RICS GUIDANCE NOTE

Environmental Impact Assessment

RICS BOOKS

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Published by the Royal Institution of Chartered Surveyors (RICS)

under the RICS Books imprint

Surveyor Court

Westwood Business Park

Coventry CV4 8JE

UK

www.ricsbooks.com

Produced by the RICS Environment Faculty.

ISBN 978 1 84219 315 0

Typeset in Great Britain by Columns Design Ltd, Reading, Berks

Printed in Great Britain by Biddles Ltd, King's Lynn, Norfolk

Contents

RICS guidance notes

This is a Guidance Note. It provides advice to Members of the RICS on aspects of the profession. Where procedures are recommended for specific professional tasks, these are intended to embody 'best practice', i.e. procedures which in the opinion of the RICS meet a high standard of professional competence.

Members are not required to follow the advice and recommendations contained in the Note.

They should however note the following points. When an allegation of professional negligence is made against a surveyor, the Court is likely to take account of the contents of any relevant Guidance Notes published by the RICS in deciding whether or not the surveyor had acted with reasonable competence.

In the opinion of the RICS, a Member conforming to the practices recommended in this Note should have at least a partial defence to an allegation of negligence by virtue of having followed these practices.

However, Members have the responsibility of deciding when it is appropriate to follow the guidance. If it is followed in an appropriate case, the Member will not be exonerated merely because the recommendations were found in an RICS Guidance Note.

On the other hand, it does not follow that a Member will be adjudged negligent if he has not followed the practices recommended in this Note.

It is for each individual surveyor to decide on the appropriate procedure to follow in any professional task. However, where Members depart from the practice recommended in this Note, they should do so only for good reason. In the event of litigation, the Court may require them to explain why they decided not to adopt the recommended practice.

In addition, Guidance Notes are relevant to professional competence in that each surveyor should be up to date and should have informed himself of Guidance Notes within a reasonable time of their promulgation.

President's foreword

RICS recognises its duty to help members adapt their working practices to reflect the growing need to address environmental issues.

Environmental Impact Assessment (EIA) is a statutory tool for assessing the environmental impacts of development projects, and identifying measures that can be taken to reduce these impacts. EIA can help ensure the environmental implications of a project are fully explored before planning decisions are made.

This guidance provides an overview of the EIA process for RICS members, as well as considering the potential role of RICS members in the process. It is not intended that this guidance should provide comprehensive technical guidance on how to undertake an EIA, however, this guidance has been prepared to assist the majority of chartered surveyors – specifically those who are not environmental specialists.

This guidance note has been prepared, developed and edited with international input to ensure a global perspective. The applications of sound environmental best practice are after all global not just UK-centric.

I welcome this guidance note and it is my hope that it will prove a useful source of information for RICS members wishing to gain an overview of the EIA process. We hope the guidance will set the framework for achieving best practice in order to bring environmental benefits to us all.

Graham Chase

RICS President 2006-07

1. Introduction

1.1 Environmental Impact Assessment (EIA) is a statutory tool for assessing the environmental impacts of development projects, and identifying measures that can be taken to reduce these impacts.

1.2 EIA has been established in the UK since 1988, and has been made a statutory requirement for certain projects by the implementation of two key European Directives (Directive 85/337 *The assessment of the effects of certain public and private projects on the environment*and the subsequent Directive 97/11).

1.3 The output of the EIA is the Environmental Statement (ES), which is effectively a document of the EIA process, presenting details of what was done, who did it, who was consulted and what the outcomes were.

1.4 This guidance note provides an overview of the EIA process for RICS members, and considers the potential role of RICS members in the process. It is not intended that this guidance should provide comprehensive technical advice of how to undertake an EIA. Such advice is already available from other sources, such as the Institute of Environmental Assessment and Management (IEMA). Further sources of technical guidance on EIA are listed in the bibliography.

1.5 The details of the EIA procedure set out in these guidelines are based primarily on the legislative framework in the UK, and therewith are also in accordance with the Europe-wide framework provided by most European Union directives, already adopted into the laws of most member-states including the UK.

1.6 EIA is an internationally used tool, and RICS is an international professional institute. However, different aspects of national law interpret different parts of the EIA process in different ways, and it is therefore impossible to cover all national interpretations of EIA in one document.

1.7 Chartered Surveyors should be conscious of the EIA process, either as an integrated part of the planning/permitting process or a separate procedure. It is also worth noting the detailed differences for example in the nature and scale of proposals subject to EIA under local legislation and in the EIA process itself, including the scope of and timescale and procedure for the EIA, in the consultation thereon and responses thereto. A chapter on the international context for EIA is provided in this guidance, although unless stated any discussion of specific aspects of the legislative framework refers to England and Wales.

1.8 Note, the Department for Communities and Local Government (DCLG) have (July 2006) announced their intention to update circular 02/99 on Environmental Impact Assessments and the procedural guidance accompanying this (*Environmental Impact Assessment: A guide to good practice and procedures*). It is recommended that this guidance be reviewed following publication of this update.

Part A: Introduction to EIA and the roles of RICS members in EIA

2. EIA and RICS

2.1 This section provides an overview of what EIA is, what its objectives are, and above all, how it may affect the work of RICS members.

2.2 Legal/regulatory context

2.2.1 Environmental Assessments were introduced into the UK in 1988 as a result of the European Community Directive 85/337/EEC *The assessment of the effects of certain public and The private projects on the environment'*, widely known as the EIA Directive. The Directive was modified in 1997 by EC Directive 97/11.

2.2.2 Requirements of the EIA Directives have been translated into UK law principally through the Town and Country Planning system through the *Town and Country Planning (Assessment of Environmental Effects) Regulations* 1988 (SI 1199) as amended (Hereafter referred to as 'The EIA Regulations'); and more recently, the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999 (SI 293) updated details are contained in Circular 02/99. These regulations cover the need for EIA and prescribe the information that the ES ought to contain. In Scotland, the *Environmental Impact Assessment (Scotland) Regulations* 1999 (Scottish Statutory Instrument 1999 No. 1) apply.

2.2.3 In this context, the ES produced through the EIA process will usually effectively form part of the planning application, and will be submitted to the Planning Authority (or other decision making body) along with the planning application documents.

2.2.4 In 2002 (the most recent year for which data is available) the Office of the Deputy Prime Minister (ODPM) indicates that 541 Environmental Statements were produced. Of these, around 75 per cent were completed under the *Town and Country Planning (EIA) Regs* of 1999.

2.2.5 Developments not covered by the Town and Country Planning Legislation – mostly strategic infrastructure projects that are beyond the remit of the Local Authority Planning system, or marine developments outside the jurisdiction of any Local Planning Authority – have their own consent procedures and assessment regulations prescribed in other legislation. A representative list of the principal legislation is given below:

(a) *The Roads (Assessment of Environmental Effects) Regulations (N.I.)* 1988 as amended by the *Roads (Assessment of Environment Effects) Regulations* 1994

(b) *Highways (Assessment of Environmental Effects) Regulations* 1999

(c) *Electricity Works (Environmental Impact Assessment) Regulations* 2000

(d) *Pipeline Works (Environmental Impact Assessment) Regulations* 2000

(e) *Drainage (Environmental Assessment) Regulations (N.I.)* 1991

(f) *Environmental Assessment (Land Drainage Improvement Works) Regulations* 1999

(g) *Environmental Assessment (Afforestation) Regulations (N.I.)* 1989 as amended by *Environmental Impact Assessment (Forestry) Regulations (N.I.)* 2002

(h) *The Harbour Works (Assessment of Environmental Effects) Regulations (N.I.)* 1990

(i) *Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations* 1999

(j) *Transport & Works (Applications and Objections Procedures)* 2000

(k) *Environmental Impact Assessment (Forestry) (England & Wales) Regulations* 1999

(l) *Harbour Works (Environmental Impact Assessment) Regulations* 1999

(m) *Electricity Works (Environmental Impact Assessment) (Scotland) Regulations* 2000 (Scottish Statutory Instrument 2000 No. 320) *Pipeline Works (Environmental Impact Assessment) Regulations* 2000 (SI 2000 No. 1928)

2.2.7 Of these, a), d) and e) are the most widely used, in total accounting for a further 15 per cent of all UK Environmental Statements submitted in 2002 (Source: ODPM/IEMA).

2.2.8 These regulations effectively govern what projects are required to have an EIA, and what topics may be included in an EIA. These details are common to all pieces of legislation. As a minimum, the regulations dictate that an EIA should include the following information:

- a description of the development comprising information on the site, design and size of the development;
- a description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects;
- the data required to identify and assess the main effects, which the development is likely to have on the environment;
- an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for this choice, taking into account the environmental effects; and
- a non-technical summary of the information provided.

2.2.9 In particular, it is normal to include the following information, and at least some of this will usually be required by the decision making authority (usually the Local Planning Authority) in their scoping decision:

- a description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population (i.e. social, health and community aspects), fauna, flora, soil, water, air, climatic factors, physical assets, including the architectural and archaeological heritage, landscape, and the inter-relationship between the above factors; and
- a description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect,

secondary, cumulative, short-, medium- and long-term, permanent and temporary, positive and negative effects of the development, resulting from:

- the existence of the development;
- the use of natural resources;
- the emission of pollutants, the creation of nuisances and the elimination of waste; and
- the description by the applicant of the forecasting methods used to assess the effects on the environment.

2.3 Surveyor's responsibilities

2.3.1 The responsibility of the surveyor in respect of EIA will depend on the role the surveyor has in the development process. The involvement of RICS members with the EIA process may often be as the prospective developer, or through the planning process, where an application made by a surveyor on behalf of a client is subject to EIA.

2.3.2 However, the diverse and broad range of expertise possessed by RICS members means that they may feasibly be involved at any stage of the EIA process, and in any capacity.

2.3.3 In a specialist capacity, Chartered Surveyors' roles may range from project manager, procuring and managing the EIA process on behalf of the developer client; environmental coordinator providing specialist consultancy as well as coordinating the efforts of a range of other specialists; to environmental consultants in their own right, for example ecologists, planners, earth scientists and waste management professionals. They will require appropriate environmental qualifications and experience in order to practice in these roles – Chartered Environmental Surveyors would be an example.

3. Roles and responsibilities in the EIA process

3.1 The Developer

3.1.1 The developer will of course have a key role in the EIA process, through the design, management and funding of the project. The developer will also be responsible for providing the financial resources for the EIA, and will in most cases have the final say on what should be included in the ES. It is however important that although this control be retained, the EIA process needs to remain transparent, inclusive, and preferably independent and impartial.

3.1.2 The developer will on occasions of course be a public body – particularly for infrastructure and transportation schemes.

3.2 Statutory Authorities

3.2.1 The UK regulations implementing the 1997 Environmental Impact Assessment Directive give a specific role to public bodies with statutory environmental responsibilities. The following statutory bodies are named in the EIA Regulations and must be consulted on the Environmental Statement:

- The Local Authority;
- Natural England (or the Countryside Council for Wales);
- English Heritage (or CADW); and
- The Environment Agency.

3.2.2 It is important to recognise that statutory bodies vary in their range of interests. For example, the role of English Nature in the EIA process will generally be restricted to biodiversity and nature conservation. The Countryside Agency in contrast has wide ranging responsibilities in relation to rural affairs including transport, landscape quality and economic and social well-being. Even for statutory bodies with relatively narrow interests, the interaction between topic areas (e.g. noise or water related effects on biodiversity) will mean that statutory bodies may wish to access and comment upon multiple topics within an ES. It is therefore important for an ES to be effectively organised and cross-referenced.

3.2.3 As well as documenting the way that specific issues are addressed, it is important for an ES to communicate general information regarding the project (i.e. through a scheme description). Ideally the ES will not be read as a stand alone document, but as an appendix to the supporting statement. The ES can also contribute to building confidence in the technical competence of those involved in the project assessment and the general adequacy and objectivity of the scheme design and assessment process. In this way it is not only important that an ES provides answers to specific questions but also that it conveys a good overall impression, which in itself can be crucial to the acceptance of the document and subsequent position on the scheme.

3.2.4 Other non-statutory environmental organisations will also be consulted during the assessment process (e.g. RSPB, local wildlife trusts, local resident groups). In general their needs as an audience will be similar to statutory bodies. However, perhaps through a lack of resources or a more focused interest they may be less closely involved in the interim progress of the project. This reinforces the need for the assessment document to avoid taking knowledge for granted (for example why a decision was made to reduce the scope of the survey).

3.2.5 The Local Authority will often have a dual role, as it will be a consultee in its own right, and in many cases it will, through its planning and development control functions, also be the decision making authority that ultimately decides whether the proposed development will be allowed to go ahead. This makes consultation with the Local Authority particularly important, as it allows any potential obstacles to be tackled at the outset. Failure to properly consult with the Local Authority may result in these obstacles being raised once the ES is complete. Such issues will invariably be more difficult to deal with retrospectively, and may in the worst case scenario be held as justification for refusing planning permission.

3.3 EIA Coordinator

3.3.1 The EIA Coordinator has a crucial role to play in the efficient delivery of the ES. He or she will take responsibility for appointing, managing and

coordinating inputs from the range of specialist subconsultants, and ensuring that their outputs meet the required standards, and are suitably presented and worded.

3.3.2 The EIA Coordinator role will on occasion be adopted by the developer, although it is more common that a third-party consultant or project manager will be appointed to perform this role. This is partly due to the practical consideration that not all developers will have the in-house expertise and experience to take the lead role in the EIA. In addition the utilisation of a third-party consultant gives the ES an extra degree of credibility and independence.

3.3.3 The EIA Coordinator will also usually have overall responsibility for the EIA budget and ensuring that deadlines are met. He or she will commonly act as the 'middle man' between the developer and the specialist subconsultants. The role therefore requires both a sound technical knowledge of the EIA process, and of the environmental issues raised by the specialist subconsultants, but it also requires an experienced project management who can keep the project running on-budget and on-schedule.

3.3.4 The fact that EIA is planning-led often means that the EIA Coordinator may be a qualified surveyor or planner, with knowledge of how to balance the different issues involved in the Environmental Statement.

3.4 Specialist Consultants

3.4.1 The range of subjects that need to be covered by an EIA can be so diverse that no one person (or often, no one organisation) is likely to have the necessary skill to complete the whole EIA.

3.4.2 It will therefore often be necessary to employ specialist subconsultants to prepare specific chapters of the ES. In some cases, it can also be the role of the subconsultant to carry out scoping and consultation with specific regard to their specialist topic area.

3.4.3 Unless it has been agreed with the planning authority that certain topics can be omitted, an ES is likely to require input from an array of specialists many of which are listed in the appendices. The following specialists are the most usual for a wide range of developments requiring EIA:

- Planning consultant;
- Archaeologist;
- Air quality/dust consultant;
- Ecologist;
- Soil scientist/geologist;
- Landscape architect;
- Hydrologist;
- Noise consultant;
- Environmental or geotechnical specialists;
- Land surveyor – topographic survey;
- Social impact assessment and public consultation specialists are becoming increasingly prominent members of EIA project teams; and

- Whole-EIA project teams for major projects.

3.4.4 Any one of these roles may of course be combined with being the EIA Coordinator, depending on the expertise and experience of the individuals involved.

3.4.5 Large multi-disciplinary consultants may have sufficient expertise and resources to handle all these specialisms in-house, and can therefore provide a 'one-stop-shop' for compiling the ES. Alternatively, small consultancy firms or freelance individuals may be appointed to deal with their particular specialisms under the direction of a Project Manager or EIA Coordinator. There is no 'right' or 'wrong' way to approach this issue; the important thing is that the EIA Coordinator appoints a project team that he or she is confident can complete the work to the desired standard. It should also be remembered of course, that any individuals appointed as part of the project team may potentially be required to appear as Expert Witnesses should the project be subject to Public Inquiry.

3.4.6 In some cases, these specialists may in themselves need to appoint 'subspecialists'. For example, when considering the impact of a proposal on ecology and nature conservation, it will often be necessary to consider the impact on a wide range of species and species groups, and it is unlikely that any one ecologist will have sufficient expertise in all areas.

3.4.7 For major or potentially contentious projects, where a Public Inquiry is anticipated, it is also commonplace for the developer to appoint a planning solicitor or barrister to advise on the legal implications of the application.

3.4.8 The EIA process alone is an expensive process and when the planning application fees, which can amount to several tens of thousands of pounds, are included, the whole process represents a substantial capital investment on the part of the developer and should not be entered into lightly. Where potentially contentious development schemes are proposed, it is prudent to consider from the outset the possibility of having to lodge an appeal and to select carefully specialist subconsultants who have experience of giving evidence in a public inquiry. Nevertheless, the EIA process frequently leads to a better, more acceptable, scheme emerging, and can be regarded as a potentially positive, not negative, process.

3.4.9 The role of project manager requires a clear understanding of the EIA process and the need for timeline management of the various tasks that will need to be undertaken. The work will often be seasonably dependant (e.g. some elements of ecology) and some assessments will take longer to gather and evaluate the data (e.g. hydrology).

4. Limitations and exclusions

4.1 In the role of project manager, it is not uncommon for the commissioning client to require the surveyor to take responsibility for commissioning specialist subconsultants to undertake particular elements of the EIA. This can often include responsibility for payment of their fees. When commissioning subconsultants to undertake various assessments, the surveyor needs to be

mindful of the potential limitations of his or her own Professional Indemnity Insurance (PII) and avoid entering into a contractual relationship with the subcontractor that could incur a transfer of PII to him or herself.

4.1.1 Similarly, where the project involves the assessment of contamination or hazardous materials (e.g. asbestos), the surveyor ought to be mindful of the pollution limitations and exclusions usually contained within the standard RICS approved level of PII cover. If in doubt, consult your own PII provider.

4.1.2 The EIA process involves a need to make site visits and the surveyor should ensure that there is adequate public liability insurance (PLI) in place. Many companies and local authorities are requiring enhanced levels of PLI and minimum levels of £5 million are increasingly required.

4.2 Managing client expectations

4.2.1 Creating an ES is an objective and iterative process the purpose of which is to assess the existing environmental status of the development site and its immediate environs, the likely impact of the development proposals on that environment, and any measures designed to mitigate those impacts.

4.2.2 Depending on the nature of the development proposal, the assessment of the existing environment can take time. For example, if there is likely to be an impact on the water table (such as might arise through quarrying), this might require a full year of monitoring the groundwater. Similarly, some elements of the assessment, such as a survey for nesting birds or great crested newts, can only be undertaken at certain times of year.

4.2.3 Some elements of the ES process are therefore seasonally dependant and will take time to survey and evaluate. A time frame of between six months and two years should therefore be allowed to complete the process of assessment and design of measures to mitigate the likely impacts of the development proposals. During this period, whenever possible, it is good practice to liaise with the various statutory consultees in order that the issues identified and the measures to mitigate any impacts can be agreed. In this way the progress of the planning application can be smoothed. The client therefore needs to understand the time the whole process can take.

4.2.4 Similarly, following submission of the application to the LPA, there is a statutory consultation period of 16 weeks within which the application should be determined. However, for more complex or contentious applications this period is often extended by months or even years.

4.3 Budget and financial management

4.3.1 The cost associated with producing an EIA can be considerable, and will vary greatly according to the nature of the project, and the level of detail required by the decision making authority.

4.3.2 However in the context of the overall budget for the development, the cost of compiling an EIA will usually be relatively small. Research undertaken by Land Use Consultants (Land Use Consultant, et al., *Environmental Impact Assessment in Europe: a study on costs and benefits*, Volume 1, 1996 European Commission) in 1996 indicates that the total cost of the EIA will in most cases be less than 0.5

per cent of the capital cost of the project. Costs in excess of 1 per cent of the capital cost are the exception, but may occur for particularly complex or controversial projects – or for relatively small projects with a low capital cost.

4.3.3 For minerals and waste applications the EIA cost is often assessed in terms of cost per tonne (or m^3 for waste) which can range from as little as 0.5p/t to perhaps 90p/t. Costs for an application with accompanying ES will rarely be less than £30,000 and can be as much as £0.5m (or even more). If a planning appeal is involved these costs can easily be more than doubled.

4.3.4 One of the main difficulties developers and project managers experience in managing the budget of an EIA is being able to specify the duties of the various consultants in sufficient detail to allow fixed prices to be submitted by the EIA Coordinator and the specialist subconsultants.

4.3.5 At the early stages of the project, when fee quotations are requested, it is often the case that little information is known about the site and its sensitivities. It is also often the case that at this stage no formal discussions have been held with the decision making authority about the content of the ES. These factors play a major role in determining the scope of the work and the consequent time input required by the consultants. The result is often high fee quotes or vague tenders which provide the developer with little indication of the likely cost of preparing the assessment.

4.3.6 To overcome these difficulties some assessments are broken into two stages – scoping and preparation of the assessment. Consultants submit a fixed price for their input into the scoping report, which will then provide detailed data about the site and the project to allow fixed price quotations to be submitted for the preparation of the environmental assessment and environmental statement.

4.3.7 Even if this process is followed there is always likely to be an element of work that cannot be quantified at the outset. This is because it is not possible to estimate the level of support that needs to be given to the specialist consultants once the scoping report has been submitted and later during the preparation of the ES itself. Furthermore, there are always likely to be unforeseen costs that arise during the process. One example would be if the ecological surveys carried out during the EIA reveal the presence of a particularly important species at the site; this may then require further work and additional expenditure to quantify the distribution of this species at the site.

4.3.8 There is no easy way to control these costs and most developers accept that there will need to be an element of time-based work. It is up to the Project Manager to ensure that this work is kept to the minimum required.

4.3.9 In addition to the costs of the EIA process, account may also be taken of the costs of monitoring and/or mitigation measures, the need for which is identified in the ES.

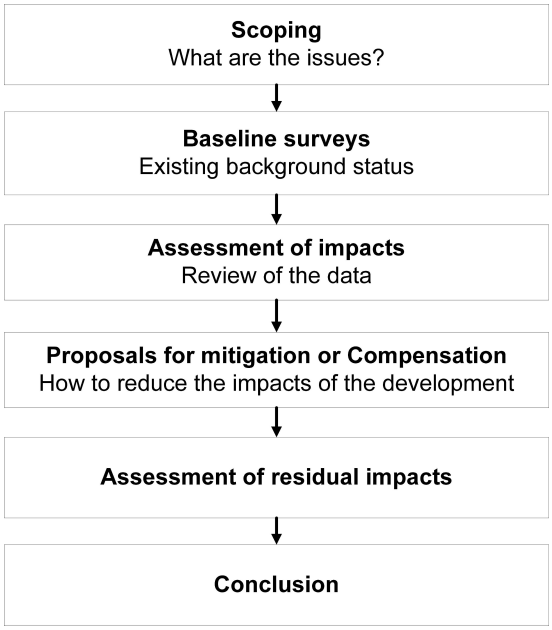
Part B: Overview of EIA process

This section provides an overview of the different stages involved in carrying out an EIA, and preparing the Environmental Statement. Again, it is emphasised that this is not intended to be comprehensive technical guidance of how to carry out an EIA.

It should also be emphasised that EIA is intended to be an iterative process, whereby the findings of one aspect of the process have a material bearing on later stages. In the same way EIA and the design of the proposed development are intended to be iterative, the two should not be considered to be distinctly separate processes. The findings of the EIA will often require some degree of amendment to the scheme design to mitigate environmental impacts – if the scheme is not sufficiently flexible to accommodate this then its prospects of gaining planning consent may be prejudiced.

Figure 1 shows the stages of an EIA in broad chronological order according to their position in the process. However, it should be recognised that there will frequently be overlaps between stages, so while separating out the process into a series of distinct stages as done here is convenient, it will not always be practical.

Figure 1: Stages of an EIA



5. Screening and Scoping

5.1 Screening

5.1.1 Screening is the process of determining whether a proposed development requires an Environmental Impact Assessment. It is usually the responsibility of the developer in the first instance to determine if an environmental impact assessment is required.

5.1.2 There is no legal obligation on the developer to carry out screening, although Local Planning Authorities (LPAs) are obliged to screen planning an application which they consider may require an EIA. If the planning authority considers that an EIA is required then it has no choice but to defer a decision on the application until an EIA has been prepared. As preparing an adequate Environmental Statement invariably takes some time, this can lead to significant delays to the project.

5.1.3 It is therefore in the developer's interests to pre-empt this situation by consulting with the LPA at the earliest opportunity. If an EIA is required, this can then be identified from the start of the project.

5.1.4 This screening decision is based on the type and scale of the project in relation to indicative thresholds and criteria set out in the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999. The Regulations contain two schedules that describe the projects to which they apply:

- Schedule 1 projects are subject to mandatory EIA, and all developments falling within Schedule 1 must have an EIA
- Schedule 2 projects may require an EIA, and a decision is made on a case-by-case basis.

5.1.5 The full list of developments subject to Schedules 1 and 2 are available from the Office of Public Sector Information at www.opsi.gov.uk. Schedule 1 developments are usually large scale industrial or infrastructure developments, with the potential for wide ranging and significant environmental impacts. Examples include:

- *Schedule 1, Category 7*
  - Construction of lines for long-distance railway traffic and of airports with a basic runway length of 2,100 metres or more;
  - Construction of motorways and express roads; and
  - Construction of a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be 10 kilometres or more in a continuous length.
- *Schedule 1, Category 19*
  - Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction where the surface of the site exceeds 150 hectares

5.1.6 As these examples demonstrate, the thresholds and descriptions provided in Schedule 1 are explicit and determining whether a project falls under Schedule 1 of the Regulations will usually be straightforward.

5.1.7 The issue of whether an assessment is required for Schedule 2 projects is more complex. This is because the development descriptions and thresholds are deliberately broader, but also because even if it can be determined that a proposal definitely falls within the Schedule 2 thresholds, it does not necessarily imply that an EIA will be required.

5.1.8 In such circumstances, a screening decision will be made on a case-by-case basis by the decision making authority – usually the LPA. To make this decision, the LPA will need to be sufficiently informed about the proposal, and some basic information about the proposal (such as a location plan and a description of the proposed development) will be supplied by the developer. In making this decision, the following considerations are taken into account:

- the characteristics of the development;
- the location of the development; and
- the characteristics of the potential impacts.

5.1.9 In practice, there are some categories of Schedule 2 development – such as windfarms and large residential schemes – for which an EIA will almost always be requested.

5.1.10 Early communication with the LPA is crucial when a development falls under Schedule 2, as this will provide the developer with sufficient time to prepare an Environmental Statement. It also allows the developer opportunity to appeal against the LPA's decision if it is considered to be unreasonable.

5.1.11 The mechanism for appeal is via the Secretary of State. If the developer disputes the LPA's decision, or if the LPA has failed to provide a decision, then the developer can request a 'screening direction' from the Secretary of State. This however adds time to the project planning stage and should be started well in advance of the proposed start date.

5.1.12 In practice, the appeals process is rarely used because the delays to the project it causes may outweigh the cost of doing an EIA.

5.2 Scoping

5.2.1 Scoping means deciding what the environmental impact assessment should cover. This is not a statutory requirement but is often practical as it can help focus work onto the most important aspects of the development and its effects. Most EIAs will include at least some consideration of:

- human health;
- ecology and nature conservation;
- soils;
- geology;
- air quality;
- dust;
- physical assets;
- cultural heritage;
- landscapes; and
- water quality and hydrology.

The role of scoping is to decide in what level of detail each of these needs to be covered.

5.2.2 Information agreed during scoping would typically include the following:

- Which of these (if any) can be omitted from the ES?
- Which of these topics are likely to be the key issues?

- What issues will be addressed for each topic?
- What impact assessment methodologies will be used for each topic?
- What baseline data is required for each topic?

5.2.3 Scoping can be carried out in a number of ways, ranging from early consultations with the planning authority and the statutory consultees, to the conduct of some pre-scoping surveys to determine the likely sensitivities of the site.

5.2.4 In the UK, scoping is not a legal requirement. Therefore the developer has the following options:

- decide the scope of the assessment for themselves; or
- submit a scoping statement (a report detailing how the assessment will be carried out) to the planning authority for a formal scoping opinion (a decision about how the assessment will be carried out).

5.2.5 Scoping is however generally recognised as good practice, and will usually be beneficial to all parties. At least some consultation with the LPA and any other statutory consultees should be carried out during scoping, as well as any information required by the LPA but not included in the developers scope can be identified at the outset and addressed in the Environmental Statement. Otherwise, if this is only raised once the application has been submitted, then the developer may have to prepare this information retrospectively with the associated time delays and extra financial expenditure. Incorporating scoping into the EIA process at the earliest opportunity will also reduce the risk of unnecessary abortive work.

5.2.6 In practice it is very rare for an environmental assessment to be carried out without any form of scoping. Even with simple assessments for small projects the developer makes judgements based on their knowledge of the site, discussion with consultees and knowledge of the development to decide what to include within the assessment. The issue therefore is not so much should scoping be carried out, but how rigorous and robust the process needs to be to ensure that the resulting assessment is adequate.

5.2.7 For some developments the issues surrounding the site have been clearly identified and the need for formal scoping is reduced – such as minerals and housing, which are usually allocated following examination through the local plan process, and may have been the subject of a design brief.

5.2.8 If the developer chooses there are formal procedures that can be adopted. The developer can either submit a Scoping Statement for approval by the decision-making authority, or request a formal Scoping Opinion from them. If the scheme developer disagrees with the Scoping Opinion received from the planning authority, there is an appeal mechanism to the Secretary of State who will issue a decision in a Scoping Direction. In practice appeals are better avoided because of the delays they can introduce.

5.2.9 Appealing against the scoping decision can also lead to an atmosphere of conflict and distrust between the developer and the LPA, and this is rarely in the interests of either party.

5.2.10 Where any disagreement over the scope arises, it is usually preferable to negotiate a compromise rather than resorting to the appeal procedure.

5.2.11 To be effective, the scoping document ought to provide the user with sufficient data about the project characteristics and the sensitivity of the site and local environment to allow them to make a decision. Guidance about the conduct of scoping exercises and methodology has been issued by the Institute of Environmental Management and Assessment. In essence a properly conducted scoping exercise will contain some or all of the elements described in table 5.1.

Table 5.1: Scoping techniques (from ADASTRL)

Activity	**Tasks**
Initial consultations	Advertise the development and prepare project fact sheets to stimulate response from stakeholders. Organise public meetings to explain the project and to encourage privately held information about the local environment to be provided Hold direct discussions with appropriate statutory consultees.
Pre-scoping studies	If insufficient information exists to identify the environmental sensitivities, some baseline survey work may be required.
Review existing data	Review data collected from the consultees and any baseline studies and identify potential environmental effects. Identify if effects are likely are to be significant based on the sensitivity of the environment, professional experience and existing data
Prepare scoping report	Description of the project and its characteristics. Location of the project. Description of the extent of existing knowledge about the project, the local environment and potential effects. Results of any studies carried out to identify environmental sensitivities. Further studies required, and a justification of the extent of those studies. The methods used to collect and evaluate the data and to predict effects. The significance criteria to be used. The form of likely mitigation. The alternatives to be studied.

Please see Appendix 1 for illustrative examples and Appendix 2 for templates of screening and scoping.

6. Baseline surveys and baseline conditions

6.1 Statutory requirements and the role of the surveyor

6.1.1 Describing the baseline environment is not a statutory requirement of the EIA process. However, for the reasons identified in this chapter, predicting environmental impacts requires a benchmark against which to be assessed, and it is therefore generally accepted that baseline surveys will usually form an important part of the EIA process. It is rare that an ES will be submitted without some evaluation of what the baseline conditions are.

6.1.2 Establishing the baseline condition and carrying out any baseline surveys will usually be the job of the specialist consultant appointed to prepare that part of the ES. The role of the surveyor will of course depend on his or her role in the ES as a whole. If, as will often be the case, the surveyors role is to coordinate and project manage the EIA then it will be up to him or her to brief the specialist consultants to include allowance for baseline surveys in their fee quotations.

6.2 Role of baseline conditions in EIA

6.2.1 Baseline conditions describe the state of the environment before the onset of the proposed development. In many cases, baseline conditions will simply mean the state of the existing environment. For projects with long lead-in times however, describing the baseline conditions may need to consider what the future state of the environment will be at the time that the project comes to fruition. This will be an important consideration for aspects of the environment which exhibit trends over time, such as levels of air pollution. For aspects of the environment that remain fairly static, such as archaeology, then this will be of less importance.

6.2.2 Human influences will also affect the environmental baseline over time – for example with changes to the landscape due to agriculture, forestry, or new buildings or roads. In some cases, human influences may have a direct bearing on the EIA being compiled. Housing or employment developments will often be preceded by the improvement of road links to the proposed site and it may be these road improvements which make the development feasible in the first place. In such a situation, the environmental baseline for the EIA should attempt to account for the effect of the future road improvements, rather than simply summarise the existing situation.

6.2.3 To account for changes in the future baseline, it is common that a future 'do nothing' scenario be considered for the ES. This will provide a forecast of what the future baseline conditions will be accounting for all factors, but without the particular development under consideration. To enable direct comparison between this and the 'post development' impact predictions made during the EIA, this future scenario will often be set at the opening year of the proposed development.

6.2.4 One way of viewing the role of baseline conditions in EIA is to consider a scenario, where a multitude of sites were proposed as potential locations for a major development. The aspects of the development that lead to an environmental impact will generally be common between all the potential

sites. However, the precise nature of the impacts will vary greatly between these sites, depending on the nature of the receiving environment, and which aspects of the environment are particularly sensitive at each site. The importance of having an understanding of the baseline environment is highlighted by the following examples.

Example 1: A proposed development is forecast to lead to slight increases in some atmospheric pollutants. Air quality is assessed in comparison with statutory health-based standards set by the Government. How important a small increase in air pollution is considered to be will therefore depend on whether it will cause these standards to be breached.

At a location where existing pollution levels are low, a small increase is unlikely to cause any breach of the air quality standards, and the importance of the impact in the decision making process will be limited. However, the same small increase at a location where air pollution levels are already high may be the event which tips the overall pollution levels over the standards. This will therefore warrant much more attention in the EIA process, not because the impact is greater, but because the baseline environment has less tolerance to change.

Example 2: A major infrastructure scheme such as a new bypass will inevitably lead to some negative impacts on the ecology of the route corridor. How significant these impacts are will in part depend on the ecological value of the species and habitats impacted. For example, negative impacts on species-poor arable fields may be deemed not significant, whereas the same impact on an area of species-rich wetland or ancient woodland may be a very significant consideration.

6.3 Baseline surveys

6.3.1 Baseline surveys are the process of collecting the data necessary to give a picture of what the baseline conditions are. A wealth of specialist guidance exists on what data is required and how it should be collected. Some of these sources are included in the bibliography at the end of this guidance note.

6.3.2 Although, specialist guidance notes and best practice guides will be of relevance, the content and level of detail of the baseline surveys should usually be guided by what was agreed between the various interested parties at the scoping stage. How comprehensive and robust the baseline surveys need be depends on a variety of factors, including: the sensitivity of the site, the nature of the proposed development, and the potential it has for environmental impacts.

6.3.3 Much of the baseline data required will often already be available from other sources, and can be collated and presented in the ES. However, for some aspects of the environment it may also be necessary to carry out some field surveys to collect the required data. In most cases, a combination of field and desk methods will be required depending on what data is already available.

6.3.4 For some developments, impacting a specific site with few environmental impacts beyond the site's footprint means that baseline data requirements can be limited and the necessary information can be compiled quickly and at low

financial cost. For other developments with very large footprints or wide ranging impacts beyond the scheme footprints, then the baseline data requirements can be very extensive, and collecting this information can account for a significant proportion of both the ES budget and programme.

6.3.5 There are two aspects of timing that need to be considered for baseline surveys:

- some surveys can only be carried out at certain times of the year or be expected to extend over one complete year – scoping should highlight the methodologies to be used as may be defined by various statutory consultees; and
- the collection of baseline data should be carried out early enough to inform the design of the scheme.

6.3.6 In terms of the timing of baseline surveys, some aspects can only be carried out at certain times of year. This is particularly the case with ecological surveys. For example, if wintering bird surveys are required, then these can by their nature only be carried out over the winter months, but breeding bird surveys can only be carried out during spring and summer, which means to complete a full set of ecological baseline surveys can take a full calendar year. Other examples of seasonal timings include landscape, with the effect of autumn leaf fall on views into or from a development site; and dust emissions, where warm, dry summer weather will increase the tendency for dust to be generated.

6.3.7 For developments where extensive baseline surveys, particularly ecological surveys, are required, it is essential to plan sufficiently far ahead to allow all the required information to be collected without compromising the project's timescales.

6.3.8 The second bullet in paragraph 6.3.5 refers to the fact that the EIA process should be an iterative one. An example is if the baseline surveys record a feature of environmental value that was not previously known about – such as an important archaeological feature, or a colony of protected plant or animal species – it may then be the case, that the only way to avoid a significant impact on this feature is to redesign some aspect of the proposed development, so as to avoid directly affecting the feature. This will usually be preferable to the alternative – to continue with the scheme as planned, even though it will result in a significant impact on the identified feature– and may also of course influence the scheme's chances of gaining planning consent.

6.4 Sensitive receptors

6.4.1 A key part of the impact assessment process is to identify sensitive receptors for which impact predictions can be made. This is a statutory requirement of the EIA Regulations, which state that an EIA must provide:

> 'A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.'

6.4.2 The identification of sensitive receptors is closely linked to the baseline surveys and description of baseline conditions, so the selection of sensitive receptors will usually be done on the basis of the findings of the baseline survey. At the

simplest level, a whole aspect of the environment could be considered a sensitive receptor, for example, the flora and fauna of a site. As interactions between different aspects of the environment are complex, it is however usually too simplistic to take such an approach, and it is recommended that some attempt be made to break down the receiving environment into receptors.

6.4.3 Again, it will largely be up to the judgement of the specialist consultant as to how this will be done, and the role of the surveyor will often be to coordinate and manage the process. Identifying sensitive receptors may be done on the basis of geographic features (for example, where considering the impact of a scheme on the hydrology or water quality of a drainage catchment, each water course or water body in the catchment may be considered as a sensitive receptor). It may also be done by grouping together certain aspects of the environment into broad receptor groups, for example, birds, bats, humans, historic buildings, etc.

6.4.4 In selecting receptors, it should be considered that it will not always be practical or desirable to include every single receptor possibly affected by a scheme. Instead the emphasis should be on selecting a range of receptors that are representative of those that may be affected by the scheme. As with many aspects of the EIA process, there are no 'right' or 'wrong' ways to define sensitive receptors; however it is approached, should be in a way that incorporates the views of other parties and can be clearly justified and rationalised.

7. Impacts and significance

7.1 Types of impact and impact prediction

7.1.1 Identifying, describing and characterising the environmental impacts of a development is the crux of the EIA process. In particular, the identification of 'Significant Impacts' should be the end objective. Measures to avoid, reduce or compensate for these can then be proposed as part of the mitigation section of the ES. A good working definition of a 'significant' impact is 'one that is material to the decision making process'.

7.1.2 It is important to distinguish between impact magnitude and significance as they are not the same. For example, doubling the background radiation by building a nuclear power station on a greenfield site, would represent a large magnitude of change, but it would only be significant if the resulting radiation levels exceeded prescribed safety levels.

7.1.3 The significance of an impact is widely accepted to be a function of the magnitude of the impact and the sensitivity of the receptor. In other words:

- What is it about the site which is sensitive to change?; and
- What aspects of the development are likely to bring about such change?

7.1.4 The identification of significant impacts will be the responsibility of the specialist consultants, but it is important that a degree of consistency is achieved between the different topics of the ES, and it is therefore common that the EIA Coordinator will provide direction on the matter to the specialist consultants. This may be in the form of providing set definitions of

environmental sensitivity and impact magnitude and asking that each specialist use a common methodology for determining significance.

7.1.5 In this context, it is worth clarifying what the difference is between 'environmental sensitivity' and 'environmental value'. In many circumstances, these are not necessarily compatible measures of a site's tolerance to change. For example, an area experiencing high levels of air pollution may have a high sensitivity to change but would not be described as of high environmental value in respect of air quality. The opposite is often true in respect of landscape or ecology, where environmental sensitivity and value are often interchangeable – a site could be sensitive to impacts on its ecology because what is there is of high value.

7.1.6 It is in assigning a measure of environmental value that the importance of conducting adequate baseline surveys earlier in the EIA can be seen, as these will provide information to fulfil the first aspect of determining significance. A number of specialist bodies have prepared guidance on different categories of environmental sensitivity or value for input to the EIA process. One of the most well known is the Institute of Ecology and Environment Management (IEEM) guidance on ecological impact assessment which describes the importance of ecological receptors in geographic terms. The following table provides a summary of the IEEM descriptions.

Table 7.1: IEEM descriptions of ecological value
International value – e.g. ramsar sites, special protection areas, biosphere reserves, special areas of conservation, sites supporting populations of internationally important species.
National value – e.g. SSSIs or non-designated sites meeting SSSI selection criteria, NNRs, marine nature reserves, NCR grade 1 sites, sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.
Regional value – e.g. sites containing viable areas of threatened habitats listed in a regional BAP (or some natural areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria.
High local value – e.g. sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.), ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/natural areas.
Moderate local value – e.g. undesignated sites or features considered to appreciably enrich the habitat resource in the district or borough.
Low local value – e.g. undesignated sites or features which appreciably enrich the habitat resource within the parish or neighbourhood.
Negligible value – Low grade and widespread habitats.

7.1.7 Numerous different approaches for assigning impact magnitude are also in circulation, and in summary there is again no single best practice method. The important consideration is to ensure that some degree of consistency is achieved between the different topics of the ES. One approach to doing this is to ask every specialist consultant to use consistent terminology in assessing impact magnitude, and to provide clear definitions of what the different descriptions mean. The following example is re-produced from the ecology chapter of a recent EIA for a new road:

Table 7.2: Describing impact magnitude	
Magnitude	**Criteria**
Major	The identified impacts are predicted to result in a change in the integrity of the habitat/community or the ability of the species to maintain a viable population.
Moderate	The identified impacts are predicted to alter key attributes of a habitat/community but without changing its overall integrity or result in changes to the local populations of the species but without changing its viability.
Slight	The identified impacts will have a discernible effect but will not alter the key attributes of the habitat/community, nor change the distribution or status of the species.
Negligible	No discernible impacts.

7.1.8 Once the environmental sensitivity and impact magnitude have been described, it will be possible to determine how significant the predicted impacts are. Again, there are various ways of doing this, and each has its own advantages and disadvantages, but the priority should again be to achieve consistency throughout the ES. A matrix approach is often adopted, such as the example given below. This is taken from the same ES as Table 7.2, although matrixes such as this are in widespread use in EIAs.

Table 7.3: Evaluating significance					
Impact magnitude	**Environmental sensitivity**				
	Very High	**High**	**Medium**	**Low**	**Negligible**
Major	High	High	Moderate	Low	Low
Moderate	High	High	Moderate	Low	Very Low
Slight	Moderate	Moderate	Low	Very low	Very low
Negligible	Very low/none	Very low/none	Very low/none	Very low	None

7.2 Sources of guidance on impact prediction

7.2.1 As with other aspects of EIA, there is a wealth of technical guidance on impact prediction, and determining significance. Several of the separate components of EIA, such as ecology and landscape are subject to their own specialist guidance on impact predictions from professional institutes. In general, which guidance to follow, and hence which approach to adopt will be at the discretion of the consultant, although it is important that whichever guidance is followed can be agreed with, or at least justified to, the decision making authority.

7.2.2 Further sources of guidance on impact prediction are included in the bibliography. A small number of key documents are also listed in the box below.

Guidance on impact predictions

Highways Agency, *Design Manual for Roads and Bridges, Volume 11 Section 3: Environmental Assessment*, 2005 – detailed guidance of impact predictions for all aspects of EIA in respect of road and related schemes.

IEMA, *Guidelines for Environmental Impact Assessment*, 2004 – a best guide to the whole EIA process aimed at practitioners, and including impact predictions.

IEEM, *Guidelines for Ecological Impact Assessment*(Consultation Draft), 2005 – specialist guidance for predicting the impacts of proposed developments on ecology.

Landscape Institute and IEMA, *Guidelines for Landscape and Visual Impact Assessment*, 2002 – specialist guidance for predicting the impacts of proposed development on landscape and visual amenity.

Scottish Natural Heritage, A Handbook on Environmental Impact Assessment: Guidance for Competent Authorities, Consultees and Other Involved in the EIA Process in Scotland, 2002 – general guidance on EIA in Scotland, but includes approaches for impact prediction for ecology, landscape, soils and other topics, in the appendices.

7.3 Cumulative impacts

7.3.1 Cumulative impacts refer to the collective influence of the development under consideration and other developments (either existing or proposed) on a particular aspect of the environment.

7.3.2 One example may be the generation of additional traffic by piecemeal development on the edge of an urban area. Whilst any one development will have a limited impact on traffic flows, and related issues, such as air or noise pollution, the cumulative effect of many such developments together may be significant – likewise, with their landtake and visual impact.

7.3.3 Considering cumulative impacts is not a statutory requirement of EIA but falls under the loose description:

> '… information reasonably required to assess the environmental effects of the development'.

7.3.4 The issue of cumulative impacts is very difficult to adequately address in EIA, which by its nature is a project specific tool. To forecast cumulative impacts with any degree of certainty often requires knowledge of other proposals in the area. This information may not always be available to the applicant, particularly where a number of schemes are all going through the planning and EIA process simultaneously. Due to commercial sensitivities there is often a reluctance to share information with other parties.

7.3.5 Developers are often reluctant to include consideration of alternatives even if sufficient information exists, because the acknowledgement of cumulative

impacts in the ES, (from the consideration of several alternative sites, for example) rather than being credited as best practice, can sometimes be used to negative effect by objectors or consultees.

7.3.6 Nevertheless, cumulative impacts are often raised as an issue during scoping, and should, as a matter of best practice, be included in the ES. Where this is the case, discussion of cumulative impacts should wherever possible be described in the same terms as used for assessing impact magnitude and significance. Where insufficient data is available to make a fully informed judgement, then this should be acknowledged in the ES.

8 Mitigation and monitoring

8.1 The EIA Regulations require that an Environmental Statement contains information about the methods used to prevent and or minimise effects on the environment. This is usually termed mitigation.

8.2 Mitigation should be in accordance with the mitigation hierarchy, which can be summarised as follows, in descending order of preference:

- *impact avoidance*– wherever possible, mitigation should enable the predicted impact to be avoided altogether;
- *impact reduction*– if impact avoidance is not possible, the mitigation should aim to reduce the impact to significant levels; and
- *compensation* – If the impact cannot be avoided or reduced to acceptable levels, then compensation should be proposed to offset the impact. This would usually be in the form of enhancement to habitats created by the development.

8.3 Using this hierarchy mitigation can be achieved in a number of ways depending on the effect to be mitigated. For example using alternative layouts that avoid the sensitive areas of a site is the only realistic mitigation to prevent the loss of a rare habitat, whereas erecting an acoustic fence can mitigate the effect of noise on nearby residents.

8.4 Mitigation should, as a minimum, be proposed for all significant impacts, although where non-significant impacts can be readily mitigated it may be appropriate to do so. This is particularly the case, with potentially high profile perceived impacts.

8.5 The precise form of mitigation selected will depend on the type of impact and the sensitivity of the receptor. However, in some cases, for example where outline planning consent is sought for a development which the promoter may not design or build, it may be difficult to be precise about the form of mitigation. In these cases it is suggested that performance specifications for the works of mitigation are provided in the environmental statement. Performance specifications will identify the level of efficacy of mitigation without providing detailed specification of the design. While the use of performance specifications provides the subsequent developer with some latitude in respect of the type of mitigation to use, great care should be taken to ensure that the specifications provided are realistic and achievable.

8.6 Once mitigation measures have been identified, it is recommended that the residual effect of the proposal be reassessed taking into account the works of mitigation. This provides a prediction of the residual effect of the development following all mitigation as well as providing an opportunity to ensure that the mitigation does not give rise to unacceptable effects for a different aspect of the proposal. For example, erecting a noise fence may relieve the impact on nearby residents from a new road. However, if the road is in a rural area the inclusion of a suburban fencing type may cause an unacceptable landscape impact.

8.7 The assessment of residual impacts should use terminology that is consistent with that used in the main impact predictions.

See Appendix 3: Environmental Impact Assessment Northern Route – Schedule of Mitigation Measures for examples of avoidance, reduction and compensation measures for the impact of a road scheme on ecology and nature conservation (Heysham to M6 Link).

Part C: EIA and project management

9 Timescales

9.1 The range of projects subject to EIA are so diverse, and differing in their potential environmental impacts that it is not possible to advise on a firm timescale for completing an EIA. As a general rule, the more complex the proposed development and the more wide ranging its potential impacts, the more time should be allowed to complete the EIA.

9.2 Data from the European Commission, suggests that the average time to complete an EIA from start to finish is between 6 and 12 months, although some may be shorter and others much longer. It should of course also be considered that the EIA timescale is dependent on other aspects of the planning application, and any delays in preparing plans or determining the exact nature of the development (for example, the relative areas of residential and employment uses on a mixed-use site) will impact on the EIA timescales.

9.3 The one golden rule regarding timescales is to start early. By doing so, not only is the time available to the EIA team maximised, it also ensures that proper scoping can be done and that the necessary baseline surveys can be commissioned at the most appropriate times of the year. Ultimately, this will usually save the developer money by ensuring that all parties are aware of the scope from the outset, and it avoids the possibility of having to go back and repeat baseline surveys because insufficient data was obtained first time round.

9.4 The following table – adapted from that presented in the SNH Handbook to EIA (Scottish Natural Heritage, *A Handbook on Environmental Impact Assessment: Guidance for Competent Authorities, Consultees and Other Involved in the EIA Process in Scotland*, 2002) – gives a timetable for carrying out the different ecological surveys that may be required as part of an EIA. The shaded cells represent the optimal time for carrying out surveys on that receptor – there are some exceptions for particular habitats or particular species.

Table 9.1: Timing of Ecological Surveys (in UK)
Key: O = Optimal Time; S = Sub-optimal Time; P = Poor Time; U = Unacceptable Time

Receptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vascular plants	U	U	U	P	P-**O**	**O**	**O**	**O**	**O**-S	S	P	P
Bryophytes & Lichens	S	S	**O**	**O**	S	S	S	S	S	S	S	S
Marine Algae	U	U	P	P	P-**O**	**O**	**O**	**O**	**O**-S	S-P	U	U
Fungi	U	U	U	U	U	S	S	S	**O**	**O**	S-P	U
Wintering Birds	**O**	**O**	S	U	U	U	U	U	U	P	S-**O**	**O**
Breeding Birds	U	U	S	**O**	**O**	**O**	U	U	U	U	U	U
Lepidoptera	U	U	P	S	**O**	**O**	**O**	S	S	S	P	U
Dragonflies	U	U	U	U	U	P-S	S-**O**	**O**	**O**-S	P	U	U
Aquatic invertebrates	S	**O**	**O**	S	U	U	U	U	U	P	P	S
Ancient woodlands	**O**	**O**	**O**-S	S	U	U	U	U	U	U	S	**O**

9.5 In a complex case, where it is necessary to look at a wide range of ecological receptors, then the timescale just for completing the baseline ecological surveys can be at least a year.

9.6 Other aspects of the EIA may also be seasonally dependent, although in general probably less so than the ecology.

10. Reporting and public involvement

10.1 Public communication: the Environmental Statement

10.1.1 An ES is a public document, which should be considered when deciding on its content. However, as a key planning document an ES should also be sufficiently comprehensive and robust to stand up to scrutiny by the planning authority, and possibly by public inquiry. It is therefore a challenge to balance technical competence with public readability and accessibility.

10.1.2 Managing the size of the ES can be difficult. Documents of excessive length are not accessible to non-experts, and can be indicative of poor execution of the ES process, particularly scoping. To minimise the amount of technical data or information included in the document, it is common to supply a Technical Appendix, often contained within as a separate accompanying document. This ensures that the information is available if requested, but helps to keep the ES concise and accessible.

10.1.3 The precise content and structure of an ES will vary according to the nature of the development, but also due to the presentational style of the EIA Coordinator. As a minimum the ES should address the statutory requirements of the EIA Regulations. In practice, the majority of ESs will need to include more than the bare minimum statutory information, and the following, reproduced from Annex 4 of the EIA Regulations gives a good indication of what should usually be included in an ES:

Minimum information usually required in an ES:

- A description of the project, including in particular:
  – a description of the physical characteristics of the whole project and the land use requirement during the construction and operational phases;
  – a description of the main characteristics of the production process, for instance, the nature and quantity of materials used; and
  – an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat , radiation etc) resulting from the operation of a proposed project.
- An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.
- A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and inter-relationship between the above factors
- A description of the likely significant effects of the proposed project on the environment resulting from:
  – the existence of the project;
  – the use of natural resources;
  – the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the developer of the forecasting methods used to assess the effects of the environment; and
  – the description should cover the direct effects and any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects of the project.
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.
- A non-technical summary of the information provided under the above headings.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

10.1.4 It is worth elaborating on what is meant by two of these points in particular; the description of the development and outline of the main alternatives.

10.1.5 *Description of the development*

Describing the development in non-technical language, but in sufficient detail to allow meaningful impact predictions can provide its own challenges. Whilst recognising that descriptions will vary between project types, the description of the development should include reference to the following:

(a) the nature and purpose of the development (i.e. its function and economic and operational context);

(b) characteristics of the site (i.e. location, topography and other features);

(c) characteristics of the development (i.e. size, site layout, shape, character, landscape proposals, access, provision for utilities, emissions); and

(d) the phasing of the development (i.e. nature and phasing of construction operations and number of workers or visitors, nature of operational

processes and number of employees and users, likely expansion or secondary development and decommissioning/closure stages).

In practice, particularly for mixed use developments, the developer may wish to maintain some flexibility in the exact uses and layout of the site, or these may simply not be known at the time that the ES is compiled. One example, is where industrial uses are proposed within a larger mixed use development. The occupiers of these units, and hence the processes carried out there, cannot be known at the planning application stage.

In such situations, case law (*R v Rochdale Metropolitan Borough Council ex parte Tew* in 1999, known as the 'Rochdale Decision') indicates that an ES accompanying an outline planning application can be acceptable, provided that the outline provides sufficient definition of the proposals so that they can be properly assessed. Attention to this judgement is crucial, as if the outline application gives insufficient detail for a reliable ES to be compiled, then the rejection of the ES and refusal of the planning application is a distinct possibility.

10.1.6 *Consideration of alternatives*

The legal context for the consideration of alternatives is provided in Schedule 4, Part 1 of the EIA Regulations by the following:

> 'An outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account environmental effects.'

Generally, treatment of alternatives in most statements is limited to reasons why the site was chosen. Often, this will simply be because the application site was already in the developer's ownership, or could be readily obtained, and that from the applicant's point of view there were therefore no feasible alternative sites. It is nevertheless considered best practice to consider all reasonable alternatives, including the do nothing option, in the ES.

There are many types of alternatives and it is important not to just think of alternatives in terms of alternative sites. For example a mineral site may be justified on the basis of need for a new road project; however, by using recycled aggregates instead of excavated aggregates, the need for the development could be eliminated, or reduced. Similarly, a proposal to relocate a farm out of a village and develop the farmstead is often justified on the basis of reducing the nuisance of odours. This could be overcome by changes in management practices that would mean the farm could continue to operate without creating a nuisance.

Alternatives considered as part of the ES could include one or a number of the following measures:

- *Demand alternatives*: reduce demand so the development is not required;
- *Activity alternatives*: Such as provision of traffic calming instead of new roads;
- *Location alternatives*: Selection of different sites;
- *Delivery alternatives*: Alternative ways of achieving the same objective e.g. the use of recycled aggregates instead of land won aggregates;
- *Scheduling alternatives*: Programming the activities to avoid periods when environmental sensitivity is enhanced;

- *Input alternatives*: Use of different materials or different designs;
- *Mitigation alternatives*: A variety of alternative means may be available to mitigate the adverse consequences of a proposal; and
- *Do nothing*: non-implementation of the proposal may have its own environmental implications which should also be assessed.

The reason why alternatives are often poorly reported is partly influenced by a desire not to be seen to suggest alternatives that do not support the need for a development. This is in some respects understandable, although it should be considered that the sophistication and experience of objectors and planning authorities makes it inevitable that such alternatives will be taken into account when determining the application. It is therefore better to identify possible alternatives and consider their practicality in advance of committing expenditure to the planning and development of a site.

Alternatives are usually identified during the scoping stage by consultation with the statutory consultees and potential objectors, as well as by the specialists working on the assessment who will identify mitigation and scheduling alternatives.

The EIA Directive only requires that the *main* alternatives are assessed and that the main reasons for the developer's choice are reported. There is no definition of *main*, but it is suggested that this means those alternatives with significantly different environmental performance, as this would accord with the main purpose of the Directive. Therefore, the assessment can confine itself to a discussion of those alternatives that offer markedly improved environmental performance.

10.2 The ES structure

10.2.1 Providing that all the statutory information is included, there is no formal requirement of how the ES should be structured and presented. A logical and chronological approach is usually adopted, with the description of the development and an introduction to the project forming the first part, followed by the impact predictions and mitigation measures.

10.2.2 These are usually presented as separate chapters for each topic, so the ES will have a chapter for each of the topics listed below. Again, consistency between the chapters is important, and it is standard practice for the EIA Coordinator to issue a reporting template to be followed in each chapter. The precise nature of this will vary between different projects and different individuals, but the following example provides a commonly adopted structure for the impact assessment chapters.

Example of ES chapter layout

Introduction/overview: this should be a scene setting exercise rather than a description of what is to follow in the chapter. A description of the contents is only required where the chapter becomes large and it would improve readability.

Method statement: a summary of the topic-specific methods and techniques used in the assessment.

Regulatory framework: details of the relevant laws and regulations and codes of practice from the national to local scale.

Baseline conditions: description of the site and present state of the environmental issue under consideration.

Significance criteria: general significance criteria need to be refined to apply to the environmental issue under consideration.

Predicted effects: the interaction of the development and the existing environment should be discussed, impacts predicted (direct and indirect) and significance attached.

Mitigating measures: measures to mitigate significant environmental impacts should be presented.

Residual impacts: any impacts that remain after mitigation should be noted.

Summary: a short paragraph presenting the overall conclusion on the environmental effects and the significance of the residual effects.

The Non-Technical Summary (NTS) will usually be provided as a separate volume, so that it can be produced to interested parties who do not need to read the full ES. As its name suggest, the NTS should distil all the information contained within the ES into one short, concise document which summarises the ES in non-technical language. The NTS should be a reflection of the whole ES, and not just a re-production of the key impacts.

10.3 What Makes a Good ES?

10.3.1 Common weaknesses in Environmental Statements include:

(a) inadequate attempts at baseline information provision;
(b) poor coordination of issues;
(c) poor presentation and communication, particularly to non-experts;
(d) failure to document the assessment method;
(e) insufficient information for independent review;
(f) limited attention on cumulative assessment;
(g) weak commitments to environmental performance;
(h) lack of objectivity;

(i) lack of attention to alternatives; and

(j) poor focus with too much attention on insignificant issues to the detriment of significant issues.

10.3.2 While an ES generally presents tasks such as project description, site description, description of the affected environment and mitigation proposals reasonably well, below average performance is common for the treatment of alternatives, objectivity in the presentation of information, impact identification and scoping, prediction of impact magnitude and commitments to mitigation.

10.3.3 A quality ES does not necessitate a detailed understanding of every environmental feature in the vicinity of the project, nor only those aspects that are likely to be affected, but rather the collection and presentation of just sufficient information to aid the design and decision-making process.

10.3.4 While some judge ES quality against a checklist of topics, it ought to be measured by the ease through which the information relevant to the decision-making process is accessible to the reader. If the ES does not inform its audience then it is of reduced value. It is essential to keep the audience in mind and to communicate just enough information for the reader to follow and understand the issues.

10.4 Public involvement

10.4.1 It should again be emphasised that the ES is a public document, and public involvement in the EIA process is encouraged by the EIA Regulations and the EIA Directive. Provision should therefore be made to publicise the ES to the public, and to make copies available on request.

10.4.2 For high profile developments, the Non-Technical Summary will often be widely distributed to members of the public via direct mailing or availability at public consultation meetings. In most cases members of the public will not often request copies of other parts of the Environmental Statement and certainly not in any great numbers. However, the entire ES must be available for public consumption and thus should be written in such a way as to serve this role. This includes as far as possible, using language and a presentation style that enable the ES to be understood by the lay-person.

10.4.3 It is reasonable and accepted that a fee can be made for supplying copies of the ES to members of the public. However, this fee should be set at a realistic level and should only cover the costs of printing and copying of the document.

10.4.4 In addition to this provision, it is the applicant's responsibility to provide notice of the submission of the ES by means of advertisement in a local paper, and by a notice at the application site.

10.4.5 The applicant is also obliged to provide copies of the ES for inspection by the public. This will typically be agreed with the LPA, but allowance should be made for at least three additional copies to be held at the local council offices, and at the local library. Alternative forms of dissemination include publishing the ES on the internet and making it available as a downloadable document.

10.5 Managing public involvement

10.5.1 Managing public involvement throughout the EIA process can provide a challenge to the prospective developer. Best practice demands that the developer adopts as open and transparent approach as possible and pro-actively encourages public participation. In practice however, this approach can have its own problems, as it can provide a platform for unreasonable objections or unreasonable requests for information.

10.5.2 It should of course be considered that public perception towards a developer or development will not necessarily be negative, and in many cases, public opinion is likely to be favourable.

10.5.3 Even for more contentious developments, effective public participation can be beneficial in that it allows key areas of concern and objections to be raised at an early stage. These can then be addressed through the EIA. Effective public involvement can also foster trust and understanding between the developer and the public, avoiding the 'them' and 'us' mentality, and pre-empting other difficulties later in the project.

10.5.4 If concerns or objections are not brought to the attention of the developer early in the process, then they can only be addressed retrospectively, and this is likely to be less efficient and less effective.

10.5.5 If public consultation is inadequately implemented, then the developer may be unaware of public feeling about the development until very late in the day, by which point it may be too late to resolve the issues raised. Unresolved issues can then be used to apply political pressure on the decision making authority, to the detriment of the project.

10.5.6 Even where public concerns are not without scientific basis, it is still often worth the developer using the ES to address these, as it will improve the public perception of both the developer and the proposed project. If this is the case, then guidance to this effect will have to be issued to the specialist subconsultants.

10.5.7 The actual form that public consultation can take is varied and each will have its advantages and disadvantages:

- An **information feedback** approach (such as on-site signage, leaflet drops or newspaper features) the extent of public power in decision making is low. It has the advantages of being informative and quick with wide coverage, but the disadvantage that no public feedback, material may be perceived to be biased or presented to favour the developer.
- With a **consultation** (such as a public meeting or exhibition) the public holds a moderate power in decision making. Issues can be raised informally with a two-way information transfer, but there is no on-going communication and it might give a platform for unreasonable demands and opinions.
- The public holds a high sway in decision making through **joint planning** (with advisory committees or structured workshops). The ongoing public participation that this method allows fosters understanding and

cooperation between the public and the developer, but it is very time consuming and costly. This method is probably appropriate for controversial proposals.

11. What happens after the EIA is submitted?

11.1 The decision making process

11.1.1 For most EIAs submitted under the *Town and Country Planning (EIA) Regulations*, the decision as to whether to permit or refuse the developer will be made by the LPA. In some other cases, the decision will be the responsibility of another approving authority. Depending on which regulations, the ES is produced under, this may be Defra, the Department for Transport, the Department for Trade and Industry or one of a number of other government bodies.

11.1.2 Once an EIA and accompanying planning application have been submitted, an LPA has 16 weeks to determine it. This is double the eight week period offered for applications that do not require an EIA.

11.1.3 It is up to the LPA to decide whether the EIA adequately addresses all the necessary information. Unlike some other EU Member States, the UK has no provision for mandatory review of the ES prior to use in decision making. However, the Institute of Environmental Management and Assessment and other research institutions and consultancies do provide ES review services which can and are used by LPAs or other decision making authorities.

11.1.4 The decision making authority is entitled if it wishes to request additional information not included in the ES (a 'Regulation 19 Request'). It is the responsibility of the applicant to provide this on request.

11.1.5 Decision making authorities should only make a Regulation 19 request where they consider that further information is necessary to complete the ES and thus enable them to give proper consideration to the likely environmental effects of the proposed development. The additional delay and costs imposed on applicants by the requirement to provide further information about environmental effects should be kept to the minimum. Authorities should not use Regulation 19 simply to obtain clarification or non-substantial information.

11.1.6 The period of 16 weeks continues to run while any correspondence about the adequacy of the information in a statement is taking place. A planning application is not invalid purely because an inadequate ES has been supplied nor because the applicant has failed to provided further information when required to do so under Regulation 19. Though this of course can only damage the applications prospects of success.

11.1.7 If a developer fails altogether to provide enough information to complete the ES, the application can be determined only by refusal.

11.2 The role of third-party review

11.2.1 To ensure that the ES presents sufficient information to meet its legal requirements and provides an adequate basis for decision-making, it is increasingly common for the decision making authority to employ a third party to review the ES. The IEMA and various other commercial organisations offer such a service.

11.2.2 The method of third-party review will depend on the nature of the development and the reasons for performing the review. The most widely used measures for reviewing the quality of Environmental Statements are the Lee – Colley method (Lee, Colley, Bonde & Simpson, *Reviewing the Quality of Environmental Statements and Environmental Appraisals: Occasional Paper 55,*EIA Centre, University of Manchester) and the IEMA Review Criteria. Alternatively, no formal methodology may be followed, and the assessors may develop their own checklist to look at specific areas of interest. This may be done in parallel with any scoping documents agreed between the applicant and the decision making authority to ensure that all aspects agreed at the outset have been adequately covered.

11.2.3 The important point in the context of this guidance is not what method may be used to review an ES, but the fact that it is frequently done either directly by the decision making authority, or by a third party.

11.3 Decision making: potential outcomes

11.3.1 Before determining any EIA application, the decision making authority must take into consideration the information contained in the Environmental Statement (including any further information), any comments made by the consultation bodies, and any representations from members of the public about environmental issues.

11.3.2 The potential outcomes of the application are:

- **Approval** – the application is approved;
- **Refusal** – the application is declined; or
- **Non-determination** – the authority fails to make a decision within the 16 weeks period.

11.3.3 If the application is approved or refused, the applicant and the Secretary of State must be notified. Where either the Secretary of State or an inspector has determined an EIA application he or she will send a copy of the determination to the local authority for them to publicise.

11.3.4 The decision notice, in addition to giving the actual decision, must contain a description of the main reasons and considerations on which the decision is based and where permission has been granted, a description of the main measures to avoid, reduce and if possible offset the major adverse impacts of the development.

11.4 Relationship between EIA and planning consent

11.4.1 Mitigation or compensation measures proposed in the ES can often form the basis of planning conditions attached to the Planning Approval. Planning conditions must meet certain tests set out in Government Circular 11/95. Namely, they must be:

- necessary;
- relevant to planning;
- relevant to the development;
- enforceable;
- precise; and
- reasonable in all other aspects.

11.4.2 Planning conditions are often enforced by a Section 106 Agreement. This takes the form of a legal agreement between the developer and the LPA that the developer will incorporate certain works for community or environmental gain into the development. Section 106 Agreements are usually the product of negotiation between the applicant and the LPA – examples may include the building of a new school or other services as part of a residential development, or the establishment of an area managed for nature conservation, to compensate for habitats lost as part of the development.

11.4.3 Where the implementation of the Section 106 agreement has a direct financial cost, an undertaking to secure the necessary funds from the developer will also be included in the agreement.

11.4.4 It should therefore be considered when including mitigation measures in the ES, that their implementation could form part of the Planning Permission, and it is therefore important that only measures which can realistically and practically be adopted by the developer should be included. For this reason, mitigation measures included in the ES should also have the approval and commitment of the developer.

11.5 Planning appeals

11.5.1 If the application is refused or is not determined, then the applicant has a right of appeal to the Planning Inspectorate. The Planning Inspectorate has three courses of actions open to it to settle the planning appeal:

- request for written representations from both parties and a site visit by the inspector;
- public hearing; or
- public inquiry.

11.5.2 The Planning Inspectorate aims to resolve as many appeals as possible through written representation and Public Hearing, but almost all applications subject to EIA will be sufficiently complex to warrant a Public Inquiry.

11.6 Called-in decisions

11.6.1 For certain strategic developments the Secretary of State has the power to 'call-in' the decision. In practice what this means is that the decision is taken out of the hands of the Local Authority because the development, or its potential environmental impact, is deemed to be of greater than local importance. Examples of these are developments:

- that may conflict with national planning policy on important matters;
- that could have wide effects beyond its immediate locality;
- that raises significant architectural and urban design issues;

- where the interests of national security are involved, or the interest of foreign governments; and
- where there is significant regional or national controversy.

11.6.2 When the First Secretary of State calls-in an application he gives his direction in a letter to the council. This is known as the 'call-in letter'. Normally it will be issued by the government office for the region, that also writes to the applicant and any statutory party. Call-in decisions are relatively infrequent, with only around 150 of the many thousands of applications made each year subject to a 'call-in' (Source: Planning Inspectorate). However, almost all of these called in decisions will be applications that are accompanied by an ES, so there is a fair chance of an EIA being subject to 'call in'.

11.6.3 Called in decisions will almost always be subject to public inquiry.

11.7 The role of the ES at public inquiry

11.7.1 The public inquiry process is similar whether it is in response to a planning appeal or a call in. The inquiry will involve both parties making representations to a Planning Inspector through a series of expert witnesses. These will be cross examined by the other side's barrister and will also address any queries raised by the inspector.

11.7.2 The function of the ES during the public inquiry process can be unclear, as whilst it is one of the core background documents, often the key contents are abstracted and represented in the expert witness' proof of evidence and in rebuttals. This can lead to the risk of re-interpretation and the introduction of new information. This is not necessarily a negative situation, but the applicant should always be aware that the inquiry can go beyond what was provided in the ES.

11.7.3 It is also often the case that due to the time delay between the preparation of the original ES, and the hearing of the Public Inquiry, that a review and update of the ES will be required in any event.

11.7.4 A further role of the ES at public inquiry is to act as a means for determining the basis for disagreement and those areas of consensus between the applicant and the decision making authority. Indeed, in this way the ES can be seen as an impartial starting point for the preparation of evidence at the inquiry.

11.7.5 The users of the ES during an inquiry need to be able to rapidly access key information such as land take, number of properties within various distances, easily identified predictions and assumptions, and clearly identifiable statements of conjecture. Consequently, there is a need for well sign-posted and well presented data, with extensive use of summary tables – for example a table summing the areas of habitat loss by type or identifying the properties within 50m of a scheme.

Part D: International context

12 Common international themes

12.1 In most industrialised, transition and developing countries, major projects are subject to some form of EIA, either in accordance with national legal requirements or because it is required by interested parties such as project promoters or funding institutions. Where EIA is carried out, it is usual that the procedure follows a common pattern, which should include:

- a project description;
- consideration of alternatives;
- baseline studies;
- review of effects;
- presentation of results;
- consultation with affected parties;
- public participation; and
- mitigation measures.

12.1.1 Unfortunately economic pressures or deficiencies in the national democratic and legal processes can lead to significant exceptions, in which both the lack of EIA and even resulting environmental damage are accepted without due consideration for the long-term consequences. However in general the international understanding of environmental issues and the application of EIA has increased in recent years, as the following section shows.

12.2 International standards and differences

12.2.1 The description of EIA procedures in the UK in the preceding chapters applies to a large extent to most other European Union (EU) countries, which share a common framework provided by EU directives, as explained below. A common approach to EIA is also promoted through the requirements of multilateral organisations such as World Bank or development aid agencies, as well as through exchanges of experience and ideas between governments and other national bodies responsible for EIA and between academic institutions.

12.2.2 However it is important to be aware of national and local differences in approach, which may affect the nature and scope of EIA required and the details of the procedures to be followed. Such differences may arise for example as a result of individual countries having:

- nuclear installations, which will normally necessitate a special permitting procedure and control regime including emphasis on nuclear-related environmental factors;
- raw material sources which may give rise to environmental issues relating to extraction, processing, transport and utilisation, including oil, gas or other fuels, metallic ores, construction materials, etc;

- unique natural or built-environmental features including archaeological remains, landscapes, towns or individual buildings with particular quality or heritage value, which deserve additional protection from the effects of new development;
- experience of natural or man-made events or disasters, for example tsunami, extreme weather conditions or industrial accidents, which have lead to additional scrutiny of development proposals;
- particular sensitivity to environmental threats, for example significant levels environmental pollution, loss of habitats and species or depletion of natural resources.

12.2.3 This list is not exhaustive but it does illustrate that a 'one size fits all' approach is not always appropriate. The introduction of environmental protection laws including EIA will reflect the experience and needs of the societies concerned. Practitioners will need to take account of such local circumstances when exercising responsibility for development proposal.

12.3 Approach to EIA

12.3.1 There are also differences of fundamental approach to EIA in countries which have developed EIA against their own historical background and within their own governmental and legislative frameworks. EIA may for example form:

- a 'one-window' process for project approval (for example in Chile);
- an integral part of the permitting process (for example in the EU);
- a process preceding other approval procedures (for example in Australia, Canada or USA); or
- a separate process independent of planning/permitting approval.

12.3.2 A separate procedure is more likely to be applied in countries which have adopted strategic EIA for the review of overall government policy or broad development options, although it should be noted that this may not replace the need for project-specific EIA.

12.3.3 Unfortunately from the point of view of providing comprehensive guidance on EIA requirements, the procedures may not always be identical for all types of development with an individual country. However it should be recognised that this is likely to be justified where, as indicated above, specific types of development may give rise to unique environmental consequences, or where often painful experience has lead to the introduction of a procedure aiming to avoid its repetition.

12.4 Preparing an EIA

12.4.1 Factors which should be considered in relation to the preparation of an EIA when reviewing a proposal in a specific country include:

- the size and nature of proposals subject to EIA, for example when a defined capacity, site area or floor space is exceeded, or simply because the type of development, such as an oil refinery or nuclear power plant, is deemed to require investigation;
- the authorities responsible for the planning/permitting and EIA procedure(s), so that contact can be establish, details of the EIA requirements obtained and liaison on scoping of the EIA started;

- the availability of specialist consultants with relevant local knowledge of the environmental aspects to be investigated, and if necessary also with experience of compliance with the EIA procedures, including local consultation requirements. (At the risk of stating the obvious, language and cultural issues should not be underestimated!); and
- the timescale for the EIA, taking account of local procedural requirements, to ensure completion of representative surveys, including seasonal data, submission of the EIA for review and decision in accordance with the project programme (practitioners may need to advise of timescale risks, which may be greater in an international context, in the light of unfamiliar or even unclear procedures and with potential cross-border issues).

12.5 European Union Directives

12.5.1 *Environmental Impact Assessment*

The EU Directives on EIA provide the basis for a common approach across the EU countries, despite very different cultural and also political backgrounds. The directives have tended to be integrated into existing national law governing planning/permitting procedures in general and, as applicable, for particular industries or types of development, rather than introduced as an additional layer in the approval process. This also means that the responsibility for implementation of the directives varies between different countries and types of proposal.

The first directive, 85/337/EC, *Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment*set out in Annexes I & II categories of project to be subject to EIA, the procedure to be followed, and the content of the EIA itself.

This was followed by Council Directive 97/11/EC of 3 March 1997 on the assessment of the effects of certain public and private projects on the environment amending directive 85/337/EC in light of experience, inter alia to add to the list of projects in Annex I (mandatory EIA), to allow member states further discretion in relation to projects in Annex II (non-mandatory EIA), subject to new screening criteria in Annex III. The second directive also included procedural changes and clarification, including stronger requirements for public consultation and for consideration of alternatives, for example in the size or nature of the proposals or the 'do nothing option'.

Following signature by the EU on 25 June 1998 of the United Nations Economic Commission for Europe (UNECE) *Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*, a further directive 2003/35/EC of the European Parliament providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice (Council Directives 85/337/EEC and 96/61/EC) was adopted in May 2003, giving effect to the principles of the convention and providing for increased public participation and rights in relation to the EIA process.

The implementation of the EU directives is subject to periodic review by the European Commission, the most recent review in 2002 concluded that all member states (at that time) had implemented the fundamental requirements of the directives, and identified issues relating their application, including:

- overlap with other approval procedures, including those pursuant to the EU directives on the conservation of natural habitats habitats (92/43/EC) and on integrated pollution prevention and control (91/61/EC) for which Directive 97/11/EC allowed a single EIA procedure also covering the requirements of 85/337/EC;
- significant differences in the definition by member states of thresholds for projects either requiring or excluded from EIA under Annex II, for example areas of afforestation ranging from 0–350 ha or industrial estate development from 10–100 ha; and
- differences in the standards of review and quality control of EIAs as well as in the numbers of EIAs being prepared, which varied dramatically between member states without a clear relation to the level of proposals being considered by each state for approval.

12.5.2 *Guidance*

In order to promote a common application of the directives and assist approval from authorities and project promoters in the EIA process, the EU commissioned the preparation of practical guidance notes.

Guidelines on the assessment of indirect and cumulative impacts as well as impact interactions were produced in 1999, followed by guidance notes on screening, scoping and review, including procedural flow-charts and checklists, in 2001. These documents and further background information, including the text of the directives, can be found on the EU Environmental Assessment homepage: www.europa.eu.int/comm/environment/eia/home

The EIA guidance available in individual EU member states generally includes information from the responsible permitting authority, whereby as previously noted, the responsibilities and procedures vary according to local legislation under which the EU directives have been implemented.

12.5.3 *Strategic environmental assessment*

Apart from EIA of individual projects, which is likely to be of most direct relevance to surveyors, an EU Directive on strategic environmental assessment (2001/42/EC) was adopted in 2001, requiring the review of public sector plans and programmes. Such assessment may relate to the framework within which specific development proposals are prepared, and is without prejudice the subsequent EIA of a particular project itself.

12.6 Multilateral institutions

Another important source of conformity and standards in relation to EIA is provided by institutions such as the World Bank, European Bank for Reconstruction and Development, regional development banks and other international agencies. In response to international criticism of their neglect of environmental factors in past funding approval decisions, such bodies have introduced EIA requirements as part of their project review processes.

12.6.1 *World Bank Group*

The World Bank Group comprises the Bank itself, the International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA) and other affiliated organisations,

including the Global Environmental Facility (GEF). The Bank's procedures apply to all parts of the Group and therefore large numbers of projects which are financed or supported by the Group are subject to scrutiny in accordance with its procedures.

Compliance with the Bank's EIA requirements is part of its procurement process, where the Bank itself is acting as project-sponsor, and of its project approval process, when the award of funding to another sponsor organisation is being considered. This is in addition to any local procedure, although the EIA work may of course serve both the Bank's and other approval purposes.

The Bank introduced the first measures to take account of environmental considerations in 1984, in the light of serious environmental degradation in developing countries and following criticism of negative effects of projects with bank funding. Subsequent organisational changes and the introduction of the Bank's Operational Policy 4.01, Environmental Assessment, 1989 and the Bank Procedure 4.01, Environmental Assessment, 1990 reinforced the initial requirements.

In summary the Bank's procedures categorise projects, based on an initial screening, as being:

- Category A projects which are likely to have significant adverse environmental effects beyond the immediate project location, such projects being subject to full EIA, evaluation of alternatives, including non-implementation, and recommendation of mitigation or other measures;
- Category B projects with less significant, site-specific impacts requiring less onerous EIA treatment;
- Category C projects likely to have any minimal or no adverse environmental impacts; and
- Category FI projects in which Bank funds are made available through a financial intermediary, who is responsible for project screening and EIA in accordance with Bank standards.

The borrower is expected to carry out or initiate EIA work as necessary and in the case of Category A & B projects to carry out consultations.

Having regard to the scale of the projects and other activities which the Bank may finance, its procedures also include Sectoral Environmental Assessment, essentially as form of strategic assessment of a complete economic sector such as water or energy supply, and Regional Environmental Assessment (REA), which covers proposals in a wider spatial context.

Further information on all aspects of the foregoing procedures is available in the Bank's Environmental Assessment Sourcebook. In addition individual World Bank Group organisations such as IFC or MIGA have their own guidelines and requirements which supplement World Bank procedures.

12.6.2 *Other multilateral institutions*

The environmental policies and EIA requirements of other multilateral institutions, such as the European Bank for Reconstruction and Development, and the African, Asian and Inter-American Development Banks are based closely on the World Bank precedent, including the four project categories for use in screening and the different levels of EIA applicable thereto. The policies many of which are currently (November 2005) subject to review also include

strategic EIA and place a parallel emphasis on consideration of the social as well as the environmental impact of proposals.

In addition the banks' policies are tailored to the challenges facing their member-countries, such as poverty, economic growth, urbanisation, public health, education, many of which have significant and unavoidable environmental implications. Thus the development strategies and the measures which can be taken to deal with adverse environmental effects may be more dependent on what can be achieved with the often limited resources available.

12.6.3 *International companies/organisations*

Not only financial institutions but also some, although by no means all, commercial interests, for example large international companies with a concern for their environmental reputations, may commission EIA of their own projects, even though this may not be required as part of local permitting procedures. Such measures may form an integral part of the environmental management system if the company is ISO 14001 certified, environmental audits, if carried out at an appropriate stage in a proposal, may also address issues which would otherwise be covered in an EIA.

Unfortunately such companies are often the exception, and some may be pushed to take action following accidents or other negative publicity. Nevertheless to the extent that EIA is carried out voluntarily, this should be recognised and applauded, because it can affect major projects, avoid or mitigate significant problems and because it has a value as an example for others to hopefully follow.

12.7 National EIA requirements

12.7.1 A general review of EIA would not be complete without mention of major milestones such as the US National Environmental Policy Act 1969, containing important statements on the purpose of and procedural requirements for EIA, and other precedent-setting measures include the EU Directives on EIA and the Aarhus Convention on public consultation referred to earlier in this chapter.

12.7.2 A comprehensive, worldwide review of national EIA regimes is clearly beyond the scope of a short guidance note, however practitioners may be faced with the need to consider the environmental effects of development proposals anywhere where they are instructed or employed, and will need to take account of local law as well as any supranational requirements, such as those of client companies or financing institutions, when doing so.

12.7.3 As already noted in relation to the relatively homogenous region of the European Union, EIA arrangements may vary, in other parts of the world priorities and concepts may differ more significantly. Overviews and comparisons of EIA in different countries are however available from government bodies and academic institutions – these may be of assistance when faced with the need to establish what is required in a particular country or case. Such bodies and institutions provide links to national or local bodies responsible for EIA or to more detailed sources of information in documentary or database form.

12.7.4 Examples of organisations providing a starting point for further research include the Canadian Environmental Assessment Agency (CEAA), whose

website (http://www.ceaa-acee.gc.ca/004/index_e.htm), apart from providing extensive information on EIA in Canada, contains comparative research into international methods and standards, as well as links to responsible bodies in a wide range of countries and to academic institutions specialising in EIA worldwide.

12.7.5 One of these institutions, the Environmental Impact Assessment Centre (EIAC), School of Environment and Development at University of Manchester, UK, also has a website (http://www.art.man.ac.uk/EIA/sitemap/index.htm) linking to an EIA/SEA database and publications, and to other organisations responsible for EIA in different countries.

12.7.6 The CEAA and EIAC websites mentioned above, and the websites of other organisations also contain guidance of an educational nature on environmental assessment methods, and to assist with capacity building to support the introduction and implementation of EIA in a national or international context. The World Bank's Environmental Assessment Sourcebook (Environmental Assessment Sourcebook, Volumes 1-3, 1991, subsequently updated and extended, Environment Department, World Bank Technical Papers 139; see also online *Environmental Sourcebook and Updates* under: www.worldbank.org), which aims particularly to support the implementation of the Bank's procedures, has updates dealing with subject areas such as sectoral and regional environmental assessment, public consultation, specific types of development such as mining, and themes such as EIA and biodiversity, wetlands, health or cultural heritage.

12.7.7 Material for purely educational purposes is available, for example, from the United Nations Environmental Programme (UNEP), which publishes a training resource manual (Environmental Impact Assessment Training Resources Manual), containing both information on EIA, materials for running training courses and programmes on the subject of EIA and suggestions for further reading.

12.8 Conclusion

12.8.1 The effects on our environment from international trends including population growth, industrialisation, urbanisation and climate change are of a scale that increasingly defies efforts to subject individual developments or wider proposals to EIA. However it can be seen that national and international EIA standards, covering developed, transition and developing countries, provide for a measure of review, and for avoidance and mitigation of adverse environmental effects which was previously lacking, without which the consequences of development proposals for the environment would be incomparably greater and more threatening.

12.8.2 By following the EIA procedures which exist locally, nationally and internationally, practitioners contribute to an essential process of environmental protection.

Appendices

Appendix 1: Illustrative Example 1

***Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations*1999.**

Regulation 7 screening opinion (application submitted without an Environmental Statement).

Proposal

Application under s. 73 for variation of condition 26 of planning permission reference 027549 dated 30/04/03 (restoration of sandstone quarry by infilling with inert waste) to allow additional time for the submission of a landfill gas control scheme.

Schedule 2 category and applicable thresholds and criteria

Category 11 (b) (Installations for the disposal of waste). The proposal is to vary a condition of a development comprising the infill of a quarry with inert waste.

Applicable threshold (ii) the area of the development exceeds 0.5 hectares. The site area is 1.9 ha. (iii) the installation is to be sited within 100 metres of any controlled waters. The quarry is located in an outcrop of the sandstone, which is classed as a minor aquifer.

Environmental sensitivity

Regulation 2 (g) – The site adjoins the iron age hill fort which is a Scheduled Monument.

Schedule 3 selection criteria

Characteristics of development

(a) *Size* – the site area is 1.9 hectares and the volume of waste is 80,000 cubic metres.

(b) *Cumulation* – there is no other development in the locality which would have significant environmental effects.

(c) *Use of natural resources* – the development comprises the landfill of inert wastes which cannot economically be recycled or re-used, and the restoration of the land to agricultural use,

(d) *Production of waste* – potential waste products are leachate and landfill gas. The waste materials are inert and any production of leachate or landfill gas will be minor.

(e) *Pollution and nuisance* – potential issues in respect of pollution are the production of leachate and landfill gas, and leakage and spillage of fuel and lubricant from mobile plant and haulage vehicles. There are further potential issues in respect of nuisance are noise, dust, visual impact and traffic.

(f) *Risk of accidents* – the principal hazards of the development are public safety issues arising from haulage vehicles and mobile plant operating both on public roads and within the site adjacent to public rights of way.

Location of development

(a) *Existing land use* – the land is an abandoned quarry, already partly backfilled with inert waste. To the south west of the quarry is scrub woodland covering the remains of the Iron Age hill fort which has been

partly destroyed by previous quarrying. To the south of the quarry is residential development; the boundary of the nearest property lies some 100 metres from the southern face of the quarry. To the south-east of the quarry is a disused parish quarry. To the north of the quarry on either side of the access road the land is in agricultural use as grazing land.

(b) *Relative abundance, quality and regenerative capacity of the natural environment* – there is no known ecological interest within the quarry. The site is in an elevated location and the development will have limited and temporary impacts on the landscape. There is some potential for contamination of the minor aquifer in which the quarry is located.

(c) *Absorption capacity of the natural environment* – the development would not have any impact on wetlands, coastal zones, mountain and forest areas, nature reserves and parks, any areas designated under the *Habitats etc. Regulations*1994, or landscapes of historical, cultural or archaeological significance. The site is not in a densely populated area. The locality is not one in which the environmental quality standards laid down in European Community legislation have already been exceeded. The site adjoins the Scheduled Monument.

Characteristics of the potential impact

(a) *Extent of the impact* – the quarry overlooks the lower land to the north and east. The potential zone of visual influence is extensive. The aquifer drains to the lower land where there are a few licensed abstractors.

(b) *The transfrontier nature of the impact* – there is no potential for transfrontier impact.

(c) *Magnitude and complexity of the impact* – the principal impacts are:

- *Visual* – visibility into the quarry is limited and the operations are temporary. The restoration is to agricultural use and/or woodland and will have no visually intrusive effect. The visual impact would not be significant.
- *Noise and dust* – there is some potential for noise and dust to affect residential development in the locality. The main area of residential development is to the south of the quarry and the southern quarry face will minimise noise and dust emissions to the south. The noise and dust impacts are unlikely to be significant.
- *Pollution* – there is a minor risk that leachate will be generated. The potential quantity and toxicity of any leachate escaping from the site will be limited since the wastes to be tipped are inert. There is a minor risk that landfill gas will be generated. The potential quantity is limited since the wastes to be tipped are inert. The permeable nature of the surrounding rock would allow any gas escaping from the site to vent to atmosphere. There is a minor risk of groundwater contamination from fuel and lubricant leakage or spillage. The impacts of pollution are unlikely to be significant
- *Public safety* – there is a hazard from haulage traffic operating on the public highway and haulage traffic and mobile plant operating adjacent to public rights of way. There is a hazard to trespassers and to site staff from falls of loose rock on the existing quarry faces. The quarry faces present a falling hazard to trespassers and site staff. The risk to public safety from haulage traffic on the public highway is not

significant in relation to the existing level of use of the highway by HGV. There is a minor risk arising from use of the public footpath round the northern part of the site adjoining the access road. The risks arising from haulage traffic and mobile plant are unlikely to be significant. The quarry faces are high and the rock is both well jointed and much fractured. The infill of the quarry will reduce but not eliminate these hazards since the infill would be partial only and would not completely bury the faces.

Conclusion

In the opinion of the County Council as local planning authority the development is unlikely to give rise to significant environmental effects and does not require Environmental Impact Assessment.

Chief Planning Services Officer 28/11/05

Appendix 1: Illustrative Example 2

Environment and Regeneration Directorate				
Planning Form 1 Scoping Opinion Checklist				
Example future developments for Landfill in Wales Ref:				
Section 1 – Information describing the project				
		Yes	**No**	**Comment**
1.1	Purpose of the physical characteristics of the project, including details of proposed access and transport arrangements, and of numbers to be employed and where they will come from.	Y		Including any change to ground levels –note any significant importation of waste to change levels will require specific grant of planning permission.
1.2	Land use requirement and other physical features of the project: a) during construction; b) when operational; and c) after use has ceased (where appropriate).	Y		This will be addressed by the 'red and blue line' plan required for planning applications – see planning application form. The red line will delineate the application (i.e. operational) area.
1.3	Production processes and operational features of the project: a) type and quantities of raw materials, energy and other resources consumed; and b) residues and emissions by type, quality, composition and strength including: discharges of water, emissions of air, noise, vibration, light, heat, radiation, deposits/residues to land and soil, and others	 Y Y		In this instance the throughput/capacity of the development and the nature of emissions from the development.

Appendix 2: Screening Template 1

***Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations*1999**	
Screening Opinion under Regulation:	
Proposal:	
Location:	
Environmental sensitivity:	
Schedule 3 selection criteria:	
(a)	Size:
(b)	Cumulation:
(c)	Use of natural resources:
(d)	Production of waste:
(e)	Pollution and nuisance:
(f)	Risk of accidents:
Location of development:	
(a)	Existing land use:
(b)	Relative abundance, quality and regenerative capacity of the natural environment:
(c)	Absorption capability of the natural environment, impacts on: (i) wetlands (ii) coastal zones (iii) mountain and forest areas (iv) nature reserves and parks (v) any areas designated under the Habitats, etc. Regulations 1994 (vi) landscapes of historical, cultural or archaeological significance (vii) other
(d)	Is the site in a densely populated area?
(e)	Transfrontier nature of the impact
(f)	Magnitude and complexity of the impact, the principal impacts are (e.g. visual, ecological, etc.): (i) (ii) (iii)
Conclusion:	
Chief Planning Services Officer	DD/MM/YY

Appendix 2: Screening Template 2

TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (ENGLAND AND WALES) REGULATIONS 1999 - REGULATION 5.

DETERMINATION AS TO WHETHER OR NOT A DEVELOPMENT PROPOSAL IS SUBJECT TO ENVIRONMENTAL IMPACT ASSESSMENT - SCREENING OPINION.

Section A:

Application reference:

Date of receipt of application:

Address of site:

Applicant name:
Address:

Proposed development:

Schedule 1 category:

Schedule 2 category:

The reasons why it is Schedule 1 or 2 category in the Regulations for the type of development proposed including the relevant thresholds and criteria that apply in this case:

Section B:

Consideration has been given by the Local Planning Authority to the relevant selection criteria in Schedule 3 to the Regulations the general guidance contained in EIA Circular 11/99, and any relevant indicative criteria in Annex A of the Circular and in the case of the Schedule 2 development, whether it is in a sensitive area under Regulation 2(1). The Local Planning Authority hereby determines that :

> The proposed development contained in the application is not an Environmental Impact Assessment application under the Regulations and therefore you are not required to submit copies of an Environmental Statement to the Local Planning Authority.

Section C:

The Local Planning Authority's reason(s) why it has not requested an Environmental Statement in this case is:- The proposal is not more than local significance.

Signed by or on behalf of the
Chief Planning Services Officer

Date of determination:

Pro-forma note: Copies to be placed on the Part 1 register and sent to the applicant's agent

Appendix 3: Environmental Impact Assessment Northern Route – Schedule of Mitigation Measures

The tables show examples of avoidance, reduction and compensation measures for the impact of a road scheme on ecology and nature conservation. Heysham to M6 Link

Design & Advanced Mitigation Phase						
M = Mitigation; E = Enhancement; C = Compensation						
M	**E**	**C**	**Measure**	**Specification**	**Location**	**Timing**
M			Erection and maintenance of temporary fencing to prevent potential damage to valuable habitats outside final road corridor. (All)	Stock proof fencing, temporary badger gates to be included to prevent damage to fences by badgers. Detail of need and location to be agreed with ecologist. Fence to be maintained.	At those sites of nature conservation interest within or adjacent to construction corridor, i.e. Lancaster Canal crossing point (BHS 25/NC0) and sites NO1, NO3, NO4, and NO6.	In advance of construction works and throughout construction period
M			Temporary facilities for storage and other structures located away sites of nature conservation interest and away from all watercourses. (All)	Safeguards should be put in place to ensure that there remains no risk from accidental spills or leakage.	Avoid sites of nature conservation interest within or adjacent to construction corridor, particularly valley meadow SD 481644, River Lune, Lancaster Canal crossing point (BHS 25/NC0) and sites NO1, NO3, NO4, and NO6	In advance of construction works and throughout construction period
M			Survey all water bodies where bridges and culverts will be constructed to identify sensitive vegetation and habitat suitable for protection by transplanting. (All)	Vegetation and habitat survey.	All bridges and culverts on the route.	Summer before construction begins
	E	C	Preserve available stocks of specific uncommon species or assemblages of plants for future re-seeding opportunities in selected locations such as new roadside verges. (All)	1. Collect seed and other propagules from selected species to use as a source for re-colonisation and seeding elsewhere in suitable locations before land take or construction begins. 2. Before construction begins, and as often as possible, harvest seed by taking a hay cut from the site in July 3. Soil strips the surface layers of the soil to use as a source of seed for future seeding opportunities. 4. Ensure that collected seed is sown into appropriate soil conditions. Soils must be nutrient poor, avoid using top soil.	An area near the Holiday Inn (PH2N06) which has a large population of Common Spotted Orchid, Common Twayblade and the occasional and scarce Bee Orchid.	1. Take hay cuts and collect seed and propagules in July or later depending on species life-cycle, before construction or land take affects the site. Hay can be baled and stored dry for future use. 2. Soil strip and preserve soil before construction or land take affects the site. If possible, spread soil onto new roadside verges along the route as soon as completed, to prevent seed deterioration.
M			Mitigation for loss and disturbance of bat roost trees. (Bats)	Provision of a number of various designs of artificial roost boxes. Re-erection of roost sections of any trees that are to be felled.	In vicinities of existing roosts.	Pre-construction
M			Provision of two Otter culverts (Otter)	60cm wide ledges installed 15cm above highest flood level in wet culverts	At the two culvert crossing points.	During construction

Mitigation – Site Clearance Phase						
M = Mitigation; E = Enhancement; C = Compensation						
M	**E**	**C**	**Measure**	**Specification**	**Location**	**Timing**
M			Avoid disturbance of protected species. (Birds, Bats, Great Crested Newts, Badgers, Otters, Water Vole, Salmon, Lamprey)	Site survey for protected species immediately ahead of site clearance / turf stripping.	Entire working corridor.	Site clearance / construction
M			Awareness and information presentations to contractors with regards to protected species, including bats, nesting birds, reptiles and amphibians. (All)	Presentations to all contractors	N/A	Before construction commences, updated as required by contractor and personnel turn-over
M			Retain as much lichen and moss habitat / substrate as possible e.g. walls, bridges, woodland fragments and veteran trees. (Lichens and mosses)	Preserve or rebuild walls do not dispose of stone.	All sites within or near to the construction corridor.	During construction
M	E	C	Hedgerow creation – minimum 10600m. (All)	A combination of new planting, to reflect and enhance the local hedgerow stock, and translocation of sections of existing ancient and/or species-rich hedgerow.	Along both sides of the new road.	Autumn / winter at the earliest opportunity, ideally some pre- construction.
	E	C	Hedgerows new planting – 10000m. (All)	Double row of local species native plants the mixture to be derived from the existing nearby hedge species composition. Protected from damage and with appropriate weed control implemented to ensure establishment. New hedgerow trees appropriate to the area should be included in these plantings. Where appropriate these should be identified and managed as future veterans.	Along both sides of the new road.	Autumn / winter at the earliest opportunity, ideally some pre- construction.
C		C	Maintain habitat connectivity for Bats (Bats)	Create a minimum of 10600m of new / translocated hedge	Along both sides of the new road.	Autumn / winter at the earliest opportunity, ideally pre-construction
C		C	Provide additional nesting opportunities on nearby and younger trees to mitigate against the loss of nest holes and peeling bark on the veteran tree scheduled for removal. (Bats, Birds)	A variety of nest boxes of different sizes and design appropriate to likely users. Since maintenance can be an issue the support of local conservation groups should be sought e.g. BTCV, RSPB, BTO, Lancashire Wildlife Trust.	In the vicinity of: PH038, PH043, PH044,	Autumn/winter, at any time prior to, and during construction as site are identified.

Mitigation – Construction Phase						
M = Mitigation; E = Enhancement; C = Compensation						
M	**E**	**C**	**Measure**	**Specification**	**Location**	**Timing**
M			Minimise disturbance to migrating salmonids (Fish)	Avoid in-channel construction in the River Lune when Salmon are moving through this section of the river (December to March). However, should this prove impossible due to civil engineering constraints, construction methods and design options should be employed that keep the construction phase to a minimum.	Proposed new bridge crossing points	December to March
M			Minimise disturbance to Fish (Fish)	Employ 'silent' pile driving methods and adopt bubble screens to damp down vibrations.	Proposed new bridge crossing points	During construction
M	C		Retain, or re-establish as a priority, bankside vegetation. (All)	Any planting should be of site-specific, native species, and should reflect existing species proportions. Transplanted and temporarily stored material should be used first. Seed & nursery stock should be of local provenance and conform to British Standard 3936. Trees should be securely staked and tied. Any planting should be maintained for a minimum of three years.	Any areas of bankside construction where existing vegetation has been removed.	As soon as possible post construction. For bare-rooted plant material October – March. Container grown material may be planted at any time of year but avoid long periods of dry weather.
M			Vehicular access to Valley Meadow fungi site should be on crawler boards to avoid unnecessary damage to turf. (Fungi)	Crawler boards should not be left in place when not actually in use.	Valley Meadow SD 481644	During construction
C		C	Plant trees to replace the mature bankside trees lost. (All)	Use transplants, rooted cuttings or tree nursery stock of local origin.	Along diverted section of Howgill Brook.	After Construction
M			Minimise disturbance during construction to protect nesting birds and potential roosting bats. (Birds and Bats)	Survey ahead of contractors and site works. Agree working plans with ecologists	At all veteran tree locations.	At all times.

Mitigation – Operational Phase						
M = Mitigation; E = Enhancement; C = Compensation						
M	**E**	**C**	**Measure**	**Specification**	**Location**	**Timing**
M			Ensure run-off containing increased levels of salt and particulate matter from road is prevented from entering watercourses. (All)	Maintain and inspect road drainage and balancing ponds.	Lancaster Canal crossing points (NC1)	Throughout operational phase of road
M			Maintenance of hedgerows for the benefit of Bats (Bats)	Maintenance of new scheme hedges and existing farm hedgerows to increase their value as bat foraging habitats.	New hedges along length of scheme corridor and existing hedges between Torrisholme and the railway line.	On-going post construction
M			Maintenance of Otter fences and culverts. (Otter)	Clearing of vegetation and repairing of damage.	Where mitigation exists	At least annually
M	E	C	Maintain variable grass habitats on wider verges. (All)	Identify wider verge areas where a less intensive cutting regime can be implemented. In these areas grass should be cut no more than once per year after 1 October. Cut other areas of verge more than 1m from carriageway no more than twice per year, the first to be after 1 June.	Areas of wider verges close to more valuable existing habitats such as river Lune crossing, Beaumont Grange plantation, and Howgill Brook meadow.	After seeding of verges

Glossary

Alternative solutions	Alternative ways of achieving the objectives of the project. They may include alternative locations that are suitable and available; different approaches in terms of design, manufacturing or other processes; the use of different forms of transport or energy; or different sources for the supply of materials, etc.
Annexe I projects (also referred to as Schedule 1 projects)	See Schedule 1 projects below.
Annexe II projects (also referred to as Schedule 2 projects)	See Schedule 2 projects below.
Competent Authority	The authority which determines the application for a consent, permission, licence or other authorisation to proceed with a development. It is the authority that will consider the environmental information before granting any kind of authorisation. For example, for projects requiring planning permission this will usually be the Planning Authority, but in some cases may be the Secretary of State or Scottish Ministers, for Woodland Grant Scheme applications it is the Forestry Authority, for marine fish farms it is the Crown Estate Commissioners, etc.
Consultation bodies	Any body specified in the relevant EIA Regulations which the Competent Authority will consult in respect of an Environmental Statement, and which also have a duty to provide information or advice during the EIA process. They are: (a) any adjoining planning authority, where the development is likely to affect land in their area; (b) Natural England or Scottish Natural Heritage; (c) the water and sewerage authority or authorities for the area in which the development is to take place; (d) the Environment Agency or Scottish Environment Protection Agency; (e) the Health and Safety Executive; (f) the Secretary of State or Ministers.
Crown Land/The Crown	A generic term for land held by Her Majesty the Queen as Monarch and certain other royal land and all government held land – for example land held by the Ministry of Defence and land owned by the government including prisons, trunk roads and motorways.

Developer	For the purposes of this guidance, to help make the text more readable, all project proposers are referred to as 'developers', whether or not their project constitutes development within the meaning of the *Town and Country Planning Acts*and whether or not the project is for public service, infrastructure or for commercial purposes.
Do-nothing comparison (sometimes referred to as the 'do-minimum' comparison, for projects such as road improvements)	A projection of the existing data to provide a baseline for comparison to show how the site would change if the project did not go ahead.
EEA State	A state which is a Contracting Party to the Agreement on the European Economic Area signed at Oporto on 2nd May 1992 as adjusted by the Protocol signed at Brussels on 17th March 1993.
EIA application	An application for planning permission for EIA development.
EIA development	Development which is either a Schedule 1 development; or a Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location.
Enhancement/net benefit/new benefit	In natural heritage terms, this is the genuine enhancement of the natural heritage interest of a site or area because adverse effects are limited in scope and scale, and the project includes improved management or new habitats or features, which are better than the prospective management, or the habitats or features present. There is, therefore, a net or new benefit to the natural heritage.
Environmental Impact Assessment (EIA)	The whole process of gathering environmental information; describing a development or other project; predicting and describing the environmental effects of the project; defining ways of avoiding, reducing or compensating for these effects; consulting the general public and specific bodies with responsibilities for the environment; taking all of this information into account before deciding whether to allow the project to proceed; and ensuring that the measures prescribed to avoid, reduce or compensate for environmental effects are implemented.
Environmental information	The information that will be taken into account by the decision maker (the Competent Authority) before granting any kind of authorisation in any case where the EIA process applies. It includes the environmental statement, including any further information, any representations made by any body required by the Regulations to be invited to make representations, and any representations duly made by any other person about the environmental effects of the development;

Environmental Statement (ES)	The report normally produced by, or on behalf of, and at the expense of, the developer or project promoter which must be submitted with the application for whatever form of consent or other authorisation is required. It is only one component, albeit a very important one, of the environmental information that must be taken into account by the decision maker. According to the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999 an Environmental Statement includes such of the information referred to in Part I of Schedule 4 as is reasonably required to assess the environmental effects of the development and which the applicant can, having regard in particular to current knowledge methods of assessment, reasonably be required to compile; but that includes at least the information referred to in Part II of Schedule 4.
Exempt development	means development which comprises or forms part of a project serving national defence purposes or in respect of which Ministers have made a direction.
Iterative process	A process repeated until the best solution has been found so, in the context of EIA, it can be understood as the process of assessment and reassessment until the best environmental fit is achieved.
Mitigating measures or mitigation	The measures taken to avoid, reduce or remedy adverse impacts of the project. They are: – **Avoidance** which is the measures taken to avoid any adverse impacts, including alternative or 'do-nothing' options; – **Reduction** which is the measures taken to reduce unavoidable adverse impacts of the project; and – **Remedy or Compensatory measures or Compensation** which are other measures taken to (at least try to) offset or compensate for residual adverse effects which cannot be avoided or further reduced.
Revised Environmental Statement	Where a project has been modified since the original application and Environmental Statement were submitted, a revised Environmental Statement may be submitted, to amend the original, to ensure that the environmental information considered by the Competent Authority relates to the project as modified. The revised Environmental Statement may be a revision of the whole of the original document or revisions only of those parts of the original Environmental Statement that need to be changed as a result of the modifications.
Schedule 1 projects	Plans or projects which are listed in Annexe I of the Directive, as revised, and Schedule 1 of the Regulations, as revised.

Schedule 2 projects	Plans or projects which are listed in Schedule 2 of the Directive, as revised, and Schedule 2 of the Regulations, as revised.
Schedule 1 application and Schedule 2 application	An application for planning permission for Schedule 1 development or Schedule 2 development respectively.
Schedule 1 development	Development, other than exempt development, of a description mentioned in Schedule 1 of the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999.
Schedule 2 development	Development, other than exempt development, of a description mentioned in Column 1 of the table in Schedule 2 of the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999 where any part of that development is to be carried out in a sensitive area; or any applicable threshold or criterion in the corresponding part of column 2 of that table is respectively exceeded or met in relation to that development.
Scoping	The procedure whereby the Competent Authority and the relevant statutory and other consultees are consulted at the outset, or very early in the EIA process, by the developer to agree what effects should be covered in the Environmental Statement, how they should be covered and the methods to be used to assess them. If requested by the developer the Competent Authority must give a scoping opinion.
Screening	The process of deciding whether a particular project that is proposed is an EIA development, and therefore subject to the EIA process. It involves checking whether the project falls within the classes of project in Schedule 1 or 2 of the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* 1999 (or Annexe I or II of the Directives) and, if in Schedule 2, whether it would be likely to have significant effects on the environment.
Screening direction	A direction made by the Secretary of State as to whether a development is an EIA development.
Screening opinion	A written statement of the opinion of the relevant planning authority whether development is EIA development.

Sensitive area	Any of the following: – A Site of Special Scientific Interest; – Nature Conservation Areas; – A World Heritage Site (UNESCO 1972); – A schedule monument (*Ancient Monuments and Archaeological Areas Act*1979); – A European site within the meaning of Reg. 10 of the *Conservation (Natural Habitats, etc.) Regulations*1994; or – A National Scenic Area.
Statutory consultee	Any body specified in the relevant EIA Regulations which the Competent Authority must consult in respect of an Environmental Statement, and which also has a duty to provide information or advice during the EIA process.
Strategic Environmental Appraisal/Assessment (SEA)	The whole process of considering the environmental effects of plans, policies and proposed programmes of projects at a strategic level.
Supplementary Environmental Statement	Where the original Environmental Statement was incomplete or further work on environmental effects has been undertaken (whether or not the project has been modified since the original application and Environmental Statement were submitted), a supplementary Environmental Statement may be submitted, to add to the original, to ensure that all of the relevant environmental information is considered by the Competent Authority. The supplementary Environmental Statement may include a revision of the whole or part of the original document or additions that are needed to cover the additional information.

References

Guidance, good practice guides and other useful publications

- *A Handbook on Environmental Impact Assessment: Guidance for Competent Authorities, Consultees and Other Involved in the EIA Process in Scotland*, Scottish Natural Heritage, 2002
- *Environmental Assessment Sourcebook*, Volumes 1–3, 1991 subsequently updated and extended, Environment Department, World Bank Technical Papers 139
- See also online Environmental Sourcebook and Updates under www.worldbank.org (follow links to projects/policies/safeguard policies/environmental assessment)
- *Environmental Impact Assessment: A Guide to procedures*, ISBN 978 0 72772 960 6

  The guide is aimed at developers, their agents and consultants, but is also a useful introduction to EIA for students and members of the public.

  For an electronic version of the document, visit the 'Planning' section of the Communities and Local Government web site at www.communities.gov.uk.

  Appendix 8 of the Guide lists the Regulations that transpose the requirements of Council Directive 85/337/EEC as amended by Council Directive 97/11/EC.
- *Environmental Impact Assessment Handbook*, Thomas Telford, ISBN 978 0 72772 781 7
- *Environmental Impact Assessment Training Resources Manual*, 2nd edition, June 2002, ISBN 978 9 28072 230 7
- *Evaluation of Environmental Information for Projects*, ISBN 978 0 11753 043 0

  The guide is aimed at local planning authorities, especially with focus on how to assess an environmental statement.
- *Guidance on EIA Screening*, Office for Official Publications of the European Communities/Environmental Resources Management, ISBN 978 9 28941 334 3
- *Guidance on EIA Scoping*, Office for Official Publications of the European Communities/Environmental Resources Management, ISBN 978 9 28941 335 0
- *Guidance of EIA Review*, Office for Official Publications of the European Communities/Environmental Resources Management, ISBN 978 9 28941 336 7
- *Introduction to Environmental Impact Assessment*, 2nd Edition, UCL Press Ltd, ISBN 978 1 85728 945 9
- *Note on environmental impact assessment directive for local planning authorities*

The ODPM has issued a guidance note to all local planning authorities in England as an aide memoir of the potential pitfalls involving EIA and how to avoid them. The note is located on the Communities and Local Government's web site at www.communities.gov.uk

- *Mitigation Measures in Environmental Statements*, ISBN 978 1 85112 050 5

  This is a report provides guidance on good practice. The report is available through the Office of Public Sector Information (www.opsi.gov.uk)

- ODPM Circular 02/99, ISBN 978 0 11753 493 3

  The Circular can be viewed on the ODPM web site at www.communities.gov.uk

- *Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment*, ISBN 978 0 11753 207 6

  This is a guide from the Department of the Environment for agents, consultants and developers about how to produce an environmental statement.

- *Scoping Guidelines for the Environmental Impact Assessment of Projects*, the Environment Agency

Websites

- Planning Directorate – www.planning-inspectorate.gov.uk
- The Planning Portal – www.planningportal.gov.uk
- EU guidance (revised 2001) on screening, scoping and review, and cumulation: http://europa.eu.int/comm/environment/eia
- Summaries on UK EIA Court cases: are located at www.bailii.org
- Summaries of European Court of Justice judgements: www.curia.eu.int/common/recdoc/indexaz/en/c2.htm
- UK legislation can be viewed on the OPSI web site at www.opsi.gov.uk
- Application of the Convention on Environmental Impact Assessment in a Transboundary context (referred to as the Espoo Convention) is available from the United Nations Economic Commission for Europe www.unece.org/env/eia/welcome.html

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List of Specialists

(N.B. This cannot be exhaustive, but will cover some of the specialists commonly required during EIA)

Acoustic Engineers	Hydrologists
Aerial Photographers	Hydrogeologists
Agriculturalists	Information Technologists
Agronomists	Landscape Architects
Air quality and Emissions specialists	Land Use Planners
Analytical Chemists	Management consultants
Archaeologists	Mechanical Engineers
Architects	Meteorologists
Biochemists	Microbiologists
Botanists	Occupational Health Specialists
Building Service Engineers	Occupational hygienists
Building Surveyors	Olfactometrists
Business Management Specialists	Ornithologists
Cartographers	Pathologists
Chartered Environmental Surveyors	Pesticide Residue Specialists
Chartered Surveyors	Plant Physiologists
Civil Engineers	Project managers
Computer Modellers	Quantity Surveyors
Control Engineers	Resource Planners
Ecologists	Soil Physicists
Economists	Soil Scientists
Toxicologists and Ecotoxicologists	Soil and Water Engineers
Entomologists	Statisticians
Environmental Assessors	Storage Biologists
Ergonomists	Structural Engineers
Estate Managers	Thermal Engineers
Foresters	Town and Country Planners
Geologists	Toxicologits
Geotechnical engineers	Transportation and highways specialists
Health and safety consultants	Zoologists
Horticulturalists	

Environmental Impact Assessment

RICS Guidance Note

Environmental Impact Assessment (EIA) is a statutory tool for assessing the environmental impacts of development projects, and identifying measures that can be taken to reduce these impacts.

EIA has been established in the UK since 1988, and has been made a statutory requirement for certain projects by the implementation of two key European Directives (Directive 85/337 *The assessment of the effects of certain public and private projects on the environment and* the subsequent Directive 97/11).

This guidance note provides an overview of the EIA process and considers the potential role of RICS members.

Chartered Surveyors should be conscious of the EIA process, either as an integrated part of the planning/permitting process or as a separate procedure, and of the detailed differences for example in the nature and scale of proposals subject to EIA.

ISBN 978-1-84219-315-0

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