



EIA VOLUME 2
Chapter 4 Technical Appendices 4.1

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4 EIA Assessment Methods

4.1 Introduction

This chapter describes the process by which the EIA has been carried out. It includes a discussion of the relevant regulations, the EIA process, consultations, and the over-arching assessment methods applied. Details of the technical methods followed for each topic specific assessment are presented in each of the technical Chapters (5-9) as appropriate.

4.2 Overview of EIA

EIA is a process which aims to identify a project's likely significant environmental effects, identify mitigation measures to reduce the level of or avoid those effects, and assess the residual significance of predicted environmental effects taking account of all proposed mitigation and enhancement measures. This process helps to ensure that predicted significant effects, and the scope for reducing them, are properly understood by the public and relevant consenting authorities before determining an application for a development proposal.

The requirement to systematically assess the effects of certain public and private projects on the environment through undertaking an EIA was first introduced through European Council Directive 85/337/EEC, as amended, and later codified in EU Directive 2011/92/EU. Substantive changes to EIA information and assessment requirements were then made through the Revised EIA Directive 2014/52/EU which was enacted in the UK on 16 May 2017 to form the EIA Regulations. To ensure that the provisions of the EIA Regulations would continue to be implemented in the same way, or an equivalent way, following the exit of the United Kingdom from the EU at the end of the transition period, appropriate amendments were made by The Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018. There has been no substantive change to EIA requirements as a result of the departure of the UK from the European Union.

An important tenet of EIA is that it is a process culminating in the submission and examination of an EIA Report as part of the consenting process. EIA therefore has several key characteristics; it is:

- **Systematic**, comprising a sequence of tasks defined both by regulation and best practice;
- **Analytical**, requiring the application of specialist knowledge and skills from environmental sciences and policy;
- **Impartial**, its objectives being to inform decision making and improve the environmental performance of projects rather than being to promote them;
- **Consultative**, with provision being made for obtaining information and feedback from interested stakeholders and relevant consultees throughout the process; and
- **Iterative**, allowing opportunities for environmental concerns to be addressed during the planning and design of a development proposal.

Typically, an iterative design process occurs in response to environmental constraints (identified during the EIA process) and other design objectives, taking account of project viability considerations and feedback from relevant consultees. This often results in a development proposal incorporating mitigation measures or design features to avoid, reduce or compensate for potential adverse effects, referred to as Embedded Mitigation. Additional Mitigation (or Further Mitigation) is then identified through the EIA process where necessary to reduce or avoid residual adverse significant environmental effects.

4.3 Overview of the EIA Process

In general terms the main stages in the EIA are as follows:

- **Screening** – determining whether a proposed project falls within the remit of the EIA Regulations;

- **Scoping** – determining the extent of issues to be considered in the EIA and reported in the EIA Report;
- **Establishing Baseline** – drawing together and reviewing existing available data and undertaking further surveys to determine the existing and future baseline conditions;
- **Assessment and Iteration** – assessing the likely significant effects of the development proposal, evaluating alternatives, providing feedback to the design team on potential adverse impacts, modifying the development proposal and/or imposing parameters, incorporating mitigation and re-assessing effects of the mitigated development proposal;
- **Preparation of the EIA Report; and**
- **Consultation and Decision Making.**

The EIA Regulations emphasise that EIA is a process rather than output and involves the following stages:

- **Assessment work** culminating in the preparation of an EIA Report in accordance with the information requirements prescribed by the EIA Regulations;
- **Public consultation** on the application for planning permission, the EIA Report, and any other relevant information. Consultation may be iterative rather than only occurring once in the EIA process;
- **Examination** by the relevant authority of the information presented in the EIA Report and other relevant information including that received through the consultation process; and
- The relevant authority coming to a reasoned conclusion on the residual significant effects of the development proposal on the environment prior to the determination of any related consenting application.

The EIA process therefore encompasses all stages of considering environmental issues associated with projects, from initial identification of relevant issues through to assessing the residual significance of predicted environmental effects and securing required mitigation. This ensures that all required mitigation is subsequently carried out in the implementation of projects.

EIA therefore directly influences the design, construction, operation and, where relevant, decommissioning, of proposed projects, as well as providing information to decision makers.

4.4 Statutory Provisions

The planning application submitted for the proposed development is determined under the provisions of the Town and Country Planning (Scotland) Act 1997 and in accordance with the corresponding statutory EIA requirements set out within The Town and Country Planning (Scotland) (Environmental Impact Assessment) Regulations 2017 ('the TCPA EIA Regulations').

4.5 EIA Screening

Schedule 2 of the EIA Regulations identifies development types for which the requirement to undertake EIA is not always certain and therefore must be determined on a case-by-case basis. Having regard to the nature of the proposed development and known environmental sensitivities within and surrounding the site, the Applicant is of the view that EIA is appropriately provided in relation to the Section 36 planning application for the proposed development. Consequently, the proposed development is an EIA Development under Regulation 6(c) of the EIA Regulations by virtue of the submission of this EIA Report to accompany the planning application.

An EIA Screening request was submitted to The Highland Council (THC) in June 2022, and the opinion was issued in July 2022 confirming that an EIA would be required to support any planning application.

4.6 EIA Scoping

An EIA Scoping Report was submitted to THC in November 2022 (see Appendix 1.3). Subsequently, THC issued a formal EIA Scoping Opinion on behalf of Scottish Ministers in January 2023 to define the required scope of the EIA; this is provided in full in Appendix 1.4. The Scoping

Opinion draws upon EIA scoping consultation responses provided by relevant consultees which are set out in full within the EIA Scoping Opinion.

In accordance with Regulation 5(3) of the EIA Regulations, this EIA Report is based on the Scoping Opinion and includes the information which the Applicant considers to be reasonably required for reaching a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account current knowledge and methods of assessment. Any material departures from the EIA Scoping Opinion are justified within this EIA Report.

As a result, this EIA Report has been prepared to fulfil the requirements of the Scoping Opinion and is in compliance with regulation 18(4)(a) of the EIA Regulations which requires an EIA Report to be based on the most recent Scoping Opinion issued.

Where relevant, some of the technical chapters have referred back to comments received as part of the Scoping Opinion, for completeness and to provide necessary context.

4.7 Information Requirements and Guidance

Information Requirements

Schedule 4 of the TCPA EIA Regulations prescribe the information which must be included within an EIA Report, including descriptions of:

- Relevant environmental baseline characteristics. An overview is provided in the introductory sections of this EIA Report and each of the technical assessments presented in **Chapters 5–9** include current and future baseline sections to meet this requirement;
- Physical characteristics of the whole development, which in this case means identifying the key characteristics of the construction and operational phases of the proposed development (refer to **Chapter 3 – The Proposed Development**);
- Consideration of the reasonable alternatives studied by the developer (refer to **Chapter 3 – The Proposed Development**);
- The main characteristics of the production or operational phases, including proposed materials and natural resource usage (refer to **Chapter 3 – The Proposed Development**);
- An overview of expected residues and emissions (refer to **Chapter 3 – The Proposed Development**);
- The assessment methodologies deployed in undertaking this EIA (refer to the technical assessment methodologies provided within **Chapters 5–9**);
- Likely significant effects from the proposed development (refer to the assessments presented within the technical assessments presented in **Chapters 5–9**);
- Mitigation measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment (refer to the technical assessments presented in **Chapters 5–9**, and **Chapter 12 – Schedule of Mitigation and Monitoring**);
- Any proposed monitoring arrangements in relation to any predicted significant adverse effects (refer to **Chapter 12 – Schedule of Mitigation and Monitoring**);
- A non-technical summary of all of the above elements (refer to the standalone **EIA Report Non-Technical Summary**); and
- A reference list detailing the sources used in the assessments (refer to the reference lists provided at the end of each technical assessment presented in **Chapters 5–9**).

EIA Guidance

A range of reference materials and guidance has been drawn upon in developing the EIA methodology adopted. Over and above the EIA Regulations themselves, guidance includes:

- IEMA. (2015) IEMA Environmental Impact Assessment Guide to Shaping Quality Development;
- IEMA. (2016) IEMA Environmental Impact Assessment Guide to Delivering Quality Development;
- Morris, P and Therivel, R. (2009) Methods of Environmental Impact Assessment; and
- Institute of Environmental Management and Assessment. Guidelines for Environmental Impact Assessment (IEMA).

Topic specific guidance used in the preparation of the individual technical assessments presented in this EIA Report is noted where relevant in Chapters 5–9.

4.8 EIA Methodology

Overview

Following the identification of the scope of the EIA, in accordance with the Scoping Opinion at Appendix 1.4, each environmental topic has been subject to investigation and assessment to identify and evaluate likely significant environmental effects. The survey and assessment methodologies deployed are based on recognised best practice and guidance relevant to each topic area, details of which are provided within relevant technical assessment chapters (Chapters 5 - 9).

In general terms, the technical assessments undertaken for each topic area and EIA Report chapter include:

- Collation of existing baseline information regarding relevant aspects of the environment, together with surveys and fieldwork, as required, to fill any knowledge gaps or update historical information;
- Use of the collated baseline to identify relevant trends, describe the baseline scenario and predict the evolution of this baseline scenario in the absence of the proposed development;
- Consultation with relevant consultees in relation to the EIA scope and emerging findings;
- Consideration of the potential effects of the proposed development on the baseline scenario (taking account of its predicted evolution), followed by the identification of design changes, mitigation measures to avoid or reduce predicted significant adverse effects, and possible enhancement measures to improve environmental outcomes;
- Assessment of the significance of predicted residual effects from the proposed development and consideration of any monitoring required in relation to predicted residual significant adverse effects;
- Production of EIA Report chapter; and
- Input into a consolidated schedule of required mitigation measures and proposed monitoring arrangements for the proposed development.

The detailed methodology adopted to undertake each individual technical assessment is presented within Chapters 5–9.

Key Methodological Assumptions

The following key assumptions have been made to ensure that the EIA presented in this EIA Report has undertaken a proportionate and conservative assessment of the magnitude and significance of potential effects resulting from the proposed development:

- The EIA, including the preparation of this EIA Report, has been undertaken in full accordance with the applicable EIA Regulations;
- The proposed development has been assessed in relation to and will be built out in accordance with the plans provided in Volume 2. Any drawings outwith Volume 2 (as part of this EIA Report or the planning application) are for illustrative purposes only;

- The assessments provided assume that the proposed development will be built out in accordance with the indicative programme outlined in Table 5.7;
- Relevant cumulative development which has the potential to interact with the construction and/or operation of the proposed development is identified in Section 2.5. In addition, several other developments have been identified as relevant from a cumulative impact perspective, as of which are considerations specific to the technical chapters. These schemes are outlined within Chapters 5 – 9.
- In accordance with the EIA Regulations, an assessment of likely effects (including cumulative effects) from the proposed development has been carried out to identify, describe and assess any potentially significant effects. As such, the assessment only considers possible effects which have some potential to be significant within the context of the EIA Regulations. Other possible effects which have no potential to be significant in EIA terms have necessarily been scoped out of this EIA; and
- Suitable planning conditions and/or planning obligations will be attached to any forthcoming development consent granted for the proposed development to secure relevant mitigation measures. Relevant mitigation measures proposed to be secured by planning condition are set out in Chapter 12 – Schedule of Mitigation and Monitoring.

Consultation

In addition to formally requesting that THC adopt an EIA Scoping Opinion in respect of the proposed development, additional consultation has been undertaken to provide information, discuss assessment methods and findings, and to agree mitigation measures and design responses. A list of stakeholders contacted during the EIA process is provided in Volume 1 Table 1.2.

The applicant has also engaged with the local community.

Full details of this pre-application consultation undertaken is outlined within EIA Volume 1 Section 1.7.

Establishing Baseline Conditions

Current Baseline

A range of site surveys and data collection exercises have been used to identify current environmental conditions at the site and the surrounding area. The surveys undertaken are reported in each of the topic chapters. Data has also been collated regarding relevant cumulative development (see Section 2.6).

The EIA has been based on technical surveys and assessments, the reporting of which is frequently too detailed and lengthy for incorporation into Volume 1 of this EIA Report. In such instances the technical surveys and assessment reports are provided in full in Volume 2 (Figures and Technical Appendices), with a relevant summary and the reference provided in Volume 1. The geographical scope of these appended surveys and assessments has been based on the likelihood for significant effects, in accordance with the EIA Scoping Opinion adopted by THC.

Future Baseline

This EIA has assessed the likely significant effects of the proposed development against baseline conditions in the same year, providing an assessment of 'do something' and 'do nothing'. Therefore, as required by the EIA Regulations, each chapter has considered as appropriate the likely evolution of current baseline conditions without implementation of the proposed development, as far as natural changes from the baseline scenario can be assessed with reasonable effort, on the basis of available environmental information and scientific knowledge.

Where appropriate, future baseline conditions described within each topic chapter also take account of cumulative development which is likely to come forward (or be decommissioned) prior to the construction and/or operation of the proposed development, in particular to determine whether the implementation of cumulative development is likely to alter the current physical characteristics of the site and surrounding area, or the importance or sensitivity of identified

receptors. Unless stated otherwise, the impact assessment presented in Chapters 5 – 9 consider the likely significant effects of the proposed development during construction on predicted future baseline conditions and during operation (the anticipated year that the development will be constructed and operational), and the significance of such effects.

Types of Effect

Schedule 4 to the EIA Regulations requires consideration of a variety of types of effect, namely direct / indirect, secondary, cumulative, positive / negative, short / medium / long-term, and permanent / temporary. All identified effects need to be considered in terms of how they are predicted to arise, whether they are positive (beneficial) or negative (adverse), their temporal occurrence (i.e. when they are predicted to occur) and their duration. This includes consideration of effects during both the construction, operational and decommissioning phases of development. The potential for effects identified through one topic specific technical assessment to generate secondary or otherwise related effects of relevance to other environmental topics is also required to be considered.

Unless stated otherwise in topic specific chapters, the duration of effects is defined as follows:

- Short term - < 2 years;
- Medium term - between 2 years and 5 years; and
- Long term - > 5 years¹.

The spatial scope for the identification of likely significant environmental effects varies between environmental topic areas and a relevant Study Area(s) is therefore defined within each technical assessment EIA Report chapter (Chapters 5–9). In general terms, this spatial scope depends on the location of relevant receptors and the existence of known pathways for potentially significant effects from the proposed development to the identified receptors.

Uncertainty

The prediction of future effects inevitably involves a degree of uncertainty. Where necessary, the technical assessments presented in Chapters 5-9 describe the principal factors giving rise to uncertainty in the prediction of effects and the degree of the uncertainty.

Confidence in the assessments presented in this EIA Report can be derived from the application of robust topic specific assessment methodologies, which have been developed and implemented in accordance with relevant technical guidance and standards (e.g. those detailed within Design Manual for Roads and Bridges, the Guidelines for Ecological Impact Assessment in the UK and British Standard Institute publications). Where the success of a proposed mitigation measure is uncertain, the extent of this uncertainty is identified.

It is not considered that any assumptions made have prevented the accurate assessment of potential environmental impacts or the identification of appropriate mitigation measures. The environmental impacts reported in this EIA Report and the level of mitigation described effectively sets the minimum standard which will be achieved by the final development.

Mitigation Measures, Enhancement Measures and Monitoring

The technical assessments presented in Chapters 5-9 of this EIA Report firstly identify predicted effects from the proposed development, taking into account embedded mitigation measures, before identifying any required further mitigation and then reporting predicted residual effects.

The EIA Regulations require an EIA Report to include a description of “measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment”. Each technical assessment presented in Chapters 5-9 therefore consider the need for further mitigation measures (beyond embedded mitigation) to avoid significant adverse effects otherwise predicted to occur. Consideration is also given to further mitigation measures in order to reduce predicted ‘not significant’ adverse effects and to recommended enhancement measures to

improve the environmental performance of the proposed development, including in respect of predicted beneficial environmental effects.

A schedule of all proposed mitigation measures is provided in Chapter 12 – Schedule of Mitigation and Monitoring. This schedule is provided to assist the Scottish Ministers in securing all required mitigation measures and any proposed monitoring within the decision notice of any development consent granted for the proposed development.

The significance of Likely Residual Effects

Residual effects are the environmental effects that will remain after the incorporation of both embedded and additional (further) mitigation measures. It is these residual effects which should be considered when assessing the significance of effects from the proposed development, rather than the unmitigated effects (as unmitigated effects will not occur). To provide an objective assessment of residual effects, their significance has been determined and is identified in the EIA Report, as detailed below. This allows for comparison of effects between topics, strengthens the assessment of impact interactions, and allows decision makers to examine and make reasoned conclusions on the significant environmental effects of a project more easily.

The two principal criteria for determining significance of an environmental effect are the magnitude of change and the sensitivity of an identified receptor to this change. The likelihood of the change occurring is also considered as a constituent factor affecting the predicted magnitude of change. The approach to assigning significance to predicted environmental effects is not itself detailed within the EIA Regulations, meaning that it is necessary to develop effect significance thresholds to underpin the assessments reported in this EIA Report. These thresholds are defined on a topic specific basis within Chapters 5-9, taking account of relevant regulations, guidance, standards, the advice and views of consultees, and expert judgement. The Methodology within each technical assessment chapter explains the topic specific methodology adopted to identify the level and associated significance of predicted effects, with reference to relevant thresholds. Where relevant, this is based on the factors identified above and the generic criteria set out in Table 1 below.

Unless stated otherwise in topic chapters, effects that are described as ‘Substantial’ or ‘Major’ are determined to be ‘Significant’ in the context of the EIA Regulations, whereas effects that are described as ‘Moderate’, ‘Minor’, ‘Negligible’ or ‘No Effect’ are determined to be ‘Not Significant’. ‘Moderate’ levels of effect can also be assessed as Significant, subject to the assessor’s opinion. In these cases, this is clearly explained as part of the assessment.

It should be noted that some of the technical chapters in this EIA Report do not categorise effects as Substantial, with the highest classification of effect bring Major. Each technical assessment chapter explains the topic specific methodology adopted to identify the level and associated significance of predicted effects.

Table 1-1: Generic Significance Criteria

	Level of Effect	Criteria
Significant	Substantial	These effects are assigned this level of significance as they represent key factors in the decision-making process. They are generally, but not exclusively, associated with sites and features of international or national importance. A change at a regional scale site or feature may also enter this category.
	Major	These effects are likely to be important considerations at a local, district or regional scale and are generally key factors in the decision-making process.
	Moderate	These effects, while potentially important at a local scale, are not anticipated to be key decision-making issues. Moderate effects are generally considered to be Not Significant, although depending on mitigating/influencing factors, in some circumstances a moderate effect may be deemed Significant.
Not Significant	Minor	These effects may be raised as local issues but are unlikely to be of importance in the decision-making process.
	Negligible	Effects observed on a local scale which are within the margin of forecasting error. Such effects should not be considered by the decision-maker.
	No Effect	Changes which are beneath the level of perception and therefore cannot be identified as likely effects. No further consideration of such changes is required by the decision-maker.

4.9 Impact Interactions

Chapter 11 – Impact Interactions provides the assessment of impact interactions and synergistic effects, i.e., receptors being affected by more than one environmental effect and therefore potentially being subject to a more significant ‘combined effect’ than reported within the individual technical assessment chapters (i.e. Chapters 5-9). Details of the approach to identifying and assessing impact interactions is provided within Chapter 11.

4.10 Approach to Cumulative Impact Assessment

The TCPA EIA Regulations require likely significant cumulative effects from a development proposal in combination with existing and/or approved development to be described within an EIA Report. Existing developments (where fully built out and operational) are considered as part of the current baseline scenario within the technical assessments provided in **Chapters 5-9** of this EIA Report, whilst approved developments are considered with a predicted ‘future baseline scenario’.