6002 Towards HPR compliance – local lists in Cheshire

Cheshire Historic Environment Record
Case Study

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6002 Towards HPR compliance – Local lists in Cheshire

Summary

Between January 2011 and September 2011 the Cheshire Historic Environment Record undertook a project to integrate a series of external datasets related to locally listed buildings, in a variety of formats, into the HER.

This project has broadened the scope of the Cheshire HER, so that conservation officers working in Cheshire West and Chester and Cheshire East Councils can now access information on all designated and locally designated sites relating to the built historic environment.

Previously, the record contained no information on locally designated sites, especially those buildings and structures included on Local Lists, which are recognised as being of material consideration in the planning process. The inclusion of these records is crucial to the acceptance of the Cheshire HER as the definitive database of all data relating to the historic environment and to encouraging its use as part of the routine development control work of both Conservation Officers and Planning Officers.

This project has incorporated a series of external datasets related to locally listed buildings, in a variety of formats, into the Cheshire HER. This work has tested the methodology already established by the Cheshire HER for sharing data on designated sites with allied professionals, such as Conservation Officers and Planning Officers and will assist in making effective planning decisions.

In addition, information about these locally important structures is also available via the Revealing Cheshire's Past website and the Heritage Gateway. This makes it accessible to developers, consultants, contractors and the wider community.

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1 Introduction

In April 2009 local government reorganisation in Cheshire resulted in the creation of two new unitary authorities, Cheshire West and Chester and Cheshire East Councils, formed from 6 district councils, Crewe and Nantwich, Macclesfield, Congleton, Vale Royal, Chester and Ellesmere Port plus the former Cheshire County Council

The Cheshire HER now covers the unitary authorities of Cheshire West and Chester, Cheshire East, Warrington and Halton. Archaeological planning advice is provided to all unitary councils by the Cheshire Archaeology Planning Advisory Service (APAS), which is responsible for the maintenance of the Historic Environment Record.

The Cheshire HER has a clearly-defined role as the provider and manager of data on designated historic environment assets for Cheshire East and Cheshire West and Chester Councils. The business plan of the Archaeology Planning Advisory Service provides details of the services and functions that will be provided to Cheshire West and Chester and Cheshire East authorities, service structure, main interfaces and funding and investment required to deliver the service objectives. The HER is recorded on the service asset schedule.

This operational model for the HER has been adopted following themes progressed with Heritage Protection Reform and Planning Policy Statement 5[1]. It also mirrors many of the recommendations on formalising roles and responsibilities made by the HER 21 project 6033 *HER-Derived Alert and Constraint Mapping Supplied to Local Authorities*[2].

1.1 Local Lists in Cheshire

All the former districts in Cheshire, with the exception of Chester, maintained lists of locally important buildings. These are buildings and structures which are felt to be an important part of the area's heritage due to their architectural or historic significance and their contribution to the character of their local area, but which do not benefit from some form of national historic environment designation. The inclusion of a building or structure in a local list does not afford any additional statutory protection or grant aid, but it is considered to be a material consideration in the planning process and every effort is made to conserve those buildings and structures on the list in order to benefit the authority as a whole.

1.2 Local lists in Cheshire East

Local lists were developed for the 3 former boroughs of Congleton, Crewe and Nantwich and Macclesfield. Cheshire East Council prepared a list of c.481 locally important buildings[3], which is an amalgam of the three former borough lists, as part of the Local Development Framework. The list has been adopted as a supplement planning document and is available for download as an Adobe pdf.

1.3 Local lists in Cheshire West and Chester

Local lists were developed for the 2 former boroughs of Ellesmere Port and Vale Royal. These lists have not yet been amalgamated by Cheshire West and Chester Council, as part of the Local Development Framework. The Ellesmere Port Local List was available as a Microsoft Word document with short descriptions, images and maps and contains data on 79 buildings and structures. The Vale

[1] DCLG 2010, *Planning Policy Statement 5: Planning for the Historic Environment (PPS5)*
[2] Land Use Consultants 2011, *HER Alerts and Constraints Mapping*
[3] Cheshire East Council 2010, *Cheshire East Local Development Framework Local List of Historic Buildings Supplementary Planning Document*

Royal Local List comprised a list of up to 1400 building names as an appendix to the local plan website[4]. Descriptions, images, plans and surveys are available on record cards. No Local List was prepared by the former Chester City Council.

1.4 Local lists in Halton Borough and Warrington Borough

The Cheshire HER also covers Halton and Warrington Borough Councils. The latter maintains a local list of c.630 heritage assets. The Cheshire HER, in co-ordination with Warrington Borough Council, plans to apply the methodology devised for this project to the incorporation of the Warrington local list.

1.5 Revealing Cheshire's Past & Heritage Gateway

In 2004 the Cheshire HER received funding from the Heritage Lottery Fund for the Revealing Cheshire's Past project. This project aimed to make the information held by the HER more accessible. As part of the project the HER's monument records were made available via an online and elements of each monument record was recast for non-professional audience. This data was also made available via the Heritage Gateway in 2009.

1.6 HER case studies

Three cases studies from Cheshire highlighting national best practice in HER practice have recently been published by English Heritage in *Sites and Monuments Record to Historic Environment Record: Local Authority Case Studies*[5].

The examples from the Cheshire HER include:

- Access and Outreach – Revealing Cheshire's Past public access database
- Interoperability – delivering information on heritage designations to Conservation Officers & Planning Officers
- Information Management – the management of historic assets in Cheshire

This project has utilised and built upon the developments outlined in Interoperability and to a lesser extent Access and Outreach and Information Management.

1.7 Research Aims

The research aims of the Local Lists in Cheshire project are to:

- Develop methods to integrate a range of existing data on locally listed buildings and structures into the Cheshire HER
- Investigate and establish methods of efficient data sharing with land charges and planning IT systems in Cheshire West & Chester and Cheshire East
- Promote the data to inform planning decisions, the evidence base for Local Development Frameworks, the development of regeneration projects, heritage asset management and provide accessible heritage information

The project objectives are:

- *Objective 1:* The creation of a comprehensive dataset, including GIS coverage, on locally listed designations for both Cheshire authorities, to inform the information and advice provided by the authorities specialist historic environment staff for development control and asset management, and to specialist contractors and consultancies.

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[4] www.cartoplus.co.uk/vale_royal/text/appendix_07.htm

[5] English Heritage 2010, *Sites and Monuments Record to Historic Environment Record. Local Authority Case Studies*

- *Objective 2:* The provision of accessible information on the locally listed buildings of Cheshire to the wider community for the purposes of education, leisure, tourism and research.
- *Objective 3:* The provision of working examples in the integration of a range of diverse historic environment datasets.

1.8 Project Execution

Execution phase
Stage 1
Product: Dataset of Locally Listed Buildings and Structures *Objective 1*
Tasks • Collation of existing hard copy and digital data on local listed buildings • Review existing data for consistency and conformity with HBSMR designations module • Selective digitising of hard copy data • Cataloguing of digital archive • Creation of new monument, designation, event and source records for locally listed buildings • Assimilate hard copy data to HER archive
Stage 2
Product: Updated Public Access database *Objective 2*
Task • Modify public access database interface • Modify user accounts to expand access to designations data
Stage 3
Product: Link to Planning and Local Land Charges IT systems *Objective 2*
• Provide GIS constraints data • Integrate with existing systems
Stage 4
Product: Case Study *Objective 3*
Task • Case study • Summary of local list criteria

1.9 Variation in Project Timetable

It was anticipated that any problems with the project timetable would have to be accommodated in the overall project timetable. Some delays were encountered over the internal Cheshire West and Chester Council procedures required to apply for external funding and accept any funding secured. This highlights the potential conflict between local authority business procedures which may require significant lead in time to secure the necessary legal and financial authorisation and the short window of opportunity which may be available from the funding body. The signing of the legal agreement for the project also introduced further delays to the project start, as the project consultant could not be appointed before this was signed.

These delays were overcome by the increased involvement of one of the Senior Historic Environment Officers (Project Expert), who was able to carry out some of the project tasks originally allocated to the Project Officer, such as Task Group 1: Project setup and Task Group 2.3: Creation of

new monument, designation, event and sources records for locally listed buildings in Ellesmere Port and Neston District.

The most significant slippage in the project timetable was identified in Task Group 4.3: Creation of new monument, designation, event and sources records for locally listed buildings in Vale Royal District. Due to the nature of the original source data, the location of many of the buildings proved time consuming and problematic. This was envisaged in the Project Design, with an allocation of 80 days being allowed for this Task. However this allocation was under-estimated. The creation of the designation records alone took 120 days. The lessons learnt in speeding up the monument record process through data migration have assisted in the creation of monument records. Also the fact that the Senior Historic Environment Records Officer has been able to carry out some of the project tasks originally allocated to the Project Consultant has meant that whilst the overall project timetable slipped, project finances were sufficient to maintain the involvement of the Project Consultant until this task was completed.

Where a large scale project of the nature of incorporating external data such as the Vale Royal List is undertaken we recommend that a sample of the data is used as a pilot to more accurately predict the resources required.

2 Creating the dataset

The majority of Cheshire's borough councils maintained lists of locally significant buildings. The manner in which these lists were maintained and the format of the datasets varied considerably; from fully digital datasets to record cards.

The simplest to incorporate into HBSMR were those which were available digitally, i.e. text in word documents, GIS shape-files and digital images. The most difficult to incorporate were those lists which consisted of only a list of properties, handwritten building survey cards from the 1970s and no accurate locations.

2.1 HER Database

All the records were input into the Cheshire HER which uses the HBSMR software, produced by exeGesIS SDM. HBSMR follows the monument-event-archive-model, as recommended by Informing the Future of the Past [6] and is MIDAS compliant. MIDAS Heritage compliancy is being addressed by exeGesIS SDM and the HBSMR user community. The software incorporates the following Inscription[7] word lists:

- MDA Archaeological Object Thesaurus
- English Heritage Monument Type Thesaurus
- English Heritage Components Thesaurus
- English Heritage Historic Aircraft Thesaurus
- Defence of Britain Thesaurus
- RCHME Thesaurus of Building Materials
- Evidence Thesaurus
- ALGAO Events Types

Digital copies of documents and images were catalogued in the linked exeGesIS SDM LibraryLink and Cerious Software Thumbs Plus applications.

2.2 HER Designations GIS Datasets

GIS data is held in ArcGIS v9.2 personal geodatabases which are integrated into the HBSMR software though exeGesIS SDM's XGArcApps extension. The degree of accuracy is recorded within the parent database and within the GIS dataset itself. In complex situations it may also be discussed within the text associated with the record. All the HER's GIS datasets include UK GEMINI 2 compliant metadata which underpin both authorities INSPIRE directive complicacy programmes. In addition the majority of this data is either captured from or 'snapped to' Ordnance Survey Master Map.

2.3 Record Structure

As part of the project, records were created in the monument, event, designation and source modules of HBSMR. These modules allow for cross references to the relevant monument, event and designation records to be recorded and maintained. Digitised source materials, catalogued in ThumbsPlus could be directly linked to each record using LibraryLink.

[6] Gilman P and Newman M eds, *Informing the Future of the Past: Guidelines for Historic Environment Records (Second Edition)*

[7] www.fish-forum.info/inscript.htm

2.3.1 *Designation Records*

Designation records were created for each entry on each local list. Each entry included any associated reference number, the full text entry (if available), designation and amendment dates and links to any associated photos and/or record cards. Data recorded on the location of the local list entry included an 8 figure grid reference (GIS derived), parish and address.

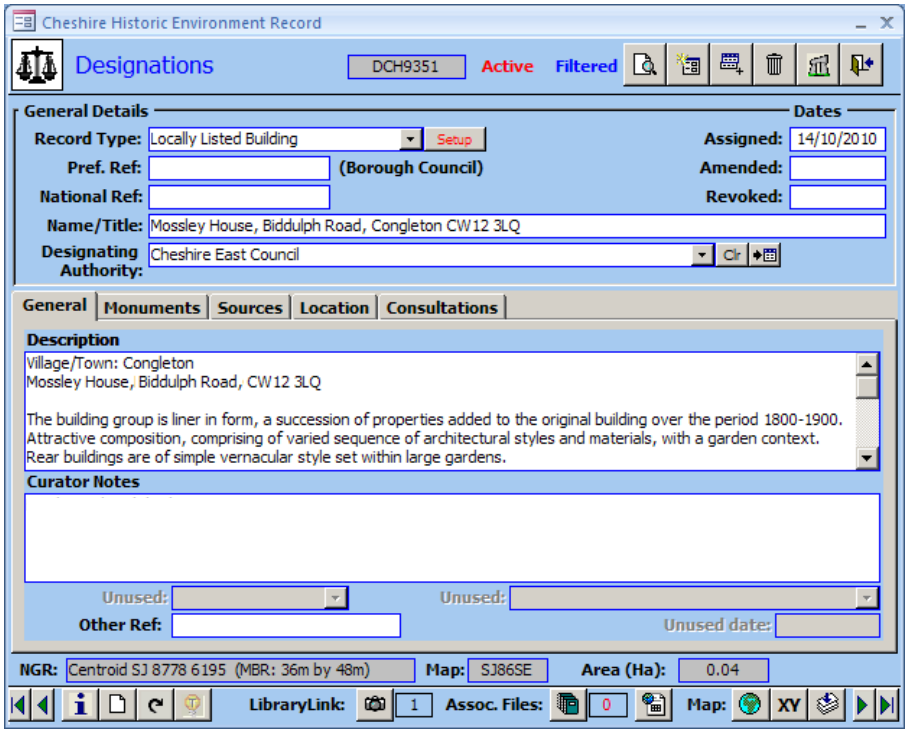

Figure 1 Designations – an example record

2.3.2 *Monument Records*

A monument record was created for each entry on each local list. Each entry included any associated reference number, the full text entry (if available), links to any associated photos and/or record cards. Data recorded on the location of the local list entry included an 8 figure grid reference (GIS derived), parish and address.

The monument record also allowed for the recording of building type and form (using the monument type thesaurus), architectural components, building materials and date in a format which is easily queried within HBSMR. In addition it can be used to record information not directly associated with designation itself. A monument record also includes a public summary which is specifically aimed at non-historic environment professionals.

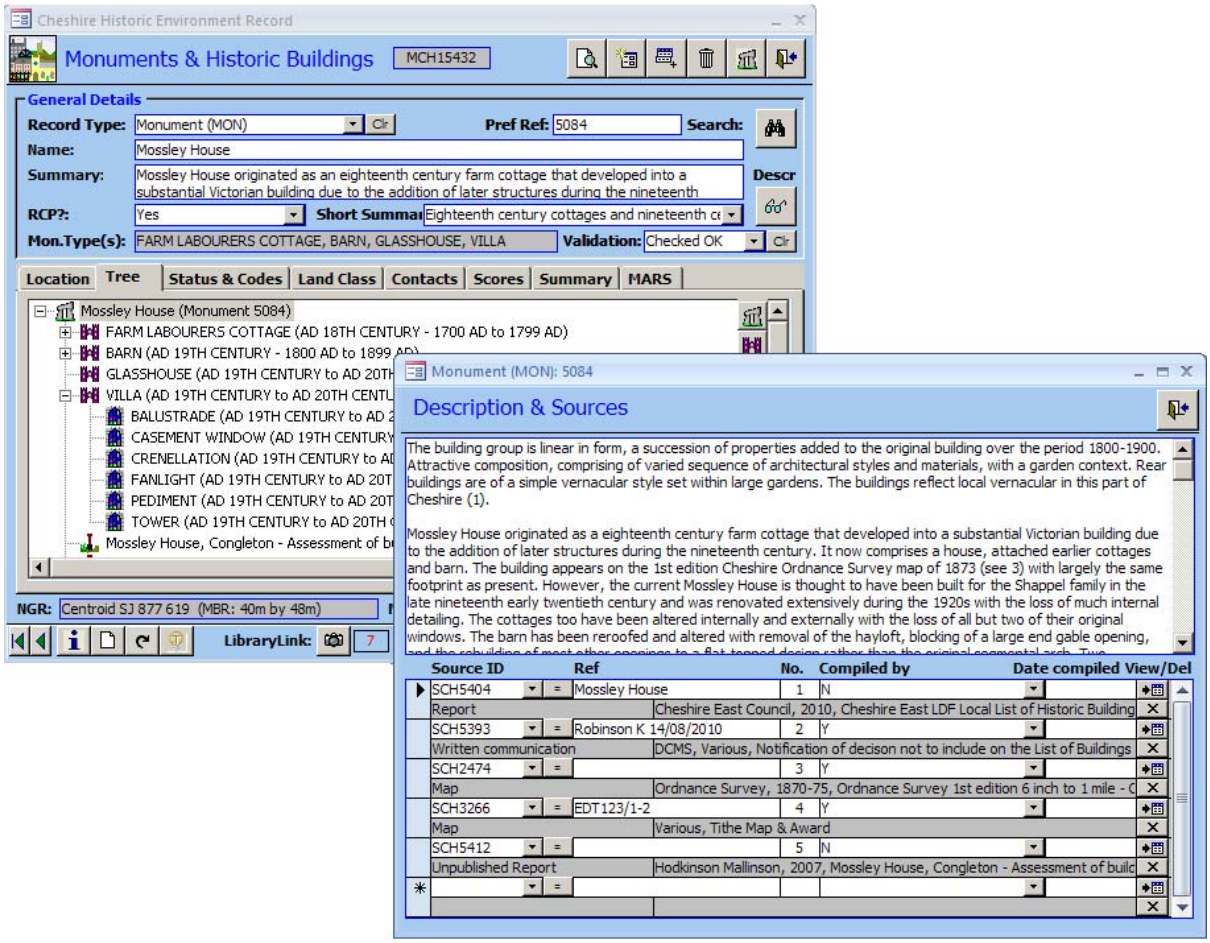

Figure 2 Monuments – an example record

2.3.3 Event Records

Due to the limitations of the datasets available event records were typically restricted to one record representing the survey of all the buildings on each list. Although the record cards available for the Vale Royal Borough survey have individual dates and surveyors initials for the survey of each building, there was not enough additional information to warrant the creation of individual event records. Links were made to the appropriate document, photos and/or record cards associated with the event.

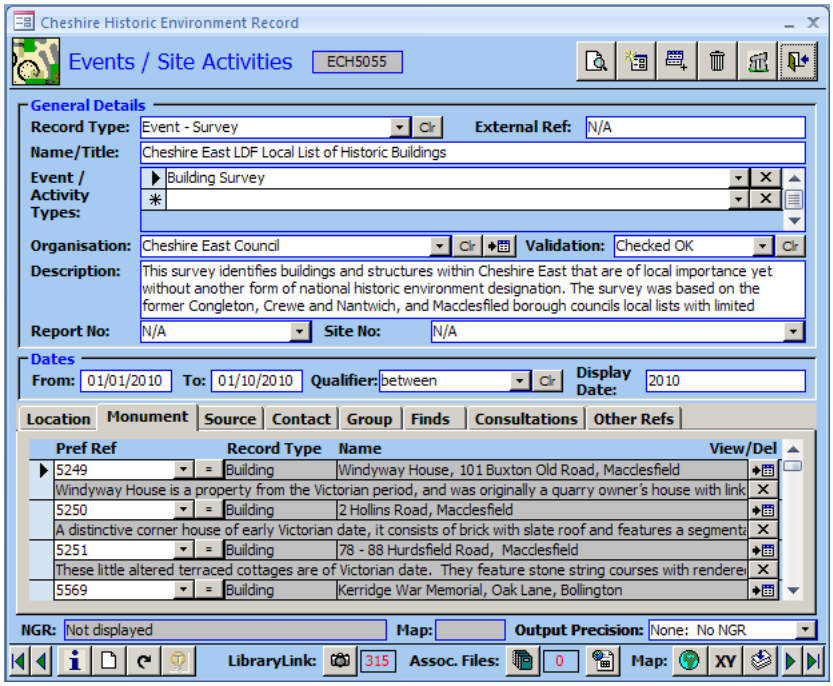

Figure 3 Event / Site Activities form – example record

2.3.4 Source Records

Source records were created for each published list. These records contained a full bibliographic reference for the source, with an abstract, a description of the source (i.e. published report, record cards etc.) and cross references to the relevant monument, event and designation records.

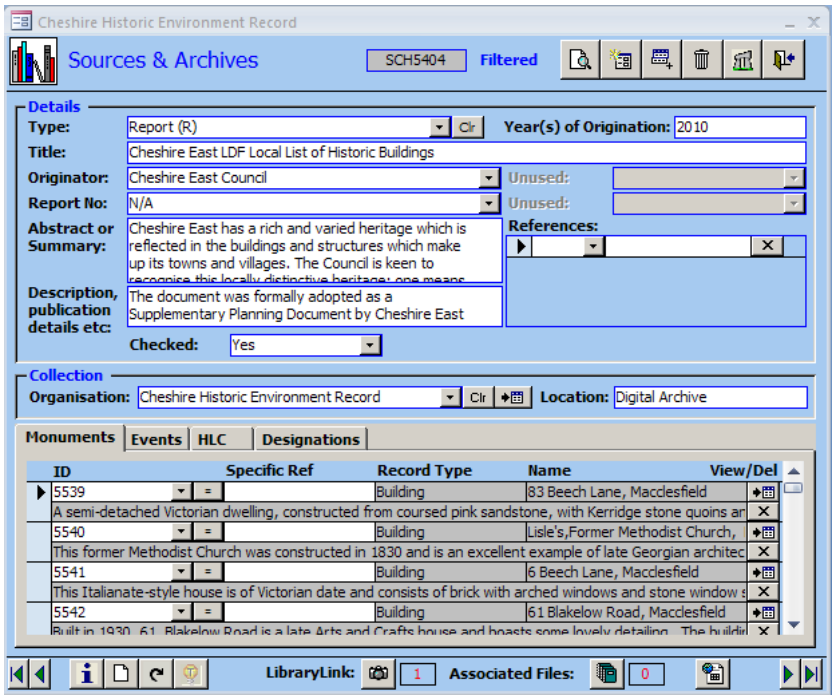

Figure 4 Sources & Archives – an example record

2.4 Collation

Collation of the dataset involved a small number of tasks which were repeated for each local list. However each list required a methodology tailored to the format of each dataset or archive. These fell into three main categories:

- Creation of database records
- Creation of GIS data
- Digital and physical archive

It was evident that the GIS data relating to locally listed buildings available to the project contained information that, if imported into the HBSMR database, would aid the data entry process. Therefore this data was modified with the intention of extracting as much data for use in record creation, as well as for use within the HER's GIS.

2.5 Data Entry and Migration: Ellesmere Port and Neston

The Ellesmere Port and Neston Local List was available as a Microsoft Word document with short descriptions, images and maps and contains data on 79 buildings and structures. This dataset was the first to be incorporated within HBSMR.

2.5.1 Ellesmere Port and Neston designation records

The extant GIS data was imported into the HER's GIS datasets and also used to create skeletal designation records within the database[8]. These records were then edited individually up to the required standard.

Selected edits

- *Name/title*: this was edited to ensure that the street name and locality was recorded correctly.
- *Description*: the list entry was copied and pasted from the accompanying word document into this field.
- *Date assigned:* the date the list entry was adopted. The Ellesmere Port Local List was initially adopted by the planning committee in 1997 and a revised list was adopted in 2007. This was extracted from either the list entry or in the associated casework files.
- *Reference number*: the 2007 (current) and 1997 (if applicable) list entry number were recorded for records on the Ellesmere Port Local List.
- *Address:* the property's address/s was added or edited as required.

2.5.2 Ellesmere Port and Neston monument records

Using the data created for the designation records, a series of append and update queries was used to create a related monument record for each designation record. Each monument record was then manually checked and additional edits made by the project officer:

Selected edits

- *Record type:* the default value applied during the data migration was *Building*, this needed to be checked as some entries on the local list, typically structures such as mileposts, would be defined as *Monuments*.
- *Monument type*: input the appropriate monument types, dates and any associated architectural components.
- *Description*: edited and referenced.
- S*ource*: a single default source for the Ellesmere Port Local List was added for each record.
- *Summary*: a non technical summary derived from the list entry.

[8] See Appendix 2 for an example

- *HER number*: a unique HER number was assigned to the record.
- *Spatial data*: the associated GIS data was copied from the associated designations GIS dataset to the monuments GIS dataset.

The Ellesmere Port and Neston dataset was used as a pilot for the integration of the much larger Cheshire East dataset. It was evident that a greater degree of record creation could be completed during the migration of the data from GIS to designation record and from designation record to monument record.

An example of the final methodology is detailed in Appendix 2.

2.5.3 Ellesmere Port and Neston archive

Any associated digital images and an extract from the document containing the list entry were catalogued and attached to the associated designation and monument record. In some instances quality of these images was very low, so new scans were made from the hard copy images stored in the casework files. This process was simplified due to the consistent naming conventions and referencing and structured (digital and paper) filing system used by the former Ellesmere Port Borough Conservation Officer. Each listing had a referenced paper file containing a copy of the list entry, associated photos and casework. There was also a corresponding digital file with a Microsoft Word version of the list entry and a low resolution digital image.

Hard copy photographs and files remain within their original indexed files.

2.6 Data Migration: Cheshire East

Similar to the Ellesmere Port and Neston dataset, the Cheshire East Local List was available as a GIS dataset with accompanying report which included the list descriptions and photos. In addition Cheshire East Council's Built Conservation Team held a small archive of digital photographs taken as part of the survey.

2.6.1 Cheshire East designation records

The GIS data was imported into the HER's GIS datasets and also used to create skeletal designation records within the database[9]. The partially completed designation records were manually checked and additional edits made as required.

Selected edits

- *Name/title*: The original address data was held in two fields *ADDRESS* and *TOWN*. *ADDRESS* typically held the data in the format *House No./Name, Street name, Postcode*. The separate field *TOWN* contained the settlement element of the address and was not restricted to postal town. As the address was used for the name of the record, this data had been concatenated into one field, but required editing to create a 'logical' address.
- *Description*: the list entry was copied and pasted from the accompanying word document into this field.
- *Date assigned*: The date the list entry was adopted as supplementary guidance for the Cheshire East LDF. No previous information about the individual designations was available.
- *Reference number*: No reference numbers were recorded in the Cheshire East Local List.
- *Address:* the property's address/s was added or edited as for *Name/title*.

[9] See Appendix 3 for an example relating directly to this dataset.

Some list entries were for whole terraces of buildings and each number in the terrace had been given a separate polygon and therefore each had had multiple designation records created. To tackle this, the multiple polygons for single local list designation records were merged into a single polygon or multipart polygon. The spare designations records were deleted.

2.6.2 Cheshire East Local List monument records

Using the data created for the designation records, a series of append and update queries was used to create a related monument record for each designation record. Each monument record was then manually checked and additional edits made by the project officer:

Selected edits

- *Record type*: the default value applied during the data migration was *Building*, this needed to be checked as some entries on the local list, typically structures such as mileposts, would be defined as *Monuments*.
- *Monument type*: input the appropriate monument types, dates and any associated architectural components.
- *Description*: edited and referenced.
- *Summary*: a non technical summary derived from the list entry.

2.6.3 Cheshire East Archive

Any associated digital images and an extract from the document containing the list entry were catalogued and attached to the associated designation and monument record. The images associated with the Cheshire East Local List were more difficult to work with as file names were only based on part of the street address and were held in two folders; each folder covering half the alphabet.

2.7 Data migration Vale Royal

The methodology for incorporating the data from the former Vale Royal Local List was significantly different as this list was not available digitally. An earlier attempt had been made by the HER to digitise the locations from a collection of paper maps. It quickly became apparent that the locations marked on the map were not accurate and many buildings had been omitted. Therefore it was considered to be more efficient to work from the record cards.

2.7.1 Vale Royal designation records

The absence of GIS data meant that the process described in Appendix 2 could not be used to create the designations records. Instead each designation record was created individually, though the *copy record* function of HBSMR helped speed up the process. The project officer located the list entry from the record card; usually using a combination of address point data, current and historic maps and Google Street view. Once located, and as part of record creation, a polygon (or multipart-polygon) depicting the building was captured from Ordnance Survey's MasterMap. Despite this c.40 buildings have yet to be located.

The high number of entries and often poor quality locational data meant that we had anticipated this being a complex and time consuming task. The following additional issues were identified during this process:

- Some of the buildings have been demolished
- Some buildings have multiple entries under different criteria so the final number of local list entries should be lower than the initial estimate.
- Some of the buildings have since been listed. Local List records were still created for these buildings so the entire designation history is recorded

Selected edits

- *Record type* – Locally listed Building
- *Name/title* - As it appears in the list with the addition of the parish
- Designating authority – Vale Royal Borough Council
- *Date assigned* – the date of the adoption of the local plan
- *Description*– Recorded the criteria under which the building was locally listed.
- *Curator notes* – Records additional descriptive material from the 1970s historic building survey record card.
- *Other ref* – The historic building survey card reference number.
- *Address:* the property's address/s was added from the entry on the record or from Address Point data, if required.

2.7.2 Vale Royal Local monument records

Using the data created for the designation records, a series of append and update queries was used to create a related monument record for each designation record. This is fully discussed in Appendix 3. Each monument record was then manually checked and additional edits made by the project officer:

Selected edits

- *Record type*: the default value applied during the data migration was *Building*, this needed to be checked as some entries on the local list, typically structures such as mileposts, would be defined as *Monuments*.
- *Monument type*: Although some criteria enabled the population of the monument types and dates by query, many still to be input, along with any associated architectural components and evidence, manually.
- *Description*: edited and referenced.
- *Summary*: a non technical summary derived from the list entry.

2.7.3 Vale Royal Digital Archive

A proportion of the historic building record cards had been scanned by the former borough council. Typically this was a single jpg image for each side of the card. These images were combined in a single Adobe pdf document and attached to the associated designation and monument record. Where no digital copy existed, the record card and carefully selected additional material (eg floor plans, newspaper article etc), were scanned to pdf and attached to the associated records.

It was significantly slower to work with a non digital dataset, furthermore the age of the record cards and the combination of materials, for example photographs glued to cards, prevented the use of batch scanning equipment. Each side of each card had to be scanned individually. The cards and any other associated hard copy information were transferred to archive stable clear plastic document folders to be filed in their original sequence (by parish).

3 Revealing Cheshire's Past

The Cheshire HER uses exeGesIS SDM's HBSMR Gateway Software and HBSMR web to publish HER records, images and documents on the internet via the Revealing Cheshire's Past website[10] and the Heritage Gateway[11].

3.1 Public access to Local List information

Objective 2 included the provision of accessible information on locally listed buildings to officers of the respective councils and the wider community. Revealing Cheshire's Past, the online version of the HER database, has been used in conjunction with GIS, to supply information to council officers since 2009[12].

Prior to this project access to designations records via Revealing Cheshire's Past was restricted to holder of *professional* accounts, which are restricted. In partnership with exeGesIS SDM Revealing Cheshire's Past has modified to enable wider access to designation records. This has included:

- Modification of the designations and monuments search pages, including explanatory text to clarify to general users the type and function of the information presented
- Modification of the designations results pages to mirror the structure and content of the result according to the users account

The general public also have access to spatial data via Cheshire East and Cheshire West and Chester Council's interactive mapping websites (see 4.1). The next step is to make the hyperlinks embedded in the GIS data live to allow access to the associated designation record on Revealing Cheshire's Past.

[10] http://rcp.cheshire.gov.uk/
[11] http://www.heritagegateway.org.uk/gateway/
[12] For further details see Edwards R, *Interoperability: Cheshire Historic Environment Record* in English Heritage 2010 *Sites and Monuments Record to Historic Environment Record. Local Authority Case Studies*

4 Interoperability

The Local Lists dataset created by this project became part of the package of historic environment designations supplied by the HER and was affected by the decisions made before the projects inception regarding the supply to, and integration with other systems, of these datasets.

Cheshire HER's use of pre-existing systems mirrors many of the recommendations presented in the HER 21 project 6033 *HER-Derived Alert and Constraint Mapping Supplied to Local Authorities*[13]. In particular the HER has sought to make information on national and local historic environment designations as widely available as possible using pre-existing infrastructure.

4.1 Links to Geographic Information Systems and Interactive Mapping

GIS data on designated heritage assets is shared between Cheshire East Council and Cheshire West and Chester Council via Cheshire Shared Services' ArcSDE and ArcIMS servers (corporate GIS). This allows GIS to be disseminated within each council to ArcGIS users, WebGIS users and externally via the respective web based interactive maps. The local lists dataset was added to those already made available in this manner and included hyperlinks which would enable users to have direct access to the corresponding record on Revealing Cheshire's Past.

4.2 Links to Development Management and Land Charges IT Systems

Cheshire HER's supply of alert and constraint mapping mirrors the recommendations presented in the HER 21 project 6033 *HER-Derived Alert and Constraint Mapping Supplied to Local Authorities*[14]. The HER has sought to widen access by using a combination of corporate GIS and records published via the internet to ensure that nationally and locally designated heritage assets trigger the appropriate consultation at an early stage in the planning process.

The establishment of new planning and land charges IT systems in both Cheshire East and Cheshire West and Chester from 2010 presented the opportunity to explore closer integration with the HER. The majority of this work was progressed before or in parallel to two key HER 21 projects:

- Project 6033 HER-Derived Alert and Constraint Mapping Supplied to Local Authorities[15]
- Project 6035 Interoperability of HERs and Local Authority Planning Systems[16]

4.3 Links to IDOX Uniform

Between 2010 and 2011 Cheshire West and Chester Council have implemented IDOX Uniform[17] for the Development Management service. IDOX Uniform is a modular application which enables the client to customise their setup to reflect their own business processes. Cheshire West and Chester Council utilise the Building Control, Gazetteer Management System and Planning modules.

Initial discussions between the HER, Development Management and IDOX looked at the level of integration which could be achieved between the HER's designation datasets and IDOX Uniform without the duplication of datasets. Three options were considered:

1. Transfer historic environment designations to IDOX Uniform's Listed Buildings module

[13] Land Use Consultants 2011, *HER Alerts and Constraints Mapping*
[14] *ibid*
[15] *ibid*
[16] 1Spatial 2011, *Interoperability of HERs and Local Authority Planning Systems*
[17] http://software.idoxgroup.com/products/uni-form.cfm

2. Import historic environment designations into IDOX Uniform's Gazetteer Management System (GMS)
3. Access historic environment designations and constraints via Cheshire Shared Services GIS

4.3.1 Transfer historic environment designations to IDOX Uniform's Listed Buildings module

This option would utilise IDOX Uniform's capacity to import xml in the format used by English Heritage in 2005/6 to disseminate updated data on listed buildings. All the designation records held by the HER would be transferred to the Listed Buildings sub-module, providing the English Heritage xml schema could be duplicated in HBSMR.

It was concluded that this option would split the HER's datasets, making the HER's business processes more complex and less efficient. The Built Conservation and Design team were already using HBSMR for their work and felt that the IDOX Uniform sub-module was more limited and less suited to their business processes.

With hindsight, the adoption of this model would not have conformed to the recommendations of either HER 21 Project 6033 *HER-Derived Alert and Constraint Mapping Supplied to Local Authorities*[18] or 6035 *Interoperability of HERs and Local Authority Planning Systems*[19].

4.3.2 Import historic environment designations into IDOX Uniform's GMS

The intention of this option was to import baseline data, such as type of designation, grade, date of designation etc., into the Gazetteer Management System as a constraint. Again it was hoped that xml could be used to facilitate this. Typically data is loaded into IDOX Uniform when the system is setup and the records are then edited via the user interface. However in this instance the potential of using IDOX Uniform's xml import facility to apply updates from HBSMR to the designations data held in the Gazetteer Management System was explored. Notably data exchange via xml was extensively researched by HER 21 project 6035 *Interoperability of HERs and Local Authority Planning Systems*[20].

This would have required the design and testing of custom elements for both HBSMR and IDOX Uniform. A tool in HBSMR would collate the new and/or modified designation records and export an xml file to an agreed schema, presumably MIDAS xml. A further tool in IDOX Uniform would import the file and update the constraints data. The use of one tool to collate, export and apply the changes between the two datasets was ruled out due to commercial sensitivity surrounding the IDOX Uniform software.

Although in technical terms this approach was achievable, there were costs attached. In addition it was felt that it may be imprudent to develop a software based solution prior to the completion of the HER 21 project 6035, *Interoperability of HERs and Local Authority Planning Systems*[21].

4.3.3 Access historic environment designations and constraints via Cheshire Shared Services GIS

Although both options 1 and 2 included GIS data as part the solution, this option looked at using the designations data already published via Cheshire Shared Services' corporate GIS. In this option the data would be connected to IDOX Uniform via a 'connector'. This would allow IDOX Uniform's automated functions to identify the constraints and for rules to be applied to the data, i.e. developments within 250m of a Scheduled Monument would be flagged. The baseline data

[18] Land Use Consultants 2011, *HER Alerts and Constraints Mapping*
[19] 1Spatial 2011, *Interoperability of HERs and Local Authority Planning Systems*
[20] *ibid*
[21] *ibid*

associated with each designation would be available for casual inspection via IDOX Uniform's inbuilt mapping.

This option proved to have the lowest cost and to be the easiest method of obtaining interoperability between HBSMR and IDOX Uniform and was therefore the option progressed. It benefitted from utilising pre-existing mechanisms of sharing data, notably Shared Services corporate GIS and Revealing Cheshire's Past. Unfortunately IDOX Uniform's inbuilt mapping did not support hyperlinks, but planning officers have reported that they easily work round this using Revealing Cheshire's Past's designation search.

4.4 Links to IDOX Total Land Charges

Cheshire West and Chester Council are presently implementing IDOX Total Land Charges for the Land Charges team. Initially it was thought that the solution applied for IDOX Uniform could be used to allow IDOX Total Land Charges to connect to the required designation datasets. A great benefit to this approach would be that it would not be necessary to create a concordance list between the HER's designation reference and the LLPG reference number.

Unfortunately the connector which was to connect IDOX Total Land Charges to the corporate GIS does not function as expected. Therefore, as a fallback position, it is proposed to load the designations GIS data into the Gazetteer Management System. This raises considerable concerns as there will be two copies of the data to maintain, which is inefficient and presents the risk of the datasets diverging. Cheshire West and Chester Council are hoping to develop a tool to enable the data held on in IDOX Uniform's Gazetteer Management System to be regularly checked against the published HER designations data. It is hoped that the fallback position will be a temporary measure.

4.5 Links to Swift Data Pro's Land & Property

Between 2010 and 2011 Cheshire East Council has implemented Swift Data Pro's Land & Property[22] for the Development Management service. This is also a modular application which enables the client to customise their setup to their own particular needs. Amongst others, Cheshire East is utilising Land and Property's Development Control and Local Land Charges modules. It also has an optional module for recording information on listed buildings, but this hasn't been used by Cheshire East Council.

Achieving interoperability has been straight forward and to a degree we have been able to build upon our experience with Cheshire West and Chester's IDOX Uniform system. Land & Property connects to and utilises the designations datasets published via the corporate GIS seamlessly, however its inbuilt mapping does not support hyperlinks.

4.6 Outcomes

Data on nationally and locally designated heritage assets is available to the software systems used by Cheshire East and Cheshire West and Chester Development Management Services. The data is used throughout the planning process, but critically at the planning application validation stage. Both systems use a degree of rule based automation, i.e. is within x metres of a Scheduled Monument, in this process to trigger communication, usually by email or via the software itself, with the relevant consultees.

This clearly conforms to the recommendations made by HER 21 Project 6033 *HER-Derived Alert and Constraint Mapping Supplied to Local Authorities*[23], in particular:

[22] See http://www.swiftlg.com/land.html
[23] Land Use Consultants 2011, *HER Alerts and Constraints Mapping*

- The data supplied is simple avoiding the potential for misinterpretation/information overload. However should officers require additional detail, it is available via Revealing Cheshire's Past.
- The level of integration allows consultations and assessments to be identified at the earliest opportunity, most importantly at the validation stage, without adding extra work to pre-existing workloads.
- The HER's ability to provide simple, accurate and effective data has raised the profile of the HER and within Development Management and Cheshire Shared Services.

HER 21 project 6035, *Interoperability of HERs and Local Authority Planning Systems*[24] looked in detail at the use of MIDAS xml for the transfer of historic environment datasets between HER and Development Management IT systems. Our experience with IDOX Uniform, though ultimately unsuccessful, didn't discredit this as a potential approach. Project 6035 brought forward four recommendations based around the use of MIDAS compliant datasets via a new national hub, which would in turn disseminate data to Local Planning Authorities and integrate with the Planning Portal.

It's is possible that the approach taken by the Cheshire HER may provide an alternative or intermediate approach. Many of the benefits outlined in the recommendations of Project 6035 mirror those of Project 6033 and have been achieved though the sharing of relatively simple spatial data. In the near future it may be more practical and cost effective to investigate the potential of closer integration of Development Management IT systems and HERs through dynamic spatial datasets provided by WMS services.

[24] *ibid*

5 Reconciling Local Lists in Cheshire

Whilst the very notion of a Local List means that there is a convincing argument for individual criteria to be developed by each authority, there are significant benefits in utilising nationally recommended criteria, providing it fulfils the local requirements.

The principle benefits of using a template rolled out nationally is that it provides local lists with an element of consistency across the country. This gives them a transparency and weight which may not be achieved otherwise.

English Heritage's *Good Practice Guidance for Local Listing*[25] is currently in draft form. Within this document the following criteria are identified:

- Age
- Rarity
- Aesthetic Value
- Group Value
- Evidential Value
- Historic Association
- Archaeological Interest
- Designed Landscaping
- Landmark Status
- Social and Communal value.

5.1 Cheshire East Council Local List

Local lists were developed for the 3 former boroughs of Congleton, Macclesfield and Crewe and Nantwich. In January 2010 the successor authority, Cheshire East Council, prepared a list of locally important buildings[26], which is an amalgam of the three former borough lists, as supplementary guidance to the Local Development Framework.

The set of criteria used by Cheshire East to identify suitable buildings aims to identify the *best of the non-statutory listed buildings in the borough* which are *substantially unaltered and retain the majority of original features*[27]. The nominated building is required to fulfil one or more of the following criteria to be considered for local listing:

- Architectural or Historic Character
- Historical Associations
- Display evidence of "Local Distinctiveness"
- Group Value
- Townscape Value

As Cheshire East's Local List is a very recent compilation its criteria easily map with those defined by the draft English Heritage guidance. It would take very little amendment to integrate the Cheshire East criteria with the new criteria; however it is questionable as to whether this would even be required.

5.2 Legacy Local Lists in Cheshire West and Chester

Local lists were developed for the two former boroughs of Ellesmere Port and Vale Royal. These lists have not yet been amalgamated by Cheshire West and Chester Council as part of the Local Development Framework. It is anticipated that the Cheshire West and Chester Council will seek to

[25] English Heritage 2011, *Good Practice Guidance for Local Listing: Identifying and Managing Significant Local Heritage Assets,* Draft document for consultation

[26] Cheshire East Council 2010, *Cheshire East Local Development Framework Local List of Historic Buildings Supplementary Planning Document*

[27] *ibid*

create its own local list using the English Heritage criteria. Buildings listed on the legacy lists will have to be reviewed and their listing criteria assessed against those presented in the English Heritage guidance. Furthermore utilising the nationally suggested criteria would bring the benefits associated with a consistent approach to designation of local assets of interest.

5.2.1 Vale Royal Borough Council Local List Criteria

The former Vale Royal Borough Council local list used the following criteria:

- Criterion A: Unlisted timber framed buildings in Vale Royal which contain structural or building techniques which were designed to reduce the effects of subsidence
- Criterion B: Buildings designed by John Douglas
- Criterion C: Buildings formerly listed at grade iii which are no longer on the statutory list
- Criterion D: Buildings noted in Pevsner's "The Buildings of England - Cheshire"
- Criterion E: Buildings included in the Vale Royal Borough Council historic buildings survey 1977-79[28]
- Criterion F: Non-listed red K6 telephone kiosks
- Criterion G: Buildings suggested to the Department of National Heritage for "spot listing" which have not been included on the statutory list

It is clear that these criteria can be reconciled without conflict against those presented in the draft guidance. For example, those buildings currently listed under Criterion A would meet a number of the new criteria including rarity, aesthetic value, group value and social and communal value. Buildings listed under Criterion B would be likely to meet at least one of the following criteria: aesthetic value, historic association, possibly group value and landmark status. Those buildings included on the current Vale Royal Local List under criteria C, D, E and G will almost certainly meet one or more of the suggested English Heritage criteria.

5.2.2 Ellesmere Port and Neston Borough Council Local List Criteria

The former Ellesmere Port and Neston Borough Council local list used the following criteria:

- Criterion A: Old Buildings of Local Architectural Value
- Criterion B: Buildings, and occasionally artefacts of Local Historic Significance
- Criterion C: Groups of buildings of townscape significance

The former Ellesmere Port Local List criteria are much broader than those of Vale Royal. They relate well to the proposed criteria with Criterion A equating to Aesthetic Value; Criterion B to historic association, evidential value and social and communal value. Criterion C could be included under group value and/or landmark status, as well as potentially meeting other criteria such as aesthetic value.

[28] This criteria was been drawn from the Vale Royal Borough Council historic buildings survey of over 2,000 buildings. A few of these properties are now listed buildings and some are included on the local list under other criteria. Only selected buildings were included on the local list.

6 Towards a Local List for Cheshire West and Chester Council

The provision of a local list for Cheshire West and Chester Council is important as there are numerous buildings within the area that are not quite of sufficient interest or quality to qualify for inclusion on the relatively discerning statutory list. The heritage of the borough would, however, be diminished by the inappropriate alteration or potential loss of these structures and inclusion on a local list provides a level of protection for these locally distinctive buildings.

When Cheshire West and Chester was formed in 2009 it inherited two local lists, one from Vale Royal Borough Council and the other from Ellesmere Port and Neston Borough Council. Chester City Council, however did not produce a local list, but had identified a number of properties within conservation areas to designate as Article Four Direction properties, a procedure not carried out in the other boroughs

Due to these different approaches there are massive discrepancies across the new borough as to the number of locally listed buildings designated, how they are identified and the ability to add new buildings to the lists.

6.1 Compilation Criteria

The first step to producing a new list would be to produce a set of criteria against which potential buildings can be assessed. It is important that the criteria have a basis in national guidance as this makes the list more robust and able to withstand challenge. It also provides some consistency across the country. It is therefore proposed that both English Heritage's Conservation Principles[29] and annex 2 of Planning Policy Statement 5[30] are used as a reference point. English Heritage has also recently produced a draft guidance on local lists[31], which includes suggested criteria for a local list. Once finalised, this document will also be a key source of guidance for consideration. The criteria used in the existing local lists will also need to be considered and assessed. All of these documents and existing criteria will then be assessed to form the new criteria for locally listed buildings in Cheshire West and Chester.

6.2 Compilation Options

Once the criteria have been established a list needs to be complied. The draft English Heritage guidance[32] makes it clear that the general public should be included in the production of any local list, a principle that Cheshire West and Chester is keen to follow.

The point for consideration is that they are many levels of consultation/public involvement and we have established that there are three possible routes which could be followed.

6.2.1 Option A : Compile list from existing datasets

The existing VRBC and EPNBC lists, alongside the characterisation documents for Chester City which identifies buildings of townscape merit, would form the basis for the new list. This list would go out to public consultation with feedback submitted via online form. At this stage there would be the potential for the public to nominate possible additions to the list, using an online form. The pros and cons of this option are as follows:

[29] English Heritage 2008, *Conservation Principles, Policies and Guidance*
[30] DCLG 2010, *Planning Policy Statement 5: Planning for the Historic Environment (PPS5)*
[31] English Heritage 2011, *Good Practice Guidance for Local Listing: Identifying and Managing Significant Local Heritage Assets,* Draft document for consultation
[32] *ibid*

Pros

- Easily complied
- Quick to compile

Cons

- Limited public involvement
- Inconsistent coverage

6.2.2 Option B: Carry out surveys of gap areas

The council could enlist the help of local civic societies, local history groups and parish councils to survey areas where there is a known gap in the legacy lists e.g. rural Chester and Ellesmere Port and Neston Area. These new nominations would then be combined with entries on the existing datasets. This list would go out to public consultation with feedback submitted via online form. At this stage there would be the potential for the public to nominate possible additions to the list, again using an online form. The pros and cons of this option are as follows:

Pros

- Initial list easily complied.
- Greater public involvement and ownership
- More comprehensive and consistent

Cons

- Increased officer commitment
- Increased costs
- Consistent coverage dependent group involvement

6.2.3 Option C: Carry out new survey of borough

Enlisting the help of local civic societies, local history groups and parish councils to survey the whole of the borough identifying buildings which meet the criteria provided. The survey results would be scrutinised and then used to create a new local list. At this stage there would be the potential for the public to nominate possible additions to the list, again using an online form. The pros and cons of this option are as follows:

Pros

- Greater public involvement and ownership
- Comprehensive and consistent

Cons

- Greatly increased production time
- Consistent coverage dependent group involvement
- Increased costs
- Increased officer commitment

7 Appendix 1: Project Sources

7.1.1 Local lists in Cheshire West and Chester

Local lists were developed for the two former boroughs of Ellesmere Port and Vale Royal. These lists have not yet been amalgamated by Cheshire West and Chester Council as part of the Local Development Framework.

Ellesmere Port local list	
Number on list	79
Archive quality digital images	no
Low resolution digital images	Yes – jpeg format
Prints	Yes
Descriptions	Record cards. A digital version of record cards available as MS Word document.
GIS format	MapInfo region & ellipse datasets.
GIS coverage	Partial (94%) polygon dataset captured from OS MasterMap.
PAI status	Unknown
Additional information	11 indexed files (c.0.86m) of additional material and casework files.

Vale Royal local list	
Number on list	c.960-1400
Archive quality digital images	No
Low resolution digital images	No
Prints	Contact prints on record cards.
Descriptions	Record cards.
GIS format	No - Scanned and rectified location maps
GIS coverage	N/A
PAI status	N/A
Additional information	Supplementary material is available in the local list files (c.1.5m) and is mixed with information on other undesignated historic buildings. Possibility of further photographs or slides within the archive inherited by the HER from Vale Royal BC.

7.1.2 Local lists in Cheshire East

Local lists were developed for the 3 former boroughs of Congleton, Macclesfield and Crewe and Nantwich. In January 2010 the successor authority, Cheshire East Council, prepared a list of locally important buildings33, which is an amalgam of the three former borough lists, as supplementary guidance to the Local Development Framework.

Inevitably, as time passes, additional buildings and features of interest will be discovered or become interesting because of changes in taste, increasing rarity or because a particular building type is threatened by redevelopment. The Local List will be kept under review and further inclusions/removals will be made by Cheshire East Council as appropriate.

[33] Cheshire East Council 2010, *Cheshire East Local Development Framework Local List of Historic Buildings Supplementary Planning Document*

Cheshire East local list	
Number on list	481
High resolution digital images	No
Low resolution digital images	Yes, separate jpegs and also jpegs embedded in MS Word documents
Prints	None – only digital
Descriptions	In MS Word documents.
GIS format	MapInfo region, polyline, rectangle & ellipse datasets.
GIS coverage	100% however representation of buildings as polygons is only partial (98%). The polygon dataset is captured from OS MasterMap.
PAI status	Yes
Additional information	No supplementary material directly relating to the local list is available. There is a possibility of photographs within the collections held by the Cheshire East Conservation Officers.

8 Appendix 2: From GIS data to designation records – Cheshire East

The Cheshire East local list was available as GIS dataset with accompanying report which included the list descriptions and photos. In addition Cheshire East Council's Built Conservation Team held a small archive of digital photographs taken as part of the survey.

The GIS dataset had been captured from Ordnance Survey MasterMap as polylines and polygons using MapInfo. The data was exported from MapInfo as ArcGIS shape-files (polygons and polylines).

PACIS	PACIS_DESC	ADDRESS	UPRN	TOWN	PARISH	DESCRIPTIO	DESCRIPTI0
Codes used by the former Macclesfield BC development management system		Address	UPRN reference No.	Postal Town	Civil Parish	Description of the local list entry	

Table 1 GIS data attribute structure

The shape-files attribute table held address data in two fields *ADDRESS* and *TOWN*. *ADDRESS* typically held the data in the format *House No./Name, Street name, Postcode*. The separate field *TOWN* contained the settlement element of the address and was not restricted to postal town.

The *UPRN* field held a reference to the individual Land Charges systems maintained by the former borough councils (all due for replacement 2011/12). The majority of the records had a *UPRN* reference, however a small number did not and the format of the reference was not consistent, for example 10023729377 and 101,012,370,419.

PARISH contained the name of the civil parish in which the asset is located. The asset's description was held in the fields *DESCRIPTIO* and *DESCRIPTI0*. Longer descriptions were split over both fields to overcome the shape-files limitation of 256 characters per field.

8.1.1 Step 1 GIS Data - polygonization

The GIS dataset wasn't a completely polygonized dataset. A small number of local list entries were depicted as polylines. Typically these were linear structures such as walls. These were added to polygon dataset by creating a polygon from a 0.5m buffer of the polyline.

8.1.2 Step 2 GIS data - set UID

The shape-file's attribute data was to be imported into the HBSMR database. The unique HBSMR reference (DesigUID) would be generated within the HBSMR database. Therefore a temporary unique reference would be required so that the DesigUID for each database record could be passed back to the shape-file and matched to each polygon. Using ArcCatalogue a new field named *UID* was added and a number assigned using the Field Calculator in ArcMap. The simplest method is to use the shape-file's *FID* attribute to generate this number by using a simple statement in the Field Calculator[34].

8.1.3 Step 3 GIS data - cross reference Parish UIDs

During record creation and editing it would be useful to be able to filter the HBSMR database records by location. Although the shape-file's attribute data included parish information this couldn't be consistently mapped to the parish names held in the HBSMR database. Typically this was due to the shortening of names or inconsistencies in naming conventions.

[34] [UID] = [FID] + 1

Administrative areas, such as parishes, are recorded in a table in the HBSMR data and as a GIS dataset linked by a unique reference (AAUID). Therefore ArcGIS' Spatial Join tool could be used to obtain the corresponding AAUID for each asset by means of intersection; where the polygon depicting the asset lies wholly or partially within a polygon depicting a parish, the tool will create a new shape-file containing the polygons from the local list dataset and attributes from both datasets. It's important to note that for those local list polygons located in more than one parish, the attributes for only one parish included in the new datasets attribute table. This would be rectified during record editing in the HBSMR database.

8.1.4 Step 4 HBSMR database - import attribute data

ArcGIS shape-files typically comprise up to seven files with the same file name, but different file extensions (.shx, .shp, .sbx, .sbn, .prj, .dbf). The attribute data is held in the file in the dBase file format .dbf. A copy of the .dbf file from the shape-file created in step 3 was made. The data held in this file was imported into the HBSMR database, using MS Access' facility[35] for importing dBase files, creating a new table named after the original file. The new table was renamed with a z prefix to differentiate it as a custom table within HBSMR.

8.1.5 Step 5 HBSMR database - modify attribute data

A significant amount of extraneous data was present in the database table created during step 4 and the format of the data needed modification to aid integration.

A new field called *Description* was created. As this field was intended to store the text description of the local list building, it was set up as a memo field which can store up to 65,535 characters. An update query was created to transfer the values in the fields to the new field *Description* re-assembling the text into one field[36]. The DESCRIPTO and DESCRIPT0 fields were then deleted.

A new text field called *Location* was created to hold the address data held in the *ADDRESS* and *TOWN* fields. An update query was created to transfer the values in the two fields to the new field *Location* producing data in the format *House No./Name, Street name, Postcode, Town.* The *ADDRESS* and *TOWN* fields were then deleted.

All the extraneous fields were deleted from the table to leave the following fields:

UID	Description	AAUID	Location
Temporary UID	Description of the local list entry	Admin area (parish) UID	Address data

Table 2 Imported table structure

8.1.6 Step 6 HBSMR database - back up HBSMR data tables

To use the imported data to create new records and to reduce the time spent on data entry. The intention was to append the data to three data tables in HBSMR;

DesignationTbl – this table holds the core data for each designation record
DesignationAdminArea – this holds the data on administrative areas the record is located in and cross references to the AdminAreaLUT (look up table)
DesignationSourceLink – this table maintains the link between Designation and Source records

[35] This import routine does not support long filenames therefore it may be necessary to rename this file.

[36] UPDATE *TableName* SET *TableName*.Description = [*TableName*].[DESCRIPTIO]+" "+[*TableName*].[DESCRIPT0];

Back ups were made of each table prior to the amendment of the local list data.

8.1.7 Step 7 HBSMR database - generate HBSMR UID

The imported records required a unique HBSMR reference, DesigUID. Two new text fields were created in the table, *Code* and *Value*. Using an update query the field *Code* was populated with the HBSMR reference's three letter prefix for designation records DCH. The next free number for a designation record was obtained from the UIDs table in HBSMR[37]. An update query was used to calculate the numeric part of the HBSMR reference[38]. A new text field called *DesigUID* was created and the values from *Code* and *Value* were combined using an update query to create the unique HBSMR reference[39]. The fields *Code* and *Value* were then deleted.

UID	DesigUID	Description	AAUID	Location
Temporary UID	HBSMR UID	Description of the local list entry	Admin area (parish) UID	Address data

Table 3 Amended table structure

8.1.8 Step 8 HBSMR database - append to DesignationTbl

The data from the imported table were added to the HBSMR designations table DesignationTbl using an append query[40]. The fields were matched and populated as follows:

Imported table	DesignationTbl	Notes
DesigUID	DesigUID	-
N/A	RecordType	Required in HBSMR to differentiate between different designation types. Set to LLB, the value selected for Local Lists in the DesignationConfigLUT table.
Location	Name	The full address was used for the name in keeping with Officer's practice in both Cheshire East and Cheshire West and Chester[41].
Description	Description	-
N/A	StatusDate	The Cheshire East local list was adopted on the 14/10/2010, therefore the query was used to populate this date to all the new records

Table 4 Field mapping DesignationTbl

After appending the data it is important to update the next free number for a designation record in the UIDs table[42].

8.1.9 Step 9 HBSMR database - append to DesignationAdminArea

[37] HBSMR's UID table must be updated after the unique HBSMR reference is generated to prevent duplication of UIDs in the HBSMR databases designations dataset.

[38] UPDATE *TableName* SET *TableName*.DesigUID = [*TableName*].[UID]+"*x*";

[39] UPDATE *TableName* SET *TableName*.DesigUID = [*TableName*].[Code]+[*TableName*].[UID];

[40] INSERT INTO DesignationTbl (DesigUID, RecordType, Name, Description, StatusDate) SELECT *TableName*.DesigUID, "*LLB*" AS RecordType, *TableName*.Location, *TableName*.Description, "14/10/2010" AS StatusDate FROM *TableName*;

[41] The split in the format of the original address data meant that this would still require manual editing.

[42] This can be done easily using the *Reset UID values* Admin Function in HBSMR.

The data from the imported table were added to the HBSMR designation table which contained information on administrative areas table DesignationAdminArea using an append query[43]. The fields were matched and populated as follows:

Imported table	DesignationAdminArea	Notes
DesigUID	DesigUID	-
AAUID	AAUID	-
N/A	AAType	Required in HBSMR to differentiate between different types of administrative areas. Set to PAR, the value selected for Local Lists in the AdminAreasLUT table.

Table 5 Field mapping DesignationAdminArea

8.1.10 Step 10 HBSMR database - append to DesignationSourceLink

A source record was created for the Cheshire East local list. A link between each of the new designation records and the source record were created using another append query to add the data to the table DesignationSourceLink[44]. The fields were matched and populated as follows:

Imported table	DesignationSourceLink	Notes
DesigUID	DesigUID	-
N/A	SourceUID	HBSMR source record UID

Table 6 Field mapping DesignationSourceLink

8.1.11 Step 11 GIS data - append HBSMR UID to GIS data

The UID[45] is used to link the GIS data to the associated record in HBSMR. Therefore the values created in step 7 were added to the GIS dataset. A new field was created in the shape-files attribute table called DesigUID. In ArcMap a link was made[46] to the imported table in HBSMR and the link made using the temporary UID created in step 2. A simple statement in the Field Calculator allowed the new attribute table field to be populated with the associated DesigUID[47].

8.1.12 Step 12 GIS data – generate point data

All records have a point within the Cheshire HER's GIS datasets as this is useful for the depiction of locations at smaller scales. The point data for the local list records was generated from the polygon dataset using a commercially available extension to ArcGIS[48]. Each point in the new shape-file was derived from the centroid of the corresponding polygon or multi-part polygon[49] and had an identical copy of the source polygons attribute data.

8.1.13 Step 13 GIS data – import data to geodatabase

The polygon and point data was imported into an empty template copy of the HERs designations geodatabase. Each was loaded into its respective feature class using ArcCatalogue. The import routine within Arc Catalogue allows the attributes of the shape-file to be mapped against the

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[43] INSERT INTO DesignationAdminArea (DesigUID, AAUID, AAType) SELECT *TableName*.DesigUID, *TableName*.AAUID, "*PAR*" AS AAType FROM *TableName*;

[44] INSERT INTO DesignationSourceLink (DesigUID) SELECT *TableName*.DesigUID, "*xxxx*" AS SourceUID FROM *TableName*;

[45] DesigUID in this instance.

[46] via *Joins and Relates.*

[47] [*GISDataName*.DesigUID] = [*TableName*.DesigUID]

[48] *Shapes to Centroids* in XTools Pro (www.xtoolspro.com).

[49] ArcInfo users have access to an identical function via Arc Toolbox.

attribute structure of the geodatabase to enable attribute data to be transferred with the spatial data. In this instance we chose only to import the DesigUID. With the exception of the capture scale[50], the rest of the attribute data would be populated by the HBSMR database. As all the data had been derived from the same source the capture scale was the same for each record and could therefore be populated by a the use of the field calculator in ArcMap.

8.1.14 Step 14 HBSMR database - update attribute data

HBSMR includes a configurable function which allows the global update of the attribute tables associated with any geodatabase linked to records held by it. The admin function was configured via the AdminFunctionLUT and run to allow the database to update the attributes in the new local list dataset[51].

8.1.15 Step 15 HBSMR database - update HBSMR spatial data

HBSMR holds spatial data, such as grid references, statements of geographic position etc. for each designation record. Normally this data is created during record creation, but as the records have been created independently from the user interface and as no data was available to use in earlier steps, this was blank for the new records. HBSMR also includes an Admin function which allows this data to be updated globally from any linked geodatabase. The admin function was configured via the AdminFunctionLUT and run to allow the geodatabase to populate the spatial data in the new HBSMR records[52].

Three of the fields; qualifier, input precision and output precision, were not populated as part of this process. To a degree these are defined by the policy of an individual HER and can therefore be populated as part of the subsequent record editing process or, if applicable, via update queries.

8.1.16 Step 16 HBSMR database – enter audit trial information

HBSMR maintains an audit train of new records created and modifications to those records. However this only occurs for records created or modified within the user interface. Records edited or created through queries and data imports in MS Access will not have any associated audit trail.

This information is held in the AuditTrail table and, using the imported table, an append query was used to add an entry for each record which had been created in the preceding steps[53].

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[50] Only maintained in the polygon feature class.

[51]

ID	IsFunction	IsForm	IsMacro	ObjectName	Desc	FullDesc
x	1	0	0	MapLink(*x*,9)	Global *geodatabase* Update	Global *geodatabase* Update (Access->Map)

[52]

ID	IsFunction	IsForm	IsMacro	ObjectName	Desc	FullDesc
x	1	0	0	MapLink(*x*,8)	Global *geodatabase* Update	Global *geodatabase* Update (Map->Access)

[53] INSERT INTO AuditTrail (Code, Type, ModBy, ModDate, ModType, Comment) SELECT *TableName*.DesigUID, "*Desig*" AS Type, "*xxxxxxx*" AS ModBy, "*xx/xx/xxxx*" AS ModDate, "New" AS ModType, "Import of Cheshire East Locally Listed Buildings records" AS Comment
FROM *TableName*;

9 Appendix 3: Monument Records from Designation Records – Vale Royal

A considerable amount of data relevant for the new monument records has already been input for the newly created local list designation records. Therefore it seemed efficient to use this data to create basic monument records thereby shortening the time spent on data entry. The basic records would then be edited up to the standard required by the HER.

Four tables were known to contain data which could be migrated from the designation records to form the skeleton of the new monument records.

DesignationTbl – this table holds the core data for each designation record
DesignationAdminArea – this holds the data on administrative areas the record is located in and cross references to the AdminAreaLUT (look up table)
DesignationLocation – this table holds any postal addresses associated with the designated heritage asset
DesignationSourceLink – this table maintains the link between Designation and any associated Source records

Although these tables could be used to directly append data into the corresponding monument tables we chose to create new tables in the first instance so that the data could be reviewed beforehand and, if required, modified.

9.1.1 Step 1 HBSMR database – identify designation records

The first step was to create a filtered list of those designation records which would be used to create the new monument records. Had the records for Vale Royal been initially created from a GIS dataset we could have used the temporary table created as part of the process. Unfortunately the Vale Royal records had been created via the HBSMR user interface from paper records. Although the records could have been queried by the administrative area, there was the potential for duplicate records where a given record spanned two administrative areas. Therefore a filtered list was created within the HBSMR user interface and a snapshot of the data saved. This snapshot was used to create a temporary table in MS Access with which to filter the required records from the four designation tables.

9.1.2 Step 2 HBSMR database – extract data from designation records

From the four tables listed above the relevant fields which contained data which could be reused for the monument records were identified. For each designation table a create table query was used to create a table containing these fields. The table (*FilterTable*) created in step 1 was used to select those designation records associated with the Vale Royal local list[54].

Designations	Monuments	Temporary table
DesignationTbl	MonTbl	*NewTblMon*
DesignationAdminArea	MonAdminArea	*NewTblMonAdminArea*
DesignationLocation	MonLocation	*NewTblMonLocation*
DesignationSourceLink	MonSourceLink	*NewTblSourceLink*
N/A	MonStaus	*NewTblMon*

Table 7 Database tables used and created

[54] E.g. SELECT DesignationTbl.DesigUID, DesignationTbl.RecordType, DesignationTbl.Name, DesignationTbl.PrefRef, DesignationTbl.Description, DesignationTbl.CuratorNotes, DesignationTbl.StatusDate INTO *NewTableMon* FROM *FilterTable* LEFT JOIN DesignationTbl ON *FilterTable*.DesigUID = DesignationTbl.DesigUID;

Back ups were made of each table prior to the amendment of the local list data.

9.1.3 Step 3 HBSMR database – create MonUID

The new monument records required a unique HBSMR reference (MonUID). Two new text fields were created in the temporary table *NewTblMon*, *Code* and *Value*. Using an update query the field *Code* was populated with the HBSMR reference's three letter prefix for monument records MCH. The second field was set as an AutoNumber field. When the table was saved each record was assigned a unique number starting at 1. Once the sequential numbers had been generated the field was changed to a text field.

The next free number for a monument record was obtained from the UIDs table in HBSMR[55]. An update query was used to calculate the numeric part of the HBSMR reference by adding the next free number to the number if the field *Value*[56]. A new text field called *MonUID* was created and the values from *Code* and *Value* were combined using an update query to create the unique HBSMR reference[57]. The fields *Code* and *Value* were then deleted.

MonUID fields were then created in the other three temporary tables and using a series of update queries the new fields were populated with the corresponding values created in the temporary table *NewTblMon*[58].

9.1.4 Step 4 HBSMR database – append to monument tables

The data from the four temporary tables were added to the relevant HBSMR monument tables using an append query[59]. For example for *NewTblMon* the fields were matched to MonTbl and populated as follows:

Imported table	MonTbl	Notes
MonUID	MonUID	-
N/A	RecordType	Required in HBSMR to differentiate between different record types. Set to BLD, the value selected for buildings in the MonRecordTypeLUT table.
Name	Name	As for the Designation records, the full address was used for the name.
Description & Curator notes	Desc	These fields were concatenated to ease editing into a coherent description.
N/A	Validation	So the records could be easily filtered in the user interface until edited, a specific entry was added to the ValidationLUT table. The associated value was written to the validation field as part of the append query.

Table 8 Field mapping MonTbl

[55] HBSMR's UID table must be updated after the unique HBSMR reference is generated to prevent duplication of UIDs in the HBSMR databases designations dataset.

[56] UPDATE *NewTableMon* SET *NewTableMon*.Value = [*NewTableMon*].[Value]+"*xxxx*";

[57] UPDATE *NewTableMon* SET *NewTableMon*.MonUID = [*NewTableMon*].[Code]+[*NewTableMon*].[Value];

[58] UPDATE *NewTblSourceLink* LEFT JOIN *NewTableMon* ON *NewTblSourceLink*.DesigUID = *NewTableMon*.DesigUID SET *NewTblSourceLink*.MonUID = [*NewTableMon*].[MonUID];

[59] E.g. INSERT INTO MonTbl (MonUID, RecordType, Name, Descr, Validation) SELECT [*NewTableMon*].[MonUID] AS *NewMonUID*, *"xxxx"* AS *NewRecType*, [*NewTableMon*].[Name] AS *NewRecName*, [*NewTableMon*].[Description]+" "+[*NewTableMon*].[CuratorNotes] AS *NewDesc*, *"xxxx"* AS *NewValidation* FROM *NewTableMon*;

After appending the data it is important to update the next free number for a monument record in the UIDs table[60].

9.1.5 Step 5 HBSMR database – append HER numbers to MonStatus table

As the HER maintains its own index for monument records in addition to the MonUID used by HBSMR it was important to add these numbers[61] to the MonStatus table. The numbers were calculated into a new field added to the temporary table *NewTblMon* in a similar manner to that used to generate the numeric part of the MonUID. The data from the relevant fields were added to the table MonStatus using an append query[62].

9.1.6 Step 6 HBSMR database – add monument types and evidence

A subset of the imported records had been classified on the local list by building type, for example *Criteria A: Unlisted timber framed buildings in Vale Royal which contain structural or building techniques which were designed to reduce the effects of subsidence.* In these instances the relevant monument types were added by the means of an append query to the HBSMR table MonType[63]. A second append query was used to add the evidence, i.e. Extant Building, to the monument types[64].

9.1.7 Step 7 GIS data – append HBSMR UID to GIS data

The decision was taken to initially reuse the GIS data created for the designation records. The MonUID is used to link the GIS data to the associated record in HBSMR. Using ArcGIS[65] the point and polygon feature classes associated with the locally listed buildings' designation records were joined, via the DesigUID, to the temporary table *NewTblMon* created in step 2. This table contains the both the DesigUIDs associated with the designation records and the MonUIDs for the new monument records.

Using the HBSMR user interface all the locally listed buildings' designation records, and their corresponding GIS features, for the former borough were selected. The selected GIS features were exported to a set of new shape-files[66]. The new shapefiles contained both the attributes from the designations GIS dataset and the linked table; the data now contained both the DesigUID and the corresponding MonUID.

9.1.8 Step 8 GIS data – import data to geodatabase

The new shape-files were imported into the corresponding feature classes in the HERs monuments geodatabase. The import routine within Arc Catalogue allows the attributes of the shape-file to be mapped against the attribute structure of the geodatabase to enable attribute data to be transferred with the spatial data. In this instance we chose only to import the MonUID, the rest of the attribute data would be populated by the HBSMR database.

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[60] This can be done easily using the *Reset UID values* Admin Function in HBSMR.

[61] We also choose to add this number to the PrefRef field of MonTbl

[62] INSERT INTO MonStatus (MonUID, Status, Title, StatusDate, Ref) SELECT *NewTableMon*.MonUID, "*xxx*" AS Status, *NewTableMon*.Name, "*xx/xx/xxxx*" AS StatusDate, *NewTableMon*.HER FROM *NewTableMon*;

[63] INSERT INTO MonType (MonUID, PUID, MonTypeUID, IsMonType)
SELECT *NewTableMon*.MonUID, 0 AS *PUID*, *xx* AS *MonTypeUID*, -1 AS *IsMonType* FROM *NewTableMon*
WHERE (((zNewTableMon.Description) Like "**xxxxxxxxx***"));

[64] INSERT INTO MonClass (MonUID, MonClassUID, Type, UID) SELECT *NewTableMon*.MonUID, *xxxx* AS *MonClassUID*, "Evidence" AS *Type*, MonType.UID FROM MonType RIGHT JOIN *NewTableMon* ON MonType.MonUID = *NewTableMon*.MonUID WHERE (((*NewTableMon*.Description) Like "**xxxxxxxxx***"));

[65] via *Joins and Relates.*

[66] One for each feature class i.e. *TempMonumentsPoints* and *TempMonumentsPolygons*.

9.1.9 Step 9 HBSMR database - update attribute data

HBSMR includes a configurable function which allows the global update of the attribute tables associated with any geodatabase linked to records held by it. The admin function was configured via the AdminFunctionLUT and run to allow the database to update the attributes in the monuments dataset[67].

9.1.10 Step 10 HBSMR database - update HBSMR spatial data

HBSMR holds spatial data, such as grid references, statements of geographic position etc. for each monument record. Normally this data is created during record creation, but as the records have been created independently from the user interface and as no data was available to use in earlier steps, this was blank for the new records. HBSMR also includes an Admin function which allows this data to be updated globally from any linked geodatabase. The admin function was configured via the AdminFunctionLUT and run to allow the geodatabase to populate the spatial data in the new HBSMR records[68].

Three of the fields; qualifier, input precision and output precision, were not populated as part of this process. To a degree these are defined by the policy of an individual HER and, in this instance, were populated via an update query[69] using the data already entered for the corresponding designation record

9.1.11 Step 11 HBSMR database – enter audit trial information

HBSMR maintains an audit train of new records created and modifications to those records. However this only occurs for records created or modified within the user interface (forms). Records edited or created through queries and data imports in MS Access will not have any associated audit trail.

This information is held in the AuditTrail table and, using the imported table, an append query was used to add an entry for each record which had been created in the preceding steps[70].

67

ID	IsFunction	IsForm	IsMacro	ObjectName	Desc	FullDesc
x	1	0	0	MapLink(*x*,9)	Global *geodatabase* Update	Global *geodatabase* Update (Access->Map)

68

ID	IsFunction	IsForm	IsMacro	ObjectName	Desc	FullDesc
x	1	0	0	MapLink(*x*,8)	Global *geodatabase* Update	Global *geodatabase* Update (Map->Access)

69 UPDATE (*NewTableMon* LEFT JOIN DesignationTbl ON *NewTableMon*.DesigUID = DesignationTbl.DesigUID) LEFT JOIN MonTbl ON *NewTableMon*.MonUID = MonTbl.MonUID SET MonTbl.NGRQualifier = [DesignationTbl].[NGRQualifier], MonTbl.InputPrecision = [DesignationTbl].[InputPrecision], MonTbl.OutputPrecision = [DesignationTbl].[OutputPrecision];

70 INSERT INTO AuditTrail (Code, Type, ModBy, ModDate, ModType, Comment) SELECT *NewTableMon*.MonUID, "*Mon*" AS Type, "*xxxxxxx*" AS ModBy, "*xx/xx/xxxx*" AS ModDate, "New" AS ModType, "Created from Designation records for Vale Royal's LLBs" AS Comment FROM *NewTableMon*;