Drained wetland in Salford forms part of the extensive Chat Moss complex, part of which falls within the modern district of Wigan immediately to the west.

The lowland mosses of the region were one of its main characteristics in historic and prehistoric times, restricting the spread of farmland and settlement and obstructing travel. The mossland areas were still largely untouched in the 18th century, but by the end of the 19th century nearly all had been drained and they have now mostly been built on or turned into agricultural land. Indeed, less than 1km^2 of Mossland and only one tiny area of Wetland common (covering just 4.29 hectares, or 0.043km^2) was recorded in the current landscape. All of this occurred within Wigan district, and the largest single area, Ince Moss (covering about half a square kilometre), has gone through a complex development. Originally part of a much more extensive area of moss, this area had been partially drained and enclosed by the early 19th century. The rapid development of the coal industry in the 19th and 20th centuries led to major subsidence beneath what became marginal agricultural land used for waste tips from the collieries. In the latter half of the 20th century the spoil was removed and the area is now being encouraged to return to a natural mossland habitat. In the present landscape the category of Mossland implies a natural environment that is not managed unless as a nature reserve, where there may be an active management system to maintain an ecological balance.

The development of Carrington Moss in Trafford gives an example of how a mossland area was reclaimed and how it was subsequently used. The existence of Carrington Moss is documented in a survey of 1553 for John Carrington, the last male heir of the Carringtons; amongst other types of land he held 500 acres of moor, moss and turf (Trafford Archives nd). The mossland covered an extensive area and fell under several landowners.

By 1873 attempts at drainage were well underway and, as with many of the Greater Manchester mosses, this marginal land was used for part of the expanding transport network. Between 1865 and 1873 the Cheshire Lines Railway was built across the south-western edge of Carrington Moss. The growth of Manchester and its population led to the moss being used for night soil disposal, with waste brought in by boat along the Irwell and the Mersey and a railway specially constructed to facilitate distribution of the waste across the mossland area. With changes in sanitation and waste disposal, night soil was no longer being dumped on the moss by the early 20th century and the railway system was removed.

A scheme of crop planting was developed to establish and improve the soils and eventually the land was let to tenant farmers. The moss is now mainly used for agriculture, although a large area has been developed for industry in the form of a petrochemical works on its northern fringes.

Unenclosed land

After Enclosed land, the second major component of the rural land of Greater Manchester is Unenclosed land. This covers approximately 75.71km^2, some 6% of Greater Manchester, with moorland accounting for almost all of this in the current landscape (74.32km^2). Oldham is the district with the greatest extent of moorland, with some 31.37km^2 (22% of the area covered by Oldham). The moorland areas occur on the Pennines to the north and east of Greater Manchester, with much today given over to grouse moors managed for shooting. There is a military firing range at Holcombe Moor in Bury. Within the boundaries of the range, relict landscapes may well be preserved.

In the late 19th century the demands of the large industrial cities and towns for water became critical. Areas of the watersheds and catchments on the high ground were bought by municipal bodies and later utilities companies to enable them to control and manage water supplies through the creation of reservoirs (see Figure 10j). Where these reservoirs were built, relict landscapes sometimes survive in the surrounding abandoned agricultural land. Castleshaw in Oldham preserves the remains of a Roman fort alongside a later relict landscape.

Figure 10j Castleshaw Valley in Saddleworth, Oldham. An area of dispersed farmsteads, folds, piecemeal enclosure, surveyed enclosure and agglomerated fields, with several disused mill ponds and the Upper and Lower Corporation Reservoirs. The hilltop at the head of the valley has unenclosed land (open moorland)

Commons and greens form only a small part of the Unenclosed land of the county, but are significant in that they are a survival of a medieval system of land management. Between the estates or manors and townships of the medieval period was a pattern of scattered commons which developed on the heathland, mosses and moorland fringes. These were used for grazing, turbary (peat cutting), extraction and other common rights. It is probable that the resources of the commons were shared between the manors and townships in a system known as ‘intercommoning’ (Lewis, 2000). Small rural settlements often grew up on the edges of commons and the shared grazing land sometimes developed into greens. Other rural settlements were planned around a central area which also formed a type of green. A few scattered Commons and greens do survive across Greater Manchester but they are usually small in size.

Over time, the unenclosed land on the fringes of settlements was gradually brought into agricultural use, especially during periods of population pressure. This resulted in areas of irregular fields spreading between settlements. Traces of the tracks and roads used for driving cattle to and from grazing on the commons can survive as funnel shapes in the surrounding field patterns. Fields may also preserve the shape of an original common or green within them. Cronkeyshaw Common in Rochdale district has an ‘L’-shaped area of common land leading up on to the moors above Rochdale. A farm at its kink was named Stock Road (later Stockroad Farm), and a row of cottages nearby was named Stock Row (see Figure 10k). This may hint at the origins of the land and explain its shape. Today the surviving remnants of commons and greens are often situated within or on the fringes of encroaching residential areas where their character is threatened by development.

Figure 10k Cronkeyshaw Common, Rochdale, is a distinctive reverse ‘L’-shaped ancient common that has retained its early 19th century form, shown on this 1851 OS map, despite some encroachment by housing

Woodland

Woodland was included for consideration under the rural land category. 45.41 km^2 was recorded, some 3.6% of the total land in Greater Manchester. However, it should be borne in mind that not all individual areas of Woodland of a significant size will have been polygonised in their own right during the project, as outlined above in **Section 8.2**. Instead, wooded areas occurring within wider character areas such as parks and golf courses were considered to be features of the larger site.

The recorded area coverage has remained roughly the same since the mid-19th century, but this does not mean there have been no changes. The boundaries of woodland areas often fluctuate on map surveys of different dates. Some historic woodlands have been lost altogether since the mid-19th century, and the figure for the present-day landscape includes areas of new woodland that have regenerated naturally, for example in Wigan on some of the land reclaimed from former collieries. Indeed, Regenerated scrub/woodland made up the largest proportion of the Woodland Broad type in Greater Manchester (about 38%). In some cases the routes of disused and dismantled railways have been used to create green corridors linking towns with the surrounding countryside. Many of these have regenerated with new woodland, and others that have been recorded as Urban green space within the Ornamental, parkland and recreational Broad type may well include a woodland element. Some areas of new woodland were also planted in the 20th and 21st centuries under woodland creation schemes.

The terms 'Clough' and 'Semi-natural woodland' were to a certain degree interchangeable during the project, as many woodlands that were defined as clough woodland could also have been interpreted as semi-natural. Cloughs are defined as steep wooded valleys with a central stream, and often include the word 'clough' as part of their name on mapping. Small unnamed woods along streams may be defined by the HLC as 'semi-natural' rather than cloughs.

Although the Greater Manchester area was once densely wooded and included parts of royal hunting forests, by the post medieval period much of the woodland had been cleared to provide arable land and grazing for the cattle and sheep that dominated the rural economies. There are almost certainly still areas of managed woodland in the county but these are difficult to identify from the HLC. A few small areas of ancient woodland were identified in Tameside, Rochdale and Wigan, although some of these may also be cloughs.

Rural buildings

Although characterised as Residential, the buildings that played an integral part in the economies which depended on the land are an inherent aspect of the current rural landscape. They are also a significant element of the archaeological resource encapsulated within that landscape. HLC types considered here comprise Farm complexes, Estate houses and Folds. Estate houses included lodges and cottages for staff on large estates. Only 97 sites were recorded in the present landscape of Greater Manchester and 55 as a past type, although others may well have been present but situated within larger character polygons such as public parks. Folds comprised small clusters of dwellings with a cottage industry element, such as weaving, as well as an agricultural element. It is not unusual for a site named as a fold on mid-19th century mapping to be named as a farm on later map editions.

The HLC database has 2034 records for Farm complexes, Estate houses and Folds in the present-day landscape. Of these, 128 have dates of origin before AD 1750. Another 1348 are known to have originated before 1851, indicating that they were visible on mid-19th century mapping, but their precise date of origin may be unknown. In addition to those recorded in the current landscape, over 2100 records included Farm complex, Estate houses or Fold as a previous type. This indicates loss of or significant change to at least half of the agricultural buildings recorded in the county, a great many of which will have been present by the mid-19th century, but equally it implies that a significant proportion of historic sites remain in some form or another. Sources of water and well-drained soils were factors in the siting of early farmsteads, and surviving historic rural buildings are often located at sites with these characteristics. As a result there is often a sequence of settlement sites and earlier buildings around and beneath a current complex. It should be noted that farm sites in Bolton district will be under-represented in the database because they were not picked out as discrete character areas in the earliest phase of the project, instead being considered as features of Enclosed landscapes.

Many agricultural buildings survive as conversions within later residential areas. These are evenly spread across the county. When a building is converted its outer character often survives, but interiors may be gutted and without systematic recording, evidence for previous phases may be lost. It is apparent from surveys in Trafford and Tameside that the external appearance of a building often masks elements from much earlier phases, so assessment is essential in order to ensure that important historic evidence is properly recorded. Systematic historic building surveys of the farm complexes and cottages on the Dunham Massey estate have revealed medieval and 16th century elements.

The HLC database has 354 records with a current HLC type of Conversion that have a past type of Farm complex, Estate houses or Fold. Many of these converted buildings are now situated within later residential estates or even commercial areas that have been built around them (see Figure 10l). It is likely that there are more that have not been separated out from the HLC polygon depicting the extent of the surrounding development, particularly in the case of housing estates. When a farm complex is converted many smaller agricultural buildings such as pigsties and wash houses are demolished and the farm site can lose its integrity.

In rural areas redundant farm buildings are often sold off for redevelopment or conversion to residential properties. Within working farms, new farmhouses and modern agricultural buildings are increasingly replacing the old. Many original farm buildings are thus in decline and there is a reservoir of old farm buildings that are derelict or almost so. However, numerous converted farm sites were recorded in the moorland fringe areas of Stockport, Oldham and Rochdale in particular.

Agricultural buildings are evenly spread across the region except on the high moors and in the historic cores of the towns and cities. Folds are found mainly on the eastern and northern sides of Greater Manchester with particular concentrations in the districts of Oldham and Rochdale. There are 221 records with a current type of Fold and another 378 records where it is recorded as a previous type. This includes some 31 current farm complexes.

Figure 10l The setting of Hough End Hall, Chorlton-cum-Hardy, Manchester, has been encroached upon by 20th century development

In the 18th and 19th centuries drained wetland areas were often supported by the construction of new agricultural complexes. New thinking in agriculture led to the development of model farms with formal arrangements of buildings around a courtyard. Many of the agricultural complexes of the region date to this period and their typical 19th century aspect may lead to them being underappreciated as part of the historical landscape.

In the latter half of the 20th century the predominant cattle and sheep farming regimes began to decline. Significant numbers of the smaller upland farms and folds in districts such as Bury, Bolton, Rochdale, Oldham, Tameside and Wigan were abandoned. Many of these upland farms have been converted into modern high-status residences but the marginal land is often left unmanaged or is merged with the holdings of surviving farms. This is a pattern that can be seen particularly in the east of the region in Tameside and Oldham. In the Carrbrook area of Tameside there are a series of farm complexes and folds on the interface between the farmland and the moors. Many of these were converted to residences in the late 20th century, but some still survive as active farms.

Amongst the agricultural complexes are the surviving elite and gentry houses which have been categorised under several different headings including Elite residence, Conversion and Farm complex but would perhaps have been better categorised under a new heading of 'Hall'. On the clay soils of the lowlands many of the halls were timber framed moated houses, whereas those on the uplands are more often 17th to 18th century stone-built houses replacing earlier medieval buildings. It is difficult to quantify these halls and separate them out from the categories under which they were recorded. They do make up a significant proportion of the Listed Buildings across the county, but the HLC has probably identified

some new sites that were not previously known. Further in-depth analysis of the HLC would be needed to assess their survival. Many of the moated halls have disappeared or were rebuilt in brick, but the sites of the moats themselves can often still be identified and are common in Wigan, Trafford, Manchester and Salford.

Another building type that might be considered rural in origin is the vernacular cottage, but as many of these were constructed as parts of larger settlements they have not been considered in this initial rural appraisal.

10.3 Residential development in the 20th century

The sequence of Ordnance Survey mapping shows the gradual erosion of the rural land since 1851 under the expanding industrial towns and cities. In the 18th and early 19th centuries ribbon development occurred along the principal roads, and new towns began to grow up at key locations and around existing hamlets. Growth accelerated in the late 19th century and there was a dramatic explosion in residential development after the First World War. From the mid-20th century onwards there was an exponential increase in the loss of rural land to new housing estates. The biggest of these was Wythenshawe in Manchester district, at the time one of the largest social housing schemes in Europe. Almost all of this was built onto previously undeveloped farmland.

Residential land currently forms 28% of the county. The HLC showed that some 284km^2 of the Residential Broad type created since 1901 included Enclosed or Unenclosed land as a past type. Although this does not take into account the fact that these records may have more than one previous type, this nonetheless equates to some 22% of the region that was once rural land that has disappeared under residential development since the beginning of the 20thcentury. This excludes the development of shops, schools, roads and other services associated with the housing provision. Together schools and large modern roads (motorways and ring roads) have taken up some 3% of the region's Unenclosed or Enclosed land. Though it might initially be thought that the 19th century establishment and expansion of industrial towns and cities would be the period of greatest loss for the rural landscape, the HLC has shown that this is not the case. It is the 20th century residential expansion, continuing into the 21st century, that has proved the single most destructive force.

19th century development often followed the patterns of the underlying field and road systems, and new street names made local references, for example to old farms or residences. In the latter half of the 20th century this was less likely to be the case. Many modern residential developments are laid out without any reference to the underlying patterns and new road names often have no relationship with the local area.

10.4 Archaeological potential

The features that make up the current rural landscape frequently have historic origins that add to the character and enjoyment of the landscape. Fields, woodland, parkland and open land all have their roots in the past. They retain elements such as boundaries, standing earthworks and buildings that define their original use. Undeveloped and agricultural land also has the potential to preserve below and above-ground archaeology that relates to past land-uses no longer clearly visible in the current landscape. This is particularly applicable to the fragile evidence for prehistoric, Romano-British and early medieval settlement.

Current research within the North West region is beginning to indicate that there is more extensive survival of early settlement remains than was previously suspected. Recent excavations by Philpott and Cowell in advance of road development in the Tarbock area of Merseyside established a sequence of rural settlements from the Bronze Age to the medieval period. Evaluation of sites prior to excavation led to predictive models that were tested by further excavation (Cowell & Philpott, 2000). This established that topography is likely to have been a major influence on the location of early settlements. The raised, better drained areas close to water sources yielded evidence of early occupation, in some cases going back as far as the Mesolithic with evidence in the form of flint scatters. These models could be applied to the region as a whole and used to predict the likely occurrence of archaeological sites within the countryside.

Prehistoric settlement evidence has been excavated at Oversley Lodge Farm, which lies on the southern edge of Manchester district adjacent to the airport, on a promontory site overlooking the river Bollin. Other early settlement sites have been found in rural locations across the region. The most significant of these are at Great Woolden in Salford where an Iron Age ditched enclosure was found, and at Mellor in Stockport where there are remains of a large defended site of the same period. Neither of these was visible in the existing landscape except as cropmarks on aerial photographs. When approached with an understanding of the nature of the below-ground archaeology and the specific techniques needed to identify and retrieve it, rural land has the ability to illuminate the as yet poorly understood story of the region's early settlement. With the advent of planning policy guidance dealing with archaeology and the historic environment in the early 1990s (PPG15 and PPG16), and Planning Policy Statement 5 (PPS5) which superseded these in March 2010, the implementation of archaeological mitigation strategies in advance of large-scale development on greenfield sites has led to better recording and understanding of the archaeology of past rural settlement and land use.

Another significant archaeological resource preserved in the rural landscape is encapsulated in the peat deposits that occur on parts of both the uplands and the lowlands. This peat has the potential to preserve organic remains, and across the region such areas have yielded a wide range of finds, including human remains and tools. The conditions within the peat allow for the preservation of organic material including pollen, which enables the establishment of local plant ecologies through time. This can give a good indication of past agricultural regimes locally, and also phases of climate change. On the uplands much of the peat developed after the first phases of agriculture and settlement and so has the potential to preserve evidence of this beneath it.

On the lowlands the wetlands where peat formed were an important resource for hunter–gathers, and the islands and ridges of gravel and sand in and around them are potential sites for early prehistoric activity. These same gravel and sand ridges also offered good sites for early farming settlements. The HLC has mapped the extent of the possible mosses and the degree to which they have been drained or built upon. At some of the sites where Mossland was identified as a previous type, this made reference to data from the North West Wetlands Survey that had been digitised into the HER (Hall et al, 1995). As peat dries out the organic remains it contains will deteriorate, resulting in loss or degradation of the archaeological resource. Sympathetic management of areas with surviving peat layers is therefore needed in order to prevent this.

Many farm complexes and other rural buildings from various periods survive within an essentially 18th and 19th century rural landscape, but they have not previously been systematically identified and mapped across Greater Manchester. The HLC is a significant first step in this direction. The different types of farmstead and the nature and extent of their surviving buildings have not been categorised as this was beyond the scope of the project. Basic surveys of some of the building types do exist on a district basis such as those of Tameside and Trafford. Continuing residential development and conversion of farm sites is eroding a poorly understood resource that contributes greatly to the distinctive character of the rural landscapes across the county.

The nature of farm complexes in the region is extremely diverse and reflects all periods of history from the medieval moated halls of the lowlands to the 18th and 19th century model farms. It includes the small stone-built hill farms of the uplands, laithe houses and the small textile complexes represented by folds in the north and east of the region. Building materials and farm plans vary according to local building resources and the nature of the agricultural regimes, but these variations have not been recorded or analysed on a regional scale. The same can be said of the different boundary types that make up the fields, particularly hedges and walls, as these are as archaeologically significant as the fields themselves. All these factors are under threat as boundaries are removed to make larger fields, and as buildings that no longer meet the current needs of farming regimes are adapted to new uses or demolished. Field surveys of the buildings and boundaries within the rural landscapes would provide an ideal opportunity for local communities to engage with the archaeology of the countryside.

10.5 Conclusion

The central importance of the Greater Manchester region to the Industrial Revolution that changed the world has perhaps drawn interest away from its diverse rural character. The surviving pockets of late 18th and early 19th century rural landscapes with their fragments of earlier systems are an under-appreciated part of the story of the world's first great industrial city. Manchester as a city and region owes its origins to textile industries with a rural base. The rural land continues to serve the needs of the towns and cities but is now being subsumed by them. The HLC is a step towards providing a framework within which the historic character of the rural land can be understood, mapped and protected.

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11.0 Industrial Greater Manchester

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County Archaeologist for Greater Manchester

11.1 An overview of Industrial landscapes

The HLC project has provided much useful information and a great many insights into the extraordinarily rapid pace of industrialisation of the Greater Manchester landscape in the 19th and first half of the 20th century. It also allows us to comment on the impact of 20th century industrial decline on the landscape and its aftermath.

Analysis of statistics derived from Industrial Broad type polygons offers some surprises. The percentage of current industrial land-use is consistently within the 3% to 5% bracket across all but one of the ten Greater Manchester districts. Trafford, which has the fewest traditional industrial type sites, actually has the largest current industrial land-use, at 7.27km^2. This is explained by the fact that the borough has very large industrial estates, with the largest being Trafford Park. Broadheath and Carrington Moss Chemical Works are also a considerable size. Even Wigan, by far the largest district in terms of overall area, does not have quite as much industrial land as Trafford (6.87km^2). The two districts with the smallest amounts of industrial land are Bury (4.45km^2) and Oldham (4.51km^2).

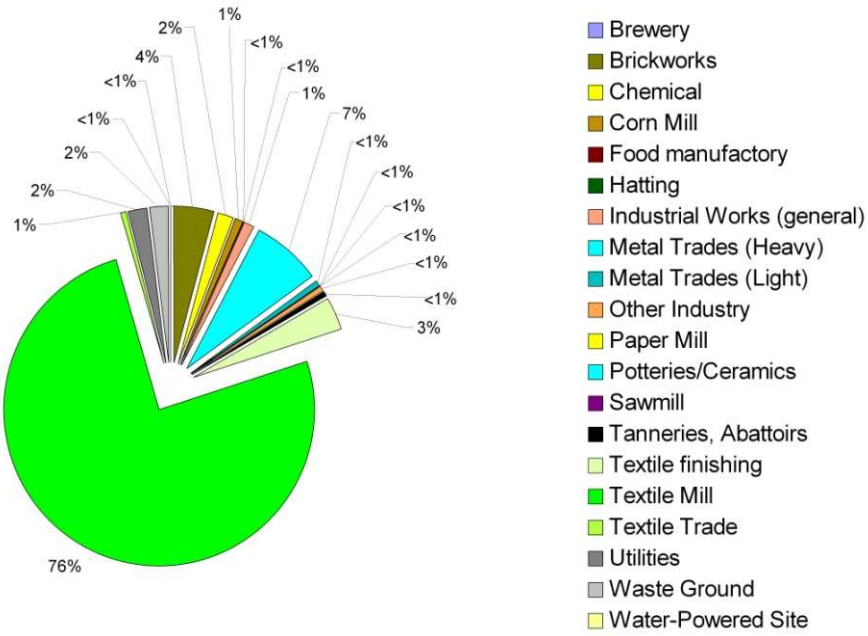
These figures of course only tell part of the story, and caution is needed in using them. The time restrictions of the project have not allowed individual site use to be clarified in many cases, as this would often necessitate a field visit. Therefore the HLC types of 'Industrial estates' and 'Industrial works (general)' dominate the Industrial Broad type. In Manchester city these types represent 66%, or 3.66km^2, of the industrial land-use area; these sorts of figures are replicated across other districts, with Wigan having the highest combined total at 75%. This partly reflects the prevalence of industrial estates on current mapping, but also reflects the assignation of these character types where the key industry was not recorded on the map or the overall character was mixed. It was found that, across Greater Manchester, there is an association between industrial works, commercial business parks and distribution centres.

The late 18th and 19th century industrial growth of Manchester and its hinterland into the world's leading manufacturing centre has been well chronicled (see Williams, McNeil, Nevell etc). This was based on the textile industry, particularly cotton, facilitated by natural resources such as fast-flowing streams, plentiful water supply and a damp climate, as well as abundant coal for power. But technological advancement, improved communications to a national and global market, and cheap, plentiful labour were also crucial.

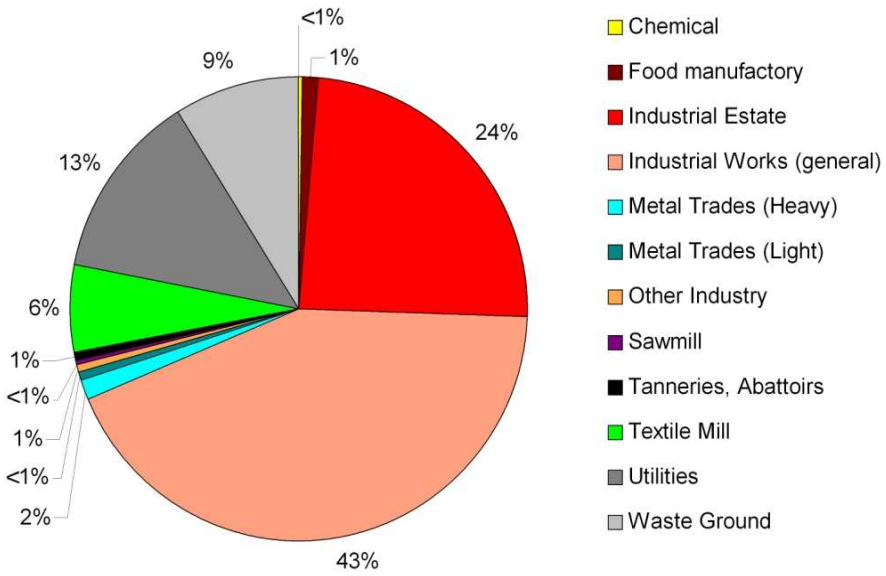
The components of the textile industry took many forms and changed over time. For instance, silk and wool were important in the 18th century, and finishing processes such as dyeing, printing and bleaching were very significant parts of the Greater Manchester industrial scene, as well as the iconic spinning mills and weaving sheds which still populate the landscape, although in decreasing numbers. Manchester started as a great textile manufacturing centre, with domestic weaving and cotton spinning in the late 18th and 19th centuries, but then became a warehousing and distribution centre; the architecture of areas such as the Northern Quarter still reflects this historic change in focus. Transport and engineering developments were key to supporting the textile industry, as were warehousing and trans-shipment centres. All of this has left a huge and often visible imprint on the

landscape. Whilst much has been swept away, there is still considerable legibility of these historic industrial character types.

Some statistics and key points from the Historic Landscape Character study can be picked out to add substance to these statements. Not only is it possible to say something about historic growth of the textile industry, but there is also useful data on current derelict land and conversion or re-use of surviving historic industrial character types. In Bury district 23% of former textile mill sites have been redeveloped for residential use, whilst 38% are now used for commerce or light industry. Only four of the residential sites appear to include a significant mill building that has been retained and converted.



Figures 11a & 11b The distribution of industry in Oldham district around 1910 is dominated by textiles (above); this contrasts strongly with today's landscape which shows significant decline of the traditional industry (below)



Much of Oldham was historically dedicated to the wool industry, especially in the east (Saddleworth). The landscape included weavers' cottages, improved pasture for intensive sheep rearing, early water-powered mills for fulling and scribbling, and hamlets or folds that were dedicated to weaving. 96% of the population of Saddleworth was engaged in the woollen industry by 1800. Much of the evidence for this is still visible in the landscape, not only in the buildings with their characteristic long rows of mullioned windows to provide light for loom working, but also in the surrounding rural landscape (intake of marginal moorland, enclosure, field systems for pasture, mill ruins and water power systems). As cotton spinning came to predominate, formerly small villages such as Shaw experienced dramatic industrial expansion in the late 19th century as the industry rose to world importance in this area. By 1910 76% of the industrial sites recorded by the HLC for Oldham were related to the textile industry, and in 1913 there were 337 textile mills in the district. The subsequent decline in textile manufacturing is clearly represented in the two pie charts derived from HLC data (see Figures 11a & 11b above).

A similar pattern is evident in neighbouring boroughs, especially Rochdale. Here too, early wealth from the woollen industry was supplanted by cotton spinning and finishing by the late 19th century. 443 HLC records include textile-related industry as a previous type, equating to a remarkable 6.41km^2 area. Before 1910, 70% of Rochdale's industrial landscape was associated with textile manufacturing. Bury and Bolton saw similar textile related industrial growth, with a particular focus in these districts on the river valleys. Here textile finishing was particularly important – Bury had 85 finishing works in the late 19th century, whilst Bolton had 30 bleach works alone – but the area was also a focus for the paper industry. Textile finishing and paper works have been particularly vulnerable to decay and demolition. Only a handful survive and recent years have seen the demolition of the last paper manufacturing sites. Demolished sites have been reused for housing although some still remain as derelict brownfield land containing potentially significant buried archaeological remains. Wallsuches Bleach Works near Horwich, Bolton, is an example of successful sympathetic conversion to residential use, which has retained the historic and distinctive industrial character of the site (see Figure 11c).

Moving to the south-eastern crescent of the Greater Manchester area, Stockport and Tameside's landscapes have also been transformed by industrialisation, much of it relating to textile manufacture. In Stockport district the historic silk industry of north-east Cheshire prevailed in the 18th century before giving way to cotton spinning. Textile manufacturing was at the heart of economic growth. Much of this was initially water powered and located in valley floors, but later on canals became important for cotton industry location. Samuel Oldknow's industrial legacy in Marple and Mellor is a significant part of the modern landscape and includes a massive cotton mill site and associated water power system, housing for workers and managers, infrastructure in the form of roads, canals and warehouses, and other industrial type sites such as lime kilns and coal mines.

Stockport had a significant finishing industry in the 19th century, especially printing and bleaching, which has practically disappeared from the modern landscape. Cotton mills were also a major component in the late 19th century landscape, but around 80 of these still survive today. The importance of the industrial floor space and energy embodied in the former cotton spinning mills is reflected in Stockport's Mills Heritage Strategy for sympathetic regeneration.

Figure 11c Wallsuches Bleachworks, Bolton, is a rare and successful example of a converted textile finishing works

Oldknow was not the only industrial entrepreneur to leave his mark on Stockport's landscape: Holdsworth's Mill in Reddish is preserved along with a substantial workers' housing community, and in Edgeley, although Sykes's bleach works has long since been demolished, the reservoirs now form a park and there is an associated gridiron estate of workers' housing nearby. Sadly, many historic industrial sites have suffered from vandalism, arson and neglect. The worst recent case has been the Hopes Carr industrial estate in Stockport which over a period of several years lost several historic mills and became an industrial wasteland, now subject to redevelopment – although much of this demolition post-dates the 2006 mapping used for the HLC project.

Tameside's records with textile industries as a previous type number 285 and cover an area of 3.98km^2. There were 274 mill sites, reflecting the industrial development of woollen weaving and spinning followed by the rise of cotton processing. The Tame Valley saw particularly intensive exploitation for textile mills, initially attracted by water power but later powered by steam. Mapping has been generated from the HLC data to demonstrate this close relationship with the river valley, showing how many current industrial estates have reused historic textile sites (see Figure 11d).

Tameside and Stockport share a significant historic hatting industry, with Tameside having 50 sites. A few hat works survive today, and in places like Ashton-under-Lyne these have made an important contribution to the modern landscape, including associated workers' housing.

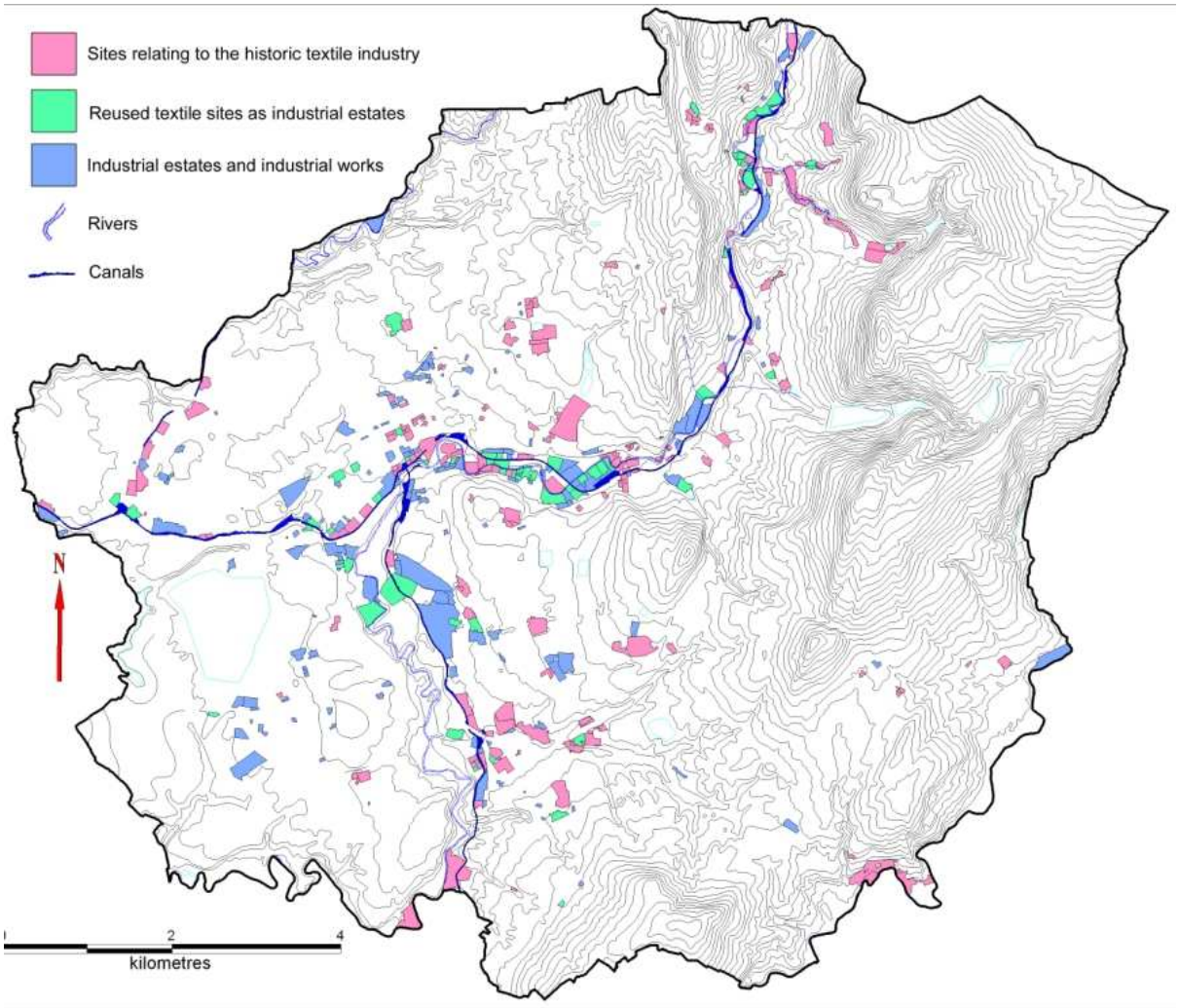


Figure 11d Map generated from the HLC data to show how many current industrial estates have reused historic textile sites. The importance of river valleys for the location of historic textile works can clearly be seen

Salford grew in the 18th century as a centre for wool and linen, and later cotton together with dyeing and bleaching. Only a handful of textile mills survive today, although the footprints of some demolished mills and finishing works remain as brownfield sites. As with other historic town cores, Salford has been difficult to characterise. This is due to the many layers of change within the built environment over the last two centuries. Salford is noteworthy in having its medieval and wider historic settlement core radically altered during the 19th century by the construction of workers' housing and a variety of industrial premises, some of the latter coalescing into large industrial complexes in the 20th century, such as the rubber works off Greengate. Several of these concerns declined from the 1970s to leave derelict land which has often been turned into car parking. Yet, despite all of this change, the original triangular street pattern of the medieval borough still survives.

As has been noted already, Trafford stands out as being quite different in industrial character to the other districts of Greater Manchester in that it has very little historic textile industry and coal mining, although there were two velvet works in Altrincham. Its industrial importance leant more towards engineering and chemical works.

Coal mining comes under the 'Extraction' broad type but any overview of Greater Manchester's industrial landscape cannot ignore the impact and importance of what was a huge industry across the area (see Figure 11e).

Figure 11e Cutacre opencast coal workings, straddling the border of Salford, Bolton and Wigan districts

Other than Trafford, every district saw considerable levels of colliery working, some of it going back to the medieval period, for example at Gadbury Fold in Wigan. Many of the early workings have left landscape evidence in the form of shafts and associated mounds (sometimes called 'bell pits'), whilst 19th and 20th century coal workings are characterised by large slag spoil heaps, numerous large diameter shafts, extensive pit head buildings, workshops, pit head baths, processing plant, and intricate systems of railways. A glance at late 19th century mapping of the Wigan area leaves one in no doubt of the massive impact of coal working on the landscape, and this can also be illustrated by the HLC data (see Figure 11f). Today only traces of the coal industry survive across Greater Manchester, with one or two pit head buildings still extant such as those at Astley Green Colliery, a Scheduled Monument, and one or two colliery sites becoming council-run parks, as at Wet Earth Colliery in Salford where remains of the colliery buildings and an associated canal system are visible. The relationship of transportation and coal working in the landscape is best demonstrated at Worsley in Salford. Here 45 miles of underground canals took coal straight from the coal face, with boats emerging from the tunnel entrance at The Delph and thence transported on the Duke of Bridgewater's Canal into the heart of burgeoning industrial Manchester.

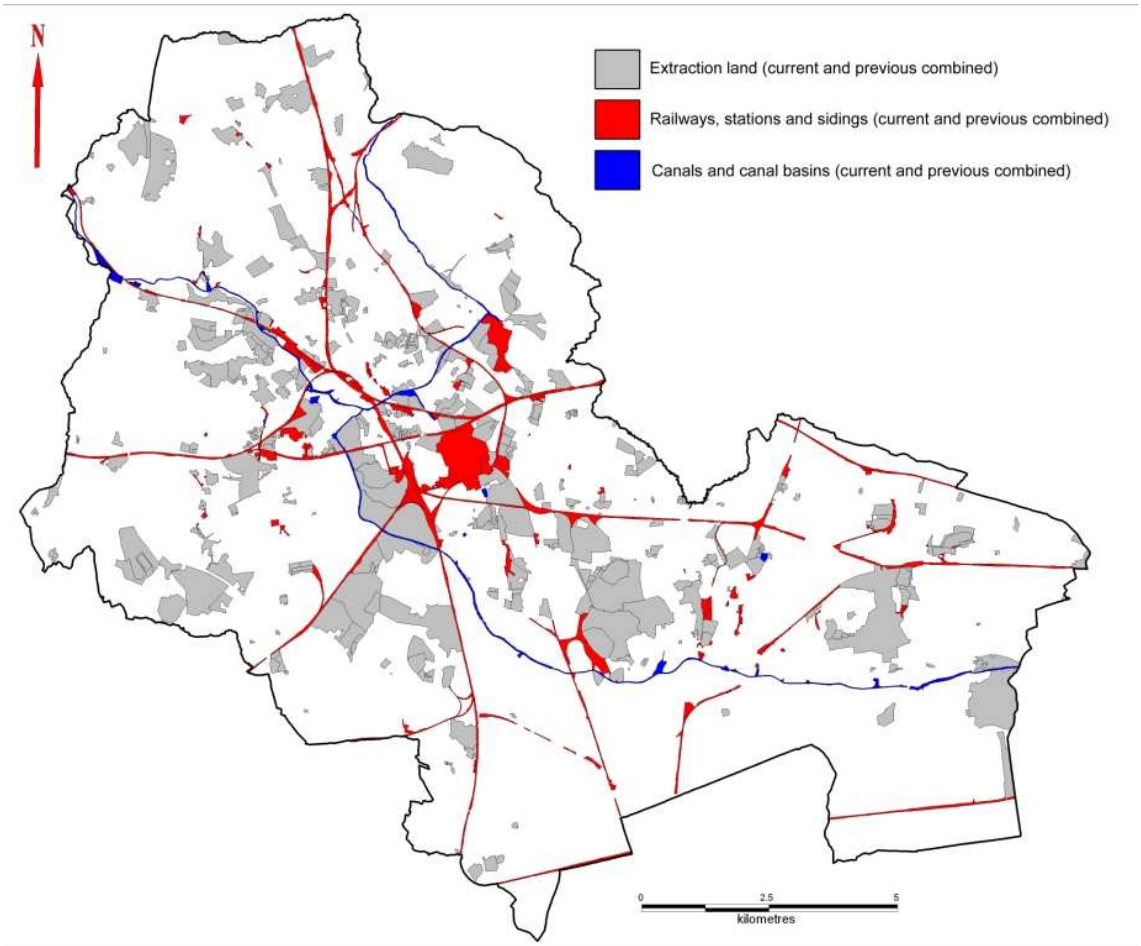


Figure 11f The massive scale of historic coal extraction in Wigan district is very evident. Here it is illustrated by the HLC data; communications routes are also shown, demonstrating the close relationship of the coal industry with transport networks

In Tameside the coal industry, at its peak, matched that of textiles. Although none are in use at the present time, 66 HLC polygons (1.74km^2) were recorded with Colliery, Shallow coal workings or Annular spoil heap (bell pits) as a previous type. In Bolton there are 91 records that have coal-related previous types. The well-preserved remains of a colliery exist at Burnt Edge above Smithills in Bolton, and nearby the miners' cottages named Colliers' Row and New Colliers' Row on Colliers Row Road are evocative of the local importance of the industry. By 1868 Rochdale had 58 collieries, but most had closed by 1880. The Pennine hills have many coal-working earthworks preserved in the landscape, particularly in reservoir catchment areas where the derelict industrial landscapes have been 'frozen' in time following depopulation. Good examples of coal-working earthworks can be seen on the hills surrounding Watergrove Reservoir, which was built in 1930 (see Figure 11g). Other coal-related landscape features include coke ovens such as the remains at Tunshill near Milnrow, Rochdale, and Jubilee Colliery near Shaw, Oldham.

Figure 11g Former coal workings on the hills above Watergrove Reservoir, Rochdale

In the 20th century individual collieries coalesced into much larger concerns such as Manchester Collieries Ltd, which owned 14 mines in the Lancashire Coalfield. When all the coal mines were closed in the late 20th century, most of the buildings were swept away and shafts capped. However, some former colliery sites have been exploited for open cast mining, a very destructive process which results in a transformed, reinstated landscape devoid of historical distinctiveness. Examples of this can be seen at Cutacre on the border of Salford, Wigan and Bolton, and at Standish and Bickershaw in Wigan borough.

In a few districts, brickworks once featured strongly in the industrial landscape. Tameside borough had 46 records where this was recorded as a previous HLC type, representing 0.67km^2. None survive today, although remains of circular kilns at the site of Grotton Brick and Tile Works have been incorporated into the public realm as part of a new housing scheme. There is a strong correlation across Greater Manchester of brickworks and colliery workings. This is due to the often close proximity of suitable clay and coal in the Coal Measures. Easy access to fuel for the kilns was an important factor.

Engineering was once a very significant industry in Greater Manchester, supporting particularly the textile manufacturing and transport industries, but it has seen massive decline. Salford's HLC study produced 101 previous type records relating to engineering, made up of engine works, vehicle works, heavy and light engineering, and this covered a total of 1.78km^2. Some of the heavy engineering works were historically very important, such as Nasmyth's Bridgewater Foundry in Eccles, which is now mostly demolished and awaiting new development. The project found it very difficult to identify light engineering

works from the resources available. Many of these sites will have been incorporated into the Industrial estates or Industrial (general) HLC types. Historically Wigan had significant iron, pewter, brass, nail and bolt industries which are generally invisible in today's landscape, other than exceptional sites such as the now redundant Grade II Listed Collier Brook Bolt Works in Atherton. Domestic-scale metalworking is very difficult to pick up from historic mapping, and its scale and level of survival is not possible to determine using the HLC methodology.

Included within the Industrial Broad type is the HLC type Utilities. This relates to features such as electricity substations, telephone exchanges, gas works, refuse processing plants and sewage or water treatment works. Most of these date to the mid- to late 20th century but there are some large earlier sewage works, some of which are now disused. An example is the one at Prestwich, Bury, now straddled by the M60 motorway, which was particularly large at 80 hectares. Sewage works were a significant part of the drive towards better sanitation and health in the 19th century. 20th century structures such as water treatment plants, gas works and telephone exchanges often made strong contemporary design statements and therefore can be an important part of historic urban landscapes (see Figure 11h).

Figure 11h View along Briar Street, Rochdale, dominated by a gas holder

Utilities make up a large part of the industrial land area in many districts, particularly Trafford (with 30%), Bury (24%) and Tameside (21%). Much of this is down to the presence of extensive sewage works. In Manchester only 4% of the current Industrial Broad type is represented by Utilities, yet this includes some notable sites of interest such as the Bradford

Road Gas Works. Historically Manchester had a significant gas industry, but large-scale production sites such as Gaythorn Gas Works have been remediated and redeveloped. Significant costs are involved in de-contaminating gas works sites. Redevelopment of the Darlington Street site in Wigan, which is sited on the town's Roman cemetery, has been planned for years, but it is still awaiting remediation.

11.2 General themes

A pattern seen across much of Greater Manchester's landscape is one where former industrial complexes such as mills, finishing works, engineering works and collieries have been demolished but the surrounding infrastructure has survived. This includes not only workers' housing, shops and institutes (such as schools, churches and chapels), but also communications routes. This has made these 'brownfield' sites attractive for new, low-cost housing developments. It will be interesting to see whether this trend continues in the light of changing government planning policies such as the National Planning Policy Framework, and economic stimuli.

Many former industrial sites have reverted to semi-natural vegetation or have been landscaped as part of regeneration schemes. Wigan stands out in terms of the scale of treatment to former coal-working sites, which had a strong negative impact on the landscape. Most of these have been successfully transformed into green spaces or economic sites. Individual industrial buildings or complexes have had housing schemes following remediation; often the new build retains the boundary of the former industrial works, providing a small measure of historic legibility in the landscape of the previous land use. Where historic industrial sites are located in greenbelt land the contrast can be quite marked between new housing, sitting tightly within a former brownfield site boundary, and the green pasture land that surrounds it. A good example can be seen at the former Calprina Works site at Carrbrook, Tameside (see Figure 11i).

Manchester's historic industrial giants such as engineering, chemical works, glass manufacture, textile finishing and gas production have been almost completely lost. Many former sites have seen intensive remediation of contaminated ground to make them fit for new development. This usually involves removing all buried remains, which often have considerable archaeological potential and value. Many of these sites have had archaeological investigations through the planning system, and in some cases the results have been published, either in booklet form (Greater Manchester's Past Revealed Series) or as thematic books (such as Miller & Wild, 2007 or Nevell, 2008).

Several industrial activities, such as light engineering, are very difficult to detect using the HLC methodology, both historically and in today's landscape. This is because the sites are generally not named on mapping. A much more detailed study employing trade directories and extensive fieldwork would be needed to tease out this information.

The pace of loss of historic industrial complexes is alarming. The HLC map data for the present day is based on 2006 mapping (the most up-to-date available at the start of the project), but even in the few years since then there has been notable erosion of industrial heritage, particularly large complexes of redundant industrial HLC types. The Greater Manchester Historic Landscape Characterisation project has been able to broadly quantify

Figure 11i The new housing estate at Calico Crescent, Carrbrook, Tameside, fills the footprint of the former Calprina Print Works

the scale of this loss. Whilst representative examples of some types of industrial heritage sites have been protected, such as Listed cotton spinning mills, many have not. These include textile finishing works, iron foundries and brickworks. Below-ground archaeological remains of significant historic industrial sites, and their associated landscapes, are also unprotected for the most part.

English Heritage is currently campaigning to raise awareness of 'industrial heritage at risk'. The Greater Manchester Historic Landscape Characterisation project has been able to broadly quantify the massive scale of loss of historic industries. Whilst the 1990s Monuments Protection Programme looked at industrial site types with the objective of preserving the most important survivals through Scheduling, it was never completed and sadly the main industrial site types in Greater Manchester were not examined. These include the textile and engineering industries. The former was studied in the late 1980s and the most important standing buildings were Listed to protect them, but extant textile finishing works and engineering works generally remain unprotected. Moreover, below-ground archaeological remains of demolished or part demolished sites, and their associated landscapes, have not been surveyed or protected. Some of these remains are demonstrably of national and even international importance. The GMUHLC provides indicators of potential sites and would help inform a more detailed survey of industrial heritage at risk in Greater Manchester.

12.0 Residential Suburbs

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Please note – references indicated in this section are listed in ***12.4***

12.1 Context

The growth of residential suburbs since the 19th century is one of the defining features of British modernity. Our contemporary suburban landscapes contain the accumulated evidence of past urban expansion in its various forms and stages. Originally the invention of the upper middle classes, a suburban home became an aspiration that crossed class boundaries until each of the major cities became encircled by a suburban belt that eventually comprised the majority of the urban area. The process not only symbolised a new relationship between residence and the city but also marked a revolutionary shift in the structure and character of the urban form itself.

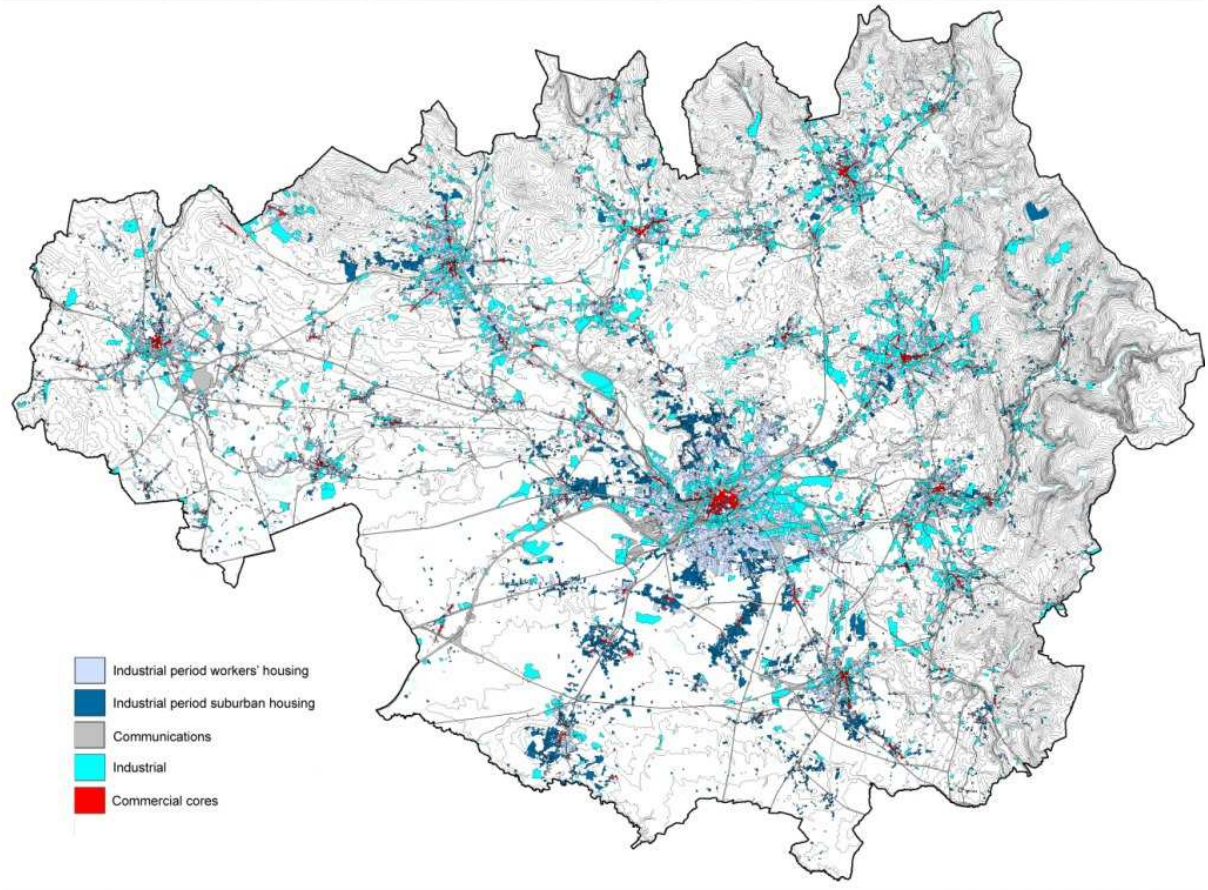

Figure 12a Map showing 19th century industry in relation to commercial centres and workers' housing. It is also interesting to note the growth of suburban centres along transport routes

The original suburban ideal was a residential settlement with a rural character linked to the city by transport systems but separated from it by open country. Figure 12a maps 19th century suburban housing as recorded by the HLC alongside workers' housing, industrial and commercial development and communications routes. In the later 19th century and through to and including the interwar years, the spaces in between were filled in with less prestigious suburbs and more houses per acre. Suburban growth depopulated urban cores, facilitated residential distance from places of work, encouraged social segregation (often overstated but in sharp contrast to the residence patterns of the pre-industrial city), and spread new status indicators such as housing types and architectural styles. In subsequent waves of outward urban expansion and suburban infill down to the present day, the social character and physical appearance of the suburbs themselves were often transformed (especially when former outer suburbs became inner city 'suburbs') as the social status of occupants changed and individual houses, streets and whole districts were redeveloped.

Defining the subject is not straightforward. Suburbs as such are as old as urban living. Yet their development over the past two hundred years has been described as

> "*the single greatest change in the living habits of the English people since the industrial revolution*" (Burnett, 1986).

The development of the modern residential suburb has endowed the larger British cities with most of their present-day residential character. Moreover, whilst there were many later 19th century suburbs consisting of street upon street of closely packed terraced houses, including those built for the lower middle classes as well as for the working classes travelling to work by train or tram, the Victorian era also saw the emergence of a distinctive and desirable suburban form. Beginning life as the upper middle-class villa of the 19th century (see Figure 12b), this form culminated in the garden suburbs type of the 20th century. The self-contained, single-family house, semi-detached or detached and standing in its own gardens, front and back, became during the first decades of the 20th century the distinctive modern style of urban housing.

Figure 12b A 19th century suburban villa on Delamer Road, Altrincham

The garden suburbs model of suburbia spread beyond these shores to become the almost universal form of urban growth in North America, Australia and other former British colonial territories, and to influence urban design in a host of other countries. This constituted a fundamental transformation in the character of the urban environment.

> "*The most obvious manifestation of this change was that discrete detached or semi-detached houses, standing back in, rather than at the head of, their plots, superseded row houses, terraced houses or tenements as the normal form of residential growth*…" This was to become "*the almost universal form of urban growth in the English-speaking world*" (Whitehand & Carr, 2001).

Despite the immense significance of the subject, the historical literature on Britain's suburbs is curiously under-developed. This is in contrast with the situation in the USA where there is a strong tradition of writing from urban, environmental and architectural historians. Perhaps the relative paucity of serious analysis is because we too readily overlook the significance of what have become the commonplace and the ordinary. But it may also reflect the critical stance towards the manners and mores of 'suburbia' adopted by many among Britain's intellectuals since almost the advent of the suburban house and household (Carey, 1992; Clapson, 2000; Goldsworthy, 2004). Useful general introductions include Thompson (1982), Fishman (1987), Simpson & Lloyd (1977), Edwards (1981), Clapson (2003) and Archer (2005). Social histories of housing such as Burnett (1986) and Rodger (1989) add further introductory context. There are valuable overviews of the stages in London's suburban development, such as Olsen (1974), Jackson (1973) and the essays in Saint (1999).

Urban histories often cover suburban development; the best example is Beresford on Leeds (1988) but see also Daunton on Cardiff (1977) and Kidd on Manchester (2006). There are studies of particular suburbs that have a more than local value, for example Dyos' pioneering study (of Camberwell) (1961), but also Glasgow's West End (Simpson, 1972), Birmingham's Edgbaston (Cannadine, 1980) and North Oxford (Hinchcliffe, 1992).

20th century suburban development is better served by recent studies than the 19th century: Clapson (2003) provides an overview, but see also Whitehand & Carr on the interwar suburb (1999 and 2001) and the essays in Harris & Larkham (1999). There is also a rich archive of relevant article literature in the architectural and planning journals, which also contain a few useful studies of social housing. On the whole the historical literature on social housing is slight but there is valuable material in general housing and planning histories and a few specialist studies, including Daunton (1984) and Shapely (2007). The latter has the benefit of using Manchester as its topographical focus. There is a relative paucity of literature on the history of Greater Manchester suburbs. The main contributions are Rodgers (1962) and Spiers (1976), plus a handful of useful local and architectural studies such as Dore (1972), Swain (1987), Bamford (1991) and Hyde (1999) and the valuable material in the revised Pevsner series (Hartwell, 2002; Hartwell & Hyde, 2004). The archaeological studies by Nevell et al have added to our knowledge of the suburbs of Trafford and Tameside.

A key issue is the relationship of the suburbs to the city. The suburbs are often defined as being dependent upon the urban core – residential or 'dormitory' districts physically located outside or on the edge of the central urban area and distinct from the latter with its predominantly commercial, retail, administrative and industrial functions. They generally display lower housing density than the residential quarters of the urban core; in the suburbs the characteristic housing type is the single family dwelling with gardens; there is usually a commuting relationship to the urban core linked to the development of transport systems and

infrastructure (from tramways to motorways). However, in recent times the distinction between the suburbs and the 'core' has become blurred as successive waves of suburban growth have been subsumed within the expansion of the metropolitan area. This is making us rethink the definition of the suburb.

Recent developments in urban sociology, influenced by American thinking that perceives the transformation of suburbs into 'edge cities' or 'technoburbs', have undermined the age-old distinction between city and suburb. Instead, the intensification of urban sprawl over the last half-century has highlighted a decentralisation of services ('out of town' shopping malls, business parks, industrial estates and the like) and the interconnection of ex-urban locales within a broader metropolitan area with its several urban cores. Whilst the dichotomy between urban core and suburban districts may help explain earlier forms of residential growth around our towns and cities, to understand our present-day urban structure it is more appropriate to view the urban and the suburban as integrated elements in a "*variegated polycentric metropolitan complex*" (McManus & Ethington, 2007).

It is vital that we better understand the evolution and character of the ordinary residential environment in which the majority of the UK population lives. In many ways it is the key to understanding how the modern metropolis works. The Greater Manchester HLC offers valuable data to assist such a study in one of the United Kingdom's largest and most heavily populated conurbations. At the moment the historical literature on UK residential suburbs lacks a detailed study of suburban development in a single provincial city, which combines an interpretive overview of the process with a series of longitudinal case studies across time. A study of suburban development in Greater Manchester could inform a wider agenda of research and conservation on suburbs and suburban development and help us to better understand the changing character of our urban world.

Manchester's significance in the history of this process is recognised by historians.

> "*If suburbia originated in London … only when the London suburb was transplanted to Manchester and the other cities of northern England did suburbia demonstrate its revolutionary power to dominate … residential patterns and to transform urban structure*" (Fishman, 1987).

Greater Manchester has witnessed all the stages of residential suburban growth from the earliest developments along turnpike roads and those serviced by omnibus routes from the 1820s, to the first suburban commuter railway lines and the emergence of the railway suburb, to the influential garden suburb ideal and the triumph of semi-detached suburbia in the 1930s, and ultimately to the overwhelmingly residential character of the modern metropolitan districts. Greater Manchester also provides ample physical evidence of the repeated redevelopment of earlier privately built suburbs and also of the significant impact of social housing on the urban landscape, especially over the last 50 years. It is the UK's second largest metropolitan county outside London (in terms of both area and population) and certainly the most complex with its ten metropolitan boroughs and numerous urban cores.

It is important that historical research on the origins and development of suburbs is linked to relevant conservation strategies. During the 20th century many 'historic suburbs' fell into neglect or were lost to later development. Whilst the 'gentrification' of some of the inner suburbs of London since the 1960s has saved architecturally interesting streets and areas, elsewhere the picture is less secure and the architectural significance of the suburban

environment is less well understood. Given the various pressures on suburban landscapes today, it is appropriate and timely to undertake historical research in pursuit of raised levels of cultural and historical awareness and in the context of current conservation policy recognising the requirement for a historically informed conservation-led renewal of urban areas (see English Heritage, 2000 & DCMS, 2001). English Heritage has identified the need for a more informed discussion of the suburban architectural heritage. See for example their publications *Suburbs and the Historic Environment*, and *The Heritage of Historic Suburbs* (2007a & 2007b). The municipal authorities of Greater Manchester have policies that have resulted in the designation of several Conservation Areas in suburban districts. For example, Manchester City Council's development policy emphasises the need to retain and enhance the 'City's Character Areas' including its 'Victorian terraces, Edwardian suburbs, and interwar garden estates' (Manchester City Council, 2005).

12.2 The Greater Manchester Urban HLC Project

The Greater Manchester HLC is of immense potential value for the study of suburban development. The project's 'Residential' Broad type includes 22 different narrow HLC types, such as 'Historic settlement core', 'Terraced housing', 'Villas/detached housing', 'Social housing development' and 'Private housing development'. The distribution of residential HLC types in each of the metropolitan boroughs can be mapped, revealing the proportions of, for example, social housing, private housing and semi-detached housing within the residential Broad type.

Timeslice digital mapping

In preparing this report I was provided with detailed reports written by the HLC project team on each of the individual municipal authorities. These are replete with valuable statistics, analysis and numerous maps, tables and charts. In addition, however, in order to test the potential of the material as a research tool, I requested that a range of specific maps be generated from the HLC data set. Having examined these maps I concluded that they would assist the study of the residential element in the urban morphology of the metropolitan area in two chief ways. First, at a macro level the spatial structure of the residential settlement of the area across time is revealed more conveniently and with more up-to-date data than can be provided by conventional archival use of historic mapping alone. Patterns and processes of suburban formation and transformation can be charted in a way not previously available to the researcher. The spatial patterns of residential development are revealed as the conurbation grows and takes shape across time. 'Timeslice' mapping allows a snapshot view of growth at specific moments (1852, 1912, 1967 and current). The second major category of historical data provided by the project is at the micro level. Here the picture that emerges is more complex and varied, with differences as well as similarities between the different urban cores and greater detail revealed depending on the level of mapping examined.

Of the county-wide Broad types maps, that of 1852 (Figure 9c) reveals the early prominence of development around the historic urban cores of the municipal boroughs of Manchester and Salford (created in 1838 and 1844 respectively), but also the existence of smaller but discrete residential build up connected to the surrounding urban cores (Rochdale, Oldham, Ashton-under-Lyne, Stockport, Altrincham, Wigan, Bolton and Bury). Nonetheless, the overwhelmingly rural character of the landscape is clear. By 1912 (Figure 9d), on this

existing pattern has been overlaid the characteristic 'starfish' shape of Manchester's outward suburban expansion along arterial roads and railways, especially to the south of the city. However, 'Enclosed land' remains the predominant character type. By 1967 (Figure 9e) the suburban drift southward has become pronounced and whilst the evidence of residential growth around all the urban cores is clear (including even the smaller ones), the influence of the economic powerhouse that was Manchester (the greatest trading city created by the industrial revolution) is demonstrated in the evolving shape of the suburban landscape.

If we move forward to the mapping of the current view (Figure 9f) we can see clearly demonstrated the extent to which the Residential Broad type characterises the landscape. This is now a fully urban morphology. The borough of Manchester is the most completely urbanised whilst Salford, Trafford, Tameside and the territories of the other municipal authorities retain reduced but noticeable areas of enclosed land. Only Wigan and Rochdale show any degree of separation by enclosed land from the rest of the urban mass. From past evidence we can expect these non-residential areas to further reduce over time.

From this broad 'current view' it becomes evident that a simple suburb/city dichotomy is no longer satisfactory as a description of the shape of the modern conurbation. The southern suburbs do not stand out so markedly as they did before. The 'starfish' shape is still discernible but the 'infill' has been intense both to the north and to the south of Manchester/Salford. Moreover, development has become more complex, with each urban core of what is by now the metropolitan county assuming an overwhelmingly residential character, although differing in shape and in apparent relationship to the Manchester core at the heart of the conurbation. This now a truly "variegated polycentric metropolitan complex." At this macro level broad patterns emerge but the detail is obscured. We do not see for example the extent to which residential expansion has involved the planting of planned social housing in suburban environments. For such detail within Broad character types we need more focused mapping.

Longitudinal case study: Trafford and Stockport

At the micro level, the HLC types mapped by the project provide a finer grain of detail. For example, initial 'Broad types' timeslice mapping of the development of the area south of Manchester (mostly in present-day Trafford and Stockport) displays a number of features. The urban cores of Stockport and Altrincham are noticeable as is some residential presence along the later A56 through Stretford to Manchester. The next timeslice, for 1912, confirms the pattern established over half a century before. The timeslice for 1965, however, reveals a quite different picture. The early 'starfish' shape of residential development south of Manchester is overlaid by a much denser configuration in which the relevance of the main lines of communication by road and rail is less transparent. The personalisation of transport in the automobile age had contributed to the extension of the suburban belt, which the current view shows has culminated in a continuous residential band from Stockport, through Cheadle and Gatley to Timperley and Altrincham.

More precise information regarding the character and process of suburban growth to the south of Manchester is given by a series of detailed zoned timeslice maps for 'South Manchester' generated by the narrow HLC data, dated 1852, 1912, 1940, 1965, and current (2006) view (see Figures 12c-12g).

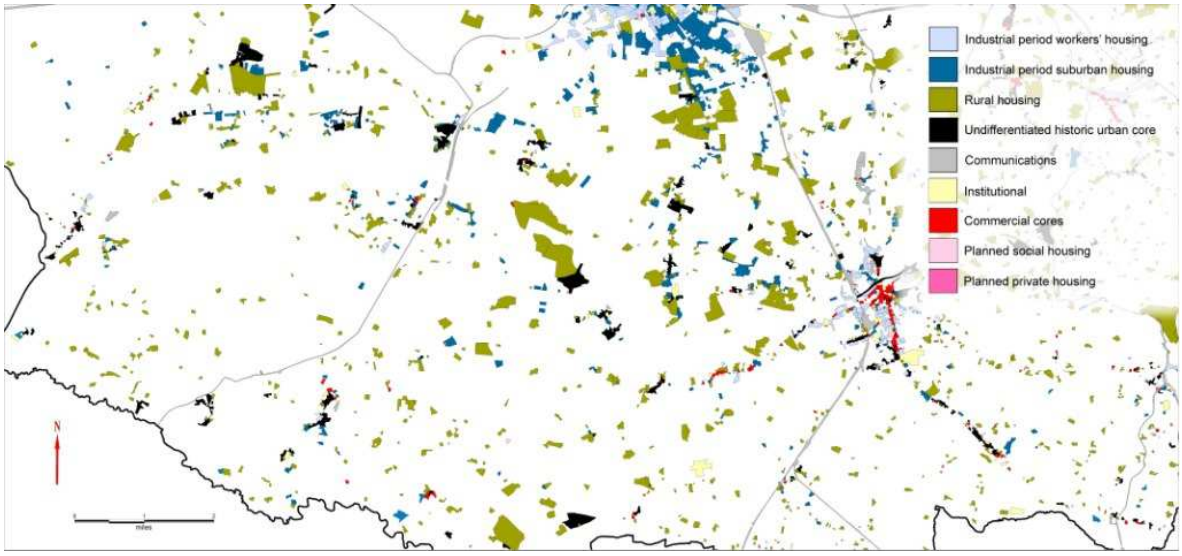

Figure 12c Timeslice mapping of residential development south of Manchester: 1852

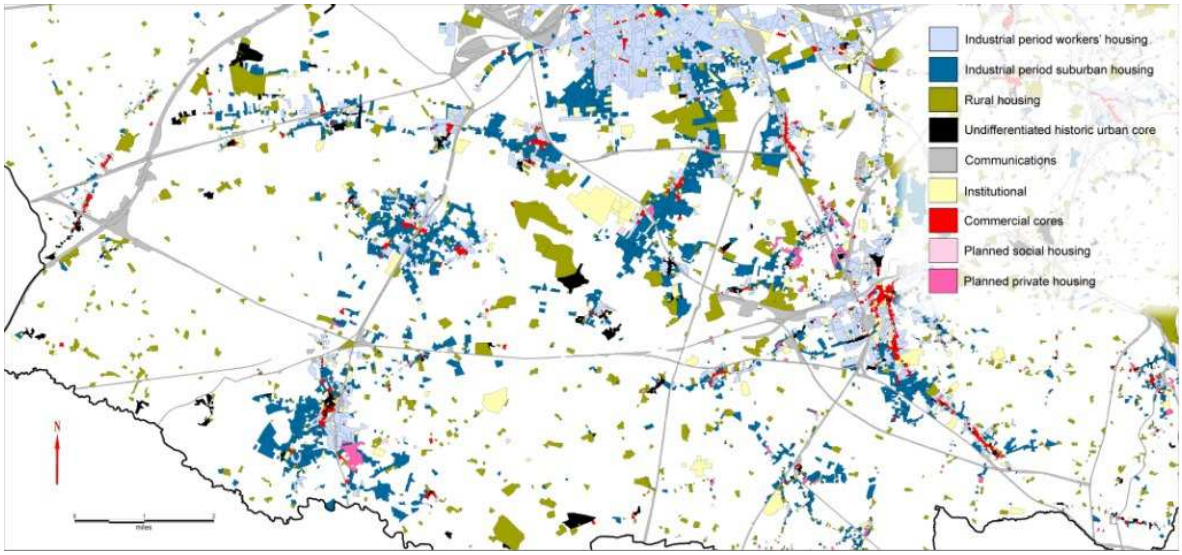

Figure 12d Timeslice mapping of residential development south of Manchester: 1912

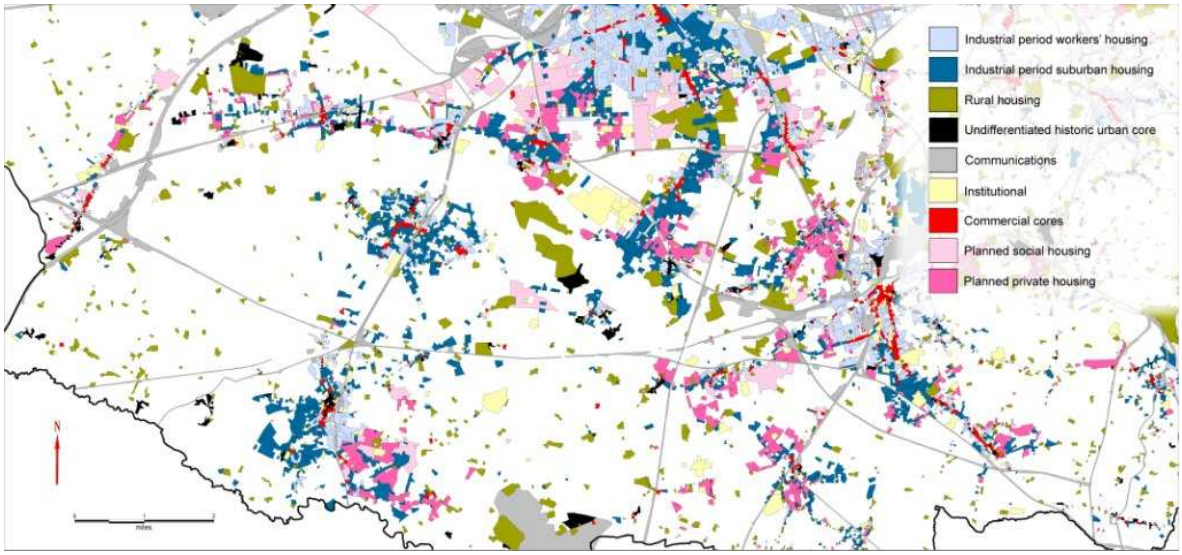

Figure 12e Timeslice mapping of residential development south of Manchester: 1940

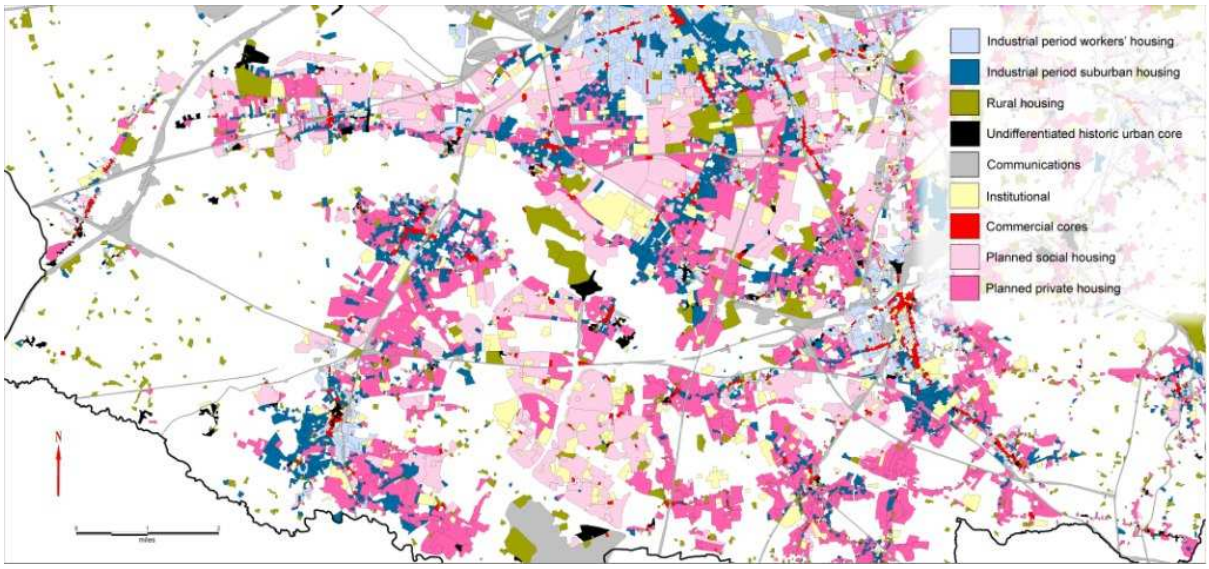

Figure 12f Timeslice mapping of residential development south of Manchester: 1965

Figure 12g Timeslice mapping of residential development south of Manchester: 2006

Amongst other categories, these maps identify workers' housing and suburban housing from the 'industrial period' as well as 20th century private housing and social housing. The maps also show other selected character types, including commercial cores. In 1852 suburban build up is barely perceptible along the railway route to Stockport (Heaton Norris station was opened as early as 1840 by the Manchester & Birmingham Railway, and a station opened at Stockport in 1843 after erection of the viaduct over the Mersey). However, the residential build up is more evident along the already well-established road route through Withington to Didsbury (a horse omnibus service operated along the Wilmslow Road from the late 1820s onwards). Also tangible is the very early impact of the Altrincham and South Manchester Railway, which opened in 1848 (and was arguably the world's first purpose built suburban commuter line), with residential growth beginning around the stations at Stretford and Sale.

By 1912 the impact of the railway is clear with by now significant clusters of suburban housing at Sale and Altrincham. Equally, by 1912 the Midland line from Central Station in Manchester, opened in 1880, had reinforced the early pattern of suburban growth at

Withington and Didsbury. Suburban housing is also now marked on the map near both Cheadle Hulme station and the southern of the two stations at Cheadle, on different branches of the London and North Western line. However, on the face of this map evidence the desirable semi-rural character sought by many who moved to the suburbs was still attainable. The map for 1940 suggests that early 20th century development had reinforced the pattern of suburbs already established during the later 19th century. Only Stockport and, to a lesser degree, Altrincham have the appearance of socially mixed towns with extensive areas of industrial period workers' housing. Interwar private housing estates make their appearance in close proximity to railway communications, especially to the north and west of Stockport at the Heatons and Cheadle, to the east of Didsbury village, and to the south of Altrincham, at Hale.

The map for 1965 shows significant extensions to the existing patches of private suburban housing and the development of newer southern suburbs along the London Midland and Scottish Railway line at Gatley and Heald Green. In some of the more northerly suburbs newly built private housing has involved the redevelopment of land previously given over to industrial period suburban housing. More noticeable, however, is the extensive development of planned social housing at Wythenshawe, with other smaller council estates north towards Manchester and east towards Stockport. Moving to the present, the 'current view' map reveals considerable further expansion of the planned private housing sector, involving marked redevelopment of older suburban housing. Comparison with the previous zoned timeslice maps enables this transformation to be traced over wide stretches of the suburban landscape. Also evident in a number of locations is the loss of earlier industrial period workers' housing – partly replaced by planned, private housing and partly due to space needed for motorway building, but chiefly as part of programmes for the building of planned social housing. Clearance and regeneration programmes that have transformed the built environment of sections of the borough of Manchester (most obviously East Manchester and clearly demonstrated by another series of maps generated by the HLC project) have had their counterparts elsewhere in the metropolitan county.

Further detail can be added to this picture by use of zoned timeslice mapping of particular suburbs. One example is Sale. Whilst the map for 1851 displays a predominantly rural environment with only limited suburban building, that for 1912 reveals the transformation during the intervening years of this erstwhile agricultural village into a thriving railway suburb. Also evident is suburban growth to the south east of Sale in the entirely new settlement of Brooklands. This was the creation of the wealthy Manchester businessman Samuel Brooks, who had made substantial purchases of agricultural land on which he built a speculative development of large houses along a new road (Brooklands Road). In order to ensure the future of this speculation he underwrote a deal with the Manchester, South Junction & Altrincham Railway to open a new station, known as Brooklands, in 1859. This was not his first such foundation. In the 1830s he had originated the upper middle-class suburb of Whalley Range.

The map for 1940 shows remarkably little change in Sale's footprint, with some increase in commercial land use (suggesting a prosperous community) and no evidence of interwar residential building. By contrast Sale experienced substantial post-war private house building as the map for 1965 reveals. This was largely a combination of infill and expansion into surrounding agricultural land, but there is also evidence of the replacement of industrial period suburban housing. The map for 1965 also reveals significant suburban development

since the Second World War between Sale and Altrincham at Brooklands and Timperley. The map of the current view suggests a continuation of this pattern over the last half century: continued suburban expansion, further and this time significant erosion of the inherited 19th century housing stock (including the loss of that along Brooklands Road), and the addition of planned social housing.

The Greater Manchester HLC project provides a huge range of data that can generate innumerable tables and maps. The evidence provided confirms the view that the Manchester economy over the last two centuries has been the defining factor in explaining the trajectory of suburban development in the sub-region we now know as Greater Manchester. This impact has been most marked to the south of the city, although there are historically significant suburban 'corridors' stretching north to Prestwich and Whitefield and east to Urmston and Flixton. Suburban development was earliest in the boroughs of Manchester and Salford. The wealth of neighbouring Manchester may have influenced the built environment of Salford as the new rich sought suburban escapes from the smoke and grime of industrialism. In the pre-railway age villa estates such as Ardwick Green and Victoria Park offered 'gentlemen's retreats' whilst retaining proximity to the commercial core. There were further escape routes on the other side of the river Irwell. A striking feature of mid-19th century Salford was the amount of land given to high-status villa housing, elite houses and private parkland. Pendleton, Broughton and Buile Hill were favoured locations for early villa estates. This early suburban landscape had been severely eroded by the late 19th century. Villas and town houses were subsumed by large developments of terraced houses forming a concentric ring around Salford's urban core. Today Buile Hill Park gives an indication of what the pre-1851 landscape was like in the Irlam and Seedley areas. Ellesmere Park is a good surviving example of a later villa park estate.

Other patterns of suburban development

Despite Manchester's pre-eminence, the data from the HLC project sheds significant light on other patterns and sequences of suburbanisation in the outer urban cores of the county, and with further considered study the data generated by this project has huge potential to enable us to understand the varying models of residential development across Greater Manchester over time. A few examples will illustrate some initial observations about similarities and differences across the county.

Zoned timeslice maps for Rochdale in 1852 and 1912 (Figures 12h & 12i) suggest a pattern of urban growth analogous to the archetype described by Friedrich Engels for Manchester in the 1840s: a series of concentric circles around a commercial centre with industry and workers' housing occupying the inner rings and middle-class housing of varying types spreading out from an outer residential ring. Likewise, in the 19th century and early 20th century, a wide band of workers' housing encircled Rochdale town centre, and beyond that lay a necklace of suburban housing, occupying a more rural environment beyond the smoke of the town's factory chimneys. The subsequent maps suggest that this pattern endured through to 1965 at least (Figure 12j). Over the near half-century since then Rochdale's inheritance of industrial period suburban housing has been all but lost (Figure 12k).

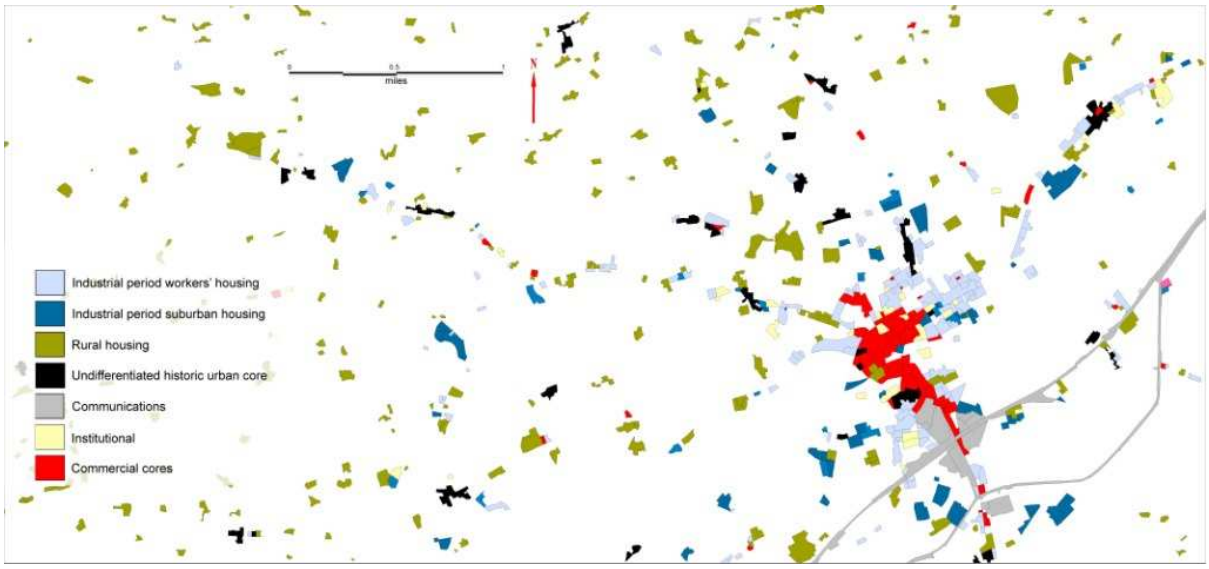

Figure 12h Timeslice mapping for selected Broad types in Rochdale: 1852

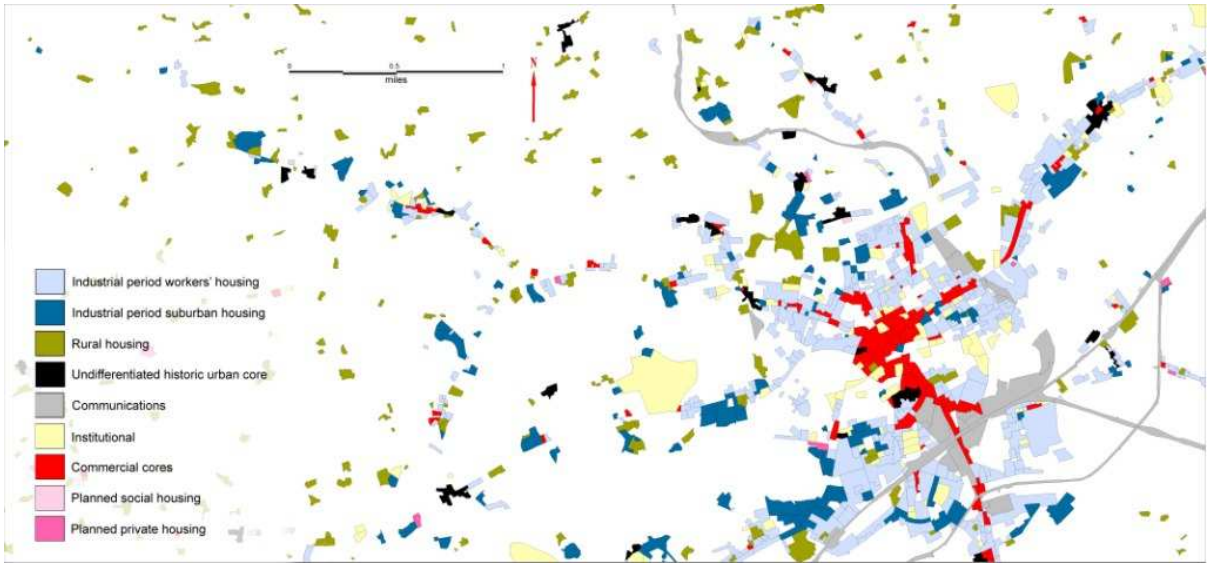

Figure 12i Timeslice mapping for selected Broad types in Rochdale: 1912

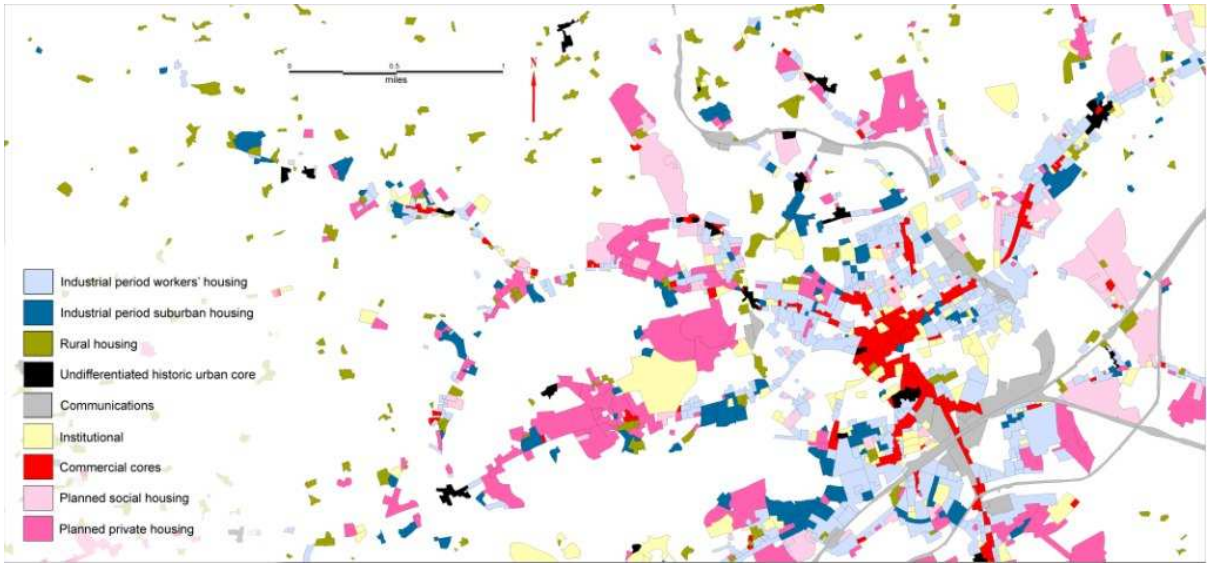

Figure 12j Timeslice mapping for selected Broad types in Rochdale: 1965

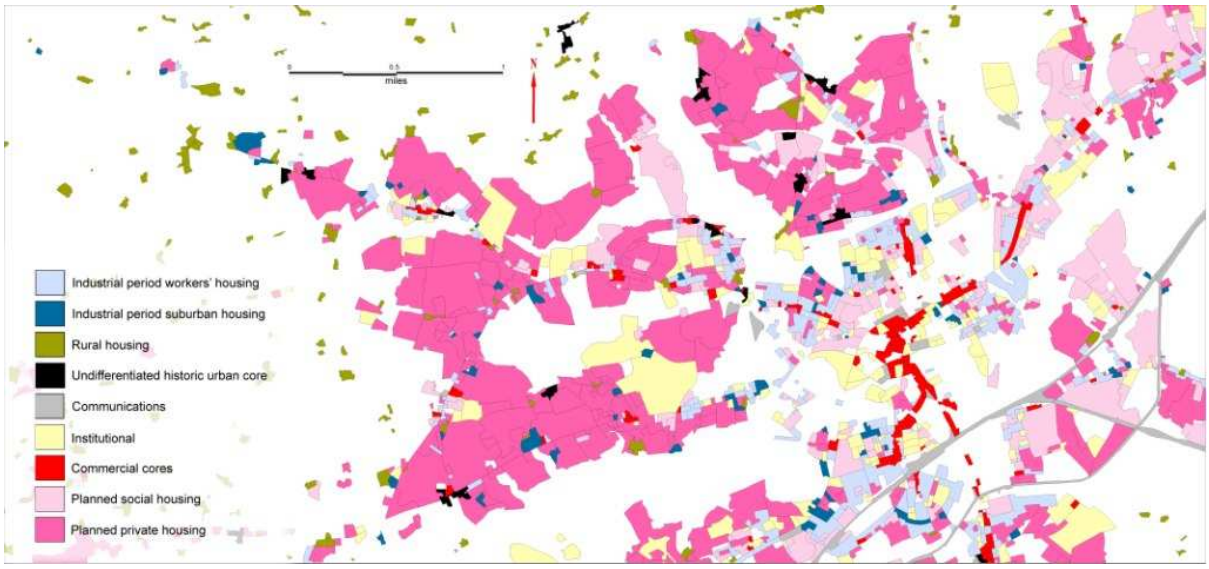

Figure 12k Timeslice mapping for selected Broad types in Rochdale: 2006

Rochdale's commercial core has shrunk considerably since 1965 and its inheritance of workers' housing has been reduced. Much workers' housing has also been lost in other parts of the county, and this can be broadly quantified by interrogating the HLC data. In Manchester district, for example, about 72% of the terraced houses have been lost to subsequent redevelopment (see Figure 12l). This is particularly a result of planned late 20th century urban renewal, including large social housing estates.

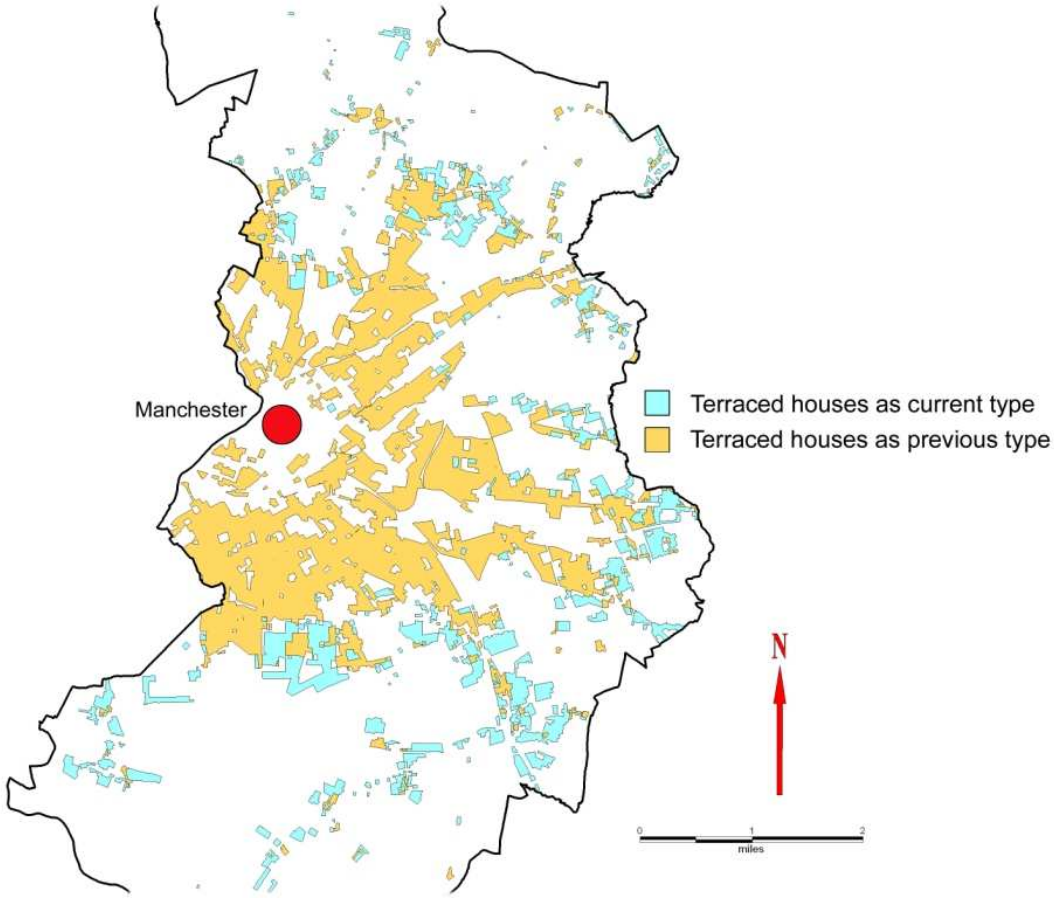

Figure 12l Manchester's terraced houses; those in yellow have been demolished

The residential pattern found in Rochdale is echoed in most of the urban cores of Greater Manchester although evidence from the HLC data suggests that industrial period suburban housing had a varying impact on the urban environment. For example, although there were high-status villas and detached houses for the middle classes in and around 19th century Bury, the town did not develop the larger residential suburbs found in some other Greater Manchester districts. Although distinct suburban zones emerged during the late Victorian era and up to the mid-20th century, with a significant belt of middle-class villa housing in Prestwich (perhaps owing most to good communications with Manchester), more extensive and generalised suburban growth did not materialise until the later 20th century, mostly after the creation of the metropolitan borough in 1974. Much of this has involved the absorption of former agricultural land on the fringes of established settlement. (See zoned timeslice maps and *Bury Urban Historic Landscape Characterisation Report*, especially Table 7.) Similarly, although there were mid-19th century middle-class suburbs to the north of Wigan town centre, it was not until the later 20th century that private suburban housing formed a characteristic residential ring around the town.

Today around half of Bury's early suburban landscape of villas and larger houses has been lost to infill redevelopment or converted to non-domestic uses. A similar process can be found elsewhere in Greater Manchester. For example, in Bolton approximately 47% of villas and detached houses constructed before 1892 have had a change of use or have been replaced. Nonetheless the residential character of these boroughs has never been more apparent: the HLC project data provides estimates that private housing estates account for the largest proportion (41%, or 10.89km^2) of the total area of the Residential Broad type in Bury whilst planned estates of social housing represent about 12% (3.28km^2). In Bolton today the bulk of private house building is post-war: 10.64km^2 of private estates have been built since 1950 compared with 5.15km^2 of private houses or estates surviving from before the 1950s.

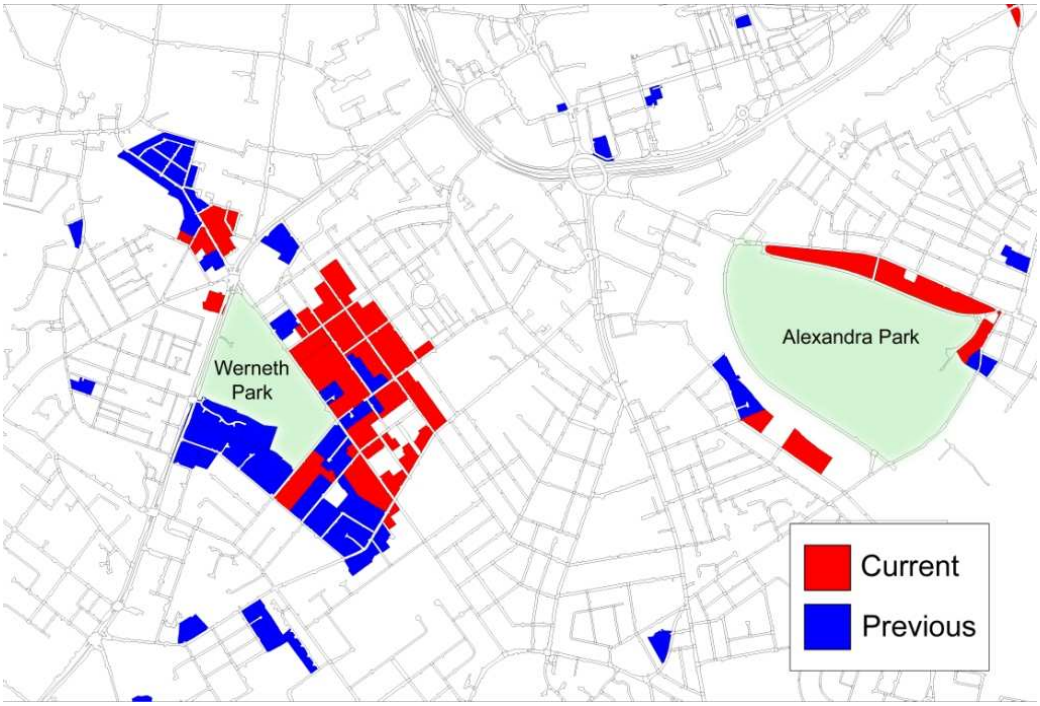

Figure 12m Zoned map showing the influence of public parks, in this case Werneth and Alexandra, Oldham, in attracting higher status suburban residences. Around half of these have been lost but in places the historic character has survived modern development

The HLC district reports highlight some of the conservation and management issues surrounding the future of our 'historic suburbs'. This is a policy issue but one which should be informed by academic study. Villas, detached houses and perhaps other kinds of suburban housing that are of historic, social or architectural significance but are not Listed could be identified through a programme of desk-based study and systematic building survey. The survivals of early suburban development in Manchester and Salford have already been mentioned. Good examples can be found in various locations such as the late 19th century planned villa suburbs to the south and east of Oldham town centre around Werneth Park and Alexandra Park (Figure 12m). However, it is often the lesser suburban streets that provide the most problematic conservation issues. The Great Norbury Street area of Hyde contains an example of a 19th century suburb consisting of a gridiron development of villas and higher status terraces on the fringe of an industrial area. These streets generally housed the families of those in supervisory and professional occupations, working both within the Tameside district and commuting to Manchester and Stockport.

Suburban social housing

Often underestimated is the extent to which social housing constitutes a significant element in the current suburban environment. The Greater Manchester HLC project enables us to plot and interpret the development of this important category. The historic significance of some social housing is well understood. For example, within Greater Manchester the planning and building of Wythenshawe Garden City in the 1930s attracted national attention. This area has been well studied. Less well known is the impact of the 'neighbourhood unit' idea on post-war planned social housing. Town planners and sociologists sought to develop model home neighbourhoods in the suburbs as part of the reconstruction of our bombed cities. In doing so they drew on planning ideas developed in Europe and the USA earlier in the century (Schubert 1995). Both the County of London Plan of 1943 and the City of Manchester Plan of 1945 perceived low rise suburban public housing organised in neighbourhood units with appropriate facilities as the ideal solution to the housing problems of the inner city with its decaying inheritance of 19th century industrial housing exacerbated by the devastation of aerial bombardment. In the event the post-war economic situation delayed most such solutions and when massive slum clearance programmes were carried out in the 1960s and 1970s, inner city high rise solutions were preferred that in some cases have become notorious for their very lack of neighbourhood environments.

Within Greater Manchester there are examples of the realisation of planned social housing in a suburban setting and conceived on neighbourhood unit lines. The Kirkholt estate within the borough of Rochdale is a recently studied example of an estate planned in the environment of reconstruction and begun in the 1940s. Situated in a suburban location in relation to the town of Rochdale, it involved the acquisition of former agricultural land, sometimes by compulsory purchase. The subsequent development of the estate can be followed through study of the HLC data. The estate also has the benefit of being part of an earlier archaeological study (Arrowsmith & Isherwood 2010). The HLC data could be used to identify other such social housing estates across the county with academic and conservation priorities in mind. Also within the borough of Rochdale is a related but differing instance of planned social housing: the Langley estate in Middleton.

Middleton can be seen as a microcosm of the suburban experience of Greater Manchester. This former small textile mill town situated on the road between Manchester and Rochdale is

today sandwiched between an extensive private housing estate to the south (Alkrington Garden Village, originally a model estate in the 1920s and subsequently extended by stages down to the early 21st century) and a planned social housing estate to the north (Langley, a Manchester Corporation overspill estate of the 1950s and 1960s). Zoned timeslice maps show Middleton in 1852 as a small settlement part industrial and part rural in character with limited sectors of workers' housing and suburban middle-class housing. By 1912 as the industrial and commercial character of the town had developed, so too had an inner ring of workers' housing and a typically fragmented outer ring of suburban housing. However, the most significant growth in the vicinity of the urban core occurred after the First World War. The map for 1940 shows clearly the private housing estate (Alkrington) straddling the road south towards Manchester, whilst that for 1965 adds the more detached location of the Manchester overspill estate to the north (Langley), inspired by the neighbourhood unit principle like Kirkholt before it. Finally the 'current view' timeslice shows that in the intervening years there has been a considerable expansion of the outer suburban ring of private housing to the south and east of the town, and the social housing estate on the north western perimeter has stretched to reach the urban core. The remaining inner ring of industrial period workers' housing has disappeared, replaced for the most part by social housing. The residential character of the town is now evenly balanced between the two sectors and the division between suburb and urban core has been blurred.

12.3 Conclusion

This has been an initial assessment of the value of the data generated by the HLC project for a study of the history of residential suburbs in Greater Manchester. The conclusion is undoubtedly positive. In order to assess its value as a research tool I asked a number of questions and requested various presentations of the data. The range of and varieties in the representation of information provided is impressive, allowing both broad generalisations about Greater Manchester as a whole and also remarkably detailed longitudinal observations down to neighbourhood level. As a support for archive and fieldwork the potential is immense. There is every reason to think the data generated could be a central part of future research projects and indeed stimulate new research itself.

One striking feature of the evidence generated by the project is worthy of final emphasis: the transformation of the urban environment of Greater Manchester over the last half century is nothing less than revolutionary. The expansion of the built-up area has been at a greater pace and more extensive in scope than at any time since the region's suburban development began two centuries ago. This has involved an explosion of new building in the private and social housing sectors and extensive infill development as well as outward expansion. Accompanying this has been a dramatic shift in the balance of the housing stock, with a sharp decline in the proportion of 19th century housing of all types and quality. This latter change has clear implications for the recording and conservation of 'historic suburbs', however defined. Put together, these are changes unprecedented in scope and significance that along with the decentralisation of urban services and functions is producing a revolution in our midst. The Greater Manchester HLC Project is a valuable contribution to our understanding of this revolution.

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13.0 Using the data 1 – Local authorities

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*Please note – references indicated in this section are listed in **13.8***

This section of the report summarises a short piece of research into how the Greater Manchester HLC data is being used by the ten local planning authorities that make up the county. It also examines how the data might be used in the short, medium and long term, and outlines recommendations for these future applications.

The section is divided into the following parts:

- **13.1** outlines the intended uses of Historic Landscape Characterisation projects in general before stating the overall aim of the Greater Manchester HLC project and the specific objective that is addressed here.
- **13.2** provides an outline of the scope of this study and the methodology used.
- **13.3** provides an overview of the policy context for the historic environment.
- **13.4** outlines the findings of the study into how the Greater Manchester authorities are using the HLC data.
- **13.5** explores other examples of HLC and characterisation studies and looks at how they are being used.
- **13.6** draws together the conclusions arising from the study.
- **13.7** outlines recommendations for further work.

13.1 The intended use of the HLC data

HLC projects give broad-brush overviews of complex aspects of the historic environment. They provide a neutral and descriptive general understanding of the cultural and historical aspects of landscapes, and thus provide both a context in which other information can be considered and a framework for decision-making. Projects can be used to inform a variety of planning, conservation and management led initiatives and strategies. Their primary purpose is to promote better understanding and management of the historic landscape resource, to facilitate the management of continued change within it, and to establish an integrated approach to its sustainable management in partnership with relevant organisations.

The Greater Manchester HLC project had one overall aim and a series of objectives that would enable this aim to be fulfilled (see **Section 4** above). Of the objectives set out in the original Project Design, the third is addressed in the present report:

'Formulation of management and research strategies, including managing change in the Greater Manchester historic environment. This will involve:

- Advice on using the characterisation in planning to influence regeneration and other redevelopment proposals.

- Adoption of the results as Supplementary Planning Guidance and in Development Frameworks.
- Consideration of how the results will be reviewed in the future, in order for changes over time to be monitored.
- Identification of further research objectives.'

In the individual district reports only those parts of the objective that were to be addressed at a district level rather than by the project overall were reiterated, and the second part was reworded to read as follows:

- Informing the consideration of historic character within the Local Development Framework, including potential incorporation of the project results into Supplementary Planning Documents.

This reflects an acknowledgement that the results of the HLC project would be used to inform planning documents rather than the project itself producing documents that could be directly adopted, as was implied in the original objective.

13.2 Scope and methodology of this study

In December 2011 GMAU commissioned Jo Hill to undertake a piece of research to supplement the final stages of the Greater Manchester HLC project. This work was intended to identify:

1. How the ten Greater Manchester Local Planning Authorities are already using their HLC data.
2. How the LPAs expect to use their HLC data in the future.
3. What the barriers are to its current and future use.
4. National examples of good practice.
5. Recommendations for future applications of the HLC data in Greater Manchester.

Over ten days in December 2011 and January 2012 the following were undertaken:

1. Semi-structured telephone interviews with nine officers from the LPAs and one face-to-face interview, following a request for a meeting by officers at Manchester City Council.
2. Semi-structured telephone interviews with officers from two national HLC exemplar projects.
3. Research into the current planning policy context.
4. Background research and data trawl to identify relevant exemplar national characterisation-based initiatives (reports, publications, internet research etc). This builds on work undertaken in 2009 by Ivor Samuels and Jo Hill on behalf of the Commission for Architecture and the Built Environment (CABE) and English Heritage (unpublished paper).

13.3 Policy context

The following outlines the current legislation affecting the historic environment and considers where there are opportunities for the utilisation of HLC information.

The European Landscape Convention (ELC)

The ELC was signed by the UK Government in 2006 and became binding in 2007. Its definition of landscape is short, yet comprehensive:

> '*"Landscape" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.'*

The definition applies to the whole territory of states including all urban and periurban landscapes, towns, villages and rural areas, the coast and inland areas. It applies to ordinary or even degraded landscapes as well as those areas that are outstanding or protected. Furthermore the ELC argues that the protection, management and planning of all landscapes in Europe is a task not just for governments but for all sectors of civil society, entailing "*rights and responsibilities for everyone*" (Natural England, 2007).

In England the key measures and actions for ELC implementation can be captured and expanded within the five headings below:

- Improving performance within the current legal and regulatory frame.
- Influencing future legislation, regulation and advice, including contributing to gap analysis.
- Improving the understanding of landscape character and dynamics, and the monitoring of change and trends.
- Engaging people through comprehensive and accessible awareness and understanding activities as well as through promotion, education and training.
- Sharing experiences and best practice.

(Natural England, 2007).

The Localism Act

The Localism Act contains five key measures that underpin the Government's approach to decentralisation:

- Community rights (for example, asset transfer of local libraries and school buildings for community benefit)
- Neighbourhood planning
- Housing
- General powers of competence
- Empowering cities and other local areas

(CLG, 2012).

This is an extensive document, much of which lies outside the scope of this work. The most relevant section is that which deals with neighbourhood planning and this is discussed in

more detail below under the National Planning Policy Framework, as it is the Localism Act that provides the mechanism for this change in planning policy.

Draft National Planning Policy Framework (NPPF)

Despite its brevity, the draft NPPF contains a number of positive references to the historic environment:

- The NPPF expresses a desire to "*…use the planning system to protect and enhance our natural, built and historic environment…*" (Department for Communities and Local Government (CLG), 2011, p3).
- Importantly, "*LPAs should either maintain or have access to an Historic Environment Record*" (ibid, p11).

The document also includes specific references to character, which should be capitalised upon:

- The special circumstances under which isolated homes in the countryside would be considered include where an exceptional quality design is proposed. *"Such a design should … be sensitive to the defining characteristics of the local area.*" (ibid, p32).
- With further regard to high quality design, "*Planning policies and decisions should aim to ensure that developments … respond to local character and reflect the identity of local surroundings…*" (ibid, p33)
- "*…local planning authorities should take into account … the desirability of new development making a positive contribution to local character and distinctiveness.*" (ibid, p50)

Whilst the draft NPPF will be subject to changes before its final adoption (expected to be in April 2012), it is unlikely that the points listed above will be subject to change.

The NPPF should be read alongside the Localism Act, as it is this document which demonstrates the Government's shift towards community based decision making. One significant proposal that is introduced in the draft NPPF and legitimised by the Localism Act is the production of Neighbourhood Development Orders (NDOs). This is in part an aim to streamline the planning process where Neighbourhood Plans have been undertaken by the community and adopted by the LPA. The practicalities behind the creation and delivery of Neighbourhood Plans have yet to be realised, but in principle communities will be determining what they consider to be appropriate development in their areas, and this will then be enshrined in NDOs. However, this is not an opportunity for communities to start from scratch and to radically alter the existing visions for their neighbourhoods, as Neighbourhood Plans are expected to be in conformity with existing Local Plans (CLG, 2011, p13).

Planning Policy Statement 5 (PPS5): Planning for the Historic Environment
Pertinent points from this document, while it is still a material consideration, are as follows:

HE3.1: "*…local development frameworks (LDF) should set out a positive, proactive strategy for the conservation and enjoyment of the historic environment in their area, taking into account the variations in type and distribution of heritage asset, as well as the contribution made by the historic environment by virtue of:*

(i) its influence on the character of the environment and an area's sense of place".

HE3.4: "*At a local level, plans should consider the qualities and local distinctiveness of the historic environment and how these can contribute to the development of the spatial vision in the local development framework core strategy. Heritage assets can be used to ensure continued sustainability of an area and promote a sense of place.*"

(CLG, 2010a).

There is a supporting Planning Practice guide for PPS5, which explains further:

"*27. …In collecting and collating the evidence base for plan-making local planning authorities are advised to:*

10. Consider how established methods of environmental appraisal might contribute to a better understanding of the asset in question and its wider context. These can vary from large-scale historic landscape characterisations, to more detailed, local conservation area appraisals, Village Design Statements, area assessment studies and intensive urban surveys. Historic characterisation might also be used in sensitivity studies and in the development of green infrastructure strategies.

"*41. Regional planning bodies will be assisted in understanding the heritage significance in their area through the following:*

1. High-level historic characterisation studies and landscape character assessment that define sub-regional landscape character areas and areas of particular environmental sensitivity that are unique or threatened….

2. Urban characterisation or similar studies created to inform the assessment of the capacity of settlements for growth or regeneration.

"*128. Work in putting together the regional and local development framework, from the core strategy through to supplementary planning documents on specific issues, will often generate new evidence of the state and significance of the historic environment. Documents, such as historic landscape characterisations, sustainability studies, strategic environmental assessments, conservation area appraisals, studies supporting supplementary planning documents and local listing assessments, will often contain new evidence. Compliance with the policy in HE12.2 requires that local planning authorities collect this information and make it publicly available, including through the historic environment record. The information can be invaluable in improving plan-making and decision-making in the future and is of significant public benefit in furthering the understanding of our surroundings and our past*."

(CLG, 2010b).

Summary
Given the broad definition of landscape as outlined by the European Landscape Convention, there is potentially a significant role for HLC in helping to deliver the Convention's objectives, particularly with regard to improving understanding and engaging people.

Whilst the planning policy landscape has changed dramatically in recent months with for example the abolition of regional spatial strategies, and confusion over the adoption of the draft NPPF in April 2012, there are a small number of opportunities arising that may be of benefit to HLC. The main areas are the shift towards a more community oriented planning process and the anticipated rise in demand for Neighbourhood Plans.

Although there is uncertainty over how Neighbourhood Plans will be developed, there is certainly potential for the sharing of HLC data to inform the initial scoping stages. HLC mapping has proven to be an excellent visual tool that can be used to stimulate discussion about a locality (see **Section 13.4** below) and could provide useful background information for neighbourhoods. Rather than simply informing consideration of where new development should be located, HLC might also help to focus attention upon existing historic assets that would not only benefit from re-use but would also bring benefits by their re-use.

There are a number of references to 'character and local distinctiveness' in the draft NPPF, and these present hooks for the utilisation of HLC data in the planning arena. This implies that there is still a willingness to use information such as HLC, which can help to define what the character and identity of an area is, even if the considerably more thorough and considered references contained within PPS5 are to be withdrawn.

13.4 How HLC is being used within the Greater Manchester authorities

The following is a summary of the main findings resulting from structured interviews with key officers in the Local Planning Authorities. See Appendix 8 for a list of all those who were contacted as part of this exercise.

HLC is acknowledged as having a range of practical applications for the rural landscape: informing Landscape Character Assessment, woodland grants and environmental schemes etc. – see Clark, Darlington & Fairclough, 2004. The purpose of this exercise, however, is to consider the urban applications of HLC: establishing how it is currently being used by LPA officers; how it might be used in the future; the barriers to its use; and how it could be made more useful in the future.

The section headings below are the questions asked in the semi-structured interviews. Under each heading/question, the key findings from across the ten LPAs are outlined, followed by a discussion of these findings and proposed actions for future consideration arising from the findings. Two tables are also included at the end of this section. Table 13a captures the key HLC application areas and the progress of each LPA against them. Table 13b highlights the main barriers that are preventing use of the HLC data.

How is HLC currently being used?
Seven of the ten LPAs have used the HLC data as part of the evidence base for their Core Strategies. The majority of these also felt that HLC had influenced the nature of the Core Strategy policy for the historic environment – i.e. it is character and area based, concerned with local distinctiveness, and has moved away from the more traditional hierarchical

designation oriented approach. In the remaining cases (Rochdale, Stockport and Wigan) the data had not been available in time to be fed into the Core Strategy process.

Comment: the embedding of HLC into so many of the Greater Manchester LPA Core Strategies is a real achievement.

Action:

- the challenge now is to harness this success and ensure its application in other LDF documents, as well as other planning areas.

How will HLC data be used in the short, medium and long term?

It is important to caveat this section with an explanation of the circumstances that are currently affecting LPAs. The cuts to local authority budgets are having a significant effect on staffing levels, resulting in some LPAs having part time Conservation Officers or indeed no Conservation Officer at all, which means that for a number of authorities there is no obvious person to champion the use of HLC. The number of planning officers has also been reduced in most LPAs, leaving fewer people to cover the same amount of work, which of course means that the time available to learn about new data sets such as HLC is very limited.

Given this background, many of the conversations took place with the mindset of imagining HLC's potential for future applications, while ignoring the everyday constraints experienced by officers. Given the present circumstances, many authorities felt uncertain that any of the following ideas would be acted upon in the short term:

Allocations DPD

The successful embedding of HLC into Core Strategy Policy meant that most could see the logic of using HLC to inform the next stage of identifying specific areas for development in their Allocations DPD. For example, it has been used in Stockport to provide a quick understanding of sites coming forward and in Rochdale, the Allocations DPD is seen as being the first opportunity to test the use of their HLC data.

Neighbourhood Plans

There is great support for the idea of using HLC to inform Neighbourhood Plans, particularly in providing historical context for buildings, settlements and landscapes (Bury). However, it is very much up to local community groups to set their own agendas and to look at issues that they want to tackle in their neighbourhoods. It remains to be seen just how HLC is to be introduced into this process, and not all local authorities actively support this initiative.

Conservation Areas

The use of HLC to inform Conservation Area Appraisals and extensions to existing designations is also widely accepted, although as yet there are no examples of this having been done. The variation between authorities on this point is quite striking. Some clearly have few Conservation Areas and have limited expectations of revising this situation, while others have significant coverage and are looking to use HLC to explore gaps and potentially identify new areas suitable for designation. Stockport MBC, for example, expects to use

HLC to inform the next round of Conservation Area Appraisals and Management Plans (see **Section 14** for details of a related study).

Regeneration
HLC is generally seen as being a useful data set to feed into master plans and Area Action Plans where change is being proposed on the large scale. For example, it is able to identify features that have survived change and possibly exist as isolated pockets within areas where the surrounding character has changed significantly. However, regeneration is unlikely to be undertaken on any great scale in the coming years.

Research
There is a general consensus that HLC has excellent potential to be used in research at the county, regional and even national scale. Stockport, for example, considers that it will be very useful at a strategic level to compare their local authority area with the rest of Greater Manchester. Tameside would like to see HLC as the basis for thematic research across Greater Manchester, as well as being used to place the region in its national context. It could provide a greater sense of what survives and where, and an opportunity to learn from elsewhere about how better to control threats to the historic environment.

Education and outreach
HLC is also seen as a tool that schools and local societies would find very useful and informative. Crucial to the latter, however, is the question of how this information will be made accessible to them, which most LPAs seem to be struggling with at present.

Community engagement
HLC is seen as a great tool to be used in community engagement. It is highly visual, which can make it easy for community groups to understand how places have changed over time, or where there are areas of survival and loss etc. It can also help to challenge perceptions. For example, there is an assumption that the Manchester landscape is comprised of a great number of terraced houses, yet the HLC can demonstrate that this is no longer the case and that in fact in some areas terraced housing has become a threatened character type. HLC data is therefore able to provide a wealth of local context and a good basis from which to generate more detailed discussion. However, while this view seems to be widely shared, it is unclear as to how the LPAs intend to make use of the data for this purpose.

Comment: the strength of HLC seems to be in its potential to inform strategic work areas such as spatial DPDs, SPDs, AAPs, master plans and regeneration strategies. It is also expected to inform Conservation Area Appraisals and provide context for planning applications. It is not considered to be sufficiently detailed to inform site specific purposes such as drawing up local lists or checking small-scale planning applications. HLC is seen as having a vast research potential and as a useful tool to be used in community engagement.

Actions:
- Ensure that HLC is used to inform forthcoming DPDs/SPDs/AAPs/master plans etc.
- Ensure that HLC is used to inform Conservation Area Appraisals.

- Encourage the use of HLC in providing context for planning applications.
- Explore the research potential of the HLC data, for example:
    - Engage with research institutions such as the University of Salford's School of the Built Environment, which has recognised the considerable potential of the data for landscape modelling and visualisation.
    - Identify areas for possible undergraduate and postgraduate research projects that could interrogate and develop the HLC data set.
- Develop HLF funded projects to widen access to the HLC data and to encourage its use, for example by making it available on the internet and developing data enhancements for public access.
- Encourage local history and archaeology groups to utilise the HLC and to take ownership of it in their localities, perhaps undertaking ground proofing exercises and adding information such as local perceptions of character areas to the data set.

What are the benefits of HLC?

HLC is seen as a useful tool that, in accordance with the ethos of PPS5, is able to help fill in the gaps between dots on maps. One of its main strengths is seen as aiding understanding, particularly for non-designated assets and areas. Many of those interviewed see it as a useful data set that is able to sit alongside other material in the planning arena. It therefore enables the historic environment to be taken into full consideration, whereas previously there has largely been reliance upon lists of designated and non-designated heritage assets. Such lists, particularly for the latter, may have been compiled in a piecemeal fashion or may be the result of themed research and thus fulfil specific agendas.

In the main HLC is seen as a strategic tool, best suited to understanding areas and providing context for plans and proposals. For example it has been suggested that the Commission for the New Economy, who are undertaking research across the whole of Greater Manchester to identify sites for inward investment, would be an obvious candidate as a body that should be encouraged to use the county-wide HLC data set.

Comment: while many can see the strategic benefits of HLC, there are some who questioned the overall usefulness of the data set, particularly when considering site specific planning applications. Much of this frustration could be seen in those who are looking to use HLC as a standalone tool. It is important to remember that HLC should be used with other data sets to reach a full understanding of an area. It is not intended to be used in isolation and this needs to be explained to users. HLC alone will not provide all of the answers for the historic environment. However, it will provide a good introduction and context for plans and proposals.

Actions:

- Produce a short, attractive summary document that will provide a coherent introduction to HLC, its philosophy and its purpose.
- Provide presentations and training on HLC to Greater Manchester Conservation Officers Group (GMCOG) members.

What are the barriers to its use?

Resources

As mentioned above, many of the LPAs that I spoke to are struggling under the current regime of cuts, and while the potential to embed HLC within Core Strategies has been realised in a number of authorities, the logical steps to follow this activity up are not being taken in most cases. For example, in Bolton, HLC data has not been used to inform the draft Allocations DPD, despite great efforts to integrate it into the Core Strategy in 2008-9. A number of authorities cited the lack of awareness of HLC by colleagues as a barrier to its use. For those that do have awareness of the data, a lack of time was the main barrier that has prevented them from familiarising themselves with HLC.

Access to the data

Despite GMAU's best efforts, which included providing a copy of the data set for each district on completion of characterisation for that district as well as the provision of presentations to planning staff at the authority and detailed hand-over training sessions, very few local authorities have the HLC data readily available on their systems. Some are even unsure as to where the data is being held, while others evidently have not taken any steps to arrange for the data to be transferred within the authority so that it is available to individual staff, and in one surprising case are still expecting GMAU to facilitate this on their behalf. There are three authorities where this lack of access to the data means that it is not being used and that officers have not been able to familiarise themselves with the potential usefulness of the data set. Many officers that I spoke to expressed frustration at their lack of access to the HLC data on GIS.

Lack of in-house GIS skills

A significant number of planning officers that I interviewed expressed admiration for Karl Lunn's GIS skills and their aspiration to one day be proficient enough themselves to be able to interrogate the HLC data in the same way. In the meantime, those who have access to the data felt that their limited GIS abilities were resulting in the HLC data being under-utilised.

Training requirements

While a small number of officers benefited from the GMAU hand-over training, many others did not. It has been suggested that colleagues in planning, particularly in development control, would benefit from training to explain how to use the HLC data. Indeed, a number of planning officers have expressed an uncertainty as to how to use the information.

Complexity of the data sets

Many feel that in its present format, the HLC data set is complex and not easy to use. The data is in a raw state and for wider use it will need synthesis and interpretation. The written report is seen by most officers as providing a useful overview of the development of their district, which they can dip into as required. However, it is a thick document which some consider dry, dense and inaccessible. A significant number suggested that a 'dummy's guide to HLC' would be useful. One local authority has lost its copy of the paper report.

Lack of detail
It is considered difficult to apply the HLC data to development management as it does not engage at the building scale level of detail. It has been suggested that it takes skilled interpretation to use HLC to identify planning implications. Authorities generally agreed that they would struggle to use the data to inform exercises such as the compilation of local lists.

Generalised recommendations
There are concerns from some local authorities that the management guidelines in the report are too generalised and repetitive to be meaningful.

Accuracy
It has been raised by several local authorities that the HLC data will soon become out of date and therefore inaccurate. They are unsure as to what the implications for using HLC are but aware that for it to remain current it will need to be revisited and updated. There was also confusion over ownership of the data and whose responsibility it is to update it.

Comment: in some cases the barriers to use are practical issues such as time, money, skills and training, while other barriers are more philosophical and represent confusion about the nature of HLC and its potential. For example, with regard to the latter, the management guidelines needed to be generalised and repetitive to match the broad character-based content of the HLC data sets, but many consider them to be too generalised. Also HLC is not designed to be useful at the site specific building scale as again it is a broad brush, character-based tool. However, it is important to realise that it is useful for providing context for a building in the landscape and can be a good starting point for understanding the development of a site over time (time-depth).

It is highly unlikely that the data set will be updated across the whole of the Greater Manchester area in a single exercise. However, that is not to say that small areas might not be updated as required. This is entirely at the discretion of individual LPAs. Meanwhile, the accuracy of the data set with regard to present character can be quickly checked against the modern Ordnance Survey mapping as well as applications such as Google Street View and Bing Maps.

Actions:
Whilst it is not possible within the scope of this report to address the problems caused by cuts to local authority budgets, there are some practical actions that might help to widen the use of HLC. The first two actions have already been mentioned above, but are also relevant to this section:

- *Produce a short, attractive summary document that will provide a coherent introduction to HLC, its philosophy and its purpose.*
- *Provide presentations and training on HLC to GMCOG members.*
- Each local authority could identify an HLC 'champion' who will take it upon themselves to ensure that the data is available on the in-house GIS and to inform colleagues of its existence and usefulness. They might, for example, organise

informal 'lunch and learn' sessions to demonstrate the content of the data set and its usefulness.

- Approach the University of Salford or similar to devise a cost-effective, tailor-made training course giving an introduction to GIS, based on the HLC data, which can be directed at Greater Manchester's LPA officers. This could be used in turn on a 'train the trainer' model whereby those who benefit from the training sessions are expected to share their learning with colleagues back at the office, i.e. cascading their learning.

How could HLC be made more useful?

Accessibility

Publication in an accessible format on the web would enable community groups to access the information. Popular publications would also help to explain what HLC is as well as help disseminate some of the initial findings. One such publication could perhaps be a 'dummy's guide to HLC', as mentioned above.

Additional information

A number of authorities suggested that more townscape data collected as part of the HLC would have been useful, for example data about the scale and massing of buildings, the materials used, or condition. However, most also noted that the archaeological focus of the study is beneficial and that it could not be expected to capture everything. Some pointed out that urban design information can be gleaned from other sources such as Street View. Some suggested that for the project to be useful for development control, HLC would need to go further and identify specific buildings or sites that should be on the HER.

Learning from others

Most authorities suggested that it would be useful to learn about how others have used their HLC data, both within the Greater Manchester area and further afield.

Comment: this section mainly seems to reflect the need for greater access to the data for both local authority staff and the wider community, as well as a need for help with understanding the uses of HLC. There is a feeling that it would be useful for the data sets to include site specific detailed information about the urban landscape, but it is acknowledged that this sort of data-gathering exercise would be a considerable undertaking and unrealistic given the length of time that the existing project has taken. There is, however, scope for this sort of data to be added into the existing database in the future should the need arise. HLC is a remarkably flexible tool and has the potential to lend itself to a vast range of applications. The challenge really is to find people who are willing to test and experiment with the data and its uses, whether this is in a Local Planning Authority context, a research and educational context or as an interested member of the community.

Actions:

(The first two actions are repeated from a previous section)

- *Develop HLF funded projects to widen access to the HLC data, for example by making it available on the internet and developing data enhancements for public access.*

- *Encourage local history and archaeology groups to utilise the HLC and to take ownership of it in their localities. This could include a vast range of projects but perhaps might comprise their undertaking ground proofing exercises and adding information such as local perceptions of character areas to the data set.*
- Encourage LPAs to add to the data sets as opportunities arise. This might be undertaken, for example, to inform a master planning exercise. Given the current financial constraints this might be more realistically developed by working closely with university departments, where students might be encouraged to undertake GIS related projects that are of benefit to the LPA, e.g. adding in an urban design dimension to the HLC data for a town centre that is undergoing change.
- Encourage LPAs, research bodies and others to use HLC alongside other data sets such as natural environment biodiversity data to test and develop its applications in multidisciplinary environments.

Table 13a: How the Greater Manchester LPAs have used and expect to use HLC for planning policy and community benefit

	POLICY AREA				COMMUNITY USE
LPA	**Core Strategy**	**Other LDF docs?**	**Neighbourhood Plans**	**Conservation Area Appraisals**	**Use by community groups**
Bolton	Yes: evidence base & policy	Unlikely	Future use is unlikely	Future use is unlikely	Future use is unlikely
Bury	Yes: evidence base/ informed topic paper	–	Possible	Possible	–
Manchester City	Yes: evidence base	Not anticipated	Neighbourhood Plans not anticipated	Possible?	Possible?
Oldham	Yes: evidence base and policy	Possible	Possible	Possible	Possible
Rochdale	Too late in timetable	Possible	Unlikely	Possible	Possible
Salford	Yes: evidence base and policy	Possible	Possible	Possible	Possible
Stockport	Too late in timetable	Yes: Allocations DPD	Possible	Possible	Possible
Tameside	Yes: evidence base	Possible	Neighbourhood Plans not anticipated	Possible	Possible
Trafford	Yes: evidence base and policy	Possible	Possible	Possible	Possible
Wigan (yet to receive data)	Too late in timetable	Possible	Possible	Possible	Possible

Red = authorities that are still in the starting blocks and encountering barriers to using HLC – for example, three 'red' authorities have failed to make the HLC data available on their in-house GIS systems

Amber = authorities that are just out of the starting blocks but where current conditions suggest that although they are experiencing problems, they are likely to make use of the HLC data in the future

Green = one authority that is making use of the HLC data, where conditions suggest that they are likely to continue to do so

Table 13b: Key barriers that are preventing LPAs from making use of their HLC data

	KEY BARRIERS				
LPA	**Lack of GIS skills**	**IT system issues**	**Lack of time to familiarise with HLC**	**Raw data is too complex**	**Resources**
Bolton	–	Unsure where data is	Yes	–	Lack of conservation staff
Bury	–	–	–	Yes	–
Manchester	Yes	HLC not on GIS system	Lost paper report	–	–
Oldham	–	How to share data with public?	Yes	–	Reduced planning staff
Rochdale	Yes	How to share data with public?	Yes	Yes	Unsure of HLC's potential
Salford	–	–	Yes	–	Reduced Conservation Officer capacity
Stockport	Yes	–	–	Yes	–
Tameside	Yes	How to share data with public?	Yes	Yes	Lack of training budget to upskill in GIS
Trafford	Yes – lack of skills & no training budget	HLC not on GIS system How to share data with public?	Yes	–	In-house training needed
Wigan	?	How to share data with public?	?	?	Have yet to receive the data

13.5 Comparative characterisation projects

Having established the extent of the progress that had been made in Greater Manchester, it was decided to look at some examples of other HLC projects within the national programme as well as other characterisation based initiatives to see if lessons could be learnt from elsewhere. The first two – South Yorkshire and the Black Country – are urban HLC style projects, while the following three – Dudley, Lincoln and Chester – are examples of characterisation studies that have been undertaken for specific applications.

South Yorkshire HLC

The South Yorkshire HLC was completed in 2008 by the South Yorkshire Archaeology Service (SYAS), and the data and report were supplied to the local planning authorities. SYAS subsequently approached English Heritage to see if they might fund a stage two project that would help their authorities use the HLC data. Unfortunately, having agreed in principle to fund this work, English Heritage had to withdraw their offer as the organisation's priorities had changed and this meant that the proposed project was no longer eligible for a grant. SYAS then approached the HLF, but this body was unable to support the project given that it involved work with LPAs rather than their usual remit of benefiting community groups. SYAS are therefore unsure as to how their HLC data is being used by the local authorities.

Meanwhile, the data has been used in an action research based PhD carried out by Stephen Dobson. The main collaborative research partners were Sheffield City Council's Parks and Countryside Service and Rotherham Metropolitan Borough Council's Forward Planning – Environment and Development Services (EDS). The work included several practical case studies which developed some interesting outcomes, not least the community initiative 'Get Walking, Keep Walking', which has used HLC data to develop educational, informative urban walks (Dobson, 2010).

Furthermore, the initial HLC project design made provision for a website. This site has been launched and now regularly records a significant number of visitors.

The Black Country HLC

The first draft report of the Black Country HLC was produced in December 2008 by the Black Country Archaeological Service (based in Wolverhampton), in collaboration with the four Black Country local authorities (Wolverhampton, Walsall, Dudley and Sandwell) and English Heritage. The Black Country model brings together the urban and rural characterisation approaches.

The HLC is being used to inform the Joint Core Strategy for the Black Country LPAs as well as a Supplementary Planning Document on the Historic Environment. Interestingly the HLC data has also been used to inform a strategic assessment of contaminated land across Wolverhampton. In addition it has been used as part of the Distinctly Black Country website, an arts and heritage based community engagement project.

The Black Country project is quite unusual in that the officer who undertook the HLC is still working for the local authority and is therefore available to interpret the data and assist LPAs in the use of it, rather than leaving them to go it alone. For example, the officer is interrogating the HLC on behalf of the LPAs to feed into the SPD on the Historic

Environment. However, there are also frustrations. For example, the HLC data is not available on the in-house GIS for Wolverhampton Planners, so they are not able to access it.

Dudley MBC

The Brierley Hill Urban HLC, completed by the Conservation Studio in 2007, is an excellent example of a characterisation study that was undertaken for a specific application. It was commissioned by Dudley MBC from private consultants, principally to inform the evidence base of the Area Action Plan (AAP) for the area. It was made very clear from scoping discussions about the AAP that this is a fragmented area that needed to be better understood before proposals for stitching it back together could be brought forward. The AAP budget was therefore used to fund this piece of work.

Following on from the Black Country HLC, which covered four local authority areas (see above), the Brierley Hill Urban HLC provides a finer grain of information that includes qualitative judgments on condition and importance, which are needed to inform proposals. This required field surveys and mapping of each of a number of individual, defined character areas. For each area, summaries of townscapes included information on landmark buildings, architectural character and potential for change, as well as archaeological priority areas and significant open space, all rated on a scale of value. Other planning initiatives that have been informed by this work to date have included:

- A Conservation Area Character Appraisal undertaken by the consultants for one character area – Brierley Hill High Street. This has now been designated as a Conservation Area.
- Informing the work of other consultants charged with putting forward land use allocations for the whole AAP and with 'place-making'.
- Use by the council as the basis of a bid to Advantage West Midlands for the funding of public realm improvements appropriate to the area's local character (Samuels & Clark, 2009).

Lincoln

The Lincoln Townscape Assessment (LTA) was carried out by Lincoln City Council with English Heritage. It is separate from the wider HLC project undertaken for the county of Lincolnshire. The LTA defined character areas for the whole of the inherited environment, each of which was street surveyed and desk researched (EH, 2010). The project builds upon the existing Heritage Database and the detailed Lincoln Archaeological Research Assessment (LARA). It therefore captures the historical development of the area as well as:

- analysis of built form incorporating 'principles of urbanism'
- ecological data
- public views of local character

(Samuels & Clark, 2009).

The data has been used as part of the evidence base for the Local Development Framework (LDF). The main public outcome is an interactive web-based assessment of Lincoln's character to which individuals are able to add their own impressions and memories. It is

expected that this wealth of information will be used to inform the processing of planning applications. It has already helped new developments have greater regard for local character; it will also be used to review Conservation Area Appraisals and may be useful for local planning (EH, 2010).

Chester
Cheshire West & Chester City Council commissioned Taylor Young to help with the production of an historic characterisation of Chester's centre, to inform the LDF, future land use and conservation policy (EH, 2010).

The study area was divided into 116 sub-areas grouped into 16 character areas. Each character area was the focus of a detailed character assessment which included information on historical development, urban form, townscape and landscape analysis and land use. The study is expected to be invaluable in designing for change, assessing planning applications and formulating policy (ibid).

Summary
The example projects summarised above demonstrate the great potential of characterisation based approaches that are developed in-house for specific purposes – such as the Brierley Hill AAP. They also show what can be achieved over a number of years with a significant financial investment in understanding and promoting the historic environment of an area, as in Lincoln.

The HLC projects, in particular the SYAS experience, demonstrate the shortcomings of undertaking a project that produces data primarily intended for use by other people with different specialisms, often in different organisations. When an HLC project is completed, resources to follow up on dissemination and learning are usually not available, and the likelihood of local authority officers getting to grips with new and uncertain data without support is very limited. The fact that an HLC project officer is still working in the Black Country means that the data here is being used and integrated into policy and planning processes. However, as Stephen Dobson's action research PhD has shown, there is scope for others to use the data and to explore how it can be applied in a variety of areas.

The HLC data sets have vast potential to inform projects and initiatives. It is really a question of potential researchers coming forward with ideas and making use of the data.

13.6 Conclusions

HLC is very unlike the kinds of data sets people are used to working with, and by its very nature therefore takes time to adapt to and get to grips with. It in fact represents a paradigm shift in the management of the historic environment. As a consequence, additional time and support are required to ensure that the HLC data is embedded into organisations and that its long-term use is secured, and this, I suggest, is a nation-wide position, not just specific to the experience of Greater Manchester.

In principle the national policy context (draft NPPF, ELC etc) provides a supportive framework for the application of HLC, and emerging initiatives such as Neighbourhood Planning offer opportunities for proactive Local Planning Authorities to utilise their HLC data, thereby helping communities to better understand the localities that they live in before they

begin to shape the planning documents that will affect the future development of these places. However, LPAs are under-resourced and the likelihood of such opportunities being fully realised must be seriously questioned, particularly when there are LPAs in Greater Manchester who are struggling to get the data onto their GIS systems.

The following sections draw together the key findings of this study.

HLC strengths:

- As a tool for understanding the historic environment at the local, sub-regional or regional scale
- As a tool for providing context for specific sites and areas
- As a visual tool to aid engagement amongst a non-technical audience
- Understanding places and spaces
- Helping to define local distinctiveness
- Identifying patterns of land use
- Identifying time-depth
- Identifying where there are surviving features/assets
- As a tool for research and analysis.

HLC weaknesses:

- There is a tendency for potential users to have a misconception regarding what the data is intended to be used for in relation to the level of detail
- Having access to the data is crucial whether this is on a GIS system or via alternative methods
- Interrogating the HLC data requires a high standard of GIS skills, such as having the ability to run queries
- The data is complex and not very user-friendly
- HLC is not a standalone resource; it needs to be used in conjunction with other data sets.

Main applications:

- To date, the main achievement in Greater Manchester is the use of HLC to inform Core Strategies
- There is great potential for HLC to inform:
    - other planning policy documents, in particular the Allocations SPDs which are expected to follow on from the Core Strategies; this has already been done at Stockport MBC

- area-based regeneration through Area Action Plans, Development Brief DPDs, master plans etc
- Conservation Area Appraisals and reviews, as well as identifying new areas for designation
- community consultation and engagement exercises

- HLC has immense scope for use in research – educational, professional and private
- HLC will be of tremendous value to the work carried out by historical and archaeological societies.

13.7 Recommendations

The following draws together the actions recommended in earlier sections of the report which may help to overcome some of the current barriers to using the Greater Manchester HLC data:

- Produce a short, attractive summary document that will provide a coherent introduction to HLC, its philosophy and its purpose.
- Explore ways of sharing the HLC data other than in GIS format, such as CDROM.
- Provide presentations and training on HLC to GMCOG members.
- Each LPA to identify an HLC champion (perhaps drawn from the GMCOG membership) who will take it upon themselves to ensure that the data is available on the in-house GIS and to inform colleagues of its existence and usefulness.
- Ensure that HLC is used to inform forthcoming DPDs/SPDs/AAPs/master plans etc.
- Ensure that HLC is used to inform Conservation Area Appraisals.
- Encourage the use of HLC in providing context for planning applications.
- Approach Salford University or similar, to devise a cost-effective, tailor-made 'introduction to GIS' training course, based on the HLC data, which can be directed at Greater Manchester's LPA officers. Those benefiting from the training sessions would be expected to share their learning with colleagues back at the office.
- Encourage LPAs to add to the data sets as opportunities arise. This might, for example, be undertaken to inform a master planning exercise. Given the current financial constraints this might be more realistically developed by working closely with university departments, where students might be encouraged to undertake GIS related projects that are of benefit to the LPA, e.g. adding in an urban design dimension to the HLC data for a town centre that is undergoing change.
- Encourage LPAs, research bodies and others to use HLC alongside other data sets such as natural environment biodiversity data to test and develop its applications in multidisciplinary environments.
- Explore the research potential of the HLC data, for example:
    - Engage with research institutions such as the University of Salford's School of the Built Environment, which has recognised the considerable potential of the data for landscape modelling and visualisation.

- Identify areas for possible undergraduate and postgraduate research projects that could interrogate and develop the HLC data set.

➢ Develop HLF funded projects to widen access to the HLC data and to encourage its use, for example by making it available on the internet and developing data enhancements for public access.

➢ Encourage local history and archaeology groups to utilise the HLC and to take ownership of it in their localities, perhaps undertaking ground proofing exercises and adding information such as local perceptions of character areas to the data set.

13.8 References

Clark, J, J Darlington & G Fairclough, 2004 *Using Historic Landscape Characterisation* English Heritage & Lancashire County Council; London

CLG, 2010a *PPS5: Planning for the Historic Environment*

CLG, 2010b *PPS5 Historic Environment Planning Practice Guide*

CLG, 2011 *Draft National Planning Policy Framework*

CLG, 2012 *http://www.communities.gov.uk/localgovernment/decentralisation/localismbill/keymeasures/*

Dobson, S, 2010 Evaluating Historic Landscape Characterisation in Practice: An Action Research Approach (unpublished document)

English Heritage, 2008 *Conservation Principles – Policies & Guidance*

English Heritage, 2010 *Understanding Place: Character & Context in Local Planning*

GMAU, 2011 *Tameside Urban Historic Landscape Characterisation Report* (unpublished report)

Natural England, 2007 *European Landscape Convention: A Framework for Implementation*

Samuels, I & J Clark, 2009 *Characterisation – Its Application in Planning Practice* (unpublished document)

14.0 Using the Greater Manchester HLC data to predict the potential for new Conservation Areas

Kerry Walmsley
Conservation Management trainee at Stockport Metropolitan Borough Council, funded by the Heritage Lottery Fund's 'Skills for the Future' Programme

*Please note – references indicated in this section are listed at the end, in **14.7***

14.1 Introduction

Across Greater Manchester there are 231 designated Conservation Areas. Whilst there are common themes within designation across the ten authorities, there is significant variation in the numbers and distribution of areas.

A Conservation Area is an

> "*area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance*,"

according to Section 69 of the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990. Section 69(2) of the Act imposes a duty on Local Authorities to review their Conservation Areas from time to time.

Historic Landscape Characterisation is a recognised way of understanding and documenting the character of place. However, there is potential to develop this further by using the HLC as a tool to assist in the designation and review of Conservation Areas in Greater Manchester.

Stockport Metropolitan Borough Council (MBC) has an exemplary record for its approach towards conservation, with a robust heritage strategy and an ongoing five-yearly review process for each of its 37 Conservation Areas. Stockport was used as a case study to investigate how the HLC data could be manipulated to identify potential new Conservation Areas or extensions to existing ones. In this report an overview of the character of Stockport's Conservation Areas is analysed alongside an in-depth examination of two sites. One is in Greave Fold, Romiley, in the eastern half of the borough, and the other is in Edgeley, close to Stockport town centre.

14.2 Methodology

In order to predict future designation, an understanding of the pattern of land use in Stockport was first established. Data was drawn from the HLC to measure the Broad and HLC types in terms of area for:

- the borough of Stockport (excluding Conservation Areas)
- Stockport's Conservation Areas as a whole
- individual Conservation Areas in the borough.

Through analysis a pattern emerged indicating a range of Broad and HLC types common to both Conservation Areas in Stockport and the wider borough. The data was streamlined in

order to identify the HLC types that were most highly associated with Conservation Areas. For example, within Stockport the 'Textiles' type occupies an area of 43.6 hectares (one hectare is equal to 0.01 square kilometres). Of this, 88% (38.2 hectares) is contained within Conservation Areas. The Textiles HLC type is a strong characteristic of Stockport's Conservation Areas, so the remaining 12% of 'Textiles' land in the borough was investigated for future designation potential.

68 narrow HLC types were indicated, and a GIS layer was created to give a cartographic view of the extent to which these types, or 'Conservation Area indicators', occurred across the borough (see Figure 14a on page 116). This map shows that Conservation Area indicators are tightly grouped together and display a high variance in terms of type. Furthermore, significant pockets are present on the edges of Conservation Areas, for example in Edgeley, Marple, Cheadle and Romiley. Other clusters include linear arrangements in North Reddish, Hazel Grove and Mellor.

14.3 Stockport's Conservation Areas

The data drawn from the HLC has provided an overview of character for Stockport's Conservation Areas (see Figure 14b). Almost three-quarters of the area is made up of land that falls within just three Broad types. The Residential Broad type accounts for 40% of the total area of Conservation Areas, Ornamental, parkland and recreational accounts for 21%, and Enclosed land accounts for 13%. The remaining Broad types each account for less than 10% of the area, with Institutional and Commercial both at 7%, Communications at 6% and Woodland, Industrial and Water bodies at 3%, 1% and 1% respectively. This is representative for a borough that has a high proportion of suburban areas with associated green spaces and institutional buildings. Such analysis can significantly enhance the holistic understanding of Conservation Areas within a borough and could be particularly useful for more strategic planning and conservation matters.

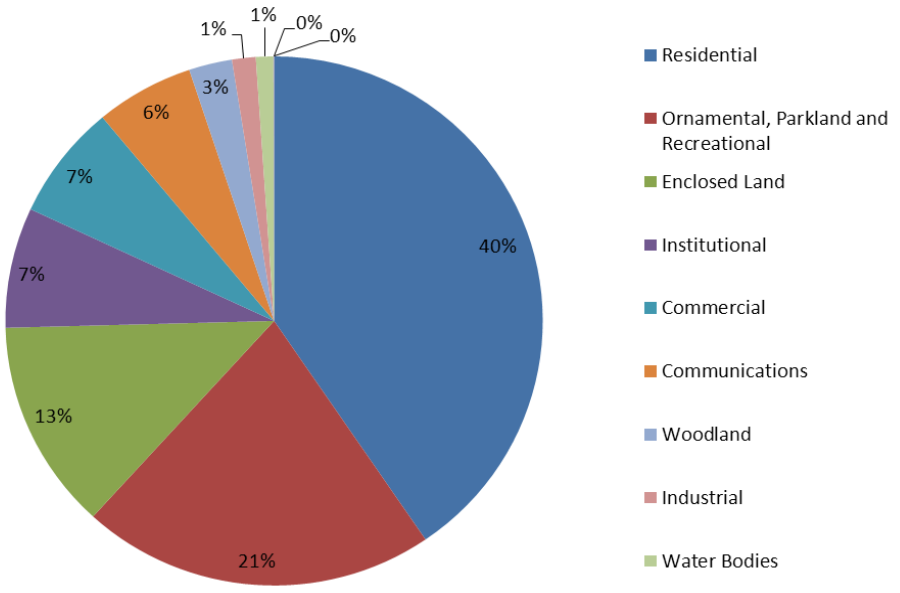

Figure 14b Percentage of Broad types that occur in Stockport's Conservation Areas

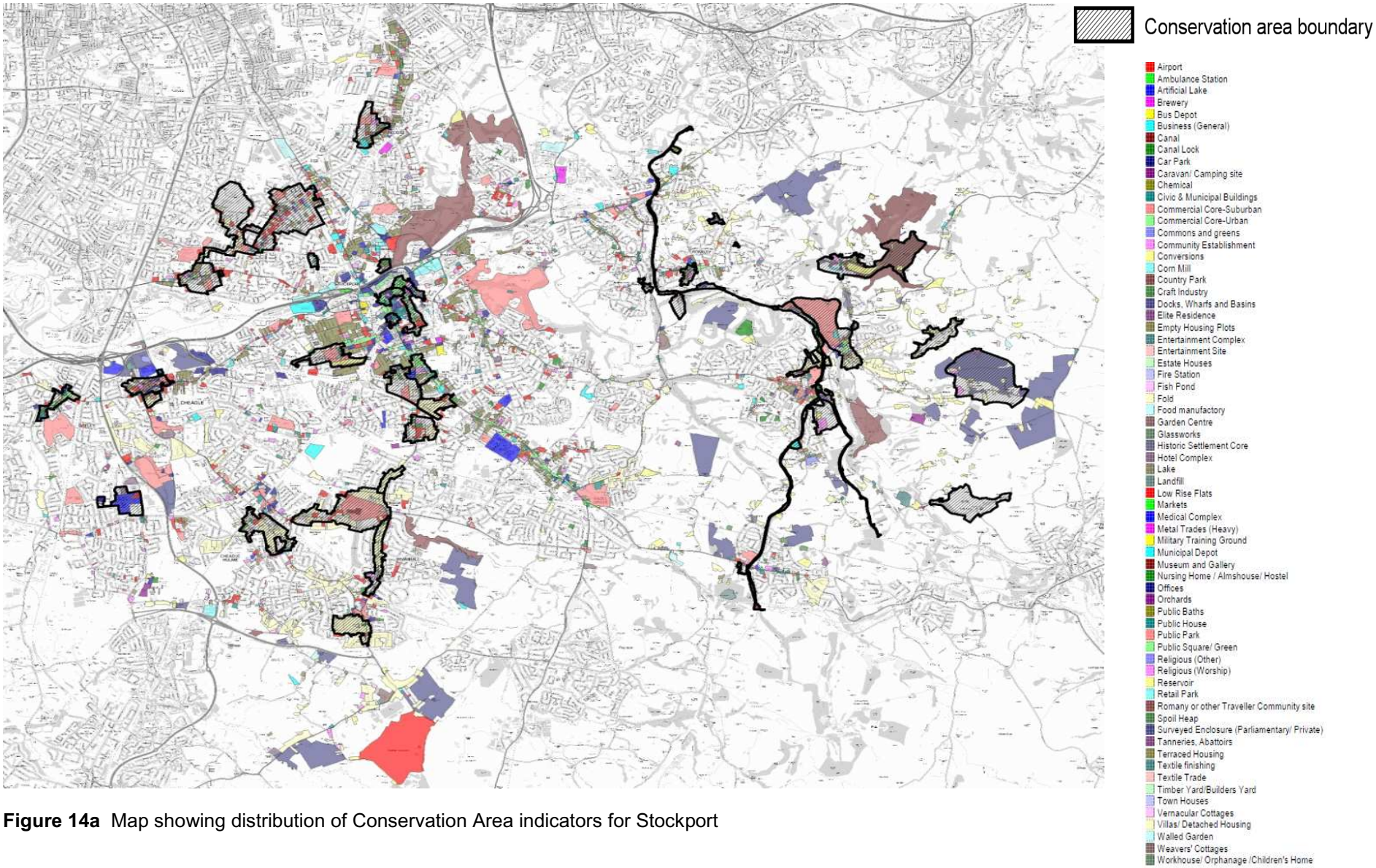

Figure 14a Map showing distribution of Conservation Area indicators for Stockport

Appendix 9 shows the percentage of land covered by each of the narrow HLC types that occur in Stockport's Conservation Areas. There are 85 different HLC types altogether that have a presence within one or more Conservation Areas, and the majority account for less than one percent each. This shows that Conservation Areas in Stockport are diverse and have a great variety of character types within a given area. However, the most dominant narrow types are Villas/detached housing at 14.14%, Public park at 13.47%, and Private housing development at 12.41%. There is thus a skew towards high-status housing and open space. Other narrow types include Piecemeal enclosure at 6.40%, Terraced housing at 3.76%, and Semi-detached housing at 3.55%. It is positive to see that Piecemeal enclosure is well represented within Conservation Areas in Stockport as much of this type of enclosure has been lost to 19th and 20th century development (GMUHLC Stockport District Report, 2011). There is also a reasonable amount of terraced housing which benefits from designation; these are often the last surviving elements of the former industrial communities that were central to the growth of Stockport during the 18th and 19th centuries.

14.4 Case study 1: Greave Fold Conservation Area

The pie chart below (Figure 14c) shows the mix of HLC types for Greave Fold Conservation Area. The Conservation Area appraisal produced by Stockport MBC identifies an

> "*arrangement of buildings in an intricate fold that was enclosed to accommodate communities on the upland fringe of Stockport*"
>
> (2006, Greave Fold Conservation Area Character Appraisal: 2).

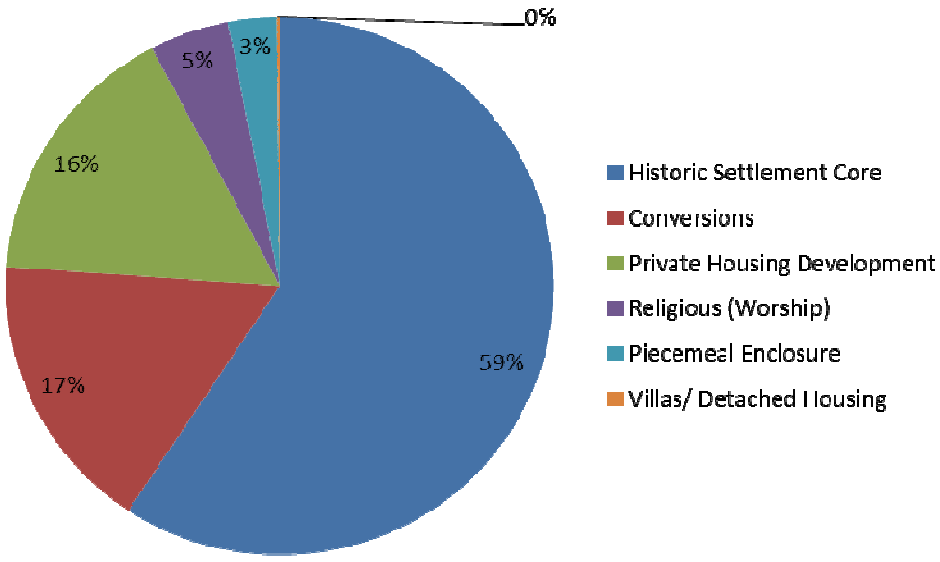

Figure 14c Pie chart showing HLC type composition of Greave Fold Conservation Area, Romiley

The pie chart shows only 6 narrow types, with the dominant being 'Historic settlement core', comprising 59% of the total land covered by the Conservation Area. In this case, the HLC shows that the character of this Conservation Area is derived not from its diversity, but from the dominance of a particular type. This kind of objective analysis is something which can be

included for a more robust understanding of character that will strengthen future appraisal documents.

14.5 Case Study 2: Edgeley

The second case study looked at Edgeley, an area to the west of Stockport town centre. Edgeley developed as a result of housing expansion during the 19th century, when large gridiron developments were created to house workers for Edgeley Bleach Works. The works, established by the Sykes family in the late 18th century, is no longer extant. However, the wider industrial landscape of reservoirs, parks, churches, halls and other social institutions still remains and these features are a visible legacy of the area's industrial past.

Whilst part of Edgeley is designated as a Conservation Area (Alexandra Park Conservation Area; see Figure 14e), the designation is not fully representative of Edgeley's industrial past. Much of the Conservation Area comprises a public park and reservoir, semi-detached housing and villas (see Figure 14d).

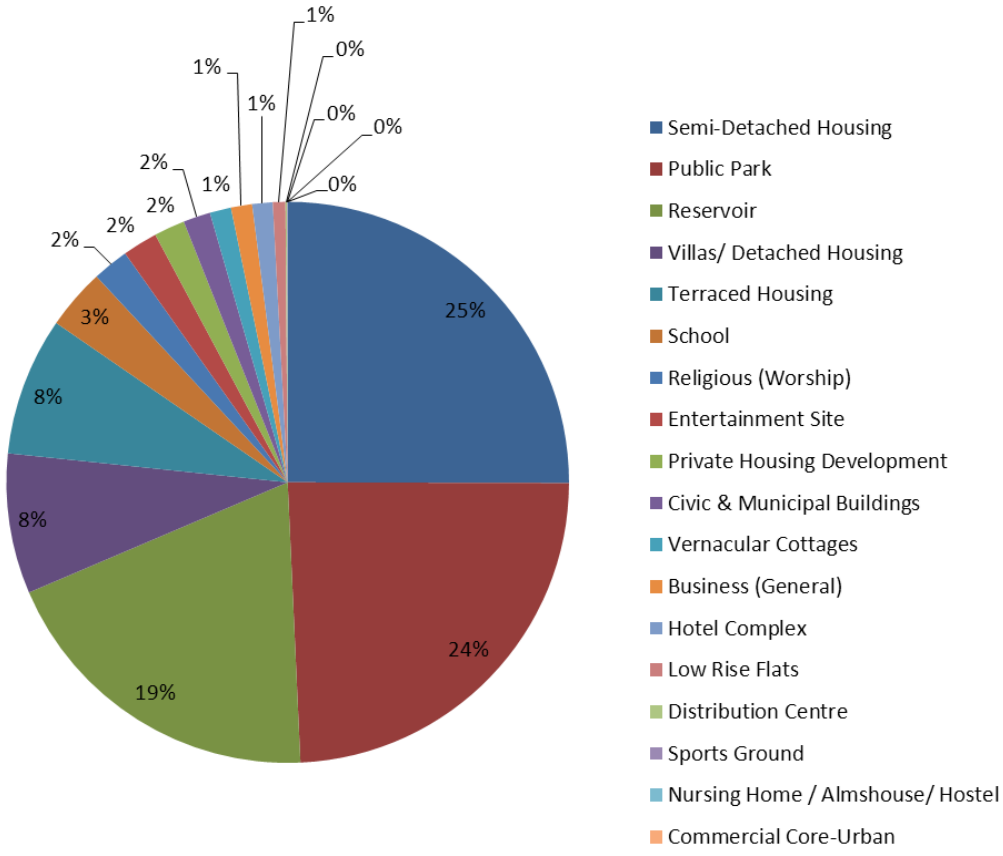

Figure 14d Pie chart showing narrow type composition of Alexandra Park Conservation Area, Edgeley

On the northern and southern edges of the Conservation Area there are large surviving gridiron developments of workers' housing which are not included within the Conservation Area. This represents a spatial divide between housing types and suggests a bias in the designated area towards higher status housing and planned green spaces.

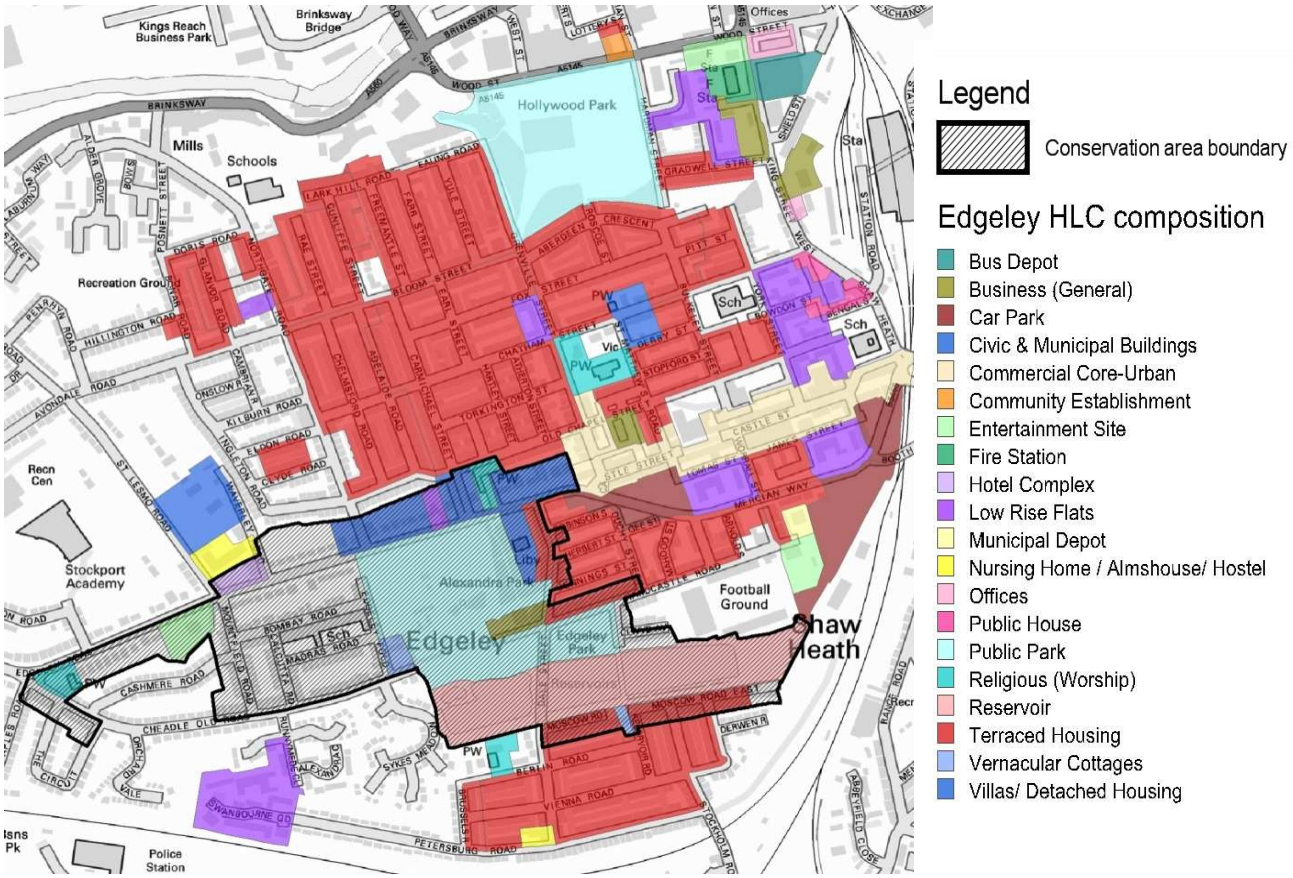

Figure 14e Map of Edgeley with boundary of the Conservation Area outlined and pockets of gridiron terraced housing adjacent to the northern and southern boundaries

A site visit revealed that there is potential for the Conservation Area boundary to be extended. Terraced housing and public and community buildings create a unified landscape relating to the former industrial character of Edgeley (see Figure 14f). However, the visit also showed that incremental erosion of historic features has weakened the architectural integrity of the area. This qualitative factor would need to be taken into account should the Conservation Area boundary be reviewed.

Figure 14f Predominant character of Edgeley with communal buildings and terraces associated with 19th century industrial activity. Above (starting at top left): St Matthews Church, Edgeley Conservative Club and a row of houses on Bulkeley Street. The church and club are locally listed buildings

Other more refined studies and enhancement of the research could include:

- time-depth distribution maps of Broad and HLC types to show the change in morphology of a Conservation Area and borough through time
- streamlining the data search to look at a single narrow type such as 'Historic settlement core' or 'Vernacular cottages'. This may be particularly effective in rural areas where historically there has been moorland enclosure and the creation of hamlets, farmstead groups and folds. Equally, it may produce some interesting results in urban areas, for example looking at 'Terraced housing' in areas of 18th and 19th century workers' housing.

14.6 Conclusion

The two case studies clearly demonstrate that the HLC data can be used to assist local authorities in carrying out their statutory duties of review and appraisal. It provides an

effective tool to highlight designation potential, and used in combination with on-site qualitative assessment can significantly enhance the designation and review process. A methodology has been established which can be easily used by other authorities, particularly where borough-wide Conservation Area reviews are required.

14.7 References and further reading

English Heritage, 2011 *Understanding Place: Conservation Area Designation, Appraisal and Management*

English Heritage, 2010 *Understanding Place: Character & Context in Local Planning*

Stockport MBC, 2006 *Alexandra Park Conservation Area Character Appraisal*

Stockport MBC, 2006 *Greave Fold Conservation Area Appraisal*

15.0 Conclusions

This section revisits the original project objectives set out in **Section 4**, and summarises the key areas where these have been met and areas where, it is hoped, work will continue into the future. Objective 3 included the identification of further research objectives. Some have been discussed and summarised in the earlier sections of Part Two, but a number of further suggestions are listed below in **Section 15.2**.

15.1 How the objectives have been met

Objective 1: Characterisation of the visible historic environment of Greater Manchester.

This has been achieved through the creation of 53,966 records describing individual elements of Greater Manchester's character. Each record is linked to a GIS polygon, building up a map of present-day character.

As the methodology was altered and refined in the early stages of the project, the data for the pilot areas and for Bolton and Trafford districts would ideally need to be reviewed and standardised with the rest of Greater Manchester. However, the issue for most of the records is in the level of detail entered in the 'Summary' field. The basic data recording Broad type, HLC type, previous character and the dates of origin of present and previous character are available throughout the data set.

Objective 2: Analysis and interpretation of the characterisation data.

The characterisation data for each individual district have been analysed and discussed in the ten district reports produced throughout the project. The reports also trace the historic development of each district to show how its present-day character has come about.

The general potential for archaeological remains within each HLC type has been addressed in the management guidance tables that are incorporated throughout the district reports. The significance of the key HLC types for each district has been discussed in the main 'Analysis and Recommendations' section of the reports. It has not been possible to identify the current condition of character areas as this would involve intensive fieldwork. It is not clear how this could have been achieved within the project timetable.

Some of the forces for change acting on each HLC type have been summarised in the management guidance tables. There has not been scope within the project timetable to identify specific forces acting on individual character areas, but see suggestion 4 in **Section 15.2** below.

Objective 3: Formulation of management and research strategies, including managing change in the Greater Manchester historic environment.

Advice on using the characterisation in planning has been provided through the management guidance tables within the district reports. These tables set out opportunities for managing the archaeological and historic resource as well as specific threats that may affect particular character types. The recommendations

include feeding awareness of historic environment issues into local planning frameworks and strategy. The management guidance should be reviewed in the light of case studies and changing national planning policy, particularly the National Planning Policy Framework.

The study commissioned and presented as **Section 13** of this report found that seven of the ten local planning authorities of Greater Manchester had used the HLC data as part of the evidence base for their Core Strategies. This section also gives further details of how the authorities have been using the data in relation to planning policy and development frameworks. It is hoped that the HLC data will continue to inform policy and strategy in the future, and in the districts where this is not yet the case.

'Consideration of how the results will be reviewed in the future' is discussed under Objective 5, which included the 'formulation of a strategy for the ongoing maintenance of project data'.

Ideas for research have been discussed throughout **Sections 10** to **14** of this report, and further suggestions are listed below in **Section 15.2**.

Objective 4: Outreach and dissemination throughout the life of the project.

Details of the dissemination of data and the training provided to the local authorities of Greater Manchester are given in **Section 6**.

Public engagement has not been fully addressed during the project, although the HLC has been promoted to a degree as an integral part of the HER database at local history and archaeology events within Greater Manchester. This situation is mainly due to a lack of time; the primary focus during the characterisation phase of the project has been on promoting planning and strategic use by the local authorities.

It was agreed at the steering group of February 3rd 2010 that "outreach should be separate from the main project and best done towards the end when we have a county wide overview". Stockport were keen to act as a pilot area for an outreach exercise. However, given the current circumstances of GMAU, which will be closed down on 30th March 2012, it is not possible to put in place any firm plans for this at the present time that will involve the county's curatorial archaeology service.

Although little public engagement has so far been possible, a popular publication presenting the project is currently in production which will be distributed as widely as possible through district councils, museums and libraries. A 'plug and play' CD is also in development which will allow all of the HLC polygons for the present (2006) landscape to be overlaid on Google maps. This will incorporate a simple address search facility, and will enable the display of Broad and HLC types, date of origin and the summary relating to each polygon.

It is hoped that should circumstances permit, this may be a model that could be reproduced on a website for wider use.

Objective 5: Archiving and maintenance of the database.

The digital archive for the project is to be lodged with the Archaeology Data Service: (http://archaeologydataservice.ac.uk/)

The paper archive will be stored with the Greater Manchester HER.

In order for the HLC data set to continue to be a current resource it will need to be reviewed and updated every few years. The changes noted between the 2010 Google Street View images and the 2006 MasterMap serve to highlight continuing development throughout Greater Manchester and the importance of updating the HLC database. This could perhaps be done by adding another timeslice data set in 2016, taking a copy of the layer for the 'modern' landscape and updating it where necessary rather than by undertaking an entirely new characterisation. The current circumstances of GMAU preclude the drawing up of firm plans by this organisation to ensure that an update programme is put in place. However, it is to be hoped that the local authorities of Greater Manchester will take the initiative and capitalise on the remarkable resource that is now in their possession.

Broader objective: To facilitate learning, understanding, awareness and appreciation of the historic environment and thus the promotion, preservation and protection of the resource.

It is hoped that this will be achieved through the popular publication and the 'plug and play' CD. Furthermore, there has been some incorporation of management recommendations and references to the HLC in local authority strategy documents (see above in this section and **Section 13** for details). However, this report and the other products are only a beginning. The recommendations below in **Section 15.2** need to be built on in order for the aims of the GMUHLC project to be fully realised in the future.

15.2 Suggestions for further work, including research

Some of the sections in this report have made recommendations for further research, but the following is a list of additional topics relating to subject areas not covered or only lightly touched upon in the report:

1) the influence of topography and drainage on settlement character and evolution
2) application of HLC methodology to examine key areas of proposed new development allocation at a finer grain of detail
3) develop and test models of community engagement with the HLC data and findings
4) forces for change could be analysed by looking at the number of previous character types within a given area. One hypothesis might be that certain kinds of sites with three or more previous character types, or with multiple changes of use since the mid-20th century, may be more vulnerable to future change
5) the complexity of historic town cores, some of medieval origin
6) survival of 18th, 19th and early 20th century terrace housing
7) the fragmentation of urban fringe areas by piecemeal development
8) more detailed examination of ribbon developments

9) production and application of zoned mapping to inform medium and large-scale development proposals
10) the location, extent and character of urban green space and allotments
11) the location, extent and character of water bodies including mill ponds
12) undertake more detailed analysis of moorland to inform understanding of the relative significance of landscapes in relation to wind farm proposals
13) study the former extent of commons compared with the present day, to understand their vulnerability, significance and causes of loss
14) map well-preserved historic landscapes with ecologically important sites
15) study former and extant extraction sites, perhaps jointly with the Geology Unit
16) superimpose the outlines of the old counties of Lancashire, Cheshire, Derbyshire and Yorkshire where they overlap modern-day Greater Manchester and analyse the HLC data to see whether there are any correlations between the historic landscape and these earlier land divisions
17) comparative analysis across Greater Manchester on the Ornamental, Parkland & Recreational broad type
18) study the establishment of municipal parks and gardens, often previously associated with halls and mansions
19) comparative analysis across Greater Manchester on the Woodland broad type to understand the extent and evolution of semi-natural and natural woodland, and plantations
20) comparative analysis across Greater Manchester on the Institutional broad type
21) comparative analysis across Greater Manchester on the Commercial broad type
22) potential for 'virtual' historic environment reconstruction/modelling
23) broad zoning to show how the Greater Manchester UHLC data fits at a regional scale with the Lancashire HLC and other neighbouring projects. 'Historic landscape character types' – a subdivision of most of the Broad types into two categories ('ancient and post medieval' or 'modern') – were listed in Table 4 of the original project design.

Suggested work to the Historic Environment Record

The Greater Manchester Historic Environment Record was used to support analysis of character areas during the HLC, and this use has allowed a review of the quality and coverage of the HER data set in each district. The review is set out in **Section 5.7** of this report and makes recommendations for further work to enhance the HER data set.

15.3 The future

This report has dipped into a very small part of the huge HLC data set that defines Greater Manchester's landscape character. The main part of the project involved creating records and producing reports for the ten local planning authorities. But in the last phase of the project it has been possible to start analysis across the whole county, from district to district. Indeed it is now feasible to make wider comparisons, across regions and nationally.

The following list represents some of the key points of interest that have come out of the last phase of analysis:

- the extraordinary pace of suburban growth, and especially social and private estates since 1965
- the historic development of communications networks which have had such a great impact on the landscape, not just in themselves but also in the way in which they have acted as a catalyst for industrial and suburban growth; these include: turnpikes, canals, trams and railways, cars, buses, airports, and modern trams
- the rapid expansion of industrial land use in the 19th century followed by the equally rapid decline of traditional manufacturing during the second half of the 20th century
- how local authorities have dealt with the challenge of replacing with new economic generators and recreational space the land previously occupied and often scarred with heavy manufacturing and extraction industries
- a remarkable level of survival of field systems, especially in upland valleys and the Wigan area; but these are poorly understood and in many cases are vulnerable to degradation
- significant archaeological sites and historic landscapes that reflect the history and character of the Greater Manchester area generally lack recognition and appropriate levels of protection.

It should be remembered that the HLC data set reflects just one way of looking at and understanding the landscape, but there are other tools as well which complement it. The HLC data set and the interpretation of the project results have been prepared mainly by archaeologists, but other users, such as spatial planners, conservation specialists, geographers, landscape historians, and local communities, might interpret the data in their own way.

It is hoped that this report, with its account of how the project was achieved and its themed sections looking at different elements of the data and its uses, will have given the reader an insight into the character of Greater Manchester's landscape and the rich potential to take the project further. All of the contributors have given views on themes for future research. The relevance of the project's findings to current and future planning policy has also been discussed. It is hoped that some of the recommendations will be taken up and that the database will be utilised as an integral part of the evidence base informing Local Planning Authority policies.

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Black Country HLC: http://www.wolverhampton.gov.uk/environment/land_premises/conservation/archaeology/hlc.htm or: http://archaeologydataservice.ac.uk/archives/view/blackcountry_hlc_2009/

Cheshire tithe maps: http://maps.cheshire.gov.uk/tithemaps/TwinMaps.aspx

Chester West & Chester Council nd [accessed 22/02/2012]: http://www.cheshirewestandchester.gov.uk/residents/leisure,_parks_and_events/history_and_heritage/archaeology/archaeology_planning_advisory/historic_towns_survey.aspx

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Google Maps: maps.google.co.uk

South Yorkshire HEC Project: http://sytimescapes.org.uk/

(South Yorkshire HEC report (Marchant et al, 2008): http://sytimescapes.org.uk/files/uploads/pdfs/reports/01-Final-Report-PartI,II-and-III.pdf)

17.0 Appendices

Appendix 1 Broad character types

Broad Type	Description
Commercial	Business areas including retail and office units.
Communications	Major linear features such as roads and canals will be marked, together with main communication nodes linking these, such as train stations, transport interchanges, airports, roundabouts etc.
Enclosed Land	Land that has been demarcated and enclosed, particularly fields
Extractive	Areas involved with the extraction of commodities and minerals such as fuel or building materials.
Horticulture	Large scale commercial gardening enterprises.
Industrial	Areas concerned with industrial processes and manufacturing.
Institutional	Areas (with or without buildings) connected to large establishments, associations and organizations.
Military	Land used for military purposes*, including airfields, training grounds and ammunition storage depots*
Ornamental, Parkland and Recreational	Designed landscapes and those used for recreational purposes*, including 'informal' recreation areas such as leftover corners that have not been developed and are used by local people for dog-walking etc*
Residential	Areas where people live. Includes large individual houses and housing estates.
Unenclosed Land	Unimproved land, open land, moorland, marsh, wasteland etc.
Water Bodies	Large water bodies including reservoirs and lakes. Does not include millponds.
Woodland	Land with dense concentrations of trees.

Appendix 2 HLC types

Broad Type	HLC Types	Attributes considered
Commercial	Business (general), Business park, Commercial Core – suburban, Commercial Core – urban, Distribution centre, Entertainment complex, Entertainment site, Garden centre, Hotel complex, Markets, Offices, Public house, Retail (general), Retail park, Shopping centre, Storage, Superstore, Timber yard/builder's yard, Warehousing	Sub-type [retail, entertainment, business], Status, Building scale, Legibility of previous type, Presence of public house, Presence of bank
Communications	Airport, Bus or coach station, Bus depot, Canal, Canal lock, Car park, Docks, wharfs and basins, Freight terminal, Goods station, Motorway, Motorway services, Motorway and trunk road junctions, Railway line, Ring road/bypass, Train depot/sidings, Train station, Tram depot, Transport interchange, Tunnel portal, Viaduct/aqueduct	Sub-type [water, road, rail, air], Legibility of previous type, Status/re-use
Enclosed Land	Agglomerated fields, Assarts, Crofts, Drained wetland, Intake, Open fields, Paddocks and closes, Piecemeal enclosure, Prehistoric field systems, Strip fields, Surveyed enclosure (parliamentary or private), Valley floor meadows	Field size, Pattern, Boundary morphology, Boundary type, Legibility of previous type, Boundary loss since 1850, Pasture type
Extractive	Annular spoil heap (bell pit earthworks), Clay pits/brickworks, Colliery, Landfill, Open cast coal mine, Other mineral extraction and processing, Peat extraction, Quarry, Reclaimed coal mine, Shallow coal workings, Spoil heap	Product [peat, aggregates, clay/bricks, coal, stone, refractory materials, ironstone, not recorded], Status, On-site processing, Legibility of previous type
Horticulture	Allotments, Nursery, Orchard	Size, Building type, Legibility of previous type

Broad Type	HLC Types	Attributes considered
Industrial	Brewery, Brickworks, Chemical, Corn mill, Craft industry, Food manufactory, Glassworks, Hatting, Industrial estate, Industrial works (general), Limeworks/cement works, Metal trades (heavy), Metal trades (light), Other industry, Paper mill, Potteries/ceramics, Sawmill, Tanneries/abattoirs, Textile finishing, Textile mill, Textile trade, Utilities, Vehicle factory/locomotive works, Waste ground, Water-powered site	Dominant sector [ceramics, chemical, concrete works, construction, electronics, food processing, fuel storage/processing, glass works, heavy engineering, light engineering, metal trades, mixed commercial and industrial, paper/printing, power (distribution], power generation (fossil fuels), power generation (renewables), recycling, sewage/water, telecoms, textiles and clothing, not recorded], Building scale, status, Legibility of previous type
Institutional	Ambulance station, Asylum, Cemetery, Civic & municipal buildings, Community establishment, Fire station, Fortified site, Medical complex, Municipal depot, Museum and gallery, Nursing home/almshouse/hostel, Police station, Prison, Public baths, Religious (other), Religious (worship), School, University or college, Workhouse/ orphanage/children's home	Sub-type [residential, religious, military, medical, educational, civic and municipal, charitable], Status, Building scale, Legibility of previous type
Military	Airbase, Ammunition store, Barracks, Military training ground, Prisoner of war camp	[*No Attributes defined*]
Ornamental, Parkland and Recreational	Caravan/campsite, Country park, Deer park, Golf course, Inner city farm, Leisure/sports centre, Playing fields/recreation ground, Private parkland, Public park, Public square/green, Racecourse, Sports ground, Tourist attraction, Urban green space, Walled garden, Zoo	Building scale, Legibility of previous type, Presence of bandstand, Presence of water feature, Presence of recreational feature, Park scale

Broad Type	HLC Types	Attributes considered
Residential	Ancient settlement, Back-to-back/courtyard houses, Burgage plots, Conversions, Elite residence, Empty housing plots, Estate houses, Farm complex, Fold, Fortified site, High rise flats, Historic settlement core, Low rise flats, Planned estate (industrial), Planned estate (social housing), Prefabs, Private housing estate, Romany or other traveller community site, Semi-detached housing, Terraced housing, Town house*s*, Vernacular cottages, Villas/detached housing, Weavers' cottages, Workshop dwellings	Density, Layout pattern, Private open spaces, Presence of pub, Legibility of previous type, Status, Presence of school, Presence of church/chapel
Unenclosed Land	Commons and greens, Moorland, Mossland, Pasture, Wetland common	Elevation, Legibility of previous type
Water Bodies	Artificial channel/leat, Artificial lake, Fishery, Fish pond, Lake, Reservoir	Sub-type [reservoir, ornamental feature, natural open water], Leisure use [watersports, not known, bird watching], Legibility of previous type
Woodland	Ancient woodland, Clough, Plantation, Regenerated scrub/woodland, Semi-natural woodland, Spring wood, Wet wood, Wood pasture	Woodland size, Boundary morphology, Boundary loss since 1850, Legibility of previous type

Appendix 3 Fields in the HLC database

Field	Notes
Broad type	
HLC type	
Full type code	Assigned automatically once the Broad type and HLC type had been entered
Name	Address/location of site
Confidence	Choice of Certain, Probable or Possible, referring to assignment of HL type
Summary	Short field, limited to 254 characters
Period of origin	Period of origin of current HLC type
Description	Free text field, not included in the standard GIS exports
Attributes	See Appendix 2 for full list of attributes associated with each Broad typ Examples of values associated with attributes include the following (for Residential Broad type attributes): **Density** (Low – under 25 homes per hectare/ medium – 25-55 per hectare/ high – over 55 per hectare) **Layout pattern** (Gridiron/ Cul-de-sac/ Ribbon development etc) **Private open spaces** (Back and front garden/ Back garden front yard/ Shared garden/ Shared car park etc) **Presence of pub** (Presence/ Absence) **Legibility of previous type** (Complete/ Significant/ Partial/ Fragmenta Invisible/ Uncertain) **Status** (Active/ Inactive/ Disused) **Presence of school** (Presence/ Absence) **Presence of church/ chapel** (Presence/ Absence)
Fields for Previous types	
Previous Broad type	
Previous HLC type	
Period of origin	
Confidence	
Notes	
Other fields	
Monuments	Facility for linking monument records in the HER database to HLC polygons
Sources	

Appendix 4 Example of a management guidance table (for the Historic settlement cores HLC type)

Key management issues relating to Historic settlement cores

Below-ground archaeological potential	• Potential for complex surviving archaeological remains relating to medieval and post-medieval settlement
Above-ground archaeological potential	• Potential for standing buildings of historic interest, including vernacular cottages, farm buildings, churches, schools and commercial buildings • Potential for building frontages of 20th, 19th or even 18th century date to hide earlier structures
Historic landscape interest	• Potential for the preservation of early street layouts, and the outlines of historic building plots
Threats	• Piecemeal redevelopment, leading to a gradual erosion of historic character • Alterations to the appearance of historic buildings, including the removal of fixtures and decorative elements, leading to the erosion of historic character • Alteration of historic settings by the inappropriate redevelopment of sites in the surrounding area
Opportunities	• Historic street patterns and pedestrian routes should be retained • Historic plot outlines and the fabric of surviving early boundaries should be retained • New development should respect traditional local building styles and the historic distinctiveness of locations • Buildings that are of historic significance but are not listed should be identified through a programme of desk-based study and systematic building survey • Buildings identified as being of historic or architectural significance, including good or rare examples that have retained original fixtures, fittings and decoration, should be retained or preserved by detailed recording • Where redundant historic buildings are affected by development proposals, they can potentially be retained and converted for modern uses • The historic urban heritage can be promoted as a focus for community-based projects
Management recommendations	• Historic settlement cores should be seen as primary areas for conservation-led regeneration • Well-preserved historic settlement cores are often designated as Conservation Areas. Where this is not

	the case, these areas should be considered for designation • Historic buildings that are not listed but are nonetheless of local interest can be placed on a 'local list' which acknowledges this interest • Where good legibility of historic character exists, there should be enhancement through positive management, including restoration where appropriate, and protection through the planning process • Where planning permission is granted for a site located in an area of historic settlement, conditions should be attached to ensure that provision is made for the investigation of the site's archaeological potential and for the preservation in situ or recording of any archaeological deposits that are encountered • Awareness of issues relating to the importance of historic settlements should be promoted and should feed into Local Development Frameworks, Parish Plans and Spatial Strategies

Appendix 5 Map sources consulted during the characterisation

OS County series and national coverage:

OS Map edition	Date of edition in each former county			
	Cheshire	**Derbyshire**	**Lancashire**	**Yorkshire**
1st edition 6" to 1 mile (1:10,560 scale)	1881-82	1882-94	1848-51	1854
1st revision 6" to 1 mile	1899	1899	1894-96	1895
2nd edition 6" to 1 mile	1911	1923-24	1908-12	1907-11
3rd revision 6" to 1 mile	1938-46	1938-48	1923-38	1930-48
1st edition *c*25" to 1 mile (1:2,500 scale)	1872-75	1880-86	1892-94	1892-94
1st revision *c*25" to 1 mile	1897-98	1898	1907-10	1898-1909
2nd revision *c*25" to 1 mile	1909-10	1922-23	1922-29	1932

Table of OS County series map editions

After the Second World War, the County series of maps were no longer produced. Instead, map sheets for the whole country were produced according to the National Grid. The following map editions were used during the project. No more than one edition of the 25" mapping was available for a given map sheet area.

- *c*6" to one mile (1:10,000 scale) – 1954-56
- *c*6" to one mile 1984-96
- *c*6" to one mile 2005
- *c*25" to one mile (1:2,500 scale) – 1950-55
  1956-59
  1960-65
  1966-69
  1969-72

OS Town Surveys at 60" to one mile (1:1,056):

- Ashton and Stalybridge Town Survey, 1849-50
- Leigh Town Survey, 1888
- Wigan Town Survey, 1847

Other maps, including local surveys and estate maps, in date order:

- Saxton's Map of Lancashire, 1577
- Senjor, W, 1620; The Plan of Smithilles

- 1625 Map of Quick Edge, Wharmton High Moor and Badger Edge (available in Barnes, Buckley, Hunt and Petford (eds), 1983 *Saddleworth Surveyed*; Saddleworth Historical Society)
- Oldham, H, 1769; Plan of Smithills Demesne
- Burdett's Map of Cheshire, 1777
- Green's Map of Manchester and Salford, 1787-94
- Yates's Map of Lancashire, 1786
- Great Bolton Improvement Trust, 1793; "Enclosure" Map of Bolton
- 1822 Map of the Township of Saddleworth (available in Barnes, Buckley, Hunt and Petford (eds), 1983 *Saddleworth Surveyed*; Saddleworth Historical Society)
- Mellor Township Map, 1836
- Cheshire tithe maps of 1836-51 (accessible online – see Bibliography)

Appendix 6 Further details of methodology refinements after the beginning of the main characterisation phase

It was never the intention during the Greater Manchester Urban HLC project to do a site-by-site field survey or to look at detailed attributes such as building materials or the survival of cobbled surfaces on service roads, as had been done for example in the Lancashire EUS for areas present before 1914. Furthermore, no distinction was made by the project staff during characterisation work to separate the 'urban' and 'rural' areas or to deliberately provide more detail within the towns, suburbs and piecemeal ribbon developments. Areas were simply identified that were perceived to have a particular character that was discrete and could be described. Whilst some 'mixed' character types had been defined, such as 'Historic settlement core', most of the HLC types in the list did not describe mixed areas and some were very specific, such as 'Fire station'. It was therefore inevitable that in diverse built-up areas, some of the individual polygons would be very small. However, the 'broad-brush' HLC concept was borne in mind at all times by the project staff.

The list below, taken from the second revised version of the project design, outlines the proposed alterations to some details of the methodology in late November 2007, after one month of trialling the revised methodology implemented as a result of the pilot phase. Where appropriate, comments on how successfully individual points were put into action are given in italics.

- Characterisation was to focus more closely on modern land-use, fitting character areas to modern types rather than reflecting the boundaries of earlier character types. Discrete areas of modern character such as large housing estates would no longer be subdivided according to previous character types.

This was successful in reducing the amount of records created and polygons drawn. However, it was still used for a small number of key sites where it was felt both that previous character types were significant and that a subdivision could be justified within the present landscape. An example of this might be where an industrial site comprised two phases of the mid-20th century and the late 20th century and these two phases were built on areas of land with different uses in the past (such as an earlier industrial site and an area of housing). This approach would improve the value of the 'timeslice' mapping that can be produced.

- In the revised methodology, polygons within urban areas in particular were to reflect character in a more general and much less detailed way. Small pockets of earlier 20th century buildings within areas of later redevelopment would no longer be picked out unless they were of particular significance, but would instead be mentioned in notes if appropriate. The same principle would apply for previous character – redeveloped areas that were historically of mixed character, perhaps including different industrial uses and terraced housing, were to be rationalised to reflect the most significant historic character type rather than subdivided into numerous small polygons.

  Surviving historic buildings of significance such as early farms would, however, be highlighted, although early farm sites that were no longer extant would not be picked out as separate character areas.

This was done to a certain extent, particularly for modern houses built individually or as small groups of a few houses within earlier residential areas. It was also done for commercial cores; historic sites are very often of mixed date and character, and areas were successfully grouped according to broader character to avoid doing a building by building 'characterisation' that would be too intensive.

However, in some areas filling in the summary field concisely for larger areas with point features and/or sites with more than two previous character types and noteworthy past features proved a challenge. Sometimes it was quicker to create two records and two polygons with simpler descriptions than to create a single record for a larger and more complex, mixed area, particularly where an existing record could be copied and only some aspects of the data changed. Furthermore, the creation of large polygons with mixed character types and more than one contemporaneous previous use, only one of which could be represented in the database, would compromise the value of the models that could be mapped from the data.

- Some of the more fleeting and archaeologically less significant 20th century land-uses would be ignored, or mentioned in notes rather than recorded as previous types or in separate polygons. These could include sports grounds that appeared on only one edition of the map, or small structures such as Mission halls or scout huts.

- Notes in the summary and for previous types would be kept to a minimum. Rather than entering text as a matter of course, where there was no pertinent information additional to that covered in the mandatory fields (e.g. date of origin; attributes) the 'notes' field could be left blank or simply contain a reference.

It was found that a well-constructed summary was a considerable enhancement to a record, particularly when the data available to the viewer was an export rather than the original HBSMR record. This action point was kept up for a time and the effects can still be seen in some of the records for Manchester district (the fourth to be characterised). However, the majority of the records from the second district (Trafford) onwards do have at least a short summary.

- Whilst care would still be taken to ensure that gaps were not left between polygons, areas were generally to be digitised using 1:10,000 mapping rather than the more detailed MasterMap coverage. Boundaries between areas would thus be less exact but would adequately reflect differences in character at the district and 'county' level appropriate for the scope of the project.

It was found that with experience, digitising was generally faster where MasterMap nodes were available to be snapped to, as described in the initial 'Methodology' section. Furthermore, digitising to the 1:10,000 mapping resulted in unacceptably inaccurate polygon edges when zoomed in.

It was felt at the time that an approach incorporating the above points would make the project realistic and achievable, whilst providing data that would be useful at county and local level and giving an even coverage. It was noted that local authorities would have to provide further funding should they require the detailed analysis undertaken for the pilot phase.

Greater Manchester has a very high proportion of urban compared with rural land, and it was intended from the beginning of the project to characterise the urban areas at a finer resolution than was done during the non-urban projects where only a few character types were assigned to towns and cities and thus only a small number of larger polygons were drawn for these areas. However, to make sense of the dense urban areas and urban peripheries in Greater Manchester, some character polygons were created throughout the project that were much smaller than had been envisaged at the start, in some cases covering a single building or plot.

Appendix 7 Table showing the percentage of each Broad type occurring within each district (with data for Greater Manchester as a whole included for comparison)

Green text indicates the district with the highest percentage of a particular Broad type.

Yellow text indicates the district with the lowest percentage of a particular Broad type.

%	Bolton	Bury	M'cr	Old-ham	Roch-dale	Sal-ford	Stock-port	Tame-side	Traf-ford	Wigan	*Greater M'cr*
Commercial	3.43	2.72	8.77	3.38	2.79	6.27	4.00	4.06	7.97	3.05	*4.39*
Communic-ations.	2.80	3.22	9.69	1.57	2.51	7.11	4.31	3.22	3.86	3.11	*3.88*
Enclosed	36.38	37.33	2.39	33.12	39.42	24.32	26.02	23.48	28.07	37.57	*30.10*
Extractive	1.07	1.82	0.03	1.09	1.23	1.63	0.22	0.53	0.03	2.43	*1.08*
Horticulture	0.37	0.56	0.60	0.29	0.34	0.53	0.52	1.04	0.87	0.38	*0.51*
Industrial	4.56	4.49	4.76	3.18	3.85	5.32	4.24	4.66	6.88	3.66	*4.41*
Institute	3.62	4.33	8.98	3.23	3.05	5.98	4.76	4.22	3.63	3.35	*4.32*
Military	0.01	0.42	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.03	*0.05*
Ornamental, Parkland & Recreational	11.80	9.16	21.08	8.04	7.20	14.26	13.23	12.15	12.82	15.53	*12.52*
Residential	28.73	26.96	42.05	20.05	18.39	29.18	37.20	28.15	34.34	25.07	*28.07*
Unenclosed	2.51	2.53	0	22.11	15.39	0.12	0.48	11.87	0	0.62	*6.00*
Water	1.16	1.70	0.44	1.44	2.74	0.19	0.33	1.58	0.07	0.60	*1.10*
Woodland	3.56	4.76	1.18	2.47	3.08	5.08	4.68	5.03	1.46	4.60	*3.57*

Appendix 8 List of local planning authority officers interviewed for Section 13 – Using the data 1

Bolton: Melanie Craven (Planning)

Bury: Christopher Wilkinson (Planning) via Mick Nightingale (Conservation)

Manchester: John Whyard and Paul Mason (Conservation)

Oldham: Karen Heverin (Conservation) and Sarah Whiteman (Planning)

Rochdale: Paul Simpson (Planning) via David Morris (Conservation)

Salford: Jennifer Cadd (Planning)

Stockport: Paul Hartley (Conservation)

Tameside: Catherine Jones (Conservation)

Trafford: Elisabeth Read (Conservation)

Wigan: Jason Kennedy (Conservation)

Appendix 9 Table showing the area (in hectares) and percentage covered by each of the HLC types that occurs in Stockport's Conservation Areas

HLC Type	Area (hectares)	Percentage of Conservation Area
Villas/detached housing 381,970 = 38.2	143.56	14.143%
Public park	136.77	13.473%
Private housing development	125.99	12.414%
Piecemeal enclosure	64.99	6.402%
Surveyed enclosure (Parliamentary/ private)	44.46	4.380%
Terraced housing	38.20	3.763%
Semi-detached housing	35.98	3.545%
Country park	32.70	3.221%
Commercial core – urban	30.51	3.006%
Canal	27.19	2.679%
Low rise flats	27.03	2.663%
Golf course	21.72	2.139%
School	17.56	1.730%
Religious (worship)	17.41	1.716%
Medical complex	16.32	1.608%
Agglomerated fields	16.20	1.595%
Canal lock	13.62	1.342%
Conversions	12.35	1.217%
Reservoir	10.63	1.047%
Clough	9.96	0.981%
Sports ground	9.91	0.976%
Semi-natural woodland	8.57	0.845%
Playing fields/recreation ground	8.54	0.841%
Railway line	8.26	0.814%
Nursing home/almshouse/hostel	7.48	0.737%
Business park	7.38	0.727%
Business (general)	7.37	0.726%
Regenerated scrub/ woodland	6.92	0.682%
Public house	6.87	0.677%
Industrial works (general)	6.42	0.633%

HLC Type	Area (hectares)	Percentage of Conservation Area
Vernacular cottages	6.01	0.592%
Community establishment	5.79	0.570%
Historic settlement core	5.69	0.561%
Car park	5.45	0.537%
Offices	5.33	0.525%
Docks, wharfs and basins	5.15	0.508%
Commercial core – suburban	5.08	0.500%
Paddocks and closes	4.49	0.443%
Civic & municipal buildings	4.23	0.417%
Social housing development	4.00	0.394%
Elite residence	3.72	0.367%
Urban green space	3.40	0.335%
Hotel complex	2.89	0.284%
Farm complex	2,48	0.245%
Industrial estate	2.42	0.238%
Estate houses	2.41	0.238%
Retail (general)	2.39	0.236%
Fold	2.19	0.216%
Museum and gallery	2.11	0.208%
Entertainment site	1.87	0.184%
Private parkland	1.74	0.172%
Religious (other)	1.25	0.123%
Chemical	1.23	0.121%
Utilities	1.20	0.118%
Cemetery	1.16	0.114%
Brewery	0.99	0.097%
Textile mill	0.95	0.094%
Public square/green	0.94	0.093%
Plantation	0.90	0.089%
Municipal depot	0.88	0.087%
Town houses	0.81	0.080%
Distribution centre	0.66	0.065%
Waste ground	0.51	0.051%

HLC Type	Area (hectares)	Percentage of Conservation Area
Timber yard/builder's yard	0.49	0.048%
Leisure/sports centre	0.44	0.043%
Markets	0.40	0.039%
Craft industry	0.38	0.038%
Weavers' cottages	0.32	0.032%
Other industry	0.31	0.031%
University or college	0.24	0.024%
Nursery	0.22	0.022%
Viaduct/aqueduct	0.18	0.018%
Shopping centre	0.16	0.016%
Bus station/coach station	0.16	0.016%
Allotments	0.15	0.015%
Police station	0.12	0.012%
Metal trades (light)	0.11	0.011%
Warehousing	0.037	0.004%
Superstore	0.037	0.004%
High rise flats	0.036	0.004%
Assarts	0.022	0.002%
Quarry	0.012	0.001%
Storage	0.007	0.000%
Prefabs	0.004	0.000%
Train station	0.004	0.000%