

Chapter 4 Defining the issues

Introduction

- 4.1 The EIA Regulations provide a framework for the content of an EIA. Owing to the wide range of projects that the EIA Regulations apply to, there is great variation in the content, style and dimensions of ESs.
- 4.2 This ES has been prepared having regard to guidance provided in *Guidelines for Environmental Impact Assessment*, Institute of Environmental Management and Assessment (IEMA), 2004 and *Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment: A Good Practice Guide* (Department of the Environment, 1995). This chapter explains the identification of the environmental issues considered, via the scoping process, and outlines the overall approach taken to the EIA. Specific methodologies for each of the specialist studies are given in the relevant chapters.

The scope of the EIA

Scoping methodology

- 4.3 Scoping is the identification of the range of issues likely to arise as a result of a proposed development. Scoping ensures that important topics are addressed in detail, whilst less relevant ones are considered accordingly. This is an important exercise, undertaken at an early stage of the EIA process, which allows effort to be concentrated on key areas and avoids unnecessarily complicated examination of minor issues.
- 4.4 Terence O'Rourke undertook a scoping exercise in July 2005. A scoping request was sent to Cherwell District Council and a range of consultees for comments. This document provided a summary description of the proposals, identified the potential environmental effects to be addressed within the EIA and outlined their likely level of significance.
- 4.5 The following factors have influenced the breadth of the scoping exercise and hence the EIA:
- the scale and nature of the project
 - the physical characteristics of the proposals
 - site characteristics
 - neighbouring land uses
 - planning policies and local environmental designations.
- 4.6 The scoping consultation document was forwarded to Cherwell District Council and the organisations listed in figure 4.1 for their comments. Responses were received from the majority of those consulted.

List of organisations consulted during the scoping exercise	
Cherwell District Council	Planning Control Manager, Planning Officer (Major Developments), Principal Planning Officer (Local Plans), Urban Designer, Landscape Services Manager, Head of Leisure Services, Conservation Officer, Environmental Protection Manager, Chief Engineer
Oxfordshire County Council	Strategic Planning, Highway Authority, County Ecologist, Education Authority, Rights of Way Officer, County Archaeologist, Cultural Services
Bicester Town Council	
Chesterton Parish Council	
Environment Agency	
English Nature	
Highways Agency	
English Heritage	
Countryside Agency	
Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust	
Royal Society for the Protection of Birds	
Oxfordshire Badger Group	
Oxfordshire Bat Group	
Farming Wildlife Advisory Committee	
Thames Water Utilities Ltd	
Banbury Ornithological Society	
Bicester Friends of the Earth	
Learning and Skills Council	
Network Rail	

Figure 4.1 List of organisations consulted during the scoping exercise

- 4.7 A copy of the scoping consultation document (including details of the scoping methodology) and the responses from the consultees can be found in the Scoping Consultation Exercise, Technical Appendix 1.

Preliminary ranking of issues

- 4.8 The scoping exercise enabled the key issues to be ranked according to their potential importance. The issues are ranked as being of primary or secondary importance. Prior to consultation, the preliminary ranking of issues was as follows:
- primary issues – cultural heritage, landscape and visual, hydrology and water quality, social and community effects and traffic and transport
 - secondary issues – air quality, natural heritage, ground conditions and contamination, land use, noise and vibration and waste.

- 4.9 This preliminary ranking was presented to the consultees during the scoping exercise.

Result of scoping exercise

- 4.10 The scoping exercise clarified the key issues to be examined during the EIA. These are summarised in figure 4.2.

Key issues identified during scoping	
Air quality	There is the potential for dust to be generated during construction and emissions to be released from traffic during construction and post-construction
Cultural heritage	The site lies in an area of significant Roman archaeology and there is the potential for the construction work to uncover finds from the Roman and Iron Age periods as well as Palaeolithic, Neolithic, Bronze Age, Saxon and Medieval periods, also the impact on the conservation area and the landscape character.
Ground conditions	Contamination may be uncovered at the site and this could be released to sensitive receptors during construction
Land use	There will be a change in the land uses at the site from greenfield, agricultural land to a built, urban development. Grade 3 agricultural land will be lost as a result of the proposals
Landscape and visual	The impact of the proposals on the conservation areas of Bicester and Chesterton is an issue for consideration. The site forms a distinct, open area of agricultural land dividing Bicester and Chesterton. The coalescence of these two settlements is a key issue as well as the potential change to local views as a result of the proposals and a change to landscape character
Natural heritage	There is the potential for disturbance to protected species and other features of nature conservation interest at the site during construction and after. Newts, native crayfish, water voles, kingfisher and bats are known to exist in the area and may be present on-site. The proposals also present opportunities for habitat creation and increased biodiversity
Noise and vibration	The development proposals may lead to the potential increase in traffic noise on the M40 which could cause disturbance to the Chesterton residents. Sensitive receptors may also be disturbed by noise from construction activities and traffic
Social and community	The proposals will significantly increase the population of Bicester and possibly lead to an increase in pressure on existing community and social resources. The proposals will provide a range of new facilities for the local population
Traffic and transport	Issues include an increase in traffic during construction and operation and the impact of the provision of a link road on the local road network and local junctions
Water environment	The impact of proposals on existing watercourses at or near to the site – Pingle Brook, Gagle Brook and the field drains is an issue for consideration. The proposals could also lead to a change to the flooding potential of the site

Figure 4.2 The key issues raised during the scoping exercise

Final ranking of issues

- 4.11 Following the scoping exercise, Cherwell District Council recommended that both ‘noise and vibration’ and ‘land use’ were raised from secondary issues to primary issues. The main reason for this change to ranking is the public perception of these issues.

4.12 Cherwell District Council has received many comments from the residents in Chesterton with regard to the noise from traffic travelling along the M40. The potential for the development to increase this noise is considered to be a key issue and therefore the council recommends that noise be raised to a primary issue.

4.13 Cherwell District Council also recommends that land use be raised to a primary issue due to the scale of the change arising from the development proposal. The change to land use from a greenfield site to built development is considered to be very significant from a public perception point of view. The council accepts that this assessment will only consider the change in land use and will refer to other chapters with regard to changes to local views, disturbance from construction work and the impact of traffic during construction and post-construction.

4.14 Figure 4.3 sets out the confirmed ranking of the issues.

Primary issues	Secondary issues
Cultural heritage	Air quality
Community and social effects	
Land use	Natural heritage
Landscape and visual	
Hydrology and water quality	Ground conditions and contamination
Noise and vibration	
Traffic and transport	Waste

Figure 4.3 Final ranking of the environmental issues

Assessment methodology

4.15 An ‘environmental effect’ is an alteration, positive or negative, to some aspect of the environment occurring as a result of a development.

4.16 It is essential that the EIA is comprehensive and focused. The methodology employed must be organised, rigorous, identify all potentially significant impacts, predict and measure the degree of impact, as well as identify mitigation and monitoring requirements. The method used should be as free from analytical bias as possible, consistent and adaptable.

4.17 It is important that the assessment methodology makes a distinction between the magnitude of effects and the sensitivity of receptors, as discussed below. It should ultimately result in an ES which enables the main issues and findings of the study to be communicated clearly to the determining planning authority, all consultees and the general public.

Guidance and best practice

4.18 The methodologies adopted for the assessment of specific issues are discussed in the following chapters of this document. Where appropriate, use has been made of published guidance and information on best practice. Detailed reference has been made to the EIA Regulations and related guidance in DETR Circular 02/99: *Environmental Impact Assessment* (March 1999).

Assessment of significance

- 4.19 The process of evaluating the significance of an environmental effect is an essential part of the EIA process. The level of significance determines the resources that should be deployed in avoiding or mitigating an adverse impact, or identifying the actual value of a positive effect. It is the combined significance of the mitigated effects that determines the overall environmental acceptability of the proposals.
- 4.20 However, determining the significance of an environmental effect can be one of the most controversial elements of the assessment process, as it involves the formulation of value judgements, based on personal and expert interpretations, as to whether the effect is environmentally significant. In many cases it can be very difficult to judge the significance of an effect.
- 4.21 The significance of an effect is determined by the interaction of two factors; first, the magnitude, scale or severity of the effect or change, and second, the value, importance or sensitivity of the environmental resource being affected. Hence:
- regardless of the importance or sensitivity of the receptor, there can be no significant effect where the magnitude of the change is negligibly small
 - there can be no significant effect where the importance or sensitivity of the receptor is negligibly small, regardless of the magnitude of that effect
 - a high level of significance will attach to large effects on receptors of high importance or sensitivity
 - low levels of significance will attach to small effects on receptors of high importance or sensitivity, and large effects on receptors of low importance or sensitivity.
- 4.22 In the methodology section of each environmental chapter is a statement about how the significance of effects has been determined. As far as possible, standard words have been used to define levels of significance (i.e. 'very substantial', 'substantial', 'moderate', 'slight' and 'none'), but not so rigorously as to stifle flexibility or particular individual requirements. These levels of significance have been derived from measures of:
- the importance or sensitivity of receptor ('high', 'medium', 'low' or 'negligible')
 - the magnitude or scale of the effect ('large', 'medium', 'small' or 'negligible').
- 4.23 The source and justification for the criteria are set out in each chapter as appropriate, clearly showing how the final assessment of the significance of an effect has been determined. Any assumptions made during the assessment process have been reported in the text. Figure 4.4 shows the matrix used to derive the appropriate level of significance for each identified effect.
- 4.24 The assessment of the significance of the potential effects also takes account of timescale, permanence and whether the effects are adverse or beneficial, as appropriate (e.g. 'a long term but reversible, substantial, adverse effect'). The results of the assessment of significance have helped to guide the mitigation measures proposed, where appropriate.
- 4.25 In some of the environmental chapters, there is a 'residual impacts' table, which summarises the assessment of the remaining environmental effects following mitigation. This includes a measure of the confidence for each predicted residual effect, described as 'absolute', 'reasonable' or 'limited'.

General format of the environmental chapters

4.26 The remaining chapters in this ES address each of the environmental issues identified during the scoping process. Each chapter is structured in general as follows:

- introduction
- legislation and policy
- methodology
- baseline
- potential effects
- mitigation measures
- residual effects.

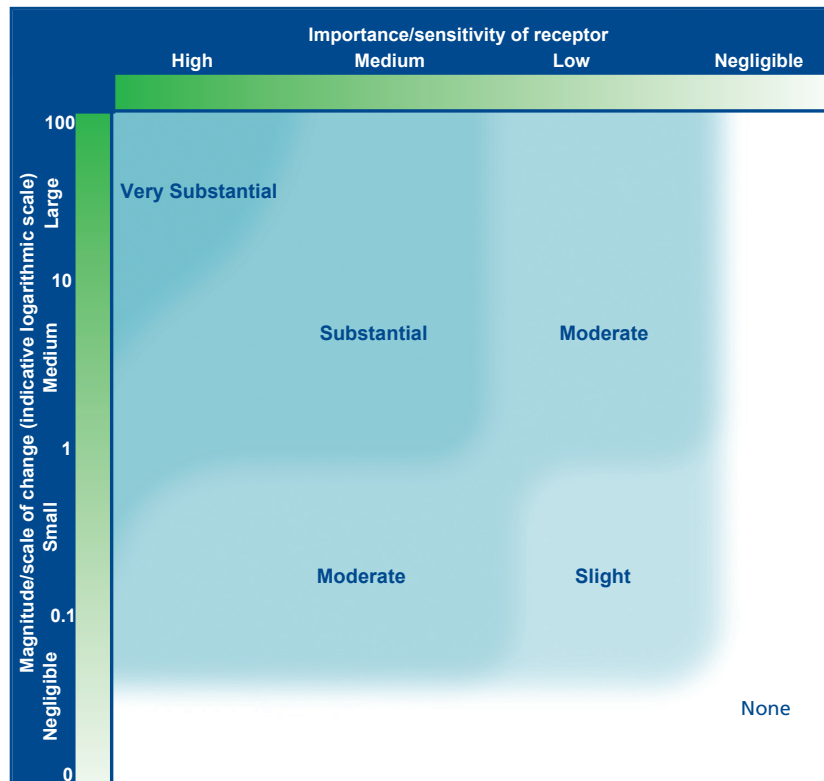


Figure 4.4 Significance matrix