

2 APPROACH TO ENVIRONMENTAL IMPACT ASSESSMENT

2.1 Introduction

2.1.1 The EIA process is designed to enable appropriate decisions to be made regarding the environmental implications of a proposed development based on the best possible information available.

2.1.2 EIA involves the compilation, evaluation and presentation of all significant environmental effects of a proposed development in order to assist the local planning authority to consider and determine the planning application.

2.2 Methodology

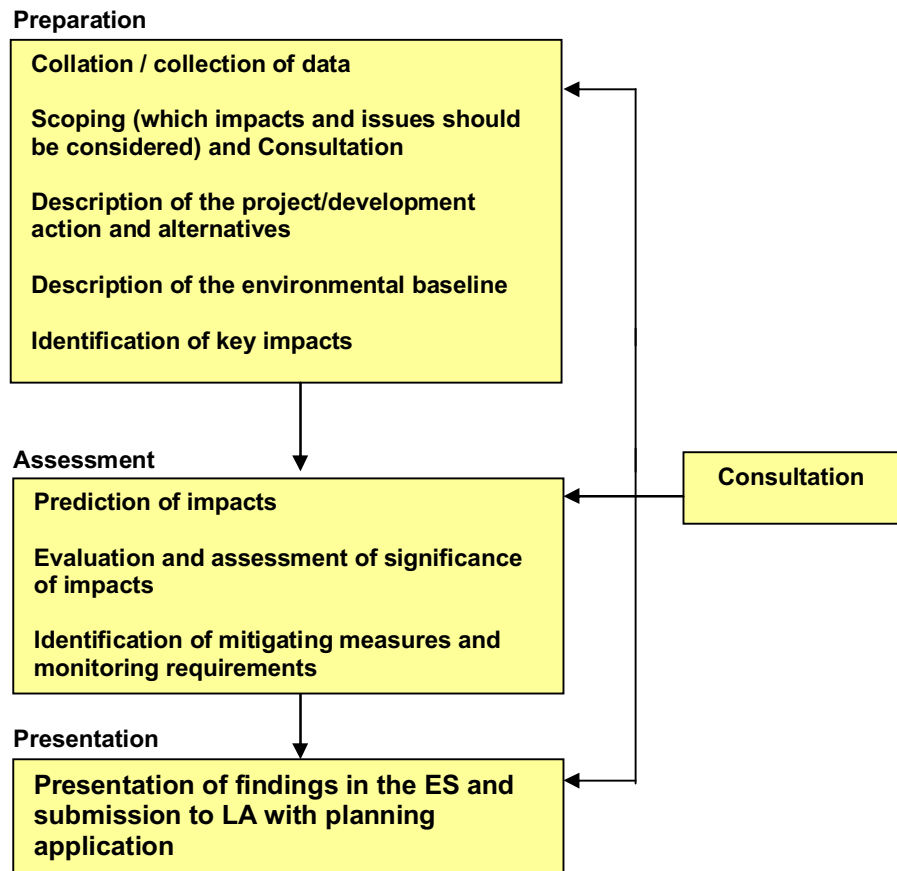
2.2.1 The EIA for the Development has been conducted in accordance with the latest Government regulations and good practice guidance, comprising:

- Town and Country Planning (Environmental Impact Assessment) (England) Regulations 1999 as amended;
- Circular 02/99 Environmental Impact Assessment (Office of the Deputy Prime Minister (ODPM)), 1999; and
- Preparation of Environmental Statements for Planning Projects that require Environmental Assessment. A Good Practice Guide (Department of the Environment), 1995.

2.2.2 This section outlines the overall approach taken to the EIA. Specific methodologies for each specialist environmental issue are explained in the relevant sections of the ES.

2.2.3 The EIA process for the Development has involved a number of steps, as illustrated in Flow Chart 2.1, and discussed in greater detail in Section 2.3:

Flow Chart 2.1: Steps in the Covanta EfW EIA Process



Source: Modified from J Glasson, R Therivel & A Chadwick "Introduction to Environmental Impact Assessment" 2nd Edition, 1999.

2.2.4

The following aspects associated with the site and the Development have been considered during the EIA process:

- The site location and characteristics;
- The local and surrounding environment (natural and human);
- The scale and nature of the Development;
- The physical characteristics of the Development; and
- Statutory consultees' comments and opinions.

2.3 Stages of the Environmental Impact Assessment

2.3.1 The EIA process comprised three main stages:

- Scoping Exercise;
- Consultation; and
- Preparation of the ES.

Scoping Exercise

2.3.2 A Scoping Exercise was carried out for the specific purpose of preparing this ES.

2.3.3 The Scoping Process seeks to identify at an early stage those impacts associated with a proposed development which are considered to be significant. A significant impact in this context is one which is likely to be important for decision making and will therefore require further assessment and consideration in the EIA process.

2.3.4 In October 2007, a Scoping Report was compiled by PB and issued to CCC following Regulation 10 of the EIA Regulations 1999 (as amended). These regulations allow a person/developer to request from the relevant local planning authority its formal opinion ("Scoping Opinion") as to the information to be supplied within an ES.

2.3.5 The Scoping Report provides a summary description of the proposals, identifies the key environmental effects that may arise and outlines data and assessment requirements for completion of the EIA process and preparation of the ES.

2.3.6 The Scoping Exercise identified the following environmental issues as requiring detailed assessment in the ES:

- Socio-economic;
- Traffic and Transport;
- Air Quality;
- Noise and Vibration;
- Landscape and Visual;
- Water Resources and Quality; and
- Ecology.

2.3.7 Impacts of the Development on geology and soils, archaeology and cultural heritage, and solid waste were not considered to be significant but have been qualitatively addressed in the ES.

2.3.8 A formal Scoping Opinion was received on the 29th November 2007. A copy of this is included in Appendix B.1.

- 2.3.9 The ES has taken into consideration the feedback provided by the statutory consultees and has addressed the key environmental issues associated with the Development. To demonstrate that the recommendations in the Scoping Opinion have been considered a table of actions has been included in Appendix B.2.

Consultation

- 2.3.10 Appendix B.3 provides a list of the statutory and non-statutory bodies that have been consulted throughout the Scoping Exercise and the production of the ES.
- 2.3.11 In February 2008 a newsletter that outlined the details of the Development and announced the details of the public exhibition was distributed to 5,800 households within the Middlewich area. A copy of the newsletter is included in Appendix B.4.
- 2.3.12 A public consultation exercise was conducted through a public exhibition held at the Middlewich Community Church Hall, Middlewich, on the 21st, 22nd and 23rd February 2008. Visitors were able to view information on the site location, operational processes, visual impacts, local community benefits and environmental assessments being conducted.
- 2.3.13 Approximately 270 people attended the exhibition, and were given the opportunity to ask questions regarding the Development, as well as providing their views via a questionnaire.
- 2.3.14 The questionnaire was completed by 159 respondents and completed the questionnaire and a summary of these responses with an analysis of the results is included in Section 7, Socio-Economic and in the separate Statement of Community Involvement (SCI).

Preparation of the Environmental Statement

- 2.3.15 As part of the EIA process and the preparation of the ES the following activities were carried out:
- Review of available documents and data for the site and proposals;
 - Site visits by PB staff and sub-consultants;
 - Consultation;
 - Undertaking of environmental surveys;
 - Review of existing legislation and government guidance with respect to key environmental issues;
 - Impact identification, prediction and significance assessment; and
 - Iterative inclusion of mitigation measures in scheme design.

- 2.3.16 The environmental impacts included within this document have been identified through the assessment of likely interactions between the Development (as described in Section 3) and the environmental base line conditions of the local environment.
- 2.3.17 Each specific section within this ES includes an explanation of the appropriate assessment methodologies used for each topic.
- 2.3.18 In assessing the potential impacts of the Development, the ES has considered both on-site and off-site effects.
- 2.3.19 Environmental baseline conditions have been established through a number of activities including gathering and review of existing data, consultation with statutory bodies, and undertaking of baseline surveys.
- 2.3.20 Identification and assessment of the significance of key impacts followed the collation of baseline data. In the context of this document, a significant impact is one that is likely to be important for decision making. As there is not a widely accepted definition of impact significance, each section within the ES includes significance criteria. The significance criteria are specific to each environmental topic and how the Development interacts within that medium.
- 2.3.21 In general terms, significance has been assessed by considering the value, importance or sensitivity of the environmental resource or receptor being affected, the scale and nature (i.e. beneficial or adverse) of the potential impact.
- 2.3.22 To identify the scale and nature of the impact the following factors have been considered:
- Sensitivity of the receptor;
 - Spatial extent;
 - Temporal extent;
 - Magnitude of change;
 - Whether it is direct, indirect or secondary;
 - Probability;
 - Reversibility; and
 - Potential for mitigation.
- 2.3.23 As far as possible, standard terms have been used to define the importance or sensitivity of an environmental resource or receptor ('high', 'medium', 'low' or 'negligible') as explained in Table 2.1, and the magnitude or scale of the impact ('large', 'medium', 'small' or 'negligible') as explained in Table 2.2.

Table 2.1: Environmental Sensitivity and Typical Descriptors

Sensitivity	Criteria
Very High	High importance and rarity, international scale and limited potential for substitution.
High	High importance and rarity, national scale with limited potential for substitution.
Medium	High or medium importance and rarity, regional scale with limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Table 2.2: Magnitude of Potential Impact and Typical Descriptors

Magnitude	Criteria
Major	<ul style="list-style-type: none"> Loss of resource and/or quality and integrity; severe damage to key characteristics, features or elements (Adverse). Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Moderate	<ul style="list-style-type: none"> Significant impact on the resource, but not adversely affecting the integrity; Partial loss of/damage to key characteristics, features or elements (Adverse). Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Minor	<ul style="list-style-type: none"> Some measurable change in attributes quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (Adverse). Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	<ul style="list-style-type: none"> Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse). Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).
No change	<ul style="list-style-type: none"> No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Table 2.3: Generic Matrix used to determine the General Significance of Effects to Receptors

Magnitude of Potential Impact	Sensitivity				
	Very High	High	Medium	Low	Negligible
Major	Very large	Large or Very large	Moderate or Large	Slight or Moderate	Slight
Moderate	Large or Very Large	Moderate or Large	Moderate	Slight	Neutral or Slight
Minor	Moderate or Large	Slight or Moderate	Slight	Neutral or Slight	Neutral or Slight
Negligible	Slight	Slight	Neutral or Slight	Neutral or Slight	Neutral
No change	No Change	No Change	No Change	No Change	No Change

2.3.24 Based on the information collected during the development of the EIA and in consultation with statutory bodies, mitigation measures have been incorporated into the design of the Development to avoid, reduce, remedy or compensate potential significant impacts.

2.3.25 Where appropriate, the ES includes recommendations for monitoring during the construction and operational phases of the Development. Recommendations for monitoring include reference to the use of an Environmental Management Plan (EMP), particularly during remediation and construction works.

2.4 Cumulative Impacts

2.4.1 Where possible the EIA also considers cumulative impacts which can be defined as “impacts that result from incremental changes caused by other past, present or reasonably foreseeable future actions together with the Development”.

2.4.2 Cumulative impacts may include:

- The combined effect of individual impacts from the Development on receptors; and
- Incremental impacts caused by separate developments within the area.

2.4.3 The first type of cumulative effect is addressed within the sections of the ES dealing with specific environmental issues, where appropriate. In terms of potential cumulative impacts associated with other developments within the area, consideration has been given to potential cumulative impacts arising from the following current and proposed developments:

- Middlewich Eastern Bypass; and
- Other Midpoint 18 Development.

2.5 References

1. Town and Country Planning (Environmental Impact Assessment) Regulations (1999), as amended.
2. Circular 02/99 Environmental Impact Assessment (Department of the Environment, Transport and Regions (Department of the Environment, Transport and the Regions) (1999)
3. Preparation of Environmental Statements for Planning Projects that require Environmental Assessment. A Good Practice Guide (Department of the Environment, Transport and the Regions) (1995)
4. J Glasson, R Therivel & A Chadwick “Introduction to Environmental Impact Assessment” 2nd Edition (1999)
5. Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, European Commission Directorate General XI, EU (1999)