Historic Environment Record Revised Audit Specification

March 2013 Version 3.2

Information Standards & Partnerships

Version Control Grid

Version	Date	Created by	Comment
1.0	30/09/2008	Nick Davis, Bruce Howard, Emma Turner, Paul Adams and Tanja Sundstrom	Major reworking of previous document to restructure in line with HER Benchmarks document and to simplify process.
2.0	24/03/2010	Nick Davis, Bruce Howard, Emma Turner, Paul Adams, Phil Carlisle and Tanja Watson	Further revisions following feedback from 'pilot' HERs undertaking the new Audit process.
2.1	07/04/2010	Nick Davis, Emma Turner	Minor text alterations for consistency
3.0	29/07/2010	Nick Davis, Paul Adams, Bruce Howard, Emma Turner, Tanja Watson and Lisa Mullen	Amendments to subsections 2.2.2.5 (and Table 4), 2.2.4.1and 3.2.4 – Made to accommodate the publication of PPS5 and the initial phase of the MIDAS Heritage 'roll-out'.
3.1	18/07/2011	Nick Davis	Updating of legislative information (1.2.5) and UK GEMINI version number and address
3.2	01/05/2013	Nick Davis, Sarah MacLean, Paul Adams, Phil Carlisle and Tanja Watson	Updating and refreshing of references and links throughout. Amendments to text 1.4.1, 2.2.1.5, 2.2.2.1, 2.2.2.2, 2.2.2.5, 3.2, 3.2.4, 3.3.3, 3.4.2, 4.1 and 4.8. Table 5 revised. Use of Table 7 discontinued.

Cover photograph – *Lindisfarne Priory and village from Lindisfarne Castle, Northumberland*
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Contents

General Introduction

The purpose of this document is to describe the process of undertaking an audit of an Historic Environment Record and to specify the content required in the audit report.

What is an Historic Environment Record?

The DCMS *Historic Environment Records (HERs): Draft guidance for local authorities in England* (DCMS, 2008, pp4-5) provides the following description of HERs:

"HERs are information services that provide access to comprehensive and dynamic resources relating to the historic environment of their locality for public benefit and use. They are the direct descendents of the network of Sites and Monuments Records (SMRs) which were created in the 1970s in response to the lack of archaeological information available to owners, developers and planners, and the consequent loss of archaeological remains through urban and rural development.

Today HERs are unique repositories of – and signposts to – information relating to landscapes, buildings, sites and finds spanning more than 700, 000 years of human activity. Their content complements and enriches the collections of museums, archives, local studies libraries and local history centres, and underpins the work of local authority 'historic environment services'.

In particular, HERs can be used to:

- Advance knowledge and understanding of the historic environment.
- Improve its protection.
- Support its conservation, management and enhancement.
- Inform strategic policies and decision-making relating to spatial planning; development control and land management.
- Streamline planning processes.
- Support heritage-led regeneration, environmental improvement and cultural tourism initiatives.
- Contribute to education and social inclusion.
- Promote public participation in the exploration, appreciation and enjoyment of local heritage."

What are the Objectives of an Audit?

The objective of the Audit is to provide the parent organisation and English Heritage (EH) with an accurate picture of its Historic Environment Record (HER). The audit will be in sufficient detail to:
- Provide an overview of the current management and resources of the HER.

- Assist the HER in meeting the requirements of Benchmarks for Best Practice and the Baker recommendations *"primarily for local authority archaeologists and SMR (now HER) Officers"* (Baker 1999, p.5).
- Provide a detailed analysis of the information and archives held by the HER.
- Confirm the current state of HER computerisation and its compatibility with the MIDAS Heritage Data Standard and the terminologies recommended by INSCRIPTION as maintained by FISH (the Forum on Information Standards in Heritage).
- Produce a detailed action plan and a timetable for future development.
- Provide sufficient information to:
    - support bids for funding including those to the heritage lottery fund (HLF);
    - detail the history and development of the HER (see Baker recommendation 29);
    - assist the HER in making a case to its parent body for adoption and/or secure additional resources.

An audit will highlight strengths and weaknesses in the information held within the HER and enable a reliable assessment of the costs and implications of bringing the information up to an acceptable standard.

The audit should reflect the situation in the last financial year. However, where the previous year was atypical and where significant changes are anticipated in the near future, these should be noted in the report.

How is an Audit Undertaken?

Pre Audit

Audits are requested by the HER or suggested to an HER by EH. EH will grant aid the HER half the cost of the audit up to a normal maximum currently set at £1,500 (£1,000 payable in advance with an additional £500 paid on the project's completion. It is expected that both will be paid during the course of the same financial year). Once this has been agreed, the HER submits a project management plan for the audit including a timetable with monitoring points with EH. Most audits take about four to six person weeks work to complete spread over about three to four months. It is up to the HER how it spends the grant; however, it is normal practice to employ a member of staff on a short term contract to collate the information based on which the HER Officer will write the report. As well as this specification the HER will be sent copies of a series of spreadsheets to assist in compiling the information.

 It is important that the undertaking of an audit is considered a project in its own right. The project management plan can be quite short, just a few pages of A4, but must include the allocation of staff resources to aspects or stages of the audit. Staff resources vary but may include: County Archaeologist; HER Officer, HER assistants; IT staff; temporary employees etc. A project timetable must be included which sets

out the project start date, monitoring points with EH for the completion of each stage and the anticipated completion date for the project as a whole.

Audit

Once the audit starts the running is left up to the HER. However, EH staff will be contactable to assist with any queries and at the monitoring points which can be carried out by phone or email. At the end the HER will submit a copy of the report and the audit database to EH.

Post Audit

Ordinarily EH Heritage Information Partnerships (HIPs) and Data Standards Unit (DSU) will produce a draft response to the HER on the Audit within one month of receiving the report. The response will, where appropriate, include mapping data fields in the HER database to the MIDAS Heritage standard and mapping reference data to INSCRIPTION lists/thesauri and produce recommendations for bringing the database into line with these standards. The response will also include a review of the HER against the agreed principles governing Historic Environment Records set out in:

- Historic Environment Records: Benchmarks for Good Practice (2002).
- Historic Environment Records (HERs): Draft Guidance for Local Authorities in England (2008).
- Informing the Future of the Past: Guidelines for HERs (2007) and
- Unlocking the Past for the New Millennium (1998).

A meeting at the HER or at Engine House Swindon will be offered to discuss the result of the audit and agree a course of action to address any issues identified in the audit. After this meeting EH Information Standards and Partnerships (ISP) will produce an agreed final response to the audit making any corrections agreed at the meeting. This will be copied to the EH Inspector for the area.

After three or five years the HER should review its progress against the recommendations in the Audit, ISP's response and the agreed action plan.

What are the Contact Points for Audits?

Each audit will involve a co-operative process between the HER and EH. Both parties will have discussed and agreed the audit before the process commences and regular liaison will take place as work proceeds. The primary contact will be with the Heritage Information Partnerships Supervisor. Assistance on Data Standards Issues can be provided by a member of the Data Standards Unit (DSU). Both posts are based at The Engine House. EH Swindon.

Heritage Information Partnerships Supervisor

Tel: 01793 414880
E-mail sarah.maclean@english-heritage.org.uk

Heritage Information Partnerships Supervisor
Tel: 01793 414839
E-mail nick.davis@english-heritage.org.uk

EH Data Standards Unit
Tel: 01793 414870
E-mail dsu.info@english-heritage.org.uk

Support IT
HER officers are advised to ensure that there is sufficient IT and administrative support is available within their parent organisation to assist with the audit.

Content and Method

This section outlines what the Audit Report consists of and how to complete the various sections.

General

The Audit will review the management and resources of the HER and will analyse the information and archives held by the record in detail. The major part of the audit will be a comprehensive quantitative and qualitative analysis of all the information and processes within a Historic Environment Record.

The Historic Environment Record sits in a wider management framework. The report should describe its relationship to the parent organisation(s), to related departments and people. For example, it is important to relate the HER both to departments managing other aspects of environmental planning and to archaeologists working in development control, contracting services and museums as well as local amateur archaeologists, groups and societies. Links to national organisations and professional bodies are also included.

Each section of this specification presents a series of questions intended to produce a clear picture of one aspect of the HER and its work. Cumulatively it is hoped that the resulting report will enable the HER to take stock of its present situation and draw up plans for its future based on a sound body of evidence. The individual questions vary in the way in which they attempt to elicit information. In some cases a yes/no answer will suffice whilst in others a lengthier analysis is required. Within this general structure how the questions are dealt with is left to the discretion of the individual. Answers can be 'bullet pointed' or sections dealt with as a block of continuous prose. Every effort should, however, be made to answer all questions relevant to the HER (even negative responses being of value when structuring the broader picture). Emphasis is also placed on adhering to the structure of the Specification within your own report and presenting your findings according to the numbering system which it uses. There are also 17 Tables (held within separate audit spreadsheets). These are provided as an aid to gathering and marshalling quantitative data relevant to specific areas of the analysis. More detailed instructions as to how they should be used can be found in the text below.

The report is organised under the following sections, tables, figures and appendices:

Sections

    1 Serving User Needs
       Introduction
         1.1   Information services policy
         1.2   Access to services

13. Forward Plan
14. CPD Specification
15. Succession Plan

Section 1: Serving User Needs

This section addresses the HER's interfaces with its user community.

Introduction

The audit report should be prefaced by a short piece of text providing an introduction to the document as a whole. The aim of this section is to provide a general overview of the HER. This should first explain what the HER is, as the report may be read by a non-specialist audience. It should then summarise:

- The historical development of the record
- The aims of the audit

The introduction should also describe any general developments that are perceived as being likely to affect heritage management in the next three years.

The HER may wish to use this section as an executive summary. If so it should be written last and the findings and recommendations of the audit should be summarised.

1.1 Information services policy

NB: Whilst an official definition is still awaited for an Information Systems Policy (a term used in section 13 of the DCMS *Historic Environment Records (HERs): Draft Guidance for Local Authorities in England* (DCMS 2008) it is, for the purposes of audit, presently assumed that this will serve in the same role as an Information Services Policy.

The aim of this section of the audit is to review the framework within which the HER operates. Management policies underpin the running of any HER. Formal documents may set out some policies, whilst others are informal but are established through daily working practice.

Informing the Future of the Past defines an information services policy as a document which explains "*why the record is maintained, who it aims to serve and how users can access the data*" (Gilman & Newman, 2007, B.1). Other elements of the report that may impact upon this issue can be found below in sections 1.3.2, 4.2 and 4.3.

A document of this type should cover the following topics:

- The purposes for which the HER is maintained.
- The professional and public user groups that the HER aims to serve.

- The HER's policy with regard to consulting existing users and confirming their needs.
- The HER's policy with regard to defining and consulting potential and future users. Establishing the needs of these groups and identifying barriers to the use of the HER.
- Details of the services available including: office facilities for users; outreach and remote services standards; response times and the quality and quantity of the services offered. It should also include whose responsibility it is to set up searches on the database.
- A statement of the HER's policies relating to access to HER information and associated charges within the context of the local authority's policy in this area making reference to relevant legislation. 'Relevant legislation' in this context can be listed as follows: The Data Protection Act (1998);

  http://www.legislation.gov.uk/ukpga/1998/29/contents

  The Freedom of Information Act (2000)

  http://www.legislation.gov.uk/ukpga/2000/36/contents

  and The Environmental Information Regulations (2004)

  http://www.legislation.gov.uk/uksi/2004/3391/contents/made

(IFP 2 Guidelines F.1 & F.5)

1.1.1 Does an information services policy document exist?
If so, please include a copy as an appendix to your report (Appendix 1).

1.1.2 If the HER has a document or documents conforming to the descriptions in 1.1.1 please answer the following questions:

- Describe the user needs research on which the document is based.
- Does the document identify the steps required in order to reach a higher standard of service? (Developing new services, highlighting necessary changes to the existing service and addressing barriers to its use).

1.1.3 Has data within the HER been scrutinised to ensure its compliance with the Data Protection Act (1998) (HMSO 1998)? (See also IFP2 Guidelines F.5.1.)

In the event of this topic being covered by a document separate to the Information Services Policy, please also include a copy of the HER's data protection policy as Appendix 2 in your report.

1.2 Access to services

This section looks in detail at how services are made available to users.

1.2.1 Describe the means used to publicise information regarding public access to the HER. Does this include:

- Posters and leaflets (give examples of the locations where these are routinely displayed and distributed)?
- An intranet site?
- A web site (please supply URL or link)? If the HER has a presence on the website of its host organisation what percentage of the total annual web hits for the site involve the HER?
- An index entry on the HEIRNET Register? ("The HEIRNET register contains details of Historic Environment Information Resources held by organisations across the UK. The register includes details of National Monuments Records, Sites and Monuments Records, national thematic inventories, specialist resources and other information sources" – http://ads.ahds.ac.uk/heirnet/index.cfm .)
- Publicity material produced in alternative formats? For example, large print, Braille, tape, total communication and languages other than English.

1.2.2 Does the information content of the posters/leaflets, intranet/website (see 1.2.1) include:

- Details of formal opening hours.
- Details regarding access arrangements (office).
- Details regarding access arrangements (remote).
- Details regarding charging policies.
- Details regarding any alternative formats in which publicity material is produced.
- Contact details.

1.2.3 What facilities can the HER offer members of the public? For example:

- Is dedicated desk space, a terminal or other equipment provided?
- Does the HER answer remote enquiries or do you prefer people to visit?
- Can the HER database be accessed outside the HER office?
- Is the database (or a copy of the database) accessible from (or available in) public libraries etc?
- What facilities are available for making copies from archive?
- Is public access to HER data limited in any way?
- Is access ever refused? If so for what reasons?
- Does the HER request references before answering enquiries?
- Is access to specific data restricted?
- Are specific sites or monument categories considered sensitive? If so: which and how is access to information limited?
- Can members of the public search the database directly?

1.2.3.1 Internally (within the host organisation), is the HER database available through the Intranet?

1.2.4 Does the HER have a written Access and Charging policy? (Either as a separate document or as a component integrated within an Information Services Policy – see 1.1 above.) Please provide a copy of this policy as Appendix 3 to your report if the point is not covered by 1.1.

1.2.5 Have the HER's offices been examined to ensure that they satisfy the terms of the Equality Act 2010 http://homeoffice.gov.uk/equalities/equality-act/ ?

1.2.6 On-line accessibility:

- Is the HER database available to the general public on line and in searchable form?
- If yes is this through:

  a) The Heritage Gateway (please specify whether the data is 'live' or hosted and if this has been achieved through the Archaeology Data Service (ADS), exeGesIS or independently).

  b) ArchSearch (i.e. deposited with the ADS).

  c) Other (please specify).

- If the database is accessible to the public through a dedicated on-line website is there any registration procedure?

- Does the HER conform to the e-Gov metadata standard? (IFP2, B.9.3)

1.3 Use of the HER

The aim of this section is to describe how heritage information flows around the HER and it is processed and curated. You should look at the sources of information, its use in creating records and in answering enquiries. You should provide:

- An overview of the flow of information into and around the HER.
- Details of the users and uses of the HER's information both internally and externally.

1.3.1 Information Flows within the HER

Use Figure A to describe the flow of information around the HER (see below for conventions and an example of an information flow diagram). Explain the ways in which information and archives come to the HER. You should also identify any instances where the HER is able to control the way in which information is presented, e.g. specifications in project briefs for fieldwork which require the preparation of HER forms or digital data. Once archive material has been received consider how it is processed, entered into the database and subsequently used to answer enquiries. Although the development control process is often considered to

lie outside the HER, it should be included here as an important listings and source of site information and management data and as a user of HER information. Indicate the points of contact between databases, documents or listings and the HER databases. Examples of input forms should be included in Appendix 4.

See the example diagram below – Figure A – and the table of conventions used in structuring it
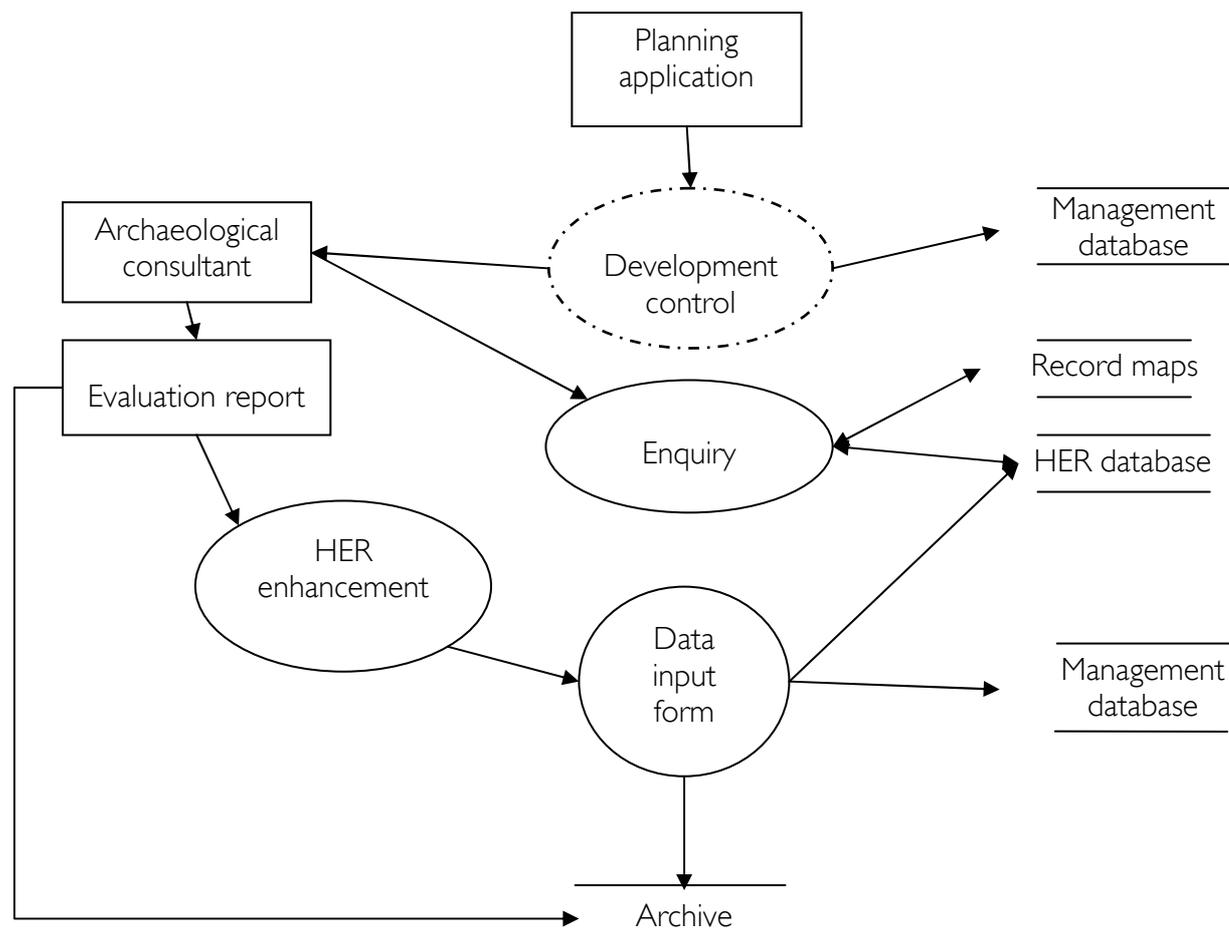
Figure A. A sample information flow diagram

Conventions Used in Preparing Flow Diagrams

⟶ Data flow	A direct line representing a flow of information or objects with the arrow representing the direction. The name of the data flow should be written next to the line.

Process 1.22	A circle represents a task or process which transforms the input stream before producing output. A brief descriptive name or identifier should be written inside the circle.
Database/ Card index	Two parallel lines represent a store of information irrespective of the storage medium. It indicates a temporary or permanent holding area. A name should be written inside the lines.
A.N. Other Technical Consultant	A rectangle represents an area where data originates or terminates from the point of view of the study.
Data flow 1 ← Data flow 2	A two way data flow can be indicated for data flows that are separate and independent. This is used to indicate when an input produces an output back to the originating source.
Process	A dashed line process box is used to differentiate between those processes that are managerial rather than technical. This improves the readability as it allows control processes to be adequately displayed.
	A divergence of data flows can be used to show where information is distributed without any transformation taking place. It can also be used to show where the information is used in another process in its existing state.
	A convergence of data flows is used where data is combined without any transformation in content or status taking place.
Technical consultant*	An asterisk indicates that the item is repeated elsewhere in the diagram. This is done to improve readability.
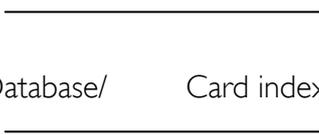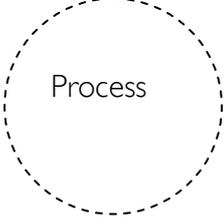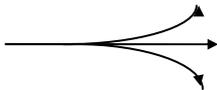
1.3.2 Research into user profiles

Does the HER maintain a user log collecting data regarding enquiries (including visits by researchers), the media through which they are received (for example e-mail, telephone, letter) and their content? If so:

- Please give an outline of the information that is logged when an enquiry is received. Is additional information added during the process of answering the query?
- Please outline the broad strategies underpinning the data collection process. What are the most important questions that this information gathering process is seen as answering?

In the event of the necessary information being available, please provide figures for the following:

- How many planning applications were processed during the last financial year?
- How many applications resulted in some form of archaeological advice?
- How many other enquiries did the HER answer in the last financial year?
- How many of the enquiries were for:
  - o Research?
  - o Education?
  - o General interest?

What are the main user categories that are presently being dealt with? Are there any perceptible shifts from earlier user trends?

Provide examples to illustrate how this information has fed into the HER Information Services Policy (see 1.1.1 above).

1.3.3 Research into service satisfaction

- Does the HER gather information relating to user satisfaction?
- Has the HER ever conducted a questionnaire survey of groups under-represented in its existing audience?
- Has market research been done into the information needs of existing users?
- Has market research been done into the needs of potential new user groups?

Provide examples to illustrate how the information resulting from this research has fed into the HER Information Services Policy (see 1.1.1 above), expanding the range of publicity material (see 1.2.1 above) and in developing outreach strategies (see 1.4 below).

1.4 Development of outreach

1.4.1 Outreach activities:

- Describe the outreach activities in which the HER participates (including the distribution of publicity material, talks or guided walks given by staff, school or college visits, staging exhibitions and attending events). How many of these are on-going or regular events?

- Does the HER produce a regularly updated newsletter?

1.4.2 Groups and Associations:

Provide a summary of the external contacts of the HER staff. These may include:

- Regional HER Working Party.
- HER Forum email discussion list.
- HER Forum Meetings.
- Local or National societies.
- ALGAO committees.
- FISH (email discussion list and/or meetings).
- IfA Regional or Special Interest Groups.
- Other professional committees or working groups.
- Other relevant email lists such as BRITARCH.

Section 2: Information Content

This section would seek to define the HER in terms of its geographic confines and its coverage of the historic environment, both subject and period. It also requires information concerning the HER's recording of statutory and non-statutory designated historic places.

2.1 Information/Recording policy

Does the HER have a written information/recording policy? (See IFP2 sections B.1 and B.4.1 (Gilman & Newman, 2007, pB.1 & pB.15).) If so, please attach a copy of this document as an appendix to this report (Appendix 4).

A policy of this type should provide information such as:

- The geographic area covered by the HER.
- Details of arrangements for exchanging or sharing data with neighbouring records.
- Period and topic themes that are covered by the record.
- Details regarding research framework documents for the area or region.
- Details identifying other organisations (or departments) maintaining information about aspects of the historic environment that complements information recorded by the HER.
- A list of principal organisations (field units, local societies, museums and national bodies) from whom the HER collects information.
- Guidelines for deposit of material/information with an HER (for example a deposit license).
- A definition of items or categories of archive that can legitimately be held by the HER as part of its reference collection (see 2.3 below).
- A disposal policy for archive items (see 2.3 below).
- A list of the databases and information systems that the HER maintains and the data standards with which these comply.
- Details regarding digital resources which the HER accesses on the corporate intranet or resources mounted on the intranet.
- A statement on Intellectual Property Rights.
- A statement regarding any user license agreements.
- Details regarding any external licensing arrangements.

2.2 Information coverage and content

2.2.1 Geography:

2.2.1.1 Does the coverage of the HER correspond geographically with the boundaries of its host authority?

2.2.1.2 Are there any Urban Archaeological Databases within the HER's catchment area? If so does the UAD remain independent of the HER or have its contents been fully assimilated?

If the UAD remains independent:

- Where is it held?
- Who maintains it?
- Is it interoperable with the HER?
- What procedural links exist between the HER and the UAD? (At what level do these links exist, what mechanisms are employed and how frequently does interaction take place)?

2.2.1.3 Are there any other independent HERs being employed to inform the local government planning and development control processes within urban areas, National Parks or other administrative entities within the parameters of the HER? Please list the areas involved also specifying:

- Where the HER is held.
- The body which is responsible for its maintenance.
- Is it interoperable with the HER being audited?
- What procedural links exist between the independent HER and that which is being audited? At what level do these links exist, what mechanisms are employed and how frequently does interaction take place?

2.2.1.4 Are there National Trust properties, Ministry of Defence estates or other sites within the HER's catchment area that are known to be covered by other external historic environment databases? (Excluding databases used to inform the local government planning process) - Please list the sites involved also specifying:

- Where the database is held?
- The body which is responsible for its maintenance.
- Is it interoperable with the HER?
- What procedural links exist with the HER? (At what level do these links exist, what mechanisms are employed and how frequently does interaction take place?).

2.2.1.5 Does the HER have maritime (that is to say tidal coastline) responsibilities? If yes:

- Does its coverage have any limits (in terms of distance from the shoreline)?
- Are sites in the inter-tidal area recorded?

2.2.2 Subject Coverage:

It would be helpful here to include specimen HER reports of records from each of the three categories listed below (Monument, Event and Source) as Appendix 5 to this report.

2.2.2.1 Monument Recording (Tables 1 and 1a: 'HER by Record Type' and 'HER by Monument Type')

Does the HER specifically include or exclude any of the categories given in the tables? For those categories included please add details regarding the number of records presently held on the HER and whether this represents good, average or poor coverage. It will quickly become evident that in many instances the categories included in Table 1a do not correspond exactly to those which appear in the EH site type thesaurus. The table incorporates headings from the *Listed Buildings Principles of Selection* combined with the class descriptions from the (now concluded) *Monuments Protection Programme* - the object of the exercise being to encourage consideration of the HER's coverage across as wide as scope as possible. Consequently the evaluation process will involve an element of judgement in deciding which indexed category (or categories) correspond to the table heading under consideration.

It should be noted, however, that Table 1a need not be filled in completely (unless time permits). Its use is intended to be selective and to fulfil two objectives:

- To illustrate areas in which the database is seen as having weak coverage.
- As a prospective tool, to test the coverage of areas or subjects which have not previously received consistent consideration.

Please note that a 'no' entry in the 'Recorded' column implies that sites of this type are not recorded by the HER as a matter of policy. If there are no records indexed to a particular category on a database simply because there are no known examples of this monument type within the HER's area of geographical responsibility a 'yes' entry should be recorded. (It should also be remembered that, when considering maritime records, navigable rivers should be taken into account. Thus 'maritime' sites will not be confined to HERs with a coastline – see 2.2.1.5 above).

The quality of 'coverage' represents a professional judgement on the part of HER staff. Judgements in this respect will be primarily based on matters such as knowledge of a range of records within the system which might be re-interpreted and re-indexed, or a body of published or archive material which remains to be processed onto the database and which is likely to significantly expand the record in a particular area.

(Data within the two tables should be tabulated with information presented under the following column headings: Recorded (Y/N); Number of records; Coverage (Good/Average/Poor/Not Applicable/Unknown).)

2.2.2.2 Events (Table 2: 'HER by Event Class')

Does the HER specifically include or exclude any of the event categories given in Table 2? (For those categories included please add details regarding the number of records presently held on the HER and whether this represents good, average or poor coverage – see 2.2.2.1 above.)

The categories listed are drawn from the EH Event Types thesaurus parent terms – Archaeological Interventions, Environmental Interventions, Non Archaeological Interventions, Field Survey, Remote Sensing and Heritage Assessment.

2.2.2.3 Sources:

- How many records for sources (bibliographic and archival) are held on the HER database?
- How many of these relate to bibliographic (published) sources?
- How many of these relate to archival (unpublished) sources?

For HBSMR users:

- How many monument records are linked to aerial photographs?

For the purposes of this exercise 'unpublished' sources include the following:

INSCRIPTION (Archive Types Wordlist) – Document, Graphic Material, Object, Verbal Communication and any specific records relating to Cartographic Material and Index sources where these are known to be unpublished.

HBSMR – Aerial Photograph, Artifact, Excavation Archive (other than reports, including 'grey literature'), Graphic Material, OS Record Card, Photograph, Unpublished Document, Unpublished Illustration, Unpublished Map, Verbal Communication and any specific records relating to Cartographic Materials, Chart, and Index sources where these are known to be unpublished.

2.2.2.4 Period (Table 3: 'HER by Period')

Does the HER have a formal 'cut off date'? If so what is it? (It should be noted here that the DCMS Draft Guidance (DCMS 2008, Item 24) specifies that "There should be no temporal limits to the information recorded in an HER: it should include data relating to all periods, from the earliest human activity to the present". Thus, if the HER does have a cut off date, reference should be made to this in the Report's action plan, which should also include a project to assess the scale of the enhancement programme necessary to satisfy this requirement.)

Please use Table 3 to provide a breakdown of the content of the HER by period. Additional details should be provided in the accompanying text. These should include the date range recognised for the period in question and the rationale underpinning any customised elements of the list. Table 3 requires the number of records held for each of the periods listed and an assessment as to whether the HER's coverage for the period is good, average or poor.

Number of Records

For Unknown (period) give the number of records but, for obvious reasons, do not attempt to comment on coverage. If all prehistoric records are given an appropriate sub-division it may not be necessary to answer the Prehistoric (all periods) question and vice versa if all records are prescribed to prehistoric rather than a sub-division such as Bronze Age. If the HER sub-divides other periods such as Early Medieval or Post Medieval then the text accompanying the table should give details.

Coverage

The criteria underpinning the assessment of coverage will be similar to those employed for monuments (2.2.2.1 above). Once again judgements in this respect will be primarily based on matters such as knowledge of a range of records within the system which might be re-interpreted or re-indexed, or a body of published or archive material which remains to be processed onto the database and which is likely to significantly expand the record in relation to a particular period.

2.2.2.5 Heritage Assets with special protection status (Table 4)

How many monument records with special protection status are there recorded in the HER? Give totals for these in Table 4. A short accompanying text should be provided explaining any recording methodologies which may influence these totals. Can statutorily protected 'units', for example, be grouped or sub-divided for recording purposes? (If useful, specific examples may be included to illustrate this issue.)

2.2.3 Geographic Information Systems

Is it possible to search the HER database through a GIS? If yes:

What metadata (feature level and theme level) are being created?

What kind of output does it produce? (E.g. paper maps, digital maps, spatial data export.)

2.2.3.1 Does the system include:

- An aerial photography layer?
- A LIDAR layer?
- Archaeological deposit modelling?
- Sensitivity scoring and modelling?
- A Historic Landscape Characterisation layer?
- An Extensive Urban Survey layer?
- An Events layer?
- An Urban Archaeological Database?
- Portable Antiquities Scheme find spots?
- Constraint mapping?
- Conservation Areas?

Are all or any of the above actively maintained?

2.2.3.2 Does the HER's GIS function in isolation or does it have access to a corporate GIS through its host authority? If the latter:

- Does it have access to a wildlife habitat layer?
- Does it have access to a hedgerow survey layer?
- Does it have access to a current land use layer?
- Does it have access to an aerial photography layer?
- Does the GIS permit access to information relating to Tree Preservation Orders?

(Please list any other layers which can also be accessed.)

2.2.3.3 Data sharing and exchange:

- How are archaeological notification/areas of archaeological potential defined and captured? Are these related to policy documents?
- Are GIS datasets shared with/provided to other parties? If so, which ones?
- Does the HER request contractors to provide digital data? If so, in what form and how are they using it?

2.2.4 Consultation, collaboration and agreements

By answering the questions presented in 2.2.4.1 and 2.2.4.2 below, please provide information as to how the following consultation and collaboration initiatives and themes are approached by the HER. In each case provide examples of how information derived from this type of consultation has been fed into the HER Information Services Policy (see 1.1.1 above).

2.2.4.1 Within the authority

Historic Area Assessments:

- Has the HER participated in any Historic Area Assessments? If so please specify the number that have been undertaken and list any external practitioners that were involved.
- Is information from assessments of this type entered onto the HER database?

Historic Landscape Characterisation:

- Does the HER have a member of staff responsible for Historic Landscape Character?
- If an HLC survey of the HER's geographical area of responsibility (or any part of that area) has been carried out please specify the practitioner(s) involved.

- Has HLC data been entered onto the text-based HER dataset? If so please include printed examples of records created using HLC as their initial source of evidence in Appendix 5A of your report.
- How is the HLC database linked to the HER?

Extensive Urban Surveys:

- If an EUS survey of the HER's geographical area of responsibility (or any part of that area) has been carried out please specify the practitioner(s) involved.
- Has EUS data been entered onto the text-based HER dataset? If so please include printed examples of records created using the EUS as their initial source of evidence in Appendix 5A of your report.
- How is the EUS database linked to the HER?

Buildings:

- Does the HER sit within the same department as the Building Conservation Team?
- Do Building Conservation Officers (COs) have direct access to the HER?
- Do COs contribute to the HER database (either directly or indirectly)?
- Is the HER involved in carrying out Conservation Area Appraisals? Is information from appraisals of this type entered onto the HER database?

- Do COs have their own buildings database? How is this linked to the HER?
- Is the HER routinely consulted by COs (either from the host authority or from any constituent district authorities)?
- Have COs (either within the host authority of from district authorities) ever been involved in framing the content of the HER?

Natural Environment:

- Does the HER sit within the same department as staff responsible for the conservation of the natural environment?
- Do natural environment staff from the host authority have direct access to the HER?
- Do natural environment staff from the host authority contribute to the HER database (either directly or indirectly)?
- Do natural environment staff from the host authority have their own database? How is this linked to the HER?

Planning Documentation:

Do you have sight of, or assist in the structuring of planning documents of the following types? (If yes, please specify the nature of this involvement and whether this is undertaken routinely, occasionally or rarely):

- Supplementary Planning Documents.
- Strategic Environmental Assessments.

- Sustainability studies.
- Urban design frameworks.
- Village Design Statements.

2.2.4.2 External:

- Does the HER specify the form in which site information is presented in fieldwork reports?
- Does the HER work within a Regional Research Framework?

OASIS:

Is the HER a participant in the OASIS initiative? If yes:

- Is a clause relating to OASIS contained within project briefs produced by the HER? If not, is there an intention to include one at some future date?
- Does the HER have any members of staff who require OASIS training?

National Mapping Programme

Has the National Mapping Programme investigated any areas falling within the HER's geographical area of responsibility? If yes:

- Please specify which practitioners (other than EH) were involved.
- Has the resulting data been satisfactorily integrated into the HER database? (Please specify any difficulties that were encountered during the process of integration.)
- If possible, please give an estimate as to how frequently NMP data is used in responding to enquiries. Would this be daily/weekly/monthly?
- Is any record kept as to the nature of these enquiries? If so please estimate the proportion of these which are planning based as compared to the proportion which are of a more general nature.
- Are there any areas within the HER's geographical area of responsibility which would benefit from additional NMP work? (Please include follow up work on areas already covered.)

If no:

- Are there any areas within the HER's geographical area of responsibility that could benefit from inclusion within the National Mapping Programme?

Natural England:

- Does the HER participate in the Selected Heritage Inventory for Natural England initiative (SHINE)?

Portable Antiquities Scheme:

Does the HER receive data from the Portable Antiquities Scheme? If yes:

- Has PAS data been integrated into the HER database?

Other data exchange/supply agreements:

Has the HER signed or agreed data exchange or data supply agreements with:

- HERs or UADs within the region.
- National Parks.
- The National Trust.
- Local or regional museums.
- Areas of Outstanding Natural Beauty.
- The Heritage Gateway.
- Others (please specify).

Give details of the level and frequency of data exchanged e.g. core data is to be exchanged on a two year cycle; full data is exchanged on an ad hoc basis.

2.3 Primary and unique archive material

The Information/Recording Policy (see IFP2 sections B.1 and B.4.1 (Gilman & Newman, 2007, pB.1 & pB.15)) should include a definition of items or categories of archive that can legitimately be held by the HER as part of its reference collection. These might include copies of local books, journals, publications, investigation reports (including 'grey literature'), historic maps and photographs (including aerial photographs) which underpin the day to day work of recording and the provision of advice (see 3.4 below). Those items or collections of original archive (paper, photographic, digital or finds) which do not conform to this definition should be deposited with an appropriate repository.

This definition should sit within a more detailed Disposals policy (see IFP2 section B.4.3 (Gilman & Newman, 2007, pB.16) which should also take into account whether the HER can provide adequate storage conditions and conservation support for its archival holdings.

Does the HER have a written Disposals Policy? (If this exists as a separate document to the Information/Recording Policy please add it to this report as Appendix 6.)

Section 3: Information Management

3.1 System Organisation and Procedures

3.1.1 Recording Guidelines

Does the HER have a written manual giving guidelines for recording practice (see IFP2 section C (Gilman & Newman, 2007, pp C.1-C.37))? If so please attach a copy of this document as an appendix to this report. If written material of this type is not yet consolidated into a single document please attach any database documentation and word lists that can be categorised under this heading.

A manual of this type will typically contain information such as:

- A data dictionary (a document setting out the data fields which make up the HER computer record, specifies the type information which may be recorded in each and the thesauri, lists and reference data which govern them).
- Recording practice guidelines for specific monument classes (for example roads, towns or industrial complexes).
- Conventions regarding the recording of negative evidence.
- Illustrations regarding the use of 'parent-child' relationships.
- The level of detail at which artefacts and ecofacts will be recorded.

Who is responsible for acting as data guardian for the HER, i.e. documenting recording practice, training, checking data and maintaining and developing wordlists?

Is the manual sufficiently detailed, illustrated with examples and generally structured in such a way as to allow it to be used in the training of new staff, assistants and volunteers? (See 4.8 below.)

Has the HER developed procedures concerning the use and/or development of Historic Landscape Characterisation data?

Are the guidelines used by the HER shared by those responsible for maintaining other historic environment data systems within the host authority (for example buildings and the natural environment)? If the guidelines employed are separate, have they been compiled within a unifying framework to promote intercompatibility?

3.2 Computerised database(s) and relevant information schemes

3.2.1 HER Data Structure

This section should provide a detailed description of the structure of the database(s) used by the Historic Environment Record, e.g. HER database, Planning database, Photo Catalogue (if separate).

3.2.2 Data Model

Where possible, use Figures B and C to provide data models of the structure of the HER database. These should be both a logical data model (which describes the relationships between logical entities) and a physical data model (which describes the relationships between data tables in the database). If using the HBSMR system please give the version number.

To review the underlying logical data model of your HER consider:
- Which data fields contain unique entries, e.g. PRN.
- Which data fields can contain repeated entries, e.g. Monument Period & Type, Sources.
- Which data fields are grouped, e.g. Grid Co-ordinates, Address details.

The underlying logical model of your HER database is reflected in the relationships between data concepts. For example a simple Event/Monument/Archive system as depicted below.

Figure B
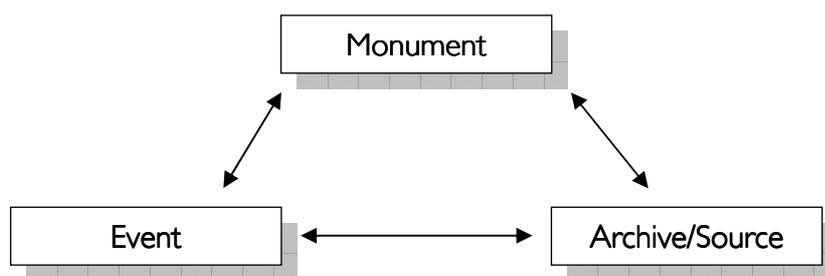
Many to many relationship e.g. a monument can have many sources and a source may refer to many monuments.

Figure B An Example of a Logical Data Model

A physical data model reflects how the database actually is, what the table structure is, what fields they contain and how they link. For example the simple database above may appear as follows as a physical model.

```
┌─────────────────────┐     ┌─────────────────────┐     ┌─────────────────────┐
│ Monument/Event link │     │ Monument            │     │ Monument/Archive link│
│                     │     │                     │     │                     │
│ Monument UID        │ ◄── │ Monument UID        │ ──► │ Monument UID        │
│ Event UID           │     │ Name                │     │ Event UID           │
│                     │     │ County              │     │                     │
│                     │     │ OS 1:10,000         │     │                     │
│                     │     │ Quarter sheet       │     │                     │
│                     │     │ Period              │     │                     │
│                     │     │ Type                │     │                     │
└─────────────────────┘     └─────────────────────┘     └─────────────────────┘

                                                        ┌─────────────────────┐
                                                        │ Archive             │
                                                        │                     │
┌─────────────────────┐     ┌─────────────────────┐     │ Archive UID         │
│ Event               │     │ Archive/Event link  │     │ Archive /Source     │
│                     │     │                     │     │ Type                │
│ Event UID           │ ──► │ Archive UID         │ ◄── │ Minimum Date        │
│ Name                │     │ Event UID           │     │ Maximum Date        │
│ Minimum Date        │     │                     │     │ Associated Person   │
│ Maximum Date        │     │                     │     └─────────────────────┘
│ Event Type          │     │                     │
└─────────────────────┘     └─────────────────────┘
```

──────────────────────►   One to many relationship i.e. each UID (Unique Identifier) may appear several times in the linking table.

Figure C An Example of a Physical Data Model

Those with uncertainties as to the structure of a physical data model or how to create one should contact their IT support team.

3.2.3 Data Fields

Summarise the properties for every data field within the HER database. For relational databases, both the table name and the field name must be given. If using the HBSMR system please state which version.

Table 5 - Field Audit - HER Database (with specimen examples)

Table Name	Field Name	Basic Field Characteristics			Example
		Used	Class	Controlled	
Monument	Parish	Y	M	Y	SANDFORD
Monument	Period	Y	M	Y	NEOLITHIC
Monument	Specific Period	Y	O	Y	EARLY NEOLITHIC

Column descriptions

Table name   The name of the table in the database
Field name   The name of the field in the database
Field groupings   Data fields may be grouped together in the database

Basic field characteristics

Used	Is there any data in this field - show Yes or No
Class	Is the field Mandatory (M) or Optional (O)?
Controlled	Is the content of the field controlled by a word list or thesaurus? – show Yes or No

Example   Give an example of the data held in the field, e.g. TQ 45 NW.

3.2.4 Data Standards (Table 6 - please note use of Table 7 discontinued)

The aim of this section is to review the data standards in place in the main HER database(s) to the published MIDAS Heritage data standard and to the national reference data sets being prepared by the Forum on Information Standards in Heritage (FISH).

HERs will be aware that an updated and revised version of MIDAS – 'MIDAS Heritage' (www.midas-heritage.info)- is now in existence and is to be introduced as the new standard for HER databases. Within the audit an evaluation of the HER data structure against this standard will be undertaken by the EH Data Standards Unit using information provided in diagram Figure C and Table 5 (see 3.2.2 and 3.2.3 above).

Note: HER Officers may wish to contact the EH Data Standards Unit for advice before compiling this section. This can be done by e-mailing them at: dsu.info@english-heritage.org.uk .

Copies of recording guidelines, database documentation, word lists in use in the HER should be provided in Appendix 7 and supplied to EH with a sample of HER data for the HIPs/DSU Audit Response.

This section of the report should describe the data standards in the computerised HER and the procedures in place for maintaining standards. It should address questions such as:

- Has the HER followed the (now superseded) MIDAS data standard?
- Does the HER follow any other recognised standards?
- Please summarise any plans the HER has towards achieving compliance with MIDAS Heritage. Does any definite timetable exist for this work?
- Give details of any measures already undertaken to bring the database into compliance with MIDAS Heritage.
- Does the HER use the controlled terminologies recommended in MIDAS Heritage?
- Does the HER participate in the Forum on Information Standards in Heritage (FISH) or any other working group over the development of its terminology, e.g. with regional HER working parties, national bodies, universities, local or national societies?

Employ Table 6 to provide the following details regarding the thesauri being used by the HER (see http://thesaurus.english-heritage.org.uk/).

Describe the procedures in place for maintaining data standards within the HER.
- Have you contributed candidate terms to any of the national reference datasets?
- Does your computer system incorporate input forms which force the use of indexing terminology from picklists?

3.3 GIS for current and historical mapping

The aim of this section is to describe any GIS (Geographic Information Systems) held by the HER.

3.3.1 HER Map Base (Digital)
The aim of this section is to provide a summary of all digital maps against which monuments in the HER record are plotted. This is set out in Table 8; see example below.

Table 8 - HER Map Base – Digital (with specimen examples) – Note: use of Table 7 discontinued

Scale	Format	Coverage	Supplier	Description
1:1 250/1:2 500	Vector	Whole county	Ordnance Survey	MasterMap
1:10 000	Raster	Complete	Ordnance Survey	1:10 000
1:10 000	Raster	Town centre only	UK Perspectives	Digital aerial photography
1:10 560	Raster	Whole county – First Edition/epoch	Landmark	Historic mapping

3.3.2 Mapping Software and Hardware

This provides in Table 9 (see examples below) a summary of software and hardware used for any map based or GIS information system.

Table 9 - Mapping Software and Hardware (with specimen examples)

GIS Software	Version	Number of licences	Status
ESRI ArcView	9.3	2	Standalone system
MapInfo	8.0	1	Local authority Network

3.3.3 Site Depiction

This summarises in Table 10 (see examples below) the way in which sites are depicted on digital maps, i.e. whether sites are defined as centre points, linears, polygons.

Table 10 - Digital Mapping: Site Depiction (with specimen examples)

Scale of capture	Data Type	Site Type	Total number
1:10000	Polygon	Monument	150
1:10000	Polygon	Conservation Area	15
1:10000	Point	Monument	4534
1:50000	Line	Linear monument	86

The accompanying text should include answers to the following questions:

- Are all HER sites recorded on a map base?
- Does the HER have access to a Corporate Geographic Information System (GIS)?
- Are specific classes of monument excluded, e.g. stray finds?
- How is data captured onto your GIS?
- At what scale?
- With what degree of accuracy?
- What validation procedures are in place?
- Are colours used to differentiate between monument period, type etc?
- How are the GIS and the text based record interconnected?
- If not used at present do you expect that GIS will become available to your HER?
- When?
- Which software package(s) are you considering?
- Will this be a standalone system for HER or part of a wider Local Authority purchase?

3.3.4 GIS Strategy

Does the HER have a policy on recording spatial data for GIS or digital mapping? If so:

Is this integrated within the Information Services Policy (see 1.1.1 above)? If this policy exists as a separate document please add this to your report as Appendix 8.

Has a study of user requirements specific to GIS been made? If so give a brief outline of its conclusions.

Does the host authority have corporate policies governing GIS? If so please list their principal implications for the HER.

Does the system used comply with the UK GEMINI Standard (2012)? It should be noted that that the UK GEMINI Standard (Version 2.2) is a means of implementing

ISO 19115 and, through this, to realizing compliance with the EU INSPIRE Directive*.

*Note: the INSPIRE Directive applies to all statutory historic environment data ('protected sites') but it is not clear at this stage whether this requirement extends to non-statutory data maintained by HERs. INSPIRE defines a protected site as:

"Area designated or managed within a framework of international, Community and Member States' legislation to achieve specific conservation objectives".

http://www.agi.org.uk/SITE/UPLOAD/DOCUMENT/policy/inspire_intro.pdf

3.4 Supporting Reference Collections

Guidelines as to what constitutes a reference collection (as opposed to primary and unique archive material) are included above (see 2.3).

3.4.1 Index to supporting reference collections

The HER should maintain a written guide and index to supporting reference collections held by the record. Table 11 is designed to review the currency of this list in cases where one exists. Alternatively, where this work has yet to take place, it may help the HER to begin the process of describing and indexing its archival holdings. Rather than addressing the issue on an individual, item by item basis the table requires only that the archive as a whole is broken down into component collections. (Although these can be further divided into sub-components should this information already be available or if time and resources permit more detailed itemising.)

This process should cover all of the HER's archival holdings, including material which would constitute primary or unique archive. It is envisaged that this exercise will be useful in the 'sifting' process to distinguish between this material and the reference collection proper (if this has not already taken place). (Any hard copy maps used (or formerly used) as the HER base map should also be included (although their content is dealt with separately below - see 3.4.2).)

In broad terms the aim of this element of the audit is to allow the HER to reach a level of understanding from which:

- The currency of any existing index can be assessed.
- The work necessary to produce a complete, detailed and up to date index of the reference collection can be quantified with reasonable accuracy. (This should then be translated into a programme for the creation of such an index which should, in turn, be fed into the Audit's Action Plan.)
- Items making up the legitimate reference collection can be identified and a programme for the disposal of any primary/unique archive can begin.

- Items of the collection which constitute 'backlog' material can be identified (see 3.6.3 below). (Their content can then be assessed as part of the programme for backlog clearance.)

Table 11 should be accompanied within the report by a section of text describing in detail any specific issues or special requirements relating to particular categories of the archive material and recommendations for its future management. Specific consideration should be given to:

- Identifying and listing those items in the table that constitute primary/unique archive, providing reasons why this is presently being held by the HER and giving an estimated date for its deposition with an appropriate repository.
- The long term preservation and archiving of digital data (including an outline of the strategies which are in place to achieve this).
- Providing an outline of forward plans for enhancing and/or digitising the reference collection.

Additional questions which may be answered here include:

- Is the collection stored in conditions which will facilitate its continued preservation?
- Has the HER sought advice from a local museum or record office when planning strategies to manage the collection?
- Has consideration been given as to how long each component element of the collection will be retained by the HER?
- Does the HER have access to the services of a conservator?
- Is it permitted for material from the collection to be borrowed? If so is there any movement control mechanism in place? (For example a signing out book.)

Table 11 - Content of the HER (with specimen examples)

Some HERs may hold mixed media collections associated with a named individual, e.g. The Mortimer Wheeler Collection. Complete Table 11 by naming the collection and then itemising each type of material in the collection, e.g. photographs, notebooks, plans etc, an example of Table 11 is included below.

Archive type	Quantity	Condition	%	Catalogue	Value to HER	Notes
Mortimer Wheeler (MW) Collection						Listed separately itemised by type
MW Photograph	c 200	Good	100	Photo cat	High	
MW 1:50 plans	10	Mixed		ref to HER	High	
MW OS 1:1250	35	Good	0		High	

Column descriptions

Archive Type: Category of archive material, e.g.:
- Manuscript; parish files, record cards, other card index.
- Library; monographs, periodicals, reports.
- Cartographic; OS maps (scale & date), plans, aerial survey plots, other maps, e.g. soil maps, geological maps, historic maps. Record maps should be separately identified.
- Illustrative material; photographs (various forms), slides, drawings, art work.
- Microforms; microfilm, microfiche.
- Objects; pottery, other finds, environmental samples.
- Electronic media; computer discs, tapes.
- Recordings; visual, sound.
- Other archive; please specify.

Quantity: Number of items of the archive type held.

Condition: An overview of the condition of the archive - Good, Mixed or Poor.

%:   Percentage of the archive type which is catalogued and fully accessible.

Catalogue: The name of the appropriate catalogue or database.

Value to HER: The perceived importance of the material to the HER.
- High
- Medium
- Low

Notes: Indicate the location of material when held outside the HER office. Describe any special requirements for curation of the material.

This section requires you to make a subjective assessment of the condition and value of archive collections. You should note in the text the criteria used to make your assessment. For example, a low value collection is infrequently used and contains little information to support the HER. An archive collection whose condition is mixed is one which contains some material which is damaged (torn or marked) and some material which is as new.

3.4.2 HER Map Base (Hard Copy)

The majority of HERs have now moved on from using hard-copy base maps to GIS. In cases of this nature (if useful to the HER) the following section may be undertaken as a retrospective exercise to record the mapping conventions employed by the earlier system (discounting the element concerning record numbers). If hard copy maps are still being maintained, however, (for either all or part of the database) then this section should be completed and Table 12 filled out in full.

An accompanying text should also be included expanding on the information contained in Table 12 (see below for examples) describing the way in which sites

are/were depicted on hard copy maps, i.e. whether sites are/were defined as centre points, linears, polygons. Indicate whether colours are/were used to differentiate between monument period, type etc. This text should make clear in the first instance whether the hard copy map base is still being used.

You should note whether the monuments are/were plotted directly onto the maps or onto overlays. Maps which are used as sources of HER information (lst edition OS maps, tithe maps etc) should be excluded from this table unless used as base maps.

Table 12 - Hard Copy Mapping: Site Depiction (with specimen examples)

Map Scale	Depiction	Colour	Type	Total Number
1:10000	Polygon		Monument	1200
1:10000	Polygon		Conservation Area	15
1:10000	Point		Monument	3484
1:10000	Polygon	Red	Scheduled Monument	150

3.5 Data Security

3.5.1 Database Stability

The aim of this section is to review the stability of the database itself. You should describe any issues concerning data quality. Consider:

- Does the HER database crash?
- If this happens how often?
- Has the database been corrupted as a result?
- Have you ever attempted to restore the HER database from a backup? If so was it successful?

3.5.2 Backup Procedures

Describe the backup procedures for your HER.
- How often are digital backups made of the HER database?
- Where are the backups stored?
- On what medium are backups made?
- How long are backup tapes kept?
- Have you checked the backup tapes to make sure that data is retrievable?
- Does the HER undertake regular 'test restores' to check the effectiveness of these procedures? If so specify the nature of these tests.

Does the HER have a System Security Policy? A policy of this type would deal with strategies for appropriate archiving of digital and non-digital material, and database access and modification control, anti-virus protection and back up procedures. (This

may sit within a broader Disaster Recovery Plan – see below 3.7.) If this policy exists as a separate document please add this to your report as Appendix 9.

3.6 Data validation and currency

The analysis entailed in providing the relevant information for this section should be used to create a prioritised programme of enhancement to cover issues such as:

- Recasting of earlier records.
- Refreshing core data indexing.
- Clearing any backlogs.
- Targeted enhancement projects to address identified weaknesses in the record (see 2.2 above).

This programme can then be employed to feed into and inform the Audit Action Plan and the HER Forward Plan (see 4.4 below).

3.6.1 Information Content
The aim of this section is to audit the information contained in the HER and to highlight areas for future record enhancement.

The first questions to answer are:
- How many monuments are recorded in the HER in total?
- How many events are recorded in the HER?
- How many sources/archive items are recorded in the HER?
- What is the average time lapse from the receipt of a report or publication (e.g. an evaluation report) to the moment when records are fully inputted to the HER?

3.6.1.1 Enhancement by Geographical Area

Table 13 is intended to furnish details of any enhancements that have been undertaken specific to particular geographical areas. Enhancements that can be covered within this table might include National Mapping Programme initiatives, Conservation Area Appraisals, Urban Archaeological Databases (in instances where these have been assimilated into the central HER database) or components of any internal programmes structured according to administrative units etc.

Table 13 – Enhancement by Geographical Area (with specimen examples)

Area/Project name	Enhancement Date
Swandown Hills NMP	2004
Tenton UAD	1999-2000

3.6.2 Data Quality

The aim of this section is to analyse the consistency of information held in the database. Consider the following, where appropriate taking a random sample of 10% of your database:

- How consistent has recording practice been?
- Have many different people worked on the HER?
- Has recording practice changed over time?

Describe any known problems with data quality:

- Do you know of spelling or typographic errors in the database?
- Are there fields where current word lists were not enforced in the past?
- Are there abbreviations used in free text fields?
- Is there any information that has been recorded in different data fields in the past? For example, the bibliography was previously recorded in a single field but has now been divided into two or more fields. The data has not yet been consistently moved to the appropriate bibliographic fields.
- Is there a problem with the duplication of source records?
- Information is sometimes divided between two or more data fields, for example grid references are usually sub-divided into grid letters, eastings and northings. In these cases, consider the consistency of information between the data fields.
- Is data always recorded in the correct field?
- Is the appropriate data always input to the higher level field? (For example, if Parish is entered, is the District always completed?)

The quality of data should be assessed for each database in use in the HER, e.g. the HER database, Planning Database, Photo Catalogue, if separate. Review the quality of each field, it is particularly important to count the number of instances in which data has been entered into each specific field and to assess the data quality. This should be given in Table 14, see example below.

Table 14 - Audit of Data Quality (with specimen examples)

Fieldname	Number	Quality		Frequency
		Errors	Consistency	
Period	13505	minor	high	frequently
Type	74536	minor	average	frequently

Column description:

Field Name	Name of the data field.
Number	The number of records for which this field has an entry.
Errors	A measure of the accuracy of data in this field. Express as:

- no errors

	• minor errors
	• major errors
	• unusable
Consistency	A measure of the consistency with which data has been entered in this field. (Is data entry controlled by recording practice or a wordlist, if so has practice changed during the life of the HER and has existing data been updated to reflect these changes?) If the field forms part of a group of related fields, how consistently have the other fields been input? Express the consistency of data in the field as:
	• good
	• average
	• poor
	Percentage errors based on the 10% sample can be given if wished.
Frequency	A measure of how recently data has been input or updated in this field. Express as - frequently, occasionally, rarely. If a global update was performed on the field on a known date, give the date. If data entry to the field has ceased, give the date when this happened.

Compiling this table involves making a number of subjective assessments. You should note in the text the criteria used in making your judgement, e.g. the integrity of data is high if it has been entered by one person, working to the same standard in a consistent way.

Outline the quality control mechanisms employed by the HER. Are regular spot-checks of data made and if so how often? Does the HER have a nominated 'data guardian?' (See 3.1.1 above).

3.6.3 Backlogs

This section reviews the backlogs of source materials waiting for digital data capture and indexing in the HER database. This will normally comprise of recording forms, archive sources and event reports, but in some cases may include computer records. The accompanying text should include the work required to incorporate each set of material into the HER. This is set out in Table 15, see example below. The accompanying text should highlight any particular issues and describe the importance of the material to the HER. There should be a range of priorities for data capture. It is not realistic to suggest that all the material is of 'high' priority as, unless the backlog is very small, some material will be completed first.

Table 15 - Summary of Backlog Material for Digital Data Capture (with specimen examples)

Record Type	Existing work	Quantity	Resources		Priority
			Person Hours	Costs	
Record forms	Recorded	200	10 days	£450	High
Local monograph	Unexamined	I	10 days	£450	Low

Column description:

Record type   The type of material in the backlog.

Existing work   How much recording work has already been undertaken? Score as: Recorded, i.e. recording forms awaiting data input. Preliminary, i.e. Sources which have been referenced but not yet fully recorded. Unexamined i.e. Known sources which have not yet been examined.

Quantity   The quantity of material, i.e. number of items.

Resources   The resource implications of processing this backlog.

  Person Hours   Calculate the number of person hours required.

  Costs   Estimate any associated costs - materials, equipment, etc.

Priority   An assessment of your priority for incorporating this backlog into the HER. Score as - High, Medium or Low.

This requires a subjective assessment of your priority for incorporating material into the HER. You should note in the text the criteria on which you are basing your judgement, e.g. a high priority material is frequently consulted and contains information which is essential in keeping the record up to date. Low priority material contains limited information which may duplicate material already fully recorded in the HER or is of little interest or importance to the HER.

3.7 Risk assessment and emergency preparedness plan

Does the HER have a Disaster Recovery Plan? Is this integrated into a wider disaster recovery strategy for the host authority? What training is given to staff regarding emergency procedures? (See 4.8 below). How regularly is training given?

A Disaster Recovery Plan should address the following topics:

- Nominating a Disaster Manager and members of a Disaster Control Team.
- Evacuation procedures.
- Insurance.
- Assembling a disaster control kit of emergency equipment.
- Lists of contact details for relevant members of staff.
- A marked floor plan highlighting key points such as service isolation switches/taps, location of disaster control kit etc.
- Salvage priorities.

- Details regarding IT back-up and restoration (see 3.5.2 above).
- Business contingency planning.

Please include a copy of the HER's Disaster Recovery Plan as an appendix to your report (Appendix 10).

Section 4: Organisation Management

4.1 Formal adoption of the HER

Until the formal implementation of HPR (Heritage Protection Reform), the continuance of HER services will continue to be underpinned, in legal terms, through adoption by the local authority in accordance with the terms of the Town and Country Planning (General Permitted Development) Order 1995 and the Hedgerow Regulations 1997.

- Has the HER been adopted by its host authority under these terms? If so please include a copy of the resolution as an appendix to this report.
- Do the criteria of adoption involve elements additional to the provision of planning support? Examples of this might include use of the HER for educational purposes or enhancing public understanding and enjoyment of the historic environment.
- Does the resolution to adopt the HER make specific reference to the *HER Benchmarks for Good Practice*? Does the resolution entail any commitment to accord with the levels of performance outlined within this document?

4.2 Formal agreement on geographical coverage and service levels

4.2.1 What formal agreements exist concerning the geographical coverage of the HER?
- Are these arrangements specific to the HER or is the service covered by agreements relating to the host authority as a whole?
- If the latter is any reference made to the HER or the services which it provides?

4.2.2 Does the HER operate under a service level agreement? If so provide an outline and include a copy as an appendix to your report (Appendix 11).

What service level agreements exist between the HER and District authorities? How often are these arrangements renewed?

Have service level agreements or other contractual arrangements been entered into with external partners or providers other than District authorities? (Please specify the nature of these agreements, the services which are provided and how often these arrangements are renewed. Specific financial details are not required.)

4.3 Formally adopted policies and strategic plan

This section seeks to clarify the HER's strategic imperatives within the context of its parent organisation. These imperatives will translate into the aims of the HER through the policy documentation which underpins the service. Nine documents should be given especial emphasis in this respect: the Mission Statement (below); the Information Services Policy (above 1.1); the Access and Charging Policy (above 1.2.4); the Information/Recording Policy (above 2.1); the Disposals Policy (above 2.3); the Recording Manual (above 3.1.1); the Security Policy and Disaster Plan (above 3.5.2 and 3.7) and the Forward Plan (below 4.4).

- Is the HER included in the (strategic plan and) planning cycle of its parent department or organisation? If so give details.
- What measures are taken to ensure that the policy documents mentioned above remain in step with the role envisaged for the HER within the strategic plan?
- Is the revision process co-ordinated with the planning cycle? Please give details.

Has the HER a mission statement (or statement of purpose)? Explain the origin of this statement and the objectives it seeks to address. (The mission statement may be reproduced verbatim within this section of the report or included as an appendix (Appendix 12).)

4.4 Forward Plan

A forward plan will typically conform to a structure which will list, prioritise and timetable tasks, attach performance indicators, itemise resource requirements and append (or integrate) elements devoted to business and risk planning. The plan will cover of fixed period of time, usually three years. The Forward Plan should also incorporate a phased programme of enhancement for the HER (into which the findings of Section 2 of this report should be fed) conforming to the criteria of Benchmark 3.7b.

Does the HER have a Forward Plan? If yes:

- Please append a copy of this plan to your report as Appendix 13.
- Describe the consultation process involved in producing this document.
- List:
    a) the principle departments within the host organisation and
    b) any external organisations that were involved in the consultation process.
- Are the component tasks within the plan ordered in terms of priority? If so list the most significant issues involved in the prioritising process.
- Does the plan integrate a staff training component? If not explain what account is taken of the staff training and development programme (see below 4.8) when framing the Forward Plan.

Does the HER have a regular forward planning cycle? If so provide details of the cycle involved.

4.4.1 Budgetary provision

This section should describe the financial position of the HER and its current running costs. It is important to review the current financial situation in sufficient detail to support the development of a forward business plan for the HER. Use tables 16 and 17 to summarise the HER's income and costs for the current financial year:

- Describe the financial resources available from the parent organisation(s) including any Service Level Agreements.
- Detail the costs directly incurred in running the HER, e.g. salary costs, any directly managed budgets or maintenance costs.
- Detail any indirect costs, for example resources drawn from a central budget or central services.
- Describe any financial resources available from external sources, e.g. EH and other sponsors. Give details of the status of any funding, for example any requirement for matching resources, period of funding, etc.
- Detail any income generated by the HER.

It is important to indicate whether the HER has a budget for computing services or has access to centrally funded services and any ongoing system maintenance costs. Identify the source of funding for each post and for essential support services. You should identify any limitations in the current financial arrangements and highlight the implications for the HER.

Examples of Finance Tables

Sample Table 16 - Finance – Income (with specimen examples)

Type	Source	Amount	Status	Post or Service
Direct funding	Parent organisation	£30k	ongoing	HER officer + HER running costs
External funding	English Heritage	£1,000	6 month contract	HER assistant, Audit
Income	HER	£500		Consultancy fees

Sample Table 17 - Finance – Expenditure (with specimen examples)

Type	Source	Amount	Status	Post or Service
Direct costs	Salary	£25k		
	Parent organisation	£1,000	* Central service recharged to department	Computer services
	Equipment purchase	£1,500		Computer hardware
Indirect costs	Parent organisation	n/a	* Central service not recharged	Computer services

* Services which are provided by your parent organisation and are not recharged to the HER are indirect costs, e.g. computing support, personnel, cleaning, business planning etc. If your parent organisation presents the HER with a bill for these services they are direct costs.

4.5 Staffing provision and structure

4.5.1 Staffing (Table 18)

This section of the report should describe in detail the staff who work with the HER, including those people who use the HER, e.g. for development control. Describe the duties, skills and knowledge of each member of staff giving details of likely future training requirements.

Table 18 should be used to provide information relating to each individual:

- Job title.
- Tasks undertaken within the HER, e.g. record creation, enquiries.
- Approximate percentage of time devoted to each task, in particular HER work.
- Nature of employment contract e.g. permanent, period appointment, temporary.
- Qualifications and a general description of skills and knowledge.
- IT skills - indicate the level of skill, how it was obtained and frequency of use.
- Membership of professional associations e.g. Institute of Field Archaeologists, Society of Archivists.
- Work related training courses, conferences etc and Continuing Professional Development (CPD) programmes. (Day courses should be covered for the past year, two day or more lengthy programmes of study for the past five years.)

Supporting text within this section may be used to highlight the implications for the HER of any limitations or shortcomings in the present staffing arrangements. It may be necessary to carry out a time and motion study to assess the percentage of staff time spent on HER related work. This can then be further broken down and totalled under headings such as backlog input, enhancement and answering enquires.

Note. Use existing job descriptions to assist in the completion of this section and include as Appendix 14 of your report.

4.5.2 Support Services

Provide an outline of the support services which are available to the HER. These services may be provided by staff working in the department or parent organisation or the HER may have a contract with an external service provider. Highlight the implications for the HER of any limitations or shortcomings in the present framework of services. Support services may include:

- Computing services (see also 4.5.2).
- Business planning.
- Administrative support.
- Applications for funding from the lottery, millennium fund or European community.
- Office maintenance.

4.6 Internal Management Arrangements

Use a copy based on the conventions shown in Figure D to depict the management framework of the HER (see examples below) showing how it fits into the structure of its parent organisation. The text of the report should provide a more detailed picture of the general management framework. The following questions may provide a starting point:

- Is the HER managed by a single parent organisation or by a consortium operating as a joint project board? Give details.
- What is the relationship of the HER to other departments, e.g. historic buildings, a contracting field unit, countryside management, ecology, etc.

Figure D. Examples of Organisational Diagrams
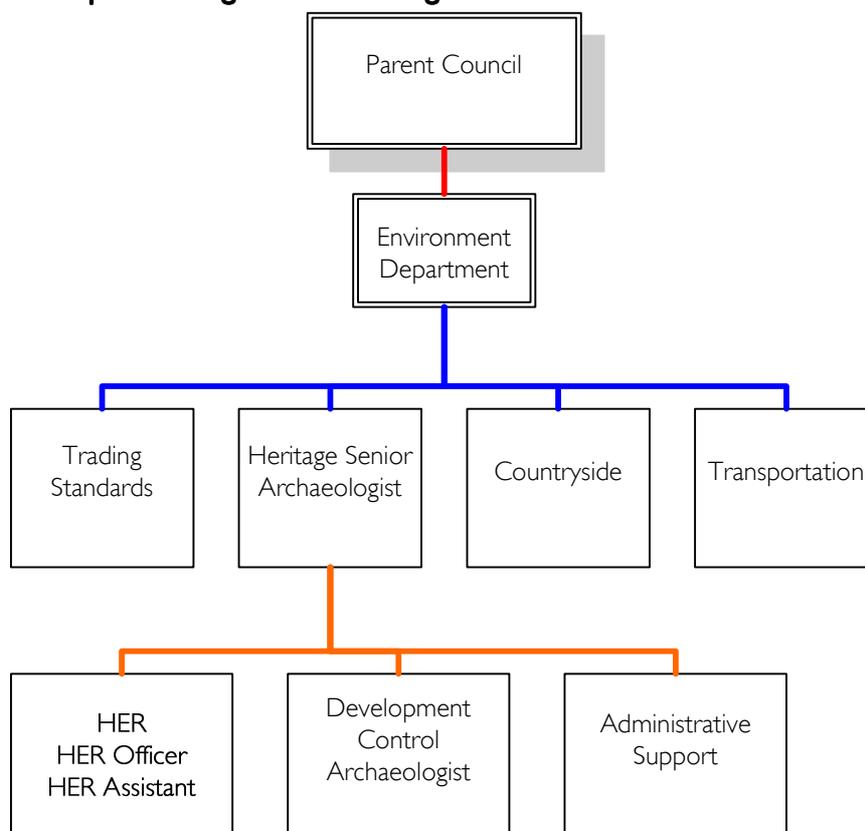
Example A. HER Maintained by a Single Parent Organisation
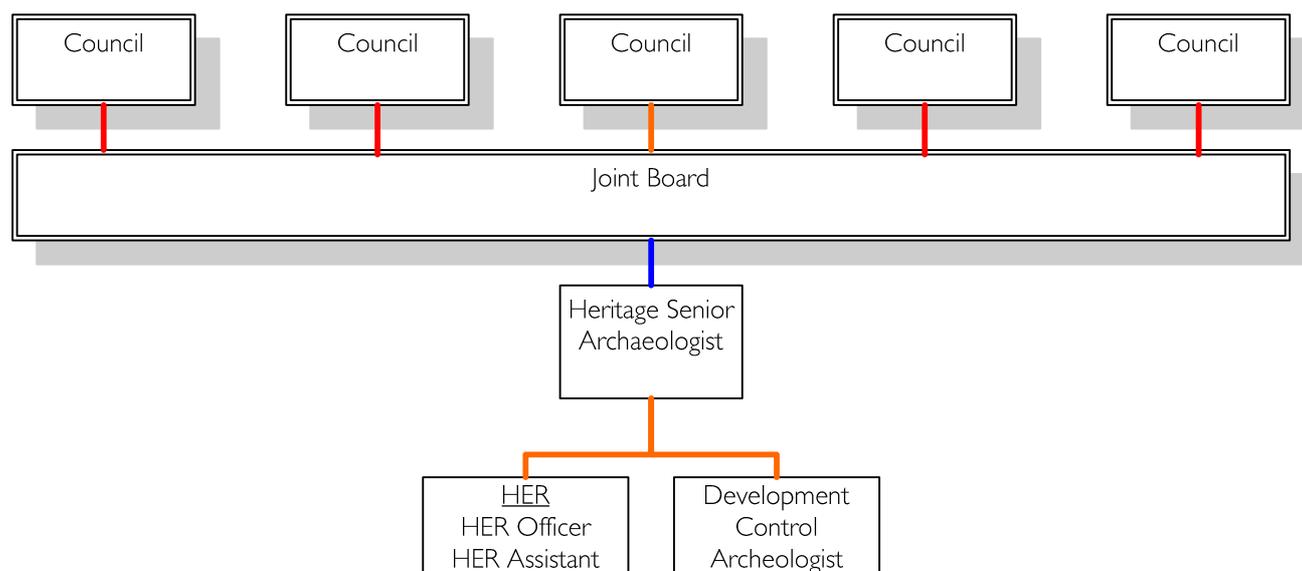
Example B. HER managed by a group of councils operating as a joint project board.

4.7 IT support and technical advice

Describe IT policy within the HER and its parent organisation(s) regarding the purchase of equipment, software and computer services including GIS.

Computer Support

This section should describe all the computer support mechanisms either in-house, or 3rd party available to the HER:

- Describe the technical maintenance available for computer hardware and networks.
- Describe the technical support available for computer software and applications e.g. ORACLE support available from central computing service; Microsoft help desk support for Word and Access databases; HER officer trained to provide programming support in Dbase, support for HBSMR from exeGesIS SDM Ltd etc.
- Is the support described being used? If not, why not?
- Is sufficient technical support available to you? If not, what support would be desirable?
- Does the HER have a service level agreement for support? If so give details and include this as an appendix.
- Is the HER charged for the support service? (relate to Section 4.4.1)

4.8 Staff training and development

Does the HER operate a Continuing Professional Development (CPD) programme? If so please attach a copy (or copies) of the specification for this programme as

Appendix 15 of your report. Please also include examples illustrating the format of the Personal Development Plan (PDP) and CPD Logs used by the HER. (If not please include documentation to illustrate any training programme(s) which are employed by the HER.)

Is staff training integrated within the HER's Forward Plan (see 4.4 above)? What mechanisms are in place to translate individual training needs into the Forward Plan?

How are the training needs of staff assessed and recorded?

What training is available to new staff, assistants or volunteers?

Is budgetary provision made for training provision? You should identify any limitations in the current budgetary arrangements and highlight their implications for the HER.

From the following list, which organisations were consulted during the process of drafting the initial CPD (or other) training programme or contacted during subsequent revisions. Please specify in each case whether this was through direct contact or correspondence or through the referencing of guidance documentation or web-based material.

- The Archaeology Training Forum (directly or through the use of National Occupational Standards).
- The Institute for Archaeologists.
- The Institute of Historic Building Conservation.
- English Heritage (see http://www.english-heritage.org.uk/professional/training-and-skills/).
- Creative and Cultural Skills.
- The Learning and Skills Council.
- Other (please specify).

4.8.1 Succession Plan

Historic Environment Records (HERs): Draft Guidance for Local Authorities in England (DCMS 2008, Item 13) makes reference to a 'Succession Plan'. As yet no formal definition exists of a succession plan nor any outline of what information such a document would contain. For the purposes of audit, however, it has been assumed that its function will be centred on ensuring that the necessary training programmes are in place to provide a consistent and uninterrupted HER service in the event of staff changes. This is a subject that the HER may either give consideration to now or in the near future when more definite information is available.

- Does the HER have a Succession Plan? If so please add a copy of this document to your report as Appendix 16.
- If no, has the HER yet given consideration to the creation of such a document?

Section 5: Recommendations and Action Plan

The results of the detailed analysis will assist in writing an action plan for the HER for the next three to five years. This will make a series of recommendations in the form of objectives and actions required to meet them. The HER might wish to complete this section after receiving comments on the audit from DSU. If so this should be agreed with the EH Heritage Information Partnerships team before submitting the report. The Action Plan should be arranged under the following headings:

Management Summary:

A summary of the Action Plan suitable for senior management in the parent organisation.

Introduction:

A brief overview from the Audit Report including a description of the services which are currently provided to its users and any strengths and weaknesses identified in areas such as content, data standards, hardware, software etc.

Functional Objectives:

Set out the objectives for the HER over the period of the plan in the plan period. The Audit of the HER will have given a picture of its strengths and weaknesses and problem areas that need to be tackled. The HER officer will be in a position to define broad objectives with specific measures of achievement in the plan period. These should reflect its objectives and management policies and help the HER to meet its longer term goals. Each objective should consist of one or two key points which are seen as crucial to the success of the HER and which have measurable targets. Example of objectives could be to:

- make the HER database fully compatible with MIDAS Heritage by dd/mm/yyyy.
- produce an HER manual by dd/mm/yyyy.
- eliminate the HER backlog by dd/mm/yyyy.
- enhance records for the Roman period to obtain good coverage by dd/mm/yyyy.

It may be useful to group these under the headings employed within the structure of this specification (User Needs, Information Content, Information Management and Organisation Management).

Tasks

It is essential that the HER includes tasks to meet the 1st stage HER performance measures from Benchmarks for Good Practice if these have not already been met (the headings suggested above for Functional Objectives should provide useful

indicators in this respect). If these have been met, the HER should include the tasks required to met the 2nd stage performance measures.

The HER should set out the individual tasks required to complete each objective with a target date and an identified resource, even if this is to be completed by a post which does not currently exist. For example one Objective could be to get funding for and employ a full time HER Officer. Tasks such as the authorship of an HER manual could then be assigned to this new post. Clearly some objectives and tasks have to be completed before others and the HER may wish to carry out a critical path analysis before completing the timetable.

Timetable

This should be in the form of a Gantt chart breaking the plan down into stages and tasks showing links, and resources required.
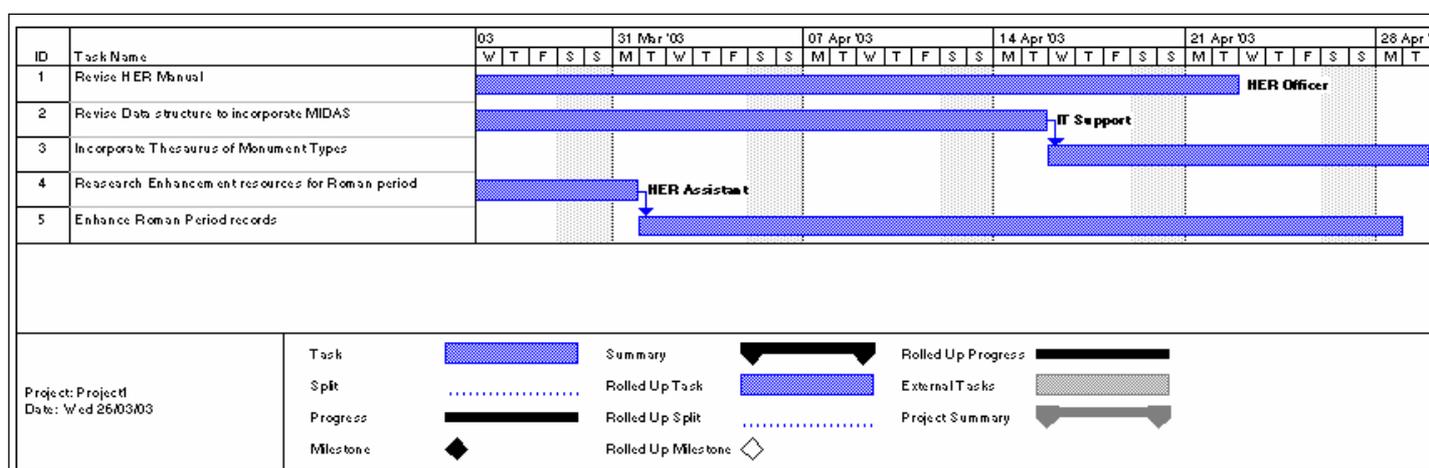
Part of a Gantt chart for an HER Action Plan

Risk Management Plan

The action plan should assess the risks to implementation of any of the components of the action plan, the potential severity and the likelihood of them occurring as well as how they could be minimised.

Risk No	Risk Description	Likelihood	Severity	Risk Management
1	Unable to secure funding from Council	High	High	Brief elected members on the importance of the HER using EH response to the audit. Seek letter of support from EH. Explore outside funding sources.
2	No suitable applicant for HER Officer	Low	High	Likely applicants are thought to exist, ensure widespread targeted advertising of post at appropriate salary.
3	IT service unable to assist with Monument Types	Low	Medium	IT services expect to have time available and suitable

	Thesaurus integration			experience exists outside.
4	Suitable long term archive storage can not be found	Medium	Medium	Temporary storage conditions in HER office improved with new cabinets till more appropriate space becomes available.

Example of part of a Risk Log for an HER Action Plan

Appendices

Appendix 1, Information Services Policy (1.1.1)

A written policy for information services setting out:

- The purpose for which the historic environment record is maintained.
- The professional and public user groups that it aims to serve.
- The arrangements for providing information and access for those users according to their particular needs.

(Benchmark 1.1a, IFP2,
B.1 and F.1)

Appendix 2, Data Protection Policy (1.1.3)

The HER (or its host organisation) policy statement in respect of the Data Protection Act (1998).

Appendix 3, Access and Charging Policy (1.2.4)

A formal access and charging policy should state the information available from an HER, what information may be withheld, the reasons for this, any charges that requesting HER information may incur and any information expected from the user in order for them to access the HER.

(Benchmark 1.2a , IFP2,
F.4 and ALGAO 2012)

Appendix 4, Information/Recording Policy (2.1)

This outlines the scope, geographical coverage and content of the information available from the HER. The Disposals Policy (see below) may form a component of this document.

(IFP2, B.1, B.4.1 and D.2)

Appendix 5, Specimen Records: Monument, Event, Source (2.2.2)

Appendix 5A, Specimen Records derived from HLC data (2.2.4.1)

Appendix 6, Disposals Policy (2.3)

A policy for the staged transfer of primary archive to an appropriate repository. This should set out the steps that the HER will take to find an appropriate alternative repository for this material. This document may form a component of the Information/Recording Policy (see above).

(Benchmark 2.3a and IFP2, B.1 and B.4.3)

Appendix 7, Recording Manual (3.1.1) Database Documentation and Word Lists (3.2.4)

See IFP2, C.

Appendix 8, GIS/Digital Mapping Policy (3.3.4)

See IFP2, E

Appendix 9, System Security Policy (3.5.2)

This deals with strategies for appropriate archiving of digital and non-digital material. This document may form a component of a broader Disaster Recovery Plan (see below).

(IFP2, B.1 & B.8.2)

Appendix 10, Disaster Recovery Plan (3.7)

A document outlining emergency procedures including topics such as disaster control teams; evacuation procedures, insurance; equipment and contacts; salvage priorities, IT; business contingency planning and training. The System Security Policy (see above) may form a component of this.

(IFP2, B.11)

Appendix 11, Service Level Agreement(s) (4.2)

Appendix 12, Mission Statement (or Statement of Purpose) (4.3)

A summary statement of the aims and aspirations of the HER, typically this will be based on the role of the HER as set out in the Strategic Plan of its host authority.

(IFP2, B.2.3)

Appendix 13, Forward Plan (4.4)

An ongoing assessment of the quality of data and a prioritised programme of update and enhancement requirements.

(IFP2, B.2)

Appendix 14, Job Descriptions (4.5.1)

Appendix 15, Continuing Professional Development (CPD) Specification (4.8)

See IFP2, B.3

Appendix 16, Succession Plan (4.8.1)

Historic Environment Records (HERs): Draft guidance for Local Authorities in England (2008, Section 3.1, Item 13).

Revisiting Audits

Audits should be revisited to assess progress as one of the main points of the audit is to produce improvements and the objectives in the Action Plan are designed to be measurable so that they can be assessed. In most case the revisiting will take the form of an assessment against the Action Plan. In some cases, however, it may be appropriate to carry out a complete re-audit

1) Assessment against Action Plan

This should take place after a period of three to five years, depending on the time span of the Action Plan (section 5 of the audit report). This is intended to be a much quicker process than the original audit and should itself produce a report, though this will be considerably shorter. This should consist of the following sections:

Introduction
A brief explanation of the HER, the original audit and any changes that have taken place in the HER since its completion.

Progress Against Objectives
This should give each objective from the original audit and assess what progress has been made and, if completed, whether this was done to time and what other factors affected its completion. It may be useful to summarise this as a table in an appendix.

Recommendations
An assessment of what still needs to be done from the original audit as well as any new work to address changes which have occurred since. If the HER has not obtained the first the 1st stage HER performance measures from *Benchmarks for Good Practice* tasks to meet this should be included. If the HER has obtained the 1st stage HER performance measures in Benchmarks for Good Practice, tasks to meet the 2nd stage should be included.

Action Plan
An action plan, similar to that specified for the original audit (Section 5), should be produced to implement the recommendations which have come out of the process.

2) Complete Re-Audit

In some cases it may be more appropriate to undertake a complete audit again following the specification. Circumstances when it might be more appropriate to re-audit might include:
- There has been considerable changes in the HER, for example:
  - Management structure.
  - Local Government organisation/boundaries.
  - Organisation within the parent body.

- The original audit was as part of a larger HER and the record is now held by a smaller body such as a unitary authority.
- The original audit was a long time ago, i.e. there has been a time elapse between the end of the Action Plan and the current date.

Bibliography and Useful Reading

Publications

ALGAO, 2000, *Local Records - National Resource, An ALGAO Strategy for Sites and Monuments Records*, ALGAO

ALGAO, 2010, *GIS guidance for Historic Environment Records in England: Final report* (Project number: 5403)

ALGAO England, 2012, *Charging for Archaeological Curatorial Services: Advice note – Some legal and policy issues, May 2012 (Revision of advice note issued July 2010)*

Archaeology Data Service, 2011, *GIS Guide to Good Practice;* http://guides.archaeologydataservice.ac.uk/g2gp/Gis_Toc

Baker, D., 1999, *An Assessment of English Sites and Monuments Records*, ALGAO

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English Heritage, 2012, *Good Practice Guide for Local Listing*, English Heritage

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Gilman, P. & Newman, M. (Eds.), 2007, *Informing the Future of the Past, Guidelines for HERs* (2nd edition), English Heritage

MacLean, S., 2012, *HER Content and Computing Survey 2012*, English Heritage

RCHME, ALGAO, English Heritage, 1998, *Unlocking the Past for the New Millennium: a new statement of Co-operation on Sites and Monuments Records in England between the Royal Commission on the Historical Monuments of England, English Heritage and the Association of Local Government Archaeological Officers*, RCHME

Web Resources

ALGAO, www.algao.org.uk/default.htm

Archaeology Data Service, http://ads.ahds.ac.uk/

Association for Geographic Information, http://www.agi.org.uk/uk-gemini/

English Heritage, www.english-heritage.org.uk

English Heritage Thesauri, http://thesaurus.english-heritage.org.uk/

Forum on Information Standards in Heritage (FISH), www.fish-forum.info

Heritage Gateway, http://www.heritagegateway.org.uk/gateway/default.aspx

Heritage Lottery Fund, http://www.hlf.org.uk/Pages/Home.aspx

Informing the Future of the Past, http://www.ifp-plus.info

INSCRIPTION, http://www.fish-forum.info/i_lists.htm   (web resource presently being overhauled)

Pastscape, http://www.pastscape.org.uk/

UK GEMINI Standard Version 2.2, http://www.agi.org.uk/storage/standards/uk-gemini/GEMINI2.2.pdf