

INTERIM ADVICE NOTE 92/07

Environmental Topics

DMRB 11.3.2 Cultural Heritage

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1. INTRODUCTION

- 1.1 This Interim Advice Note (IAN) should be read in conjunction with Interim Advice Note 76 – 82 (Design Manual for Roads and Bridges, Volume 11 Sections 1 and 2), which sets out the framework for the environmental assessment process. This IAN introduces the forthcoming amendments to the current Volume 11 of the DMRB for the environmental assessment of Cultural Heritage. The cultural heritage resource is sub-divided for the purposes of this guidance into three Sub-Topics: Archaeological Remains, Historic Buildings and Historic Landscape, which are treated in more detail in Annexes 5, 6 and 7.
- 1.2 Chapter 2 defines cultural heritage, the regulatory and policy background, and draws out the relationships between cultural heritage and other topic areas considered in DMRB Volume 11, notably Townscape and Landscape, but potentially any of the other environmental topics. Chapter 3 outlines the overall assessment process. Chapter 4 describes sources of potential impacts, the development of design objectives and mitigation strategies.
- 1.3 Chapter 5 describes the framework for Scoping, Simple and Detailed Assessments. The requirements for reporting are set out in Chapter 6.
- 1.4 The annexes provide details of statutory bodies (Annex 1), designations (Annex 2), regulatory framework (Annex 3), and standards and guidance (Annex 4). Sources of information, detailed methods of assessment and references specific to the specialist cultural heritage sub-topics are set out in Annexes 5, 6 and 7. A glossary is provided in Annex 8 and a bibliography in Annex 9.

2. DEFINING CULTURAL HERITAGE

DEFINITION OF CULTURAL HERITAGE

2.1 The Council of Europe, in the *Framework Convention on the Value of Cultural Heritage for Society* (Faro 2005), has defined cultural heritage as:

” ... a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.”

2.2 For the purposes of this guidance the historical and archaeological aspects of this wide-ranging definition are adopted, leaving aside any aesthetic elements. Cultural heritage here is synonymous with the terms “historic environment” and the “built environment”.

2.3 The Cultural Heritage Topic in the guidance encompasses the sub-topics of *Archaeological Remains*, *Historic Buildings* and *Historic Landscapes*. Each of these sub-topics contains a range of assets that may survive as upstanding or buried remains, which may be more or less extensive, and, while acknowledging that cultural heritage is a seamless resource, these sub-topics are identified because techniques for their study and the mitigation of impacts on them require different specialist approaches.

2.4 **Archaeological remains** are the materials created or modified by past human activities that contribute to the study and understanding of past human societies and behaviour - archaeology. Archaeology can include the study of a wide range of artefacts, field monuments, structures and landscape features, both visible and buried. For the purposes of this guidance the sub-topic generally excludes historic buildings and historic landscapes, always accepting there may be important archaeological aspects to these sub-topics. A fuller definition is included in Annex 5.

2.5 **Historic buildings** are architectural or designed structures with a significant historical value. These may include structures that have no aesthetic appeal, and the sub-topic includes, in addition to great houses, churches and vernacular buildings, some relatively modern structures, such as WWII and Cold War military structures, early motorway service stations, industrial buildings, and sometimes other structures not usually thought of as “buildings”, such as milestones or bridges. Annex 6 sets out in more detail the approach to this resource.

2.6 **Historic landscapes** are defined by perceptions that emphasise the evidence of the past and its significance in shaping the *present* landscape. The definition encompasses all landscapes, including the countryside, townscapes and industrial landscapes as well as designed landscapes, such as gardens and parks. As the whole of the UK (and most of the world) landscape has been modified by past human activities, it all has an historic character. However, just as all old materials are not necessarily archaeologically significant merely by virtue of their age, so not all landscapes are equally historically significant. Annex 7 gives more detail of the variety of historic landscapes and the methods for evaluating them.

- 2.7 A cultural heritage *asset* is an individual archaeological site or building, a monument or group of monuments, an historic building or group of buildings, an historic landscape etc., which can be considered as a unit for assessment.
- 2.8 The cultural heritage resource comprises the totality of archaeological remains, historic buildings and historic landscapes, which have been split for the purposes of this guidance into sub-topics only to assist the exposition of the appropriate methods of study. The cultural heritage resource is a continuum, and the cultural heritage assessment is concerned with effects on the whole resource.
- 2.9 The cultural heritage of the United Kingdom encompasses the evidence of human interaction with the environment since people began to occupy Britain. Subject to regional variations, the archaeological and historical periods referred to in this guidance, taken from the Archaeological Periods List of the Forum on Information Standards in Heritage (FISH), are:

Palaeolithic

- Lower Palaeolithic
- Middle Palaeolithic
- Upper Palaeolithic

Prehistoric

- Early Prehistoric
- Later prehistoric
- Prehistoric or Roman

Mesolithic

- Early Mesolithic
- Late Mesolithic (7000-4000 BC)

Neolithic (4000 -2200 BC)

- Early Neolithic (4000-3000)
- Middle Neolithic (3500 - 2700 BC)
- Late Neolithic (3000 - 2200 BC)

Bronze Age (2500 - 700 BC)

- Early Bronze Age (2500 - 1500 BC)
- Middle Bronze Age (1500 - 1000 BC)
- Late Bronze Age (1000 - 700 BC)

Iron Age (800 BC - AD 43)

- Early Iron Age (800 - 400 BC)
- Middle Iron Age (400 - 100 BC)
- Later Iron Age (100 BC - AD 43)

Roman (AD 43 - 410)

- Early Medieval or later
- Early Medieval (AD 410 -1066)
- Medieval (AD 1066 - 1540)
- Post Medieval (AD 1540 - 1901)
- Modern (AD 1901 to present)

The general term “Palaeolithic” covers the whole of the period before and during the last ice age, that is prior to about 10,000 years ago. “Prehistoric” covers the period between the retreat of the ice and the coming of the Romans (between 10,000 and 2000 years ago). The “Prehistoric or Roman” category is for use where Roman or earlier periods are evident but more precision is not possible. The following additional sub-divisions to the post-medieval and modern periods are also used:

16th Century
17th Century
18th Century
19th Century
World War I (1914 – 1918)
World War II (1939 – 1945)
Post War (1945 – present)

THE REGULATORY AND ADVISORY FRAMEWORK FOR CULTURAL HERITAGE

- 2.10 Cultural heritage is more than a matter for antiquarian interest - it shapes how people relate to places and cultures. Archaeological monuments, historic buildings, historic towns and historic landscapes can provide a sense of place and stability to a community. The preservation and enhancement of the cultural heritage resource is generally considered to contribute to the livelihood of communities, and to the cultural and economic well-being of a society. Its value for society is reflected in statutory and other forms of protection extended to important aspects of the cultural heritage resource.
- 2.11 The UK government has ratified and adopted the UNESCO *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972), the *European Cultural Convention* (1954), the *Convention on the Protection of the Architectural Heritage of Europe* (1985), the *European Landscape Convention* (2000) and the *European Convention on the Protection of the Archaeological Heritage* (1992), thus committing the UK government and its agencies to procedures that balance the need for development against the requirement to protect and enhance our national cultural heritage resource as far as is practical.
- 2.12 Some cultural heritage features are the subject of legislation. For archaeology, the principal Acts are the *Ancient Monuments and Archaeological Areas Act 1979* (applying to England, Wales and Scotland), and the *Historic Monuments and Archaeological Objects (Northern Ireland) Order 1995*, which cover scheduled monuments and archaeological areas. The *Planning (Listed Buildings and Conservation Areas) Act 1990*, the *Planning (Northern Ireland) Order 1991* and the *Planning (Listed Buildings and Conservation Areas)(Scotland) Act 1997*, control activities related to Listed Buildings and Conservation Areas.
- 2.13 Some resources are nationally designated for their value but are not statutorily protected (for instance, World Heritage Sites, registered historic parks and gardens, and battlefields). Local planning authorities may also identify sites or areas of cultural heritage value in structure or unitary planning documents, which may be material considerations in planning decisions. Other assets may not be designated but are included in local or regional planning authorities' records and registers (Sites

and Monuments Records or Historic Environment Records). Other historic features, such as ancient greenways, may not be recorded as cultural heritage assets at all, but they may nonetheless be important contributors to historic landscape character. Annex 2 provides a description of designations, and guidance on restrictions, arrangements and contact details to be considered when designated sites may be affected by a scheme.

- 2.14 Cultural heritage assets are the subject of government guidance regarding their protection and treatment in development proposals, including roads. Annex 4 lists the standards and codes of practice adopted by cultural heritage professionals.
- 2.15 Procedures, statutes and regulations relating to cultural heritage in England are not always applicable to the devolved administrations of Scotland, Wales and Northern Ireland. Annex 8 includes information about these separate arrangements, where applicable. Consultants, contractors and agents should consult the relevant Overseeing Organisation regarding the application of this advice for road schemes in the devolved administrations.
- 2.16 The principle that underpins government and professional guidance is that archaeological and other cultural heritage assets are non-renewable resources and that their physical preservation should be the primary goal of cultural resource management. Furthermore, government planning guidance is that, in the case of nationally important remains, whether designated or not, there should be a presumption in favour of their physical preservation and the preservation of their settings.
- 2.17 In cases where preservation *in situ* is not feasible or where there are other overriding factors, preservation by record through systematic investigations may be an acceptable alternative. For the purposes of cultural heritage assessment, the Overseeing Organisations (the national roads authorities in England and the devolved administrations) have adopted the principles contained in the relevant government planning advice notes, subject to the different legislative frameworks governing development covered by the planning acts and works under highways legislation.
- 2.18 The activities of the national highways authorities are governed in England and Wales by the *Highways Act* 1980, in Northern Ireland by the *Roads (N.I.) Order* 1993 and in Scotland by the *Roads (Scotland) Act* 1984. The environmental impact assessment requirements of EU directive 85/337/EEC as amended by 97/11/EC are incorporated (for England) in *Highways (Assessment of Environmental Impacts) Regulations* of 1988 and 1999 respectively.
- 2.19 Annex 1 sets out the statutory bodies charged with overseeing cultural heritage, and Annex 3 provides a list of the principal pieces of legislation governing its protection, including those of the devolved administrations.

OVERLAPS BETWEEN CULTURAL HERITAGE SUB-TOPICS

- 2.20 The cultural heritage resource is not neatly divided into archaeological remains, historic building and historic landscapes. In some schemes one or more of the sub-topics will not be sufficiently significantly affected and so would be ruled out at the scoping level, with no further work undertaken on them. In other schemes two or

more of the Cultural Heritage Sub-Topics as defined in this advice may apparently overlap. For example, an historic colliery site will contain historic buildings (Historic Buildings Sub-Topic), the physical remains of industrial processes (Archaeological Remains Sub-Topic), and the wider landscape (Historic Landscape Sub-Topic), and a single historic feature may play a part in all these aspects of the cultural heritage resource.

- 2.21 There should, however, be no “double counting”, so historic industrial buildings that appear in the Historic Buildings Sub-Topic assessment, for instance, should not be counted again in the archaeological remains score, unless there is a specific archaeological issue that would not be captured by the buildings investigations, for instance the presence of buried remains of earlier structures on the site. The combination of historic building evidence and associated archaeological evidence would, however, probably enhance the value of both in the assessment. This will require liaison between the specialists studying the resource at an early stage.
- 2.22 The three sub-topics should be combined in an overall Cultural Heritage Assessment, where any overlaps should be eliminated, gaps identified and confusions removed. More guidance on achieving this is given in Annexes 5, 6, and 7.

OVERLAPS BETWEEN CULTURAL HERITAGE AND OTHER TOPICS

- 2.23 As a general rule, the Cultural Heritage Topic includes consideration of:
- the presence or absence, character, survival, setting and value of archaeological remains, historic buildings, and historic landscapes,
 - all designations related to cultural heritage, including those where cultural heritage values may play a part in a broader citation (eg Areas of Outstanding Natural Beauty, National Parks, Environmentally Sensitive Areas),
 - historical legibility (i.e. the way in which a historic monument or landscape can be ‘read’ through an understanding of the development of its features, character, setting and context through time),
 - evidence for time-depth and phases of development (i.e. the character and processes of change on a site or landscape over time),
- 2.24 The criterion for undertaking a Cultural Heritage Topic assessment is that there should be a potential for a significant effect on the cultural heritage resource, as defined in paragraphs 2.4 – 2.6, which can be distinguished from the effects on other topics, and which requires the attention of appropriate cultural heritage specialists. However, many topics within an environmental assessment may touch on cultural heritage issues or use cultural heritage data, and environmental coordinators should be aware of when to involve cultural heritage specialists. The Noise, Drainage, Landscape, Townscape and Nature Conservation topics in particular may need to be considered alongside Cultural Heritage.
- 2.25 For instance, a town may have a medieval street layout, a good assemblage of 19th century street furniture, and significant historic facades. All these are historic elements in the present street scene and their contribution to the Townscape will be

assessed within the Townscape Topic. But there may also be buried remains of earlier phases of settlement under the roadway, timber frames hidden behind rendered facades, and multi-phased historic buildings along the route. If there were to be effects on the *historic* value of these assets, as opposed to the *visual* aspect assessed in the Townscape study, then specialist cultural heritage skills would be required, and their assessment would contribute to the Cultural Heritage Topic.

- 2.26 It is important to be aware of scheme mitigation proposals that may involve other topic specialists, such as planting, installation of noise screening, or lighting. These may have effects on cultural heritage assets. Conversely, cultural heritage requirements, such as archaeological mitigation excavations, may disturb important wild life habitats. It is therefore important that topic specialists work together to share data and consider mitigation measures and their timing.

3. THE ASSESSMENT PROCESS

INTRODUCTION

3.1 The UK legislation includes the obligation to undertake an Environmental Impact Assessment (EIA) for proposed road schemes that fall into the appropriate categories defined in the relevant European Directives (see Sections 1 and 2 for fuller details of these requirements). These tend to be large schemes or proposals that have large environment impacts, and Screening establishes the requirement to undertake a formal Environmental Impact Assessment. Smaller schemes that could have significant effects but which would not be subject to a formal Environmental Impact Assessment may still require a cultural heritage assessment to inform decisions as to their effect on the environment. This can extend to some operations maintenance, and the Highways Agency's environmental databases and management plans should be consulted where relevant.

3.2 It is important that each assessment is tailored to the requirements of the scheme, and is carried out at the appropriate detail. For each level of assessment, the process should focus on issues that are needed to inform the decision that is to be taken, and on the risks and opportunities associated with the scheme.

3.3 The assessment must therefore:

- feed into the design process at the appropriate stages;
- assist the decision-maker, who may be at government level or within the Highways Agency;
- meet the requirements of the appropriate statutory processes;
- assist the Design Organisation in achieving the design objectives for the scheme;
- describe and characterise the cultural heritage resource;
- assess its value;
- identify the potential impacts;
- identify appropriate mitigation or enhancement measures;
- assess the magnitude of the mitigated impact, and
- assess the significance of the effect.

THE ASSESSMENT FRAMEWORK

3.4 DMRB volume 11 Sections 1 and 2 set out the assessment framework common to all topics. There are three levels of assessment: Scoping, Simple Assessment, and Detailed Assessment. The following chapter outlines their application to the Cultural Heritage Topic. It is important to note that these levels of assessment are not *sequential*, in that one must follow another, but they should be regarded as *consequential*, in that the results of one determines what further work, if any, is required. Screening establishes whether there is a need for a formal Environmental Impact Assessment (EIA) and Environmental Statement (ES), but all schemes, whether subject to an EIA or not, should be subject to a Scoping assessment.

Scoping

- 3.5 The objective of Scoping is to determine whether any further study is required, beyond the desk based collection and analysis of readily available information undertaken for the Scoping study itself, and if it is required, then at what level of detail. The scheme will need to be at a state that indicates its approximate form before Scoping can be carried out. Scoping typically relies on generalised thresholds and readily available data sources. The results may indicate that no further cultural heritage studies are necessary, or that a Simple Assessment is needed, or alternatively that a Detailed Assessment is needed. These alternatives could apply to each of the Cultural Heritage Sub-Topics separately.
- 3.6 The results of Scoping studies will be need to be sufficiently robust to ensure a confident decision on the need, or lack of it, for further investigations, and if they are needed, how detailed they should be. Further advice is contained in Chapter 5.

Simple Assessment

- 3.7 If the Scoping exercise indicates that it is only necessary to carry out a *limited* assessment then a Simple Assessment is required. There may be different levels of assessment, or none, needed for each of the Cultural Heritage Sub-Topics. The purpose of a Simple Assessment is to address critical unknown aspects in the scoping study in order to reach an appropriate understanding of the effect and complete the design and assessment, or to reach an understanding that identifies the need for a Detailed Assessment. For a Simple Assessment to be sufficient it should confidently establish the impact of the scheme, and determine satisfactory mitigation measures or enable the need for mitigation to be discounted. A scheme will need to have been designed to a point that indicates the scheme's objectives and general form but design flexibility may remain in many elements. Simple Assessment may involve new non-intrusive fieldwork, such as geophysical survey or field walking, to confirm the conclusions of desk-based studies.
- 3.8 The assessment may have to be explained at a Public Inquiry and/or included in an Environmental Statement (ES) or a Record of Determination.

Detailed Assessment

- 3.9 This is required where there is the potential for there to be significant effects on cultural heritage resources. The studies may include new fieldwork, either non-intrusive or intrusive, in order to clarify uncertainties about the location, character, extent, survival or value of cultural heritage assets that may be affected by the scheme. The assessment may have to be explained at a Public Inquiry. The scheme will need to have been designed in sufficient detail to confirm that it could be constructed and mitigation measures delivered, although certain elements may remain flexible to accommodate enhanced environmental performance and the contractor's legitimate design innovations.
- 3.10 The process should be seen as iterative. It is possible, following a decision to undertake Simple Assessment only, or even not to proceed any further than the Scoping studies, that new information indicates that detailed work is in fact required to inform decision-making. In such a case Detailed Assessment should be undertaken. Whether Scoping, Simple, or Detailed, each assessment is 'stand-

alone' and must be reported separately in the appropriate Scheme Assessment Report or similar document.

PRACTITIONERS

- 3.11 Each level of assessment, and the sub-topic studies, may be carried out by different personnel within the highways Agency's range of agents, contractors and consultants, depending on how a scheme is to be delivered. However, appropriately qualified specialists should carry out all cultural heritage studies, including Scoping.

CONSULTATION WITH STATUTORY AND OTHER BODIES

- 3.11 For all levels of assessment, the source of definitive information and opinion on statutorily protected archaeological sites, historic buildings and historic landscapes will be the national heritage agencies. They should be consulted and the results reported within the assessment (see Chapter 6: Reporting). Local planning authority advisors hold the most detailed records within their areas (SMRs/HERs), and they should be consulted at an appropriate stage in order to arrive at an informed view of the cultural heritage resource. The aims and objectives of the consultation will vary according to the level of assessment.
- 3.12 In England, at the Scoping level, an opinion should be sought from English Heritage for all cases involving nationally designated assets, and where uncertainty exists as to the need or scale of further assessment. Early consultation with local planning authority cultural heritage advisors is recommended.
- 3.13 For Simple and Detailed Assessments, the national heritage agencies should be consulted about nationally designated assets, and national and regional research priorities and strategies. In England the relevant planning authorities' cultural heritage advisors should be approached for information and advice on matters within their authority's area.

4. POTENTIAL IMPACTS, IMPACTS, DESIGN OBJECTIVES AND MITIGATION

POTENTIAL IMPACTS

- 4.1 Impacts, in this guidance, are defined as *changes to the cultural heritage resource caused by the mitigated scheme*. Mitigation here means agreed and confirmed measures that will be incorporated into the scheme design and methodology. Potential impacts are changes that may occur as a result of a scheme, but which are not confirmed, and which may be identified before agreed mitigation has been taken into account. In the preparation of the baseline data for a scheme assessment, many assets may be identified which ultimately will not be affected by it. It should be possible to collate this information and omit any assets which are clearly unaffected by the proposed scheme, and assess those that would be. However, at certain stages designs may not be developed sufficiently for the impact to be confidently predicted, or the resource may not be sufficiently well understood, or measures to mitigate a predicted impact on a known resource may not be confirmed, nor agreed. This may lead to a situation in which it is only possible to consider potential impacts - changes that could happen if the scheme design were to be developed in such a way as to affect valuable assets, or if the unevaluated assets proved to be of value, or if the options for mitigation proved to be limited.
- 4.2 In England, for the Highways Agency, potential impacts are considered but not reported in detail, as they may include many possible changes that will not happen. If scheme proposals are insufficiently detailed for impacts to be identified confidently, this should be noted. If the presence, value, location, state of preservation etc of assets is unknown or incompletely understood (for the purposes of the assessment) then again, this should be noted. It is clearly not possible to predict the magnitude of the impact of the finished scheme if these factors are unknown, but the risk they represent should be identified. It is important to be aware of potential impacts at all stages of a scheme, so that measures to complete any necessary surveys or clarify design details can be appropriately planned and implemented.
- 4.3 If the design is sufficiently detailed and the assets well enough understood to establish the impact, but mitigation proposals are not confirmed and agreed, then the magnitude of impact assessment should discount them, and report the impact as it would be for scheme without them. In this way, as mitigation proposals are confirmed and agreed, their effect will be reflected in amendments to the magnitude of impact assessments, thereby contributing to a realistic record of the effects of the proposals as they stand at the time of the assessment.

IMPACTS

- 4.4 Impacts are effects that arise from the mitigated scheme. The baseline from which they are assessed should be the situation that would exist if the scheme were not pursued. The baseline is the condition of assets at the commencement of construction coupled with the predicted trajectory of their condition through the construction and operational period if the scheme did not take place. So if, say, the condition of an historic building adjacent to a road is deteriorating and would continue to deteriorate in a "do nothing" scenario, then the impact from a scheme

that affects it would be any change to that scenario, which may be an acceleration of the deterioration, or it could be an improvement in its predicted condition.

- 4.5 Impacts may arise from both the construction and the operation of the road or scheme. Scheme proposals should be reviewed alongside data on cultural heritage in order to identify sources of potential impacts. Relevant scheme information can include land-take, vertical and horizontal alignments, construction methods and programming, details of temporary and permanent works, and mitigation works related to other environmental topics.
- 4.6 Impacts can be Positive, Negative; Direct, Indirect; Long Term, Temporary and Cumulative. They may arise from the construction and/or the operation of the works. These types of impacts may sometimes operate differently in relation to the three Cultural Heritage Sub-Topics.
- 4.7 **Long-term construction impacts** can arise from many of the activities that take place from the first day of site clearance. It should be noted that a temporary element of the construction process might still cause a long-term impact on some cultural heritage assets, while being a temporary impact on others. For example, a haul road may entail topsoil stripping, which could cause long-term damage to archaeological remains, but when removed and restored to its original function at the end of the construction period its impact on the historic landscape might also cease. Archaeological remains and historic buildings cannot be authentically replaced or regenerated if they are physically damaged or destroyed. All damaging impacts on the fabric of archaeological remains and historic buildings are therefore permanently adverse. The sources of such impacts can include geotechnical investigations, tree and hedgerow removal, demolition or alteration of buildings, topsoil stripping, excavations for borrow-pits, drainage and communications, the movement and installation of heavy machinery and plant, and mitigation works in connection with other environmental topics. The impact of construction compounds, access roads and storage areas should also be considered in relation to the cultural heritage resource, although these elements may be subject to planning controls rather than highways procedures. If the location of these facilities is not known, then sensitive areas may be identified in order to inform construction contractors. Activities undertaken in connection with other environmental disciplines, such as topsoil translocation, planting, noise barriers, and landscaping, should also be examined. Consultation with environmental, design and construction teams may be necessary to ensure that details such as the phasing, methods and depths of excavations, the likely impacts of piling, drainage, and potential pollution of soils are taken into consideration. Some constructional impacts may be beneficial, for instance, improved access to historic assets made available by “greening” an existing road may halt a process of vandalism or neglect.
- 4.8 **Long-term operational impacts** are those that would arise from the use of the road once built. These sources of negative impacts could include new lighting, noise, dust, vibration, and visual intrusion by traffic or planting, while positive impacts could be the removal of any of these from the vicinity of sensitive cultural heritage features.
- 4.9 **Temporary construction impacts** such as noise, dust, visual intrusion and disruption of access during construction, can affect the settings or context of historic buildings, monuments and landscapes, but these may cease with the completion of

the road. They are temporary, and the appropriate weighting should be given to the assessment of their overall impact. Temporary impacts are not confined to the construction phase. They may arise from the operation of the scheme, for instance, as a result of noise caused by traffic diverted during predictable maintenance or other traffic management operations.

- 4.10 **Negative impacts** can arise from new effects, or an increase in the rate of existing deterioration over what would otherwise be the case.
- 4.11 **Positive impacts** may arise from the cessation of erosion, intrusion or damage that would continue if the scheme were not built. For historic buildings the removal of passing heavy traffic as a result of a new bypass, for instance, may slow down the deterioration of the fabric, or increase their economic viability. The integrity of historic landscapes may be improved, for instance by the reduction or removal of intrusive traffic or roads and road furniture, the better integration of an existing road into a pattern of historic fields.
- 4.12 **Direct impacts** are those that arise as straightforward consequences of the scheme or scheme. For archaeological remains and historic structures, this can mean physical damage to, or physical improvement of, the fabric of the asset, but it can also mean impacts on the setting of cultural heritage assets. For an historic building, for instance, an increase in noise and pollution as a result of the scheme would constitute a direct impact.
- 4.13 The damage caused by increased traffic - or its corollary, the removal of traffic from the vicinity of historic features leading to the arrest of damage that would otherwise continue - these would be classed as direct impacts, as would the impact of changed traffic flows on historic landscape character. It may be necessary to consider the possibility of an increase or decrease in an impact over a number of years from particular sources, such as air pollution related to predicted traffic volumes or the effect of maturing tree cover.
- 4.14 Setting is a material consideration in government planning guidance relating to archaeological remains, historic buildings and designed landscapes. Establishing what constitutes "setting" is the subject of considerable professional debate, and for the purposes of this guidance its meaning is limited to sense based parameters (eg visual, aural), unless a convincing case can be made to include other factors. Any future government or professional recommendations, standards or guidance on this issue should be taken into account. For historic landscapes the term "setting" should be used in relation to the appropriate historic landscape character unit. The entire landscape is historic, so as a whole it cannot be said to have a "setting" (unless it is considered on a planetary scale!) Nonetheless, individual historic landscape character units may be affected by what takes place in neighbouring character units. The view of, say, an historic pre-enclosure landscape character area, may be affected by the intrusive presence of an adjacent new road nearby, and this could constitute an impact on the setting of the enclosure landscape.
- 4.15 An **indirect impact** is an impact arising from the scheme via a complex route, where the connection between the scheme and the impact is complicated, unpredictable or remote. For instance, an impact on historic landscape character could arise from a scheme that severs an agricultural holding, leading to changes in farming viability and thence indirectly to changes in historic land-use patterns.

- 4.16 **Cumulative impacts** can arise from *multiple effects* of the same scheme on a single asset, *different multiple effects* of the scheme and other sources on the same asset, or *incremental effects* arising from a number of small actions over time. Interactions may arise from activities related to other topics, such as drainage schemes, endangered species relocation, sound attenuation measures or access arrangements, taken together with any cultural heritage impacts. The forms of cumulative impact are discussed in Section 2 Part 5, Chapter 1, with advice on how to consider the certainty of outcome and the probability of the predictions.

DESIGN OBJECTIVES

- 4.17 Design Objectives are those developed for the scheme being assessed, and should be agreed with the Highways Agency. Design objectives are essential for the production of efficient and useful assessments, and for monitoring the effectiveness of work undertaken to achieve them. They should enable the success of the scheme to be assessed against stated aims linked to national, regional and local policies, priorities and objectives. For cultural heritage, criteria of value can change, and linking Design Objectives to published or acknowledged research or policy priorities can assist in establishing the scale of the significance of affected assets. Cultural Heritage Design Objectives should be outlined in the early design stages of a scheme, but should be reviewed as required, as information becomes available. Design Objectives will inform the assessment and design process and should always include avoiding or minimising adverse change to the cultural heritage resource and maximising opportunities for enhancement where practical. Design Objectives are likely to become more detailed as the scheme progresses.
- 4.18 The development of scheme specific cultural heritage objectives should be informed by, and sit within, a hierarchy of environmental design objectives. These will relate to some that are defined at an international or national level, encompassing others that are more regional, local, and, eventually, scheme specific.
- 4.19 At the international level are the United Nations Educational, Scientific and Cultural Organisation (UNESCO), European Union and Council of Europe conventions regarding cultural heritage, which have been ratified by the UK government. These set the higher level objectives, which are reflected at the national level in the government's statutes and planning and development control policies as they affect the cultural heritage resource, together with government advice on their application. The Highways Agency's manuals and environmental strategy and policy statements will guide the institutional environmental objectives. Scheme specific topic objectives, and the sub-topic objectives, will be informed by this hierarchy of priorities.
- 4.20 The scheme specific design objectives should take account of government cultural heritage research agendas, priorities and frameworks, and the priorities of national advisory bodies, like those of English Heritage, the Commission for Architecture and the Built Environment (CABE), and specialist organisations such as the Prehistoric Society and the Society for Medieval Archaeology for instance. Regional research frameworks or priorities, where they exist, should also be taken into account. Local plans, local heritage initiatives, village plans, and management plans for heritage sites etc. may contain valuable information regarding local objectives.

- 4.21 There should be a clear statement of how the scheme, possibly through mitigation or enhancement measures, is expected to contribute to the value of, or the understanding and dissemination of, the cultural heritage resource, and how this is to be achieved. These objectives should be capable of being monitored and validated.

MITIGATION AND ENHANCEMENT

- 4.22 Assessment and design are partners in a process leading to the formulation and adoption of appropriate mitigation or enhancement measures to achieve the design objectives. Mitigation avoids or reduces the potential adverse effects of the scheme. Enhancement improves the current condition of the asset, or its future condition as compared with the “do nothing” situation. The consideration of appropriate mitigation and enhancement is necessary for all schemes where there is a potential impact. The assessment of the magnitude of impact, and therefore the assessment of the significance of effects, must take into account the extent to which agreed mitigation or enhancement measures reduce adverse impacts or improve the resource.
- 4.23 Mitigation and enhancement should be considered at all levels of assessment to ensure that appropriate measures are agreed, deliverable, and incorporated in the design at the earliest opportunity. Understanding the likely performance of mitigation and enhancement measures, as well as how they may impinge on other topics is an important aspect of assessment. Best practice should be followed in establishing mitigation methods and strategies. Annexes 5, 6 and 7 together with DMRB volume 10 contain advice on mitigating impacts on cultural heritage resources, including historic landscapes. If there were areas of uncertainty, either regarding the value of the resource or the impact of the scheme, it may only be possible to establish mitigation strategies, that is, a statement of the objectives and the methods proposed for achieving them.
- 4.24 Mitigation measures should be identified on a case-by-case basis, and can include, for instance: avoidance; burial, excavation, strip map and sample in the case of archaeological remains; relocation, photographic or measured surveys in the case of historic buildings; information panels; or landscaping works in the case of impacts on historic landscapes. Mitigation that lessens an adverse impact, such as an archaeological investigation of a site that is to be destroyed, should not be counted as a *beneficial* effect, despite any contribution such an investigation may make to research priorities. It serves to limit the adverse effect of the destruction.
- 4.25 Enhancement may entail ameliorating existing damaging processes, for instance through improved maintenance, or providing improved access to discourage vandalism or neglect, or improved information. This should not be confused with the benefits that the scheme itself may bring, such as a bypass removing heavy traffic from an historic village. This would be assessed simply as a beneficial impact.
- 4.26 The assessment of the significance of the effect should only take account of mitigation measures that have been fully agreed, are incorporated in the design and construction process, and are deliverable by the Highways Agency. Any proposed mitigation measure that is not agreed, or which may not be so certainly delivered, should not be used to reduce the assessment of the magnitude of impact, although it may be noted separately as an aspiration.

- 4.27 The assessment should provide indicative costings for agreed mitigation, to a degree of detail appropriate to the level of assessment, and with enough information to enable an opinion to be formed as to its likely effectiveness and deliverability. It may be possible to agree mitigation *strategies* in circumstances where the assessment, or the scheme itself, has not progressed to a stage where a detailed costed mitigation *design* can be established.
- 4.28 Further information on specific mitigation methods related to archaeological remains, historic buildings and historic landscapes is contained in Annexes 5, 6 and 7. Guidance is also given in DMRB volume 10.

5. SCREENING, SCOPING, SIMPLE AND DETAILED ASSESSMENTS

SCREENING

- 5.1 Screening should be used to decide whether a scheme has a requirement for a formal Environmental Impact Assessment. The procedures for establishing this are set out in DMRB volume 11 Section 2 Part 3. If screening shows that the scheme does not require a formal EIA there may still be a requirement for cultural heritage studies to inform a Record of Determination (RoD) or similar record of decision making.

SCOPING

- 5.2 Regardless of whether or not Screening establishes a requirement for a formal Environmental Impact Assessment by virtue of its size or type, a scheme still may have a significant effect on cultural heritage. However, it may be that only one or two of the three cultural heritage sub-topics would be affected. Scoping should establish the need for further assessment, or exclude issues from further assessment, as well as indicate the level of detail that any further work should pursue.

Scoping - Data gathering

- 5.3 Information gathering for Scoping should consist of a desk-based study of readily available information, such as that found held by English Heritage for statutorily designated assets and in the local authority Sites and Monuments Record/Historic Environment Record. It is aimed at identifying major constraints, such as the presence of statutorily designated archaeological sites, listed buildings and registered historic parks, gardens, and battlefields, Conservation Areas, World Heritage Sites, National Trust Inalienable Land and any other relevant designations, important assets and important historic landscapes that may be affected by the scheme and may require further study, or which can be discounted at this point in the process.
- 5.4 The Scoping exercise must be focussed on informing the decision-making process. No additional or redundant work should be carried out which does not directly assist the decision about whether further work is necessary, and if it is, what is the appropriate level of assessment required for the next stage of the scheme. If the answer to any of the following questions is 'yes', then the relevant specialist sub-topic is likely to need further assessment:

- Archaeological Remains
 - do any important archaeological remains lie within 300m of the scheme?
 - will there be new land-disturbance associated with the scheme?
- Historic Buildings
 - will the scheme lie within the visual envelope of a listed building or other historically important structure?
 - will a listed building lie within 300m of the scheme, or will the scheme directly affect buildings in a Conservation Area or World Heritage Site, or will the scheme directly affect any other designated historic structure?
 - will the scheme affect the setting of buildings in a Conservation Area, World Heritage Site, National Trust property or other designated area?
- Historic Landscapes
 - will the scheme affect World Heritage Sites, or registered historic battlefields, parks or gardens or their settings?
 - will the scheme affect a valuable historic landscape?
 - will the scheme affect National Trust Inalienable land?

5.5 If nationally designated assets may be affected, English Heritage should be consulted. Otherwise, unless there is uncertainty about the existence of major constraints, such as the extent of a scheduled monument or a registered historic park, garden or battlefield, or there are likely to be issues of controversy or public concern, it is not usually necessary to seek a formal opinion from English Heritage but the local authority Sites and Monuments Record / Historic Environment Record officer or equivalent should be approached for information in order to complete the scoping process. The devolved administrations have separate procedures for consultation, and these should be carefully followed (see Annex 8).

5.6 Following the Scoping exercise, if a cultural heritage sub-topic has been 'scoped out' no further work will be required on that sub-topic unless conditions change, for instance if the scheme parameters change or if there are relevant new discoveries. If there are any doubts, or there is insufficient information to draw a reliable conclusion, the relevant sub-topic should be assessed in more detail through Simple or Detailed Assessment.

5.7 If Scoping studies show that further work is required, the selection of Simple or Detailed Assessment will depend on a combination of:

- the scheme decision stage;
- the nature of the scheme (for example, a scheme with no new land take in previously disturbed ground is unlikely to need detailed appreciation of buried archaeological remains, although the extent of previous destruction may need to be confirmed);
- the reliability of the baseline data that is available;
- the findings of the Scoping exercise;
- the level of detail of any previous assessments undertaken for the scheme, and whether the data were collected recently, or whether previous results are considered to be robust;
- access to the site for field surveys;
- the value/sensitivity of the receiving environment.

SIMPLE ASSESSMENT

5.8 A Simple Assessment has three functions:

- i) to address unknown aspects of the Scoping Assessment, or
- ii) to reach an understanding of the effect and complete the design and assessment, or
- iii) to reach an understanding of the likely effect that identifies the need for a Detailed Assessment.

5.9 As a Simple Assessment may be appropriate for a wide range of types of scheme it is necessary at the outset to confirm the scope of the studies, as recommended in the Scoping Report. Information should not be collected and analysed if it would not contribute to the decisions to be made concerning the scheme.

Simple Assessment - Data gathering

5.10 Information should be obtained from the relevant Sites and Monuments Record/Historic Environment Record and other readily available sources, including national monuments records, statutory lists of Scheduled Monuments, Listed Buildings, Conservation Areas and designated historic sites and landscapes. The study should also consider digital databases available through the internet, and those maintained by the government and its agencies.

5.11 The study may need to collect information on historic landscape character mapping, World Heritage Sites and National Trust Inalienable Land potentially affected by the proposals. Historical maps and aerial photographs, relevant books, journals, and previous reports should also be reviewed, and geotechnical data should be consulted if available and appropriate.

Simple Assessment - Field survey

5.12 If the desk based studies indicate that there are significant gaps in the information required, it may be necessary to undertake new field surveys. Field surveys would normally include a preliminary walkover of the area or route, to familiarise the surveyor with the lie of the land, to check current land-use, identify any visible cultural heritage assets, confirm relevant historic landscape character mapping and briefly check the condition of known assets.

5.13 Specialist field survey for Simple Assessment may take the form of non-intrusive work, such as systematic field-walking. This differs from a walkover survey, which is a rapid observation of the land, albeit often recorded on pro-forma field sheets. Field-walking is a systematic archaeological technique that entails a team of archaeologists walking a surveyed grid while collecting and recording artefacts from the surface of ploughed fields, to map the distribution of artefacts.

5.14 Other specialist surveys that might be undertaken for a Simple Assessment are the external or internal examination and photography of buildings, geophysical surveys, analysis of existing LIDAR surveys, or plotting existing aerial photographic surveys. Prior to Compulsory Purchase Orders intrusive surveys where the ground is broken (trial trenching for instance), or the fabric of a building disturbed (for instance to confirm timber framing behind modern render), normally require the landowner's

permission and the payment of compensation, and would not be expected for a Simple Assessment.

Consultation

- 5.15 English Heritage will be consulted. Local planning authority heritage officers and other relevant sub-topic specialists should be consulted where appropriate (see paragraph 3.13).

Simple Assessment - Reporting

- 5.17 The Simple Assessment report should be set within the reports required at the relevant Scheme Stages (see Section 2, Part 6, Chapter 3). The study will include a database with associated mapping at an appropriate scale, and an analysis of the cultural heritage resource. The studies will result in a report on the findings of the assessment (see chapter 6). The data should also be provided in a form suitable for incorporation into the Highways Agency's environmental databases. The procedures for this in England are set out in DMRB volume 10, Section 0.
- 5.18 The Report will include a statement assessing the confidence level to be accorded to the results, taking into account the quality of the data, comparable situations, and any other relevant factors, and identifying significant gaps in the available data or procedures. The Report will contain a statement setting out whether or not a Detailed Assessment is required. Any risk to the scheme posed by cultural heritage issues should be clearly stated.
- 5.19 Any new information or research that is not subsequently incorporated in further works and their publication, should be disseminated through appropriate channels, which may range from providing information to the local SMR/HER to undertaking detailed post investigation analysis and publication.

DETAILED ASSESSMENT

- 5.20 Detailed Assessment would be applied where there is the potential to cause significant effects on environmental resources and receptors, and the extent of this remains unclear after the previous study, whether that was the Scoping exercise or a Simple Assessment, and a detailed study is required to obtain sufficient information for an appropriate assessment. The aim is to establish a robust in-depth understanding of the beneficial and adverse cultural heritage consequences of the scheme, when the cultural heritage resource is potentially important, and/or the impact on it is potentially large, but where sufficient information is lacking to determine one or both of these parameters, and detailed investigations are necessary to remedy the deficiency. Where these factors are already established, and sufficient information is available to determine any necessary mitigation and the significance of the effect then Detailed Assessment will not normally be required.
- 5.21 Full descriptions of Detailed Assessment procedures for each of the Cultural Heritage Sub-Topics are given in Annexes 5, 6, and 7. A summary only is given here.

Detailed Assessment - Data gathering

- 5.22 National sources, such as the National Monument Record (NMR) and national aerial photograph collections, should be consulted if appropriate. Lists of designated sites, buildings and landscapes should also be consulted. Local Sites and Monuments Record/Historic Environment Records (SMR/HERs), probably the most comprehensive records of the cultural heritage resource, are an invaluable source of detail. There are many other national, specialist and local databases, and consultants should research relevant ones to ensure that appropriate information is collected for the purpose of the study.

Detailed Assessment - Field survey.

- 5.23 Where desk-based studies suggest that available information is inadequate for the purpose of the assessment, it may be appropriate to undertake field surveys to enhance the data. These surveys may take many forms: some do not break the ground or damage the fabric of structures while others are intrusive. As a general rule the former can be undertaken under statutory rights of access for surveys, while intrusive surveys, such as trial trenching or the removal of masking materials in historic buildings, will need the landowners' or householders' permission until the relevant properties are compulsorily purchased. Where intrusive surveys are necessary for the effective evaluation of the resource the landowners' or property owners' permission should be sought, and the request recorded. If permission is refused it may be important to be able to show that all reasonable efforts had been made to obtain the necessary information.

ASSEMBLING AND ANALYSING THE DATA

- 5.24 Each relevant aspect of the cultural heritage resource should be recorded in a database. The recording system should be flexible and capable of accommodating additional information as the scheme progresses, bearing in mind that some schemes have long preparations programmes, and several different agencies and contractors may be involved in the course of its development.
- 5.25 Depending on the objectives of the scheme and the assessment, sophisticated assembly techniques, such as computerised databases, overlays, phase plans or GIS should be considered, in order to provide greater facility for interrogation, interpretation and presentation. In-house specialised applications should be avoided, as results may need to be run on other agencies' platforms.

EVALUATING THE CULTURAL HERITAGE RESOURCE

- 5.26 Having identified the existence and character of known and potential cultural heritage assets which may be affected by the scheme, the next step is to establish their value.
- 5.27 Cultural heritage assets may be valued for a number of reasons: for instance they may be rare or particularly well preserved examples, or typify a class of asset. Other features, not remarkable in these terms, may nonetheless be valuable for a particular community, especially if they are accessible and contribute to local distinctiveness or identity. Clearly many of these values are interrelated, and contribute to a complex mesh of perceptions which are continually changing. A

newly discovered research technique, for instance, may lead to previously unconsidered trifles becoming highly significant (for instance, consider DNA a decade or so ago).

- 5.28 For the purposes of assessment, cultural heritage assets should be considered principally with reference to their value to the quality and understanding of the country's cultural heritage resource, including their contribution to a sense of place. Other environmental topics may be more appropriate for examining some of their other values. The Community Topic for instance, may better encompass the importance of historic features to the local economy. Aesthetic qualities may be more appropriately considered within the Landscape and Townscape Topics. However, these values can often be related to cultural heritage values and the relevant specialists should liaise to ensure that their assessments are co-ordinated.
- 5.29 The cultural heritage value of some assets may already be formally recognised through designation (see Annex 2). Other valuable assets may not be designated, possibly because they are newly discovered, or their significance only recently recognised, or because designation is not an appropriate response to their situation, or their value has not yet been formally assessed. There may be useful existing indications of value in the citations of World Heritage Sites, National Park and Area of Outstanding Natural Beauty citations, development plans, Historic Landscape Character or Historic Land Use studies, Conservation Area citations, in townscape and urban characterisations, or in village plans. The Assessment should take these into account as appropriate. Where no such previous evaluations are available for cultural heritage assets, the factors taken into account by the relevant authorities for designating archaeological remains, historic buildings and historic landscapes should be considered in assessing value.
- 5.30 The assessment of the resource should also be measured against priorities or recommendations published in national, regional and local research agendas, priorities or frameworks. This assessment should relate to the scheme specific Design Objectives, which should establish the capacity of the cultural heritage assets affected by the scheme to contribute to these priorities. In all cases the source and rationale for value judgements should be made explicit.
- 5.31 For all schemes it will be necessary to rank the value of all the known and potential assets that may be affected by the scheme, whether they are archaeological sites, historic buildings or historic landscapes. The value of each asset should be ranked according to the following scale:
- Very High
 - High
 - Medium
 - Low
 - Negligible

For some circumstances an "Unknown" value may be all that can be entered. This would usually indicate that some risk remains, but the scale of this risk should be estimated and a strategy for eliminating it proposed. Annexes 5, 6 and 7 set out the factors to be considered in determining values for the different sub-topics.

MAGNITUDE OF IMPACT

- 5.32 The magnitude of impacts is the degree of change that would be experienced by the receptor if the scheme were to be completed as compared with a “do nothing” situation. This assessment must take account of any mitigation that is part of the design, is deliverable and is agreed. Sources of potential impacts, before mitigation, should be identified but the assessment of their magnitude must include agreed mitigation.
- 5.33 To identify the magnitude of impact the scheme design needs to be established as well as the presence and character of the cultural heritage resource. There are many potential sources of impact on cultural heritage assets arising from road schemes, and the identification of them will become more precise as schemes progress. They should be advanced enough to identify the sources of potential impacts. The following scheme information should be examined, where relevant to the specialist topic in question:
- general details contained in the scheme design about the nature and extent of proposed ground works and below-ground disturbance, including site investigations, site clearance, topsoil stripping, drainage, landscaping, planting, groundworks for the installation of lighting and other services, and the extent of landtake;
 - previous or existing disturbance which may have already affected any assets;
 - design proposals which may have a direct impact, such as increased pollution, noise, vibration, visual intrusion, or the possibility of collision damage;
 - off site works such as compounds, borrow pits, haul roads etc.;
 - design proposals that may affect setting, context or legibility, such as lighting, signage, or bunds, and
 - aspects of the scheme that have the potential for indirect impacts, such as drainage that might lead to desiccation, or severance leading to decreased economic viability of historic resources and subsequent detrimental changes.
- 5.34 The magnitude of the impact (degree of change) can be adverse or beneficial, and should be ranked without regard to the value of the asset. The total destruction of a Low Value asset will have the same magnitude of impact on the asset as the total destruction of a High Value asset; the value of the asset is factored in when the significance of the effect is assessed. The magnitude of impact should be ranked according to the following scale:
- Major
 - Moderate
 - Minor
 - Negligible
 - No change
- 5.39 The factors to take into account in establishing magnitude of impact for the different sub-topics are set out in Annexes 5, 6 and 7.

SIGNIFICANCE OF EFFECTS

5.40 Assessing the significance of the effects of the scheme brings together the **value** of the resource and the **magnitude of the impact** (incorporating the agreed **mitigation or enhancement**) for each cultural heritage asset, using the matrix illustrated in Table 5.1. The adverse or beneficial significance of effect should be expressed on the following scale:

- Very Large
- Large
- Moderate
- Slight
- Neutral

Table 5.1 below illustrates how information on the Value of the asset and the Magnitude of Impact are combined to arrive at an assessment of the Significance of Effect. The choices allowed in the matrix indicate that the significance of effect can be nuanced. It is a matter of professional judgement rather than mechanical process how the matrix terms are applied.

Table 5.1 - Significance of Effects Matrix

VALUE/SENSITIVITY	Very High	Neutral	Slight	Moderate/Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
	Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
	Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
	Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight
		No change	Negligible	Minor	Moderate	Major
MAGNITUDE OF IMPACT						

5.38 This process, although apparently mechanical, is not quantitative, but relies upon professional judgement at each step. The baseline factors considered in arriving at the various rankings of value, magnitude of impact and significance of effect are observable facts (ie numbers of assets, whereabouts, designations, impacts), and it is essential that the conclusions based on them are robust, and, if necessary, be capable of explanation in a Public Inquiry. The procedure identifies each step taken to arrive at the final assessment of the significance of effect, and they can be re-examined and modified if they lead to unreasonable conclusions. The process may indeed reveal a valid significance of effect greater or lesser than that the one that might otherwise have been expected. The process outlined above is not a formulaic equation to avoid difficult issues, but a way of illuminating how they have been tackled on a case-by-case basis.

ASSESSING THE SIGNIFICANCE OF EFFECT ON THE OVERALL CULTURAL HERITAGE RESOURCE

- 5.39 The significance of the effect on the overall cultural heritage resource must be assessed, combining the sub-topics involved in the assessment. This can be a complex judgement but it is essential for producing a useful contribution to the decision making process. Some guidance can be given here but professional judgement on a case-by-case basis will usually be required.
- 5.40 The intention is to establish, as far as possible, parity in the assessment of values, impacts and significance of effects across the three sub-topics, so a high value archaeological site, a high value historic building and a high value historic landscape will all be considered of equal worth, and a similar magnitude of impact will result in a similar judgement of the significance of the effect.
- 5.41 If all the effects on all assets were adverse then the highest reading on the Significance of Effect matrix would normally be taken to be the significance of the overall cultural heritage effect. Similarly a scheme with wholly beneficial effects would normally be assessed at the highest beneficial reading.
- 5.42 If there were adverse **and** beneficial effects (for instance on different cultural heritage assets or in different cultural heritage sub-topics) these will need to be brought out in the assessment, and not obscured by balancing them off against one another. For example, a bypass proposal with a Moderate Beneficial Effect on the historic buildings in a village, might also have a Moderate Adverse Effect on rural archaeological assets. If these were offset against one another to produce an overall Neutral assessment score this would be misleading. An alternative route, or even no new route, with no adverse or beneficial effects, would also have a Neutral score, but clearly these options would not be equivalent in their effect on cultural heritage. The effects of the different options should be described and the scores qualified in the text, to make the differences clear.

CONFIDENCE LEVEL

- 5.43 For archaeological remains in particular, and for the other sub-topics to a lesser extent, there is the risk that their presence, or their value, or the degree of impact on them, may remain uncertain despite applying appropriate methods of identification, prediction and evaluation. It may be the case that the scope of the information gathering or predictive techniques is limited, for instance as a result of the requirements of a particular scheme or the decision making stage. It is important to identify sources of uncertainty, and assess the effect of uncertainty on the conclusions.
- 5.44 All assessments should include a statement of the degree of confidence in the results. This should address the reliability of the assessment methods and the scope of the data, in order to identify areas of uncertainty and to highlight parts of the route, or types of resource, or scheme impacts, for which information is insufficient. Possible or potential outcomes (risk) in the absence of further investigation should also be identified, and incorporated in any formal risk assessment process undertaken by the Overseeing Organisation.

REPORTING

- 5.45 The results of the study should be capable of being explained at a Public Inquiry and included in an Environmental Statement if necessary. Further guidance is contained in the Sub-Topic annexes 5, 6 and 7.

6 REPORTING

- 6.1 The results of the studies may be intended for inclusion in Environmental Statements, or to document and support decision making, and should be capable of bearing public scrutiny and debate. The results of the studies must therefore be robust enough to withstand such scrutiny, and records of surveys, consultations, analyses and conclusions should be comprehensive, meticulous and consistent.
- 6.2 The studies will produce reports in various formats for different purposes. Technical reports on data collection or fieldwork may often be stand-alone documents, but they should be prepared bearing in mind that aspects of the studies, such as constraints mapping or databases, may contribute to the environmental plans or management plans (or equivalent) for the scheme. This requirement may dictate the format and scale of mapping, and the format of gazetteers and databases.
- 6.3 Some schemes may utilise GIS systems, and the way in which cultural heritage information is incorporated into such a system will need to be determined early in the scheme cycle. Reports should conform to the Highways Agency's preferred style or formatting, such as protocols for the presentation of electronic documents.
- 6.4 Reports should be prepared on the results of all assessments, whether at Scoping, Simple or Detailed level, giving careful consideration of how much detail is required for the particular stage in scheme delivery and decision making process.
- 6.5 The study should ensure that cultural heritage information collected during the assessments contributes to the Highways Agency's environmental databases (see DMRB vol 10 Section 0). There may also be scheme databases that combine information across all the environment topics, which will assist in identifying topic boundaries, areas of potential double counting and the coordination of consultations, surveys and proposals for mitigation.

SCREENING

- 6.7 The Highways Agency will confirm in writing any recommendation for the need to proceed to formal Environmental Impact Assessment.

THE SCOPING REPORT

- 6.8 The Scoping Report should define:
- the scheme;
 - the study area;
 - the potential receptors and impacts;
 - the known data;
 - the scheme objectives
 - the scope of data gathering & and/or fieldwork;
 - the proposals for consultation;
 - the proposed methods for the evaluation of the resource;
 - the proposed method for assessment of impact;
 - the significance criteria to be used;
 - a statement of the degree of confidence in the results.

- 6.9 The draft Cultural Heritage Scoping Report should be sent to the Highways Agency for approval prior to its submission to consultees for comment. Thereafter the Scoping Report remains as a document that may be modified in the light of subsequent investigations, setting the framework for subsequent assessment.
- 6.10 The report should include a key plan showing the locations of cultural heritage assets and areas, as well as any areas of high risk.

SIMPLE ASSESSMENT REPORTING

- 6.11 The report on the Simple Assessment should contain the following key chapters:
- a) Introduction/Overview: information on the scheme background and context;
 - b) Method Statement: a summary of the assessment sources, and methods adopted for data gathering, fieldwork, evaluation, assessment of impacts, and mitigation;
 - c) Regulatory and Research Framework: the relevant regulations, Acts of Parliament and codes of practice at national and local scale, and the results of relevant consultations, together with a statement of the cultural heritage Scheme Objectives;
 - d) Baseline conditions: the identification and characterisation of cultural heritage assets, to an appropriate level of detail, including the results of any surveys carried out;
 - e) Evaluation of the cultural heritage assets.
 - f) Assessment of the magnitude of the impact of the scheme, taking into account agreed mitigation measures or strategies, including the likely effectiveness of the mitigation and enhancement measures. There should be a description and discussion of potential alternatives;
 - g) Significance of effects: the assessment of the significance of the effects on the cultural heritage resource, based on the evaluation and the assessment of the magnitude of the impacts, taking agreed mitigation into account (in Wales the significance of the effect of the unmitigated scheme should be reported). There should also be a statement identifying any remaining risks or uncertainties;
 - h) Summary: a short description of the significance of the effects on cultural heritage.
- 6.12 The report will be illustrated to show the locations of the relevant assets, to take the form of (as appropriate):
- key plan showing Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Historic Landscapes, Historic Parks and Gardens, Historic Battlefields, historic landscape character mapping and other relevant designated and undesignated assets;

- a map at an appropriate scale showing the Zones of Visual Influence or the appropriate visual envelope related to historic buildings and monuments;
- detailed route plans at 1:2500 showing the locations of all cultural heritage assets, to include:
 - areas of cultural heritage potential,
 - an indication of where, and what, further cultural heritage fieldwork is required,
 - areas of potential impacts, where known.

DETAILED ASSESSMENT REPORTING

6.13 The draft report should be submitted to the Highways Agency prior to circulating it to consultees. The final report will include the results of consultations.

- a) Introduction/Overview: information on the scheme background and context;
- b) Method Statement: a description of the information sources, and methods adopted for data gathering, fieldwork, evaluation, assessment of impacts, and mitigation;
- c) Regulatory and Research Framework: the relevant regulations, Acts of Parliament and codes of practice at national and local scale, and the results of relevant consultations, together with a statement of the cultural heritage Scheme Objectives;
- d) Baseline conditions: the identification and characterisation of cultural heritage assets, to an appropriate level of detail, including the results of any surveys carried out;
- e) Evaluation of the cultural heritage assets.
- f) Assessment of the magnitude of the impact of the scheme, taking into account agreed mitigation measures or strategies, including the likely effectiveness of the mitigation and enhancement measures. There should be a description and discussion of potential alternatives;
- g) Significance of effects: the assessment of the significance of the effects on the cultural heritage resource, based on the evaluation and the assessment of the magnitude of the impacts, taking agreed mitigation into account. There should also be a statement identifying any remaining risks or uncertainties;
- h) Summary: a short description of the significance of the effects on cultural heritage.

6.14 The Report will be illustrated by:

- a key plan showing Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Registered Historic Landscapes, Historic Parks and Gardens, Historic Battlefields, historic landscape character mapping and other relevant designated and undesignated assets,
- detailed route plans at 1:2500 showing the locations of all cultural heritage assets, to include:
 - areas of cultural heritage potential
 - an indication of where, and what, cultural heritage mitigation has been agreed

REPORTING INCOMPLETE OR ABANDONED SCHEMES

6.15 Normally the results of original documentary or survey work undertaken for an assessment are incorporated into the final reports of subsequent works on the scheme. In the event of a scheme not progressing, or elements of it being shelved so that no further cultural heritage work is undertaken beyond the assessment stage, it is necessary to complete the appropriate analysis and publication, including popular dissemination, of any original cultural heritage work that has been carried out. The form and detail of this dissemination should be commensurate with the significance of the new material. This requirement should be made clear in contract documents governing the works. The final publication should accord with the principles of English Heritage's *Management of Archaeological Schemes (MAP 2, 1991)*, adapted if necessary to encompass historic buildings and historic landscape investigations, and take account of any other relevant government or English Heritage guidance and advice documents. Studies undertaken in the Devolved Administrations' territories should adopt the appropriate publication arrangements for the territory in consultation with the national statutory bodies.

7 ENQUIRIES

[TO BE INSERTED BY HA]

SUPERSEDED

Annex 1: The Statutory Bodies

ENGLAND

1.1 English Heritage (EH) - the Historic Buildings and Monuments Commission for England - was set up in 1984 to manage many of the monuments and buildings in public ownership, provide grants in support of privately owned heritage properties, promote heritage and advise Government in England on heritage matters.

SCOTLAND

1.2 Historic Scotland (HS) is an Agency within the Scottish Executive Education Department, responsible for administering the laws concerning protection and management of ancient monuments and historic buildings. It also has responsibility for promoting understanding and enjoyment of the built heritage.

WALES

1.3 Cadw is the Welsh Assembly Government's historic environment division responsible for advising on matters relating to the statutory protection of archaeology and the built environment.

NORTHERN IRELAND

1.4 The Environment and Heritage Service (EHS) is an Agency within the Department of the Environment of the Northern Ireland Assembly. It has responsibility for identifying, recording and protecting archaeological sites and monuments, and buildings and other structures of architectural or historical interest. Protection is carried out by scheduling, under the Historic Monuments Act (NI) 1971, or by listing, under the Planning (NI) Order 1991.

1.5 The Monuments and Buildings Record (MBR), maintained by EHS, holds details of over 12,500 archaeological sites and monuments, and also identifies listed buildings, gardens, parks and demesnes, and sites of industrial heritage interest.

1.6 On environmental assessment, the statutory bodies will, for their respective areas:

- (i) advise on the need for, or extent of, an assessment of archaeological remains, historic buildings or historic gardens and designed landscapes;
- (ii) advise on sources of information and other possible consultees

- (iii) comment on the implications of schemes for archaeological remains and historic buildings, and other aspects of the historic environment;
- (iv) advise on the mitigation of adverse impacts.

NATIONAL TRUST

1.7 The National Trust for England, Wales and Northern Ireland and the National Trust for Scotland (NT), although not statutory bodies, have the power to declare their land and properties "Inalienable". This means that Trust property cannot be removed from the Trusts' ownership without their consent, except by special Parliamentary Procedure.

1.8 Where Inalienable Land is likely to be affected by a proposed scheme, the relevant Trust should be consulted in confidence in the same way as the statutory bodies. References to consultation with the statutory bodies should therefore be taken to include the NT where Inalienable Land is affected.

Annex 2: Designations

NB. In England, the system of statutory and non-statutory designations described below is currently (2007) undergoing the Heritage Protection Review which will lead to reform of the description, selection, and management of designated assets.

International Designations

World Heritage Sites

1 World Heritage Sites are designated under the UNESCO Convention for the Protection of the World Cultural and Natural Heritage (1972). Each country that is a party to the Convention nominates a list of sites, which it considers to be of outstanding universal value, generally major cultural and natural sites. In England, Scotland, Wales and Northern Ireland there are 19 World Heritage Sites inscribed for their cultural heritage importance (2005 figure).

Responsible body: Department of Culture, Media and Sport (DCMS).

Statutory designation: No statutory designation in its own right. Could be an Ancient Monument or Grade I Listed Building, or within a Conservation Area, or other statutorily designated area, or may be otherwise undesignated. World Heritage Sites are most likely to contain a combination of these elements which themselves have a degree of statutory protection. World Heritage Sites are a material consideration in planning decisions.

National Designations

Ancient Monuments

2 Under the Ancient Monuments and Archaeological Areas Act 1979, the relevant Secretary of State in England, and Welsh, Scottish and Northern Irish Ministers can schedule (i.e. designate) any building, structure or other work above or below ground, or in territorial waters, which appears to be of national importance because of its historic, architectural, traditional, artistic or archaeological interest. The non-statutory criteria for the scheduling of Ancient Monuments are appended to this Annex. Inclusion of a site in the schedule of Ancient Monuments does not affect its ownership, but is binding on successive owners. The Secretaries of State have powers to acquire Ancient Monuments by gift or purchase.

3 Once a monument is scheduled any development that would affect it requires the consent of the Secretaries of State. In this context, "affect" means works which would have the impact of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up the monument, and includes the use of geophysical remote sensing devices, including metal detectors (see PPG 16, Annex 3, or Scottish Office Planning Advice Note paras 38-59). A system of Scheduled Monument Clearance operates for Crown developments carried out by Government Departments that follows very similar procedures to Scheduled Monument Consent.

4 In England, under DoE Circular 18/84, the Overseeing Organisation's Scheme Manager will notify the Department of Culture, Media and Sport, and will also consult EH. On receiving details of the proposals, the DCMS will consult EH before deciding whether or not clearance, or conditional clearance, should be granted. In Scotland, under SDD Circular 21/1984, Overseeing Departments must notify HS who will advise on the needs for formal scheduled monuments clearance and determine the outcome of applications made. In Wales, the Overseeing Department will notify Cadw of any proposed works that will affect a scheduled ancient monument. Cadw may consult other outside bodies, as it does with consent applications, before determining whether or not clearance should be granted.

Areas of Archaeological Importance (England Only)

5 The historic town centres of Canterbury, Chester, Exeter, Hereford and York have been designated as Archaeological Areas of Importance under Part II of the Ancient Monuments and Archaeological Areas Act 1979. Within these areas potential developers are required to give six weeks notice to the relevant planning authority of any proposals to disturb the ground, tip on it, or flood it. The Secretary of State nominates an investigating authority for the area - usually the archaeological unit of the relevant local authority - that then has the power to enter the site and, if necessary, to excavate it for up to four and a half months before development may proceed. The future of this designation is under review and no more designations are planned. Part II of the Ancient Monuments and Archaeological Areas Act 1979 has not been brought into force in Scotland.

Responsible body: Local Planning Authority.

Statutory designation: Area of Archaeological Importance.

Listed Buildings

6 In England under section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990, the Secretary of State is required to compile lists of buildings of special architectural or historic interest, on advice from EH. In Wales, the same authority is vested in Welsh Assembly Government Ministers, on advice from Cadw. The lists are compiled on the merits of the building by reference to national criteria recommended by EH and Cadw. In Scotland, the same authority is vested in the Secretary of State by section 52 of the Town and Country Planning (Scotland) Act 1972 on national criteria devised by Historic Scotland. In Northern Ireland listing is carried out by HES:HMB under the Planning (NI) Order 1991. The DOE(NI) Town and Country Planning Service consults HES:HMB on applications for Listed Building Consent.

7 In selecting buildings, particular attention is paid to their importance in illustrating economic and social history, their architectural quality, their association with well-known historical events, characters or works of literature, and their group value. Some listed buildings have also been scheduled as Ancient Monuments.

8 Listed Buildings are classified in grades (or categories in Scotland) to show their relative importance. In England and Wales, listed buildings are classified (in descending order of importance) as:

Grade I - buildings of exceptional interest (only about 1.4% of listed buildings are in this category);

Grade II* - particularly important buildings of more than special interest (some 4% of listed buildings);

Grade II - buildings of special interest (the remaining 94%);

In Northern Ireland the grades, in descending order of importance are:

- Grade A which corresponds to Grade I in England and Wales and covers 2% of listed buildings in Northern Ireland;
- Grade B+ equivalent to Grade II* in England and covering 3% of listed buildings;
- Grade B equivalent to Grade II; and
- Grade C equivalent to the former Grade III in England.

9 In the Scottish classification the listing categories are defined as follows:

- Category A: buildings of national or international importance, either architectural or historic, or fine, little altered examples of some particular period, style or building type.
- Category B: buildings of regional or more than local importance, or major examples of some particular period, style or building type that may have been somewhat altered.
- Category C: buildings of local importance; lesser examples of any period, style or building type, whether as originally constructed or as the result of subsequent alteration; simple, well proportioned, traditional buildings, often forming part of a planned group, for example, an estate or an industrial complex, or grouping in association with buildings in a higher category.

10 Listed buildings are afforded protection as an extension of planning control. This means that a developer cannot, without penalty, demolish, alter or extend a listed building in any way that affects its architectural or historic character, unless listed building consent has been obtained from the local planning authority. Unlisted buildings in conservation areas are also protected from demolition, and conservation area consents must be sought from the local authority before demolition can proceed. In some instances applications for listed building consent may be referred to the relevant Secretary of State or Minister for approval. In England, central government responsibility rests with the Department for Culture, Media and Sport. A Crown developer does not need listed building consent but is nevertheless obliged to follow formal procedures devised for Government Departments under DoE Circular 18/84 or SDD Circular 21/1984 in Scotland. Where a private developer would need consent, the Overseeing Department must consult with the local planning authority, which

will advertise the proposals and notify EH, HES:HMB, Cadw or HS as appropriate and other interested bodies. Full details of this procedure are to be found in the above-mentioned Circulars. DOE Circular 20/92 (DNH Circular 1/92) may also be helpful. It applies only to England and sets out the split of responsibilities between DOE and DNH for conservation policy and casework.

11 At present works (including partial demolition) to ecclesiastical buildings in use, or where the use will resume once the work is complete, are exempt from listed building control but consent is generally required for the total demolition of an ecclesiastical building. For demolition of Church of England churches, buildings, yards or consecrated cemeteries a faculty must be obtained from the Chancellor of the Diocese in addition to consent from the local planning authority. The exception is where the church is a redundant church of the Church of England, which is being demolished in pursuance of a pastoral, or redundancy scheme made under the Pastoral Measure 1983 legislation. The rules on ecclesiastical exemption are currently being revised. Where church land of any denomination) containing burials or cremation remains is required for Compulsory Purchase Order, the Home Office must also be contacted for permission to exhume.

Responsible bodies: EH

HES: HMB

HS

Cadw

Statutory designation: Listed Building (except Grade III in England and Grade C in Northern Ireland which are non-statutory designations).

The National Trusts in England, Wales, Northern Ireland and Scotland

12 The National Trust for England, Northern Ireland and Wales, and the National Trust for Scotland were established to promote the permanent preservation, for the benefit of the nation, of lands and buildings of historic or national interest or natural beauty. The Trusts have the power, given to them by Act of Parliament, to declare their properties inalienable; that is, to declare them objects which the Trusts holds in perpetuity and which cannot be removed from Trusts' ownership without the their consent except by special Parliamentary procedure.

13 The National Trust for Scotland also has a power unique in Scotland, given to it by its 1938 Act of Parliament. This power enables landowners voluntarily to enter into legal agreements with the Trust making all or part of their land subject to binding conditions restricting the planning, development or use of that land, in conformity with the statutory purposes of the Trust. There are now over 600 such agreements, usually known as Conservation Agreements.

Responsible Body: National Trust for England, Northern Ireland and Wales

National Trust for Scotland

Statutory designation: Inalienable land

Building Preservation Notices

14 If a local planning authority considers that a non-listed building in its area is of special architectural or historic interest and is in danger of demolition or alteration in such a way as to alter its character, it can serve a Building Preservation Notice. The Notice becomes effective immediately it has been served and remains so for 6 months, unless during that period the Secretary of State lists the building or notifies the planning authority that they do not intend to do so. The effect of the Notice is as if the building had been listed (see section 3 of the Planning (Listed Buildings and Conservation Areas) Act 1990 for England and Wales or Section 56(4) of the Town and Country (Scotland) Act 1972 as appropriate).

Responsible bodies: Local planning authority

In Scotland the District or Regional Planning Authority

Statutory designation: building under a Building Preservation Notice

Parks and Gardens of Special Historic Interest

15 In England EH compiles a non-statutory Register of Parks and Gardens of Special Historic Interest. Its purpose "is to record their existence so that highway and planning authorities, and developers know that they should try to safeguard them when planning new road schemes and new developments generally", (DoE Circular 8/87, paragraph 15). Inclusion on the register does not involve any new restrictions on development, nor does it affect the statutory listing or planning controls on any listed building within a registered park or garden. It is, however, a material consideration for planning purposes. The grading terminology employed for listed buildings is also used for parks and gardens, defined as follows:

Grade I - parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them of exceptional interest;

Grade II* - parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them, if not of exceptional interest, nevertheless of great quality;

Grade II - parks and gardens, which by reason of their historic layout, features and architectural ornaments considered together make them of special interest.

16 In Scotland, HS and Scottish Natural Heritage (SNH) compile and publish an 'Inventory of Gardens and Designed Landscapes in Scotland' (reference SO Circular 6/92). The Inventory does not apply a grading system in the same manner as the English and Welsh registers but the importance of historic landscapes or gardens is recognised by attaching a range of values to each site. Design Organisations should consult with HS and SNH at an early stage on any proposals affecting these sites. Planning authorities are also required to consult HS and SNH on any development proposals in areas identified in this Inventory.

17 The Scottish Inventory is not a complete list of gardens and landscapes of importance in Scotland. Historic Scotland and SNH are co-operating further in an exercise to add other significant sites to the Inventory.

18 The Town and Country Planning (General Development Procedure) (Scotland) Order 1992, requires Planning Authorities in Scotland to consult SNH and HS in respect of development proposals - which may include road proposals, works to bridges etc - affecting Historic Gardens and Designed Landscapes.

19 Cadw has also compiled a non-statutory register 'Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales', of which parks and gardens comprise Part 1. Design organisations should consult with Cadw and CCW at an early stage on any proposals affecting these sites.

20 In Northern Ireland the Historic Environment Service is compiling a Register of Historic Parks, Gardens and Desmesnes of Special Historic Interest in Northern Ireland.

Responsible bodies: EH.

HS/SNH

HES : HMB

Cadw

Statutory designation: Non-statutory.

Historic Battlefields.

21 In England English Heritage can register important battlefields. There are currently 43 Registered Historic Battlefields. This is a non-statutory designation, and the sites are not graded, but the presence of a registered battlefield is a material consideration in determining development proposals.

Responsible bodies: EH

Local Designations

Conservation Areas

22 Local authorities may designate as conservation areas sections of land or buildings within their jurisdiction. They must be of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. Section 72 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 requires authorities to have regard to the fact that there is a conservation area when exercising any of their functions under the Planning Acts and to pay special attention to the desirability of preserving or enhancing the character or appearance of conservation areas. Although a local designation, conservation

areas may nevertheless be of national importance and significant developments within a conservation area are referred to EH, in England, and to Cadw in Wales. In Scotland the Town and Country Planning (Scotland) Act 1992 extends similar provisions to the designation of conservation areas and recognition of their importance.

Responsible body: Local planning authority.

DOE(NI) Town and Country Planning Services.

Statutory designation: Conservation Area.

Non-Designated Buildings and Sites

23 Buildings of historic or architectural interest may not be listed, or included within a conservation area, but may still be sufficiently important to merit special assessment. This is also true of historic landscapes and battlefield sites.

24 Cadw, in conjunction with CCW and ICOMOS UK, has compiled a non-statutory "Register of Landscapes of Historic Interest in Wales". Part 2.1 includes Landscapes of Outstanding Historic Interest, and Part 2.2 Landscapes of Special Historic Interest. Design Organisations should consult with Cadw and CCW at an early stage on any proposals affecting landscapes included in the Register.

Annex 2 Appendix - NON-STATUTORY CRITERIA FOR SCHEDULING ANCIENT MONUMENTS

IN ENGLAND AND WALES

The following criteria (which are not placed in any order of ranking in PPG 16) are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

- (i) **Period:** all types of monuments that characterise a category or period should be considered for preservation.
- (ii) **Rarity:** there are some monument categories, which in certain periods are so scarce that all surviving examples that still retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and a regional context.
- (iii) **Documentation:** the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.
- (iv) **Group Value:** the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.
- (v) **Survival/Condition:** the survival of a monument's archaeological potential both above and below ground is a particular important consideration and should be assessed in relation to its present condition and surviving features.
- (vi) **Diversity:** some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.
- (vi) **Fragility/Vulnerability:** highly important a single ploughing or unsympathetic treatment can destroy archaeological evidence from some field monuments; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings.
- (viii) **Potential:** on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

* Taken from Planning Policy Guidance (PPG) 16, Archaeology and Planning, (November 1990, Department of the Environment; November 1991 Welsh Office).

IN SCOTLAND

In 1983 the Ancient Monuments Board for Scotland (AMB) advised the Secretary of State for Scotland to adopt the following criteria for national importance:

"A monument is of national importance if, in the view of informed opinion, it contributes or appears likely to contribute significantly to the understanding of the past. Such significance may be assessed from individual or group qualities, and may include structural or decorative features, or value as an archaeological resource".

In addition the following advice was offered as a working definition:-

"For a monument to be regarded as of national importance it is necessary and sufficient first, that it belong or pertain to a group or subject of study which has acknowledged importance in terms of archaeology, architectural history or history; and second, that it can be recognised as part of the national consciousness or as retaining the structural decorative or field characteristics of its kind to a marked degree, or as offering or being likely to offer a significant archaeological resource within a group or subject of study of acknowledged importance"

From these overall criteria have been drawn the scheduling considerations in daily use. Because the characteristics that make a monument of national importance are sometimes not readily visible, their identification is a matter of informed judgement. The considerations on which that judgement is based are subordinate to the criteria listed above and can be listed (through not in order of importance) as follows:

Survival/conditions: The existence of well-preserved field characteristics can be of importance in itself. The survival of the monument's archaeological potential both above and below ground is a crucial consideration, and goes beyond survival of marked field characteristics.

Period: It is important to consider for preservation examples of all types of monument that characterise a period; monuments of different contemporary types complement each other in the evidence they present.

Group value: The value of a single monument, such as a field system, is greatly enhanced by association with a group of related contemporary monuments. In the case of such groups it is preferable to protect the whole, including adjacent land, rather than to protect individual monuments within the group (i.e. a "monument" for purposes of scheduling may consist of a group of monuments).

Rarity: There are monuments of types that, though originally abundant, are now so rare that even apparently poorly preserved examples should be preserved.

Situation: Types of monument abundant in one topographical/land use situation may be rare in others and special regard should be had to their heightened potential archaeological value.

Multiperiod / single period: Multiperiod sites with well-preserved components are of special value since they can allow fine phasing. A single period site, on the other hand, will in general have more diversity of evidence for its functions in better-preserved relationships. Examples of a type in both multiperiod and single period expressions should be preserved.

Fragility/Vulnerability: A single ploughing for forestry or agriculture can destroy highly important archaeological evidence from some field monuments; there are also structures of particularly form or complexity whose value could be severely reduced by even slight mistreatment.

Documentation: Records of previous investigations can aid definition of the importance of a site, but it is important that unexcavated sites need not be any less important for lack of previous excavation. Documentation in the form of early estate records, annals, charters, etc, can provide information not available through archaeological excavation, and is of particular importance if it appears to record significant information which might be capable of correlation with archaeological evidence.

These considerations are not substitutes for the criteria: their contribution to the case for scheduling a monument is supplementary to demonstration that the monument contributes significantly to a theme or area of study of acknowledged importance.

** Taken from National Planning Policy Guideline Archaeology and Planning SOEnD forthcoming.

Annex 3: The Regulatory Framework

Acts, Statutory Instruments, Orders, International Conventions

Acquisition of Land Act 1981

Sets out the procedure for the acquisition by the Secretary of State (in England or Wales) of any ancient monument and land adjoining it or in the vicinity by compulsory purchase.

Agriculture Act 1986

Section 18 defines 'environmentally sensitive areas' and specifically mentions 'buildings and other objects of archaeological, architectural or historical interest'.

Ancient Monuments and Archaeological Areas Act 1979

Replaced earlier acts. Formalised a schedule of monuments that required 'scheduled monument consent'.

Ancient Monuments (Class Consents) Order 1994 (S.I. No. 1381)

Introduced new classes of works for which 'scheduled monument consent' is not required.

Ancient Monuments (Class Consents) (Scotland) Order 1996 (S.I. No. 150)

Amendments to the 1994 Class Consents Order to cover the lack of statutory body equivalent to English Heritage.

Ancient Monuments (Applications for Scheduled Monument Consent) (Welsh Forms and Particulars) Regulation 2001 (WSI 1438 (W100))

Transfer of responsibility to the National Assembly for Wales.

Burial Act 1857

Introduced requirement for a licence to remove human remains, except from one area of consecrated ground to another.

Coroners Act 1988

Covers the role of Coroners in dealing with possible 'Treasure'.

Crown Estate Act 1961

The hereditary estates of the Crown were placed in the hands of Commissioners. These estates were exempt from many aspects of planning law.

Disused Burial Grounds Act 1884

Prohibits building on disused burial grounds, except for places of worship, without statutory authority.

Disused Burial Grounds (Amendment) Act 1981

Introduces provisions to allow building following removal of human remains.

EEC (European Economic Community) 1985: Council Directive of 27 June 1985 on the Assessment of the Impacts of Certain Public and Private Schemes on the Environment (85/337/EEC) as amended by 97/11/EEC.

Requires environmental impact assessments to be carried out for certain schemes.

Environment Act 1995

Includes archaeological obligations for National Park Authorities and protection for hedgerows.

Forestry Act 1967

Outlines exemptions from need to notify authorities prior to cutting down or extensively pruning trees within Conservation Areas.

Hedgerow Regulations 1997 (Applies to England and Wales only)

Highways Act 1980 (England and Wales only)

Introduced requirement for environmental impact assessment for highway construction and improvement schemes.

Highways (Assessment of Environmental Impacts) Regulations 1988 (SI No 1241)

Amendments to the Highways Act 1980.

Highway (Assessment of Environmental Impacts) Regulation 1999 (SI No 324)

Amendments to the Highways Act 1980 and the 1988 Regulations.

Historic Buildings and Ancient Monuments Act 1953

Historic Monuments and Archaeological Objects (Northern Ireland) Order 1995 (S.I. No. 1625)

Consolidated planning legislation relevant to historic and archaeological features. Established the Historic Buildings Council.

Land Compensation Act 1961

Covers compensation to landowners following compulsory purchase.

Land Drainage Act 1991

Excludes from the provisions of the act any work that would contravene the current Ancient Monuments Act.

Merchant Shipping Act 1995

Exempts material from wrecks from classification of 'Treasure'. Provides for a Receiver of Wrecks to administer salvage and finds from wrecks.

National Heritage Act 1983, amended 2003

Established English Heritage. Contained some amendments to AMAA.

Planning (Listed buildings and Conservation Areas) Act 1990 (England only)

Consolidation of legislation relating to listed buildings and conservation areas.

Planning (Listed buildings and Conservation Areas) (Scotland) Act 1997

Planning (NI) Order 1991

Places a duty on the Dept of the Environment to compile lists of historic buildings in Northern Ireland.

Planning and Compensation Act 1991

Planning (Compensation etc) Act (NI) 2001

Planning and Compulsory Purchase Act 2004

Protection of Military Remains Act 1986

Offers protection to military sites, vessels and aircraft.

Protection of Wrecks Act 1973

Offers legal protection to designated wreck sites.

Town and Country Planning (Assessment of Environmental Impacts) Regulations 1988 S.I. No. 1199)

Includes requirement for environmental statements to include 'Cultural Heritage'.

Town and Country Planning (Assessment of Environmental Impacts) (Amendment) Regulations 1992 (S.I. No. 1494)

Amendments to requirements for cultural heritage element of environmental assessments.

Town and Country Planning (Environmental Assessment and Permitted Development) Regulations 1995 (S.I. No. 417)

Details of environmental assessment requirements.

Town and Country Planning (Environmental Assessment) (Scotland) Regulations 1988

Requirements for environmental assessment as applied in Scotland.

Town and Country Planning General Development Order 1988 (SI No 1813) (Article 18(1))

Lists those bodies, which should be consulted under the planning EIA regulations.

Town and Country Planning (General Development Procedure) Order 1995 (SI No 419)

Requirement for English Heritage to be consulted on demolition or major alteration to Listed buildings.

Town and Country Planning (General Development Procedure) (Scotland) Order 1992

Requirement for consultation in Scotland for planning applications affecting listed buildings, scheduled monuments or gardens within the Inventory of Gardens and Designated Landscapes.

Town and Country Planning (General Permitted Development) Order 1995 (SI No 408)

Sets out limits to requirements for planning permission for listed buildings and conservation areas.

Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (SI No 224)

Town and Country Planning (Scotland) Act 1997

Replaced the 1972 Act. Contained four statutes covering the same areas as the 1990 legislation in England.

Town and Country Planning (Listed Buildings and Buildings in Conservation Areas) (Scotland) Regulations 1987 (SI 1987/1592)

Transport and Works Applications (Listed buildings, Conservation Areas and Ancient Monument Procedure) Regulations 1992 (SI No 3138)

Procedures for applications for planning permission for works covered by an order under the Transport and Works Act 1992.

Treasure Act 1996

Replaced treasure trove. Clearer definitions of what qualifies.

Tribunals and Inquiries Act 1992

Requires Secretary of State to provide reasons for refusal of 'scheduled monument consent'.

Treaties and Conventions

Convention for the Protection of the World Cultural and Natural Heritage (UNESCO) 1972 Paris

Provides for establishment of World Heritage Sites.

The European Convention for the Protection of the Archaeological Heritage 1969 London.

Convention for the Protection of the Architectural Heritage of Europe 1985 Granada

Commitment to a series of initiatives to ensure the protection of monuments, groups of buildings and their sites.

European Convention on the Protection of the Archaeological Heritage (revised), 1992 Valletta

Recognises the importance of heritage and the need to take steps to protect it.

European Landscape Convention 2000 Florence

Convention that places landscape within the scope of cultural heritage

European Framework Convention on the Value of Cultural Heritage to Society 2005 Faro (the UK is not yet (2007) a signatory)

Annex 4: Professional Standards, Guidance and Codes of Practice

Standards and Codes of Practice

Institute of Field Archaeologists codes, standards and guidance

Institute of Field Archaeologists 2002 *Code of conduct*, Reading

Institute of Field Archaeologists 2002 *Code of approved practice for the regulation of contractual arrangements in field archaeology*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for archaeological desk-based assessment*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for archaeological field evaluation*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for an archaeological watching brief*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for archaeological excavation*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*, Reading

Institute of Field Archaeologists 2001 *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*, Reading

British Archaeologists and Developers Liaison Group 1991 *Code of Practice*, London

Guidance

Department of Environment Circulars

- 18/84 Crown Land and Crown Development
- 1/85 The Use of Conditions in Planning Permissions
- 18/86 Planning Appeals Decided by Written Representation
- 8/87 Historic Buildings and Conservation Areas - Policy and Procedures
- 16/87 Scottish Development Department Planning Circular
- 10/88 Town and Country Planning (Inquiries Procedure) Rules 1988, Town and Country Planning Appeals (Determination by Inspectors) (Inquiries Procedure) Rules 1988
- 13/88 Scottish Development Department Planning Circular
- 15/88 Town and Country Planning (Assessment of Environmental Impacts) Regulations 1988
- 13/90 Scottish Development Department Cu~
- 16/91 Planning and Compensation Act 1991: Planning Obligations
- 19/92 Town and Country Planning General Regulations 1992; Town and Country Planning (Development Plans and Consultation) Directions 1992
- 20/92 Responsibilities for Conservation Policy and Casework
- 24/92 Good Practice at Planning Inquiries
- 8/93 Awards of Costs incurred in Planning and Other (Including Compulsory Purchase Order) Proceedings
- 3/95 Permitted Development and Environmental Assessment
- 9/95 General Development Order Consolidation 1995
- 11/95 The Use of Conditions in Planning Permissions
- 13/95 Town and Country Planning (Environmental Assessment and Unauthorised Development) Regulations 1995
- 60/96 Welsh Office Circular. Planning and the Historic Environment

Planning Policy Guidance Notes

- PPG 1 General policy and principles (1992)
- PPG 7 The countryside and the rural economy (1992)
- PPG 12 Development plans and regional planning guidance (1992)
- PPG 15 Planning and the historic environment (1994)
- PPG 16 Archaeology and planning (1990)
- PPG 16(Wales) Archaeology and planning (1991)
- PPG 20 Coastal planning (1992)
- PPS6 *Planning Policy Statement Number 6: Planning Archaeology and the Built Heritage*
Department of the Environment for Northern Ireland 1999
- NPPG 5 *National Planning Policy Guideline Archaeology and Planning* Scottish Office
Environment Department 1994

NPPG 18 *National Planning Policy Guideline Planning and the Historic Environment* Scottish Office Development Department 1999

PAN 42 *Planning Advice Note: Archaeology - the Planning Process and Scheduled Monument Procedures.* Scottish Office Environment Department 1994

Planning Policy Statement on Protected Landscapes Northern Ireland Department of the Environment 2003

Key Documents

Model Briefs and Specifications for Archaeological Assessments and Field Evaluations, Association of County Archaeological Officers, (1993)

Guidelines for the Preparation of Excavation Archives for Long Term Storage United Kingdom Institute for Conservation (UKIC) (1990)

HA Design Manual for Roads and Bridges: Environmental Design and Management (DMRB 10)

HA Design Manual for Roads and Bridges: Environmental Assessment (DMRB 11)

Exploring our Past - Strategies for the Archaeology of England, English Heritage (1990)

Management of Archaeological Schemes (MAP2) English Heritage (1991)

Frameworks for our Past Adrian Olivier English Heritage (1996)

Management of Archaeological Schemes (MAP2) -English Heritage, 1991

A New Deal for Trunk Roads in England: Guidance on the New Approach to Appraisal (NATA) - DETR 1998

Monuments at Risk Survey of England Bournemouth University and RCHME (1995)

Memorandum and Guidance on Listed Buildings and Conservation Areas Historic Scotland 2000

The Stirling Charter: Conserving Scotland's Built Heritage Historic Scotland 2000

Archaeological Policies and Associated Papers. Historic Scotland 1993 (copies available from Historic Scotland)

A Force for Our Future HMSO 2001

Sustaining the Historic Environment: New Perspectives on the Future HMSO 1997

Power of Place English Heritage 2000

State of the Historic Environment Report English Heritage 2002

Annex 5 - Cultural Heritage Sub-Topic Guidance: Archaeological Remains

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- 5.10 Evaluating the Archaeological Resource
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- 5.12 Assessing Magnitude of Impacts
- 5.13 Assessing the Significance of Effects
- 5.14 Assessing Significance of Effects on the Overall Cultural Heritage Resource
- 5.15 Reporting

Annex 5: Archaeological Remains

5.1 Introduction

- 5.1.1 Archaeology involves the study of the material remains of human activity from the earliest periods of human evolution to the present. Archaeological remains may comprise the buried traces of human activities or visible monuments, or moveable artefacts. Archaeological investigations can encompass the remains of buildings, structures, earthworks and landscapes; human, animal or plant remains, or other organic material produced by or affected by human activities.
- 5.1.2 For the purposes of this guidance, however, archaeological remains have been distinguished from historic buildings and historic landscapes, to acknowledge that for practitioners there are specialist techniques and methods for studying each of these categories of the cultural heritage resource. Archaeology can involve the study of the material remains of walls, structures, field banks, monuments etc. from the past, and while historic buildings and historic landscapes are also formed of such materials, they are also subject to their own specialist approaches. Historic buildings are considered in Annex 6 and historic landscape is the subject of Annex 7. These sub-topics, however, are inter-related aspects of cultural heritage, and the sub-topic studies will need to be integrated to arrive at an assessment of the significance of the effect of a scheme on the cultural heritage resource.
- 5.1.3 It is likely that many schemes will not require equally detailed consideration of all three cultural heritage sub-topics. This Annex is intended to provide freestanding detailed guidance concerning the methodologies and sources of information specific to the Detailed Assessment of archaeological remains. Details of procedures for Scoping and Simple Assessment for all Cultural Heritage Sub-Topics can be found in the main Cultural Heritage guidance in Chapter 5.
- 5.1.4 A list of current guidance and standards documents is set out in Annex 4 and devolved administration procedures in Annex 8. Any departures from government guidance and standards should always be discussed with the relevant government heritage agencies, and approved by the Overseeing Organisation.

5.2 The Assessment Process

- 5.2.1 The detail of the archaeological assessment will depend on the stage in scheme delivery, and the nature of information required for decision making at a particular stage in the design process. Sections 1 and 2 of DMRB volume 11 set out the framework for determining the appropriate type of assessment.
- 5.2.2 The Detailed Assessment will need to review the data obtained for the Scoping exercise or Simple Assessment, and consider the need to research more detailed or specialist sources or undertake fieldwork. A higher degree of detail in the evaluation and analysis is normally required in Detailed Assessments, in order to identify the significant constraints, and to obtain reliable indications of archaeological potential.
- 5.2.3 Assessing the archaeological implications of mitigation proposed by other studies (e.g. remediation of contaminated land, or landscape planting) forms an important part of the liaison with other topics. The same is valid for the other topic specialists,

who should consider the effects of proposed archaeological mitigation on their topic areas.

5.3 Consultation

- 5.3.1 Chapter 3 of the main Cultural Heritage Topic guidance sets out the nature of consultations with statutory and other stakeholders appropriate for each type of the assessment. The devolved administrations have their own arrangements for the relationships between the statutory consultees and the highway authorities (see Annex 8) and these should always be followed. In England early consideration of EH views is advised to assist in the identification of matters of national concern.
- 5.3.2 Detailed Assessments will usually involve consultations with local planning authorities' heritage advisors to discuss any archaeological issues potentially raised by the proposals.
- 5.3.3 If either, or both, the Historic Buildings and Historic Landscape Sub-Topics were also identified for further investigation by the Scoping Report or the Simple Assessment, then close liaison with the relevant sub-topic specialists would be required. The same may be the case with the Landscape, Townscape, Ecology and Nature Conservation and, if necessary, other topic specialists as well, as there may be significant areas of common interest between them. Consultation with other stakeholders should take account of any specialist knowledge, and the sensitivity of the archaeological resource. Ongoing consultation with the design engineers is also essential, as early archaeological advice should inform the design process.
- 5.3.4 Investigations may include consideration of the aspirations of local amenity groups and local residents, as expressed in village plans or similar documents and data gathering may be required to define local heritage and quality of life objectives.

5.4 Defining the Study Area

- 5.4.1 The assessment should define a Study Area appropriate to each scheme, according to the sensitivity of the receiving environment, the potential impacts of the road scheme and the type of assessment. For a new road, if a preferred route were not yet defined, the Study Area may need to include the proposed route corridor plus 500m on either side. Once route options have been identified the Study Area for archaeological remains would usually comprise the scheme options and any new land-take, plus an area extending at least 200m either side of them. Issues of setting may need the consideration of the visual or aural envelope of monuments or view-points even more distant.
- 5.4.2 In considering an extensive and well-preserved archaeological landscape, of prehistoric ritual monuments for example, the extent of the study should allow predictions to be made of the type, density and location of associated archaeological remains expected within the environs of the scheme and potentially affected by it. Predictions about the archaeological potential of the area may also be derived from the consideration of the historic landscape character units affected by the scheme.

5.5 Gathering data on archaeological remains

5.5.1 The two modes of investigation used to collect archaeological data are desk-based studies and fieldwork. General advice on the procedures is given below, but each scheme needs to be approached individually.

5.6 Desk based studies.

5.6.1 The study should collect relevant information on all significant archaeological remains, whether designated or not. Designated sites, such as Scheduled Monuments, World Heritage Sites, National Trust Land, Historic Parks and Gardens, Historic Battlefields, and all other designated archaeological sites should be located and assessed for their archaeological potential. If the historic buildings and historic landscape sub-topics are also being studied then the data collected by the respective specialists may be relevant to the understanding of the archaeological potential and should be consulted.

5.6.2 For undesignated sites the most detailed source of information is likely to be the local Sites and Monuments Record/Historic Environment Record (SMR/HER) held by the local planning authority. If the proposed route traverses the territory of more than one planning authority area then several SMR/HERs may need to be consulted, and the study should make clear any disparities between the different records, and consider the implications these may have for the assessment.

5.6.3 Access to local SMR/HERs based on a Geographical Information System (GIS) can greatly assist data collection. Similarly, county or regionally based Historic Landscape Characterisation (HLC) or similar studies can help in understanding the archaeological development of an area and the likely survival of archaeological remains. The study should gather data in a manner compatible with the need for subsequent collation and mapping. Where possible and practicable researchers should obtain data in digital form. This will also help in the production of reports where the Overseeing Organisation requires electronic document submission.

5.6.4 To identify the potential for further archaeological remains the assessment may need to consider:

- historic maps to identify any features that do not appear on the SMR/HER. Detailed map regression may be carried out with the aim of identifying potential archaeological features, and former land-use (such as common land) that may have an implication for archaeology;
- aerial photographs and plot soil and cropmarks, if not already incorporated in the SMR/HER data;
- any information collected for the historic landscape and historic building studies, for instance, historic boundaries, settlement foci, historic activities and historic routes;
- relevant books, journals and other published and non-published material to assist an understanding of the overall archaeological potential;
- geological, topographical and hydrological maps, as well as available ground investigation information for details of previous ground disturbance and ground conditions;
- details of previous archaeological excavations in, or relevant to, the Study Area;

- published or unpublished national and regional archaeological research agendas, priorities and frameworks;
- the setting of archaeological sites, including proximity to public footpaths and open spaces, and the interests of local and national groups.

5.6.5 The engineering history of the route may be important for assessing the likely survival of buried archaeological remains, as past construction activities may have affected archaeological survival. The study should ensure that the results of any previous programmes of road-related archaeological investigations are considered. The archaeology topic may be screened out at any stage of the assessment process if it can be demonstrated that previous disturbance of the route has completely removed all archaeological potential. Such a conclusion may need to be tested by field survey.

5.7 Field Survey

5.7.1 Desk based studies may provide sufficient information for the decision making process. Recorded archaeology, however, only represents the known portion of the resource. Road schemes involving ground disturbance have the potential to affect remains whose presence is not yet known. The study should consider the potential for unknown archaeological remains in the light of the known data and the history of the area, and if necessary a programme of field surveys should be prepared to test the conclusions.

5.7.2 The purpose of field survey is to improve the information about the presence or absence, character, extent, date, integrity, quality and state of preservation of remains affected by a scheme. Field survey strategies should be designed to provide sufficient information for the purposes of the assessment. All methods must reflect the nature of archaeological remains likely to be present, and should be reasonable in terms of the scale of the threat, land use, presence of buildings, value for money etc. The availability of access, or the season, or the costs in comparison to the likely benefits, may constrain the methods, timetable or extent of field surveys that can be reasonably undertaken.

5.7.3 Field surveys should be undertaken on the basis of a written scheme of investigation for each survey, approved by the Overseeing Organisation, which clearly sets out the known archaeological data, the justification for the work, and the aims and objectives of the work, related to the proposed scheme.

5.7.4 The Study should always include a walkover survey. The walkover should enable the surveyor to:

- check the condition of visible assets within the Study Area, and record any that have not been previously noted;
- note indications of ground disturbance, made ground, colluvium, alluvium, etc. which might obscure or complicate the ability to detect sites;
- identify sites of palaeo-environmental potential (eg. dry valleys, stream valleys, upland bogs, lowlands, etc);
- record current land-use and ground conditions;
- locate overhead cables, pylons that could constrain proposals for further work; and
- inform decisions about further field survey techniques to be applied, if necessary.

- 5.7.5 If further information is required the study will need to consider the range of field survey techniques available, some of which break the ground surface (“intrusive”), and some of which do not (“non-intrusive”). The distinction is made because in England and Wales the 1980 *Highways Act* does not include powers to enter and survey land for intrusive archaeological surveys. The landowner’s permission is required to undertake such surveys before Compulsory Purchase Orders transfer ownership of the relevant land to the Secretary of State. In choosing the appropriate survey methods the surveyor will take into account the purpose of the assessment, the existing information, access and cost-effectiveness. In all cases where an intrusive survey is deemed necessary before a CPO is issued, a formal approach should be made to the landowner and occupier, through the appropriate channels, and the response recorded.
- 5.7.6 Non intrusive survey methods include:
- topographical survey;
 - geotechnical watching brief;
 - geophysical survey; and
 - field-walking
- 5.7.7 A topographical survey may already have been prepared for the designers, and this may be sufficiently detailed and extensive for archaeological purposes. However, detailed annotation or specialist survey may still be required, for instance in cases where subtle surface indications have escaped the existing survey, or where specialist knowledge is required to recognise their significance. The use of LIDAR, a specialist photographic survey technique, may reveal patterns of micro-relief indicating buried archaeological potential, and in some cases LIDAR resources may already exist as part of the data collected for the scheme design. It will require specialist archaeological analysis and interpretation.
- 5.7.8 The geotechnical watching brief – the archaeological monitoring of test pits and boreholes carried out primarily for ground investigation purposes - is included as a “non-intrusive” survey in archaeological terms because geotechnical investigation **can** be undertaken under powers of entry granted by the 1980 *Highways Act*. Archaeological consultants, together with the scheme’s geotechnical consultants, should consider whether archaeological interests, as well as geotechnical ones, could be served when planning the location and analysis of test pits or boreholes.
- 5.7.9 Geophysical surveys for archaeological purposes are generally non-intrusive. Although resistivity surveys involve shallow probes this disturbance is so minimal that it is generally ignored. Geophysical surveys may, however, result in crop damage, or be impractical in growing crops. Metal detector surveys may be considered intrusive or non-intrusive depending upon the surveyors’ response to positive readings - if anomalies are investigated by digging a hole then the survey technically becomes intrusive, but if they are merely recorded and mapped then it is non-intrusive. As with fieldwalking (see below), there is an issue of finds ownership if an intrusive metal detector survey is carried out prior to the CPO. In the case of scheduled monuments, any geophysical survey (as well as other activities) undertaken without Scheduled Monument Clearance is a criminal act.
- 5.7.10 Fieldwalking is usually considered to be a non-intrusive technique, because it involves removing artefacts only from the *surface* of the field, not digging below it. However, such material belongs to the landowner, and, prior to CPOs its removal

would require a formal agreement with the landowner regarding its ownership, treatment and ultimate disposal. In addition, fieldwalking could be considered intrusive in that it disturbs the artefact status of the ground in a way that other non-intrusive surveys do not. Each case needs to be considered in the light of the situation on the ground.

5.7.11 Intrusive methods of field survey include:

- borehole/probe/auger survey;
- test-pitting;
- trial trenching.

5.7.12 The study of borehole logs undertaken for ground investigation purposes may be sufficient to alert the archaeologist to the palaeo-environmental potential of an area. Archaeologically targeted boreholes, probes and auger surveys are sometimes undertaken to establish the location and character of more or less extensive palaeo-environmental deposits and to assist in geo-archaeological modelling, and detailed palaeo-environmental information is likely to come only from boreholes specifically undertaken for archaeological purposes. They usually differ from geotechnical boreholes in both their depth (usually archaeological boreholes are shallower) and in the analysis of the cores.

5.7.13 Test pits for archaeological purposes differ from geotechnical ones in that they are usually small (typically 1m x 1m) and only penetrate to the top of the uppermost archaeologically sterile layer. They are hand dug, and the soil is usually sieved in order to assess the artefact density or character of the topsoil, where this cannot be achieved through field walking (for instance in permanent pasture). They are unlikely to reveal much about the plan or extent of archaeological sites, except by chance. Like field walking, the technique can suggest the presence of a buried site or demonstrate remains which exist only in the topsoil. It can also be valuable for establishing the depth of topsoil or overburden in the absence of ground investigation data.

5.7.14 Strip map and sample is an archaeological mitigation technique that entails stripping extensive areas under archaeological supervision, then planning and selectively excavating significant deposits. It should not be adopted as an alternative to effective evaluation, nor as a form of watching brief where little is known. It is most effective where the information usually sought by evaluation - namely the location, extent, survival and character of archaeological deposits – is already known, and therefore where further evaluation is redundant.

5.7.15 There may be opportunities to investigate the impact of schemes through stripping selected areas of topsoil under archaeological supervision at the start of earthworks contract. For instance, haul roads may traverse the length of a scheme and expose a narrow window onto the underlying archaeology that can be widened to accommodate full investigations where required. This technique, however, is a variation of the strip map and sample mitigation strategy, and should not be used as an alternative to evaluation, nor should it be confused with a watching brief.

5.8 Assembling the data

- 5.8.1 Many schemes will have a long life, and consideration should be given to the collection and presentation of data in a way that can continue to be used and modified at later stages, possibly by different contractors.
- 5.8.2 The archaeological data should be recorded on maps accompanied by a descriptive gazetteer. The maps will show the location of archaeological remains, possibly on the same maps as historic building and historic landscape data. The presentation should distinguish areas of archaeological potential from known sites.
- 5.8.3 Detailed data may need to be collated in database or spreadsheet form. The data fields should include appropriate OS grid references, and sites should be categorised in accordance with recognised national data standards. The study should also, where possible, refer to relevant national monument description systems (such as the English Monument Protection Programme Monument Class Descriptions, compiled by English Heritage).

5.9 Analysis

- 5.9.1 The purpose of the data collection and analysis is to assist the scheme decision-making process. The location, value and vulnerability of the archaeological resource are the key issues to be examined, and, as far as practicable, sufficient data should be collected to enable conclusions to be drawn with confidence. The study should also identify the risks, both to the scheme and to the archaeology. The analysis should therefore be directed to understanding where significant archaeological material may potentially be affected by the scheme, the mitigation and opportunities for enhancement that are to be applied, the impact of the scheme and the significance of the effect.

5.10 Evaluating the Archaeological Resource

- 5.10.1 The analysis of the archaeological data must include an assessment of the value of the resource. Designated assets will have a value recognised in their citations, but undesignated assets may match or outstrip these values. The current designated status of archaeological sites and monuments may not represent their value, or their potential. In addition, archaeological assets may be of uncertain value until tested through further evaluation.
- 5.10.2 Assessments of value should consider how far the asset(s) contribute to an understanding of the past, through their individual or group qualities, either directly or potentially. This will require a consideration of whether the asset belongs to a group or a subject of study that is of acknowledged importance, and how far it retains the characteristics that can contribute to an understanding of that group or subject, or whether it offers the potential for such understanding. The community that values the asset is a factor to be taken into account. For instance, is it internationally known, or locally valued? Is the asset appreciated by specialists or by a wider public? Is the subject area to which it contributes of major concern or is it a minority matter? These factors need to be considered, and a balanced assessment reached in each case.

- 5.10.3 These are professional judgements, but they should be guided by acknowledged standards, designations, criteria and priorities. The study should consider local plans, archaeological research frameworks, characterisation initiatives and current research interests in order to inform the assessment of the value of assets. These should form part of the consideration in setting the Scheme Objectives. It is inevitable that these will be subject to change in response to new information and concerns, and the assessment should work with the standards of best practice pertaining at the time of the study.
- 5.10.4 Government guidance requires that “setting” be taken into account when considering the effects of development. The setting of an asset is the position it occupies in relation to the objects and conditions around it. The settings of assets can profoundly influence their perceived value, for instance an isolated feature buried in dense woodland, or a similar one in open pasture surrounded by others, or another surviving in an industrial setting, are likely to be valued differently. The assessment should make clear the contribution made by the setting to the value of the asset, so that the effects of impacts on setting can be properly considered.
- 5.10.5 The criteria taken into account by the Secretary of State when considering applications for scheduling can be a useful guide to the value of all archaeological remains, and undesignated sites may be assessed using these factors. The English and Scottish criteria are reproduced in Annex 3. These should not be simply aggregated, but rather treated as factors to be taken into account, bearing in mind the issues noted in paragraphs 5.10.2 - 4 above.
- 5.10.6 Procedures such as those used in the Monument Class descriptions prepared for the English Monuments Protection Programme (MPP) can also be useful for assessing the value of different types of monument.
- 5.10.7 The scale of values to be used for archaeological assets is:
- Very High
 - High
 - Medium
 - Low
 - Negligible
 - Unknown

The “Very High Value” category is intended for extraordinarily important sites of international concern or status, and is expected to be invoked only rarely. More advice on these terms can be found in Section 2, Part 5, Chapter 2.

The following table is a guide for assessing the value of archaeological assets:

Table 5.1 - Factors for assessing the value of archaeological assets

Very High	<ul style="list-style-type: none"> ▪ World Heritage Sites ▪ Assets of acknowledged international importance ▪ Assets that can contribute significantly to acknowledged international research objectives
High	<ul style="list-style-type: none"> ▪ Scheduled Monuments ▪ Undesignated assets of schedulable quality and importance ▪ Assets that can contribute significantly to acknowledged national research objectives
Medium	<ul style="list-style-type: none"> ▪ Designated or undesignated assets that contribute to regional research objectives
Low	<ul style="list-style-type: none"> ▪ Undesignated assets of local importance ▪ Assets compromised by poor preservation and/or poor survival of contextual associations ▪ Assets of limited value, but with potential to contribute to local research objectives.
Negligible	<ul style="list-style-type: none"> ▪ Assets with very little or no surviving archaeological interest.
Unknown	<ul style="list-style-type: none"> ▪ The importance of the resource cannot be ascertained.

5.11 Mitigation and Enhancement

5.11.1 The impact of a scheme is judged taking into account agreed mitigation and enhancement measures. Mitigation aims to avoid or lessen adverse impacts on the archaeological resource; enhancement improves either the survival of the asset or its condition. Once the presence and value of archaeological remains have been established, or the potential for them, mitigation of any potential impacts on them is an iterative design process, and mitigation measures should be considered at all stages of the design.

5.11.2 Mitigation and enhancement strategies should take into account the objectives defined according to Chapter 4 in the main Cultural Heritage Topic guidance. Mitigation may entail avoidance of potential impacts by design, through vertical or horizontal alignment, or the appropriate investigation of remains that cannot be avoided ("preservation by record"). Preservation in situ is usually to be preferred. The increase of knowledge gained through investigation should not normally be counted as a benefit, but should be set against the loss of the information that would otherwise occur if a site were to be damaged or destroyed unrecorded. Further guidance on archaeological mitigation is given in DMRB Volume 10.

5.11.3 The study should consider whether the scheme could improve the physical or amenity status of archaeological assets. Archaeological material cannot be improved authentically – repair or replacement would be reconstruction or restoration not preservation – but halting a process of deterioration that would otherwise continue or accelerate (conservation) would usually be considered beneficial. Opportunities for enhancing the archaeological resource should be considered at so that the construction design and the Archaeological Design can take full account of enhancement opportunities.

- 5.11.4 Enhancement schemes may be justified where they can *compensate* for adverse environmental impacts of the scheme that cannot be adequately mitigated, or where they can contribute to explicitly stated objectives in the EIA or other commitments.
- 5.11.5 Opportunities may exist to improve the setting of archaeological remains. This could include, for instance, enhancing visual appearance by opening archaeological features to view, or by improving the view from monuments by screening or removing existing intrusions.
- 5.11.6 Access and amenity can be improved by providing new routes or car parking for visitors to monuments, or by enabling improved management of the archaeological resource as part of the road maintenance (eg fencing, security coverage, regular inspection and maintenance, trimming vegetation). Schemes to interpret and improve access to monuments, while ensuring that they are protected from damage, can also enhance the value of archaeological assets to the public.

5.12 Assessing Magnitude of Impacts

- 5.12.1 An impact is defined as a change resulting from the scheme that affects the archaeological resource. The baseline from which this change is measured should be the condition that would prevail in a “do-nothing” scenario, that is, it should take into account changes that would happen anyway if the scheme was not built. Consideration must be given to the types of potential impacts – adverse or beneficial, constructional or operational, direct and indirect, and cumulative – as set out in Chapter 4 of the main Cultural Heritage Topic guidance. Impacts can be on the physical material of the archaeological remains or on their setting.
- 5.12.2 The magnitude of the impact should be assessed taking into account any agreed mitigation and enhancement.
- 5.12.3 Ongoing communication with design engineers regarding the potential sources of impacts of a scheme is essential, although accurate calculations of the area of the scheme may not be available before the detailed design is prepared. The locations of ‘off-site’ activities such as contractors’ compounds, borrow pits, haul roads, soil storage etc. are also frequently undetermined until relatively late in the contractual process. Nevertheless these factors can be key considerations in assessing archaeological impacts, and designers’ estimates of new land-take are needed for each route option as early as possible. In the absence of information about off-site activities, maps should be prepared showing areas of archaeological sensitivity. Sources of potential impacts are listed in Table 5.2 below. This list is not exhaustive.

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DMRB 11.3.2 Cultural Heritage**Table 5.2: Sources of Impacts.**

Stage	Activity	Impacts: adverse	Impacts: beneficial
Ground investigations Site clearance	Trial pits Boreholes	<ul style="list-style-type: none"> removal of archaeological deposits 	
	Removal of trees & vegetation	<ul style="list-style-type: none"> removal of archaeological deposits 	
	Fencing	<ul style="list-style-type: none"> removal of archaeological deposits impact on setting 	
	Traffic movement	<ul style="list-style-type: none"> vibration causing damage to historic monuments dust damage to historic monuments compaction of archaeological deposits damage to historic monuments by airborne pollutants visual and noise intrusion on setting 	
Road construction	Topsoil removal	<ul style="list-style-type: none"> removal of archaeological deposits 	
	Excavations for demolition, drainage, shallow foundations, borrow pits, decontamination etc	<ul style="list-style-type: none"> removal of archaeological deposits desiccation of waterlogged archaeological deposits 	
	Construction traffic movement	<ul style="list-style-type: none"> vibration causing damage to historic buildings noise and visual intrusion on setting damage through rutting of superficial deposits 	
	Siting of construction sites	<ul style="list-style-type: none"> compaction of archaeological deposits removal of archaeological deposits visual and noise impact on setting of historic monuments 	
	Piling	<ul style="list-style-type: none"> removal of archaeological deposits damage caused by changes to hydrology and chemical alteration 	
	Chemical decontamination	<ul style="list-style-type: none"> removal of archaeological deposits 	
	Drainage and recharge	<ul style="list-style-type: none"> desiccation of waterlogged archaeological deposits removal of archaeological deposits 	
	Landscaping	<ul style="list-style-type: none"> removal of archaeological deposits 	screening improving setting
	Earth-mounding	<ul style="list-style-type: none"> compaction of archaeological deposits visual impact on setting of historic monuments 	
	Spoil disposal	<ul style="list-style-type: none"> visual impact on historic monuments compaction of archaeological deposits removal of archaeological deposits through topsoil stripping of storage areas 	
Pollution	<ul style="list-style-type: none"> damage to assets by pollutants 		
Structures, Installation features (bridges,	<ul style="list-style-type: none"> removal of archaeological deposits visual impact on setting of historic monuments 		

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Stage	Activity	Impacts: adverse	Impacts: beneficial
	signage, fencing etc)		
	Installation of lighting scheme	<ul style="list-style-type: none"> ▪ removal of archaeological deposits ▪ visual impact on setting of assets 	improvement of lighting ambience
	Road alignment	<ul style="list-style-type: none"> ▪ disturbance to the setting of assets ▪ severance causing dereliction or neglect of historic monuments or reduction of group value 	removal of traffic from sensitive areas
	Planting	<ul style="list-style-type: none"> ▪ removal of, damage to, archaeological deposits ▪ visual impact on setting assets 	screening of assets
Operational	Maintenance of drainage ditches	<ul style="list-style-type: none"> ▪ removal of archaeological deposits 	
	Lighting	<ul style="list-style-type: none"> ▪ visual impact on assets 	improvement of lighting ambience
	Traffic movement	<ul style="list-style-type: none"> ▪ damage to assets by pollutants ▪ vibration causing damage to assets ▪ noise intrusion 	
	Maintenance	<ul style="list-style-type: none"> ▪ damage to assets 	arrest of erosion or deterioration
Other Environmental Mitigation (not exhaustive)	Ecological pond creation	<ul style="list-style-type: none"> ▪ removal of archaeological deposits 	
	Landscape planting	<ul style="list-style-type: none"> ▪ removal of archaeological deposits ▪ visual impact on setting of assets 	screening of assets
	Other screening		
	Noise reduction panelling	<ul style="list-style-type: none"> ▪ visual impact on assets 	

- 5.12.4 The magnitude of the impact is assessed without regard to the value of the resource, so the total destruction of a Low Value site is the same magnitude of impact as the destruction of a scheduled monument. The value of the asset is subsequently factored-in to calculate the significance of the effect (see para. 5.13).
- 5.12.5 The judgement of the magnitude of an impact should be based on the principle that physical preservation is preferred. The worst impact (archaeologically) would usually be the physical destruction of the archaeological resource. Other types of impact, such as an impact on setting, need to be ranked in relation to this, and the relationship explicitly described.
- 5.12.6 It may be possible to assess physical impacts in terms of percentage loss for the some types of asset, for instance, extensive homogenous deposits, but complex sites will almost certainly require more sophisticated criteria, taking into account the capacity of the asset to retain its character (whatever that might be) after sustaining the damage.
- 5.12.7 The assessment of the impact on the setting of archaeological assets should study how changes in the environs of a cultural heritage asset would affect that asset. This will mean considering the factors that contribute to the setting – views, topography, structures, vegetation, sound environment, approaches – and how the impact of the scheme on them affects the asset they encompass. Liaison with the Landscape and Noise Topic specialists may be important in identifying the sources of some impacts.
- 5.12.8 The term *context* is a special aspect of setting, and relates to how the resource can be understood or appreciated through knowledge or an understanding of aspects of it that are not visible. An impact on context would be a change in the ability to understand or appreciate these aspects of the resource. For instance, a proposed new dual carriageway that would divide a buried bronze age barrow cemetery from its settlement, both known only from aerial photographs as crop marks, may not affect either group of features physically, or nor impinge on them visibly (as they cannot be seen), but it could make it more difficult to appreciate the prehistoric pattern.
- 5.12.9 Impacts on *setting* or *context* do not destroy the resource itself and they may be, in theory at least, reversible. The study should describe explicitly the weighting given to impacts on setting and context.
- 5.12.10 The study should assess the impact on the archaeological resource as a result of changes in amenity. For instance, if the scheme changes the previous use of, or access to, an archaeological asset so that it becomes more liable to vandalism or erosion then that would be a negative impact. Alternatively, opening up a previously inaccessible site could promote moves for its better management, and lead to a positive impact. Improved opportunities for the appreciation of archaeological features, such as information boards in lay-bys near monuments, new access or signage to describe or explain features, could also be positive impacts. Changes in amenity that may involve archaeology but that do not result in changes to the archaeological value of assets may be more appropriately a subject for the Community and Private Assets Topic. Discussions between the appropriate Topic Specialists should ensure that the issue is properly considered.

5.12.11 The scale of the magnitude of impacts is:

- Major
- Moderate
- Minor Adverse
- Negligible
- No Change

The factors to be considered in the assessment of the magnitude of impact are set out in Table 5.3. It does not set out a prescription for ranking, as each scheme assessment must establish the magnitude of the impact caused by these factors on a site by site basis, and the weighting to be accorded to each of them. Further advice is contained in Section 2, Part 5, Chapter 2, and in the specialist sub-topic annexes.

Table 5.3. Factors in the Assessment of the Magnitude of Impact

Factors in the Assessment of Magnitude of Impacts	
Major	Change to most or all key archaeological elements, such that the resource is totally altered Comprehensive changes to setting
Moderate	Changes to many key archaeological elements, such that the resource is clearly modified Considerable changes to setting
Minor	Changes to key archaeological elements, such that the asset is slightly altered. Slight changes to setting
Negligible	Very minor changes to elements or setting.
No Change	No change

5.13 Assessing the Significance of Effects

5.13.1 Assessing the **significance of the effects** of the scheme combines the **value** of the resource and the **magnitude of the impact** (incorporating the agreed **mitigation**), for each cultural heritage asset.

5.13.2 The significance of effect should be expressed on the following scale:

- Very Large
- Large
- Moderate
- Slight
- Neutral

5.13.3 The Table 5.4 below illustrates how information on the Value of the asset and the Magnitude of Impact are combined to arrive at an assessment of the Significance of Effect. The matrix is not intended to “mechanise” judgement of the significance of effect but act as a check to ensure that judgements regarding value, magnitude of impact and significance of effect are reasonable and balanced. If the matrix indicates a significance of effect that is clearly unreasonable, then the value and impact decisions should be revisited to ensure that they are justifiable.

Table 5.4 - Significance of Effects Matrix

VALUE/SENSITIVITY	Very High	Neutral	Slight	Moderate/Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
	Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
	Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
	Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight
		No change	Negligible	Minor	Moderate	Major
MAGNITUDE OF IMPACT						

5.14 Assessing Significance of Effects on the Overall Cultural Heritage Resource

- 5.14.1 It will be necessary to provide an overall assessment of the significance of the effect on the combined Cultural Heritage resource (archaeological remains, historic buildings and historic landscapes) over the scheme as a whole.
- 5.14.2 For an individual cultural heritage asset there may be differing degrees of effect related to each sub-topic. An historic structure in an industrial landscape may be more important in the historic landscape assessment than its relevance to archaeology. In these cases the highest reading should be taken as the significance of effect for that asset, and it should not be “double counted”.
- 5.14.3 If all the effects on all assets were adverse then the highest Significance of Effect reading will also normally be taken to be the overall cultural heritage effect. Similarly a scheme with wholly beneficial effects would be assessed at the highest beneficial reading.
- 5.14.4 If there are adverse and beneficial effects these will need to be brought out in the assessment, not obscured by balancing them off against one another. If there are both adverse and beneficial effects they should be recorded separately. For example, a bypass proposal with a Moderate Beneficial Effect on the cultural heritage assets in a town centre, might also have a Moderate Adverse Effect on rural archaeological sites. If these were offset against one another to produce a neutral assessment score this would be misleading. An alternative route with no adverse or beneficial effects would also have a Neutral score, but clearly the schemes would not be equivalent in their effect on the cultural heritage resource. The effects of the different options should be described and the scores qualified in the text, to make the differences clear.

5.15 Reporting

- 5.15.1 Guidance on reporting for Simple and Detailed Assessment is given in Chapter 6 of the main Cultural Heritage Topic guidance.

- 5.15.2 Dissemination requirements may not be determined in detail until the archaeological investigation has been completed and the results assessed. However, the predicted scale of, and approach to, post-fieldwork processing and the dissemination of the results must be established, and costed, in all proposals for fieldwork, bearing in mind that some schemes may not progress beyond the survey stage. The individual circumstances of the scheme should be taken into account so that the Cultural Heritage Design and mitigation strategy are formulated with its ends products – information to inform decision making and the dissemination of any new knowledge - clearly in mind.

Annex 6: Cultural Heritage Sub-Topic Guidance: Historic Buildings

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Annex 6: Historic Buildings

6.1 Introduction

- 6.1.1 This section is intended to provide freestanding detailed guidance, methods and sources of information, which are specific to the Detailed Assessment of historic buildings. Procedures for Scoping and Simple Assessment for all Cultural Heritage Sub-Topics can be found in the main Cultural Heritage Topic guidance. Guidance on assessing archaeological remains and historic landscapes is contained in Annexes 5 and 7 respectively.
- 6.1.2 Historic buildings form part of the overall cultural heritage resource and there is a continuum linking the three cultural heritage sub-topics. For the purposes of this guidance historic buildings are distinguished from archaeological remains and historic landscapes, and defined as standing historic structures that are usually formally designed or have some architectural presence. The study of their design, construction, history and functions is generally the subject of historic buildings specialists. Some aspects of them may need to be elucidated using archaeological techniques, deployed in the service of historic building studies. If buildings are demolished, collapse or decay they may form the materials studied by archaeologists, and as they exist within the landscape they are elements in historic landscape studies.
- 6.1.3 Historic buildings may be of interest for many reasons. Their design or aesthetic character may be significant, their fabric may contain physical evidence of earlier phases or technologies, or the land beneath them may contain archaeological deposits, or they may be of historic significance by virtue of their role in historic events or processes. Buildings may be of historic significance because of their architectural quality, character, age or association with historic figures. Historic buildings comprise a wide range of buildings and structures, including dwellings, defences, industrial buildings, places of worship, and individual items ranging from tombs and railings to paving and milestones.
- 6.1.4 Historic buildings in the United Kingdom may date from before the Roman period to the late 20th century. Buildings may be recognised as being of special architectural or historic interest and be protected by statutory listing, and some may be Scheduled Monuments, or form part of historic designed landscapes. Some protection is given to buildings within the curtilage of a listed building, or by virtue of their location within a Conservation Area. However, many others important structures are not designated or protected by legislation or in the planning system.
- 6.1.5 Where appropriate, guidance and information from UK government departments, devolved administrations, statutory bodies, professional institutes and planning authorities can be used to guide standards and methods of assessment. A list of current guidance and standards documents is set out in Annex 4 and devolved administrations' procedures in Annex 8. Any departures from government guidance and standards should always be discussed with the relevant government heritage agencies, and approved by the Overseeing Organisation.

6.2 The Assessment Process

- 6.2.1 The detail of the assessment will depend on the stage in scheme delivery, and the nature of information required at a particular stage in the design process. Chapter 3 of the main Cultural Heritage Topic guidance sets out the framework for determining the appropriate type of assessment. Further advice is contained in Section 2, Part 2.
- 6.2.2 The Detailed Assessment will need to review the data obtained for the Simple Assessment, and consider the need to research more detailed or specialist sources or undertake fieldwork. A higher degree of detail in the evaluation and analysis is normally required in Detailed Assessments, in order to identify the significant constraints, and to obtain reliable indications of archaeological potential.
- 6.2.3 Predicting the implications for historic buildings of mitigation proposed by other studies (e.g. remediation of contaminated land, or landscape planting) forms an important part of the liaison with other topics. The same is valid for the other topic specialists, who should consider how the proposed mitigation of impacts on historic buildings would impinge on their topic areas.

6.3 Consultation

- 6.3.1 Chapter 3 of the main guidance sets out the nature of consultations with statutory and other stakeholders appropriate for each type of assessment. In the devolved administrations there are different arrangements for the relationships between the statutory consultees and the highway authorities (see Annex 8). Early consideration of statutory advisors' views is important to assist in the identification of key areas of study. It is not normally expected that detailed local research would be undertaken for Scoping, but, with the agreement of the Overseeing Organisation, early contact with key non-statutory consultees is recommended. For Simple and Detailed Assessments, discussions with local planning authorities' advisors will be necessary for identifying historic building issues potentially affected by the scheme. Early consideration of statutory advisors' and stakeholders' views may avoid unnecessary assessment work and help identify key areas of interest.
- 6.3.2 The need for discussions with other interested parties, such as local historic buildings groups or national specialist groups, should be judged in the light of the type of the impact, the sensitivity of historic buildings as an issue, and the importance of particular historic structures affected by the scheme.
- 6.3.3 If either, or both, the Archaeological Remains and Historic Landscape Sub-Topics were identified for further investigation in the Scoping Report, then close liaison with the relevant sub-topic specialists would be required. The same may be the case with the Landscape, Townscape, Nature Conservation and other Topic specialists, as there may be significant areas of common interest between them. Ongoing consultation with the design engineers is also essential, as early advice should inform the design process.

6.4 Defining the study area

- 6.4.1 The definition of the Study Area for Detailed Assessment should not be undertaken until viable route options have been identified. Historic building studies will need a

Study Area defined according to the sensitivity of the receiving environment, the potential impacts of the road scheme, and the type of assessment. Impacts on historic buildings may be restricted to receptors within the visual envelope of the proposed works or those immediately adjacent, but the wider Historic Landscape Sub-Topic Study Area may be relevant in order to provide further information, and liaison with the Historic Landscape specialist should be sought.

6.5 Gathering data on Historic Buildings

6.5.1 The amount of work required at the data gathering stage for the Detailed Assessment of historic buildings is dependent on the type and scale of the proposal, in particular the extent of new land-take, the types of impacts expected, and the character of the historic environment affected. At all phases of an assessment, consideration should be given to the most cost-effective approach to data gathering, under the particular circumstances of the scheme.

6.6 Desk based research

6.6.1 Listed Buildings can be identified from the statutory lists and supplements issued by the Secretary of State, and from the mapping held by statutory advisors and planning authorities. Parish or groups of parishes may also arrange lists.

6.6.2 Some planning authorities maintain 'local lists' of buildings that were once listed or were considered for listing but are not statutorily designated. Designations relating to the built environment, such as Conservation Areas, should be identified, together with any studies that have been undertaken for them. Some Scheduled Monuments are also listed historic buildings, and other important structures may not be included on the statutory lists, and these should also be identified. In particular, the study should be aware of emerging areas of historic significance, such as 20th century structures, where designation may not fully represent their historic status. Many of these may be road transport related, and so be of particular interest but also at particular risk.

6.6.3 A map regression from recent OS mapping back to first edition 25" or 6" maps may be undertaken to confirm the existence and form of listed buildings, and identify other buildings that may survive from the 19th century that can then be inspected by fieldwork. The examination of printed historic maps and manuscript maps, such as tithe maps and estate maps to be found in national and local collections, may also be important in order to locate known buildings and reveal the existence of others that can be checked in the field for any potential interest. Sites and Monuments Record/Historic Environment Record (SMR/HER) data held by planning authorities may include listed and other historic buildings and structures.

6.6.4 Published accounts of buildings may exist in national and regional guides (e.g. the *Buildings of England* series, or the *Victoria County History*), while for important buildings there may be detailed published accounts in monographs or specialist journals or periodicals. These may be held in local history libraries, or located through local or national bibliographies. Conservation or Management Plans for buildings or sites may contain valuable assessments and statements of importance, while for Conservation Areas character appraisals commissioned by Local Authorities may contain specific references to individual historic buildings.

- 6.6.5 There may be photographs or measured surveys of buildings in national buildings records (such as the English NMR or the RIBA library), or the local SMR/HER, or deposited in county building records. National and local museums, art collections, libraries and record offices may hold important visual sources of lost building features, such as old photographs and topographical drawings. Measured drawings for some buildings or structures (especially those commissioned by public bodies e.g. railways and public buildings) may be deposited with planning authorities for purposes of building control.
- 6.6.6 In areas that possess them, planning authority GIS-based SMR/HER systems and/or historic landscape characterisation schemes can greatly assist the early stages of assessment. Detailed data may be readily obtainable for the whole study area, without duplicating work.
- 6.6.7 The wider context of regional building character (e.g. timber framing, or farm buildings) may be provided by published regional studies of buildings and building types, or by publications on individual buildings. On-line bibliographies and databases (e.g. NMR images of English listed buildings) may be of use.
- 6.6.8 All data should be gathered in a manner compatible with detailed collation and mapping. Where possible data should be obtained from sources in digital form to avoid unnecessary manual data input and manipulation. If either or both the Historic Landscape or Archaeological Remains Sub-Topics are included in the scope of the assessment the specialists should co-ordinate their researches to avoid duplicated effort.

6.7 Field Survey

- 6.7.1 Desk based studies may provide sufficient information without new field surveys, and field survey will not normally be undertaken for Scoping. Some schemes have the potential, however, to affect historic buildings whose presence, character, extent, complexity and importance may not yet be known.
- 6.7.2 The study should consider the risk of an impact on potentially valuable historic buildings in the light of the known data and the history of the area. Detailed inspection and investigation, including the condition of the structure and fabric of buildings, may be necessary where a high degree of certainty is required about the age or significance of a building, or to assess the impact of a scheme or to inform mitigation measures, where these aspects are not apparent from documentary and visual research. If necessary a programme of field surveys should be prepared to test the conclusions, and the services of structural engineers or specialist buildings surveyors may be required to complement the historical studies.
- 6.7.3 The purpose of field survey is to provide the information about the presence or absence, character, extent, date, integrity, quality and state of preservation of buildings, sufficient to enable decisions to be made confidently regarding the impacts of a proposal. Field survey strategies should be designed to provide sufficient information for the purposes of the assessment. The effectiveness of the available techniques for this purpose should be judged in relation to the buildings under consideration and the scheme proposals. The availability of access may constrain the methods, timetable or extent of field survey (see Chapter 3 of main Cultural Heritage Topic guidance).

- 6.7.4 Field surveys should be undertaken on the basis of a written scheme of investigation, approved by the Overseeing Organisation, which clearly sets out the known data, the justification for the work, and the aims and objectives of the work, related to the proposed scheme. National advice on the conduct of building surveys (such as the Royal Commission on Historic Monuments (England) Guidelines) should be followed where appropriate.
- 6.7.5 A walkover survey should enable the surveyor to check the condition of historic structures within the study area, record any that have not been previously noted and inform decisions about further field survey techniques to be applied, if appropriate.
- 6.7.6 If further information is required the study will need to consider the range of field survey techniques available, some of which affect the fabric of the structure, some of which may require access onto private property, and others that can be undertaken from locations accessible to the public. In the choice of methods the surveyor will take into account the purpose of the assessment, the existing information, access and cost-effectiveness. In all cases a formal approach should be made to the landowner and occupier through the Overseeing Organisation.
- 6.7.7 Survey methods may include photographic survey, measured survey, remote sensing, investigations involving sample taking (such as dendrochronology), and the physical removal of accretions/alterations to reveal earlier features.
- 6.7.8 Field survey could involve internal inspection of key buildings and close external inspection of others. This survey may confirm the identification of unlisted historic buildings of sufficient importance to be included in the data. The assessment of setting issues can also be undertaken
- 6.7.9 The more detailed field investigation of buildings may involve looking inside roof-spaces to gather information on the age or importance of the building. Consideration should be given to the use of non-intrusive measures such as remote sensing to find timber framing or other obscured features. In some cases it may be advisable to avoid uncertainty by more intrusive inspection of fabric, such as the removal of plaster to expose the wall structure, or the sampling of timber for tree ring dating.
- 6.7.10 All inspections and investigations undertaken before CPOs that involve access onto private property or have a physical impact on the fabric of a structure must have the owners' permission, and be approved by the Overseeing Organisation. If the building is listed then all intrusive investigations must have prior listed building consent, whether or not the building has been the subject of a CPO.

6.8 Assembling the data

- 6.8.1 The baseline data on historic buildings should be presented through maps and gazetteers. Mapping will be used to show the location of listed and other historic buildings. Typically the base map will be at a scale of 1:10,000, though a larger scale may be required for a detailed appreciation of built-up areas. Historic areas such as Conservation Areas, and areas occupied or once occupied by significant numbers of buildings (e.g. dense settlement or industrial activity) may also need to be shown at a larger scale. Where large numbers of listed buildings occur on the

edge of the study area or within a Conservation Area it may be appropriate to show them indicatively as a group.

6.8.2 The gazetteer will include the address and grid reference of each building, a short description of its building type, materials and date (the name of the architect may be included if relevant and known). The designation or any assessment of importance should be included (eg Category A listed (Scotland); unlisted building in Conservation Area, in curtilage of listed building; historic building of local interest etc.).

6.8.3 Many schemes will have a long life, and the study should collect and present the data a way that can continue to be used and modified at later stages.

6.9 Analysis

6.9.1 The purpose of the analysis is to assist the scheme decision-making process. The location, value and vulnerability of the resource in relation to the proposals are the key issues to be examined, and, as far as practicable, sufficient data should be collected to enable confident conclusions to be drawn. The study should also clearly identify the risks, both to the scheme and to historic buildings. The analysis should therefore be directed to understanding where significant historic buildings may be affected by the scheme, the mitigation that would need to be applied, and opportunities for enhancement.

6.10 Evaluating Historic Buildings

6.10.1 Analysis of the data must include an assessment of the value of the resource. Designations will assist in this analysis, but undesignated sites should be fully considered. The current designation status of buildings may not fully represent their value, or their potential, and some of the resource may be of uncertain value until tested through further evaluation. The study should consider local plans, research frameworks, characterisation initiatives and current research interests in order to assess the value of buildings or building types.

6.10.2 The scale of values to be used for each historic building is set out below:

- Very High
- High
- Medium
- Low
- Negligible
- Unknown Value

6.10.3 The assessment of buildings can usefully follow the Listed Building grades. As a guide English and Welsh Grades I and II* (Scotland's Categories A and B) would be 'high value', and Grade II (Scotland's Category C) buildings would be 'medium value'. Locally listed buildings, and other identified historic buildings and structures would normally be of 'low value'. The following table is a guide for evaluating the value of historic buildings:

Table 6.1: Guide for Establishing Value of Historic Buildings

Criteria for establishing value of historic buildings	
Very High	<ul style="list-style-type: none"> Standing structures inscribed as of universal importance as World Heritage Sites Other buildings of recognised international importance
High	<ul style="list-style-type: none"> Scheduled Monuments with standing remains Grade I and Grade II* (Scotland: Category A and B) Listed Buildings Other listed buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the listing grade Conservation Areas containing very important buildings Undesignated structures of clear national importance
Medium	<ul style="list-style-type: none"> Grade II (Scotland: Category C) Listed Buildings Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical association Conservation Areas containing important buildings Historic Townscape or built-up areas with historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	<ul style="list-style-type: none"> 'Locally Listed' buildings Historic (unlisted) buildings of modest quality in their fabric or historical association Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Negligible	<ul style="list-style-type: none"> Buildings of no architectural or historical note; buildings of an intrusive character.
Unknown	<ul style="list-style-type: none"> Buildings with some hidden (i.e. inaccessible) potential for historic significance

6.10.4 This guide is not intended to be prescriptive, professional judgement will need to be exercised in assessing the value of historic buildings. As a further guide, in England the main factors used by the Secretary of State in deciding which buildings to include on the statutory list are as follows:

- **architectural interest:** the lists are meant to include all buildings which are of importance to the nation for the interest of their architectural design, decoration, and craftsmanship; also important examples of particular building types and techniques (e.g. buildings displaying technological innovation or virtuosity) and significant plan forms;
- **historic interest:** this includes buildings which illustrate important aspects of the nation's social, economic, cultural, or military history;
- **close historical association:** with nationally important people or events;
- **group value:** especially where buildings comprise an important architectural or historic unity or a fine example of planning (e.g. squares, terraces or model villages).

- 6.10.5 Age and rarity are relevant factors, and in general (where surviving in anything like their original condition) all buildings built before 1700 are listed, most from between 1700 to 1840, selectively from 1840 to 1914, and more selectively thereafter. Special criteria have been developed for 20th-century buildings. The principles of these criteria can be used for evaluating unlisted historic buildings.
- 6.10.6 Buildings may be valued by communities and special interest groups for a number of reasons, perhaps most often for their historical association (with local people and events) or their historic role in the community (e.g. schools or public houses).
- 6.10.7 Buildings may have associations with, and importance for, other Cultural Heritage Sub-Topic areas, for instance: Historic Landscape for houses built around former commons, or Archaeological Remains for standing buildings on historic sites.
- 6.10.8 Other Topic areas may also be relevant. Historic buildings in Conservation Areas may feature in the Townscape Topic, and the Landscape Topic will consider historic houses, and the Historic Building Sub-Topic specialist should liaise with the studies undertaken for these topics.

6.11 Mitigation and enhancement

- 6.11.1 Assessment and design are parts of an iterative process, which together should lead to mitigation measures where possible. Mitigation should aim to avoid, lessen or repair an adverse impact on the heritage resource. Enhancement improves either the survival of the resource or its appreciation. Mitigation strategies should take into account the objectives defined according to Chapter 4 in the main Cultural Heritage Topic guidance.
- 6.11.2 For historic buildings, as with archaeological remains, there is a general presumption in favour of preservation in situ. However, in some schemes a degree of impact may be unavoidable and there may be circumstances in which preservation is not possible and a programme of investigation and recording prior to removal is required in mitigation.
- 6.11.3 Important historic buildings should be avoided if reasonably possible, taking into account the value of the structure, the scheme and cost effectiveness. The loss of listed buildings is not envisaged in the legislation or guidance but may, exceptionally, become necessary. There is a range of options for mitigating the loss of historic buildings, all of which have been used in recent years. These include:
- moving the entire building
 - rebuilding as a museum exhibit
 - rebuilding for re-use (commercial/domestic)
 - partial recovery of historic fabric for museum use.
 - recording prior to demolition or damage
- 6.11.4 In all these cases the end use should be established prior to demolition, since the placing of buildings in storage has been shown to be an insecure option frequently leading to loss. The nature of the end use also has a bearing on the amount of recording that is necessary.
- 6.11.5 Where buildings will be lost, their importance must be established before and during demolition by investigation and survey, with a programme of recording and

investigation at an appropriate level. This may range from summary recording by photography and basic plans, through fuller investigation and measured record, to full physical examination of structures during demolition, amounting to “preservation by record”. The aims and objectives of undertaking detailed studies must be clearly understood and stated, so that resources can be effectively prioritised across the scheme.

- 6.11.6 The study should consider whether the scheme could improve the physical status of historic building assets. Authentic historic material cannot be “increased” but halting or slowing the process of deterioration that would otherwise continue (conservation) would be beneficial. Opportunities for enhancing the resource should be considered, so that the scheme design can take full account of enhancement opportunities.
- 6.11.7 Enhancement schemes may be justified where they can compensate for adverse environmental impacts of the scheme that cannot be adequately mitigated, or where they can contribute to objectives explicitly stated in the EIA or other commitments.
- 6.11.8 Opportunities may exist to improve the setting of buildings. This could include opening features to view, or by improving the setting and view from buildings by screening, down-grading or removing existing road infrastructure. Appropriate design measures may in most respects be no different from mitigation for any other buildings. In some cases the opportunities for rearrangement of landholdings may enable the setting of a building to be enhanced
- 6.11.9 Enhancement of historic buildings’ value can be achieved through providing routes to improved access, or car parking for visitors, or by enabling improved management of the historic building or its setting as part of road maintenance (eg fencing, security coverage, regular inspection and maintenance, trimming vegetation). Schemes to interpret and improve access to buildings, while ensuring that they are protected from damage, can also enhance the resource.
- 6.11.10 The primary mitigation measures will respond to the potential impacts of the scheme, but as the design develops further potential impacts may arise from mitigation measures related to other topics. Changes that affect the character of listed buildings (e.g. installation of new glazing) will in any case require listed building consent. It is therefore essential for the Historic Building Sub-Topic specialist to be aware of, and if necessary involved in, these continuing design processes.

6.12 Assessing Magnitude of Impacts

- 6.12.1 An impact is defined as a change arising from the scheme that would not otherwise occur in a do-nothing scenario. The baseline from which this change is measured should take into account changes that would occur anyway, if the scheme were not built. Consideration must be given to the types of potential impacts – adverse or beneficial, constructional or operational, direct or indirect, and cumulative – as set out in Chapter 4 of the main Cultural Heritage Topic guidance.
- 6.12.2 Ongoing communication with design engineers regarding the potential impacts of a scheme is essential. Accurate calculations of the area of direct scheme impact are rarely available before the detailed design is prepared. The location and design of ‘off-site’ activities, such as site compounds, borrow pits, haul roads etc, are also

frequently undetermined until relatively late in the contractual process. Nevertheless these may be a key consideration in assessing impacts, and designers' estimates of new land-take and the location, scale and design of off-site features are needed for schemes as early as possible. In the absence of information about the location of off-site activities maps should be prepared showing where such activities should not be sited if possible.

6.12.3 Sources of potential impacts are listed in Table 6.2 below. This list is not exhaustive.

Table 6.2: Sources of impacts

	Activity	Impact: adverse	Impact: beneficial
Site clearance	Removal of trees & vegetation	damage to setting of historic buildings	re-establishment of historic setting
	Fencing	intrusion on setting	
Road Construction	Traffic movement	visual intrusion on setting aural intrusion on setting	
	Demolition, drainage, shallow foundations, borrow pits, decontamination etc	damage to building fabric effect on setting	
	Construction traffic movement	visual and aural intrusion	
	Siting of construction sites	visual intrusion	
	Landscaping/ earth mounding	visual or aural intrusion on setting	re-establishing historic setting screening of intrusive elements
	Spoil disposal	visual or aural intrusion on historic setting	re-establishment of historic setting indirect: screening of intrusive elements
	Structures, Installation features (bridges, signage, fencing etc)	disruption of historic setting	
	Installation of lighting scheme	visual intrusion on historic setting	improved lighting systems can impact less on night time scene
	Road alignment	damage to historic buildings severance causing dereliction or neglect of historic buildings effect on setting	re-instatement of historic setting
	Planting	intrusion on setting	re-establishment of historic setting screening of intrusive elements
Other Environmental Mitigation	Traffic movement	intrusion on setting	
	Maintenance	repairs or alteration of historic buildings	
	Topsoil stripping	damage to setting	
	Screen planting Other screening	effect on setting	re-establishment setting screening of intrusive elements
	Noise reduction panelling Noise reduction glazing	effect on setting effect on historic character	

- 6.12.4 The magnitude of the impact is assessed without regard to the value of the resource, so the total destruction of an insignificant building counts as the same degree of impact as the destruction of a high value building. The value of the asset is factored-in later to calculate the significance of the effect.
- 6.12.5 The judgment of the magnitude of an impact should be based on the overriding principle that the physical preservation of historic material is normally the best strategy. The worst impact would normally be the total destruction of the asset. The impacts on historic buildings affected by the proposals need to be ranked in relation to this range of possibilities.
- 6.12.6 Where not affected by land-take, historic buildings may nonetheless experience impacts from vibration, noise and visual intrusion on the setting of the building. The setting may include both views of the building (especially views available to the public), and views from the building of its landscape or townscape environs. The assessment of the impact on the setting of historic buildings should study how changes in the environs of a cultural heritage asset would affect that asset. This will mean considering the factors that contribute to the setting – views, topography, structures, vegetation, sound environment, approaches – and how the impact of the scheme on them affects the asset they encompass.
- 6.12.7 The quantitative assessment of vibration and noise impacts will derive from specialist studies in those topics (requiring consultation and data exchange with other consultants). Even where these impacts are calculated to be low it may be necessary to consider the cultural heritage effects of mitigation measures related to them (eg double glazing).
- 6.12.8 The following scale of the magnitude of impacts should be used:
- Major
 - Moderate
 - Minor
 - Negligible
 - No change
- 6.12.9 Impacts can be on the physical material of the building, on its setting or context, or on amenity, or any combination of these elements. It may be possible to assess physical impacts in terms of percentage loss for simple structures, but most assessments will require more sophisticated criteria, taking into account the capacity of the structure to retain its historic interest after sustaining the damage. For instance, the destruction of a historically unimportant late wall in the curtilage of a listed building would usually be considered to be less of an impact than damage to historic material in the listed building itself.
- 6.12.10 Impacts on setting or context may be, in theory at least, reversible, and do not destroy the resource itself. The study should explicitly describe and explain the weighting given to impacts on setting and context.
- 6.12.11 The **context** relates to how the resource can be understood or appreciated through a knowledge or understanding of aspects of it that are not visible. An impact on context would be a change in the ability to understand or appreciate these aspects of the resource. For instance, a proposed new dual carriageway which would divide a manor house from its associated village, although neither may be visible

from the road or from one another, and which may not affect any historic structures physically, could nonetheless make it more difficult to reconstruct their historic relationship. As with setting, the study should be explicit about the weighting given to the magnitude of impacts on context.

6.12.12 The Historic Building Sub-Topic assessment of impacts on the resource as a result of changes in **amenity** should consider the changes experienced by the asset and changes to people's experience of the historical character of the asset. For instance, if the scheme changes the previous use of, or access to, an historic structure so that it becomes more liable to vandalism or erosion, then that would be an negative impact. Alternatively, opening up a previously inaccessible site may promote its better management, and lead to a positive impact. Improved opportunities for the appreciation of historic buildings would also be positive. Changes in amenity that involve historic buildings but that do not ultimately result in changes to the fabric, setting, or historic appreciation may be the subject of the Community and Private Assets Topic. Discussions between the appropriate Topic Specialists should ensure that the issue is properly considered.

6.12.13 Table 6.3 summarises the factors to be taken into account when assessing the magnitude of impact. It is not intended to be prescriptive, as each scheme assessment must establish the magnitude of the impact caused by these factors, and the weighting to be accorded to each of them, using professional judgement.

Table 6.3: Factors in the Assessment of the Magnitude of Impacts

Factors in the Assessment of Magnitude of Impacts	
Major	Change to key historic building elements, such that the resource is totally altered. Total change to the setting.
Moderate	Change to many key historic building elements, such that the resource is significantly modified Changes to the setting of an historic building, such that it is significantly modified
Minor	Change to key historic building elements, such that the asset is slightly different Change to setting of an historic building, such that it is noticeably changed
Negligible	Slight changes to historic buildings elements or setting that hardly affect it
No change	No change to fabric or setting

6.13 Assessing the significance of effects

6.13.1 Assessing the **significance of the effects** of the scheme combines the **value** of the resource and the **magnitude of impact** (incorporating the agreed **mitigation**), for each cultural heritage asset.

6.13.2 The significance of effect should be expressed on the following scale:

- Very large
- Large
- Moderate
- Slight
- Neutral

6.13.3 The Table 6.4 below illustrates how information on the **Value** of the asset and the **Magnitude of Impact** are combined to arrive at an assessment of the **Significance of Effect**. The matrix is not intended to “mechanise” judgement of the significance of effect but act as a check to ensure that judgements regarding value, magnitude of impact and significance of effect are balanced. If the matrix produces a significance of effect that is clearly unreasonable, then the value and magnitude of impact judgements should be revisited to ensure that they are justifiable.

Table 6.4: Significance of Effects Matrix

VALUE/SENSITIVITY	Very High	Neutral	Slight	Moderate/Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
	Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
	Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
	Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight
		No change	Negligible	Minor	Moderate	Major
MAGNITUDE OF IMPACT						

6.14 Assessing significance of effects on the overall cultural heritage resource

6.14.1 For an individual cultural heritage asset there may be differing degrees of effect related to each sub-topic. For example, the role of an historic structure in the historic building sub-topic may be more important than it is in the historic landscape assessment, and its relevance to archaeology may be minimal. In these cases the highest reading should be taken as the significance of the effect on that asset.

6.14.2 For a scheme or parts of a scheme where all three sub-topics or a combination of them have been relevant, the significance of the effects on the overall Cultural Heritage Topic (Archaeological Remains, Historic Buildings and Historic Landscape) should be assessed. If all the effects on all assets were adverse then the highest reading on the Significance of Effect matrix will also normally be taken to be the overall cultural heritage effect. Similarly a scheme with wholly beneficial effects would be assessed at the highest beneficial reading.

6.14.3 If there are adverse **and** beneficial effects (normally on different cultural heritage assets) these will need to be brought out in the assessment, not obscured by balancing them off against one another. If there are both adverse and beneficial effects they should be recorded separately. For example, a bypass proposal with a Moderate Beneficial Effect on the cultural heritage assets in a town centre, might also have a Moderate Adverse Effect on rural archaeological sites. If these were offset

against one another to produce a neutral assessment score this would be misleading. An alternative route with no adverse or beneficial effects would also have a neutral score, but clearly the schemes would not be equivalent in their effect on cultural heritage. The effects of the different options should be described and the scores qualified in the text, to make the differences clear.

6.15 Reporting

- 6.15.1 Guidance on reporting for Simple and Detailed Assessment is given in the main Cultural Heritage Topic guidance at Chapter 6.
- 6.15.2 The circumstances of the scheme should be taken into account so that the Scheme Design and mitigation methods are formulated with the end product clearly in mind. Arrangements for the dissemination of the results of the investigations may not be determined in detail until the investigation has been completed and the results assessed. However, the general scale and approach to post-fieldwork processing and data dissemination must be established and costed in the initial mitigation proposals contained in the EIA.
- 6.15.3 Usually the publication of any significant results of preliminary works is incorporated into the publication of the results of the final investigations. If the scheme is shelved or delayed it will be necessary to ensure the appropriate publication of any significant results of the Assessment.

Annex 7: -Cultural Heritage Sub-Topic Guidance: Historic Landscape

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Annex 7: Historic Landscape

7.1 Introduction

- 7.1.1 The cultural heritage resource is not naturally split into the sub-topics of archaeological remains, historic buildings and historic landscapes; the sub-divisions in this guidance are intended to set out the different methodologies and approaches employed by different specialists. It is likely that many schemes will not require detailed consideration of all three Cultural Heritage Sub-Topics. This Annex is intended to provide freestanding guidance concerning the methodologies and sources of information specific to Detailed Historic Landscape Assessments. General advice on Screening, Scoping and Simple Assessment for all the Cultural Heritage Sub-Topics can be found in Chapter 5 of the main Cultural Heritage Topic guidance. Guidance on assessing archaeological remains and historic buildings is contained in Annexes 5 and 6 respectively.
- 7.1.2 The definition of historic landscape used in this guidance is derived from the European Landscape Convention (2000): *landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*. Historic landscape is defined by perceptions that emphasise the evidence of past human activities in the present landscape.
- 7.1.3 The appearance of the present countryside is the result of the interaction of human activities and the physical factors of climate, geology and topography. However “natural” the landscape may seem, it has been modified and shaped by human interventions. These processes have modified the landscape over time, and because all landscapes have been subject to human change, all landscapes are historic.
- 7.1.4 Studies of historic landscapes are undertaken for a variety of reasons and take a variety of approaches. The discipline is also developing rapidly and the concepts and terminology used in historic landscape studies are also evolving. In this document the following definitions have been adopted:
- historic landscape *characterisation* (HLC) seeks to describe representative or predominant historic characteristics of the present landscape over more or less extensive tracts of land – its *Historic Landscape Character*
 - historic landscape *analysis* seeks to understand the processes underlying the development of past landscapes, and how this can be “read” in the present countryside
 - historic landscape *evaluation* considers the relative values of historic landscapes
 - historic landscape *assessment* involves the combination of characterisation, evaluation and the impact of a proposed development to arrive at a decision regarding the effect of the development on the historic landscape,
 - landscape *archaeology* focuses on the physical remains of past landscapes, using archaeological methods of study and analysis at the landscape scale
- 7.1.5 Landscapes have many qualities – for instance: *aesthetic* stimulation for the poet and artist, *economic* potential for the agriculturalist or industrialist; *wild-life* value for the ecologist; *recreational* opportunities, and potentially as many other qualities as there are groups and individuals to perceive them. It is people’s uses and their perceptions of landscape that shape these conceptions of landscape quality. The perception that

defines the historic landscape in this guidance is one that considers the evidence of human activities as agents of change visible in the current landscape.

- 7.1.6 Other qualities like those mentioned above may contribute to this perception. For instance, literary or aesthetic ideas may have motivated the manipulation of parts of the landscape in the past, such as the 18th century parklands created in response to complex cultural ideologies. Technological, political or economic forces, such as the parliamentary enclosure movement or the railway boom, are important historic landscape themes. The presence of ecological markers of previous management regimes may also be evidence for reconstructing the development of the historic landscape. A multi-disciplinary approach is almost always necessary in historic landscape studies.
- 7.1.7 There may be significant overlaps between the three Cultural Heritage Sub-Topics, as all involve the evidence for past human activities, and indeed a part of historic landscape studies relies upon the results of specialist researches into archaeology and historic buildings. The crucial distinction is that the study of archaeological remains and historic buildings are concerned with *objects*, in the broadest sense, which can be measured, sampled, tested, etc. Even very large or extensive features, such as field systems, can be subjected to archaeological study – landscape archaeology has developed to study such features. The historic landscape, although it contains archaeological and historic built features, is recognised as a result of choosing to attend to the historical significance of these at the landscape scale. The resulting description of the historic landscape is generally called its Historic Landscape Character, and it is the *character* of the historic landscape that is potentially affected by road schemes, whereas it is the *objects* of archaeological and historic buildings study that are the receptors in their case.
- 7.1.8 It follows that there although there should be close involvement of the other Cultural Heritage Sub-Topic specialists and the Historic Landscape specialist, there should be no risk of double counting in the assessment process. For instance, earthwork remains of a deserted medieval village may figure in the archaeological remains assessment, and a surviving church at its centre may feature in the historic buildings assessment. The historic landscape assessment should be careful not merely to catalogue these elements again, but to consider their contribution to the historic landscape character and assess what the effect of the scheme under consideration might be on this character and its value, while the effect on archaeological remains and historic buildings will be assessed by the relevant sub-topic specialists.
- 7.1.9 There may be significant overlaps between the Cultural Heritage Historic Landscape Sub-Topic and the Landscape and Townscape Topics (and probably other topics too), and the relevant specialists should maintain close liaison during the assessment. Many of the data used in the Landscape Topic assessment, for instance, may be useful in the Historic Landscape assessment, such as historic viewpoints, or the integrity of Landscape Character Areas. Care should be taken to ensure that there is no duplication of effort during data gathering and in the analytical process. Any relevant cultural heritage studies undertaken by the Landscape and Townscape Topic specialists should be taken account of appropriately in the Historic Landscape Sub-Topic assessment, and vice-versa.
- 7.1.10 Assessing the historic landscape implications of mitigation proposed by other studies (for example, remediation of contaminated land, or landscape planting) forms an

important part of the liaison with other topics. The same is true for the other topic specialists, who should consider how the effects of proposed mitigation of effects on historic landscape would impinge on their topic areas.

- 7.1.11 If historic landscape were identified by the Scoping exercise as requiring assessment, it should be the subject of specialist Historic Landscape Sub-Topic study in the Cultural Heritage Topic. Competent practitioners should undertake historic landscape assessments. Appropriate specialists may be trained in historic landscape methods or come from an archaeological, geographical, historic building, landscape or other backgrounds, but so long as they are able to undertake the specialist historic landscape study effectively their professional title is a secondary matter. The practitioner's experience and ability to co-ordinate, assimilate, analyse and present a wide variety of data sources appropriately will always be a principle requirement.
- 7.1.12 Where appropriate, guidance from UK government departments, devolved administrations' heritage agencies, statutory bodies, professional institutes, specialist researchers and practitioners and planning authorities should be sought to establish the appropriate standards and methods of assessment. A list of current guidance and standards documentation is set out in Annex 4, and devolved administrations' procedures can be found in Annex 8. Any departures from government guidance and standards should always be discussed with the relevant statutory agencies and be approved by the Overseeing Organisation.
- 7.1.13 The cultural heritage agencies in different parts of the UK have different approaches to historic landscapes. English Heritage and Historic Scotland have adopted similar approaches that emphasise the historic character of the entire landscape, developing Historic Landscape Characterisation (HLC) in England and Historic Landuse Assessment (HLA) in Scotland. In Wales, Cadw and the Countryside Council for Wales (CCW) have developed a Register of Landscapes of Historic Interest. The Welsh approach defines *Areas of Outstanding Historic Landscape* and *Special Historic Landscapes*, and is accompanied by a methodology for establishing value and impact on them (*Assessment of Significance of the Impacts of Development on Historic Landscapes*, (ASIDOHL) Cadw and CCW). The Overseeing Organisation should consult with Cadw and CCW on the scope and detail of an ASIDOHL assessment. In Wales the LANDMAP process should also be followed. Annex 8 contains guidance on the requirements of the devolved administrations.

7.2 The Assessment Process

- 7.2.1 The purpose of assessing the historic landscape in connection with proposed road schemes is to inform the decision-making process, which includes decisions regarding mitigation of adverse impacts. The assessment should consider the impact on the historic landscape character of the proposal. The detail required at the data gathering stage is dependent on the type and scale of the road scheme and the requirements of the decision-making process.
- 7.2.2 The Detailed Assessment will need to review the data obtained for the Simple Assessment, and consider the need to research more detailed or specialist sources or undertake fieldwork. A higher degree of detail in the evaluation and analysis is normally required in Detailed Assessments, in order to identify the significant constraints, and to obtain reliable indications of archaeological potential.

7.3 Consultation

- 7.3.1 Chapter 3 of the Cultural Heritage guidance sets out the nature of consultations with statutory bodies and other stakeholders appropriate for each level of study. In the different Overseeing Organisations there are different arrangements for the relationships between the statutory consultees and the highways authorities (see Annex 8). For Scoping studies in England early consideration of EH views is advised to assist in the identification of key areas of study. It is not normally expected that detailed local research would be undertaken but, with the agreement of the Scheme Sponsor, early contact with key non-statutory consultees is usually advisable.
- 7.3.1 For Simple and Detailed Assessment in England, English Heritage should be formally approached for their views, and discussion with local planning authorities' advisors is recommended for identifying historic landscape issues potentially affected by the scheme. Timely consideration of national heritage agencies' and other stakeholders' views may avoid unnecessary assessment work and will help identify key areas of interest.
- 7.3.2 The need for discussions with other interested parties, such as local history groups or national specialist groups, should be judged in the light of the relevance of their input into the data collection or analysis.
- 7.3.3 If either, or both, the Archaeological Remains and Historic Buildings Sub-Topics were also identified for further investigation in the Scoping Report, then liaison with the relevant sub-topic specialists would be required. The same may be the case with the Landscape, Townscape, Nature Conservation and other topic specialists, as there may be significant areas of common interest with them. Ongoing consultation with the design engineers is also essential, as early advice should inform the design process and the proposed design will be critical to the analysis of the data.
- 7.3.4 Consultation and data gathering may be required to define local distinctiveness and Quality of Life objectives. The issues may include the influence on historic landscape character arising from matters such as amenity, public awareness, accessibility, and local interests. Investigations regarding these aspects may include consideration of the aspirations of local amenity groups and local residents. Data establishing these factors should be collected by the relevant topic specialists, probably in the course of the Community and Public Assets Topic studies.

7.4 Defining the Study Area

- 7.4.1 Where the Scoping Report indicates that the historic landscape is an issue the appropriate Study Area will need to be defined. This will be determined on a case-by-case basis, to take account of the scale of the proposal and the scale of the historic character units. Although the Historic Landscape Topic study area may be similar in scale to the Landscape Topic study area, the relevant historic land divisions –farm, estate, manor, township, parish etc. - may not coincide with the visual parameters adopted by Landscape Topic specialists, and the Study Area should be justified in historic land division terms.
- 7.4.2 As far as practicable, the study should collect and analyse sufficient data at the appropriate level of detail from a wide enough area to enable decisions to be made

with confidence about the effect of the proposed scheme. Historic Landscape Characterisation provides the basis for the scale of historic landscape study areas, as well as the baseline description of the historic landscape. This is dealt with in section 7.5 below.

7.5 Gathering Data on Historic Landscape

7.5.1 Gathering data on the historic landscape should contribute to the historic landscape characterisation, directed to the purposes of the scheme assessment. The information should help to:

- understand the processes that have created the historical landscape character;
- evaluate its quality;
- identify the changes to the historic landscape character likely to be caused by the scheme (potential impact);
- develop measures to mitigate the impact;
- assess the magnitude of the mitigated impact
- assess the significance of the effect

7.5.2 The two general approaches to historic landscape studies may be crudely described as "top-down" and "bottom-up". The top-down approach is to take generally accepted historic landscape descriptions and apply them broadly over wide areas, or to identify areas already defined or designated as having a particular historical character. The bottom-up approach is to collate the detailed evidence of surviving historical elements and progressively integrate them to construct an appreciation of the broader historical character of the landscape. Usually a combination of the two approaches is the appropriate strategy.

7.6 Top-down Data Collection

7.6.1 The top-down approach can be used to assess a large area, using readily available designations and analyses. It can be an efficient way of rapidly establishing an overall sense of historic landscape character and quality over a wide area. The top-down approach uses existing descriptions, designations and characterisations and the judgements of acknowledged experts to define historic landscapes, working from maps, published syntheses and consultations. In Wales, the Register of Landscapes of Historic Interest was initially compiled using a top-down methodology.

7.6.2 The broad *landscape* character areas in England may be found in the Countryside Agency's Landscape Character Areas mapping. Local or regional Historic Landscape Character studies may provide guidance regarding the structure and development of the historic landscape, although these vary in their detail and methodology, and countrywide the cover is both patchy and at different stages of development.

7.6.3 Using the top-down approach, for example, it is accepted that medieval-type open fields have a particular character, and any extensive surviving examples of open field strip farming are well known and recorded. Similarly, some extensive tracts of surviving prehistoric field systems and associated archaeological remains are also well studied and are precisely plotted in some regions. Such information is readily available, and the value of the landscapes generally agreed. There have also been

some national scale analyses and mapping of historic trends relevant to historic landscape character, such as *An Atlas of Rural Settlement in England* (Roberts and Wrathmell, 2000).

- 7.6.4 Some cultural heritage designations may include landscape scale areas. World Heritage Sites (WHSs) frequently encompass large swathes of historic landscapes, and may be inscribed as historic landscapes of international value by ICOMOS on the WHS list.
- 7.6.5 Designations involving important historic landscapes include the national registers of historic landscapes (in Wales); historic parks, gardens, and battlefields, and other designations (Conservation Areas, Registered Commons, etc). Other landscape-scale designations, even when applied mainly for reasons other than cultural heritage interest, may include historic landscape factors. Records of ancient woodlands, Sites of Special Scientific Interest related to historic landuse and other ecological designations that involve historic landscape issues should be consulted. National Parks and Areas of Outstanding Natural Beauty designations frequently cite specific historic qualities, and these should be taken into account. County or regionally based Historic Landscape Character/Historic Land-use Assessment mapping should be consulted where these are available. There may be other relevant historically focussed countrywide analytical studies, and where available these should be consulted.
- 7.6.6 National and regional research agendas (where available) should assist the understanding of the relative priorities accorded to different historic landscapes.
- 7.6.7 The national countryside agencies' Landscape Character Assessment (LCA) or landscape information databases should be consulted, although it should be borne in mind that recording historic character is not the primary purpose of this mapping. Nonetheless the LCA methodology includes the consideration of heritage factors.
- 7.6.8 Targeted bottom-up data gathering may be advisable in order to check the validity of top-down evaluations.

7.7 Bottom-up Data Collection

- 7.7.1 If no appropriate "top down" study is available, or it is inadequate for the purpose, then a "bottom up" approach should be adopted. Care should be taken not to undertake an unnecessarily detailed study - all work should be directed towards scheme requirements.
- 7.7.2 The historic landscape contains features from the past that can be considered on an increasing scale and complexity. The bottom-up approach uses the collection and analysis of detailed data from the landscape to form the basis of historic landscape characterisation and analysis. It is frequently the basis of county or regional HLC mapping, and can be taken to varying degrees of detail. There is currently no standardised terminology or definition for the categories and scales suggested above. Similarly there is currently no consistency in their application.
- 7.7.3 A useful model for analysing these, developed by Stephen Rippon and published by the Council for British Archaeology (S Rippon, CBA 2004) identifies historical landscape features of increasing scale and complexity, from the smallest to the

largest units. This model, slightly amended, identifies the following historic landscape units:

- **elements**, individual features such as *earthworks, built structures, hedges, woods, roads, tracks, and planned planting* in parks and gardens,
- **parcels**, elements combined to produce, for example, *farmsteads or fields*,
- **components**, larger agglomerations of parcels, such as *dispersed settlements, or straight sided field systems*,
- **types**, distinctive and repeated combinations of components defining generic historic landscapes such as *ancient woodland or parliamentary enclosure*,
- **zones**, characteristic combinations of types, such as *Anciently Enclosed Land* (a Cornish zone) or *Moorland and Rough Grazing* (a Scottish zone),
- **sub-regions** distinguished on the basis of their unique combination of interrelated components, types and zones (but see below),
- **regions**, areas sharing an overall consistency over large geographical tracts

The term “area” as used by Rippon is omitted in this guidance, as it is also used in the LCA system in its sense of a particular piece of land, and confusion could ensue, as the LCA system is well understood. It is suggested that the term “*sub-region*” is adopted in its place. The mid-scale range of *type* or *zone* is usually the appropriate scale to adopt for the purposes of roads assessment. The smaller units risk losing the generality required for the assessment, but the larger units may nonetheless be appropriate for strategic assessments.

- 7.7.4 Particular cases may suggest other ways of characterising historic landscapes, such as the Cadw list of “types” related to function, such as administration, transport, defence, industry and so on. “Themes” may be another appropriate approach. These issues must be considered carefully during the data search and analysis, and all the terms and criteria used in the assessment should be explicitly identified and defined.
- 7.7.5 The bottom-up approach starts with a base map showing landscape *parcels*, that is, groupings of *elements* into, for instance, fields and farms. The mapping should be at a scale that shows at least all fields and buildings (a minimum of 1:25,000). Further integration of *parcels* into *components* or *types* is likely to be necessary to achieve the scale of historic landscape character unit appropriate for assessment.
- 7.7.6 A map regression analysis from recent OS maps back at least to the OS first edition 25" or 6" maps should be undertaken to confirm the existence and form of landscape *elements*, such as field boundaries, street patterns, ponds, woods, lanes and paths. Further information may be obtained from other printed historical maps, and manuscript maps, such as tithe maps and estate maps to be found in national and local archives. Other accessible records, such as terriers and surveys in estate records, may provide additional information about the form and use of the past landscape. Aerial photograph collections may be examined for additional data, while SMR/HERs include information on archaeological and historic assets crucial to understanding historic landscape character.
- 7.7.7 Published or unpublished historic town and village surveys may exist in SMR/HERs or local studies collections, and in England useful information may be published in the Victoria County Histories. Similarly there may be local or regional studies of place-names, historic gardens and designed landscapes in monographs or

periodicals. These may be identified in local history libraries, or located through local or national bibliographies.

7.7.8 Important visual sources relevant to existing or former landscapes, such as old photographs and topographical drawings may be held by national and local museums, art collections, libraries and record offices.

7.7.9 If archaeological remains and historic buildings are part of the assessment, the specialists involved should ensure that there is sharing of data.

7.8 Field Survey

7.8.1 Field survey will not normally be undertaken for the Scoping Report and the Simple Assessment, but if the Historic Landscape Sub-Topic is identified as needing detailed study to assess the impact of the scheme, then the desk based results may need to be augmented by fieldwork. As with the desk based study the aim is to understand the historic landscape character and the effect of proposal upon it.

7.8.2 An initial walkover should locate the boundaries of any designated historic landscapes and identified historic landscape character units, and confirm their character. Any historically significant sight lines or visual envelopes should be noted and discussed with the Landscape Topic specialist.

7.8.3 The historic character of the landscape may take in a wide range of experiences, not just visual ones. The presence of historic or archaeological remains that are not visible but which nonetheless may have influenced the contemporary historic character may need to be taken into account, so the walkover should be informed by desk based research undertaken by the archaeological remains and historic buildings specialists as appropriate. The sounds experienced in the landscape may also have a bearing upon the historic landscape character and should be noted. The simple volume of noise may be an issue, but attention should also be paid to its character. For instance, the sound of small prop-engined aircraft on a summer day (known as a *wokingham*) would be characteristic of historic airfields, many of which still operate.

7.8.4 The results of field surveys carried out by the Archaeological Remains Sub-Topic and Historic Buildings Sub-Topic specialists should be taken into account in constructing the historic landscape characterisation, as should Landscape and Townscape Topic surveys as appropriate. Further field survey may involve a more detailed inspection, where a better understanding of the form, condition and importance of assets is required. Field survey may include the inspection and measured survey of historic landscape features, or the mapping of features identified on aerial photographs, but this would be exceptional.

7.8.5 All fieldwork programmes should be agreed with the Overseeing Organisation in advance, and the access issues related to intrusive survey fully appreciated (see Annex 5: Archaeological Remains Sub Topic).

7.9 Characterisation

7.9.1 The simple accumulation of data will not suffice for this Sub-Topic. It requires analysis and interpretation of the relevant relationships between objects, facts and

perceptions. The data should be analysed to produce an understanding of the historic character of the landscape through which the scheme would pass. There is currently no standard for the definitions or descriptions of historic landscape character, although many counties and regions have prepared HLC maps and descriptions.

- 7.9.2 The characterisation should identify the evidence for time-depth, and describe predominant and subordinate periods represented by the historic features and the main socio-economic themes represented. The study should identify the typical *elements/parcels/components* that reflect these themes, as well as patterns of temporal relationships, particularly those exhibiting continuity or change, patterns of spatial relationships, and relationships with the natural world.
- 7.9.3 Characterisation establishes the scale of the units to be evaluated and assessed. The appropriate character unit will be determined in each case by the scale and nature of the scheme and the character of the historic landscape. It is likely to be at least at the level of the *type* or *zone*, and for larger or strategic studies the historic landscape character *sub-region* or *region* may be the appropriate unit. The analysis should make clear the distinctive historic landscape character units traversed by the scheme, and their boundaries.
- 7.9.4 With some exceptions, the historic landscape is a continuum, and usually changes gradually from one character unit to another. The edges of the historic landscape character units are often transitional areas where precise boundaries are difficult to identify, particularly at the larger scales. It may be possible to show these transitions as broad overlapping boundaries on maps, although this can be technically difficult. It may be simpler to indicate status of the mapped boundaries in the text or legend, but their “fuzzy” nature should always be borne in mind.
- 7.9.5 Many schemes will have a long life, and data should be assembled and presented in ways that can accommodate changes at later stages without confusion.

7.10 Evaluating Historic Landscapes

- 7.10.1 The characterisation of historic landscapes is a preliminary step, but further analysis and evaluation will be required to establish the significance of any effects on the character areas identified in the study. Whilst all historic landscapes contain evidence of the processes that have formed them, some character types may be considered to be commonplace and of little interest, while others may be highly valued. The attribution of “high value” to selected historic landscapes exclusively with a view to protecting them can obscure the reality that all landscapes are changing all the time, and a more appropriate approach would be to establish how to manage change. Crucial to such an approach is the concept of “sensitivity to change” and in this guidance, for historic landscape assessment, the term “value” has this meaning. It is important that the sensitivity of historic landscape character units is addressed in the assessment and the reasons for judgements clearly set out.
- 7.10.2 The UK administrations differ in their approach to evaluating historic landscapes. In Wales the non-statutory Register of Landscapes of Historic Interest is the basis for any evaluation and Cadw has published the *Guide to Good Practice* for its evaluation, and in Wales this should be followed, in consultation with the Overseeing

Organisation and Cadw. Elsewhere in the UK there is as yet no statutory or official government guidance on evaluating historic landscapes. The following suggestions are intended to assist in establishing the sensitivity of historic landscapes in territories where no systematic government register or evaluation guidance exists.

- 7.10.3 All historic landscapes are different, and grouping them into *types* or *zones* inevitably risks obscuring their detailed individuality and local character. This should be acknowledged, and where appropriate the evaluation may be weighted to take account of local distinctiveness within the character unit on which evaluation is focussed.
- 7.10.4 The principle to be borne in mind is that the evaluation is directed at the historic landscape *character* unit not at the archaeological remains or historic buildings that contribute to that character. Evaluating those is the work of the Archaeological Remains and Historic Buildings Sub-Topics. The question for the purposes of this study is “how valuable/sensitive is this historic landscape *character* unit?”
- 7.10.5 Where there are useful landscape-scale designations the assessment should take into account any cultural heritage values/sensitivities cited in support of them, for instance in the official descriptions of National Parks and Areas of Outstanding Natural Beauty. Some designations relate to particular sorts of historic landscapes, such as designed landscapes. Where the designation grades the resource the assessment should consider the grades carefully. In England, for instance, Registered Parks and Gardens are currently graded I, II* and II. Other historic landscape designations -- historic battlefields for example -- may not be officially differentiated or graded, and in these cases judgement should be exercised, bearing in mind the weight given to these designations by national heritage agencies and planning authorities.
- 7.10.6 The value of individual historical or archaeological elements is not necessarily the determinant of the sensitivity of the historic landscape character unit to which they contribute. The presence of a scheduled monument (archaeologically “high value”), for instance, does not necessarily confer great sensitivity to change to the historic landscape character unit in which it is found; and conversely, post-medieval walls (“low value”, say, in historic building terms) may be crucial in a “highly sensitive” historic landscape.
- 7.10.7 The study should consider local plans, relevant research frameworks, characterisation initiatives and research interests to assist in assessing the sensitivity to change of historic landscape character units. A useful guide is to consider whether changes to an historic landscape character unit would raise curatorial concerns at a national, regional, or local level.
- 7.10.8 Communities and special interest groups may value historic landscapes for a variety of reasons, for instance, for the amenity, social, spiritual and educational value of the resource, as well as the current or potential value of the resource for local visitor or tourism objectives. Evidence of values accorded to historic landscapes may be found in parish or village plans adopted by planning authorities in England, or in equivalent documents in the devolved administrations. Similarly, guidebooks and tourist recommendations may be sources of information on perceived values. The place of these factors in establishing the value of the historic landscape character

unit should be carefully considered in the context of establishing issues of local distinctiveness, power of place, quality of life, and so on.

7.10.9 Relevant factors to take into account may include:

- Local character, local distinctiveness (including local residents' perceptions)
- time-depth: rarity or special interest/typicality (as judged by local, regional and national standards)
- legibility (complexity of the elements/parcels/components and the completeness or articulation of the historic landscape, association of features, either of the same period or not)
- fragility/robustness (history of change, sensitivity to change, capacity to absorb change)
- cultural associations (including historical events, personages, literary or artistic connections, views)
- research potential (anticipation of further evidence)

7.10.10 These factors are not to be taken as necessary, nor exclusive, nor should they be merely aggregated, with more "ticks in the box" automatically taken to mean more sensitivity (although that may sometimes be the case). For instance, an area with no cultural associations is not automatically devalued, and an area exhibiting only one period will necessarily lack time-depth, but in both these cases the sensitivity to change may be considerable. In particular cases there may be other relevant factors not listed above, and they should be identified, given their appropriate weight, and justified in the study.

7.10.11 Using the relevant factors, each historic landscape character unit (*type, zone* etc) should be assigned a score within the national context. For instance it would be normal to assign a lower score to a wholly commonplace, modern historic landscape character unit with little or no earlier survivals (for example, late 20th century quarries) as compared with scarce, well-preserved historic landscape character units with good legibility and time-depth (for example well-preserved pre-18th century enclosure field systems, with fossil medieval furlong boundaries).

7.10.12 The scale of sensitivity to be used for assessing the historic landscape character units is set out below:

- Very High
- High
- Medium
- Low
- Negligible

7.10.13 The following table is a guide for evaluating historic landscape character units:

Table 7.1: Evaluating Historic Landscape Character Units

Very High	<ul style="list-style-type: none"> ▪ World Heritage Sites inscribed for their historic landscape qualities ▪ Historic landscapes of international sensitivity, whether designated or not ▪ Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s)
High	<ul style="list-style-type: none"> ▪ Designated historic landscapes of outstanding interest ▪ Undesignated landscapes of outstanding interest ▪ Undesignated landscapes of high quality and importance, and of demonstrable national sensitivity ▪ Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s)
Medium	<ul style="list-style-type: none"> ▪ Designated special historic landscapes ▪ Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional sensitivity ▪ Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	<ul style="list-style-type: none"> ▪ Robust undesignated historic landscapes. ▪ Historic landscapes with specific and substantial importance to local interest groups, but with limited sensitivity. ▪ Historic landscapes whose sensitivity is limited by poor preservation and/or poor survival of contextual associations. ▪ Robust historic landscapes.
Negligible	<ul style="list-style-type: none"> ▪ Landscapes with little or no significant historical interest

7.11 Mitigation and Enhancement

7.11.1 Mitigation aims to avoid or lessen an adverse impact on the resource. Enhancement improves the resource, through better survival, better appreciation or restoration of lost or degraded elements. Assessment and design are iterative processes that together should suggest appropriate mitigation and enhancement measures. Overall Cultural Heritage objectives for the scheme should be established in line with the Overseeing Organisation's objectives, and the approach to mitigation and enhancement will be informed by these objectives. Mitigation and enhancement strategies should take into account scheme objectives defined according to Chapter 4 in the main guidance. Further detailed guidance on landscape mitigation, some of which could be applicable to historic landscape matters, is given in DMRB Volume 10.

7.11.2 Approaches to the management of the cultural heritage resource include *preservation, conservation, restoration* and *reconstruction*. In this guidance these terms are defined as follows:

- preservation – the avoidance, as far as possible, of any physical interference, so that original materials are retained intact and untouched in situ (a special case – “preservation by record” – refers to the removal and recording of the asset by specialists)
- conservation – action to prevent the deterioration of original materials in situ or off site, but with minimal addition of modern materials or intervention

- repair – action to replace missing or damaged parts, not necessarily authentically, and clearly distinguished from original material, often to ensure continued usefulness
- restoration – replacing missing materials to bring a feature back to a more or less complete condition, usually to represent a characteristic or important period of its history
- reconstruction – the more or less complete replacement or rebuilding of a feature with modern materials, not necessarily in its original location.

7.11.3 Mitigation and enhancement strategies may involve any of these approaches, or a combination of them. As well as preservation and conservation, with historic landscapes, there is the possibility of repair, restoration or reconstruction of features that contribute to historic landscape character

7.11.4 The mitigation of adverse impacts on an historic landscape character unit, or its enhancement, may be different from the mitigation or enhancement approaches appropriate to the Landscape Topic. Indeed, Landscape Topic mitigation proposals may constitute an adverse impact on the historic landscape character, for instance, the provision of screening bunds or planting could run counter to the historical grain of the countryside, or disrupt an important historic field system or open-field pattern.

Mitigation

7.11.5 The assessment should include a cultural heritage mitigation strategy, if this is appropriate, including a list of principal objectives. Mitigation of impacts on historic landscape character units may include design measures to minimise changes caused by noise and visual intrusion, and the avoidance of land-take that could affect significant features.

7.11.6 The loss of historic landscape elements through land-take may require preservation by record, through full archaeological or historic buildings investigation and recording as an element of mitigation for their loss. The appropriate sub-topic specialists will undertake these, but their results should inform the historic landscape assessment.

7.11.7 There should be liaison between the Landscape, Ecology and Cultural Heritage specialists throughout the design and mitigation process. Close liaison with the Landscape Topic specialists will be necessary to ensure that historic landscape concerns are taken into account in landscape mitigation proposals. The historic landscape approach, for instance, may be able to contribute to an understanding of what kinds of planting may be appropriate to the historic character of the landscape.

7.11.8 The design of new landscaping and planting undertaken as part of the scheme or as part of the mitigation measures may be able to consider factors relevant to the historic landscape character (e.g. local styles of hedging), and match new planting to the existing historic character. Where landscape features are to be changed (e.g. ponds, tree clumps) there may be opportunities to recreate them in their historic form, and this may be an area of mitigation also of interest to the Ecological Topic specialists.

Enhancement

- 7.11.9 Opportunities for enhancing the resource should be considered. Enhancement schemes may be justified, for instance, where they can compensate for adverse environmental impacts of the scheme that cannot be adequately mitigated, or where they can contribute to objectives explicitly stated in the EIA.
- 7.11.10 Many of the *elements* that contribute to historic landscape character are highly transient, even in use, and would be renewed or repaired in the normal course of events. Walls fall down and are reconstructed; trees are felled and replanted; hedges grow old and are replaced; roads and tracks are resurfaced; and gates are replaced. Historic landscape character *may* be enhanced where an overgrown, collapsed dry stone wall could be rebuilt, the better to repair the integrity of an historic field system, although the qualities of the collapsed wall may contribute to the historic landscape character in some circumstances and would be better left alone. Decisions about the desirability of repair, reconstruction or *laissez faire* should be clearly recorded and justified in historic landscape terms.
- 7.11.11 Other opportunities for enhancement could include opening important historic features to view, or restoring historic views by screening, down-grading or removing existing intrusive infrastructure.
- 7.11.12 Land-use contributes to the character of the historic landscape, so enabling the recreation or restoration of characteristic historic land uses and their physical expression in hedges, field sizes, crop or pasture management, the disposition of trees and so on, could markedly improve the value of historic landscape character

7.12 Assessing Magnitude of Impacts

- 7.12.1 The impact of the scheme on the historic landscape character will need to be considered, taking into account agreed mitigation. As historic landscapes are ubiquitous, it follows that they cannot be destroyed or damaged; impacts on them can change their character, but not leave a hole in the historic landscape map. An *impact* is therefore defined as a change as a result of the proposed scheme that would not otherwise have occurred, and which changes the historic landscape character. The impact can be seen as adverse or beneficial, that is, changing the character unit to a more commonplace or a more special ranking.
- 7.12.2 Consideration should be given to the types of potential impacts – constructional or operational, direct or indirect, temporary or long term, and cumulative – as set out in Chapter 4 of the main Cultural Heritage Topic guidance.
- 7.12.3 Adverse and beneficial impacts should be assessed using the evaluated historic landscape character units, not the *elements/parcels/components* that contribute to the historic landscape character. The scale of the historic landscape character unit will need to be chosen on a case-by-case basis, bearing in mind that it should be sufficiently extensive to merit a landscape-scale description but not so extensive as to swallow up any changes, regardless of their scale. The choice of the historic landscape character unit that is to be subjected to the assessment should be clearly recorded and justified.

- 7.12.4 Constructional impacts may be temporary or long term. Impacts likely to last longer than 15 years are considered to be long term. As with the Landscape Topic, the growth of new planting may mitigate some changes within this time frame, and this should be taken into account. Temporary impacts are those that would last for less than 15 years.
- 7.12.5 Direct impacts are those that arise from the scheme itself, indirect impacts arise away from the scheme or through complex pathways. Impacts on setting are direct impacts if they arise from the scheme in a straightforward way.
- 7.12.6 As historic landscape is ubiquitous it may seem unreasonable that there could be an impact on its setting, but there can be impacts on the setting of historic landscape character units, where it can be demonstrated that the character of the unit would be changed by the presence of the scheme outside it. This could arise most obviously where a scheme was outside, but within sight or sound of, a designated historic landscape such as a historic park, but it is equally possible that impacts on the setting of undesignated historic landscape character units may arise as a result of activities nearby.
- 7.12.7 Cumulative impacts can arise from *multiple effects* of the same scheme on a single asset, *different multiple effects* of the scheme and other sources on the same asset, or *incremental effects* arising from a number of small actions over time. Interactions may arise from activities related to other topics, such as drainage schemes, endangered species relocation, sound attenuation measures or access arrangements, taken together with any cultural heritage impacts. The forms of cumulative impact are discussed in Section 2 Part 5, Chapter 1, with advice on how to consider the certainty of outcome and the probability of the predictions.
- 7.12.8 Impacts caused by the scheme on many similar, possibly minor, historic elements may be cumulative, but for historic landscape character units such impacts may best be assessed as the totality of their impact on the historic landscape character unit. The assessment of such multiple impacts is not simply a matter of aggregating scores; it requires professional judgement to assess how these changes actually affect the character of the historic landscape unit.
- 7.12.9 Impacts may arise from the proposed activities related to other topics, such as landscape screening, or balancing pond excavations. The historic landscape specialist should liaise with the specialists in other relevant topics to ensure that account is taken by all of them of the impacts of activities proposed by others.
- 7.12.10 Ongoing communication with design engineers regarding the potential impacts of a scheme is essential. Accurate indications of the area affected by the scheme may not be available before the detailed design is prepared, and even later for 'off-site' matters such as site compounds, borrow pits, etc. Clearly, however, the scheme design is a key consideration in assessing impacts, and designers' estimates of new land-take, structures, alignments etc. are needed as early as possible. Sources of potential impacts are listed in Table 7.2 below (this list is not exhaustive):

Table 7.2: Sources of Impacts.

	Activity	Impact: adverse	Impact: beneficial	
Site clearance	Removal of trees & vegetation	Change to historic landscape integrity	re-establishment of historic landscape pattern	
	Fencing	intrusion of inappropriate elements		
	Traffic/plant movement	visual intrusion of modern elements aural intrusion		
Road construction	Topsoil removal	disturbance of historic land use pattern		
	Excavations for demolition, drainage, shallow foundations, borrow pits, decontamination etc	visual intrusion		
	Construction traffic movement	visual and aural intrusion		
	Siting of construction sites	visual intrusion		
	Landscaping/earth mounding	visual or aural intrusion	re-establishment of historic patterns	
	Spoil disposal		visual or aural intrusion	screening of intrusive elements re-establishment of historic patterns
				screening of intrusive elements
	Installation features (bridges, signage, fencing etc)	disruption of historic landscape integrity		
	Installation of lighting scheme	visual intrusion	improved lighting systems impact less on night time scene	
	Road alignment	disturbance severance causing dereliction or neglect of historic patterns of landuse	re-instatement of historic landscape pattern	
	Planting	visual intrusion on historic landscape	re-establishment of historic landscape pattern	
	Traffic movement	intrusion		
	Maintenance	small scale repairs and consolidation or alteration of historic landscape elements – cumulative impact	re-establishment of historic landscape elements	
Other Environmental Mitigation	Topsoil stripping	damage to historic landscape elements		
	Screen planting	visual intrusion	re-establishment of historic landscape pattern	
	Other screening			
	Noise reduction panelling	visual intrusion		

- 7.12.11 Cadw in Wales has published a method of assessing impacts on historic landscapes, and where such a systematic approach has been established this should be followed. For territories with no official systematic approach to evaluation the guidance below should be followed.
- 7.12.12 The magnitude of the *impact/change* should be assessed without regard to the *value* of the resource, so a total change experienced by a commonplace historic landscape character unit is the same magnitude as a total change experienced by of a nationally important historic landscape character unit. The sensitivity of the asset is factored-in later to calculate the significance of the effect (see Chapter 4 of the main Cultural Heritage Topic guidance and Table 7.4 below).
- 7.12.13 The study should judge the magnitude of an impact bearing in mind the extremes that could occur, not just the range of changes that would occur on the scheme under consideration. The largest would be a total change to the historic character; the least would be no change to the historic character. The changes should be ranked in relation to these extremes. The scale of the magnitude of impact is as follows:
- Major
 - Moderate
 - Minor
 - Negligible
 - No change
- 7.12.14 The factors to take into account in assessing the magnitude of the impact on historic landscape character are:
- changes affecting historic spatial patterns,
 - changes of characteristic historic landscape elements,
 - changes to historic vegetation,
 - changes in vibration/ visual intrusion/ noise (including the nature of sounds),
 - changes to landuse,
- 7.12.15 The study should assess the degree to which important elements, parcels, components etc. of the historic landscape would be obscured or opened up, and from which viewpoints, how the views from them would be affected, and how this would change the character of the historic landscape. This should be assessed in relation to locations not currently accessible to the general public as well as from public rights of way, as changes to legislation may make these accessible in the future. The Landscape Topic specialists should be consulted, as they are involved in establishing these factors. The focus should be on the magnitude of the change to the historic landscape character arising from changes to views.
- 7.12.16 The assessment should consider any changes in noise levels, and changes to the ambience at important locations in the historic landscape. The Noise Topic and Landscape Topic specialists will normally be consulted in relation to noise levels and the mapping of noise affected areas. As well as noise levels, the nature of the sounds should also be taken into account. The magnitude of the change in the historic landscape character should be the focus of the study.

7.12.17 The important principle is the magnitude of the impact on the historic landscape character unit. If an historic landscape unit has been characterised as – say - a late 20th century transport and industrial corridor, then the addition of a new transport element may have little or no impact on its historic character, despite a large land-take and possibly considerable adverse impacts on other cultural heritage assets. There will be little or no historic landscape character change. Conversely, modern intrusions, which may have no archaeological or historic buildings impacts, into an otherwise coherent and relatively untouched pre-enclosure landscape unit may change it into urban edge-land, a considerable alteration.

7.12.18 Table 7.3 summarises the factors to be taken into account when assessing the magnitude of impact.

Table 7.3: Magnitude of Impact: summary of factors

Factors in the Assessment of Magnitude of Change	
Adverse	
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

7.13 Assessing Significance of Effects

7.13.1 The significance of the effect - that is, the extent to which the change to the historic landscape character matters – is the result of the value/sensitivity of the historic landscape character unit combined with the magnitude of the change to it (incorporating the agreed mitigation). A large detrimental change to a valuable historic landscape character unit would matter more than a large detrimental change to a commonplace character unit. For instance a new road scheme might totally change a 20th century industrially farmed landscape (value: negligible) into a 21st century transport and communications landscape (value also negligible), so despite

the high magnitude of impact (major change), when combined with the low value it would result in a slight or neutral significance of effect.

7.13.2 The judgement of the significance of effect should use the following scale:

- Very Large
- Large
- Moderate
- Slight
- Neutral

7.13.3 Table 7.4 below illustrates how information on the Value/Sensitivity and the Magnitude of Change are combined to arrive at an assessment of the Significance of Effect.

Table 7.4 - Significance of Effects Matrix

VALUE/SENSITIVITY	Very High	Neutral	Slight	Moderate/Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
	Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
	Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
	Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight
		No change	Negligible	Minor	Moderate	Major
MAGNITUDE OF IMPACT						

7.13.4 The Significance of Effect should be included in the data entry for each asset. It should be classified according to whether it is caused by scheme construction or operation.

7.14 Assessing Significance of Effects on the Overall Cultural Heritage Resource

7.14.1 The Cultural Heritage resource is an integrated whole, divided into the three sub-topics in this guidance solely because of the differing methods required for their assessment. Historic landscapes have associations and significance for other cultural heritage sub-topics, for example, they will form the setting of historic buildings, and the archaeological remains buried beneath them will have shaped the character of the landscape. Historic landscape character analysis can provide a powerful tool for predicting the presence of other cultural heritage assets. The assessment should aim to re-integrate the three cultural heritage sub-topics to arrive at an overall assessment of the significance of the effect on the cultural heritage resource over the scheme as a whole.

7.14.2 For each cultural heritage sub-topic there may be differing degrees of effect. For example, an historic structure may be important in the historic building assessment

but the historic landscape character evaluation may be low. In these cases the highest sub-topic score should be taken as the significance of effect.

7.14.3 If all the effects on all assets were adverse then the highest reading on the Significance of Effect matrix will also normally be taken to be the overall cultural heritage effect. Similarly a scheme with wholly beneficial cultural heritage effects would be assessed at the highest beneficial reading.

7.14.1 If there were adverse **and** beneficial effects these will need to be brought out in the assessment, not obscured by balancing them off against one another. For example, a bypass proposal with a Moderate Beneficial Effect on the historic building assets in a town centre might also have a Moderate Adverse Effect on rural archaeological remains. If these were offset against one another to produce a Neutral assessment score this would be misleading. An alternative route with no adverse or beneficial effects would also have a neutral score, but clearly the schemes would not be equivalent in their effect on the cultural heritage resource. The effects of the different options should be described and the scores qualified in the text, to make the differences clear.

7.15 Reporting

7.15.1 Guidance on reporting the Scoping, Simple and Detailed Assessment is given in the main Cultural Heritage Topic guidance at Section 6.

7.15.2 Dissemination requirements may not be determined in detail until the investigations have been completed and the results assessed. However, the general scale and approach to post-fieldwork processing and data dissemination must be established, and costed, for the proposals, and included in the commitments and contracts to carry out the work. Post fieldwork analysis, archiving and dissemination for archaeological works are covered in DMRB Volume 10a, and similar arrangements should be made for original historic landscape work.

7.15.3 Particular care should be taken to ensure that any original research undertaken in connection with the scheme is appropriately disseminated if no further programme of work were undertaken into which it could be assimilated, for instance if the scheme were abandoned or postponed. Contracts should spell out the requirement to procure the appropriate and timely publication of the results in such circumstances.

Annex 8: Glossary

ACADEMIC REPORT – a report containing all the evidence, analysis and synthesis necessary to fulfil an ARCHAEOLOGICAL RECORDING PROGRAMME. See also the POPULAR REPORT.

ARCHAEOLOGICAL CONTRACTOR – the archaeological organisation employed to carry out an archaeological recording scheme. Different archaeological contractors may undertake the EVALUATION and MITIGATION stages of the work.

ARCHAEOLOGICAL RECORDING – work commissioned for the purpose of preserving by record any important archaeological remains, which may be damaged or destroyed by a trunk road scheme.

ARCHAEOLOGICAL RECORDING PROGRAMME – the full sequence of mitigation of an impact on archaeological sites or remains through archaeological excavation and recording. A recording programme is not complete until ARCHAEOLOGICAL ASSESSMENT, analysis, dissemination and archiving is finished.

ARCHAEOLOGICAL ASSESSMENT – the process of reviewing the material, which results from an Archaeological Recording Programme before, decisions regarding the appropriate level of post excavation analysis and publication are taken. The result is an Assessment Report leading to an UPDATED SCHEME DESIGN.

ASSET – the overall cultural heritage resource comprises individual assets, which may be archaeological remains, historic buildings or components of historic landscape.

AUTHENTIC – as applied to cultural heritage assets, original materials and location.

COMMISSION FOR ARCHITECTURE AND THE BUILT ENVIRONMENT (CABE) – CABE promote good architecture, landscape architecture, urban design and spatial planning.

Cadw – Cadw is the Welsh Assembly Government's historic environment division, its role and responsibilities are set out in Annex 8.

CONTEXT – knowledge which supplies the framework for appreciating historical assets and values, where tangible or visible evidence is lacking.

COUNCIL FOR BRITISH ARCHAEOLOGY (CBA) – A UK-wide non-governmental organisation promoting knowledge, appreciation and care of the historic environment for the benefit of present and future generations.

COI – Central Office of Information.

COUNTY ARCHAEOLOGIST (England only) – (may also be titled Local Archaeological Officer, Heritage Advisor, Conservation Officer, Regional Archaeologist, or Planning Archaeologist). The archaeologist charged with protecting and monitoring the archaeological resource across a county or planning authority. In relation to highways schemes, their role is to advise on the significance of the archaeological resource, offer advice on fieldwork methodologies and monitor the results of any fieldwork. The Welsh Trusts and Regional Archaeologists in Scotland undertake this role in those territories.

CPO – Compulsory Purchase Order.

CURATOR – the archaeologists charged with protecting and monitoring the archaeological resource. In England this is usually the COUNTY ARCHAEOLOGIST, or for national issues ENGLISH HERITAGE. In Scotland, HISTORIC SCOTLAND is always the curator on trunk road schemes. In Northern Ireland the ENVIRONMENTAL HERITAGE SERVICE acts as the curator, while in Wales Cadw acts as the curator on trunk road schemes, whilst on other schemes this role is undertaken by the Welsh Archaeological Trusts. The exact role of the curator in relation to highways schemes varies across the Devolved Administrations, and more information is set out in Annex 9.

DB/DBFO – Design and Build/Design, Build, Finance and Operate; schemes where a contractor or consortium undertakes to provide a scheme as commissioned by the Overseeing Organisation.

DESIGN ORGANISATION – the organisation commissioned to undertake the various stages of scheme preparation and supervision of construction. This includes specialist sub-consultants brought in to advise on specific areas of ASSESSMENT and MITIGATION.

DESIGN ORGANISATION'S CONSULTANT – except in Scotland, the specialist sub-consultant employed by the DESIGN ORGANISATION to provide advice on cultural heritage and produce a SCHEME BRIEF for recording schemes where necessary; and monitor and report progress on all phases of such schemes including post-excavation analysis and the production of a report. In Scotland this role is undertaken by HISTORIC SCOTLAND.

DESK-BASED ASSESSMENT – a data collection and analysis exercise utilising existing sources of cultural heritage data (such as SITES & MONUMENTS RECORDS, Listed Building data, historic maps etc). The purpose is to identify relevant known cultural heritage resources.

DMRB – Design Manual for Roads and Bridges.

ENHANCEMENT – an improvement in the condition or survival of assets following the completion of a road scheme, as compared with a do-nothing scenario.

EVALUATION – the process of identifying cultural heritage resources, including the initial studies and fieldwork carried out to assess the cultural heritage potential and the effect of the SCHEME. Evaluation forms part of the assessment process.

EXCAVATION – form of archaeological fieldwork generally employed as MITIGATION. Involves topsoil stripping followed by detailed investigation and recording of archaeological features or deposits.

FIELD SURVEY – fieldwork intended to provide additional information about known or potential cultural heritage resources, as part of the EVALUATION (assessment) process. It can include FIELD WALKING, GEOPHYSICAL SURVEY and TRIAL TRENCHING. Field survey is distinct from MITIGATION.

FIELD WALKING – a non-intrusive evaluation method involving a grid-based visual examination of the surface of ploughed ground, in order to identify localised areas of archaeological finds.

FORESEEABLE FINDS – discoveries of significant archaeological material that occur in the MITIGATION and/or construction phases which reasonably could have been predicted using

professional judgement from the information provided by the DESIGN ORGANISATION with the SCHEME BRIEF as part of the tender documents. The costs of these are likely to be borne by the contractor (see UNFORESEEABLE FINDS definition for the alternative situation).

GEOPHYSICAL SURVEY – a non-intrusive EVALUATION method employing remote sensing techniques, which measure particular properties of the ground. These include resistivity (electrical conduction), magnetometry (magnetic properties) ground-penetrating radar, metal detecting and others.

HISTORIC ENVIRONMENT RECORD – (HER) see SITES AND MONUMENTS RECORD.

HISTORIC SCOTLAND – the agency of the Scottish Executive responsible for the archaeological and historical monuments of Scotland. Its role is set out in Annex 9.

INSTITUTE OF FIELD ARCHAEOLOGISTS (IFA) – the IFA represents professional archaeologists and promotes good practice amongst archaeological contractors. IFA registered organisations are required to adhere to certain minimum standards of practice.

LIDAR – Light Detection and Ranging. A technique for detecting slight morphological changes in terrain, and in favourable circumstances capable of locating buried archaeological features, palaeochannels etc.

LISTED BUILDING – a statutory designation assigned to a built structure (not limited solely to buildings) of special architectural or historic interest.

MITIGATION – archaeological work intended to reduce the impact of a scheme on the archaeological resource, agreed with the OVERSEEING ORGANISATION following the EVALUATION phase. Mitigation may involve, amongst others, avoiding or screening important cultural heritage features, or burying or excavating and recording archaeological material (see ARCHAEOLOGICAL RECORDING PROGRAMME).

NATIONAL MONUMENTS RECORD (NMR) – a national record of cultural heritage sites, buildings, aerial photographs etc held by English Heritage. The NMR for Wales is held by the Royal Commission on the Ancient and Historical Monuments for Wales (RCAHMW). See also SITES AND MONUMENTS RECORD.

NATIONAL TRUST (NT) – the National Trust acts as a guardian for the environment and heritage in England, Wales and Northern Ireland by the acquisition and protection of threatened coastline, countryside and buildings.

NORTHERN IRELAND ENVIRONMENT AND HERITAGE SERVICE (EHS) – an agency of the Northern Ireland Executive responsible for all aspects of environmental protection, including cultural heritage.

OVERSEEING ORGANISATION – the Organisation responsible for a scheme i.e. the Highways Agency (an Executive Agency of the Department of the Environment, Transport and the Regions); the Highways Directorate of the National Assembly for Wales; the Trunk Roads Divisions of the Scottish Executive; or in Northern Ireland, the Roads Agency of the Department for Regional Development.

POPULAR REPORT – a publication or presentation designed to present the results of an cultural heritage investigation simply for a lay audience in an attractive format.

SCHEME BRIEF – this defines the objectives of the cultural heritage Recording Programme and is the basis for the SCHEME DESIGN produced by the cultural heritage contractor.

SCHEME DESIGN – this is the equivalent of a specification, and is produced by an cultural heritage contractor to show how it is proposed to achieve the objectives of the SCHEME BRIEF. It will include methodologies, staffing, costs and timetable and forms the basis of the tender bid. It may be up-dated over the course of the scheme to reflect any change to the overall objectives (see UPDATED SCHEME DESIGN).

REGISTER OF PARKS AND GARDENS OF HISTORIC INTEREST– a non-statutory designation used by ENGLISH HERITAGE to identify parks or gardens of particular historical value.

RESEARCH AGENDAS – in England these are developed nationally by English Heritage, and regionally by various consortia, as a means of prioritising cultural heritage research. The intention is to focus work on periods or processes, which are of particular national or regional interest. These may be used to inform scheme-specific scheme designs and research objectives.

SCHEME – an improvement to, or extension of, the trunk road network.

SCHEDULED MONUMENT – the designation by the respective Secretaries of State and Ministers advised by the Department of Culture, Media and Sport and ENGLISH HERITAGE in England, Cadw in Wales, HISTORIC SCOTLAND in Scotland and the ENVIRONMENT AND HERITAGE SERVICE in Northern Ireland, of a site or area as worthy of protection under the terms of the Ancient Monuments and Archaeological Areas Act 1979. Scheduled Monuments are of national importance.

SCHEDULED MONUMENT CLEARANCE (SMC) – as a government agency the Highways Agency in England, and the other national highways authorities in Wales, Scotland and Northern Ireland, would apply for Scheduled Monument Clearance for work affecting a SCHEDULED MONUMENT (for non-government development Scheduled Monument Consent is required). Scheduled Monument Clearance must be obtained from the respective Secretaries of State or Ministers, advised In England by the Department of Culture, Media and Sport and ENGLISH HERITAGE, in Wales from Cadw, in Northern Ireland from the ENVIRONMENT AND HERITAGE SERVICE and in Scotland from HISTORIC SCOTLAND, before any works can be carried out which may:

- result in the destruction or demolition of, or cause damage to any scheduled monument;
- involve removing or repairing a scheduled monument or any part of it or making alterations and additions thereto;
- any flooding or tipping operations on land in, on or under which there is a scheduled monument
- entail any geophysical survey (including metal detecting) in, on, or over the scheduled area

SMC is not required for operations that would affect the setting of Scheduled Monuments. Further information is available in Section 2 of the Ancient Monuments and Archaeological Areas Act 1979.

SITES & MONUMENTS RECORD (SMR) – also known as HISTORIC ENVIRONMENT RECORD (HER) a database of cultural heritage resources. In England, each County/Unitary Authority maintains its own SMR. Details from individual SMR's are fed into the National Monuments Record (NMR), held by ENGLISH HERITAGE. The Scottish equivalent is held by Royal Commission on Ancient and Historic Monuments of Scotland, whilst in Wales the system is maintained by the four Welsh Archaeological Trusts. In Northern Ireland, the ENVIRONMENT AND HERITAGE SERVICE is responsible for the Monuments and Buildings Record (MBR).

STRIP, MAP & SAMPLE (SMS) – SMS is a mitigation technique. It is intended for use in areas where evaluation fieldwork is deemed unnecessary because archaeological remains are already known or are highly likely to occur. It is not intended as a 'catch-all' to avoid carrying out evaluation work, nor should it be used in place of targeted excavation.

TIME DEPTH – the extent to which evidence of the processes of change over time survive and can be used to construct a coherent understanding of past landscapes

TOPSOIL STRIP MONITORING – (in Scotland) the archaeological supervision of the contractor's removal of topsoil, with agreed provision for means of removal and the time to be allowed for archaeological investigation of any features found during this process (see WATCHING BRIEF).

TRIAL TRENCHING – intrusive FIELD SURVEY technique intended to test for the presence or absence, character, survival, date and extent of potential archaeological resources.

UNEXPECTED FINDS – discoveries of significant cultural heritage assets, which were not identified in the SCHEME DESIGN. They may be either UNFORESEEABLE or FORESEEABLE (see below).

UNFORESEEABLE FINDS – discoveries of significant cultural heritage assets that occur in the MITIGATION or construction phases of a SCHEME despite the reasonable and professionally competent interpretation of all the documents and materials, including the Scheme Brief, made available by the DESIGN ORGANISATION to the ARCHAEOLOGICAL CONTRACTOR on which it based its SCHEME DESIGN and bid. The costs of dealing with these are likely to be borne by the OVERSEEING ORGANISATION (see FORESEEABLE FINDS definition for the alternative situation).

UPDATED SCHEME DESIGN – the revised SCHEME DESIGN that results from the ARCHAEOLOGICAL ASSESSMENT phase of an ARCHAEOLOGICAL RECORDING PROGRAMME.

WALKOVER SURVEY – an initial reconnaissance of a site or location.

WATCHING BRIEF – the monitoring of the construction by an archaeologist to identify and record UNEXPECTED FINDS. It should be specified in the SCHEME DESIGN and included in the contract documents together with a contingency sum to deal with any finds, which may be discovered.

Annex 9: Bibliography

- Andrews G, Barrett J and Lewis J, 2000: *Interpretation not record: the practice of archaeology* in *Antiquity* 74
- Barnwell S and Adams T, 1994: *The House Within: Interpreting Medieval Houses in Kent* RCHME
- Cadw, Countryside Council for Wales and ICOMOS UK: *Register of Landscapes of Historic Interest in Wales. Part 1 Historic parks and Gardens and Part 2 Landscapes of Historic Interest in Wales*
- Cadw and Countryside Council for Wales 2003: *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning Process*
- Clark J, Darlington J, Fairclough G 2004: *Using Historic landscape Characterisation* EH and Lancashire County Council
- Clark K.2001: *Informed Conservation: Understanding Historic Buildings and their landscapes for conservation* English Heritage
- Cobham research consultants 1993: *Historic Landscape Scheme*
- Cobham research consultants 1993: *Historic Landscape studies in EA EH HLP Pilot Study 4*
- Cole L.1998: *What matters and why - Environmental Capital: A New Approach in Conservation Bulletin*, English Heritage
- Cornwall Archaeological Unit.1994:*Historic Landscape Assessment: A methodological case study in Cornwall* Landscape Design Associates, Cornwall Archaeological Unit
- Countryside Agency 1999: *Interim Landscape Character Assessment Guidance/Countryside character programme and character of England map* Countryside Agency and Scottish Natural Heritage
- Countryside Agency 1999: *Quality of Life Capital*
- Countryside Agency 1998-1989: *Countryside Character, character of the landscape on an area-by-area basis* Countryside Agency
- Cowell R, Philpott R, Adams M. 2000: *Prehistoric, Romano-British and Medieval settlement in lowland north-west England: archaeological excavations along the A5300 road corridor in Merseyside /*
- Darvill T, Startin W.1993: *Identifying and protecting historic landscapes* in *Antiquity* 67
- Darvill T, Mathers C.1997: *Heritage of Value, Archaeology of Renown: Reshaping Archaeological Assessment and Significance* Theoretical Archaeology Group
- Ebert J, 1992: *Distributional Archaeology* Oxbow
- English Heritage, 1991:*Register of landscapes of historic importance A consultation Paper* English Heritage

English Heritage 1992: *Monument Evaluation Manual Part III; Relict Cultural Landscapes* English Heritage

English Heritage, 1995: *Conserving the inheritance of industry* English Heritage

English Heritage, 1995: *Development in the Historic Environment, an English Heritage Guide to policy, procedure and good practice.* English Heritage

English Heritage, 1996: *A Future for our past* English Heritage

English Heritage, 2000: *Power of Place: Historic Environment Review* English Heritage

Fairclough G, 2001: *Boundless Horizons* in Conservation Bulletin, English Heritage,

Fairclough G, 1994: *New landscapes of conservation* in Conservation Bulletin, English Heritage

Fairclough G: 2000 *Yesterday's World in tomorrow's Landscape* English Heritage

Fairclough G, Rippon S eds. 2002 *Europe's Cultural Landscape: archaeologists and the management of change.* EAC Occasional Paper 2 English Heritage

Hey G, Lacey M: 2002. *Evaluation of Archaeological Decision making processes and sampling strategies*, Oxford Archaeology and Kent County Council

Hunter J, Ralston I. 1993: *Archaeological Resource Management in the UK* Sutton
ICOMOS 1990: *Guide to Recording Historic Buildings* Butterworth Architecture ICOMOS

Institute of Field Archaeologists 1999: *Standards and Guidance for Archaeological Desk based Assessments*

Lambrick G. 2002: *The importance of the cultural heritage in a green world: towards the development of landscape integrity assessment*, in *Archaeology and the green debate* Macinnes and Wickham ed. Oxbow Monograph 21

Lawson A, 1993: *The Assessment of Trunk Road Schemes* in *Field Archaeologist* 18

Lucas P, 1991: *Protected Landscapes: A guide for policymakers and planners* Countryside Commission

Morris R. 2000: *The Archaeology of Buildings* Tempus

National Trust 1992: *Archaeological and Historic Landscape survey: Guideline for data collection and compilation.* National Trust

OAU 1991: *Roads and the Cultural Heritage* Oxford Archaeological Unit

Parnell AC. 1987: *Building Legislation and Historic Buildings*, English Heritage and Architectural Press

Partidario M 1996: *Strategic Environmental Assessment: key issues emerging from recent practise* EIA Review 16(1)

Ralston I Thomas R1993: *Environmental Assessment and Archaeology* IFA Occasional Paper 5

RCHME 1991: *Recording Historic Buildings* RCHME

Rippon S 2004 *Historic Landscape Analysis* Council for British Archaeology

Roberts B, Wrathmell S. 2000: *An Atlas of Rural Settlement in England, landscape characterisation by province* Oxford University Press

Schofield J. 1998: *Monuments of War* English Heritage

Stancic L, Veljanovski C.2000 *Computing Archaeology for understanding the past CAA: Archaeological Predictive modelling for Highway Construction Planning CAA*

Vyner B, Robinson P, Annis R, Pickin J, Bailey R [et al.] 2001: *Stainmore: the archaeology of a North Pennine pass: an archaeological survey of Bowes Moor, Co. Durham, undertaken in conjunction with the improvement of the A66 trans-Pennine trunk road*

Wood G. 2000: *Is what you see what you get? Post-development auditing of methods used for predicting the zone of visual influence in EIA.* EIA Review 20(5)