

## 2.0 EIA Approach and Methodology

### 2.1 Introduction

This chapter of the Environmental Statement (ES) sets out the broad approach and methodology used in the preparation of the ES. The specific methodology applied to each of the technical impact assessments is set out in the third section of each technical chapter.

The preparation, co-ordination and completion of the ES has been undertaken with reference to Schedule 4 of the 2017 EIA Regulations and the following recognised good practice guidance:

- Institute of Environmental Management and Assessment (IEMA) (2014) EIA Quality Mark ES Review Criteria; and
- National Planning Practice Guidance

### 2.2 Content of the Environmental Statement

Regulation 18(3) defines an Environmental Statement as 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 proposed environment.*
- c) A description of any feature 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 studied by the developer, which are relevant to the proposed development and its proposed characteristics, and an indication of the main reason for the option chosen, taking into account the effect 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 feature likely to be significantly affected.*

Regulation 18 (4) also states that an environmental statement must-

- a) where a scoping opinion or direction has been issued in accordance with regulation 15 or 16, be based on the most recent scoping opinion or direction issued (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion or direction);*

- b) include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment; and
- c) be prepared, taking into account the results of any relevant UK environmental assessment, which are reasonably available to the person preparing the environmental statement, with a view to avoiding duplication of assessment.

Schedule 4 of the 2017 EIA Regulations presents a list of information required for inclusion in Environmental Statements.

In accordance with UK EIA best practice, this ES includes the information requirements set out in Regulation 18 and Schedule 4 of the EIA regulations. *Table 2.1* shows where these information requirements have been included or addressed in this ES.

<b>Table 2.1 Information for Inclusion in Environmental Statements</b>	
<b>Schedule 4 Requirement</b>	<b>Where Addressed in ES</b>
<p>1. A description of the development comprising information on:</p> <ul style="list-style-type: none"> <li>-the location of the development</li> <li>-a description of the physical characteristics of the site, requisite demolition, and land use requirement during the construction and operation phase.</li> <li>-the site, design and size of the development during construction and operation.</li> <li>-a description of the main characteristics of the operational phase of development, for example energy demand, quality of materials and natural resources used.</li> </ul>	<p><i>Chapter 3</i> describes the site and its surroundings in the context of the EIA.</p> <p><i>Chapter 4</i> presents information on the proposed development and other developments to be included in the cumulative assessment.</p> <p><i>Chapter 2</i> includes timescales for construction and occupation. <i>Chapter 4</i> describes the sequencing of development.</p>
<p>2. A description of reasonable alternatives 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.</p>	<p><i>Chapter 4</i> of the ES provides an outline of the main alternatives studied by the developer.</p>
<p>3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.</p>	<p><i>Chapters 5 – 12</i> provide an assessment of the current state of the environment (baseline conditions) and take into account natural changes from this baseline.</p>
<p>4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development including:</p>	<p>The ES includes an assessment of the potential significant effects of the proposed development on the listed aspects in the following chapters:</p>

<ul style="list-style-type: none"> <li>Population</li> </ul>	<p><i>Chapter 5 – Flooding, Hydrology and Water Resources</i> <i>Chapter 8 – Landscape and Visual</i> <i>Chapter 9 – Traffic and Transport</i> <i>Chapter 10 – Air Quality</i> <i>Chapter 11 – Noise and Vibration</i></p>
<ul style="list-style-type: none"> <li>Human Health</li> </ul>	<p><i>This has been scoped out of the EIA as a main topic but is included in:</i> <i>Chapter 10 – Air Quality</i> <i>Chapter 11 – Noise and Vibration</i></p>
<ul style="list-style-type: none"> <li>Fauna and Flora</li> </ul>	<p><i>Chapter 6 – Biodiversity</i></p>
<ul style="list-style-type: none"> <li>Soil</li> </ul>	<p><i>Chapter 12 – Agricultural Land Quality</i></p>
<ul style="list-style-type: none"> <li>Water</li> </ul>	<p><i>Chapter 5 – Flooding, Hydrology and Water Resources</i></p>
<ul style="list-style-type: none"> <li>Air</li> </ul>	<p><i>Chapter 10 – Air Quality.</i></p>
<ul style="list-style-type: none"> <li>Climatic factors</li> </ul>	<p><i>Chapter 5 – Flooding, Hydrology and Water Resources</i> <i>Chapter 10 – Air Quality</i></p>
<ul style="list-style-type: none"> <li>Material assets including architectural and archaeological heritage</li> </ul>	<p><i>Chapter 7 – Cultural Heritage</i></p>
<ul style="list-style-type: none"> <li>Landscape</li> </ul>	<p><i>Chapter 8 – Landscape and Visual.</i></p>
<ul style="list-style-type: none"> <li>Interaction of the above factors</li> </ul>	<p>Technical chapters (<i>Chapters 5 – 12</i>) and <i>Chapter 13- Summary of Effects and Mitigation.</i></p>
<p>5. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, transboundary, short, medium and long-term, permanent and temporary, positive and negative effects.</p>	<p><i>Chapters 5 – 12</i> assess the potential significant effects of the proposed development and these are summarised in <i>Chapter 13.</i></p>
<p>6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including difficulties in encountered and the main uncertainties involved.</p>	<p><i>Chapters 5 – 12</i> and their appendices include details of the methodology and issues arising.</p>
<p>7. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.</p>	<p>Mitigation measures are presented in the fifth section of each of the technical chapters (<i>Chapters 5 – 12</i>). A summary of the mitigation measures and their means of delivery is presented in <i>Chapter 13</i> of the ES.</p>
<p>8. A description of the expected significant adverse effects of the development on the environment deriving from vulnerability to major accidents and/or disasters relevant to the project.</p>	<p>The proposed development is not considered to be vulnerable to major accidents and/or disasters and therefore, consideration of these has been scoped out of the EIA.</p>

9. A non-technical summary of the information provided under paragraphs 1 to 5.	A separate non-technical summary is provided.
10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	Source references are included in footnotes to the ES chapters.

## 2.3 Scoping and Consultation

### 2.3.1 EIA Scoping

An EIA Scoping Request was submitted to Coventry City Council in June 2018 and is included in *Appendix 2.1*.

A Scoping Opinion was subsequently received from Coventry City Council (CCC) in November 2018 (*Appendix 2.2*).

### 2.3.2 Pre-application Public and Stakeholder Consultation

Public and stakeholder consultation on the draft proposals was carried out on 26<sup>th</sup> June 2018. Feedback was received from attendees and further details of this is provided in the Statement of Community Involvement which forms part of the planning application.

A summary of the comments received which are relevant to the EIA is provided in *Table 2.2*.

Topic	Summary of Comments
Air Quality	<ul style="list-style-type: none"> <li>Concerns over the potential increase in pollution resulting from the increase in car traffic.</li> <li>Coventry already has exceedances in legal NO<sub>2</sub> levels and this development should not exacerbate this issue.</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>Concern about the loss of wildlife resulting from the development.</li> <li>There is concern that polluted runoff water from the estate would run into the Brook.</li> <li>The existing hedgerows should be preserved.</li> <li>The green corridor should be widened and that the wildlife in the area should be protected and used as a “selling point”.</li> <li>New woodland and meadows should be planted.</li> <li>There should be holes in the fencing to accommodate hedgehogs and dormice.</li> </ul>
Cultural Heritage	<ul style="list-style-type: none"> <li>Concern over the possibility of important archaeological remains at the site.</li> <li>One resident claimed that there are ancient walkways on the site which are not shown by the plans.</li> <li>Prior to development, a full archaeological excavation should be undertaken and all findings should be presented to the public.</li> </ul>

<p>Flooding, Hydrology and Water Resources</p>	<ul style="list-style-type: none"> <li>• Existing issues with surface water run-off during heavy rain on nearby Watery Lane and Fivefield Road which may be exacerbated by the development.</li> <li>• The site is prone to flooding, with one respondent describing it as a 'bog'.</li> <li>• Queries as to whether the existing drainage infrastructure could cope with the additional homes.</li> </ul>
<p>Landscape and Visual Effects</p>	<ul style="list-style-type: none"> <li>• The proposed development may negatively affect the attractiveness of the village and its surroundings.</li> <li>• Support for the fact that the proposal was sensitive to the landscape and the environment. This includes the preservation of the arboreal features.</li> <li>• The proposals should include greater provision for green spaces and nature reserves within the site.</li> <li>• The children's play facilities need to have a natural appearance so that they blend in with the landscape.</li> <li>• Concern over the possibility of the adjacent ancient woodland being affected by pollution, trampling and predatory domestic pets ultimately resulting in the loss of the woods.</li> <li>• The protection area around the ancient woodland should be greater than 15m.</li> <li>• New woodland should be planted.</li> </ul>
<p>Noise and Vibration</p>	<ul style="list-style-type: none"> <li>• Queries regarding construction noise and the extent to which this would affect local people.</li> </ul>
<p>Traffic and Transport</p>	<ul style="list-style-type: none"> <li>• Concerns regarding the impact that the proposed development may have on the local road network.</li> <li>• Concerns over cycle safety on Tamworth Road due to vehicle speeds.</li> <li>• The freight railway line at Keresley should be extended to the site and provide a passenger service to ease congestion.</li> <li>• Charging points for electric cars should be provided.</li> <li>• Fivefield Lane should be pedestrianised as it is an ancient lane with historical and ecological significance and will not be able to cope with additional traffic.</li> <li>• A sustainable transport system should be introduced such as dedicated cycle routes, footpaths and low-emission public transport.</li> </ul>

Where necessary, the comments in *Table 2.2* have been taken into account in the assessments and are addressed in the technical chapters (*Chapters 5 – 12*).

## 2.4 Scope of the Environmental Impact Assessment

### 2.4.1 Technical Scope

The scope of the EIA is based on the following and a summary of the EIA scope is shown in *Table 2.3*:

- Schedule 4 of the 2011 EIA Regulations
- EIA Scoping Report issued to CCC in June 2018 (*Appendix 2.1*)
- Scoping opinion received from CCC in November 2018 (*Appendix 2.2*)
- Public and stakeholder consultation;

<b>ES Chapter</b>	<b>Summary of Scope</b>
1 – Introduction	<ul style="list-style-type: none"> <li>• Requirement for EIA and the purpose of the ES;</li> <li>• Application description;</li> <li>• Structure of the ES; and</li> <li>• ES availability.</li> </ul> <ul style="list-style-type: none"> <li>• Figure 1.1 – Site Location</li> <li>• Figure 1.2 – Application Boundary</li> </ul>
2 – EIA Approach and Methodology	<ul style="list-style-type: none"> <li>• Scoping and consultation;</li> <li>• Content of the ES;</li> <li>• EIA methodology.</li> </ul>
3 – Site and Surroundings	<ul style="list-style-type: none"> <li>• The site;</li> <li>• Site surroundings.</li> </ul>
4 – Proposed Development	<ul style="list-style-type: none"> <li>• Description of the proposed development;</li> <li>• Anticipated timescales for construction and occupation;</li> <li>• Description of cumulative development.(i.e. the Keresley SUE)</li> </ul>
5 – Flooding, Hydrology and Water Resources	Assessment of potential effects on: <ul style="list-style-type: none"> <li>• Surface water receptors;</li> <li>• Groundwater receptors; and</li> <li>• Population (flood risk).</li> </ul>
6 – Biodiversity	Assessment of potential effects on: <ul style="list-style-type: none"> <li>• Designated sites;</li> <li>• Ecologically important habitats; and</li> <li>• Protected species.</li> </ul>
7 – Cultural Heritage	Assessment of potential effects on: <ul style="list-style-type: none"> <li>• Designated sites;</li> <li>• Built heritage assets;</li> <li>• Below Ground archaeology.</li> </ul>
8 – Landscape and Visual	Assessment of potential: <ul style="list-style-type: none"> <li>• Effects on designated sites;</li> <li>• Effects on landscape features and character; and</li> <li>• Visual effects on human beings.</li> </ul>

9 – Traffic and Transport	<p>Assessment of potential effects on:</p> <ul style="list-style-type: none"> <li>• Severance;</li> <li>• Driver delay;</li> <li>• Pedestrian and cyclist delay and amenity;</li> <li>• Public transport;</li> <li>• Accidents and safety; and</li> <li>• Hazardous loads.</li> </ul>
10 – Air Quality	<p>Assessment of potential effects to internal and external receptors through:</p> <ul style="list-style-type: none"> <li>• Construction e.g. dust, traffic emissions; and</li> <li>• Occupation e.g. traffic emissions</li> </ul>
11 – Noise & Vibration	<p>Assessment of potential effects to internal and external receptors through:</p> <ul style="list-style-type: none"> <li>• Construction noise;</li> <li>• Traffic noise; and</li> <li>• Noise during occupation.</li> </ul>
12 – Agricultural Land Quality	<p>Assessment of potential effects on agricultural land.</p>
12 – Summary of Effects and Mitigation	<ul style="list-style-type: none"> <li>• Summary of effects;</li> <li>• Summary of cumulative and ‘in-combination’ effects;</li> <li>• Summary of mitigation measures; and</li> <li>• Delivery of mitigation measures.</li> </ul>

### 2.4.2 Spatial Scope

The geographical or spatial scope of the EIA takes into account the following factors:

- The physical extent of the proposed development which is defined on the parameter plans (*Figures 4.1 and 4.2*);
- The impacts of the proposed development on the wider SUE (i.e. within the Keresley SUE but outside the applicant’s boundary) will be based on the extent of the Keresley SUE allocation as defined in Policy H2 of the Coventry Local Plan.

It is important to put the spatial extent of the predicted impacts into the context of the site and the nature of their effects. The study area or spatial scope for each technical assessment is defined and stated in the methodology section of each chapter. For example, flooding and drainage will be limited to the site and the immediate surroundings. Transport will assess impacts on the local and strategic highway network.

### 2.4.3 Temporal Scope

The temporal scope for each technical assessment is defined and stated in *Section 3* of each technical chapter. In terms of the broad construction and occupation timescales:

- Start of site approximately 18 months from permission (estimated start in Winter 2020/21);
- Construction duration for the application site is estimated to be approximately 8 years to 2028;

- Full occupation from 2028 onwards for at least 100 years.

## 2.5 Assessment of Environmental Effects

The purpose of the ES is to identify and evaluate the likely significant environmental impacts associated with the proposed development. These are then assessed based on the nature of the impact (following mitigation) and the nature of the receiving environment. This determines the significance of their effect.

There is no statutory definition of significance. In this ES the following descriptive terms are used:

- Substantial;
- Moderate;
- Minor;
- Negligible.

The meaning of the terms in relation to the nature of impacts and receptors is shown in the following indicative matrix. However, as the nature of the impacts and the receptors vary by topic, the criteria used to predict the significance of effects arising are set out in the methodology section of each of the technical assessment chapters.

		Nature of Receptor (Sensitivity / Value / Importance)			
		High	Medium	Low	Negligible
Nature of Impact (Magnitude / Probability / Reversibility etc)	High	Substantial	Substantial	Moderate	Negligible
	Medium	Substantial	Moderate	Minor	Negligible
	Low	Moderate	Minor	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

It should be noted that in *Chapter 8 – Landscape and Visual*, due to the number of levels used to describe receptor sensitivity and magnitude of change, five terms are used to describe the significance of effect, with the additional term ‘major’ introduced to describe an effect of between moderate and substantial significance.

The following terms are also used to aid the description of the effect:

**Beneficial** – positive effects;

**Adverse** – negative effects;

**Short/Medium/Long Term** – length of the effect;

**Permanent** – effect cannot be reversed;

**Temporary** – effect can be reversed (e.g. construction impacts);

**Direct** – effects that are a direct result of the proposed development;

**Indirect** – effects that may be a ‘knock-on’ result of direct effects.

## 2.6 Mitigation of Environmental Impacts

The development of mitigation measures is an integral part of EIA. Mitigation measures are set out in each of the technical assessment chapters where significant impacts are identified, with the aim of avoiding, reducing, or compensating for potential adverse effects and maximising potential beneficial effects.

In each technical chapter, the specialists undertaking the EIA have identified appropriate mitigation measures based on their assessment of potential significant impacts. These mitigation measures are divided into:

- **Inherent mitigation measures** – those ‘designed in’ to the scheme and certain to be delivered, i.e. what is proposed on the application form and consented drawings, e.g. parameter plans;
- **Standard mitigation measures** – e.g. mitigation with a high degree of certainty over delivery, e.g. measures to be included in a draft Construction Environmental Management Plan (CEMP) or secured through planning conditions; and
- **Actionable mitigation measures** - those that require a controlling mechanism or legal undertaking to be implemented, but are under the control of the applicant, Local Authority, Highway Authority or Education Authority and therefore, have a good certainty over delivery, e.g. measures included in a Community Infrastructure Levy (CIL) or S106 and S278 agreements.

The determination of the significance of effects in each of the technical chapters is presented under the following scenarios:

- **Impact Assessment** - with inherent and standard mitigation measures implemented;
- **Residual Impact Assessment** – with inherent/standard and actionable mitigation measures implemented.

The implementation and commitment to these measures is set out in *Chapter 12* and the draft Construction Environmental Management Plan (CEMP) in *Appendix 4.1*.

## 2.7 Cumulative Effects

The EIA Regulations require an ES to include consideration of significant cumulative effects. Each technical chapter (*Chapters 5-11*) includes an assessment of potential cumulative effects with the wider proposed Keresley SUE.

Outline planning permission was granted in February 2018 for the construction of up to 800 residential dwellings, a Local Centre and a Primary School within the Keresley SUE to the south of the application site (ref: OUT/2014/2282). This application included an Environmental Statement and this shall be used to inform the cumulative assessment.

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Further details of the proposals are provided in *Chapter 4*.

## **2.8 In-combination Effects**

A summary of potentially significant 'in-combination' effects has been included in *Chapter 12*.

In-combination effects are where a single receptor could be impacted by several different types of effects, e.g. nearby residents could be impacted by a combination of noise, dust and visual impacts during construction of a proposed development.

A matrix approach has been used to identify where there may be multiple residual effects on a particular receptor.

## **2.9 Assumptions and Difficulties Experience in Compiling Information**

### **2.9.1 Key Assumptions**

The following assumptions have formed the basis of the methodology within the ES and are generic throughout the ES:

- Standard and actionable mitigation will be implemented.
- The land included in application OUT/2014/2282 will be developed in accordance with the approved plans.

### **2.9.2 Difficulties in Compiling Information**

No significant limitations in terms of technical studies have been identified.

Where uncertainty of impacts was encountered or where there were limitations in terms of information availability, this is stated within the technical chapters.