Interim Advice Note 76 / 06

VOLUME 11 **ENVIRONMENTAL ASSESSMENT**

SECTION 1: **INTRODUCTION**

PART 1

AIMS AND OBJECTIVES OF ENVIRONMENTAL ASSESSMENT

Contents

1. INTRODUCTION AND APPLICATION

1.1 This Interim Advice Note (IAN) introduces the forthcoming amendments to the current Volume 11 of the Design Manual for Roads and Bridges (DMRB), which provides guidance on the environmental assessment of trunk road projects comprising new infrastructure such as all-purpose trunk roads and motorways, as well as technology and maintenance projects.

1.2 DMRB Volume 11 covers statutory Environmental Impact Assessment (EIA) and non-statutory environmental assessment providing guidance for the Designer operating on behalf of the Highways Agency responsible for motorways and trunk roads in the UK. DMRB Volume 11 does not cover the strategic environmental assessment of policies, plans or programmes.

1.3 This IAN together with IANs 77 to 82 (inclusive) supersede and replace the DMRB 11.1, 11.2 and 11.4 advice dated June 1993 and their updates.

Volume 11 Reference	**Reference**	**Title**
SECTION 1 Introduction		
11.1.1	**IAN 76**	Aims and Objectives of Environmental Assessment
SECTION 2 Principles of Environmental Assessment		
11.2.1	**IAN 77**	Introduction
11.2.2	**IAN 78**	Environmental Assessments
11.2.3	**IAN 79**	Screening
11.2.4	**IAN 80**	Scoping
11.2.5	**IAN 81**	Management of Environmental Effects
11.2.6	**IAN 82**	Reporting
SECTION 3 Environmental Assessment Topics		
11.3.1	*HA 207*	Air Quality
11.3.2	*HA 208*	Cultural Heritage
11.3.3	*HA 209*	Townscape
11.3.4	*HA 210*	Biodiversity
11.3.5	*HA 211*	Landscape
11.3.6	*HA 212*	Materials
11.3.7	*HA 213*	Noise
11.3.8	*HA 214*	Effects on All Travellers
11.3.9	*HA 215*	Community & Private Assets
11.3.10	**HA 216**	Road Drainage and the Water Environment

Table 1.1 Structure of DMRB Volume 11 Environmental Assessment

Note: References in *italics* will be used with future updates to DMRB 11.3

1.4 Advice on the reporting of the overall assessment process covering the Environment, Economics, Traffic and Engineering is given in TD 37 (DMRB 5.1.2).

1.5 Volume 11 SECTION 2 sets out the general principles that should guide environmental assessment activities, whether they are to meet statutory or non-statutory functions. It also deals with the importance of effective and efficient screening and scoping processes and the relationship between environmental assessment and project appraisal. Advice in SECTION 2 highlights the need for an

integrated approach to environmental assessment. Assessment and design should be considered as an iterative process that continues from project design, through construction and into the operational phase. An integrated approach promotes the interweaving of individual environmental topics, engineering design, and transport planning.

1.6 SECTION 2 provides the general principles on the management of environmental aspects during the project planning and design process. It also sets out the approach to be adopted in the reporting of the assessments that have been undertaken and the requirements to prepare an Environmental Statement (ES) in accordance with the EIA regulations.

1.7 SECTION 3 gives guidance on the assessment techniques needed for the environmental effects associated with the construction and operation of a trunk road project. The SECTION 3 guidance, organised by environmental topics, includes: assessment methods and forecasting techniques; and the stage of design detail and consultations needed to allow the assessment to be undertaken. The advice also provides guidance on the provision and assessment of mitigation and enhancement measures. SECTION 3 may also provide specific clarification on reporting requirements.

Implementation

1.8 This Interim Advice Note should be used forthwith on road schemes comprising new infrastructure such as all-purpose trunk roads and motorways, as well as technology and maintenance projects, including those currently being progressed, unless directed otherwise by the Highways Agency.

2. AIMS AND OBJECTIVES OF THE GUIDANCE

2.1 The aim of this guidance is to provide advice, which reflects both legislative and best practice requirements. It seeks to ensure information about the environmental effects of trunk road projects is collected, assessed and used to inform decision making in a timely and cost effective manner.

2.2 The objectives of this guidance are to provide:

i. A common approach to the environmental assessment of all projects undertaken by the Highways Agency; and
ii. An approach by which Highways Agency can be assured that they have complied with environmental regulations and their objectives.

2.3 Specifically the guidance seeks to promote:

i. Consideration of the likely environmental effects of possible alternatives to inform option and design choice in a way which enables the importance of the predicted effects and the scope for mitigating these to be assessed;
ii. Consideration and reporting by the Highways Agency of the likely environmental effects of possible projects so design decisions can be made that promote sustainable development with knowledge of the likely consequences;
iii. Opportunities for the public and statutory environmental bodies to comment at appropriate times on proposals taking account of their environmental implications;
iv. A basis for the development of environmental management measures responding to the environmental requirements of the project, and
v. That environmental commitment is carried through to the construction and operation stages of the project.

3. PROJECTS ADDRESSED BY THE GUIDANCE

3.1 An appropriate level of assessment should be undertaken that reflects the potential for a project to cause adverse environmental consequences. Not all projects will be subject to the same level of assessment in order to meet the requirements of the relevant legislation or guidance. All projects should undergo some form of environmental assessment.

3.2 EIA refers to the whole process by which information regarding the likely significant positive and negative environmental effects of a planned project is systematically collected, publicised and taken into account in reaching a decision on whether the project should proceed as required by regulations. Environmental assessment represents the process that is to be followed in other instances.

3.3 In the cases where EIA is not mandatory, construction and improvement projects require a form of assessment to establish whether environmental issues arise and their significance to help inform the judgement on the need for EIA to be completed (screening) and to inform the level of environmental assessment that is appropriate (scoping). Advice is provided on screening and scoping within SECTION 2.

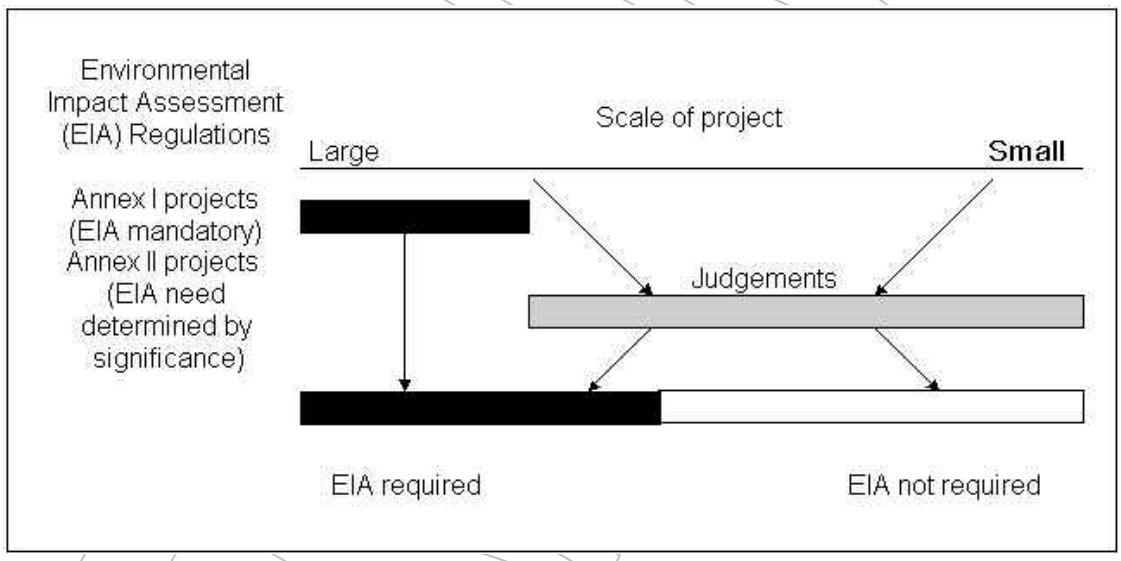

Figure 3.1 Construction and improvement projects and EIA

The environmental regulations make EIA mandatory for certain large and complex projects (listed in Council Directive 85/337/EEC Annex I). Annex II of Council Directive 85/337/EEC lists other projects that need determining whether to complete EIA or not (Annex II).

3.4 While maintenance is outside the statutory EIA regulations, actions still need to be performed with regard to other environmental regulations. Although maintenance is often considered not to give rise to significant effects, there may be occasions where major maintenance or even cyclical works may risk having adverse effects on valued environmental resources. Consequentially, this environmental assessment advice also applies to maintenance works.

3.5 As a procedure, environmental assessment ensures that the environmental implications of decisions on projects are made available in order that they are taken into account throughout the project design and ahead of decision-making.

Environmental assessment should be considered a continuous process used to inform all decisions in the development and design of a trunk road project. Assessment and design should be considered as an iterative process.

4. TRUNK ROAD PLANNING AND ENVIRONMENTAL ASSESSMENT

4.1 This IAN promotes an environmental assessment approach that allocates effort according to: the likely significance of environmental effects, the type of decision that is to be taken and the risk, and consequences, of getting the assessment wrong.

4.2 The following framework, therefore, defines the assessment activities that may be relevant dependent on the potential environmental effects, the stage of project planning and the next project decision. It is important to note that the levels of assessment are not *sequential*, in that one must not necessarily follow the other. The assessments should be regarded as *consequential* in that the results of one assessment level would determine what, if any, further work is required. Which level of assessment to apply at any Stage and report in the staged Scheme Assessment Report (TD 37) or similar, will be informed by the scoping results, the project planning stage and options, and the environmental issues.

a) Assessment Level - Scoping:
This activity is based around a desk study responding to *available data and information*. It employs a question led approach using impact 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.

The potential likely environmental issues maybe identified here and so too the corresponding level of assessment to be applied. Consultations with statutory environmental bodies for this Scoping assessment level would generally be appropriate only where high levels of uncertainty exist in the outcome, however, this assessment level may provide an early indication of the likely future statutory environmental body consultation.

b) No or Negligible Change and Very Insignificant Effects
This is not an assessment level. Following the Scoping assessment it may be apparent that the project would have no change against certain environmental topics. Other topics may have only negligible change. With such conditions it may be possible to simply apply established good design solutions to ensure the protection and enhancement of the environmental resource or receptor. In this way different topics would be, or go on to be, assessed at different levels commensurate with the likely environmental effects.

c) Assessment Level – Simple:
This activity is based on the assembly of data and information beyond that which is readily available. The Simple assessment methods for each topic are for one of three functions:

i. To address unknown aspects in the Scoping assessment level;
ii. To reach an understanding of the effect and complete the design and assessment; or,
iii. To reach an understanding of the likely effect that identifies the need for a Detailed assessment.

Such additional information is typically gained through exploratory consultations with statutory environmental bodies, simple analysis, reconnaissance surveys or investigation. The level of design necessary to undertake a Simple assessment 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 some of the topics.

d) Assessment Level - Detailed:
Detailed assessments are likely to require detailed field surveys and/or quantified modelling techniques. The Detailed assessment would be applied:

i. Where there exists the potential to cause significant effects on environmental resources and receptors.

The objective is to gain an in-depth appreciation of the beneficial and adverse 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 as appropriate on likely significant effects are important early in the project development process.

e) Assessment Level - Mitigation/Enhancement and Monitoring:
This level involves the iterative design, assessment and identification of measures that could be taken to avoid, reduce and offset adverse or enhance the positive environmental performance of the project. Consultations with Highways Agency will usually be necessary to confirm the appropriateness of extensive and/or atypical mitigation measures. The main design and assessment tasks are to:

i. Examine the performance of the measure through either predictive techniques or on the basis of experience gained elsewhere; and
ii. Assess whether the measure would give rise to any subsequent environmental consequences not thus far assessed.

Follow-up may monitor or evaluate the effectiveness of the measures to meet the requirements of legislation, guidance or to learn how to do things better in the future.

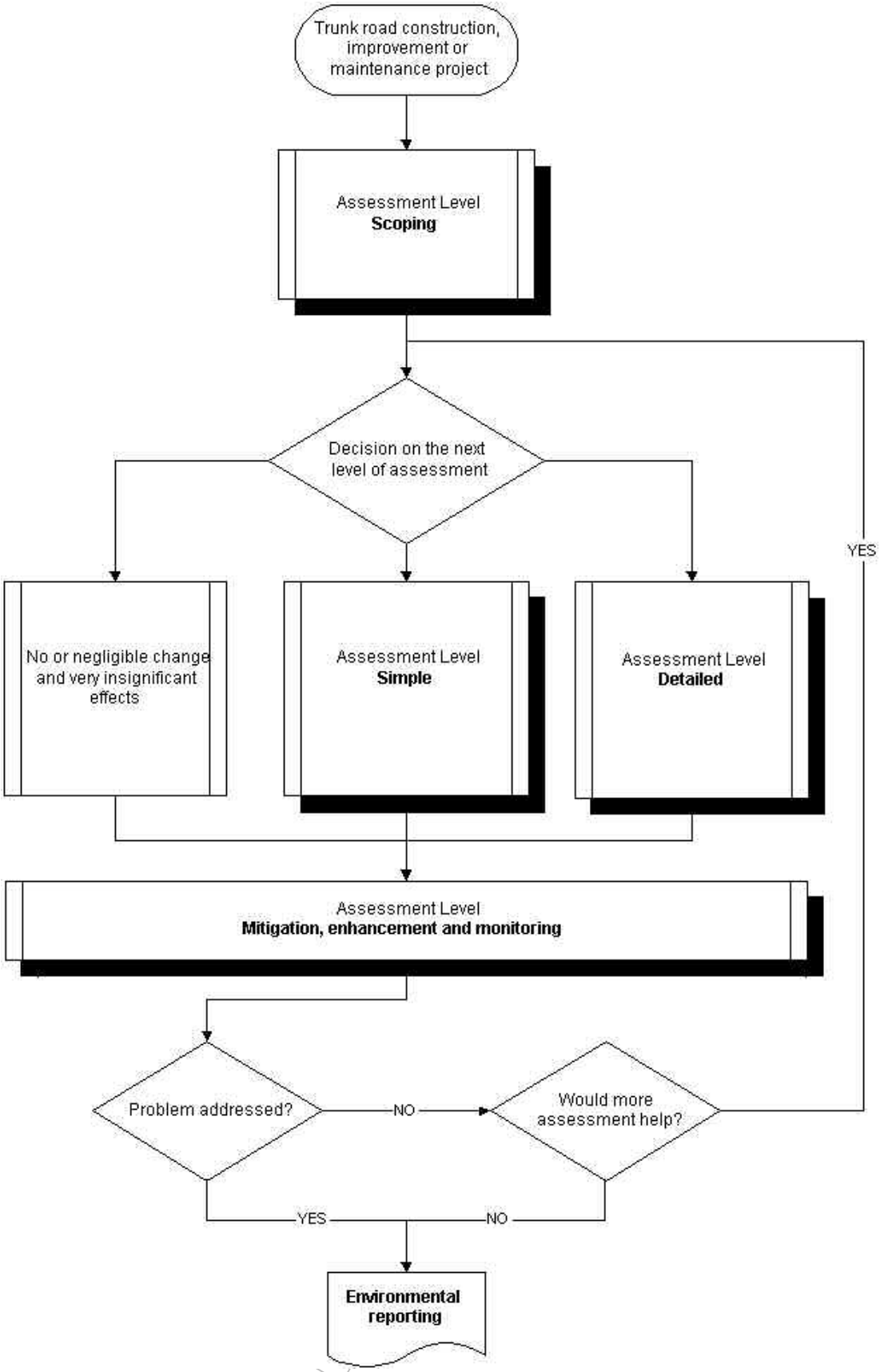

Figure 4.1 Relationship between environmental assessment levels

5. INTEGRATING WITH PROJECT APPROVALS AND DELIVERY

5.1 It will be the role of the Designer and the Highways Agency to ensure that the environmental issues are fully integrated in the project design, assessment and approval processes. This should be in a manner that reflects the environmental sensitivity of the project and the environmental risks associated with the project decision that the assessment is to inform.

5.2 It is emphasised that it is not necessary to undertake the assessment of all effects to a similar level of detail at every stage of project approval and delivery. Once it is established no significant effects are likely, the assessment of the effect should stop and the decision reported accordingly. The converse is also true, if greater assessment detail earlier in a projects design and development would better inform decision-making, this should be done.

5.3 The Designer should seek the agreement of the Highways Agency to the proposed levels of assessment to be applied at each stage of project approval. If certain topics need to be described in greater detail this would be achieved by varying the assessment levels to the particular requirements of the scheme. A robust explanation of the reasons why different topics are examined to different levels of detail would be required within the assessment reports.

5.4 In some cases it may be necessary to consider environmental effects not described in the guidance in detail, or to vary methods to suit the particular requirements of a project. In such cases the Designer should seek the agreement of the Highways Agency.

5.5 Designers should be aware that whilst parts of the environmental assessment may be carried out as discrete activities, it is for the Designer to co-ordinate the work of taking these activities forward in developing and refining possible route corridors/route options and any preferred option identified with the Highways Agency.

5.6 It should not be assumed that an assessment of a project, which has not been taken forward for a number of years, is still valid. Advice from the Highways Agency should be sought in such instances.

6. References

TD 37 Scheme Assessment Reporting (DMRB 5.1.2)

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