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PART 1

HA 201/08

GENERAL PRINCIPLES AND GUIDANCE OF ENVIRONMENTAL IMPACT ASSESSMENT

SUMMARY

This Advice Note sets the context for environmental impact assessment in relation to Strategic Environmental Assessment, Assessment of Implications on European Sites and transport appraisal. It provides the general principles and guidance for undertaking environmental impact assessments and describes three levels of assessment (i.e. Scoping; Simple; and, Detailed).

INSTRUCTIONS FOR USE

Remove Contents pages from Volume 11 and insert new Contents pages for Volume 11 dated August 2008.

- 2. Remove the existing document entitled 'The Aims & Objectives of Environmental Assessment and How its Results are Reported' located in Volume 11, Section 2, Part 1 which is superseded by this document and archive as appropriate.
- 3. Insert the new Advice Note HA 201/08 into Volume 11, Section 2.
- 4. Please archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.

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HA 201/08 Volume 11, Section 2, Part 1



THE HIGHWAYS AGENCY



SCOTTISH GOVERNMENT



WELSH ASSEMBLY GOVERNMENT LLYWODRAETH CYNULLIAD CYMRU

Llywodraeth Cynulliad Cymru Welsh Assembly Government



THE DEPARTMENT FOR REGIONAL DEVELOPMENT NORTHERN IRELAND

General Principles and Guidance of Environmental Impact Assessment

Summary: This Advice Note sets the context for environmental impact assessment in relation to Strategic Environmental Assessment, Assessment of Implications on European Sites and transport appraisal. It provides the general principles and guidance for undertaking environmental impact assessments and describes three levels of assessment (i.e. Scoping; Simple; and, Detailed).





REGISTRATION OF AMENDMENTS					
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REGISTRATION OF AMENDMENTS



1. PRINCIPLES AND GUIDANCE FOR USE

1.1 This section considers the principles of and provides guidance for undertaking environmental impact assessments (both statutory and non-statutory) of projects.

1.2 The potential environmental effects of a project must be understood to:

- satisfy legal obligations;
- inform option choice;
- aid the planning and design process; and
- inform transport appraisals.

It is, therefore, essential that some idea of the likely effect on the environment is gained at the earliest opportunity.

1.3 The level of assessment undertaken must be fit for purpose and appropriate to the potential for the project to cause significant environmental effects. Therefore, all projects (including maintenance projects) at inception should undergo an initial scoping assessment of their likely environmental effects (refer to SECTION 2, Part 4). The need and content of further assessments will be guided by this early review and will vary with project type and the environmental setting.

1.4 The advice and methods set out in SECTION 2, Parts 2 to 6 (inclusive) and the topic-specific guidance (SECTION 3) are intended to provide an integrated and coherent approach to the environmental impact assessment of projects. Therefore, the guidance given in SECTION 2, Parts 2 to 6 (inclusive) should be read in conjunction with the guidance in SECTION 3. Correspondingly, topic-specific guidance should be applied within the framework set by SECTION 2, Parts 2 to 6 (inclusive) and the circumstances of each particular project.

1.5 The following diagram (Figure 1.1) illustrates schematically the activities undertaken within the environmental impact assessment process. The following activities are pictured: screening the project by determining whether statutory Environmental Impact Assessment (EIA) needs to be completed or not; scoping the topics and the level of assessment needed; an iterative consideration of survey, assessment and design, then reporting the findings; and, follow-up.



Figure 1.1 The Environmental Impact Assessment Process

1.6 The main general principle that should guide assessment activities, whether they are to meet statutory or non-statutory requirements, is that the process should be iterative continuing from the planning/ appraisal stage, through design and option choice, construction and into the operational phase. The design and assessment processes are interwoven and will involve repeatedly going through the cycle of design and assessment until the design fulfils the objectives of the project (for guidance on project objectives refer to SECTION 2, Part 5, Chapter 1). There should also be an integrated approach to the environmental impact assessment, which promotes the interweaving of individual environmental topics, engineering design, and transport planning.

1.7 Consultation with the relevant Overseeing Organisation will always be necessary to decide on specific requirements in applying the guidance.

1.8 This guidance refers to the whole process by which information regarding the likely significant positive (beneficial) and negative (adverse) environmental effects of a planned project is systematically collected, assessed, publicised and taken into account in reaching a decision on whether the project should proceed as required by EC Directive 85/337/EEC as amended by EC Directive 97/11/EC and the Public Participation Directive 2003/35/EC (henceforth referred to as the EIA Directive), and as translated into UK law:

- In England and Wales, by Section 105 of the Highways Act 1980 as amended by the Highways (Assessment of Environmental Effects) Regulations 1988, the Highways (Assessment of Environmental Effects) Regulations 1994, the Highways (Assessment of Environmental Effects) Regulations 1999 and the Highways (Environmental Impact Assessment) Regulations 2007.
 - In Northern Ireland, by Section 67 of The Roads (Northern Ireland) Order 1993 as amended by the Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 1999 and the Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2007.

In Scotland, by Sections 20A, 20B, 55A and 55B of the Roads (Scotland) Act 1984 as amended by The Environmental Assessment (Scotland) Regulations 1988, the New Roads and Street Works Act 1991, The Environmental Impact Assessment (Scotland)Regulations 1999 and The Environmental Impact Assessment (Scotland) Amendment Regulations 2006.

For the purposes of this guidance, this UK legislation is collectively referred to as the EIA Regulations.

1.9 EIA is mandatory for projects listed in Annex I of the EIA Directive. Annex II projects that are likely to have significant environmental effects having regard to the selection criteria in Annex III will also require statutory EIA. In the cases where assessment is not a mandatory requirement, projects still require adequate assessment to establish whether environmental issues arise, and if so, what their likely significance is, in order to inform good planning, option choice, design, and project construction and implementation. This guidance, therefore, covers both EIA, as required by UK law, and non-statutory environmental impact assessment.

1.10 For each Annex II project, the significance of the potential effect on the environment will determine whether an EIA or non-statutory environmental impact assessment is undertaken. It is important to note that the significance of the effect does not necessarily correlate to the size of the project (refer to Figure 1.2). Further guidance on screening is given in SECTION 2, Part 3.



Figure 1.2 Need for Statutory Environmental Impact Assessment

1.11 Although maintenance projects lie outside the EIA Regulations, they have potential to give rise to significant environmental effects. These effects need to be understood to promote good option choice, planning and design and to ensure legislative requirements such as the need to avoid pollution to watercourses or safeguarding of protected species are complied with. Consequently, this advice also applies to maintenance works and non-statutory environmental impact assessment may still be required.

1.12 As a process, environmental impact assessment ensures that the environmental implications of decisions on projects are made available in order that they are taken into account ahead of decision-making. EIA and non-statutory environmental impact assessment should be considered a continuous process used to inform all decisions in the planning, development and design of a project.

PROJECT DEVELOPMENT AND ENVIRONMENTAL 2. **IMPACT ASSESSMENT LEVELS**

This guidance promotes an approach to 2.1 environmental impact assessment (including both statutory Environmental Impact Assessment (EIA) and non-statutory environmental impact assessment) that allocates effort according to: the likely significance of environmental effects; and, the type of decision that is to be taken and the risk and consequences of getting the assessment wrong.

2.2 This approach includes defining the assessment levels that may be relevant dependent on the potential environmental effects, the stage of project planning and the next project decision. The assessment levels are as follows:

- I. Scoping;
- II. Simple Assessment; and
- III. Detailed Assessment.

Most projects will reach a point when it 2.3 is considered necessary to incorporate specific environmental measures into the design so as to avoid, reduce and, if possible, remedy significant adverse environmental effects that have been identified during the assessment. This will be achieved via the inclusion of mitigation and monitoring. To achieve this the process of design and assessment is, therefore, an iterative one (refer to Figure 2.1); the design and assessment processes are interwoven and will involve repeatedly going through the cycle of design and assessment until the design fulfils the objectives of the project. It is important to recognise that when the results of the assessment process are reported, the mitigation requirements and their monitoring should be clearly set out (refer to SECTION 2, Part 6).



Figure 2.1 **Iterative Assessment and Design Process**

2.4 It is important to note that the levels of assessment are not sequential, in that one should not necessarily follow the other (refer to Figure 2.2). The assessments should be regarded as **consequential** in that the results of one assessment level would determine what, if any, further assessment work is required. Which level of assessment to apply at any stage in the design process will be informed by the scoping results, the project planning stage and options, and the environmental issues. Further guidance on assessment reporting is provided in SECTION 2, Part 6.

2.5 Throughout the assessment process, it is the significance of each environmental effect that will determine the need for further assessment. Consideration should, therefore, be given to all environmental effects that may arise from the implementation of a project, including positive (or beneficial) and negative (or adverse) effects, and permanent and temporary effects arising from direct, indirect, secondary, cumulative, short, medium and long-term impacts.

2.6 Consultations with the Overseeing Organisation will be necessary to confirm the appropriateness of extensive and/or atypical mitigation measures. The main design and assessment tasks are to:

- i. examine the need and performance of the measure through either predictive techniques or on the basis of experience gained elsewhere, taking into account cost, benefits and value for money; and
- ii. assess whether the measure would give rise to any subsequent environmental consequences not thus far assessed.

Assessment Levels

2.7 A summary of the assessment process is given in Figure 2.2.

I. Scoping

2.8 This activity is based around a desk study responding to available data and information (for example, using databases such as EnvIS in England). It employs a question led approach using effect identification techniques that are based upon generalised relationships and thresholds that either:

- i. establish the need for further assessment; or
- ii. exclude issues from further assessment.

2.9 Potential likely environmental issues should be identified here, and so too the corresponding level of assessment to be applied. In particular, decisions made and reported during the scoping phase should be clearly recorded, justified and defendable.

2.10 Following Scoping, it may be apparent that the project would result in no change against certain environmental topics. Other topics may have only negligible change and it may then be possible to simply apply established good design solutions, incorporating mitigation measures, to ensure the protection and, where possible, the enhancement of the environmental resource or receptor.

2.11 In this way different topics would be, or go on to be, assessed at different levels commensurate with the likely environmental effects and their significance.

2.12 Scoping can be an internal process and an external activity in which stakeholders are engaged in defining the assessment activities. Early stakeholder engagement may also provide an early indication of the likely future statutory environmental body consultation.

2.13 Further guidance on scoping is given in SECTION 2, Parts 4 and 6.

II. Simple Assessment

2.14 This activity is based on the assembly of data and information that is readily available. The Simple Assessment methods for each topic fulfil one of three functions:

- i. to address potential aspects identified at the Scoping level;
- ii. to reach an understanding of the likely environmental effects to inform the final design and assessment; or
- iii. to reach an understanding of the likely environmental effects that identifies the need for a Detailed Assessment.

2.15 Such additional information is typically gained through exploratory consultations with statutory environmental bodies, simple analysis, databases such as EnvIS in England, quantified assessment, reconnaissance surveys or investigation. Simple Assessments can be applied to projects that may be characterised as having design flexibility in many elements, but that the general solution and its purpose are established. Simple Assessment would be sufficient if it established confidently that the forecast environmental effect would not be a fundamental issue in the decision-making process. Consultations with statutory environmental bodies are likely to be needed for at least some of the topics.

III. Detailed Assessment

2.16 Detailed Assessments are likely to require detailed field surveys and/or quantified modelling techniques. The Detailed Assessment would be applied where there exists the potential to cause significant effects on environmental resources and receptors.

2.17 The objective is to gain an in-depth appreciation of the beneficial and adverse environmental consequences of the project and to inform project decisions, since they are expected to be key issues in whether the project proceeds in its proposed configuration. Relevant stakeholder and statutory environmental body consultations on likely significant effects are important early in the project development process.



3. ENVIRONMENTAL IMPACT ASSESSMENT AND STRATEGIC ENVIRONMENTAL ASSESSMENT

3.1 Strategic Environmental Assessment (SEA) is undertaken for certain plans or programmes, plus, in Scotland and Wales, national and regional transport strategies. SEA may therefore precede and set the framework for projects that are subject to statutory Environmental Impact Assessment (EIA). Hence, all projects subject to EIA will need to be aware of any statutory obligations set out in the SEA Statement/ Environmental Report prepared for any relevant plans and programmes (and also national and regional transport strategies in Scotland and Wales). It is also good practice to recognise that projects not requiring an EIA should recognise that SEAs may have a bearing on the scope of their design and assessment activities. The Overseeing Organisation is responsible for ensuring that SEA obligations associated with plans and programmes (and strategies) relevant to the project are considered. In particular, the Overseeing Organisation will provide the background information on relevant transport policy, plans and programmes, including related SEAs.

3.2 Figure 3.1 presents the context of SEA and EIA within the Environmental Assessment process:



Figure 3.1 The Context of SEA and EIA Within the Environmental Assessment Process

3.3 The SEA process can create obligations for projects, for example:

- i. it may identify environmental problems that are to be addressed by the project;
- ii. it may identify significant adverse environmental effects that need to be addressed at the project stage;
- iii. it may identify measures to avoid, reduce or remedy significant adverse environmental effects that are to be implemented at the project level;
- iv. it may specify the delivery of monitoring surveys and results to those responsible for the monitoring of the significant effects of the plan or programme, which should be implemented through the project; and

v. the project-level EIA or non-statutory environmental impact assessment may need to assemble certain environmental data to inform future SEAs.

3.4 In addition, there could be a series of other elements identified during the SEA that could impact on the delivery of projects. These could include:

- i. plan objectives, criteria and indicators that could have a bearing upon the objectives for the project. It may also be appropriate to compare the performance of the project against such objectives and indicators;
- ii. information concerning other linked projects in the plan, programme or strategy that would inform the assessment of cumulative effects;

iii. opportunities for strategic mitigation measures in which some effects resulting from the project are identified as being more appropriately resolved beyond the confines of the site boundary at more strategic locations, perhaps in partnership with others to achieve plan, programme or strategy objectives.

3.5 While SEAs prepared for transport plans, programmes and strategies are likely to be of most direct relevance, those prepared for other plans and programmes, for example, land use planning or for river basin management, may also be of relevance.

3.6 In England and Northern Ireland, detailed guidance on the SEA process for transport plans and programmes is provided by WebTAG Unit 2.11 www.webtag.org.uk. In Scotland, guidance on the SEA process is available at www.scotland.gov.uk/Topics/ Environment/14587. In Wales, detailed guidance on the SEA process for transport plans and programmes is provided by the Welsh Assembly Government's Welsh Transport Planning and Appraisal Guidance (WelTAG).

4. ENVIRONMENTAL IMPACT ASSESSMENT AND ASSESSMENT OF IMPLICATIONS ON EUROPEAN SITES

4.1 Some projects may require separate Assessment of Implications on European Sites (AIES) in addition to statutory Environmental Impact Assessment (EIA). This section outlines the connections with EIA. Specific guidance on AIES is given in SECTION 4. Figure 4.1 presents AIES in the context of the Environmental Assessment process:



Figure 4.1 Assessment of Implications on European Sites in the Context of the Environmental Assessment Process

4.2 The environmental impact assessment for the project would be expected to include the main points from any AIES in its reporting. Care should be taken to ensure that the findings of the AIES are addressed accurately and consistently in the assessment reporting strands, in particular within an Environmental Statement, to ensure that a consistent message is being delivered.

4.3 When it is apparent that an EIA and AIES need to be undertaken then consideration should be given to surveys collecting information for both at the same time.

4.4 There are important legal and process differences between the EIA and AIES processes. AIES is a distinct and separate assessment required by law to inform the decision-making process where a plan or project is likely to have a significant effect on a Natura 2000 site in the UK (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site.

4.5 The EIA process for a project would be expected to include the main points from any AIES in its reporting. Equally, in establishing any assessment scenarios for project-based EIAs recognition of any obligations that arise out of any previous AIESs should be made.

5. ENVIRONMENTAL IMPACT ASSESSMENT AND TRANSPORT APPRAISAL

5.1 The findings of the environmental impact assessment process may be used to inform transport appraisal reporting. Care should be taken to ensure that the findings of the environmental impact assessment process, particularly an Environmental Statement, are addressed consistently in the reporting strands of transport appraisal reporting to ensure that a consistent message is being delivered. Figure 5.1 represents the Environmental Assessment process in relation to the transport appraisal process.



Figure 5.1 Environmental Assessment Process and Transport Appraisal Process

5.2 In particular, there are important legal and process differences between environmental impact assessment and transport appraisal. Appraisal is a process (with methodologies that differ from those used in the environmental impact assessment process) that looks at the worth of a course of action, the results of which are used to assist in the determination of whether a project is acceptable and worthy of funding. The environmental impact assessment process looks at the effects of a project on the environment in consultation with external bodies to inform the design and decisionmaking process. Not all issues addressed during the environmental impact assessment process will be considered in the transport appraisal process.

5.3 Transport appraisal is a key component in the Government transport planning process. At the project level transport appraisal is carried out to provide input to efficient resource allocation and prioritisation across Government. Appraisal allows for an objective review of investment options within the limits of resources. HM Treasury's Green Book (*Appraisal and Evaluation in Central Government*) forms the basis of the Government's process in relation to appraisal.

5.4 The appraisal advice for England and Northern Ireland is consolidated in the web-based Transport Analysis Guidance (WebTAG) system, which can be found at the Department for Transport website www.webtag.org.uk.

5.5 The objective-led Scottish Transport Appraisal Guidance (STAG) can be found at the Transport Scotland website **www.transportscotland.gov.uk**.

5.6 Similarly, the Welsh Assembly Government's Welsh Transport Planning and Appraisal Guidance (WelTAG) will soon become available electronically.

5.7 These systems provide structured advice at both project management and technical levels, as well as giving guidance on how to transpose the results of environmental impact assessment into the appraisal process. Where appropriate, for advice on how to convert DMRB assessment conclusions into appraisal conclusions under WebTAG, refer to **www.webtag.org.uk** (or the Overseeing Organisation's equivalents).

Legislation:

Council Directive 85/337/EEC: Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, *Official Journal No. L 175*, 05/07/1985.

Council Directive 92/43/EEC: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, *Official Journal L 206*, 22/07/1992.

Council Directive 97/11/EC: Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, *Official Journal No. L 073*, 14/03/1997.

Council Directive 97/62/EC: Council Directive 97/62/EC of 27 October 1997 adapting to technical and scientific progress Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora *Official Journal No L 305*, 08/11/1997.

Council Directive 2001/42/EC: Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, *Official Journal No. L 197*, 21/07/2001.

Council Directive 2003/35/EC: Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 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, *Official Journal No. L 156*, 25/06/2003.

Environmental Assessment (Scotland) Act 2005, *The Stationery Office Limited*, ISBN 0105900893.

Freedom of Information Act 2000.

Freedom of Information (Scotland) Act 2002.

Highways Act 1980.

New Roads and Street Works Act 1991.

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Scottish Statutory Instrument 1999 No. 1 The Environmental Impact Assessment (Scotland) Regulations 1999, *The Stationery Office Limited*, ISBN 0 11 0591070.

Scottish Statutory Instrument 2004 No. 475 The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004, *The Stationery Office Limited*, ISBN 0110693124.

Scottish Statutory Instrument 2004 No. 520 The Environmental Information (Scotland) Regulations 2004, *The Stationery Office Limited*, ISBN 0110693566.

Scottish Statutory Instrument 2006 No. 614 The Environmental Impact Assessment (Scotland) Amendment Regulations 2006, *The Stationery Office Limited*, ISBN 0110714725.

Scottish Statutory Instrument 2007 No. 80 The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007, *The Stationery Office Limited*, ISBN 9780110717333.

Scottish Statutory Instrument 2007 No. 349 The Conservation (Natural Habitats, &c.) Amendment (No. 2) (Scotland) Regulations 2007, *The Stationery Office Limited*, ISBN 9780110776217.

Statutory Instrument 1988 No. 1221 (S.122) The Environmental Assessment (Scotland) Regulations 1988, *The Stationery Office Limited*, ISBN 0110872215.

Statutory Instrument 1988 No. 1241 The Highways (Assessment of Environmental Effects) Regulations 1988, *The Stationery Office Limited*, ISBN 011087241X.

Statutory Instrument 1993 No. 3160 The Roads (Northern Ireland) Order 1993, *The Stationery Office Limited*, ISBN 0110342895.

Statutory Instrument 1994 No. 1002 The Highways (Assessment of Environmental Effects) Regulations 1994, *The Stationery Office Limited*, ISBN 0110440021.

Statutory Instrument 1994 No. 2716 The Conservation (Natural Habitats, &c.) Regulations 1994, *The Stationery Office Limited*, ISBN 0110457161.

Statutory Instrument 1999 No. 369 The Highways (Assessment of Environmental Effects) Regulations 1999, *The Stationery Office Limited*, ISBN 0 11 082053 3.

Statutory Instrument 2000 No. 192 The Conservation (Natural Habitats, &c.) (England) Regulations 2000, *The Stationery Office Limited*, ISBN 0110858638.

Statutory Instrument 2004 No. 1633 The Environmental Assessment of Plans and Programmes Regulations 2004, *The Stationery Office Limited*, ISBN 0110494555.

Statutory Instrument 2004 No. 3391 The Environmental Information Regulations 2004, *The Stationery Office Limited*, ISBN 011051436X.

Statutory Instrument 2007 No. 1062 The Highways (Environmental Impact Assessment) Regulations 2007, *The Stationery Office Limited*, ISBN 9780110765969.

Statutory Instrument 2007 No. 1843 The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007, *The Stationery Office Limited*, ISBN 9780110777160.

Statutory Rule 1995 No. 380 The Conservation (Nature Habitats, etc.) Regulations (Northern Ireland) 1995, *The Stationery Office Limited*, ISBN 0337918805.

Statutory Rule 1999 No. 89 Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 1999, *The Stationery Office Limited*, ISBN 0 337 93407.

Statutory Rule 2004 No. 280 The Environmental Assessment of Plans and Programmes (Northern Ireland) Regulations 2004, *The Stationery Office Limited*, ISBN 0337955859.

Statutory Rule 2007 No. 346 Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2007, *The Stationery Office Limited*, ISBN 0 337 9790947.

Welsh Statutory Instrument 2004 No. 1656 (W.170) The Environmental Assessment of Plans and Programmes (Wales) Regulations 2004, *The Stationery Office Limited*, ISBN 011090964X.

Guidance:

European Commission (2000): Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Office for Official Publications of the European Communities. European Commission (2001): Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and Article 6(4) of the 'Habitats' Directive' 92/43/EEC. *European Commission DG Environment, Brussels*.

European Commission (2007): Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC.

GD 02/08 Quality Management Systems for Highway Design (Design Manual for Roads and Bridges Volume 0.2.1).

7. ENQUIRIES

All technical enquiries or comments on this Advice Note should be sent in writing as appropriate to:

