2 ASSESSMENT APPROACH

2.1 INTRODUCTION

2.1.1 This chapter explains the methodology used to prepare the technical chapters of this ES and describes its structure and content. In particular, it sets out the process of identifying and assessing the likely significant environmental effects of the Proposed Development.

2.2 GENERAL APPROACH TO ENVIRONMENTAL STATEMENT

2.2.1 This Environmental Impact Assessment has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

2.2.2 In accordance with the EIA Regulations (Regulation 18), an Environmental Statement means a statement which includes at least: –

> **(a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;**
>
> **(b) a description of the likely significant effects of the proposed development on the environment;**
>
> **(c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;**
>
> **(d) a description of the reasonable alternatives studies by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;**
>
> **(e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and**
>
> **(f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected…**
>
> **(5) In order to ensure the completeness and quality of the environmental statement-**
>
> **(a) The developer must ensure that the environmental statement is prepared by competent experts; and**
>
> **(b) The environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.**

2.2.3 Accordingly, in summary this ES comprises the following information in accordance with Regulation 18 and Schedule 4:

2.2.4 A description of the development proposed comprising information about the site including the nature, size and scale of the development;

2.2.5 The data necessary to identify and assess the main effects which the development is likely to have on the environment with a reference list of relevant sources of information used;

2.2.6 A description of the likely significant effects resulting from *inter alia*, the construction (including demolition works where relevant) and existence of the Proposed Development covering, direct effects and any indirect, secondary, cumulative, transboundary, short, medium and long term, permanent and temporary, positive and negative effects, explained by reference to the Proposed Development's possible effect on: population, human health, and natural and man-made resources including biodiversity, land, soil, water, air, climate, material assets, cutural heritage and landscape and the interaction between any of the foregoing material assets (as appropriate);

2.2.7 Where significant adverse effects are identified with respect to any of the foregoing, mitigation measures will be proposed in order to avoid, prevent, reduce or offset those effects and any proposed monitoring arrangements stated;

2.2.8 A description of the expected significant effects of the development and measures envisaged to prevent them deriving from the vulnerability of the Proposed Development to relevant risks of major accidents and/or disasters;

2.2.9 A summary in non-technical language of the information specified above; and.

- A statement outlining the relevant experience of the experts who have undertaken the assessment and prepared the technical chapters within the Environmental Statement.

2.3 CONSIDERATION OF ALTERNATIVES

2.3.1 Schedule 4 (Part 2), of the EIA Regulations requires that the ES contain "A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects".

2.3.2 Furthermore, the published National Planning Practice Guidance (NPPG) on EIA (Paragraph 033) states that "Where alternative approaches to development have been considered, the Environmental Statement should include an outline of the main alternatives studied and the main reasons for the choice made, taking into account the environmental effects".

2.3.3 Although the NPPG was issued prior to the 2017 EIA Regulations, there has been no instruction from the UK Government that this NPPG is being revoked or should not be one of the many planning tools considered when determining a planning application.

2.3.4 Accordingly, this ES contains, at **Chapter 4**, the main alternatives for the Proposed Development, as considered by the Applicant.

2.4 SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

2.4.1 The scope of this Environmental Statement has been based on professional judgement and advice received from SCC as to the structure of the ES, including the chapters which are required to be included to assess the Proposed Development.

2.4.2 Accordingly, the environmental themes scoped into or out of the EIA are given in **Table 2.2.**

Table 2.2: Environmental Themes Scoped In / Out

Environmental Theme	Scoped In/Out	How/ Where Addressed / Reason for Scoping Out
Population	In	Socio-Economics Chapter
Human Health	In	Air Quality Chapter Noise and Vibration Chapter
Biodiversity	In	Ecology and Nature Conservation Chapter
Land	In	Landscape and Visual Impact Chapter Hydrogeology and Ground Conditions Chapter Hydrology and Flood Risk Chapter
Soil	In	Hydrogeology and Ground Conditions Chapter
Water	In	Hydrology and Flood Risk Chapter
Air	In	Air Quality Chapter
Climate	In	Traffic and Transport Chapter Air Quality Chapter Hydrology and Flood Risk Chapter
Material Assets	In	Archaeology and Built Heritage Chapter
Cultural Heritage including Architectural and Archaeological	In	Archaeology and Built Heritage Chapter
Landscape	In	Landscape and Visual Impact Chapter
Inter-relationship between above factors		Within each topic chapter (Chapters 5 to 13) under the heading Cumulative and In-combination Effects

2.5 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

2.5.1 The content of the ES is based on the following:

- Review of the baseline situation through existing information, including data, reports, site surveys and desktop studies;
- Consideration of the relevant National Planning Policy Framework (NPPF) and accompanying NPPG, and the statutory extant and emerging development plan policies;
- Consideration of potential sensitive receptors;

- Identification of likely significant environmental effects and an evaluation of their duration and magnitude;
- Expert opinion;
- Modelling;
- Use of relevant technical and good practice guidance; and
- Specific consultations with appropriate bodies.

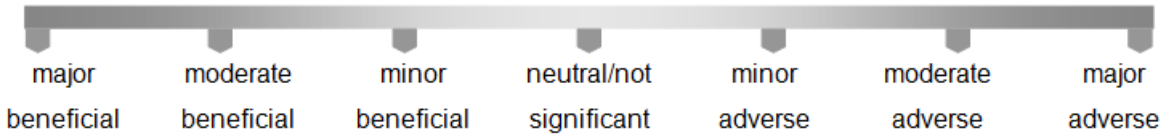
2.5.2 Environmental effects have been evaluated with reference to definitive standards and legislation where available. Where it has not been possible to quantify effects, assessments have been based on available knowledge and professional judgment.

2.6 DETERMINING SIGNIFICANCE

2.6.1 The purpose of the EIA is to identify the likely 'significance' of environmental effects (beneficial or adverse) arising from a Proposed Development. In broad terms, environmental effects are described as:

- Adverse – detrimental or negative effects to an environmental resource or receptor;
- Beneficial – advantageous or positive effect to an environmental resource or receptor; or
- Negligible – a neutral effect to an environmental resource or receptor

2.6.2 It is proposed that the significance of environmental effects (adverse, negligible/neutral or beneficial) would be described in accordance with the following 7-point scale: -



2.6.3 Significance reflects the relationship between two factors:

- The magnitude or severity of an effect (i.e. the actual change taking place to the environment); and
- The sensitivity, importance or value of the resource or receptor.

2.6.4 The broad criteria for determining magnitude are set out in **Table 2.3**.

Table 2.3: Degrees of Magnitude and their Criteria

Magnitude of Effect	Criteria
High	Total loss or major/substantial alteration to elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Medium	Loss or alteration to one or more elements/features of the baseline conditions such that post development character/ composition/ attributes of the baseline will be materially changed.
Low	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible / detectable but the underlying character / composition / attributes of the baseline condition will be

Magnitude of Effect	Criteria
	similar to the pre-development.
Negligible	Very little change from baseline conditions. Change not material, barely distinguishable or indistinguishable, approximating to a 'no change' situation.

2.6.5 The sensitivity of a receptor is based on the relative importance of the receptor using the scale in **Table 2.4**.

Table 2.4: Degrees of Sensitivity and their Criteria

Sensitivity	Criteria
High	The receptor / resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Medium	The receptor / resource has moderate capacity to absorb change without significantly altering its present character, or is of high and more than local (but not national or international) importance.
Low	The receptor / resource is tolerant of change without detrimental effect, is of low or local importance.
Negligible	The receptor / resource can accommodate change without material effect, is of limited importance.

2.6.6 Placement within the 7-point significance scale would be derived from the interaction of the receptor's sensitivity and the magnitude of change likely to be experienced (as above), assigned in accordance with **Table 2.5** below, whereby effects assigned a rating of Major or Moderate would be considered as 'significant'.

Table 2.5: Degrees of Significance

Magnitude of Change	Sensitivity of Receptor				
		High	**Medium**	**Low**	**Negligible**
	High	Major	Major	Moderate	Negligible
	Medium	Major	Moderate	Minor to Moderate	Negligible
	Low	Moderate	Minor to Moderate	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

2.6.7 The above magnitude and significance criteria are provided as a guide for specialists to categorise the significance of effects within the ES. Where discipline-specific methodology has been applied that differs from the generic criteria above, this is clearly explained within the given chapter under the heading of Assessment Approach.

2.6.8 As can be seen from **Table 2.5**, when an environmental effect is assessed as having a major or moderate degree of significance it is deemed to be "significant". These

are the shaded cells in **Table 2.5**. When such a significant effect occurs consideration of mitigation solutions or enhancements to minimise the effect (which can include design alterations) will be considered. Once these mitigations and enhancements have been assessed the degree of significance may decrease to minor/moderate, minor or negligible. If such a level of environmental effect occurs the Proposed Development is no longer considered as creating a "significant effect". If an environmental effect remains "significant" (i.e. major/moderate) the relevant planning authority must weigh up the planning balance and determine if this significant, negative environmental effect is outweighed by some other planning gain prior to determining the planning application.

2.6.9 A significance of effects would be assigned both before and after mitigation.

2.7 MITIGATION

2.7.1 Standard measures and the adoption of construction best practice methods to avoid, minimise or manage adverse environmental effects, or to ensure realisation of beneficial effects, are assumed to have been incorporated into the design of the Proposed Development and the methods of its construction from the outset. Further information on the standard measures and construction best practice is detailed in **Chapter 3**. Where outlined, the assessment is of the Proposed Development incorporating these measures.

2.7.2 Where mitigation measures are proposed that are specific to an environmental theme (i.e. ecological measures incorporated into the landscaping scheme, exclusion of areas of archaeological significance from development etc.) and incorporated into the design, these are also outlined within **Chapter 3**, and highlighted within the relevant technical chapter.

2.7.3 Where the assessment of the Proposed Development has identified potential for adverse environmental effects, the scope for mitigation of those effects, for example by way of compensatory measures, has been considered and is outlined in the appropriate technical chapter. It is assumed that such measures would be subject to appropriate planning conditions or obligations.

2.7.4 Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, then data and/or professional judgment has been introduced to support these assumptions.

2.8 CUMULATIVE AND IN-COMBINATION EFFECTS

<u>Cumulative Effects</u>

2.8.1 Within EIA, cumulative effects are generally considered to arise from the combination of effects from the Proposed Development and from other proposed or permitted schemes in the vicinity, acting together to generate elevated levels of effects. Examples of these kinds of effects that can be readily appreciated could include:

- Traffic generated from developments, affecting the surrounding road network;
- Air quality effects from developments; and
- Discharges to the water environment.

2.8.2 No particular sites or projects have been identified via discussions with SCC. Research undertaken by the Applicant has also not indicated that there are any major development proposals which are at a stage at which cumulative consideration is required.

2.8.3 The International Advanced Manufacturing Park, a defined Nationally Significant Infrastructure Project, is located some 1km to the north-east of the Application Site at its nearest point. However, an application for Development Consent for this project has not yet been made and therefore the scope of the development is not yet confirmed, nor is there any certainty that an Order granting Development Consent would be made. Accordingly, it is not considered that this development requires consideration of cumulative impacts with the Proposed Development.

2.8.4 With regard to Traffic and Transport, this assessment includes the potential trip generation associated with the A1290 infrastructure works (SCC ref: 15/00671/HYE) in determining effects on highways capacity. No planning applications are currently submitted or approved for this development, but the assessment includes assumptions of floorspace contained in the infrastructure works planning application.

In-Combination Effects

2.8.5 In-combination effects arise where effects from one environmental element bring about changes in another environmental element. These effects are also reviewed in each of the technical chapters of this ES. Examples of the main types of interactive effects are as follows:

- Effects of traffic on noise;
- Effects of traffic on air quality;
- Effects of water discharges on biodiversity;
- Effects of landscaping on biodiversity;
- Effects of waste on traffic; and
- Effects of land contamination on air and water quality.

2.9 GENERAL ASSUMPTIONS AND LIMITATIONS

2.9.1 The principal assumptions that have been made and any limitations that have been identified in preparing this ES are set out below:

- All of the principal land uses adjoining the Application Site remain as present day, except where redevelopment proposals have been granted planning consent. In those cases it is assumed the redevelopment proposals will be implemented or would but for the development being implemented;
- Information received from third parties is complete and up to date;
- The design, construction and completed stages of the Proposed Development will satisfy legislative requirements; and
- Conditions will be attached to the planning permission with regards "mitigation", where considered necessary to make the development environmentally acceptable.

2.10 STRUCTURE OF TECHNICAL CHAPTERS

2.10.1 Throughout the EIA process, the likely significant environmental effects of the Proposed Development will be assessed. Within each of the technical chapters the information which will inform the EIA process has generally been set out in the following way:

- **Introduction** – to introduce the topic under consideration, state the purpose of undertaking the assessment and set out those aspects of the Proposed Development material to the topic assessment;
- **Assessment Approach** – to describe the method and scope of the assessment undertaken and responses to consultation in relation to method and scope in each case pertinent to the topic under consideration;

- **Baseline Conditions** – a description of the baseline conditions pertinent to the topic under consideration including baseline survey information;
- **Assessment of Likely Significant Effects** - identifying the likely effects, evaluation of those effects and assessment of their significance, considering both construction and operational and direct and indirect effects;
- **Mitigation and Enhancement** - describing the mitigation strategies for the significant effects identified and noting any residual effects of the proposals;
- **Cumulative and In-combination Effects** - consideration of potential cumulative and in-combination effects with those of other developments; and
- **Summary** – a non-technical summary of the chapter, including baseline conditions, likely significant effects, mitigation and conclusion.