Environmental Impact Assessment (EIA)

A handbook for scoping projects

Explanatory note

For projects that require Environmental Impact Assessment (EIA), a scoping exercise should be undertaken early in the planning stages of the project. This enables the project to be designed to avoid or minimise negative environmental impacts and provides an opportunity to incorporate positive environmental enhancements into the project. Early consultation with all interested parties, including the Environment Agency, is an essential part of scoping. Even if a project does not require an EIA under EIA legislation, it may be advisable (and in some cases necessary) to undertake a scoping exercise in any case (e.g. to support applications for other relevant consents and authorisations needed to carry out the project).

This *handbook* aims to promote a good-practice approach to scoping as part of the EIA process, so in some respects it goes beyond the statutory EIA requirements. When scoping a project, developers, or their consultants, should satisfy themselves that they have addressed all the potential impacts and the concerns of all organisations and individuals with an interest in the project.

This *handbook* should be read in conjunction with relevant *guidance notes* on individual development types.

This *handbook* is based on the main legal requirements on EIAs that stem from the EC Directive and the UK Regulations. However, developers should seek independent legal advice to ensure that the proposed development is carried out in compliance with the requirements of this and any other relevant legislation relating to planning and pollution control.

Contents

1 | Introduction

This *handbook* is targeted at developers, their consultants, local planning authority (LPA) staff, Environment Agency (the Agency) staff and others who are involved in promoting and appraising proposed projects that are likely to have a significant effect on the environment. It is part of a guidance package designed to help in the identification of key impacts of specific projects as part of the scoping process in Environmental Impact Assessment (EIA). It should be used in conjunction with the associated *guidance notes* that describe the impacts of many different types of individual development projects.

The *handbook* is designed to provide user-friendly guidance in a form that is accessible. It does not repeat advice readily available elsewhere (for example, on the internet), but refers to it instead. The overall aims of the *scoping guidance* are summarised in Box 1.

Box 1	Aims of scoping guidance

To explain the role and importance of scoping in EIA;

To guide scoping activities;

To provide guidance on key issues common to many project types;

To provide project-specific scoping guidance;

To assist the Agency in fulfiling its role as statutory consultee under the EIA Regulations;

To outline the intended uses and limitations of this material.

The *handbook* meets these aims by:

- discussing the importance and benefits of scoping and identifying tools that may be used in scoping;

- sourcing the key legislation that regulates EIAs in England and Wales (separate, but comparable, provisions exist in Scotland and Northern Ireland);

- discussing statutory EIA and non-statutory environmental assessments;

- reviewing the responsibilities of the Environment Agency in EIAs;

- putting scoping in the context of other stages of the EIA process;

- providing guidance on how to use the series of associated *guidance notes*;

- listing Environment Agency contacts;

- listing useful references and further reading.

This edition of the *handbook* marks an evolutionary stage in the scoping guidance produced by the Agency. It expands on earlier work started by the National Rivers Authority in 1991, which focused mainly on the water environment, and now includes air, land, waste and human environment issues. This ensures that the new guidance is in line with the Agency's full remit and covers a comprehensive range of issues associated with the scoping process. The Agency is continually looking to improve the guidance that it provides, so it is likely that this series will continue to develop in the future. The importance of scoping in EIAs has been emphasised by the inclusion of a provision for a "scoping opinion" to be made by the competent authority in the EIA Regulations, which implement the European Community Directive on EIA (for example, SI 1999 No. 293). Such a scoping opinion will state in writing the planning authority's opinion as to the information to be provided in the environmental statement (ES) in respect of a particular application for planning permission. A planning authority may not adopt a scoping opinion until they have consulted, among others, the Agency.

Not all impacts of a development proposal will be equally important. The EIA will be most effective and efficient when resources are focused on the issues perceived to be of greatest importance (taking into account the likelihood of significant effects on the environment). Identification of these key issues early in the EIA process is known as "scoping". Scoping is a crucial part of the EIA process and has previously been highlighted as an area of weakness in EIA practice (Sadler, 1996). This *handbook* and the accompanying *guidance notes* will help remedy this situation by promoting good practice through the full involvement of the Agency and other organisations early in the EIA process. The aim is to encourage good practice of EIA at the scheme or project level, and thereby facilitate development that has as many positive impacts on the environment as possible.

This guidance covers the range of issues that should be addressed in an EIA to meet the requirements of the various regulations. However, it is stressed that the final decision as to the scope of an assessment for a particular proposal will lie with the appropriate competent authority.

The *guidance notes* that accompany this *handbook* are not intended to be prescriptive, but to encourage a consistent approach to scoping for projects that may have significant effects on the environment. Offering guidance at the scoping stage is a more efficient approach, for the Agency, competent authorities, developers and consultants than waiting for final designs to be submitted.

The *guidance notes* are not intended to replace consultation with specialists from the competent authority, the Agency or other consultees; nor are they intended to cover all environmental issues for every type of development in any location. They are of a general advisory nature and should be used when considering project proposals; they are intended to encourage early, informed liaison.

2 | EIA – the wider context

Since publication of the *Brundtland Report* (WCED, 1987), sustainable development has progressively become a central policy objective for the UK Government. *A Better Quality of Life: A Strategy for Sustainable Development for the UK* (DETR, 1999a) sets out four objectives to achieve sustainable development:

- social progress that recognises the needs of everyone (social);

- effective protection of the environment (environmental);

- prudent use of natural resources (environmental);

- maintenance of high and stable levels of economic growth and employment (economic).

The principal aim of the Agency is to contribute to the achievement of sustainable development.

The Rio Summit in 1992 (UNCED, 1992) identified EIAs as a key tool for achieving sustainable development by ensuring that decision makers are provided with appropriate information on the likely environmental, social, economic and health effects of development proposals before development consent is given. This allows decision makers to weigh carefully the benefits and costs of developments, in both the short and the long term, in arriving at their decisions.

With the success of assessments for development projects over the past 30 years has come the realisation that if environmental concerns are to be fully embraced in decision making they must be taken into account at policy, plan and programme level, as well as the project level. This has encouraged the extension of EIA use to the appraisal of policies, plans and programmes, called Strategic Environmental Assessment (SEA). Many decisions have profound environmental implications and are made at these higher levels in

the planning process. Furthermore, many environmental issues are more effectively dealt with at these levels. In June 2001 the European Parliament and Council adopted a new Directive "on the assessment of the effects of certain plans and programmes on the environment" (European Parliament and the Council of the European Union, 2001), to be implemented in England and Wales by 21 July 2004. This will be an important development in the integration of environmental issues in decision making. However, it should be noted that this *handbook* is restricted to project-level EIA.

EIA is a process for the efficient and systematic identification, investigation and evaluation of potential impacts and, as such, should speed up the project authorisation process, and thus save developers time and money. Careful appraisal of the impacts of proposals through EIA should ensure that potential environmental problems are anticipated at an early stage in planning a development, so that corrective measures can be incorporated to minimise impacts or prevent them from occurring; furthermore, EIA allows the concerns of stakeholders to be discussed and addressed.

This section puts scoping in the wider context of EIA and explains how and when the Agency is involved. It briefly covers the EIA process, baseline data requirements and the need to adopt standard methodologies for surveys. Finally, this section considers those cases in which a developer is likely to require permits under other environmental legislation, as well as a need to carry out an EIA.

What is EIA?

2.1   Environmental impact assessment is a process carried out to ensure that the likely significant environmental effects of certain projects are identified and assessed before a decision is taken on whether a proposal should be allowed to proceed. This means that the most environmentally favourable option, or at least the environmentally acceptable option, can be identified at an early stage and projects can then be designed to avoid or to minimise environmental effects.

The principles of EIA need to be applied to all activities within the scope
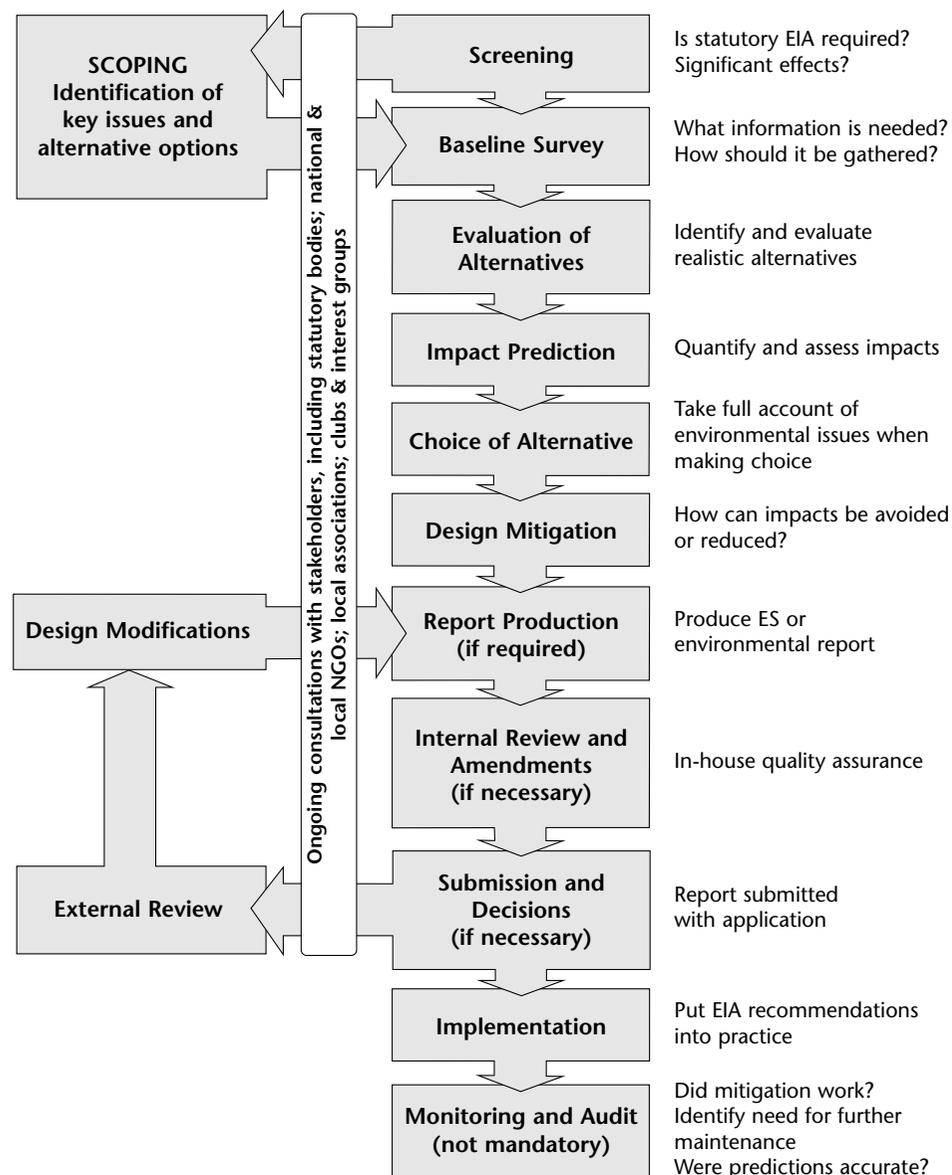
of the Agency's statutory responsibilities and it is Environment Agency policy that EIA should be integral to its work. A good-practice approach has been adopted for the Agency's own works and activities, such as flood defence, navigation, water resources and environmental enhancement projects. The Agency encourages both public and private developers to do the same.

The key steps in the EIA process are given in Figure 1. The process is iterative, which means that many of the stages may need to be revisited in light of new information discovered at a later stage. Consultation, in particular, should be an ongoing activity throughout the process. However, it is important to remember that different consultees will require different information and involvement from the project; care should be taken to understand at what stage stakeholders want to be involved.

It can be seen from Figure 1 that scoping is initiated at an early stage in the formal EIA process. Indeed, in some instances, developers may start informal consultation as part of their project development planning. This informal activity can be of immense value to the developer in identifying opportunities and constraints at an early stage. This is discussed in detail in Section 3.

Under the provisions of the *Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment* (Council of the European Communities, 1985) and *Directive 97/11/EC amending Directive 85/337/EEC* (Council of the European Union, 1997), an EIA is mandatory for certain types of project, listed in Annex I of the Directive, and is only required for certain other types of projects, listed in Annex II, if they are judged likely to have a significant effect on the environment. Annex I and Annex II of the Directive are transposed by Schedule 1 and Schedule 2 of the Town & Country Planning (Environmental Impact Assessment) Regulations 1999, SI 1999 No. 293 (and other regulations listed in Appendix A for projects that fall outside the remit of planning) in force in England and Wales. Specific selection

Figure 1 Key steps in the Environmental Impact Assessment process

Process Step	Key Questions
SCOPING Identification of key issues and alternative options	
Screening	Is statutory EIA required? Significant effects?
Baseline Survey	What information is needed? How should it be gathered?
Evaluation of Alternatives	Identify and evaluate realistic alternatives
Impact Prediction	Quantify and assess impacts
Choice of Alternative	Take full account of environmental issues when making choice
Design Mitigation	How can impacts be avoided or reduced?
Report Production (if required)	Produce ES or environmental report
Internal Review and Amendments (if necessary)	In-house quality assurance
Submission and Decisions (if necessary)	Report submitted with application
Implementation	Put EIA recommendations into practice
Monitoring and Audit (not mandatory)	Did mitigation work? Identify need for further maintenance Were predictions accurate?

Side boxes: **Design Modifications**, **External Review**

Vertical band: Ongoing consultations with stakeholders, including statutory bodies; national & local NGOs; local associations; clubs & interest groups

criteria for screening Schedule 2 developments are set out in Schedule 3 of the EIA Regulations. However, the benefits of appraising the environmental consequences of development projects in terms of reduced impact and financial savings are such that environmental assessments are also undertaken on a non-statutory basis for a range of other proposals. As the stages involved in statutory and non-statutory appraisal are similar, the term EIA is used for both throughout this *handbook*. Following good practice, scoping should be a component of non-statutory assessments as well as being necessary to meet legal requirements under the EIA Regulations.

In England and Wales, various EIA Regulations provide selection criteria for determining which developments require an EIA, detail the information to be included in ESs and indicate the statutory consultees to be consulted to identify key issues during the scoping process (see Appendix A for a list). However, the additional consultees that should be contacted to enhance the scoping process are not set out in the regulations and have to be identified on a case-by-case basis (see Table 1).

Statutory and non-statutory consultees

2.2   Statutory consultees for (planning) projects subject to EIA are stipulated in the Town and Country Planning (General Development Procedure) Order 1995 (SI 1995 No. 419). A full list of statutory consultees can be accessed from Appendix 6 of the former Department of the Environment, Transport and the Regions guidance on the EIA Regulations (DETR, 2000). A list of potential stakeholders including statutory and non statutory consultees is set out in Table 1. Consultation and stakeholder participation is discussed further in section 3.3.

Standard methodologies for data collection

2.3   Consultees may also give guidance on standard methods for data collection during an EIA. The adoption of standard methods facilitates the review of an ES. Furthermore, it ensures that data are compatible

with both current and future records. The Agency, for example, employs standard methodologies to assess the status of various aspects of the environment and seeks to encourage others to adopt these where practicable. Use of standard methodologies should enable impacts to be quantified and impact predictions to be reviewed in a systematic way. The relevant Agency Area Office should be contacted to determine the most appropriate methods for a particular situation (contact details are included in Appendix B).

In addition to Agency guidance, a number of documents are available that provide explanations of the appropriate methodologies to investigate particular environmental issues. Some examples of these are given in Appendix D.

Table 1 provides an overview of the broad categories of environmental information available and the key organisations that hold such information.

Mitigation

2.4   One of the key requirements of an EIA is that potential impacts, where identified, are avoided or reduced if at all possible. The former DETR published a study (DETR, 1997) on this topic, a useful reference that highlights the following practical hierarchy for mitigation:

- *avoid impacts at source* – the preferred approach to avoid the feature that would lead to an impact at the design stage.

- *reduce impacts at source* – where impacts cannot be avoided, design changes should be made that reduce (minimise) the impact.

- *abate impacts at source* – for impacts that cannot be avoided or reduced at the design stage, and for those that have been reduced, impacts can be abated at source; for example, a noise barrier could be placed around a site boundary to abate noise impacts off site.

- *abate impacts at receptor* – for impacts remaining after the first three types of mitigation have been tried, abatement at the receptor should be considered; for example, fitting double-glazing to individual dwellings affected by noise from a development site.

- *repair impacts* – if impacts remain, ways should be considered of repairing any damage that has occurred.

- *compensate in kind* – where repair is not possible, then compensation for whatever has been lost should be considered to provide a similar resource to that lost.

- *compensate by other means and enhance* – where compensation in kind is not possible, then compensation by providing something different to that lost should be considered; for example, providing a new facility that is unrelated to the proposed development but that benefits a community. Cash payments might even be considered.

Table 1 Potential stakeholders and sources of environmental information

Issues	Potential stakeholders and sources of environmental information (inc. statutory consultees and other organisations)
WATER	• Environment Agency {http://www.environment-agency.gov.uk/} • Water companies • British Geological Survey {http://www.bgs.ac.uk/} • British Waterways {http://www.british-waterways.org/}

Table 1 Potential stakeholders and sources of environmental information *continued*

Issues	Potential stakeholders and sources of environmental information (inc. statutory consultees and other organisations)
AIR	• Local authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Meteorological Office {http://www.meto.gov.uk/home.html} • Environment Agency {http://www.environment-agency.gov.uk/} • Academic institutions {http://www.scit.wlv.ac.uk/ukinfo/uk.map.html} • UK National Air Quality Information Archive {http://www.aeat.co.uk/netcen/airqual/} • Welsh Air Quality Forum {http://whoweb.uwic.ac.uk/airquality/}
LAND USE AND DESIGNATIONS	• Local authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Environment Agency {http://www.environment-agency.gov.uk/} • Department for Environment, Food and Rural Affairs (DEFRA) {http://www.defra.gov.uk/) • National Assembly for Wales Agriculture Department {http://www.wales.gov.uk/subiagriculture/index.htm} • The Countryside Agency {http://www.countryside.gov.uk/} • Countryside Council for Wales {http://www.ccw.gov.uk/} • English Nature {http://www.english-nature.org.uk/} • Royal Society for Nature Conservation/Local Wildlife Trusts {http://www.rsnc.org/} • Electricity companies • Gas companies • Water companies • Telecommunications companies • Forestry Commission {http://www.forestry.gov.uk/} • Farming and Wildlife Advisory Group {http://www.fwag.org.uk/} • National Farmers' Union {http://www.nfu.org.uk/} • Farmers' Union of Wales {http://www.fuw.org.uk/} • County minerals officers {http://www.tagish.co.uk/tagish/links/localgov.htm} • British Geological Survey {http://www.bgs.ac.uk/} • Soil Survey and Land Research Centre {http://www.cranfield.ac.uk/sslrc/} • Royal Agricultural Society of England {http://www.rase.org.uk}
FAUNA AND FLORA	• Environment Agency {http://www.environment-agency.gov.uk/} • English Nature {http://www.english-nature.org.uk/} • Countryside Council for Wales {http://www.ccw.gov.uk/} • Royal Society for Nature Conservation/local wildlife trusts {http://www.rsnc.org/} • Royal Society for the Protection of Birds {http://www.rspb.com/}

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LAND USE AND DESIGNATIONS	• Local authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Environment Agency {http://www.environment-agency.gov.uk/} • Department for Environment, Food and Rural Affairs (DEFRA) {http://www.defra.gov.uk/) • National Assembly for Wales Agriculture Department {http://www.wales.gov.uk/subiagriculture/index.htm} • The Countryside Agency {http://www.countryside.gov.uk/} • Countryside Council for Wales {http://www.ccw.gov.uk/} • English Nature {http://www.english-nature.org.uk/} • Royal Society for Nature Conservation/Local Wildlife Trusts {http://www.rsnc.org/} • Electricity companies • Gas companies • Water companies • Telecommunications companies • Forestry Commission {http://www.forestry.gov.uk/} • Farming and Wildlife Advisory Group {http://www.fwag.org.uk/} • National Farmers' Union {http://www.nfu.org.uk/} • Farmers' Union of Wales {http://www.fuw.org.uk/} • County minerals officers {http://www.tagish.co.uk/tagish/links/localgov.htm} • British Geological Survey {http://www.bgs.ac.uk/} • Soil Survey and Land Research Centre {http://www.cranfield.ac.uk/sslrc/} • Royal Agricultural Society of England {http://www.rase.org.uk}
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Issues	Potential stakeholders and sources of environmental information (inc. statutory consultees and other organisations)
FAUNA AND FLORA *continued*	• British Trust for Ornithology {http://www.bto.org/} • Botanical Society of the British Isles {http://www.rbge.org.uk/data/BSBI/} • British Ecological Society {http://www.demon.co.uk/bes/} • The Mammal Society {http://www.abdn.ac.uk/mammal/} • Centre for Ecology and Hydrology {http://www.ceh.ac.uk/} • Local authorities {http://www.tagish.co.uk/tagish/links/localgov.htm} • Local voluntary groups, such as bird watching groups, bat clubs, etc. • Council for the Protection of Rural England {http://www.cpre.org.uk/} • Council for the Protection of Rural Wales {http://www.cprw.org.uk/} • British Waterways {http://www.british-waterways.org/}
SOCIO-ECONOMIC AND HEALTH	• Local Agenda 21 officer or environmental co-ordinator based in local authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Local Health Authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Other local authority departments and sections, such as housing and environmental health {http://www.tagish.co.uk/tagish/links/localgov.htm} • Chambers of Commerce • Health and Safety Executive {http://www.hse.gov.uk/} • Police {http://www.police.uk/}
AMENITY AND VISUAL IMPACT	• Local authority {http://www.tagish.co.uk/tagish/links/localgov.htm} • Local authority highways department {http://www.tagish.co.uk/tagish/links/localgov.htm} • Highways Agency {http://www.highways.gov.uk/} • Parish councils {http://www.tagish.co.uk/tagish/links/localgov.htm} • The Countryside Agency {http://www.countryside.gov.uk/} • Countryside Council for Wales {http://www.ccw.gov.uk/} • Local authority leisure services department {http://www.tagish.co.uk/tagish/links/localgov.htm} • National Cycling Strategy {http://www.nationalcyclingstrategy.org.uk/} • National Parks Authorities • Ramblers' Association {http://www.ramblers.org.uk/} • National Trust {http://www.nationaltrust.org.uk/} • Local amenity and environmental groups • Sports Council for Wales {http://www.sports-council-wales.co.uk/} • Sport England {http://www.sportengland.org/}

Table 1 Potential stakeholders and sources of environmental information *continued*

Issues	Potential stakeholders and sources of environmental information (inc. statutory consultees and other organisations)
NUISANCE	• Local authority environmental health department {http://www.tagish.co.uk/tagish/links/localgov.htm} • Environment Agency {http://www.environment-agency.gov.uk/} • Institute of Sound and Vibration Research {http://www.isvr.soton.ac.uk/} • Health and Safety Executive {http://www.hse.gov.uk/} • Police {http://www.police.uk/}
ARCHITECTURAL AND ARCHAEOLOGICAL HERITAGE	• County Council Archaeologist • County Sites and Monuments Record (England) • Regional Archaeological Trusts (Wales) • Council for British Archaeology {http://www.britarch.ac.uk} • Academic Institutions {http://www.scit.wlv.ac.uk/ukinfo/uk.map.html} • National Trust {http://www.nationaltrust.org.uk/} • Cadw (in Wales) {http://www.castlewales.com/cadw.html} • English Heritage {http://www.english-heritage.org.uk/} • Association of Industrial Archaeology {http://www.industrial-archaeology.org.uk/}
OTHER	• Local residents • Civil Aviation Authority {http://www.caa.co.uk/} • Ministry of Defence {http://www.mod.uk/} • Department of Transport, Local Government and the Regions {http://www.dtlr.gov.uk/} • Institute of Environmental Management and Assessment {http://www.iema.net/} • Friends of the Earth {http://www.foe.co.uk/}

Note: Potential stakeholders and sources of information are grouped alongside the issues that are of chief concern to them
– they may also have valuable information and views on other issues.

Monitoring

2.5   Monitoring a development after a decision has been made to allow it to proceed is not a requirement of the EIA Directive or EIA Regulations, but is to be a requirement for certain plans and programmes under the forthcoming SEA regulations and can be a requirement under many of the authorisations and licences issued under separate pollution control legislation. However, EIA is an iterative process and an appropriate, targeted impact-monitoring programme is considered good practice even if not statutorily required by authorising authorities, such as the LPA or the Agency. Monitoring can identify whether impacts that occur in practice are those that were anticipated and whether mitigation measures were successful during all phases of development, i.e. construction, operation, and, if appropriate, decommissioning. It can

also be used to ensure that all relevant environmental impacts continue to be considered and managed if necessary. The results from monitoring can be used to formulate operational-phase environmental action plans. They can also be used by developers to allay public fears when it comes to promoting a similar project elsewhere (or an extension to the existing project), and may become part of a company's environmental management system. However, as projects evolve the range of issues may change, so it is necessary that developers remain alert to any emerging issues.

Where can further advice be obtained?

2.6   The former DETR produced a guide book on the EIA procedures in England and Wales. Rather than repeat that advice in this *handbook*, readers are referred to this guidance (DETR, 2000), which is available online at http://www.planning.dtlr.gov.uk/eia/guide/index.htm. This is the second edition of the guide book (often referred to as "the blue book"), which was updated to take into account the new regulations implemented to meet the obligations of the amended EIA Directive (Council of the European Union, 1997).

Of particular note is that appendices to the DETR guide book list the regulations currently in place in the UK to meet the obligations of the EIA Directive, and provide html links (current at the time of publication) to the full text of each piece of legislation.

Of specific relevance to this *handbook* is that the DETR guide book contains illustrations of the scoping procedure to be adopted when seeking a scoping opinion from a local authority or from the Secretary of State; the illustrations are available from http://www.planning.dtlr.gov.uk/eia/guide/pdf/chart3.pdf and http://www.planning.dtlr.gov.uk/eia/guide/pdf/chart4.pdf respectively.

Co-ordinated permitting (parallel tracking)

2.7   Many developments require planning permission, an EIA and Agency permits. This often requires complex liaison between the Agency and the LPA and can produce significant delays in decision making and cause public confusion.

National representatives of developers, the Agency and the LPAs are, at the time of writing, developing a concordat on co-ordinated permitting to provide agreed good-practice principles for effective and efficient joint working over proposals that require both an Integrated Pollution Prevention and Control (IPPC) permit from the Agency and planning permission. Further, more detailed guidelines may be produced in the light of experience, including a comparison of information requirements for EIA for planning and IPPC. If successful, the concordat approach may be extended to other permits issued by the Agency and local authorities. (See the Agency and Local Government Association national websites for up-to-date information.)

The IPPC and planning systems are separate legislative regimes, and co-ordination must respect the law and the distinct statutory requirements of the two systems. However, in their practical operation the systems are strongly linked in some fundamental ways:

- the LPA's views as to the environmental acceptability of a development proposal will be strongly influenced by the Agency, whom it will consult;

- the Agency will similarly consult the local authority over an IPPC application;

- some major environmental issues are common to both permits, resulting in the need for common and consistent information, data and assessment;

- public consultation represents an area of overlap, with consultees potentially being invited to contribute their views separately on land-use planning permits and Agency permits. Local communities are more likely to accept proposals of low environmental risk when information is presented in a clear, authoritative and co-ordinated manner.

There is major benefit in:

- early, joint discussion between the developer, LPA and Agency (the Pre-application meeting);

- an agreed timetable for preparation, submission and determination of the permits;

- co-ordination of public consultation and community involvement where cost effective;

- co-ordinated environmental assessment and permit decisions where cost effective.

It is good practice for the developer, LPA and Agency to agree a timetable that:

- is clear to all parties;

- streamlines the permit process, and minimises duplication of information and resources by accommodating the key stages in an optimal sequence;

- synchronises aspects that need co-ordination, taking into account the roles of statutory consultees and the public as well as the developer and principal regulators, the scale of environmental risk and the cost of co-ordination;

- ensures the needs of all participants are realistically accommodated;

- enables the LPA to obtain a clear and effective opinion from the Agency prior to the planning decision.

3 Scoping

Scoping is a critical stage early in the EIA process. It provides an opportunity for developers and their consultants to identify and assess the key environmental impacts and issues of concern, facilitated by thorough consultation with, among others, planners, statutory and non-statutory consultees, non-governmental organisations (NGOs) and the public. This ensures that the LPA and other competent authorities make their decisions to allow projects to proceed only once all the relevant environmental information has been assessed. It is important that the EIA is undertaken by people with appropriate skills – usually environmental consultants carry out this work on behalf of developers. To facilitate more focused responses, the EIA should form the basis for the summary of the development proposal put to the competent authorities and to consultees.

Scoping is an activity designed to identify the key concerns associated with a project. It should be carried out at a stage when alternatives are still being considered and mitigation measures can be incorporated into project designs. In addition, scoping provides an opportunity to highlight the benefits of projects, while opportunities for environmental enhancement measures may also be identified. Thus, the initial scoping should be carried out as part of the site-selection process for a particular project. Indeed, this may be part of a broader process that involves SEA to appraise alternatives. At this stage, the objective should be to ensure that no realistic alternative has been overlooked and that the chosen site and project option is environmentally defensible. Most commonly, however, scoping is used to identify key issues to be considered in detail during the EIA for a particular project. This latter aspect of scoping is the focus of the *handbook* and *guidance notes*. The benefits of scoping are detailed in Box 2.

Box 2	Why carry out scoping?

Identifies key issues to be addressed;

Helps to identify additional project options;

Helps to identify the best project option;

Is a legal requirement;

Saves time and money;

Identifies mitigation measures;

Identifies enhancement opportunities;

May assist the screening process;

Minimises requests for further information at a late stage in the EIA process;

Identifies likely significant effects.

The 1997 revisions to the EIA Directive introduced a number of changes to the original Directive, including a requirement for the competent authority to give a scoping opinion on the information to be supplied by the developer, when requested to do so. As a consequence, various UK regulations that implemented Directive 85/337/EC have also been amended. Thus, for projects that require planning permission, the EIA regulations provide an opportunity for the developer to request a "scoping opinion" from the competent authority. The Regulations require the competent authority to consult with the developer and the statutory consultees to identify the issues that should be addressed in an EIA. The competent authority has five weeks to produce the scoping opinion. Where this is not forthcoming within the five week period, the developer may request a "scoping direction" from the Secretary of State or the National Assembly for Wales (NAW).

Of note is a recent proposal for another amendment to the EIA Directive (Commission of the European Communities, 2001), which specifically addresses the text of the Århus Convention (UNECE, 1998). If adopted, a proposed amendment to Article 6 of the Directive will require Member States to take necessary measures to provide for early and effective public participation in the EIA process. It is possible that this will require that the public be involved at the scoping stage.

The EIA Regulations require that every ES must include, as a minimum, the information referred to in Part II of Schedule 4, and as much 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 and methods of assessment, reasonably be required to compile. These details are outlined in Box 3.

To meet the requirements of the regulations, only the developer, the competent authority and the statutory consultees need to be involved in the "scoping opinion" given by the competent authority. However, to be most effective, scoping should address the concerns of all of those likely to be affected by the proposals, including non-statutory consultees, NGOs and the public. Thus, good practice requires that the opinion of stakeholders should also be sought at this stage. Stakeholders should be asked to identify their concerns, sources of and gaps in information, and additional options or sites that may not have been considered.

Following site selection, scoping should progressively consider a decreasing range of issues, but in increasing detail. It should ensure that a balance is struck between incorporating all the significant effects and eliminating the insignificant impacts from further study. An effective scoping exercise should ensure that detailed surveys and assessments focus on the key environmental issues and that disproportionate resources are not allocated to minor issues. Scoping should be an ongoing activity undertaken throughout the course of the project.

Box 3	Details to be included in an environmental statement

Part II of Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 1999 (SI 1999 No. 293) states that the following details must be included in an environmental statement:

1   *A description of the development comprising information on the site, design and size of the development.*

2   *A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.*

3   *The data required to identify and assess the main effects which the development is likely to have on the environment.*

4   *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.*

5   *A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.*

Part I of Schedule 4 of the Regulations includes the following information requirements:

1   *Description of the development, including in particular:*

(a) *a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;*

(b) *a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;*

(c) *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 the proposed development.*

2   *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.*

3   *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 interrelationship between the above factors.*

4   *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:*

(a) *the existence of the development;*

(b) *the use of natural resources;*

(c) *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.*

5   *A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.*

6   *A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.*

7   *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.*

Benefits of scoping

3.1 A developer may decide not to request a scoping opinion from the competent authority and decide, instead, to consult directly with all the interested parties to identify concerns and measures in order to rectify them at a stage when the changes can most readily be incorporated into project design. Irrespective of whether scoping is carried out informally or formally through a scoping opinion, adopting such a proactive approach should enable projects to run more smoothly and, by demonstrating that concerns have already been identified and addressed, limit objections at a later stage. In any case, all the information required in Schedule 4 of the EIA regulations (Box 3) must be included in the ES.

Scoping report

3.2 A scoping report should focus on the issues identified in Box 4. Its structure will normally be the same as that of an ES, but its contents will be less detailed and will provide information on the proposed coverage of the EIA, including any uncertainties that have been identified.

In addition, a scoping report can also be used in the subsequent review of an ES to check that the issues considered significant at the outset of the EIA process have, indeed, been addressed. It is good practice for an ES to include a section that sets out where each issue identified in the scoping opinion is dealt with in the ES – this may be summarised in a table.

Consultation and stakeholder participation

3.3 An essential part of scoping is consultation between the project manager and team, relevant experts, statutory consultees (not only the Environment Agency), and other stakeholders to identify concerns and potential opportunities for partnership approaches and for enhancement. At the outset it will therefore be necessary to identify those stakeholders who have an interest in the proposals under consideration and who will therefore be consulted in addition to the statutory consultees.

Box 4	Issues to be covered by a scoping report

Brief description of the project including any timescales (e.g. for construction), ancillary features (such as pipelines or highway improvements), plans/maps/photos to aid description of the site and the proposal;

Feasible alternatives and others that have been discounted;

Strategic background, for example, development plans and other related projects;

List of stakeholders and how they might be involved in the EIA process;

Methodologies to be adopted for the assessment of each issue;

The extent of the study area considered for each issue;

The time horizon for which predictions are made;

Key environmental constraints and opportunities;

Likely key impacts, both positive and negative;

Gaps in information;

Proposed further surveys;

Preliminary mitigation and enhancement measures;

Proposed EIA programme, including timescales and milestones (e.g. consultation exercises and production of the ES).

The assessment team will need to resolve:

- who would potentially be affected;

- who perceives themselves to be affected;

- who would promote the project;

- who would be opposed to the project;

- who has been involved previously;

- who has been excluded previously;

- who is influential in the community.

Depending upon the responses, a wide range of organisations and individuals, including statutory and non-statutory bodies, may be identified as stakeholders (see Table 1). Meeting with key stakeholders early in the scoping process is a useful way to identify key issues, opportunities and constraints, as well as information that is both available and needed. It should also help to identify other stakeholders that should be contacted.

The early involvement of stakeholders in the EIA has benefits for the developer in terms of good public relations and obtaining information about the local area. Moreover, by addressing concerns at the outset there is less likelihood of the project being delayed, for example, at the decision stage because important information has been overlooked. By seeking to accommodate the concerns of stakeholders, the developer is more likely to gain the confidence of local people, rather than risking the suspicion and mistrust that may be generated by new developments. Furthermore, being a "good neighbour" should increase the degree of support among local people throughout the planning process. Partnerships between the developer and local stakeholders could have further benefits. Stakeholders, including local people, should be aware that agreements made with the local authority and the developer can be

used to great effect to improve the local area, often for modest investment. Collectively, they may be able to identify additional sources of funding for environmental improvements in the area to augment resources available from the developer.

The level of consultation should be proportional to the potential significance of the project's impacts. This will be related to the nature, scale, location and perceived importance of the project. Those undertaking consultation should identify stakeholders and the most effective means of eliciting responses from them, draw up a communication plan and gauge public concerns. Appendix C contains advice on methods that can be used for public consultation, and Appendix D refers to useful advice (see in particular: Environment Agency, 1998g; Institute of Environmental Assessment, 1999).

Types of impact to consider

3.4   To comply with regulatory requirements, a range of environmental issues must be addressed. It is standard procedure in EIA to make assessments of these issues on the basis of what can be considered normal operating conditions. However, it may also be necessary to consider abnormal operating conditions and unplanned events, as these have the potential to cause greater environmental impacts. The management of such situations may warrant changes in the design of ancillary features, which may, in turn, require their impacts to be assessed during EIA.

In addition to direct, primary impacts associated with a development, it is a statutory requirement to consider secondary, indirect and cumulative impacts that may arise as a result of a development and its proximity to other land uses.

Risk assessment

3.5 When considering the aspects of the environment likely to be significantly affected by a development, it is recommended that a risk-assessment approach be adopted. For example, for an impact to occur, all three of the following criteria must be present:

- **source,** i.e. location of a material or activity that may be harmful;

- **pathway,** i.e. the route by which a harmful action or material is able to reach the receptor;

- **receptor,** i.e. humans, property, ecology, habitat, landscape, atmosphere, water, etc.

Once the above criteria have been identified they should be examined to assess the significance of the impact(s). This will depend upon a combination of the probability of an impact occurring and its likely consequences. Thus, even a low-to-medium probability event may be a priority for consideration in an EIA if its consequences could be particularly serious. It is not the purpose of this guidance to provide a risk-assessment methodology, but determining the priorities in a scoping exercise will depend upon a consideration of exposure, potency of harmful substance, number of receptors and their vulnerability and sensitivity. This aspect of risk assessment is based on technical considerations, but it is also important to consider stakeholder perceptions of risks.

"Perceived" risk is the risk posed to individuals or communities as they themselves interpret it. Perceived risk is a complex phenomenon and is not directly dependent on the "real" risk posed by an event. Thus, particular stakeholders may have great concern about some aspects of a proposal for which the real risk is low. These issues should not be discounted and must be explicitly addressed in an EIA about the development. The mere provision of data on real risk may not resolve an issue that stakeholders perceive to be a concern.

These judgements should be justified wherever possible. Those involved in design and development are strongly advised to refer to other sources of information on risk and to adopt an appropriate, recognised approach through consultation with the Agency, the LPA or experts in both facets of risk assessment. Of particular relevance are the Agency's leaflet introducing environmental risk (Environment Agency, 2000m) and the Government's *Guidelines for Environmental Risk Assessment and Management* (DETR *et al.*, 2000); and reference should be made to these and other publications listed in Appendix D.

Assessing significance

3.6 Once possible impacts have been identified, care should be taken to decide which of these might be significant enough to warrant further study during the EIA. It is important to re-emphasise at this point that impacts can be both positive and negative. In some cases, determining significance will be a relatively simple process, as statutory consultees will indicate which of the issues are likely to be significant based upon their expert opinion. For other issues, however, developers and their consultants will have to use their own judgement and expertise, in the light of past experience and the information received during the scoping exercise, as to whether impacts are likely to be important. It is important that significant issues are not missed and appropriate consideration be given to minor issues, as either might delay consideration of a planning application. It is also important to remain as objective as possible in assessing significance, by, for example, making reference to statutory limits and/or designations and/or by reference to empirical data if possible.

The relevance of specific environmental issues to an individual development will depend on a number of interrelated factors. For example, water-quality impacts also affect aquatic ecology. Such interrelations should be borne in mind when identifying impacts and when assessing their likely significance. In simple terms, "significance" can be thought of as an amalgamation of "magnitude" of an impact (e.g. how large an area will be affected or how many trees will be cut down) and

"importance" (e.g. the land use of the area – nature reserve or rough grazing – or the visual prominence of the trees). In turn, a number of factors influence the extent or severity of an impact and whether it is deemed important. These are listed in Box 5. Note that the example involves the potential release of a pollutant and its effect on trees, though similar criteria could also apply to other types of impact such as noise, vibration or habitat removal.

Box 5	Factors that affect impact significance for the potential release of a pollutant and its effect on trees

Pathway to receptor – will the pollutant be transmitted to the trees and taken up?

Sensitivity of receptors – how harmful may the material be to the trees?

Nature of the impact – to what extent will the trees be affected?

Magnitude of impact – how many trees will be affected?

Duration of impact – how long will the effect last?

Rarity of the receptors – are there others, e.g. locally or nationally?

Perceived value of receptor – what value is put on the trees by local people, statutory bodies or other interested parties?

Secondary impacts – e.g. will the landscape/amenity value of the site be affected if the trees are damaged?

Indirect impacts – e.g. will any damage to landscape/amenity value affect tourism?

Frequency of impact – e.g. how often will the impact occur and over what timescale?

Cumulative impacts – e.g. will the pollutant's effects be additive with other pollutants in the environment?

Effectiveness of mitigation – what are the residual impacts?

Uncertainty in impact receptor responses – are there major unknowns?

Other criteria may be used to assess the significance of impacts, for example, the possibility of national or international standards or targets being exceeded. Whatever criteria are used, it is important to state clearly how the test of "significance" has been applied to ensure that the EIA process remains as transparent as possible. In particular, where any uncertainty exists over the probability of an event occurring or over its consequences, this should be acknowledged and, where possible, addressed in the EIA.

The Quality of Life Capital approach

3.7   Quality of Life Capital (previously Environmental Capital) is a tool that has been developed jointly by the Countryside Agency, the Environment Agency, English Nature and English Heritage. The approach is helpful in determining the features and characteristics of the environment (as well as social and economic considerations) that are important, resolving problems and identifying opportunities. In pilot studies the approach has been found to dovetail well with EIA scoping studies.

It is suggested that the use of this tool should be considered by those proposing to undertake scoping studies for large or complex schemes, particularly where stakeholder participation is an important issue. Details of the approach and its application can be found on the Quality of Life Capital web site {http://www.qualityoflifecapital.org.uk/}.

Prompt lists, matrices and other scoping tools

3.8   A variety of techniques can be used to facilitate the scoping stage of an EIA. It is possible to identify potential impacts by discussion or brainstorming to produce a prompt list of issues. Other, more formalised methods of scoping and impact identification can be used, including tools such as matrices and network analysis. Prompt lists can also be used as part of an audit trail, for example, by converting the lists into tables to show how and when decisions were made.

The prompt list, in its simplest form, is a list of either project activities or aspects of the environment likely to be affected by a given project. Section 5 of this *handbook* is concerned with the *guidance notes* written for individual development types and contains a discussion of both project activities that can be sources of impacts and potential environmental impacts that can occur. These are presented in the form of prompt lists.

Generally speaking, a combined approach works best; for example, using a prompt list in conjunction with discussion with interested parties and technical experts. Similarly, potential impacts that have been identified using a combined prompt list/ad hoc approach could be summarised in a matrix. Matrices are useful for presenting a summary of a wide range of interrelated sources of impacts without repetition. Symbols (such as ✓ ✗ or **?** for positive, negative or unknown impacts, respectively) or brief text entries can be used to summarise the impacts, while the completed matrix can be used to aid discussion between the parties involved in the EIA. An example of such a matrix is provided in Figure 2.

Although every effort has been made to make the lists and tables comprehensive, they should not be taken as definitive for every individual development in any location. To obtain the most out of these prompt lists, the user should use them as an *aide memoire* and as a stimulus for considering each project on it own merits. In short, the user should not feel constrained by the prompt lists provided in this guidance package.

Such scoping methods ensure that the environment is considered in a systematic way, although they have been criticised as being inflexible or too complex. The main advantages and limitations of prompt lists, such as the Agency's scoping guidance, are summarised in Box 6.

Box 6	Advantages and limitations of using prompt lists for scoping

Advantages:

Good for identifying a wide range of issues to be considered;

Useful for inexperienced staff;

Help to ensure a systematic approach;

Help to ensure a consistent approach.

Limitations:

May be used too mechanically – if it is not on the list, it is not considered;

Do not indicate significance;

Do not consider the location of the development and site-specific details;

Cannot address cumulative or indirect impacts.

Figure 2 Example of a scoping matrix (based upon prompt lists of project actions and potential impacts)

Potential receptors of impact		Activities and potential impacts		
		Construction phase	Operation phase/ongoing site maintenance	Post-operation/ decommissioning phase
WATER	Surface water hydrology and channel morphology			
	Surface water quality			
	Groundwater hydrology			
	Groundwater quality			
LAND	Landscape			
	Soils			
	Geology			
AIR	Local air quality			
	Regional/global air quality			
FLORA AND FAUNA	Aquatic ecology			
	Terrestrial ecology			
HUMAN ENVIRONMENT	Socio-economic			
	Health and safety			
	Amenity			
	Nuisance			
	Architectural and archaeological heritage			

Additional site-specific issues: *NB Each of the scoping documents has space here to write notes*

4 Environment Agency's role in EIA

The Agency has many responsibilities in fulfiling its wider environmental protection commitments, including specific duties that relate to EIA. These are summarised in Table 2.

The Agency has advisory, operational and regulatory roles that are relevant to EIA. It is a statutory consultee for most EIA developments and is also a developer in its own right.

Table 2 Environment Agency responsibilities

Area of responsibility	Details
Contribution to sustainable development	• Principal aim of Environment Agency is to help achieve sustainable development. Each area of responsibility detailed below is related to this aim
Environmental Impact Assessment	• Role as statutory consultee to competent authorities for certain EIAs, including role as consultee on scoping opinions • Responsible for EIAs (formal and informal) for own developments • Responsibility for providing advice to local planning authorities regarding planning applications
Water quality and resources	• Abstraction and impounding • Discharge consents • Ground and surface water protection • Meeting requirements of Water Framework Directive[1]
Process industries regulation (pollution prevention and control)	• Regulation of industrial processes with greatest pollution potential through controlling releases of substances to air, water and land
Waste management regulation	• Regulation of the deposit, disposal, keeping or treatment of controlled waste via the waste management licensing system • Registering carriers and brokers of controlled waste • Registering activities exempt from waste management licensing • Regulating packaging waste (producer responsibility obligations) • Investigating breaches of the duty of care[2] • Regulation of special waste
Contaminated land remediation	• Responsibility to secure remediation of "special" contaminated land sites
Radioactive substances regulation	• Regulation of storage and use of radioactive materials, disposal and handling of radioactive waste • Regulation of discharges of radioactive substances to air, water and land
Conservation	• Protection of wildlife, landscape and archaeological heritage • Providing information on river habitat quality to assist in identifying Special Areas of Conservation and Special Protection Areas under the EC Habitats Directive and EC Birds Directive • Conserving and enhancing biodiversity
Fisheries	• Responsibility for maintaining, improving and developing salmon, sea trout, non-migratory trout, coarse and eel fisheries • Regulation of fishing via rod angling and net fishing licences
Navigation and recreation	• Responsibility for managing and improving certain inland waterways, the Harbour of Rye and the Dee Estuary • Regulation of boating licences
Flood defence	• Responsibility for managing flood defences and providing a flood forecasting and warning service

[1] The Water Framework Directive was adopted as EU law in 2000: national policy and law is currently under development
[2] Environmental Protection (Duty of Care) Regulations 1991 SI No. 2839

Advisory: Environment Agency as a statutory consultee

4.1   The Agency is a statutory consultee for certain types of development specified by the Town and Country Planning (General Development Procedure) Order 1995 (SI 1995 No. 419) (see Section 2.2 of this *handbook*). However, in practice, the Agency is consulted by competent authorities on a wider range of development types that affect its functions. Thus, it may be consulted by competent authorities on screening opinions (to determine whether EIA is needed for a particular development) and is a statutory consultee when a competent authority is formulating a scoping opinion. Although the Agency can recommend to the competent authority that an ES is likely to be required for a given project, comment on the quality of the ES after it has been submitted and suggest that further information is necessary, this is only an advisory role and the decision-making responsibilities in these areas lie with the competent authority. Of particular concern to the Agency are proposed activities located in areas sensitive to development. In addition to designated sites, any development proposed in or near the locations given in Box 7 will benefit from liaison with the Agency.

Under the EIA Regulations the Agency (and other consultees) are obliged, if requested, to enter into consultation with a person who intends to submit an ES to determine whether the Agency (or other consultee) has any information that is relevant to the preparation of the ES; this information must be made available. Under the Environmental Information Regulations 1992, the Agency has a general duty to make environmental information available to the public on request. However, the Agency (or other consultee) is not required to disclose information that can or must be treated as confidential under Regulation 4 of the Regulations.

Operational: Environment Agency as a developer

4.2   The Agency is a developer in its own right in a number of areas, including flood defence, water resources, navigation, fisheries, recreation

Box 7	Sites where the Environment Agency should be involved

Adjacent to rivers (freshwater and tidal) and floodplains;

Areas of poor/impeded drainage;

Adjacent to flood-control structure (lock, weir, barrier);

Enclosed water bodies and canals;

Land protected by flood bank/sea defence;

Coastal waters;

Wetlands;

Contaminated land;

Groundwater source protection zones;

Exposed major aquifers;

Nitrate vulnerable zones;

Adjacent to licensed waste disposal sites;

Special area of conservation, special protection areas, sites of special scientific interest.

and conservation. Some of these works and activities require a statutory EIA, but in any case the Agency operates a good-practice approach when planning operational work, and so undertakes an appropriate level of assessment, in accordance with internal guidelines, as an integral part of its management system.

Environment Agency licences, consents and authorisations

4.3   Developers must ensure that they have all the necessary licences, etc. (sometimes referred to as permits) under relevant environmental

legislation for their particular development proposal. Applicants need to submit information to the Agency in accordance with the requirements of the relevant legislation, which may overlap with the information contained in an EIA. A list of the main legislation under which the Agency issues licences, consents or authorisations is provided in Table 3.

The Environment Agency as a source of environmental information for use in EIAs

4.4 To determine the extent and likely significance of environmental impacts, information needs to be collected on the sensitivity and uses of the site and surroundings of the proposed development. Under the provisions of the various EIA Regulations in force and the Environmental Information Regulations (1992), the Agency has a responsibility to make certain environmental information it holds is available to the public on request, subject to certain exemptions (e.g. commercial confidentiality and national security). Some of the information is held on public registers. For an EIA, some of the information necessary to describe the site and its surroundings or to predict impacts will be contained in Local Environment Agency Plans (LEAPs) or will already have been collected by the Agency. A "reasonable" charge to cover costs may be made by the Agency for provision of this information. The Agency has a wealth of information that is useful for baseline studies. Examples of the range of information available is given in Table 4. Some of this data is available on public registers, and can be viewed on the Agency's web pages at http://www.environment-agency.tv/ye/qa-ea-doc/register/index.html. Table 4 is not intended to be comprehensive, but rather to give an indication of the type of information that is available and potentially of use in scoping.

Contacting the Environment Agency

4.5 The Agency has officers who provide a link between developers, LPA officers and other interested parties, and the Agency's technical specialists. These officers are generally known as Planning Liaison Officers. Contact details are provided in Appendix B.

Table 3 Environment Agency licences, consents, authorisations and associated legislation

Fisheries	
Fish stocking	Salmon and Freshwater Fisheries Act 1975
Fishing with instrument other than rod and line	Salmon and Freshwater Fisheries Act 1975
Water use	
Abstractions	Water Resources Act 1991
Impoundments	Water Resources Act 1991
Borehole drilling	Water Resources Act 1991
Flood defence	
Land drainage consent for temporary works	Land Drainage Act 1991
Land drainage consent for permanent works	Land Drainage Act 1991
Weed control	Water Resources Act 1991
Environmental protection	
Discharge consents (to watercourses or groundwater)	Water Resources Act 1991
Prohibitions	Water Resources Act, 1991
Discharge of certain substances to the public sewer	Water Industries Act, 1991
Waste management licences	Environmental Protection Act 1990
Integrated pollution control authorisations	Environmental Protection Act 1990
Radioactive substances	Radioactive Substances Act 1993
Integrated pollution prevention and control permits	Pollution Prevention and Control Regulations 2000
Disposals into or onto land (involving discharge into groundwater of List I or List II substances)	Groundwater Regulations 1998

Table 4 Type of environmental information that may be available from the Environment Agency

Issues	Information
Water quality	Fisheries ecosystem class; water quality data (chemical and biological); water quality and pollution control public register; register of bathing water quality.
Water resources	Water abstraction and impounding register; hydrometry (river flows and levels, groundwater levels and rainfall); low flow information, drought information; groundwater vulnerability maps; water supply source protection zones; map of freshwater limits; map of agency waterworks; maps of sensitive areas and high natural dispersion areas; maps of main rivers
Flood defence	Flood storage area, flood protection/sea defence structure, tidal barrier, floodplain, water level management plans.
Fisheries	Designated fisheries; fish survey data.
Recreation	Boating, walking, fishing, locations used for immersion watersports, bird-watching.
Conservation	River corridor surveys, river habitat surveys, landscape assessment.

Issues	Information
Navigation	Location and extent of navigable rivers.
Industrial pollution, including air	Integrated pollution control public register; register of industrial works, "the air register"; the pre-1989 air register.
Radioactive substances	Register of radioactive substances; annual discharge reports; aquatic environment monitoring report.
Genetically modified organisms	The genetically modified organisms (GMOs) public register of deliberate releases and consents to market (held on behalf of DEFRA).
Waste	Register of current waste management licences; register of carriers of controlled waste; register of brokers of controlled waste; register of exempt activities; producer responsibility register; register of professional collectors and transporters of waste and dealers and brokers.

5 | How to use the guidance notes

This *handbook* and the *guidance notes* should be used with discretion. Expertise and judgement will still be needed to determine the potential significance of impacts for each development on a case-by-case basis. It will also be necessary to decide whether there are any additional impacts or benefits from a proposal, perhaps because of particular site or local circumstances which are not listed in the guidance, described in the *guidance notes* as "additional site-specific issues".

Structure of the guidance

5.1 There are three types of guidance provided here:

- this *scoping handbook.* The *handbook* covers issues common to all development types and also examines scoping methods;

- specific guidance for activities that are an integral part of many development types. These *guidance notes* are described as relating to "site operations";

- development-type *guidance notes*. These provide a focused introduction to the issues that should be considered for specific types of development.

The site operations *guidance notes* encompass activities such as construction and vegetation management. While these activities are not subject to an EIA in their own right, they are integral components of many development types and, rather than incorporate this material in all applicable development-type *guidance notes*, it has been brought together in generic *guidance notes*. This generic guidance needs to be used in conjunction with the *guidance notes* on particular development types.

The development types for which *guidance notes* have been produced were selected to reflect the range of projects addressed in EIA and other environmental legislation. A full list of these development types is provided in Box 8. They are listed alphabetically under general categories, which are in turn listed in alphabetical order. The exception is the first category, as these contain *guidance notes* for site operations that relate to more than one development type. Each *guidance note* has a unique identifier, for example, F2 = Golf Courses.

Format and content of the *guidance notes*

5.2 The format of the development-type *guidance notes* is consistent throughout the series. The purpose of these *guidance notes* is to examine in more detail the potential environmental impacts of each development type and to indicate potentially useful mitigation measures. Each *guidance note* begins with a brief introduction and description of the development type. This is followed by reference to the EIA Regulations and a statement of the EIA thresholds. These thresholds are both exclusive (i.e. EIA is not required where a threshold is not exceeded) and inclusive (i.e. Schedule 1 developments require an EIA (mandatory), but Schedule 2 developments only require an EIA if the development is likely to have significant effects on the environment by virtue of factors such as its nature, size or location) for that type of development. The *guidance notes* go on to identify potential environmental impacts and suggest mitigation measures.

The main part of each *guidance note* outlines the way in which such developments are likely to impact upon the environment. This is presented in the form of a table, which sets out:

- potential sources of impact (or activities);

- potential impacts;

- receptors that they may affect.

Each *Note* examines the potential effects on water, air and land, and on ecological and human aspects of the environment. Box 10 shows the range of potential impacts from all development types. Potential impacts or sources of impact peculiar to one development type have not been included in this list and are only dealt with in the appropriate *guidance note.*

The potential impacts of development on the human environment may take a variety of forms. Given the degree of overlap that may exist in the issues covered in this section, various groupings are possible. However, for convenience issues are divided into three broad categories in the *guidance notes*:

- socio-economic and health;

- amenity, visual impact and nuisance;

- culture, heritage and archaeology.

Socio-economic impact assessment is an area that is still developing compared to the relatively well-established EIA process. However, as environmental impacts also have effects on human populations, a good EIA will address these concerns. Schedule 4 of the current EIA Regulations for projects that require planning permission (SI 1999 No. 293) includes "population" as an aspect of the environment that may be affected by development. Similarly, this *scoping handbook* and associated *guidance notes* also include several aspects of the "human environment" that may be affected by a proposed development, and the latest guidance from the European Commission on scoping (ERM, 2001a) refers in some detail to human environment concerns.

Each development-type *guidance note* should be used in conjunction with this *scoping handbook*, because to avoid duplication the issues that are common to many development types are addressed in this document rather than in individual *guidance notes*. In addition, scoping of particular development types will require reference to some or all of the site operations *guidance notes*, as listed in Box 8 (Group A). For

individual projects, it may be useful to refer to *guidance notes* on other types of development should they contain information applicable to the project. Consequently, other *guidance notes* that may be relevant are listed on the first page of each *guidance note*. However, users should not feel constrained to referring only to the recommended *guidance notes* and should consult others as appropriate.

Discussion of the potential impacts is a crucial part of the scoping exercise. Given the statutory obligations on competent authorities to offer an opinion (if requested) on the scope of EIAs, each *guidance note* includes a table that can be annotated as required. It is suggested that these tables could be used to stimulate discussion on the impacts of particular developments between interested parties. These tables are intended as guidance only and should be amended as necessary on a project-by-project basis.

As with all assessments, the developer, in consultation with relevant specialists, will still need to determine the nature and amount of information included and which impacts should be assessed. A balance needs to be achieved between limiting the costs and the consequences of excluding potentially significant impacts from the study at an early stage.

Uncertainty and gaps in the information

5.3 There is inevitably some level of uncertainty in impact predictions and there may be information gaps that are not possible, or practicable, to fill. In such cases, professional judgement must be applied based on the individual circumstances of the proposal and, in case of doubt, a precautionary approach should be adopted.

To assist the consideration of sources of impact and the impacts themselves the Agency has developed two prompt lists presented below. These relate to the activities that are the main potential sources of impact (Box 9) and to potential impacts that may occur (Box 10). These prompt lists should be used in conjunction with the development-specific guidance.

Site operations

A   Site operations
1   Construction work
2   Demolition and decommissioning works
3   Redevelopment and clean-up of contaminated land
4   Vegetation management and conservation enhancements

Development type

B   Agriculture, forestry, aquaculture, pest control
1   Afforestation and deforestation
2   Arable farming and the intensification of previously uncultivated land
3   Control of pest species, including disease vectors
4   Deliberate introduction of non-native and genetically modified species
5   Freshwater and marine fish farms
6   Intensive horticulture, including greenhouses
7   Livestock units (including pigs, cattle, sheep and poultry)

C   Coastal and estuarine developments
1   Barrages *(see also I6, Tidal power developments)*
2   Coastal defence, including beach nourishment
3   Ports, shipyards, harbours, piers and jetty developments (including navigation works)
4   Sea outfalls

D   Extraction of natural resources and their primary processing
1   Dredging of riverine, estuarine and marine sediments (including commercial dredging and dredging for navigation) and reclamation

2   Opencast mining and quarrying for coal, minerals, ores, etc.
3   Petro-chemical industry – offshore developments, including exploration
4   Petro-chemical industry – onshore developments, including exploration
5   Restoration of mineral extraction sites

E   Infrastructure developments
(see also Section K, Multi-modal transport)
1   Business parks *(i.e. office buildings or repairs or servicing facilities)*
2   Pipelines (oil and gas)
3   Residential developments
4   Retail and out-of-town shopping parks

F   Leisure and tourism
1   Camping and caravan sites
2   Golf courses
3   Leisure centres and swimming pools, holiday complexes and hotels
4   Marinas *(see also C3 and J6)*
5   Off-road recreation activities
6   Water-based recreation
7   Angling and sport fishing, including fish stocking

G   Manufacturing industries
1   Abattoirs
2   Animal feed manufacture
3   Chemical manufacture, processing and storage *(see also Section L, Waste management)*
4   Food and drink manufacture
5   Industrial estates for light manufacturing
6   Leather manufacture
7   Mineral production and processing (e.g. coke ovens, glass, ceramics, cement, asbestos)

8   Motor vehicle, aircraft and train manufacture
9   Natural timber, and man-made wood products (e.g. medium density fibreboard)
10   Production and processing of metals
11   Pulp, paper and board production
12   Rubber manufacture
13   Textile manufacture

H   Other sectors
1   Cemeteries and crematoria
2   Kennels, catteries and stables

I   Power generation and transmission
(see also L1, Incineration)
1   Hydroelectric power developments, including dams and reservoirs
2   Nuclear facilities, construction and decommissioning
3   Overhead transmission lines
4   Reprocessing of nuclear fuel
5   Thermal power stations (non-nuclear)
6   Tidal power developments *(see also C1, Barrages)*
7   Wind farms, both onshore and offshore

J   River and water management
1   River channel works and bank protection
2   Discharges to surface waters
3   Flood diversion channels
4   Flood storage areas and flood embankments
5   Interbasin transfer of water
6   Navigation works and canal restoration
7   Reservoirs *(see also I1, Hydroelectric power developments)*
8   Restoration and enhancement of river channels

Box 8	List of development types addressed in this series of scoping *guidance notes* *continued*

J   River and water management *continued*
9   Surface-water abstractions
10   Groundwater abstractions
11   Bridges and culverts

K   Multi-modal transport
(See C3 and J6 water transport issues)
1   Airports and airfields
2   Light transit systems and tramways

3   Motorway service areas, petrol stations and vehicle maintenance facilities
4   New roads, road widening and other road-improvement schemes
5   Railways and railway stations (including rail-freight terminals)
6   Underground transit systems
7   Vehicle parks and park-and-ride schemes

L   Waste management
1   Incineration, including animal carcasses and incineration with energy recovery
2   Landfill sites
3   Sewage treatment works (extension and installation)
4   Solid waste management facilities
5   Composting of organic waste

Box 9	Potential sources of impact (activities)

Preparation and construction phase

- Construction traffic on and offsite
- Erection of screens and fences
- Creation of new or changed landforms
- Trench digging
- Pipeline laying
- Test pits
- Installation of services
- Disposal of building waste
- Preparation of foundations
- Dust creation
- Influx of construction workers
- Provision of lighting
- Clearance or pruning of vegetation
- Storage of chemicals and liquids

Operational phase

- Transport
- Parking
- Buildings and infrastructure
- Use of services (electricity, gas, water, etc.)
- Manufacturing process(es)
- Storage
- Gaseous emissions and odour management
- Stack height
- Liquid discharges
- Waste disposal
- Operational failures
- Site security
- Likely expansion or secondary development

Decommissioning and after-use phase

- Removal of buildings and other structures
- Transportation of material
- Dust creation
- Disposal of inert waste
- Disposal of hazardous and special waste
- Spills or releases during decommissioning

Box 10	Potential environmental impacts

Water

Surface water hydrology/hydraulics
- Changed surface water run-off
- Changed flow velocities
- Changed magnitude of flooding
- Changed frequency of flooding
- Changed duration of flooding
- Convergence/divergence of flow
- Changed hydraulic roughness
- Regulated flow
- Low flows
- Wave generation
- Reduced tidal flow/flushing/mixing
- Riparian drainage
- Changed flow regime

Groundwater resources and hydraulics
- Changed flow
- Changed infiltration
- Changed direction of flow
- Change in water table (level)
- Barrier to flow
- Change in pressure potential
- Changed storage capacity
- Changed flow capacity

Groundwater quality
- Movement of contaminated water
- Change in quality
- Saline intrusion
- Chemical pollution
- Organic pollution
- Microbial contamination

- Changed dilution capacity
- Change in conductivity/ pH/acidification
- Change in oxygen content
- Change in temperature
- Mobilisation of contaminants

Channel morphology/sediments
- Changed bank/bed stability
- Degradation/erosion of beds or banks
- Deposition/siltation
- Change of bed slope
- Change of platform/pattern
- Disturbance to bed forms (pools, riffles)
- Downstream erosion
- Changed channel size
- Changed suspended sediment load
- Changed bed load
- Contaminated sediment

Surface-water quality
- Altered salinity
- Change in quality
- Chemical pollution
- Eutrophication
- Changed turbidity
- Microbial contamination
- Stratification
- Re-suspension of contaminated sediments
- Changed dilution capacity
- Organic pollution

- Change in residence/flushing time
- Change in oxygen content
- Change in conductivity/ pH/acidification
- Change in temperature

Air and climatic factors

Regional and global climate
- Changes in air moisture
- Reduction in sunlight
- Acid deposition
- Carbon dioxide levels
- Methane levels
- Ozone levels
- Sulphur dioxide levels
- Nitrogen dioxide levels

Local air quality and local climate
- Ponding of cold air
- Alteration to airflow
- Changes in air moisture
- Changes in local air quality parameters (NOx, SOx, O3, etc.)
- Other gaseous pollutants (CO, VOCs,)
- Release of metal pollutants
- Release of chemical pollutants
- Release of toxic organic micro-pollutants (e.g. dioxins, PAHs, PCBs)
- Release of particulates (dust, smoke, PM10)
- Ionising radiation (including naturally occurring radon)

Land

Geology
- Removal of bedrock
- Removal of drift deposits
- Loss of mineral deposits
- Loss of non-renewable resources
- Sterilisation of minerals or resources
- Damage to Regionally Important Geological Sites (RIGS)

Land use and designations
- Change to existing use of site
- Conflict with use of adjacent land
- Changed landscape character including: function as a resource, its scenic quality, degree to which it is unspoilt, sense of place that it engenders, its conservation interests
- Visual intrusion
- Change in amenity value
- Arable intensification
- Change in grade of agricultural land
- Increase in urban land
- Deforestation
- Afforestation
- Change in riparian land
- Development of floodplain
- Development of coastal zone
- Effects on future developments
- Effects on designated sites and other locally important sites

continues on next page

Box 10	Potential environmental impacts *continued*

Land *continued*

Soils
- Altered soil structure, texture, organic component, mineral component, biotic component, water content of soil
- Changed soil chemistry
- Changed soil fertility
- Changed soil density and compaction tolerances
- Changed soil profile and classification
- Soil erosion (by wind or water)
- Change in ability of soil to support proposed end uses
- Physical damage to soil systems through management practices
- Off-site impacts through deposition of atmospheric pollutants leading to:
  - Acidification of soils through deposition of SOx, NOx and ammonia
  - Eutrophication of soils in semi-natural habitats from deposition of NOx and ammonia
- Accumulation of heavy metals and persistent organic pollutants
- Build-up of heavy metals, such as Zn, Cd, Cu, Hg, Ni, and Pb from the application of organic materials on agricultural land
- Accumulation of organic compounds, e.g. PCBs

- PAHs, from the application of contaminated wastes
- Build-up of phosphorus in soils that receive regular applications of sewage sludge and/or livestock manure in addition to phosphorus fertiliser
- Accumulation of pesticides in soils and potential impacts on soil biodiversity

Ecology and biodiversity

Aquatic ecology
- Altered habitat
- Changed fish biomass
- Changed invertebrate biomass
- Changed plant biomass
- Changed species diversity
- Changed fish behaviour
- Change in fish community
- Barrier to fish migration
- Fish kill
- Changes in spawning
- Disturbance of sensitive species
- Loss of rheophilic flora and fauna
- Barrier to mammals
- Loss of sensitive species
- Effects on designated sites and other locally important sites
- Introduction of alien species
- Changes to population dynamics, distribution and abundance of key species, rare species and endemics

- Siltation of gravel spawning areas

Terrestrial and coastal ecology
- Altered habitat quality
- Altered habitat diversity
- Habitat severance
- Habitat fragmentation
- Loss of habitat
- Tree removal
- Wetland changes, including incoming and outgoing water flows
- Changed riparian habitat
- Change in plant biomass
- Change in animal biomass
- Disturbance of sensitive species
- Changed species diversity
- Effects on designated sites and other locally important sites
- Introduction of alien species
- Changes to population dynamics, distribution and abundance of key species, rare species and endemics

Human environment

Socio-economic (inc. planning gain)
- Population movement
- Changes in population size
- Changes in population characteristics (age range, family size, socio-economic groups, etc.)
- Altered settlement patterns
- Altered housing tenure types
- Change in house prices

- Change in demand for public or private housing
- Increase in homelessness
- Change in local economy
- Change in local and non-local employment
- Change in characteristics of employment
- Changed labour supply
- Change in demand for local education, health, social and emergency services
- Community structure and institutional arrangements
- Introduction of divergent views
- Individual and family level impacts
- Altered crime and perceptions of crime rate
- Enhanced opportunities for planning gain
- Need for temporary accommodation during construction

Nuisance
- Odour
- Vibration
- Noise
- Flood discharges, flow of contaminated water
- Soil erosion onto roads, properties, etc
- Light pollution

Box 10 — **Potential environmental impacts** *continued*

Human environment *continued*

Architectural and archaeological heritage
- Threat to known sites
- Threat to other sites
- Threat to archaeological sites, monuments and features, above ground
- Threat to archaeological sites and features below ground
- Threat to settings of archaeological sites, monuments and features
- Threat to human artefacts, including historic buildings and sites (e.g. listed buildings), cemeteries and burial grounds, parks, gardens, village greens, bridges and canals and conservation areas
- Threat to designated and locally important sites and features
- Threat to other buildings and features of architectural merit

- Threat to other buildings and features of planning merit
- Threat to other buildings and features of social or economic importance
- Threat to other buildings and features that show technological innovation or virtuosity
- Threat to other buildings and features taken together as having group value

Local transport
- Altered volume of traffic
- Altered traffic profile (vehicle types and weights)
- Changed rates of flow
- Changed times of flow
- Changed waiting times
- Change in traffic speed
- Change in accident rate
- Change in access to parking
- Change in turning movements

- Effects on multi-modal transport profile (cars, buses, trams, trains, walking, cycling)
- Severance
- Effects on ecology
- Effects on pedestrians
- Effects on cyclists
- Effects on car users
- Effects on commercial vehicles
- Effects on frontage land uses

Health and safety
- Changed flood risk
- Loss of property
- Change in air pollution
- Change in water pollution
- Change in land contamination
- Change in noise levels
- Change in vehicles
- Change in equipment
- Change in emergency situations

Amenity, access, leisure and recreation facilities
- Change in access
- Altered facilities
- Altered use
- Effects on users of land-, water- and air-based facilities

Pests/vermin
- Birds
- Invertebrates
- Rodents
- Other mammals
- Micro-organisms

Visual impact
- Altered aesthetic value, including proportion, scale, enclosure, texture, colour, views
- Change in landscape
- Change in townscape
- Visual intrusion

Once impacts have been identified, they may usefully be presented in a matrix. Figure 2 (page 20) is an example of a matrix based upon the prompt lists presented in Box 9 and Box 10.

Useful references and further reading

5.4 Those who wish to research the issues raised in this *handbook* in greater detail may find the list of references and other guidance provided in Appendix D useful.

Numerous good-practice guides are available, for example, guides produced by the former Department of the Environment (DOE) and former DETR emphasise the need for more stringent scoping and involvement of interested parties and the public at an early stage (DOE, 1995, DETR, 2000). A further good-practice guide on evaluating environmental information has also been produced (DOE, 1994). Of particular relevance are DETR Circular 02/99 and Welsh Office Circular 11/99, which provide guidance on the implementation of the

EIA Regulations under SI 1999 No. 293, and the Guidelines for Environmental Risk Assessment & Management, DETR *et al.* (2000).

The European Union has also produced advice on screening, scoping and review (ERM 2001a, 2001b, 2001c) all of which is available on the Internet.

This non-exhaustive list of references and further reading in Appendix D provides a general introduction to EIA, scoping and issues that affect the environment. Contained within this list are many Agency publications, which provide information relevant to many different types of development.

Appendix A: Overview of EIA legislation

The matrix below shows how EIA legislation relates to each scoping *guidance note*. Abbreviations used for the various pieces of legislation are as follows:

T&CP Sch.1   Development falling under Schedule 1 of the Town & Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999. SI 1999 No. 293.

T&CP Sch.2   Development falling under Schedule 2 of the Town & Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999. SI 1999 No. 293.

Drainage   The Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999. SI 1999 No. 1783.

Electricity   Electricity Works (Environmental Impact Assessment) Regulations 2000. SI 2000 No. 1927.

Fish farms   The Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999. SI 1999 No. 367.

Forestry   Environmental Impact Assessment (Forestry) (England & Wales) Regulations 1999. SI 1999 No. 2228.

Harbours   Harbour Works (Assessment of Environmental Effects) Regulations 1992. SI 1992 No. 1421, as amended by SI 1996 No. 946.

Highways   The Highways (Assessment of Environmental Effects) Regulations 1999. SI 1999 No. 369.

Agriculture   EIA Regulations for projects involving the agricultural intensification of semi-natural or previously uncultivated land (forthcoming).

Off-shore   The Offshore Petroleum Production and Pipe-lines (Assessment of Environmental Effects) Regulations 1999. SI 1999 No. 360.

Transport   Transport and Works (Assessment of Environmental Effects) Regulations 1998. SI 1998, No. 2226.

Water   Water Resources (Environmental Impact Assessment) Regulations (forthcoming)

Overview of EIA legislation

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
A Site Operations												
A1 Construction work												
A2 Demolition and decommissioning works												
A3 Redevelopment and clean-up of contaminated land												
A4 Vegetation management and conservation enhancements												
B Agriculture, etc.												
B1 Afforestation and deforestation						✔						
B2 Arable farming and the intensification of previously uncultivated land		✔							✔			
B3 Control of pest species, including disease vectors												
B4 Deliberate introduction of non-native and genetically modified species												
B5 Freshwater and marine fish farms		✔			✔							
B6 Intensive horticulture, including greenhouses									✔			
B7 Livestock units	✔	✔							✔			

These *guidance notes* refer to activities that are common to many development types. As a result, they are not addressed by this table.

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
C Coastal and estuarine												
C1 Barrages		✔										
C2 Coastal defence, including beach nourishment		✔										
C3 Ports, shipyards, harbours, piers and jetty developments	✔	✔					✔					
C4 Sea outfalls												
D Extraction of natural resources												
D1 Dredging of riverine, estuarine and marine sediments		✔					✔					
D2 Opencast mining and quarrying	✔	✔										
D3 Petro-chemical industry – offshore developments										✔		
D4 Petro-chemical industry – onshore developments	✔	✔										
D5 Restoration of mineral extraction sites												

Overview of EIA legislation *continued*

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
E Infrastructure												
E1 Business parks		✔										
E2 Pipelines	✔	✔		✔						✔		
E3 Residential developments		✔										
E4 Retail and out-of-town shopping parks		✔										
F Leisure and tourism												
F1 Camping and caravan sites		✔										
F2 Golf courses		✔										
F3 Leisure centres, swimming pools, holiday complexes and hotels		✔										
F4 Marinas		✔					✔					
F5 Off-road recreation												
F6 Water-based recreation												
F7 Angling and sport fishing												

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
G Manufacturing												
G1 Abattoirs		✔										
G2 Animal feed manufacture		✔										
G3 Chemical manufacture, processing and storage	✔	✔										
G4 Food and drink manufacture		✔										
G5 Industrial estates for light manufacturing		✔										
G6 Leather manufacture		✔										
G7 Mineral production and processing	✔	✔										
G8 Motor vehicle, aircraft and train manufacture		✔										
G9 Natural timber, and man-made wood products												
G10 Production and processing of metals	✔	✔										
G11 Pulp, paper and board production	✔	✔										
G12 Rubber manufacture		✔										
G13 Textile manufacture		✔										

Overview of EIA legislation *continued*

Development type	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
H Other services												
H1 Cemeteries and crematoria												
H2 Kennels, catteries and stables												
I Power generation												
I1 Hydroelectric power developments	✔	✔		✔								
I2 Nuclear facilities	✔			✔								
I3 Overhead transmission lines				✔								
I4 Reprocessing of nuclear fuel	✔											
I5 Thermal power stations	✔	✔		✔								
I6 Tidal power developments		✔										
I7 Wind farms		✔		✔								
J River and water management												
J1 River channel works and bank protection		✔	✔									
J2. Discharges to surface waters		✔										✔
J3 Flood diversion channels		✔	✔									

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
J River and water management *continued*												
J4 Flood storage areas and flood embankments		✔	✔									
J5 Interbasin transfer of water	✔	✔										✔
J6 Navigation works and canal restoration	✔	✔	✔									
J7 Reservoirs	✔	✔	✔									✔
J8 Restoration and enhancement of river channels		✔	✔									
J9 Surface water abstractions		✔										✔
J10 Groundwater abstractions	✔	✔										✔
J11 Bridges and culverts		✔										
K Multi-modal transport												
K1 Airports and airfields	✔	✔									✔	
K2 Light transit systems and tramways		✔									✔	
K3 Motorway services, petrol stations and vehicle maintenance facilities		✔									✔	
K4 New roads, road widening and other schemes	✔	✔						✔			✔	

Overview of EIA legislation *continued*

Development type	EIA Regulations											
	T&CP Sch.1	T&CP Sch.2	Drainage	Electricity	Fish farms	Forestry	Harbours	Highways	Agriculture	Off-shore	Transport	Water
K Multi-modal transport *continued*												
K5 Railways and railway stations	✔	✔									✔	
K6 Underground transit systems		✔									✔	
K7 Vehicle parks and park-and-ride schemes		✔									✔	
L Waste management												
L1 Incineration	✔											
L2 Landfill sites	✔											
L3 Sewage treatment works	✔	✔										
L4 Solid waste management facilities	✔	✔										
L5 Composting of organic waste		✔										

Notes

• Depending on factors such as its size or location, or the characteristics of its potential impacts, a proposed development may either fall under Schedule 1 or 2 for EIA, and/or under IPPC, IPC or LAPC or other pollution control/resource management regimes. It should be stressed that a table format cannot accommodate all possible situations for all projects. It is intended as a quick reference as to where most projects will fall in terms of EIA legislation. Thus, it is important to check the relevant legislation (or consult an expert) for more detailed information as to whether a proposed development is likely to require an EIA and/or authorisation under IPPC/IPC/LAPC or other environmental legislation. Schedule 2 of the DETR circular 02/99 and NAW Circular 11/99 also give guidance on which developments may require an EIA.

• Although certain development types for which scoping guidance has been prepared are not formally regulated under EIA Regulations, a good-practice approach has been adopted to include as wide a range of development types as possible. Also, some of the guidance relates not to specific development types, but to spheres of operation applicable to many, if not all, types of development.

Appendix B: Environment Agency contact list

Planning Liaison Officers/Team Leaders at Area Offices are suggested as the first point of contact for consultation between developers, local planning officers and other Environment Agency staff on EIA matters. The following table provides the current contact details for these individuals.

For general enqiries, the Environment Agency's Public Enquiry Unit may be contacted on:
Telephone: 01454 624411
Fax: 01454 624014
Email: enquiries@environment-agency.gov.uk

ANGLIAN

Central Area	**Eastern Area**	**Northern Area**
Planning & Customer Services	Planning & Customer Services	Planning & Customer Services
Bromholm Lane	Cobham Road	Waterside House
Brampton	Ipswich	Waterside North
Huntingdon	Suffolk	Lincoln
Peterborough	IP3 9JE	LN2 5HA
PE28 4NE		
Tel: 01480 414581	Tel: 01473 727712	Tel: 01552 785887

MIDLANDS

Upper Trent Area	**Lower Trent Area**	**Upper Severn Area**	**Lower Severn Area**
Planning & Customer Services	Planning & Customer Services	Planning & Customer Services	Planning & Customer Services
Sentinel House	Trentside Offices	Hafren House	Riversmeet House
Wellington Crescent	Scarrington Road	Welshpool Road	Newtown Industrial Estate
Fradley Park	West Bridgford	Shelton	Northway Lane
Lichfield	Nottingham	Shrewsbury	Tewksbury
Staffordshire	NG2 5FA	SY3 8BB	Gloucestershire
WS13 8RR			GL20 8JG
Tel: 01543 404878	Tel: 0115 945 5722	Tel: 01743 272828	Tel: 01684 850951

NORTH EAST

Dales Area

Planning & Customer Services
Coverdale House
Aviator Court
Clifton Moor
York
YO30 4UZ

Tel: 01904 822611

Northumbria Area

Planning & Customer Services
Tyneside House
Skinnerburn Road
Newcastle Business Park
Newcastle
NE4 7AR

Tel: 0191 2034173

Ridings Area

Planning & Customer Services
Phoenix House
Global Avenue
Leeds
LS11 9ED

Tel: 0113 213465

NORTH WEST

North Area
(Cumbria)

Planning & Customer Services
Ghyll Mount
Gillan Way
Penrith 40 Business Park
Penrith
Cumbria
CA11 1BP

Tel: 01768 866666

South Area
(Cheshire, Merseyside &
Greater Manchester)

Planning & Customer Services
Appleton House
430 Birchwood Boulevard
Birchwood
Warrington
WA3 7WD

Tel: 01925 840000

Central Area
(Lancashire)

Planning & Customer Services
Lutra House
Dodd Way
Walton Summit
Bamber Bridge
Preston
PR5 8BX

Tel : 01772 339882

SOUTHERN

Kent Area

Planning & Customer Services
Orchard House
Endeavour Park
London Road
Addington
West Malling
Kent
ME19 5SH

Tel: 01732 223246

Sussex Area

Planning & Customer Services
Saxon House
Little High Street
Worthing
West Sussex
BN11 1DH

Tel: 01903 703824

**Hampshire & Isle of
Wight Area**

Planning & Customer Services
Colverdene Court
Wessex Way
Colden Common
Winchester
Hampshire
SO1 1WP

Tel: 01962 713267

SOUTH WEST

Cornwall

Planning & Customer Services
Sir John Moore House
Victoria Square
Bodmin
Cornwall
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Tel: 01208 78301

Devon

Planning & Customer Services
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Miller Way
Devon
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Tel: 01392 444000

South Wessex

Planning & Customer Services
Rivers House
Sunrise Business Park
Higher Shaftesbury
Blandford
Dorset
DT11 8ST

Tel: 01258 456080

North Wessex

Planning & Customer Services
Rivers House
East Quay
Bridgwater
Somerset
TA6 4YS

Tel: 01278 452985

THAMES

South East

Planning & Customer Services
Frimley Business Park
Camberley
Surrey
GU16 5SQ

Tel: 01276 454301

West

Planning & Customer Services
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Howbery Park
Crowmarsh Gifford
Wallingford
Oxfordshire
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North East

Planning & Customer Services
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Hatfield
Hertfordshire
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Tel: 01707 632300

WALES

South East Wales

Planning & Customer Services
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St Mellons Business Park
Fortran Road
Cardiff
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South West Wales

Planning & Customer Services
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Northern Wales

Planning & Customer Services
Llwyn Brain
Ffordd Penlan
Parc Menai
Bangor
Gwynedd
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Planning & Customer Services
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Shrewsbury
SY3 8BB

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Appendix C: Public consultation methods and their application

Information provision	Advantages	Disadvantages	Effectiveness	Advice on use
Leaflets	Can target a specific audience, e.g. local residents. Relatively cheap to produce and disseminate. Can make use of templates.	May appear to be reaching a wide audience, but can be treated as junk mail. No direct response mechanism for questions or concerns.	Best for provision of specific information about actions or meetings, not good for very general information. Difficult to evaluate. Improves the public availability of information, but not good for increasing involvement.	Possibly useful as a means of announcing the proposal, but needs to have specific information, e.g. places where more information can be obtained, dates of meetings, etc. Best used to advertise events. Useful for a relatively geographically bounded local community. Should not be distributed without clear indication as to who can be contacted for further information. Need to assess the level of concern about the development proposal and the levels of trust in the developer in the area, as it could raise anxiety levels and promote mistrust. Could be used to publicise proposals, but should be written in a very clear manner. If the proposal is contentious then should accompany another method that promotes dialogue, e.g. a surgery.
Advertising in local newspapers that the EIA process will be carried out	Statutory requirement in EIA. Relatively cheap. Potentially wide audience.	Limited scope to convey messages. No knowledge of who is reached.	Effective for introducing issues and announcing events. Less effective for providing detailed information. Hard to evaluate.	Means to announce the initiation of the EIA process and, subsquently, the availability of the ES. Should not be distributed without a clear indication as to who can be contacted for further information. Ideally should accompany another method that promotes dialogue, e.g. a surgery.

List of methods and their usefulness at each stage of the process *continued*

Information provision	Advantages	Disadvantages	Effectiveness	Advice on use
Newspaper articles in local press	Relatively cheap. Readers may regard editorial choice as "independent".	Limited audience. No direct response to questions. Issues of editorial control.	Effective if simple message to communicate, but limited for complex issues. Not effective for improving involvement.	Medium risk because do not have complete control and it may be arbitrary as to where in the paper the article appears – depending on the news of the week. The editor will ultimately decide where it will go and final wording. Could be useful at the end of the process to have an article saying what happened, how the EIA process is managed and what will happen next.
Newsletters	Provide ongoing updates of issues. Promote trust. Flexible. Feedback possible.	May not be perceived as independent.	As with leaflets only a few people will read them. Can be useful to support liaison groups.	Can be a useful tool at all stages, especially if sent to specific groups (e.g. parish councils, liaison groups) rather than to individual households. The best use of a newsletter would be to update the local community and to advertise how they could become involved. Very important to follow up at the end of the process with an explanation of the issues and the EIA process.

Engagement & dialogue	Advantages	Disadvantages	Effectiveness	Advice on use
Exhibitions/ open evenings	Provides one-to-one contact. Flexible in content and design. Can provide information at levels to suit the audience. Can provide useful feedback on concerns.	Generally limited attendance. Attracts only a sub-set of a wider population.	Good for a specific population, such as residents around a proposed site.	Would need to decide if this was adequate given concerns, or if it might be viewed as an easy way out – rather than a meeting in public. An exhibition might be useful for announcing a decision with visuals, if it were made clear that there was no room for further discussion. Again, could be useful coupled with a surgery for dialogue.

List of methods and their usefulness at each stage of the process *continued*

Engagement & dialogue	Advantages	Disadvantages	Effectiveness	Advice on use
Surgeries (one-to-one appointments with key technical staff)	Provide one-to-one contact. Enable in-depth discussion of issues.	Generally limited attendance to those who are quite interested and knowledgeable. Staff intensive.	Non-adversarial way of managing questions; enables a real dialogue.	Not an efficient method of receiving and recording comments and providing information from a large number of people. Useful for dialogue with stakeholders, but would need to gauge the likely interest as surgeries are time consuming and staff intensive. Good method of addressing concerns one to one and explaining proposals. Useful for explaining the final decision to those who wanted greater detail on the decision and how it had been made. Care is needed to make it clear that the decision has been made.
Talks to other groups, e.g. community groups	Provides an opportunity to explain proposals. Can provide a mechanism for feedback. Can be cascaded to a wider group in the community.	Should not be used as the only method, as could be partial in coverage. May not get any interest.	Good for specific groups who are considered key in the process.	Could be a good use of time, if a larger meeting/open day is felt to be too much. Might be part of the strategy, but should not be the only method. If used early on, it would be useful to follow it up.
Staffed exhibitions or open evenings	Provides one-to-one contact. Flexible in content and design. Can provide information at levels to suit the audience. Can provide useful feedback on concerns.	Generally limited attendance. Attracts only a sub-set of a wider population.	Good for a specific population such as residents around a proposed site. Will depend on how the developer is viewed by the public. If already mistrusted then likely to be seen as propaganda.	Could be useful for information provision and feedback. Best to have the open evening on "neutral ground" – e.g. local hall.

List of methods and their usefulness at each stage of the process *continued*

Engagement & dialogue	Advantages	Disadvantages	Effectiveness	Advice on use
Public meetings	Points of view and questions can be heard by a reasonable number of people. If well run, then can be a useful way of meeting more members of the community. A well-known method of consultation – one that many communities prefer.	Difficult to control. Possible mob effect. Can be poor as a method of information provision and developing dialogue.	Meetings show that officials are willing to be questioned, which can help generate respect. Traditional public meetings[1] frequently leave the participants frustrated. Meetings must be very well planned to be successful and those managing the meeting must be properly trained.	If held by the developer, it would be useful for key stakeholders to attend to explain their role and views. Strongly advise against a "traditional" public meeting. Needs to be very well organised. Not appropriate for presenting the final proposals, as the format and structure of the meeting is not conducive to dialogue or announcements.

[1] A traditional public meeting is where the public come to air their views, where there is little room for discussion, and where a number of people make presentations on technical issues. Typically these presentations do not answer the concerns of the community. The set-up of these meetings usually means that the speakers are all sitting together giving the impression of "them and us" and the atmosphere can encourage conflict.

Appendix D: References and other guidance documents

In June 2001 DEFRA was formed to take on the environment, rural development, countryside, wildlife and sustainable development responsibilities of the former DETR. DEFRA also took over responsibility for agriculture and flood defence from the Ministry of Agriculture, Fisheries and Food (MAFF).

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Appendix E: Proforma for comments on this handbook

Comments to:

Gerard Stewart, Environmental Developments Officer
National Centre for Risk Analysis and Options Appraisal
Environment Agency
Kings Meadow House
Kings Meadow Road
Reading RG1 8DQ

Name: _____

Date: _____

Organisation
and address: _____

_____

_____

_____

Telephone number: _____

Email address: _____

Comment on (please tick):

SCOPING HANDBOOK ☐   SCOPING GUIDANCE NOTES ☐

Comment:

_____

_____

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