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# 11 Appendices

## Appendix 1 MHCP Broad Type and Sub Type categories

The following character types are those used within the project to classify and map the landscape. A series of examples follows to qualify the **more specific** features, sites or areas that **may** fall within the Sub Type categories (this is by no means comprehensive and is only intended to show examples of what is meant by each character Sub Type).

### Industrial

| Broad Type | Sub Type |
|---|---|
| Industrial | Disused Industry |
| Industrial | Warehousing |
| Industrial | Maritime Commercial Area |
| Industrial | Dock and Port Related Industry |
| Industrial | Manufacturing Industry |
| Industrial | Extraction Industry |
| Industrial | Chemical Industry |
| Industrial | Municipal Works |
| Industrial | Glass Industry |
| Industrial | Iron Industry / Foundries |
| Industrial | Industrial |
| Industrial | Municipal Depot |
| Industrial | Nursery |

### Sub Type descriptions

**Disused Industry**: as shown on the current mapping e.g. disused quarry, pit, works etc. Any former site of industrial activity which was in advanced state of dereliction

**Warehousing:** storage facilities often associated with docks and transport routes. Range from large brick-built, multi-storey cargo stores (particularly for grain) of the mid 19th to mid twentieth century, through to modern storage buildings.

**Maritime Commercial Area:** commercial hub and business areas of docks and shipping related industry

**Docks and Port Related Industry:** this will cover site types such as on-loading and offloading of cargo, timber yards, sugar houses, rope walks, sail makers, ship building and repair etc.

**Manufacturing Industry**: actual factories Mills- textile, water mills, ropewalks sugar refineries, flour mills, rice mills, tanneries, paper mills, wagon works, lead smelting, tallow works, watchmakers, brewing etc

**Extraction Industry:** mining and quarrying activity. Includes coal mining, stone quarrying and gravel / sand extraction

**Chemical Industry**: salt works, copper works, alum, lime kilns, petrochemical, oil storage and processing

**Municipal works:** tip, sewage works, gas works power stations, engineering works, brick works, telephone exchanges etc

**Glass Industry:** separate from other manufacturing due to its importance in towns like St Helens

**Iron Industry / Foundries:** heavy metal production and processing. Includes metals other than iron

**Industrial:** a catchall for industries that could not be given a distinct character type

**Municipal Depot:** industrial depot used by a council or private company

**Nursery:** predominantly industrial (horticultural) in nature. However, the Sub Type also contains both Ornamental and Recreational (forming green spaces alongside allotments) and Commercial elements. The Sub Type incorporates a range of horticultural activities, including industrial and market vegetable plots, garden centres, some orchards and commercial tree growing.

**Residential**

| Broad Type | Sub Type Type |
|---|---|
| Residential | Farmhouse |
| Residential | Modern Housing Development |
| Residential | Villa Housing |
| Residential | Council Housing |
| Residential | High-rise Development |
| Residential | Semi-Detached Housing |
| Residential | Detached Housing |
| Residential | Model Village |
| Residential | Terraced |
| Residential | Private Estate |

**Sub Type descriptions**

**Farmhouse:** in rural areas a farmhouse complex of outbuildings and immediate yard may be identified separately from surrounding field systems

**Modern Housing Development:** modern housing developments and urban villages, e.g. Vauxhall urban village

**Villa Housing:** large Victorian and Edwardian Villa housing generally built for the affluent middle classes from the 19th century onwards and typically associated with generous gardens or within parkland. Some Inter War and post-1945 examples have been placed in the category, but only those of sufficient size and 'wealth'.

**Council Housing:** council / social housing estates. Some built after the First World War, but the majority are either Inter War or Post-1945

**High-rise Development:** tower blocks and other high density blocks of flats

**Semi-Detached Housing:** describes less affluent middle-class housing, often in ribbon developments not conforming to other categories; may in some circumstances differ little from mid 20th century social housing

**Detached Housing:** large and individually distinct houses, generally built for the affluent middle classes from the 19th century onwards and typically associated with

generous gardens or within parkland. Includes many early 20th century, Inter war and post-1945 houses

**Model village:** a deliberately planted and constructed workers' village, often associated with an individual industry. Also includes Garden Suburbs

**Terraced housing:** conjoined row housing with elevations to the front and rear of each property.

**Private Estate:** Elite Houses and large country houses, usually associated with parkland and concerned with the display of wealth and status (also recorded as integral elements of designed landscapes when contemporary)

**Field System**

| Broad Type | Sub Type |
|---|---|
| Field System | Regular / Small |
| Field System | Semi Regular / Small |
| Field System | Irregular / Small |
| Field System | Regular / Medium |
| Field System | Semi Regular / Medium |
| Field System | Irregular /Medium |
| Field System | Regular / Large |
| Field System | Semi Regular / Large |
| Field System | Irregular / Large |

**Sub Type descriptions**

**Regular Shaped Fields:** ruler straight surveyed boundaries, often indicative of parliamentary or surveyed enclosure

**Semi-Regular Shaped Fields:** like irregular shaped (aratral) piecemeal enclosures, can be indicative of medieval ploughing.

**Irregular Shaped Fields:** field shapes which are indicative of piecemeal enclosure, often following watercourses or edges of woodland.

**Woodland**

| Broad Type | Sub Type |
|---|---|
| Woodland | Curved Edged Woodland |
| Woodland | Ancient Woodland |
| Woodland | Forestry and Plantation |
| Woodland | Managed Woodland |
| Woodland | Plantation |
| Woodland | Woodland |

**Sub Type descriptions**

**Curved-edged woodland**: often created as a result of 'assarting' (clearing marginal land to create enclosed fields) larger forested areas for agricultural land

**Ancient Woodland:** Cheshire HLC defined this as woodland that has been continuous woodland coverage since at least 1600 AD

**Forestry and Plantations:** managed commercial woodlands

**Managed Woodland:** areas of cultivated, managed woodland (generally mixed or restricted range species) producing wood which is used for a variety of purposes.

**Plantation Woodland:** often single species plantations, the majority date to the Post-1945 period (although there are some pre-1900 examples)

**Woodland:** contains all woodland plots that could not be assigned a strict Sub Type character. Both historic and current mapping often does not state what type of woodland is depicted. As such, this character type contains a range of woodland types - from ancient woodland through to modern plantations and community woodland schemes.

**Rough Land**

| Broad Type | Sub Type |
|---|---|
| Rough Land | Other Land |
| Rough Land | Lowland |
| Rough Land | Moss (Wetlands) |
| Rough Land | Scrub |
| Rough Land | Upland |

**Sub Type descriptions**

**Other Land:** comprises all land that could not be given a distinct Sub Type, derelict land, urban and semi-rural grasslands, urban commons and small areas of urban green space (the majority of which has been created from former industrial or residential clearance). As such, the Sub Type is generally confined to urban or urban fringes

**Lowland:** low-lying natural or semi-natural areas and rough grass landscapes

**Moss (Wetlands):** lowland wetlands and peat

**Scrub:** areas of rough grazing land, often partially improved

**Upland:** Upland and low-land heath, found mainly in the western half of the Wirral Peninsula, but with some patches in Knowsley, St Helens and Sefton.

**Civil**

| Broad Type | Sub Type |
|---|---|
| Civil | Place of Worship |
| Civil | Prison |
| Civil | Police Station |
| Civil | Hospital |
| Civil | School |
| Civil | College/University Area |
| Civil | Cemetery |
| Civil | Crematorium |
| Civil | Cultural |
| Civil | Institution |

**Sub Type descriptions**

**Place of Worship:** Churches, chapels, mosques, synagogues and other religious centres (meeting houses, kingdom halls). Includes burial plots associated with religious buildings

**Prison:** buildings and grounds

**Police Station:** large stations and their grounds

**Hospital:** the buildings and their associated grounds. Also includes sheltered housing and retirement homes, hospitals, and larger scale clinics and surgeries.

**School:** educational buildings and the associated grounds for infants and juveniles

**College/University Area:** establishments of higher education - college and university campus, i.e. buildings and grounds. Includes Sixth Form Colleges and Religious Colleges and Schools

**Cemetery:** large municipal cemetery as opposed to a church yard / grave yard

**Crematorium:** large municipal crematorium

**Cultural:** buildings of cultural, municipal or civic nature, including; council offices (unless included in the commercial office Sub Type), community centres, town halls, public halls, libraries, museums, theatres and public baths.

**Institution:** buildings that could not be assigned a definitive category. As such, it contains a range of buildings of differing origins and usage including; ambulance and fire stations, courts and some civic buildings and local government offices not attributed to cultural (civic or municipal) commercial (office) Sub Types.

**Defence**

| Broad Type | Sub Type |
|---|---|
| Defence | Range |
| Defence | Camp |
| Defence | Barracks |
| Defence | Other |

**Sub Type descriptions**

**Range:** target or practice shooting range. Will most likely be described as inactive or active

**Camp:** military housing, offices and training centres

**Barracks:** structures for the billeting of military personnel

**Other (Defence):** defence structures that could not be assigned a distinct character type

**Commercial**

| Broad Type | Sub Type |
|---|---|
| Commercial | Commercial Core (Office) |
| Commercial | Commercial Core (Retail) |
| Commercial | Retail Park |
| Commercial | Business Park |
| Commercial | Commercial Core |
| Commercial | Offices |

**Sub Type descriptions**

**Commercial Core (Office):** predominantly office buildings within or near a commercial core. Generally private businesses

**Commercial Core (Retail):** predominantly retail buildings within or near a commercial core

**Retail Park:** a deliberately constructed, typically out of town, retail development as opposed to a central core or town high street

**Business Park:** An area designed and built in the Post-1945 period (Modern) specifically for business use, not a retail park. Usually multiple occupancy units often associated with hi-tech businesses.

**Commercial Core:** the actual ‘town centre’ - predominantly commercial buildings, but also Civil and a few Residential buildings

**Offices:** business and private enterprise offices that is not civil in nature.

**Communication**

| Broad Type | Sub Type |
|---|---|
| Communication | Airfield |
| Communication | Canal |
| Communication | Railway |
| Communication | Historic Route |
| Communication | Road |

**Sub Type descriptions**

**Airfield:** modern and disused airports and airfields of all sizes, including flying schools. All associated buildings and runways

**Canal:** the actual water way, associated furniture, basins and locks.

**Railway:** railway line, train station railway sidings, train depots

**Historic Route:** roads and lanes which are depicted on the 6” first edition mapping

**Road:** communication system that includes many historic routes, former turnpike roads, modern arterial roadways and motorways

**Recreational and Ornamental**

| Broad Type | Sub Type |
|---|---|
| Recreational and Ornamental | Sports Ground |
| Recreational and Ornamental | Allotment Gardens |
| Recreational and Ornamental | Public Park |
| Recreational and Ornamental | Designed Parkland |
| Recreational and Ornamental | Nature Reserve |
| Recreational and Ornamental | Other |
| Recreational and Ornamental | Deer Park |

**Sub Type descriptions**

**Sports Ground:** playing fields, football stadia, indoor and outdoor sports centres, the category covers a range of recreational facilities. Also included are golf courses (sometimes given a separate section)

**Allotment Gardens:** large communal garden spaces, the majority are council owned but there are a few in private hands

**Public Park:** a landscaped or ornamental ground laid out for public recreational use. Sometimes large-scale purpose built (dating to the mid to late 19th century) in association with detached and villa housing. Some modern public parks the result of clearance of former housing and industry

**Designed Parkland:** ornamental parkland and gardens often associated with large country estates, not public parks

**Nature Reserve:** managed natural environments, SSSI, Local Nature Reserves, Ramsar Sites, conservation areas, coastal areas

**Other (Recreational and Ornamental):** urban greenspace, green corridors and derelict land reverting to semi-natural greenspace

**Deer Park:** large expanse of former hunting ground, often associated with large estates

**Water Bodies**

| Broad Type | Sub Type |
|---|---|
| Water Bodies | Natural Water Body |
| Water Bodies | Artificial Water Body |

**Sub Type descriptions**

**Natural Water Body:** natural or semi-natural water bodies such as ponds, lakes and waterways

**Artificial Water Body:** man made water bodies (not including small ponds) but will include substantial mill ponds, canals and basins, reservoirs and their associated ancillary structures, fisheries etc.

**Coastal**

| Broad Type | Sub Type |
|---|---|
| Coastal | Dunes |
| Coastal | Sand and Mud Flats |
| Coastal | Salt Marsh |

**Sub Type descriptions**

**Dunes:** sand dunes

**Sand and Mud Flats:** usually areas covered twice daily by tides

**Salt Marsh:** vegetated areas of inter-tidal mudflats, specific habitats dominated by species tolerant of inundation by saline water

**Other Land**

| Broad Type | Sub Type |
|---|---|
| Other Land | Other Land |
| Other Land | Reclaimed Land |

**Sub Type descriptions**

**Other Land:** a catchall for anything that is genuinely thought to not fit into to any of the defined categories must be accompanied by qualifying notes. Cross-over with other land characters including Other Land (Other) and Rough Land (Other)

**Reclaimed Land:** land that has been reclaimed from previously undeveloped areas (i.e. coastal marsh and sand and mud flats)

## Appendix 2 Broad Periods

These are the historic Broad Periods standardised within the project. They primarily equate to those used in the Historic Environment Record, but slightly revised to take into account the use of Ordnance Survey digital map Epochs).

Medieval 1066-1539

Post-Medieval 1540-1750

Industrial Revolution 1. 1751-1835

Industrial Revolution 2. 1836-1900

Early Twentieth Century. 1901-1917

Inter War 1918-1939

Later Twentieth Century. 1946-2000

Twenty First Century. 2001-2050

Broad Period use within the data capture and report presentation - purely a tool which enabled broad date searches i.e. to map and illustrate landscape changes through time, assign periods for information outside the historic map base periods set for the project. It provides a purely **qualitative** 'snap-shot' of each district (or a particular part of a district) relative to the Current mapping. In essence, the broad period mapping is a 'period of origin' assessment on the Current mapping.

The broad period mapping allows for a quick, entirely broad-brush assessment of the survival and continuance of certain character types (notably historic cores, field systems).The default setting (within the database) should be the Industrial Revolution 2 (1836 to 1900) period, as this is the earliest period to which sites can reliably be dated (1850 was the earliest digital historic map source used within the project database). Assigning a ‘Broad Period’ has been particularly useful for landscape types that post-date 1939, because the project only used historic map sources available up to 1939 (then the Current 2003 map source).

## Appendix 3 Digital Mapping

### Ordnance Survey map sources

List of Date ranges and specific dates (shown brackets) allocated to each polygon according the date range of the mapping:

Knowsley, Liverpool, Sefton, St Helens:

Lancashire Ordnance Survey 6" First Edition 1850

Lancashire Ordnance Survey 25" (Epoch 2) 1890-93 (1893)

Lancashire Ordnance Survey 25" (Epoch 4), 1936-39 (1939)

Ordnance Survey 10,000 Digital Raster Current (2003)

Wirral:

Cheshire Ordnance Survey 25" (Epoch 1), 1874-6 (1876)

Cheshire Ordnance Survey 25" (Epoch 2), 1899 (1899)

Cheshire Ordnance Survey 25" (Epoch 3), 1935-36 (1936)

Ordnance Survey 10,000 Digital Raster Current (2003)

Outside of the four set historic periods, maps from 'fill-in' dates were employed to enhance the historic visibility and detail of some areas where the set OS Epoch mapping was found to be incomplete.

For Knowsley, Liverpool, Sefton, St Helens, these 'fill-in' maps were: the Lancashire Ordnance Survey 25" (Epoch 2) of 1907-08 (1908) and the Ordnance Survey 25" (Epoch 3) of 1927 (1927).

For Wirral, the 'fill-in' maps were the Cheshire Ordnance Survey 6 " (Epoch 1) of 1892 (1892) and the Ordnance Survey 25" (Epoch 3) of 1911-12 (1912).

Ordnance Survey 1:10,000 Raster Mapping (2003)

1:2,500 Landline (2003) used to check detail not data capture

**Digital Air Photo mapping:**

1:10,000 (2000) colour vertical survey for all of Merseyside

English Nature Digital Boundary Sets; public access GIS datasets available from the English Nature Website

## Appendix 4 Field System Field Sizes

The only district to supply digital GIS (Vector format) Phase One Habitat Survey was St Helens - this was used to create the size categories for the field systems.

It means that the work in Liverpool and Wirral Districts was not based on exact size categories. However the nature of the work on the above two districts meant that predominantly field system allocation was done mainly at the previous (historic) periods. It means that the size was allocated on the judgment of the project officer as the historic mapping was studied.

The Phase One Survey for St Helens contains area in hectares for the polygons, running a SQL query in MapInfo allows the extraction of records which are only within a size range which the user can determine.

Capture

Fields will be divided into 3 divisions of size, these division follow closely those used by both the Lancashire and Cheshire Historic Landscape Characterisation Projects.

Small (<5 ha in area)

Medium (5 -20 ha in area)

Large (>20 ha in area)

**General expectancy of field / enclosure patterns**

Regular Fields - Surveyed in field boundaries generally an indicator of later enclosure practices. Roughly 18th century to modern


Semi-regular Fields - Some long common boundaries can be seen, curving and straight boundaries merge. Generally indicative of the reorganisation of earlier systems of agriculture


Irregular Fields - Usually smaller (<5 ha area). Curving wavy boundaries, irregular and asymmetrical patterns of small units of land. Indicative of small groups or individual farmers enclosing land in a piece by piece manner.

## Appendix 5 Methodology

### Characterisation software

The project used historic, current and air photo digital mapping in a Geographic Information System (GIS); this was linked to an Access database into which the record for each identified area was created. The project also involved more conventional desk based study of pre-ordnance survey maps, primary and secondary documentary source, previous excavation results and the Historic Environment Record (HER) to produce information on historic settlements.

The MHCP employed a MapInfo Professional (V7.5) Geographic Information System, linked to an Access 2000 database. These two applications were controlled by a third Visual Basic application built especially for the project. This software was conceptualised by the MHCP team and developed by Mott McDonald (MIS) Liverpool in 2003-2004 (specialist software developer who supplied data, mapping packages and training to the all the local authorities of Merseyside).

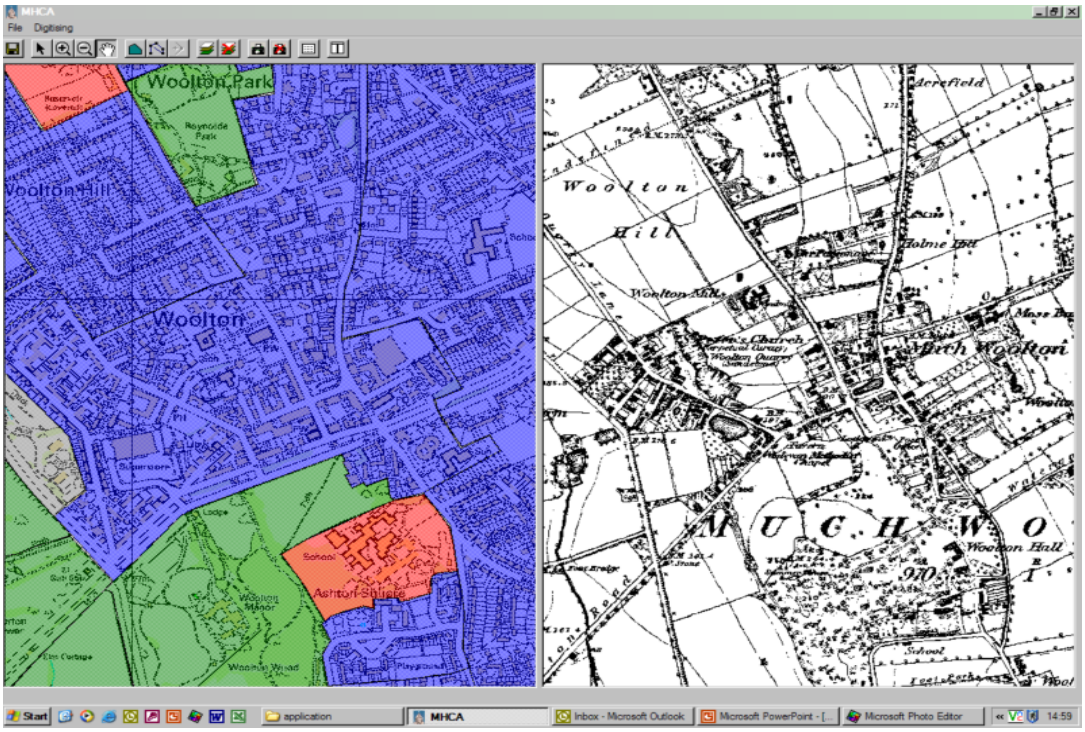


Figure 118 The MHCP Dual Window Environment

The application displays two windows in a MapInfo environment, master and slave, in the master window a layer exists to draw polygons, it also holds the current mapping at 10:000 scale, 1:2500 Landline data and current digital air photo mapping. The slave window is used to display the historic maps, but can also hold the current mapping should it be required. As one pans around the master window the slave window follows keeping both windows at the same place and zoom, making for rapid comparison of the landscapes at different points in history.

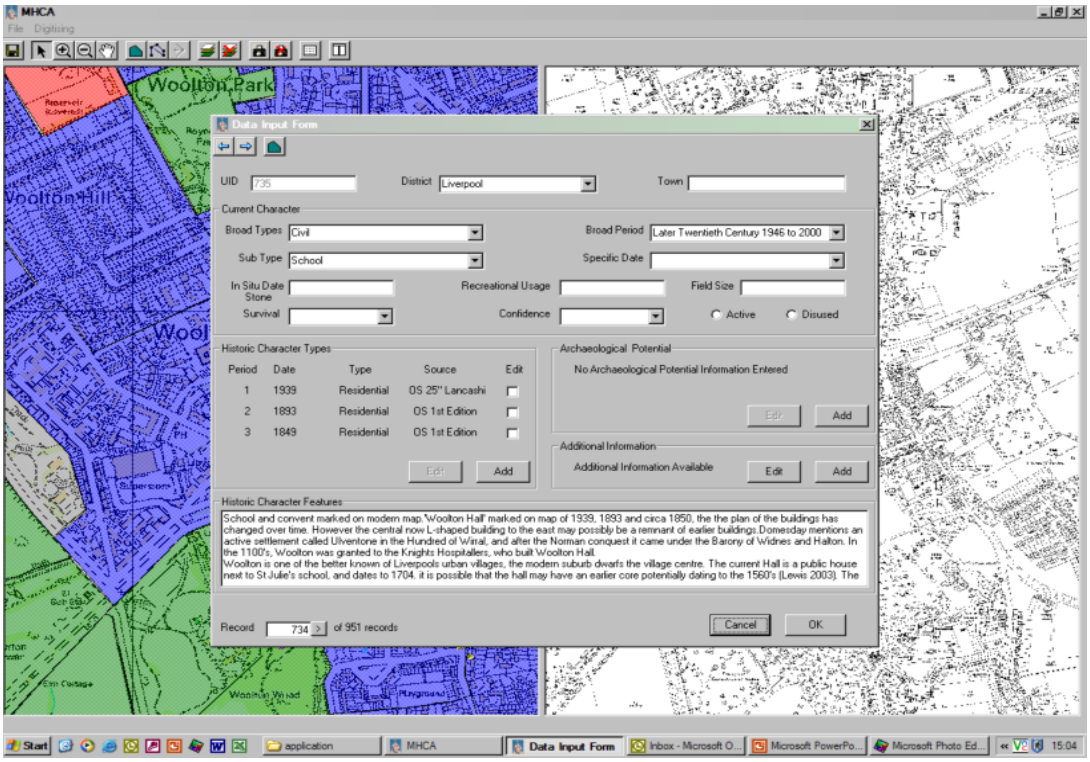


Figure 119 The MHCP Data Input Form

Created as an "integrated digitising application", the system was designed to allow rapid standardised entry of character data by the user. Once a polygon had been drawn around an area to represent a type, the closing of the polygon both generated a unique identifying number for the record, and bought up a ‘Data Input Form’ on screen that prompted the user to select a Broad Type for the new record. The selection of which populates the selection of Sub Types that can be chosen and (for the purpose of data capture ease of reference) determined the corresponding ‘Broad Type’ colour.

The first section of the form allowed the inputting of the Current Character type (i.e. Current in accordance with the date 2003 of mapping used), period (standardised to the Historic Environment Record thesaurus), condition and a level of confidence.

Following this there were three periods at which Historic Character Types could be entered (and later edited, if required). At each stage a map depiction date and map reference was added. A field was present to enable archaeological potential to be added. An Additional Information box was available to allow the user to add new ‘attributes’ (particular characteristics or elements) that are then represented as tick boxes next to the newly added attribute title (an almost infinite number can be added). Examples of 'additional information' include natural data (e.g. extent of ancient woodland, peat extent and depth), designated sites (e.g. Scheduled Monuments, Listed Buildings, Conservation Areas), spatio-temporal sites (e.g. Ordnance Survey First Edition 'Public House', 'Place of Worship') and more subjective interpretations such as possible new HER sites and Potential Character Areas.

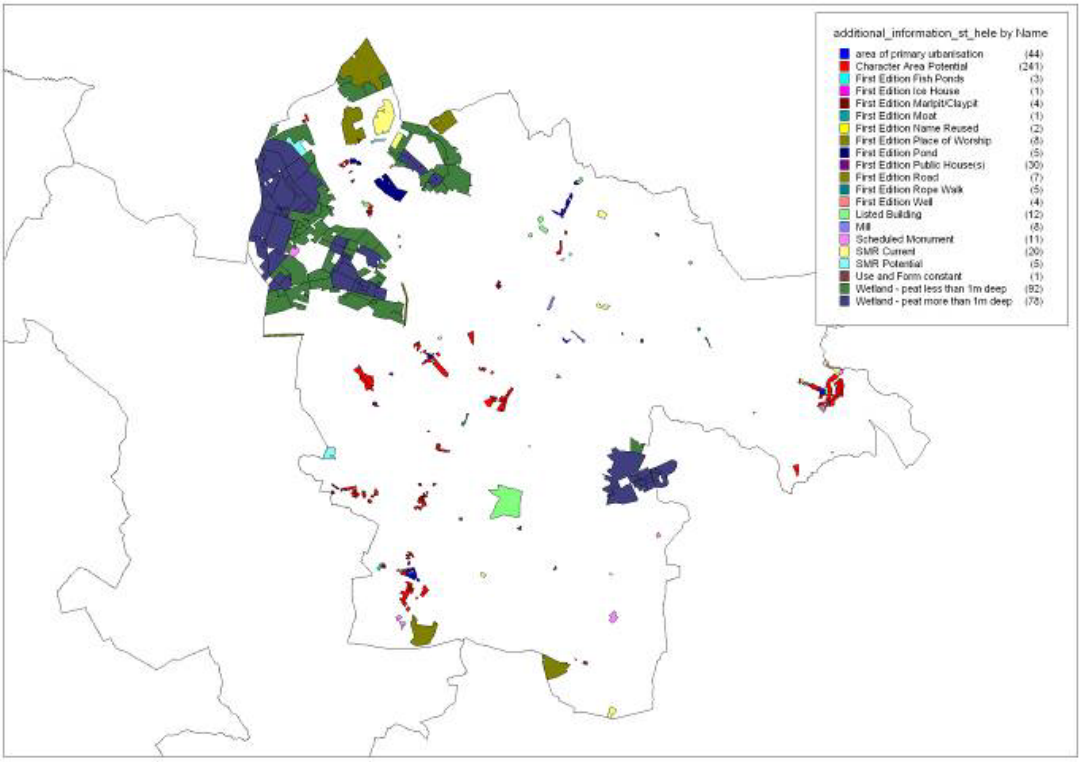


Figure 120 Example of Additional Information attributes for St Helens

A free text box at the foot of the form, ‘Historic Character Features’ enabled the addition of any other information. The system allows the viewing, overlay and combination of numerous modern and historic maps with aerial photography and other sets of geographic data on the computer screen to create an HLC digital map layer that provides continuous coverage.

## Appendix 6 Technical Overview of the Application

### Overview

Developed for the project the Merseyside Historic Characterisation Application (MHCA) is a Visual Basic application that has a GIS front end allowing for the digitisation of underlying historic maps and bespoke data input forms for the subsequent capture of characterising features. The front end has an innovative dual window display, allowing maps or aerial photographs of differing ages to be displayed simultaneously at the same zoom and location. Captured data is stored in an Access database, enabling easy querying and analysis of the data by the client.

### Components

The Merseyside Historic Characterisation Application comprises a Visual Basic front end, incorporating a MapInfo component with a MapBasic interface and utilises a Microsoft Access database for the data storage component. The following diagram shows the relationships and flow of data between these components.

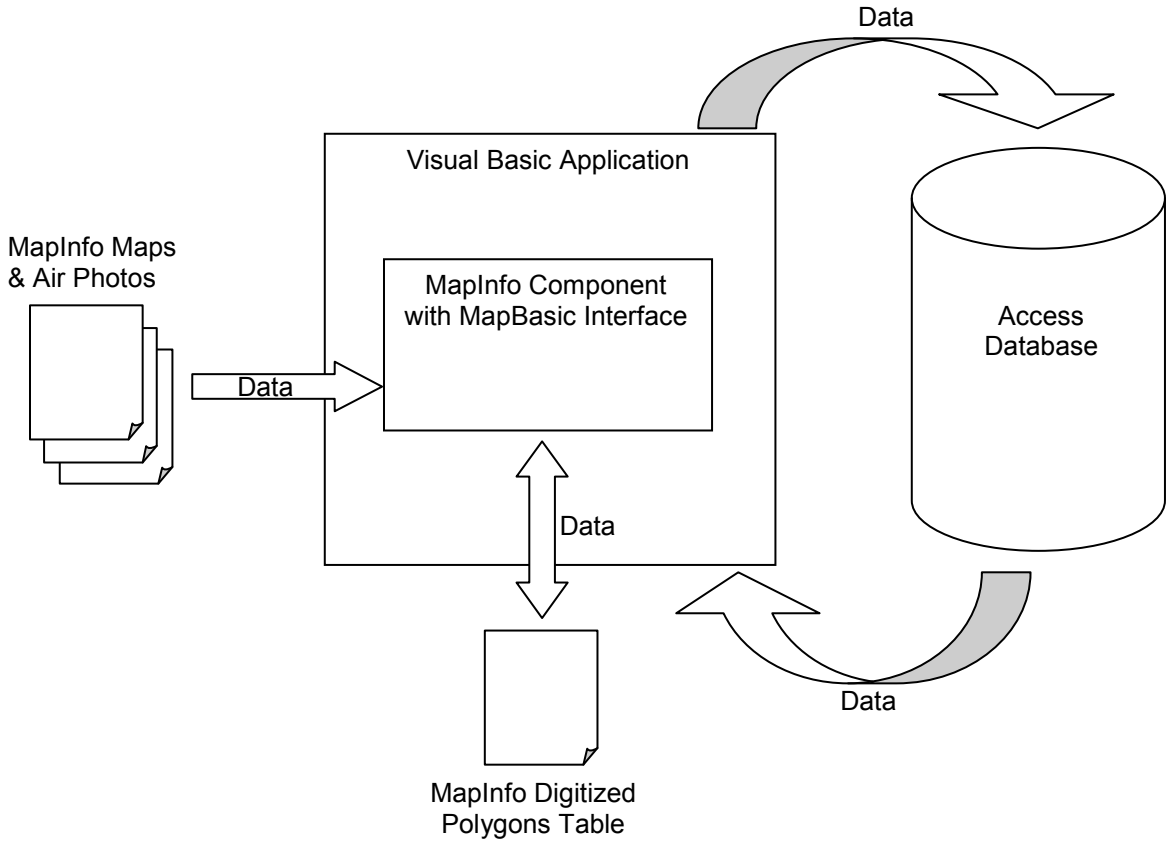


Figure 121 Diagram of relationship and flow between Mapinfo and Access database

**Visual Basic Application**

This handles all user interaction. It feeds user mouse movements, clicks etc. into the MapInfo component via the interface written in MapBasic. It displays and records any information entered on user input forms, created in Visual Basic, by reading and writing the data to the Access database.

**MapInfo Component**

This provides the GIS side of the system, handling the display and carrying out the manipulation of the underlying MapInfo maps and air photos.

**MapBasic Interface**

This is an interface written in MapInfo's MapBasic that sits between and handles interaction between the Visual Basic Application and the MapInfo Component. The interface is also responsible for the digitizing of polygons and reading/writing this information to the underlying MapInfo table in which they are stored.

**Access Database**

This stores the information about each of the digitized polygons that has been entered by the user. The database also stores additional information on the required time periods, types, subtypes, street information and user defined characteristics.

The following diagram shows the relationships between the tables in the Access database:

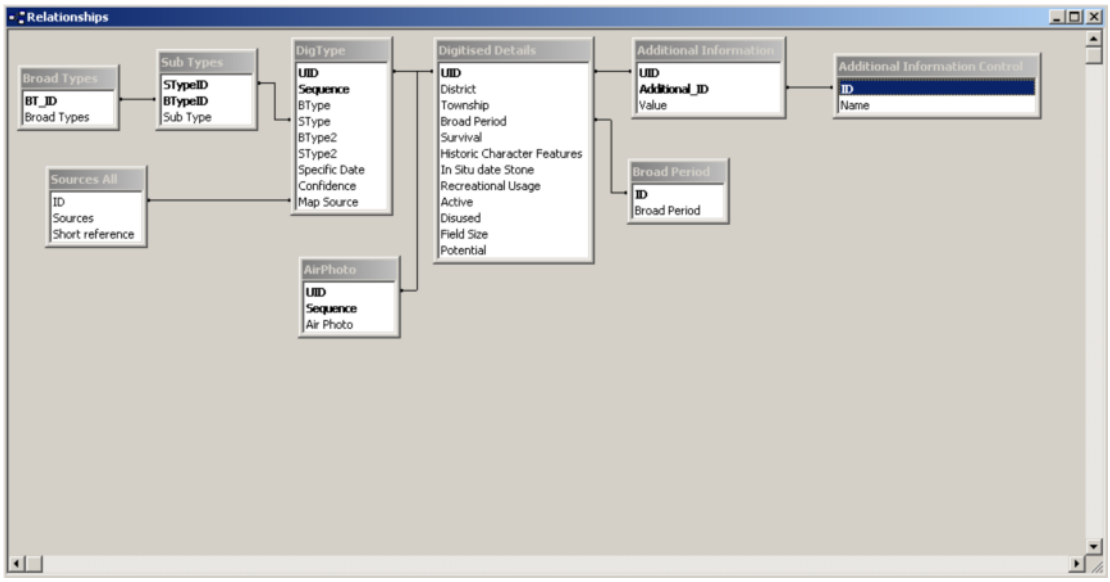


Figure 122 Relationship of tables in Access database

**Tables**

Digitised Details is the main table that holds information on the digitised polygons. It is directly related to a number of other tables, these tables being either lookup tables or associated ‘child’ tables.

If the table has an entry related to a lookup table this will be recorded in the table as a number. This number relates directly to a number in the lookup table that will also contain text associated with this number. This is the industry standard way of storing data in a database, it has a number of benefits:

1. It takes up less space – the text only has to be written in the database once and is represented by a number that takes up less storage space.
2. It is faster – computers perform checks, comparisons etc quick on numbers than text and there is less volume of data to search through.
3. It reduces errors – we can make sure that a column within our database table can only contain values that are given in another table, the lookup table. If a value is entered that is not in this table an error is given. This prevents typos/variations in longer fields were you can end up with many values meaning the same thing, which is extremely problematic at analysis time.
4. Easier to maintain – we can add any number of values to the lookup table and these will automatically be picked up in the application on the form for data entry. The application only has to scan the small amount of records in this table rather

than scanning all of the records in main table and then identifying the unique values (typos and all).

**Lookup Tables**

Broad Period and AirPhoto are lookup tables for Digitised Details.

**Child Tables**

Child tables are required when data in the main table can be represented more efficiently in another associated table, with a unique link between the records of both. This can occur when a record may or may not have some additional defined attributes and if it does, there is no predefined number that it must have.

The table DigType is a child table for the Digitised Details table. It contains information on the Historic Character Types that a digitised polygon may have. The record in the Digitised Details table may not have any associated Historic Character Types and thus there would be no entries in the table DigType. However, the record may have one, two or three associated Historic Character Types. Each of these associated Historic Character Types would be represented by a record in the DigType table with the same UID number as the record in the Digitised Details table, to link the records, plus a sequential number in the sequence field, to make each record unique in the DigType table. The ability to add these additional records without having to alter the underlying structure of the database is the main reason for implementing child tables in a database.

**Table Descriptions**

**Additional Information -** Assigns an additional information control(s) to the corresponding digitised polygon in the Digitised Details table.

**Additional Information Control –** Stores the information on the user defined Additional Information Attributes.

**AirPhoto –** Contains information on air photographs.

**Broad Period –** Broad Period lookup table.

**Broad Types –** Broad Type lookup table.

**Digitised Details –** Main table for storing user input on a digitised polygon.

**DigType –** Child table storing Historic Character Types associated with the digitised polygon.

**Sources All –** Lookup for all of the map sources.

**Streets –** Table that underpins the street search functionality.

**SubTypes –** Sub Types lookup table.

## Appendix 7 Historic Settlement Study

The following is a more detailed description of the desk-based methodology as implemented (post the Revised Project Design 'Method Statement' Merseyside Archaeological Service, July 2004).

Many former distinct settlements have been submerged into later urban expansion, although do retain some historic survival/archaeological potential in their own right. Some may contain designated sites and areas and have some HER data on them.

Method Statement

The aim is to provide a consistent pro-forma template of information on settlements across all identifiable townships in 5 Districts of Merseyside.
To be based on identification of settlement on the relevant First Edition OS 6"-1 mile sheet map for Lancashire or Cheshire.
Using accessible existing documentary/cartographic sources as specified in 'Sources'

Tasks for all settlement studies:

2 paper copies of relevant 1st Ed. OS 6 inch-1 mile sheet; highlight on 1 the 'core' settlement extent where possible to define (i.e. of 'built-up area, buildings & associated plots).
Provide an NGR for settlement so as to enable location in current landscape.
Search relevant documentary 'Sources.' To fill in settlement 'template.'
Use HER data & archaeological reports sources to assess archaeological potential.
Use other sources as appropriate to fill in template pro-forma

Additional detailed work on historic towns/ other areas:

Knowsley: Prescot; Liverpool: City centre & West Derby; Sefton: Bootle; St Helens: St Helens town & Newton-le-Willows; Wirral: Birkenhead.

Examining early pre-OS maps to try and produce more detailed settlement extent mapping (growth of town at given map dates).
Provide (if required by Characterisation Project officer) more documentary information in support of more detailed characterisation mapping such as

identification of early streets; gathering of info on areas with strong historic character & confirmation of character types.

Method for more detailed work on specific historic towns/ other areas:

As with tasks for all settlement studies.
More detailed work to check any archaeological work/reports carried out.
Check character polygons with Characterisation Project Officer to see where more in depth information would lead to greater accuracy & or defining of historic character survival. I.E. discovery from pre-OS maps that 'burgage plots' existed along a street enables this information to be fed into the relevant 'character record' on the project database, thus enhancing our information on that area.

Sources

Core sources - all available 'in house':

HER

HBSMR – digital point data to find out location, type & period to assist in understanding archaeological potential of settlement.
HER documentary – may be necessary & beneficial to go to the record sheets.

MAPS

OS 6" 1st Edition maps – to outline the extent of settlement at that time; a clue to former settlement core area

Digital Epoch mapping - only really needed if missing paper maps etc. May need to check for clarity (1st Edition OS Lancs & Cheshire)

Specific township Tithe /Estate maps – may help where OS 6" paper copy not clear/mission or for more detailed historic towns/settlements extents.

General Lancs/Cheshire pre-OS maps – i.e. Yates and Perry 'Map of the Environs of Leverpool' 1768 OR James Sherriff 'Map of the Environs of Liverpool' 1816'. Both will show any late 18th century settlement.

Geological maps- only basic sold & drift needed.

DOCUMENTARY

Victoria County Histories – Lancs. & Cheshire will give brief history, origins.

English Place name Society info. – i.e. Dodgson's placenames of Cheshire.. 'Mills' book on Lancs. Place names etc.

Merseyside Rural/Urban Fringe/Historic Towns Reports – these did concentrate on the more rural areas, therefore not too useful for urban settlements. But do contain a wealth of info & may help set the scene or actually cover the relevant settlement in detail needed. (NB published in one volume now (except Wirral).

Any relevant Archaeological Reports – unpublished Desk-based Assessment Reports etc

Any other reading material that is relevant - web page information not favoured as hard to verify source accuracy.

Merseyside Archaeological Service Annual Reports.

## Appendix 8 Review of the MHCP

Upon re-appointment of a Project Officer in April 2008, the Merseyside Historic Characterisation Project (MHCP) undertook a review of existing work, highlighting and addressing problems in order to continue data capture, analysis reporting and completion of the project. The following represents a review of project delivery and a note on achievement of project aspirations to date.

### Background

The MHCP was the first of its type to look at developing a methodology for developing a landscape characterisation application into more complex urban metropolitan areas. An initial pilot phase for the project began in May 2003 including production of a more detailed Project Design (October 2003), development of methodology, commissioning and input into software design, GIS training for all Merseyside Archaeological Service staff and trial data capture for Liverpool district. This pilot was completed in May 2004. It informed a revised project design (July 2004). The pilot data capture was, essentially, a very 'broad-brush' characterisation of Liverpool district, producing 929 polygons of purely urban nature. Liverpool was the pilot area with the view to forming part of the Historic Environment of Liverpool Project (HELP).

The pilot project began with a desk-based study of the landscape using current Ordnance Survey, air photo and several periods of historic, digital mapping. The pilot area was divided into a series of predetermined 'types', based on simple divisions, such as maritime industry, terraced housing, villa housing and so on. As work progressed and various themes or trends were established, the final character types were defined. The Liverpool data was used as a test-bed for running queries and refining methods of access, exporting and mapping.

The level of detail employed in the Liverpool pilot was thought to be too broad, not capturing sufficient detail Wirral data capture began in May 2004, employing greater detail than the broader Liverpool approach and in liaison with Cheshire Historic Landscape Characterisation Project to ensure that the survey areas married (MHCP covering the urban built up areas, Cheshire HLC recording rural 'green belt' areas). St Helens data capture also commenced in order to test the methodology (in terms of recording depth and coverage) in a more rural area and liaise with the Landscape Character Assessment being undertaken for St Helens Council. Work on Wirral and St Helens districts continued through to June 2005.

There was, at the end of June 2005, a count of 4996 records in the MHCP Access database with corresponding polygons. The totals reflected the differing approaches used between the pilot survey and the work on Wirral and St Helens District. As of June 2005) the database comprised:

Liverpool (pilot) district: completed with 929 records
Wirral (second district, urban area only) incomplete with 3035 records
St Helens complete with 1032 records

Apart from the greater character definition included in the Wirral data capture, the nature of settlement was very different from that of Liverpool. The more mixed built up area of the east side meant that a greater number of polygons were drawn to capture the different character types covering smaller areas. Work on St Helens had established that the approach to recording the rural landscape was appropriate for application to those areas of Sefton and Knowsley

The project was essentially suspended (with the loss of the then Characterisation Project Officer) in June then, in November, the ending of funding for the split post of part Planning Assistant (3 dys Sefton & Liverpool) / part Project Officer. The continued existence of the jointly funded Merseyside Archaeological Service and Archaeological Officer post was finally agreed to run from 2005-2009. The characterisation data capture phase of the project was not revived until April 2008 with the appointment of a new Characterisation Project officer. However, some project outreach took place from 2005-7 through liaison with the Historic Environment of Liverpool Project (HELP), presentations and in 2006 and 2007, activities as part of the annual Council for Archaeology National Archaeology activities in Merseyside.

**Problems identified during review**

The pre-existing (2003-2005) MCHP was reviewed in May/June 2008 and found to have a number of problems which – particularly ones associated with the changes in methodology, recording, querying and mapping; all symptomatic of project development and pilot phases:

> The initial recording was inconsistent and biased. Separate (and disparate) recording methodologies were used for the three districts. It was a found that searches / queries could not be done for these districts with any degree of consistency due to their differences in recording and varying depths of study and/or reliability.

Inconsistencies in recording had produced a biased dataset, creating problems with querying (under / over estimates) and skewed results. Liverpool had the least in-depth recording c.900 polygons (i.e. time-depth was too shallow), certainly in comparison with the Wirral which appeared over-recorded c.3000 records (as of June 2005).

Omissions in the Specific Date and Historic Character Type Fields (drop-down field boxes in the database) led to omissions and inconsistent final (GIS based) reports.

Some wrong identifications - some sites were recorded as one thing when they were definitely something else.

Mismatches in dates in all three data fields led to problems with querying (particularly Historic Character Type and Specific Date).

Unseen or unrecorded sites - quite a few sites (particularly Places of Worship and canals) were missed and not recorded. There were a number of multiple records for one area (a recording error) with correlating multiple polygons.

In addition

A review was undertaken to identify any work that could be completed by an assistant – i.e. completion of discreet settlement studies to existing pro-forma. An assessment was made on whether to transfer the existing survey data to the HBSMR system used by the Historic Environment Record (ExeGeIS) HLC module prior to completion or post completion of data capture.

**Solutions and result**

The solution was the total reworking of the pre-existing dataset (and associated GIS). This began in 2008 and involved:

The entire recasting of the pilot project (Liverpool) in-line with other districts. Result: Liverpool district has a complete dataset and associated GIS. From the c.900 records (pre-April 2008), Liverpool now has 3189 records - more in line with the complexity city.

The completion of all relevant drop-down boxes for all the districts. Result: consistent querying and reporting.

The complete overhaul of the GIS mapping, involving editing /subtraction and redrawing of pre-existing polygons and the introduction of new ones. Result: corrected, consistent and new records

Decision to contract additional help to review and complete the Historic Settlement Studies. Result: appraised and completed in 2009.
Decision to continue and complete data capture within the existing bespoke project software then transfer to HBSMR system.

Once the editing and recasting of the pre-existing districts was completed (by December 2008), the remaining districts (Knowsley and Sefton) were characterised in 2009. The complete characterisation data (final draft) was supplied to English Heritage and each of the five districts in April 2010 for testing and feedback. The analysis and reporting work began in 2009 and draft reports were competed by July 2010, the completion of the Project Officer employment contract. Final review, editing and production took place between July to December 2011, post the closure of the Merseyside Archaeological Advisory Service.

**Post-completion note**

Whilst the core aim and objectives have been completed (section 2.1 & 2.2 - essentially project tasks of data capture, analysis, reporting), the following represents a note on progressing achievement of particular historic environment management aspirations to date (section 2.3), essentially reasons for doing the project stated in the MHCP Revised Project Design (MAS 2004). Further examples and evaluation will only be achieved through informed use of the survey, development of further HER projects and promotion of the products.

The project aimed to contribute to overall historic environment management within Merseyside in four key areas:

**Information improvement and advancement**

- Adding spatial context to the existing Merseyside Historic Environment Record (HER). *Completed:*
    - MHCP data mapped and transferred into the existing HER via the Historic Landscape Characterisation module of the HBSMR software.
- Inform and support new/existing international, national and local heritage designations. *To date*:
    - 'New' archaeological sites have been found for input into the HER.
    - Project methodology has been explored in the context of research methodologies for understanding Port Cities (English Heritage HELP International Conference )
    - Further product use and testing is required.
- Establishing a starting point for further area/site specific/thematic etc. research through identification of gaps in knowledge. *To date:*
    - Consistent baseline data cover achieved.
    - Some testing has shown potential i.e. areas of discreet character survival; potential further detailed research into surviving field systems and rural settlement; identification of surviving settlement cores subsumed into later urban expanse.
    - Further product use and testing required alongside the existing HER data.
- Providing historical characterisation mapping in support of related projects forming part of the Historic Environment of Liverpool Project (HELP). *Completed:*
    - Some liaison completed in 2004 during English Heritage investigation into some Housing Market Renewal areas in Liverpool.
    - HELP outreach activities undertaken i.e. What's Up your Street BBC Big Screen event in 2006.

**Spatial planning and regeneration**

- Enabling greater confidence in historic environment planning policy and advice through the identification of a landscape context for the existing individual site and area based historic environment data. *To date:*
    - Data integrated into the HER and provides additional information to assist specialist archaeological advice on past land use and potential survival. Previously 'blank areas' in the HER (i.e. areas not researched as part of the HER core compilation in the 1980s' or subject to any archaeological investigations) now contain some historic environment information.
    - Further product use and testing is required to identify information that could feed into general or specific development plans.
- Providing the opportunity to link management of the historic environment to regeneration and other land management proposals, through improved information and consultation. *To date*
    - Completed. Simply using GIS and demonstrating spatial historic environment research has been helpful. Project facilitated engagement with policy planners who are used to dealing with area based projects and programmes rather than individual sites and features.
    - Further product use and testing could deliver more.
- Offering the basis for an overall spatial historic environment management framework for consideration of individual development proposals. *To date*:
    - *Completed* - The product offers a complete, overall coverage of Merseyside and provides additional HER information to assist specialist archaeological advice.
    - The data provides a good basis for identifying areas for more detailed research.
    - Further product use and testing is required.
- Adding value to and informing existing area based programmes within Merseyside. *To date*:
    - MHCP has fed into some local into other projects and programmes where practicable i.e. St Helens Landscape Character Assessment (during 2004); Cheshire HLC (2003/4), English Heritage Seascapes project (2005, for initial national Liverpool Bay pilot) and recent NW Seascapes project (2011); the NW Regional Archaeological Research Framework (2006); the NW Regionalised Historic Landscape

Characterisation (part of the NW Landscape Character Framework Phase 2 (Natural England / English Heritage sponsored)
    - Further product use and testing is required to identify
- Raise awareness of the local historic environment through providing information for the production of Community Strategies and Local Development Frameworks. *To date*:
    - Liaison with policy planners from the project outset secured acceptance that the project had potential as at least an information base to support the LDF.
    - Delay in completion and reporting has meant that LDF has progressed without input.
    - Further product use and testing is required as part of the HER and its potential for informing and engaging in proposed neighbourhood Planning and Localism agenda.

**Technical**

- Integration with other local authority Geographic Information System based environmental and land management data and strategies enabled through the use of MapInfo software and database development in consultation with Mott Macdonald Merseyside Information Service (advisors to the five Merseyside local authorities). *Completed:*
    - MHCP software was devised with MIS and employed MapInfo (compatible with the local authorities and the HER).

**Access**

- To explore with other agencies enabling user-friendly public access and ensure the product is capable of adaptation to wider public dissemination. *To date:*
    - MHCP data was integrated into the Merseyside HER. Accessible through enquiry to the HER.
    - Supply of project research for use in the NML display 'Magical History Tour' (2007), an exhibition encompassing Liverpool's archaeology and history, a taster for the new Museum of Liverpool displays and part of celebrations for Liverpool - Capital of Culture 2008.
- Involving local people in the survey through promotion and consultation. *To date:*

- Working with partners on Heritage Open Days and during National Archaeology Weeks : ‘What’s up your street’ – a live BBC ‘Big Screen’ event in Liverpool in conjunction with English, BBC Radio Merseyside & Capital of Culture team - showing people their history and gathering memories though demonstrating the digital HER data alongside the historic map sources of the MHCP.
- Contributions to articles on the project - English Heritage publications and articles and Institute of Historic Buildings Conservation (IHBC).
- Conference presentations: e.g. Institute for Archaeologists (IfA 2004); Merseyside Archaeological Society 2004, 2009; EH annual Characterisation Seminar (2004).
- Liaison with related projects - fellow urban characterisation projects (South Yorkshire; Black Country, Greater Manchester) and Cheshire HLC seminars; EH/ Liverpool University ‘Soundscapes’ project; Liverpool University ‘Cities in Film project’.
- Local Authorities: updates provided as part of the Merseyside Archaeological Service quarterly report meeting papers; representation by Archaeological Officer at District Planning Officers Working Group; 2 dedicated project seminars (2004 & 2009).

Further examples and evaluation will only be achieved through informed use of the survey, development of further HER projects and promotion of the products.

## Appendix 9 Wirral Character Area Potential Sites

The ability to note some form of CAP within the relevant record (polygon area) was via the 'Additional Attributes' tick-box found within the MCHP database (see Appendix 5). The large majority of the MHCP potential character areas are strictly ‘residential’ in nature, but the study also highlighted many industrial, commercial and ornamental / recreational areas. In some cases residential, commercial and industrial buildings in a relatively small area were noted as being interest.

The potential character areas highlighted by the MHCP do to a certain extent overlap with already established Conservation Areas and, in some cases, contain protected buildings and sites (Listed Buildings and Scheduled Monuments). The initial process of potential character area appraisal was undertaken without referral to existing conservation area boundaries or guidance (it was only in the latter stages of the MHCP study that Conservation Area datasets were used).

One potential use has already been highlighted though comparison with a St Helens Council study. Whilst the MHCP was only in a position to deliver the Settlement Studies (draft at the time, 2009) to support a St Helens Council study of Proposed Areas of Residential Character, it was found subsequently that there was a degree of overlap between the MHCP ‘Character Area Potential’ and areas identified within the completed St Helens residential study. This suggests the potential for similar queries in the future.

The MCHP highlighted a number of potential sites or areas that do not have any formal planning controls and regulations. The highlighted potential character areas stressed the important nature (particularly at the local level) of a certain area or even an individual building (i.e. date of build, completeness of style, street form, landscape quality and survival). However, it must be stated that the MHCP potential character areas do not form ‘Conservation Areas in-waiting’.

The areas highlighted as ‘Character Area Potential’ serve to alert to interest worthy of further work, correlation with the settlement studies, Conservation areas (where they do not already) and potential for local listing.

**Wirral**

The MHCP identified three separate areas in the Wirral which had a Character Area Potential. The three sites are all located towards the east of the Wirral peninsula. The majority of these were in already established Conservation Areas, and already afforded protection though this system. However, the MHCP found that the established boundaries of many of the Conservation Areas may need some adjustment or alteration. The predominant Broad Type within these potential character areas is Residential (98.4%). Of the Residential Broad Type, the largest Sub Type group was Semi-detached Housing (10.23 ha), followed by Villa Housing (4.05 ha) and Terraced Housing (1.58 ha). Nearly 57% of the potential character areas had pre-1900 origins. However, a sizeable percentage (35.4%) comprised post-1945 development. Here, it was felt that the addition of new buildings had either enhanced, or was certainly not detrimental to, the character setting of the area.

The largest Character Potential Area is Egerton Park (Villa and Detached Housing), with 36 polygons (13.71 ha) out of the total of 42 polygons (20.74 ha). Egerton Park represents a mid to late 19th century villa block - a speculative and probably privately funded housing scheme, with large-scale villa houses set within a c.15 ha plot. The development has an internal circular, tree-lined street pattern, complete with east and west gated entrances (and lodge houses). To use modern terminology, it is almost a 'gated community' of affluent villa houses, located to the immediate south of Birkenhead. The original plot is depicted on the Ordnance Survey 25" map of 1876, with subsequent enlargements and housing additions shown on later mapping. Although many of the former villa houses in the plot have been demolished or altered, the enclosed and somewhat 'private' nature of the plot is still present.

The next largest is the Rock Park Villa Housing area (5.44 ha) - a group of mid to late 19th century villa housing, fronting on to the River Mersey.

The final Character Area Potential group is a well-defined group of late 19th century terraced Housing (1.58 ha) on Simpson Street / Florence Street (Central Birkenhead).

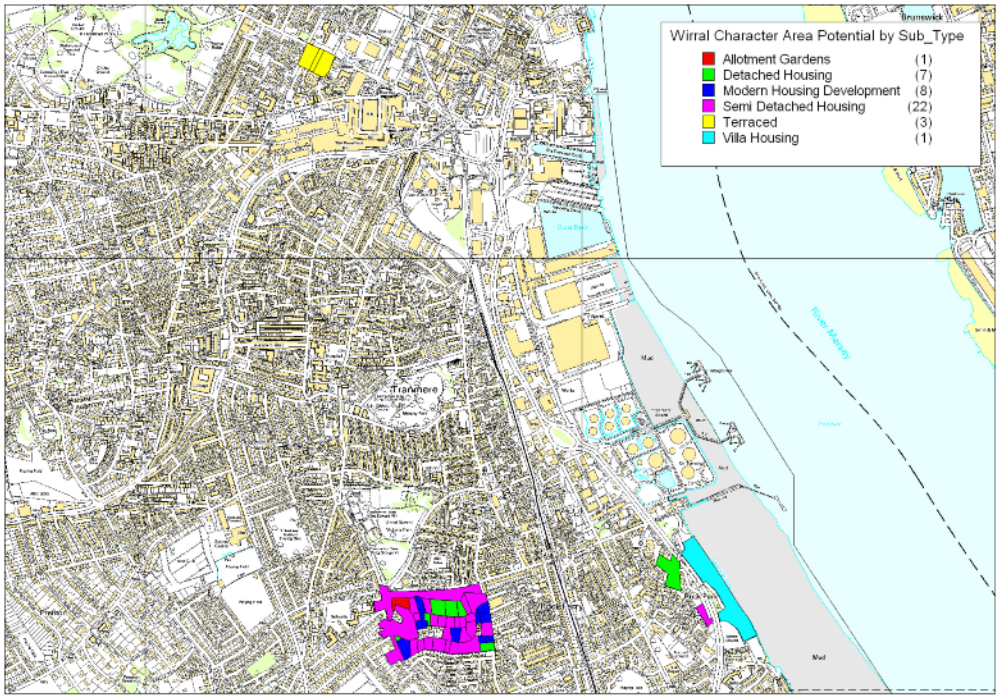


Figure 123 Wirral Character Area Potential Sites by Sub Type
(© Crown Copyright and database right 2003. All rights reserved. Ordnance Survey Licence number 100019088. English Heritage).

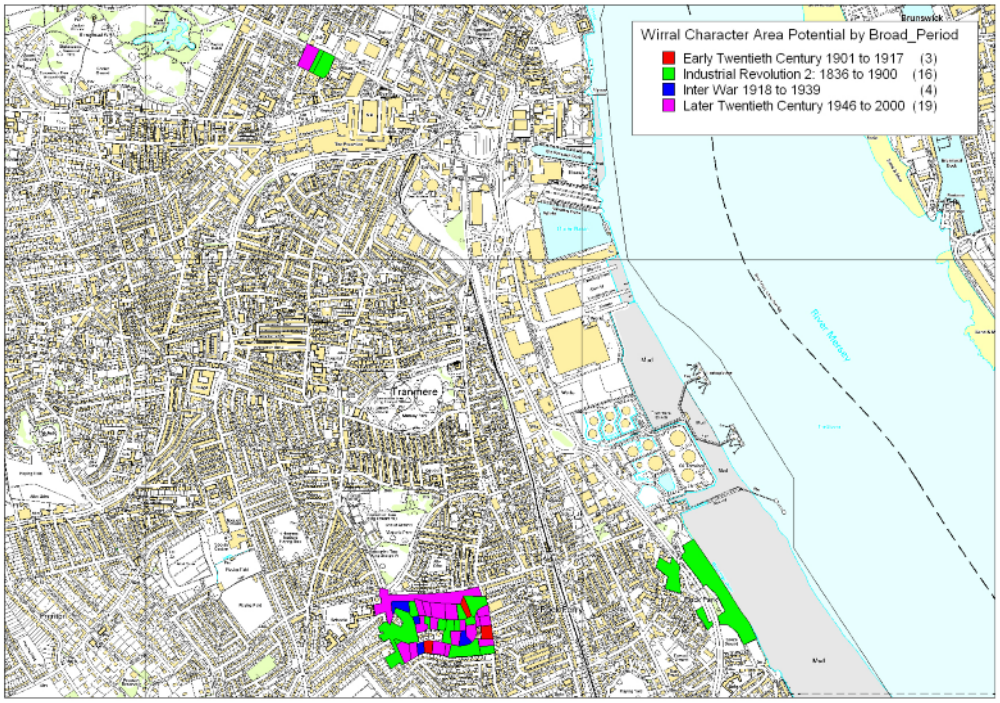


Figure 124 Wirral Character Area Potential by Broad Period
(© Crown Copyright and database right 2003. All rights reserved. Ordnance Survey Licence number 100019088. English Heritage).

A detailed table of Character Area Potential Sites, listing location, broad and Sub Type characteristics follows.

Table 55 Wirral Character Area Potential Sites

| Wirral Character Area Potential Site | Broad Type | Sub Type | Broad Period | Area (Hectares) |
|---|---|---|---|---|
| Rock Park Esplanade | Residential | Villa Housing | Industrial Revolution 2: 1836 to 1900 | 4.05 |
| Rock Park Esplanade | Residential | Detached Housing | Industrial Revolution 2: 1836 to 1900 | 1.06 |
| Rock Park Esplanade | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.33 |
| Egerton Park | Residential | Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.05 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.23 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.20 |
| Egerton Park | Residential | Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.12 |
| Egerton Park | Residential | Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.23 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 2.21 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 1.22 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.61 |
| Egerton Park | Residential | Semi Detached Housing | Early Twentieth Century 1901 to 1917 | 0.23 |
| Egerton Park | Residential | Semi Detached Housing | Early Twentieth Century 1901 to 1917 | 0.21 |
| Egerton Park | Residential | Semi Detached Housing | Early Twentieth Century 1901 to 1917 | 0.32 |
| Egerton Park | Residential | Semi Detached Housing | Inter War 1918 to 1939 | 0.10 |

| | | | | |
|---|---|---|---|---|
| Egerton Park | Residential | Semi Detached Housing | Inter War 1918 to 1939 | 0.16 |
| Egerton Park | Residential | Semi Detached Housing | Inter War 1918 to 1939 | 0.25 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.41 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.13 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 2.33 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.27 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.31 |
| Egerton Park | Residential | Detached Housing | Later Twentieth Century 1946 to 2000 | 0.46 |
| Egerton Park | Residential | Detached Housing | Later Twentieth Century 1946 to 2000 | 0.41 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.16 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.22 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.22 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.11 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.22 |

| | | | | |
|---|---|---|---|---|
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.13 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.13 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.33 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.24 |
| Egerton Park | Recreational and Ornamental | Allotment Gardens | Inter War 1918 to 1939 | 0.34 |
| Egerton Park | Residential | Semi Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.24 |
| Egerton Park | Residential | Modern Housing Development | Later Twentieth Century 1946 to 2000 | 0.28 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.21 |
| Egerton Park | Residential | Semi Detached Housing | Later Twentieth Century 1946 to 2000 | 0.19 |
| Egerton Park | Residential | Detached Housing | Industrial Revolution 2: 1836 to 1900 | 0.25 |
| Simpson Street, Birkenhead | Residential | Terraced Housing | Later Twentieth Century 1946 to 2000 | 0.65 |
| Florence Street, Birkenhead | Residential | Terraced Housing | Industrial Revolution 2: 1836 to 1900 | 0.26 |
| Parkfield Avenue, Birkenhead | Residential | Terraced Housing | Industrial Revolution 2: 1836 to 1900 | 0.67 |

## Appendix 10 Sub Type area and polygons counts for all districts

Table 56 Current Sub Type area for each district (hectares)

| Sub Type | Knowsley (hectares) | Liverpool (hectares) | St Helens (hectares) | Sefton (hectares) | Wirral (hectares) |
|---|---|---|---|---|---|
| Airfield | 0 | 193.86 | 0 | 157.09 | 0 |
| Allotment Gardens | 3.11 | 67.04 | 29.96 | 38.12 | 78.51 |
| Ancient Woodland | 0 | 17.10 | 23.3 | 0 | 2.68 |
| Artificial Water Body | 15.71 | 10.54 | 162.56 | 69.39 | 36.04 |
| Barracks | 0 | 16.02 | 0 | 0 | 0.52 |
| Business Park | 114.45 | 43.83 | 32.33 | 38.75 | 66.05 |
| Camp | 0 | 0 | 3.1 | 9.6 | 0 |
| Canal | 0.21 | 112.79 | 0 | 45.57 | 16.10 |
| Cemetery | 6.40 | 202.90 | 28.76 | 49.09 | 57.47 |
| Chemical Industry | 0 | 0 | 0 | 3.92 | 139.62 |
| College/University Area | 7.89 | 127.43 | 11.4 | 97.34 | 13.50 |
| Commercial Core | 6.24 | 56.44 | 29.5 | 21 | 19.32 |
| Commercial Core (Office) | 4.35 | 86.09 | 2.12 | 0.48 | 36.00 |
| Commercial Core (Retail) | 276.86 | 329.17 | 95.27 | 181.66 | 106.10 |
| Council Housing | 52.69 | 471.25 | 0 | 0 | 80.07 |
| Crematorium | 0 | 0 | 0 | 10.73 | 0 |
| Cultural | 8.96 | 94.09 | 14.3 | 13.48 | 18.48 |
| Curved Edged Woodland | 0 | 0 | 6.14 | 0 | 1.85 |
| Deer Park | 0 | 0 | 0 | 0 | 0 |
| Designed Parkland | 0 | 226.19 | 0 | 0 | 0 |
| Detached Housing | 162.95 | 287.40 | 372.97 | 1104.69 | 1254.50 |
| Disused Industry | 5.86 | 6.27 | 116.42 | 4.24 | 10.03 |
| Dock and Port Related Industry | 0 | 186.02 | 0 | 311.22 | 232.79 |
| Dunes | 0 | 0 | 0 | 729.22 | 10.86 |
| Extraction Industry | 12.87 | | 44.27 | 3.69 | 2.87 |
| Farmhouse | 69.19 | 3.53 | 153.13 | 98.7 | 23.12 |
| Forestry and Plantation | 10.59 | 0 | 128.13 | 71.07 | 14.02 |
| Glass Industry | 0 | 3.80 | 71.77 | 12.73 | 0 |
| Highrise Development | 14.00 | 54.82 | 2.95 | 2.24 | 17.92 |

| | | | | | |
|---|---|---|---|---|---|
| Historic Route | 0 | 0 | 0 | 191.19 | 7.37 |
| Hospital | 20.71 | 133.07 | 23.58 | 0 | 38.30 |
| Industrial | 445.07 | 184.06 | 307.22 | 267.2 | 16.66 |
| Institution | 4.60 | 10.18 | 8.77 | 9.29 | 9.92 |
| Iron Industry / Foundries | 0 | 0 | 13.71 | 0 | 0 |
| Irregular / Large | 0 | 0 | 0 | 18.89 | 0 |
| Irregular / Medium | 32.83 | 2.63 | 78.88 | 0 | 0 |
| Irregular / Small | 32.44 | 2.23 | 46.86 | 0 | 3.99 |
| Lowland | 0 | 5.47 | 0 | 0 | 0 |
| Managed Woodland | 0 | 14.80 | 35.97 | 0 | 8.31 |
| Manufacturing Industry | 156.79 | 340.75 | 203.5 | 57.97 | 344.33 |
| Maritime Commercial Area | 0 | 24.56 | 0 | 0 | 4.73 |
| Model Village | 0 | 15.97 | 0 | 0 | 54.78 |
| Modern Housing Development | 581.35 | 416.42 | 643.88 | 694.47 | 420.29 |
| Moss (Wetlands) | 26.14 | 0 | 5.76 | 2.35 | 16.92 |
| Municipal Depot | 7.96 | 19.42 | 38.34 | 9.92 | 14.67 |
| Municipal Works | 49.11 | 76.00 | 76.02 | 15.35 | 66.25 |
| Natural Water Body | 0.69 | 0 | 20.3 | 5.33 | 5.54 |
| Nature Reserve | 0 | 0 | 96.13 | 265.54 | 51.35 |
| Nursery | 18.64 | 3.35 | 11.32 | 68.79 | 0.36 |
| Offices | 41.96 | 230.53 | 26.38 | 66.93 | 35.99 |
| Other (Defence) | 1.32 | 5.56 | 0 | 1.29 | 3.19 |
| Other (Recreational and Ornamental) | 101.08 | 84.92 | 77.83 | 72.15 | 109.80 |
| Other Land | 0 | 3.75 | 1.95 | 1.61 | 10.77 |
| Other Land (Rough Land) | 202.89 | 175.94 | 556.04 | 271.36 | 210.95 |
| Place of Worship | 24.45 | 286.13 | 49.82 | 72.11 | 60.86 |
| Plantation | 129.60 | 17.54 | 124.06 | 141.14 | 0.81 |
| Police Station | 2.26 | 25.62 | 2.64 | 6.09 | 3.34 |
| Prison | 0 | 22.51 | 0 | 0 | 0 |
| Private Estate | 799.37 | 4.26 | 14.49 | 16.44 | 2.78 |
| Public Park | 213.96 | 666.27 | 346.93 | 313.1 | 306.87 |
| Railway | 75.66 | 134.47 | 94.14 | 98.69 | 84.31 |
| Range | 0 | 0 | 0 | 68.06 | 0 |
| Reclaimed Land | 0 | 0 | 0 | 3.83 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Regular / Large | 192.78 | 0 | 203.53 | 49.67 | 0 |
| Regular / Medium | 531.32 | 106.04 | 795.08 | 454.79 | 0 |
| Regular / Small | 812.15 | 192.11 | 1530.68 | 2323.31 | 6.29 |
| Retail Park | 21.42 | 67.22 | 29.34 | 42.29 | 54.92 |
| Road | 235.65 | 61.60 | 186.29 | 104.26 | 56.08 |
| Salt Marsh | 0 | 0 | 0 | 404.24 | 0 |
| Sand and Mud Flats | 0 | 19.21 | 0 | 763.06 | 202.60 |
| School | 250.99 | 416.65 | 219.24 | 338.39 | 253.29 |
| Scrub | 64.88 | 5.92 | 28.97 | 163.85 | 41.93 |
| Semi Detached Housing | 971.74 | 2368.18 | 1218.09 | 2015.68 | 2825.14 |
| Semi Regular / Large | 42.31 | 0 | 1301.49 | 30.32 | 0 |
| Semi Regular / Medium | 403.66 | 0 | 1866.72 | 622.44 | 3.82 |
| Semi Regular / Small | 544.68 | 0 | 784.07 | 547.06 | 9.45 |
| Sports Ground | 426.95 | 776.31 | 704.46 | 1034.69 | 556.73 |
| Terraced | 315.50 | 1491.66 | 386.74 | 515.61 | 559.11 |
| Upland | 4.80 | 0 | 0 | 0 | 41.86 |
| Villa Housing | 0 | 61.98 | 12.28 | 155.61 | 13.74 |
| Warehousing | 17.63 | 66.19 | 19.42 | 48.06 | 16.92 |
| Woodland | 51.58 | 24.47 | 168.94 | 38.02 | 78.98 |
| **Total** | **8629.27** | **11160.53** | **13688.25** | **15464.46** | **8852.73** |

Table 57 Current Sub Type polygon count for each district (number)

| Sub Type | Knowsley | Liverpool | St Helens | Sefton | Wirral |
|---|---|---|---|---|---|
| Airfield | 0 | 18 | 0 | 5 | 0 |
| Allotment Gardens | 3 | 30 | 23 | 15 | 37 |
| Ancient Woodland | 0 | 2 | 4 | 0 | 5 |
| Artificial Water Body | 13 | 8 | 84 | 15 | 16 |
| Barracks | 0 | 2 | 0 | 0 | 1 |
| Business Park | 21 | 6 | 16 | 19 | 10 |
| Camp | 0 | 0 | 1 | 1 | 0 |
| Canal | 1 | 4 | 0 | 7 | 1 |
| Cemetery | 11 | 23 | 10 | 17 | 9 |
| Chemical Industry | 0 | 0 | 0 | 1 | 16 |
| College/University Area | 3 | 34 | 5 | 16 | 29 |
| Commercial Core | 9 | 25 | 35 | 21 | 14 |
| Commercial Core (Office) | 3 | 13 | 5 | 1 | 39 |
| Commercial Core (Retail) | 108 | 153 | 232 | 398 | 321 |
| Council Housing | 8 | 31 | 0 | 0 | 3 |
| Crematorium | 0 | 0 | 0 | 1 | 0 |
| Cultural | 17 | 39 | 37 | 39 | 72 |
| Curved Edged Woodland | 0 | 0 | 3 | 0 | 1 |
| Deer Park | 0 | 0 | 0 | 0 | 0 |
| Designed Parkland | 0 | 2 | 0 | 0 | 0 |
| Detached Housing | 363 | 144 | 836 | 1370 | 1368 |
| Disused Industry | 4 | 2 | 20 | 3 | 3 |
| Dock and Port Related Industry | 0 | 16 | 0 | 31 | 38 |
| Dunes | 0 | 0 | 0 | 34 | 2 |
| Extraction Industry | 1 | 0 | 5 | 1 | 1 |
| Farmhouse | 89 | 7 | 187 | 138 | 20 |
| Forestry and Plantation | 1 | 0 | 43 | 1 | 1 |
| Glass Industry | 0 | 0 | 21 | 0 | 0 |
| Highrise Development | 17 | 50 | 4 | 22 | 41 |
| Historic Route | 0 | 0 | 0 | 2 | 2 |
| Hospital | 10 | 28 | 15 | 34 | 44 |
| Industrial | 98 | 154 | 189 | 269 | 53 |
| Institution | 8 | 13 | 13 | 16 | 21 |

| | | | | | |
|---|---|---|---|---|---|
| Iron Industry / Foundries | 0 | 0 | 2 | 0 | 0 |
| Irregular / Large | 0 | 0 | 0 | 2 | 0 |
| Irregular / Small | 2 | 2 | 23 | 0 | 2 |
| Irregular /Medium | 1 | 1 | 5 | 0 | 0 |
| Lowland | 0 | 0 | 0 | 0 | 0 |
| Managed Woodland | 0 | 3 | 12 | 0 | 3 |
| Manufacturing Industry | 25 | 54 | 80 | 31 | 215 |
| Maritime Commercial Area | 0 | 4 | 0 | 0 | 1 |
| Model Village | 0 | 2 | 0 | 0 | 5 |
| Modern Housing Development | 206 | 191 | 417 | 483 | 373 |
| Moss (Wetlands) | 6 | 0 | 2 | 1 | 2 |
| Municipal Depot | 5 | 7 | 26 | 13 | 12 |
| Municipal Works | 10 | 15 | 23 | 5 | 25 |
| Natural Water Body | 7 | 0 | 39 | 7 | 22 |
| Nature Reserve | 0 | 0 | 11 | 4 | 5 |
| Nursery | 12 | 3 | 8 | 22 | 1 |
| Offices | 77 | 110 | 68 | 153 | 94 |
| Other (defence) | 1 | 6 | 2 | 3 | 3 |
| Other (recreational and ornamental) | 86 | 57 | 116 | 79 | 168 |
| Other Land (rough land) | 124 | 97 | 319 | 153 | 146 |
| Other Land | 0 | 2 | 6 | 1 | 44 |
| Place of Worship | 58 | 247 | 112 | 168 | 183 |
| Plantation | 62 | 5 | 74 | 40 | 1 |
| Police Station | 6 | 20 | 9 | 12 | 11 |
| Prison | 0 | 4 | 0 | 0 | 0 |
| Private Estate | 2 | 0 | 2 | 1 | 2 |
| Public Park | 55 | 141 | 85 | 81 | 126 |
| Railway | 23 | 33 | 55 | 33 | 42 |
| Range | 0 | 0 | 0 | 3 | 0 |
| Reclaimed Land | 0 | 0 | 0 | 1 | 0 |
| Regular / Large | 4 | 0 | 22 | 6 | 0 |
| Regular / Medium | 29 | 4 | 79 | 35 | 0 |
| Regular / Small | 131 | 8 | 282 | 208 | 7 |
| Retail Park | 21 | 14 | 9 | 2 | 19 |
| Road | 139 | 37 | 96 | 56 | 106 |

| | | | | | |
|---|---|---|---|---|---|
| Salt Marsh | 0 | 0 | 0 | 2 | 0 |
| Sand and Mud Flats | 0 | 3 | 0 | 26 | 11 |
| School | 94 | 209 | 117 | 214 | 167 |
| Scrub | 32 | 2 | 26 | 33 | 12 |
| Semi Detached Housing | 437 | 482 | 785 | 1430 | 1752 |
| Semi Regular / Large | 5 | 0 | 115 | 2 | 0 |
| Semi Regular / Medium | 33 | 0 | 221 | 44 | 1 |
| Semi Regular / Small | 80 | 0 | 169 | 67 | 2 |
| Sports Ground | 90 | 132 | 139 | 160 | 144 |
| Terraced | 193 | 441 | 613 | 450 | 793 |
| Upland | 1 | 0 | 0 | 0 | 3 |
| Villa Housing | 0 | 44 | 11 | 100 | 21 |
| Warehousing | 9 | 26 | 10 | 25 | 19 |
| Woodland | 44 | 8 | 165 | 25 | 58 |
| **Total** | **2898** | **3217** | **6143** | **6659** | **6769** |