

ENVIRONMENTAL IMPACT ASSESSMENT: SCOPING REPORT

THOMPSONS FARM, KERESELY, COVENTRY

ON BEHALF OF LIONCOURT STRATEGIC LAND

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1. Introduction

1.1 Overview

- 1.1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared on behalf of Lioncourt Strategic Land (the "Applicant") in respect of land at Thompsons Farm, Keresley (the "Application Site") which is proposed for residential led development (the "Proposed Development").
- 1.1.2 For the purposes of this Scoping, the Application Site extends to approximately 20.7 hectares of predominantly agricultural land and forms part of the Strategic Allocation within Coventry City's Local Plan: Policy H2:1, "Keresley Sustainable Urban Extension (SUE)", for 3,100 dwellings.
- 1.1.3 The Site is situated within the administrative area of Coventry City Council (CCC), with the sites northern and eastern boundaries adjoining North Warwickshire Borough Council (NWBC) and Nuneaton and Bedworth Borough Council (NBBC) respectively. The location and extent of the Scoping Site is shown on the Site Location Plan provided at **Appendix A**.
- 1.1.4 This Scoping Report has been prepared to accompany a formal EIA Scoping Request to CCC under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) (Amendment) Regulations 2018. The Applicant has appointed a team of specialist consultants to consider planning and environmental matters in relation to the Proposed Development and to provide input into the production of this Scoping Report, as listed below.

Table 1.1 Consultant Team

Topic	Consultant
Planning	Pegasus Group
Socio Economic	Pegasus Group
Landscape	Pegasus Group
Ecology & Nature Conservation	Aspect Ecology
Archaeology & Built Heritage	Pegasus Group
Agricultural Resources	Kernon Consultants
Water Resources	Atkins
Ground Conditions	Atkins
Transport and Access	Phil Jones Associates
Air	Atkins
Noise and Vibration	Atkins

- 1.1.5 The Scoping Report has been produced on behalf of Lioncourt Strategic Land by Pegasus Group. Pegasus is registered to the EIA Quality Mark, a scheme operated by the Institute of Environmental Management and Assessment (IEMA) which allows consultancies that lead the co-ordination of statutory EIAs in the UK to make a commitment to excellence in their EIA activities and have this commitment independently reviewed.

1.2 Requirements of the Environmental Impact Assessment Process

- 1.2.1 The EIA process is the mechanism by which development proposals are appraised in terms of environmental and socio-economic criteria, in addition to the engineering and technical considerations. The EIA process defines the context of the Proposed Development and its construction, and examines the issues considered pertinent.
- 1.2.2 The purpose of the EIA is to establish the nature of the existing Application Site and its surroundings (i.e. baseline) and the nature of the Proposed Development and compare the baseline with the situation once the proposals are in place, so to identify the likely significant effects that may arise as a result. This requires consideration of effects during construction, including any demolition or enabling works, and effects once operational. The document produced as a result of the EIA process is known as the Environmental Statement (ES).
- 1.2.3 The EIA Regulations require that any Proposed Development falling within the description of a 'Schedule 2 Development' within the meaning of the Regulations, may be subject to an EIA where such development is *likely to have 'significant' effects on the environment by virtue of factors such as its nature, size or location* (Regulation 2b).
- 1.2.4 The Development falls under the category of "Infrastructure Projects" (Schedule 2, 10 b) where it is identified that the applicable threshold above which EIA may be required is:
- i) The development includes more than 1 ha of urban development which is not dwellinghouse development; or*
 - ii) The development includes more than 150 dwellings; or*
 - iii) The overall area of the development exceeds 5 hectares.*
- 1.2.5 Further indicative criteria and thresholds to assist whether EIA is likely to be required are set out within the National Planning Policy Guidance (EIA section). With respect to category 10b developments, the further indicative criteria for "Sites which have not previously been intensively developed are:
- (i) area of the scheme is more than 5 hectares; or*
 - (ii) it would provide a total of more than 10,000 m² of new commercial floorspace;*
 - or*
 - (iii) the development would have significant urbanising effects in a previously non-urbanised area (e.g. a new development of more than 1,000 dwellings)."*
- 1.2.6 Having regard to the Application Site, the nature of the Proposed Development and considering the surrounding future development, in the context of the above it is considered the proposals may lead to likely significant effects on the environment. The applicant therefore intends to submit an ES in support of a future planning application, the content or 'scope' of which is set out and discussed throughout this document.

1.3 Purpose of the Scoping Report

- 1.3.1 This Scoping Report has been prepared to accompany a formal EIA Scoping Request under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) (Amendment) Regulations 2018. The purpose of the Scoping Request is to seek a formal view from CcC (and other consultees where relevant) on the information to be contained within the Environmental Statement (ES) which will accompany a forthcoming planning application on the above Application Site.
- 1.3.2 In accordance with Regulation 15, paragraph 2, this Scoping Report contains:
- “A plan sufficient to identify the land;
 - A brief description of the nature and purpose of the development on the environment;
 - An explanation of the likely significant effects of the development on the environment; and
 - Such other information or representations as the person making the request may wish to provide or make.”
- 1.3.3 Specifically, this Scoping Report seeks to identify those potential likely significant environmental effects which could occur as a result of the Proposed Development and are subsequently proposed to be assessed in the EIA process, and reported within the resultant ES. Discussion and reasoned justification is also provided within this report on topics which are proposed to be ‘scoped out’ of the EIA process.
- 1.3.4 This Scoping Report is submitted to CCC as part of the formal request for a Scoping Opinion and we welcome comment on the proposed scope and contents of the ES from CCC and other consultees that they wish to nominate, in accordance with Regulation 15. It is anticipated such consultees may include the following:
- Coventry City Council (various departments including highways, environmental health, landscape and ecology where applicable)
 - Other Local Authorities:
 - North Warwickshire Borough Council
 - Nuneaton and Bedworth Borough Council
 - Other Consultees:
 - Environment Agency
 - Highways England
 - Natural England
 - Severn Trent Water
 - Historic England
 - Relevant Parish Councils
- 1.3.5 It is requested that the Applicant is informed of those consultees who are notified of this Scoping Request.

1.4 Structure of the Scoping Report

1.4.1 The remainder of this EIA Scoping Report is divided into the following Sections:

- Section 2: The Application Site and Project Overview
An overview of the Application Site and the Proposed Development.
- Section 3: Legislative Requirements and the EIA Process
A summary of the relevant EIA legislation and EIA process which will be undertaken.
- Section 4: Proposed Scope of the Environmental Statement (ES)
Individual discussions on each topic to be assessed within the ES, including information regarding specific methodology.
- Section 5: Topics proposed to be Scoped Out of the ES
Each environmental topic not proposed to be considered in the ES is discussed in turn.
- Section 6: Structure of the ES
The structure and format of the ES document is outlined.
- Section 7: Environmental Statement Scoping Summary

2. The Application Site and Project Overview

2.1 The Application Site and Surroundings

2.1.1 The Application Site adjoins the northern built up area of Coventry north of Keresley and is located to the north west of the city centre. The Site lies to the south west of Bennetts Road North and to the north of Thompsons Road (which turns into Thompsons Lane). A number of existing shops lie in close proximity to the Site along Bennetts Road North, including a post office, convenience store, pharmacy, village fish bar and Keresley Newlands Primary School.

2.1.2 The Site itself extends to approximately 20.7 ha and is comprised predominantly of arable land within broadly rectangular parcels, with a number of field boundary hedgerows, trees and a single pond. The site is gently undulating with the boundaries of the site defined as follows:

- Northern edge – defined by existing hedgerows and tree planting, with Keresley Rugby Football Club, farms and associated farmland beyond;
- Eastern edge – the majority is defined by the backs of properties (typically 2 storey houses) fronting onto Bennetts Road North;
- Southern edge – defined by the rear of properties (typically 2 storey houses) fronting Thompsons Lane, and also the retained Thompsons Farm and associated land; and
- Western edge – defined by an existing hedgerow and farmland beyond.

2.1.3 As noted, the Site forms the northern part of the allocated Strategic Housing Site H2:1, Keresley SUE, which includes a number of separate house builders/land promoters across its extent. The progress of these distinct parcels is discussed further within Section 4.

2.2 Project Overview

2.2.1 Whilst the proposals are developing as the technical work continues to be undertaken, it is likely the planning application will seek outline planning permission, with access not reserved, for up to 500 dwellings, areas of open space and recreational areas and associated infrastructure. It is likely the access to the Proposed Development will be directly off Bennetts Road North and Grove Lane in the form of a new four-armed roundabout.

2.2.2 It is acknowledged that CCC are in the process of producing an Indicative Masterplan as part of their SUE Residential Design Guidance Draft Supplementary Planning Document. This has been and will continue to be, taken into consideration as the proposals progress.

2.2.3 Should planning permission be achieved for the Proposed Development, it is reasonable to assume, for assessment purposes, that construction could commence 2020/2021 and last for approximately 10 years. This would result in completion c.

2031. Clearly these timescales may alter as the project progresses, for example if there were additional outlets.

2.2.4 Although the proposals are continuing to evolve, development parameters have been identified which have assisted in defining the scope of the Environmental Impact Assessment.

3. Legislative Requirements and the EIA Process

3.1 Legislative Requirements

3.1.1 The EIA process will be undertaken in accordance with the requirements of the Town and Country Planning (Environmental Impact Assessment) (Amendment) Regulations 2018, which are referred to in this document as the 'EIA Regulations'. Specifically, Schedule 4 (Regulation 18 (3)), sets out the information for inclusion in ESs, as replicated within **Appendix B** and summarised as follows:

Part 1:

- **'A description of the development'** - including information on the location of the development, the physical characteristics of the development, the main characteristics of the operational phase, and estimate of expected residues and emissions.

Part 2:

- **'A description of the reasonable alternatives studied by the developer'** – for example with regard to development design, technology, location, size and scale, and an indication of the main reason for selecting the chosen option.

Part 3:

- 'A description of the relevant aspects of the current state of the environment (baseline scenario)'- including how the baseline might evolve if the development were not to proceed.

Part 4:

- **'A description of the factors specified in regulation 4(2) likely to be significantly affected by the development'** – including with regard to population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.

Part 5:

- **'A description of the likely significant effects of the development on the environment'** - including with regard to: construction, existence and demolition works, the use of natural resources, emission of pollutants and the disposal of waste, the risks to human health, cultural heritage or the environment (for example due to accidents or disasters), cumulative effects with other developments, vulnerability with respect to climate change and the technologies and substances to be used.
- The description of the likely significant effects should cover 'direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development'

Part 6:

- **'A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment'** - including details of difficulties (technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Part 7:

- 'A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment' - including

where appropriate with regard to: any proposed monitoring arrangements (for example the preparation of a postproject analysis).

- The description should explain the 'extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset', and should cover both the construction and operational phases.

Part 8:

- 'A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned'. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Part 9:

- 'A non-technical summary of the information provided under paragraphs 1 to 8'.

Part 10:

- 'A reference list detailing the sources used for the descriptions and assessments included in the environmental statement'.

3.2 The EIA Process

3.2.1 Each of the topic areas 'scoped in' the EIA, will undergo the following main steps:

Baseline Studies

3.2.2 In the case of many of the environmental topics which will be covered in the ES, or which are proposed to be scoped-out of the ES, baseline studies have already been undertaken, and details of this work, where relevant, are discussed within each environmental topic within this Report. Baseline conditions will be established within each of the individual environmental assessments through the use of a number of sources including, desk top review of existing available data; site specific survey work; and consultation.

Assessment of Environmental Effects and Evaluation of Significance

3.2.3 The EIA Regulations require that the ES identifies 'likely significant effects of the Proposed Development on the environment'. It is recognised in the EIA Regulations however that not all environmental effects are significant.

3.2.4 The evaluation and determination of significant effects will be carried out using specific criteria defined within each of the technical chapters of the ES. Where available, published standards and guidelines will be used as the basis for the significance criteria.

3.2.5 The proposed methodologies for individual environmental topics are discussed in the subsequent section. However, in many disciplines the following basic approach is utilised:

- The sensitivity of the receiving environmental receptor is evaluated using defined criteria.

- The nature of the impact is established in terms of its duration, extent, frequency, likelihood of occurrence, reversibility, and compliance with recognised standards;
- The magnitude of the impact is determined. The magnitude of change is a consideration of how much the impact alters the baseline condition.
- The significance of the effect is determined by cross referencing the sensitivity of the receptor with the magnitude of change on the receptor.

3.2.6 It should be noted that environmental effects may be direct or indirect, secondary, cumulative, transboundary, short, medium, long-term, permanent and temporary, positive and negative effects of the development and this will be noted in the ES. Effects will be considered both during the construction phase, when the development is being built (often temporary effects) and following completion of the development (often permanent effects). Given the nature and intended longevity of the Proposed Development's operational life, decommissioning is not appropriate to consider. Accordingly, the ES will focus on the potential likely significant effects during the construction and operational phases only. Consideration will however be given to effects from major accidents and disasters where relevant.

Mitigation Measures and Residual Effects

3.2.7 Following the assessment of effects, mitigation measures to reduce and avoid these effects will be identified and detailed. Mitigation measures considered may include modification of the proposals, integral mitigation, or secondary measures. Any residual effects following the implementation of mitigation measures will be determined accordingly. The residual effects represent the overall likely significant effect of the Proposed Development on the environment having taken account of practicable/available mitigation measures.

Cumulative and In-combination Effects

3.2.8 The ES will respond to the requirement in the Regulations to assess the cumulative effects of the Proposed Development which will specifically consider two types of effect:

- Intra-project Cumulative Effects: The combined effect of individual effects (for example noise, airborne dust or traffic) on a single receptor where deemed potentially significant; and
- Inter-project Cumulative Effects: The combined effects of development schemes which may, on an individual basis be insignificant but, cumulatively, have significant effect.

3.2.9 With respect to inter-project cumulative effects, the Regulations state that consideration should be given to "*other existing and/or approved projects*" (Schedule 4, 5e). This is further supported by the National Planning Policy Guidance (NPPG) which states "*There are occasions.....when other existing or approved development may be relevant in determining whether significant effects are likely as a*

consequence of a proposed development." (Paragraph: 024 Reference ID: 4-024-20170728)

3.2.10 Regard will therefore be had to "*existing and/or approved projects*", which alongside the development of the proposals at the Application Site, could potentially result in cumulative significant effects. Recently approved projects have been identified as follows:

- Land bounded by Hall Brook, Bennetts Road South, Sandpits Lane and Tamworth Road. (OUT/2014/2282) Approved 12/02/2018 for 800 dwellings, with associated Local Centre comprising Convenience Store (Class A1) Retail/Commercial Units (Class A1, A2, A3, A5 and/or D1); primary school; public open space; allotments; nature conservation area and landscaping. This approved project forms part of the wider Housing Strategic Allocation at Keresley.

3.2.11 It is also recognised the Site forms part of the wider Housing Strategic Allocation at Keresley. Whilst the entire allocation has yet to be subject to planning approvals (except the area noted above), it is acknowledged that the allocation could be considered as a "reasonable foreseeable" development as referred to within the European Guidance in relation to cumulative impacts. Consideration to the wider allocation will therefore be given to an appropriate level of detail in relevant disciplines within the ES, having regard to the level of information that is available at this time and reasonable judgments about the likely range of effects. This will specifically ensure that the Proposed Development would not prejudice the potential for this wider development. It is noted that 2 parcels of the allocation have been subject to screening as follows:

- Land between Tamworth Road and Fivefield Road (SCR/2018/0456, Applicant Bellway Homes): 550 dwellings with associated access, parking, landscaping, public open space and associated infrastructure. This parcel of land lies to the south of the subject Site, adjacent to the area subject to planning approval; and
- Land at Bennetts Road (SCR/2018/0468, Applicant David Wilson Homes): 450 dwellings with associated works. This parcel of land lies to the south east of the subject Site, to the east of Bennetts Road and the area subject to planning approval.

3.2.12 Whilst this Scoping Report seeks to identify relevant schemes to be considered, it is to be acknowledged that the extent to which schemes need to be considered within each environmental discipline will inevitably vary.

3.2.13 The team are not aware of any other projects within the vicinity of the site which would be required to be considered as part of a cumulative assessment, however the applicant welcomes confirmation.

3.3 Preparation of the ES

- 3.3.1 In accordance with the Regulations, the ES will be prepared by “competent experts”, as listed at the outset of this report. A statement outlining the relevant experience of the experts who have undertaken the assessment and drafted the technical chapters within the ES will be provided. It is also noted the Regulations now require decision makers to ensure they have ‘necessary skills in house’.

4. Proposed Scope of The EIA and Environmental Statement Chapters

4.1 Environmental Topics

4.1.1 **Table 4.1** lists the environmental topics specified within the EIA Regulations as to potential be considered as part of the EIA process. The table also summarises whether these topics are considered relevant to include within the EIA process, and where such topics will be considered within the ES where applicable. Where a topic has been scoped out, the reasoning is provided within Section 6.

Table 4.1 Environmental Topics as per EIA Regulations

EIA Topic	Scoped In / Out	Where Addressed within ES
Population	Scoped in	To be assessed within the Socio Economic chapter
Human Health	Scoped in	To be assessed within various chapters as follows: Air Quality, Noise Environment, Landscape and Visual, Socio Economic, Ground Conditions and Transport
Biodiversity (e.g. flora and fauna)	Scoped in	To be assessed within the Ecology and Nature Conservation chapter
Land (e.g. land take)	Scoped in / out	To be assessed within the Ground Conditions, Landscape and Ecology Chapters. Given the Site is comprised of Grade 3b soils however, it is proposed Agricultural Resources is scoped out.
Soil	Scoped in	To be assessed within the Ground Conditions Chapter. Given the Site is comprised of Grade 3b soils however, it is proposed Agricultural Resources is scoped out.
Water	Scoped in	To be assessed within the Water Resources and Ecology and Nature Conservation chapters
Air	Scoped in	To be assessed within the Air Quality chapter
Climate	Scoped in	Climate change and greenhouse gas emissions to be assessed within various chapters as follows: Air Quality, Water Resources
Material Assets	Scoped out	It is not considered there are any further 'material assets' to those already addressed within other EIA topics (refer to Section 6)
Cultural Heritage (including Architectural and Archaeological aspects)	Scoped in	To be assessed within the Archaeology and Built Heritage Chapter
Landscape	Scoped in	To be assessed in the Landscape and Visual chapter
Interrelationship between above factors	Scoped in	Within each topic chapter

4.1.2 In the context of the above environmental topics, it is proposed that the resultant ES will include the following chapters.

- Introduction
- EIA Scope and Methodology
- Application Site
- Proposed Development and Alternatives
- Planning Policy
- Socio Economic Issues
- Landscape and Visual Issues
- Ecology
- Archaeology and Built Heritage
- Ground Conditions
- Water Resources
- Transportation and Access
- Noise and Vibration
- Air Quality
- Summary

4.1.3 The proposed scope of these individual chapters is discussed within the rest of this Section.

Front End Introductory Chapters

4.2 Introduction

- 4.2.1 This chapter of the ES will provide an introduction to the document and present details of the ES's structure and context, in addition to how consultees and members of the public can comment on the document or obtain addition copies.

4.3 EIA Scope and Methodology

- 4.3.1 This chapter provides a summary of the agreed scope of assessments to be considered within the ES, with reference to consultation responses and explains the methodology used to prepare the technical chapters, including reference to the general approach in determining significance. Information in relation to cumulative impacts is also set out within this chapter, along with any limitations or assumptions used throughout the ES.

4.4 Application Site

- 4.4.1 This chapter will describe the Application Site's location, context, existing use and features.

4.5 Proposed Development and Alternatives

- 4.5.1 This chapter will provide a comprehensive description of the Proposed Development, including the construction process, and any relevant details on assumed timescales and phasing.
- 4.5.2 To ensure that the Proposed Development seeking outline permission, as it evolves with the benefit of subsequent approvals and/or reserved matters, will remain the same as that assessed within this ES, Development Parameters will be established. These parameters and controls define those aspects of the Proposed Development capable of having significant effects, as defined in the EIA Regulations.
- 4.5.3 The chapter will also provide 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, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

4.6 Planning Policy

- 4.6.1 A summary of the relevant planning policy will be presented, against which the various environmental topics addressed in the ES will be considered. Policy will be identified at the national, regional and local level as appropriate.
- 4.6.2 The Development Plan currently consists of the Coventry Local Plan (2011-2031), which was adopted in December 2017.
- 4.6.3 Principal polices of relevance that will be considered where applicable in the ES are as follows:

- Policy DS1: Overall Development Needs
- Policy DS3: Sustainable Development Policy
- Policy DS4 (Part A): General Masterplan principles
- Policy DS4 (Part C): Keresley SUE Specific Masterplan Principles
- Policy H1: Housing Land Requirements
- Policy H2: Housing Allocations (specifically site H2:1)
- Policy H3: Provision of New Housing
- Policy H4: Securing a Mix of Housing
- Policy H6: Affordable Housing
- Policy H9: Residential Density
- Policy GE1: Green Infrastructure
- Policy GE3: Biodiversity, Geological, Landscape and Archaeological Conservation
- Policy GE4: Tree Protection
- Policy DE1: Ensuring High Quality Design
- Policy HE2: Conservation and Heritage Assets
- Policy AC1: Accessible Transport Network
- Policy AC2: Road Network
- Policy AC3: Demand Management
- Policy AC4: Walking and Cycling
- Policy AC5: Bus and Rapid Transit
- Policy EM1: Planning for Climate Change Adaptation
- Policy EM2: Building Standards
- Policy EM4: Flood Risk Management
- Policy EM5: Sustainable Drainage Systems (SuDS)
- Policy EM7: Air Quality
- Policy IM1: Developer Contributions for Infrastructure

Disciplines Specific Chapters

4.7 Socio Economic Issues

Introduction

4.7.1 This chapter of the ES will provide an assessment of the likely significant socio-economic effects generated by the Proposed Development. This will include the identification and assessment of likely direct, indirect and induced effects in relation to employment and contribution to economic output. The assessment will consider effects generated during construction and operation, including cumulative effects.

Relevant Policy and Guidance

4.7.2 The assessment will take account of adopted and emerging policies of relevance to socio-economics. This will include:

- The **National Planning Policy Framework**¹ (NPPF), which is built around a policy commitment to sustainable development and establishes the social and economic role of the planning system;
- The **Coventry City Council Local Plan**, which was adopted in December 2017. Relevant policies to consider are: JE1 (Overall economy & employment strategy); JE7 (Accessibility to employment opportunities); H1 (Housing land requirements); H2 (Housing allocations); H3 (Provision of new housing); H4 (Securing a mix of housing); and H6 (Affordable housing).
- Coventry's **Economic Growth and Prosperity Strategy** for 2018-22, published in 2018. The Strategy highlights the importance of delivering a plentiful supply of quality space for housing, business and skills development in the District.
- The Government's **Industrial Strategy white paper**², which aims to build 'a Britain fit for the future' by boosting productivity and earning power throughout the UK. This includes ensuring that support is provided for new housing.
- The **Strategic Economic Plan**³ for the West Midlands Combined Authority, which was published in 2016. The Plan has eight priority areas, one of which is to accelerate the delivery of current housing plans to increase the level of house building and support increased levels of growth.

¹ MHCLG (2018) National Planning Policy Framework

² HM Government (2017) Industrial Strategy – building a Britain fit for the future

³ West Midlands Combined Authority (2016) – Strategic Economic Plan – making our mark

- The **Strategic Economic Plan**⁴ for the Coventry and Warwickshire Local Enterprise Partnership, published in 2014 and updated in 2016. In the 2016 update, the SEP notes the importance of unlocking employment and housing sites to support the area in achieving its growth potential.

Preliminary Assessment of Baseline Conditions

- 4.7.3 The assessment will establish baseline socio-economic conditions within those areas likely to be affected by the Proposed Development. Study areas are defined based on an understanding of relevant local and wider economic geographies, and the extent to which socio-economic effects are likely to be contained within these established statistical geographies. Commuting patterns recorded by the 2011 Census provide important context in this regard. It is proposed to analyse data (where available) for the following geographies: Bablake ward; Coventry District; Coventry & Warwickshire LEP; the West Midlands region; and Great Britain/UK.
- 4.7.4 Baseline socio-economic conditions will be established using the most up-to-date available secondary data, establishing the extent to which the following key indicators have changed over time:
- Jobs;
 - Business base;
 - Population – past trends and future projections;
 - Economic output;
 - Unemployment;
 - Deprivation;
 - Qualifications and skills; and
 - Economic activity.

Potential Impacts/Effects

- 4.7.5 During construction, it is anticipated that the Proposed Development will generate the following socio-economic effects:
- Direct, indirect and induced jobs based in the local and wider impact areas, growing employment levels in their respective economies;
 - Economic output – measured in gross value added (GVA) – generated by the employment supported during the construction process.
- 4.7.6 Once completed and fully operational, it is anticipated that the Proposed Development will generate the following socio-economic effects:
- Increasing the local population;

⁴ Coventry & Warwickshire LEP (2014 & 2016) – Strategic Economic Plan

- Provision of new housing in the local area;
- Impacts on the wider economy in terms of annual household expenditure and Council Tax receipts associated with the Proposed Development;
- Demand for health provision; and
- Demand for education provision;

Scope and Methodology of Assessment

- 4.7.7 There is no overarching Government guidance that sets out the preferred methodology for assessing the likely socio-economic effects of development proposals. Accordingly, the approach adopted for the assessment will be based on professional experience and best practice, and in consideration of the policy requirements/tests set out within the NPPF and the adopted Local Plan.
- 4.7.8 The first step in the assessment will be to identify the sensitivity of the receptors. In socio-economic assessments, receptors are not sensitive to changing environmental conditions in the same way as many environmental receptors are. To address this, the assessment will draw on a combination of measurable indicators (jobs, population, etc.) and a consideration of the importance of the receptor in policy terms to gauge the receptor's sensitivity.
- 4.7.9 The magnitude of change upon each receptor will then be determined by considering the predicted deviation from baseline conditions, both before and, if required, after mitigation.

Preliminary discussions of mitigation and enhancement measures

- 4.7.10 Following the assessment of effects, mitigation measures to reduce and avoid any negative effects will be identified and detailed if required. Any residual effects of significance will then be evaluated. Given the analysis underpinning the socio-economic chapter has not started, it is not possible to say whether any mitigation or enhancement measures are required. Given the nature of the Proposed Development, however, it is considered unlikely that it will have any negative impacts from a socio-economic perspective. When considered with other developments in the area, this may change, and the chapter will analyse this accordingly.

4.8 Landscape and Visual Issues

Introduction

4.8.1 The Landscape and Visual Issues chapter will comprise a Landscape and Visual Impact Assessment (LVIA) that will assess the likely effects of the Proposed Development on landscape character and visual amenity. The approach and methodology used for the LVIA has been developed using best practice guidance, as set out in the following documents:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, 2013 (GLVIA3), Landscape Institute/Institute of Environmental Management and Assessment;
- An Approach to Landscape Character Assessment, October 2014, Natural England; and
- Photography and Photomontage in Landscape and Visual Impact Assessment – Advice Note 01/11, 2011, Landscape Institute.

Relevant Policy and Guidance

European Landscape Convention

4.8.2 The Landscape and Visual Issues chapter will make reference to the European Landscape Convention (ELC), which promotes the protection, management and planning of European landscapes. The ELC is designed to achieve improved approaches to the planning, management and protection of landscapes and organises cooperation on landscape issues. The convention defines landscape as:

"...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors)"

4.8.3 The importance of this definition is that it focuses on landscape as a resource in its own right and moves beyond the idea that landscapes are only a matter of aesthetics and visual amenity.

National Planning Policy Framework

4.8.4 The Landscape and Visual Issues chapter will make reference to the revised National Planning Policy Framework (NPPF), published by the Ministry of Housing, Communities and Local Government (MHCLG) in July 2018.

4.8.5 The NPPF sets out three dimensions to achieving sustainable development that include economic, social and environmental considerations. It places an onus on the planning system to perform a role in relation to the environment that 'contributes to the protection and enhancement of our natural, built and historic environment...' going on to note that sustainable solutions should take account of local circumstances and reflect the character of each area. This underpins the strategic guidance set out in the NPPF in relation to landscape and visual matters.

- 4.8.6 In relation to landscape and visual matters, achieving well-designed places (Section 12) aims to ensure that developments are 'visually attractive', are sympathetic to local character (including the surrounding built environment and landscape setting) and to establish and maintain a strong sense of place⁵.
- 4.8.7 Section 15 of the NPPF addresses on 'conserving and enhancing the natural environment' stating that policies and decisions should contribute to this by 'protecting and enhancing valued landscapes (noting that this should be commensurate with a statutory status or identified quality identified in a development plan) and also recognising the 'intrinsic character and beauty of the countryside'⁶.
- 4.8.8 NPPF notes the importance that designs 'evolve' in response to local issues and to the views of the community⁷.

Planning Practice Guidance Documents

- 4.8.9 The Landscape and Visual Issues chapter will make reference to planning practice guidance documents (PPG). Matters pertaining to 'landscape' are covered under the guidance for the Natural Environment and this was updated in January 2016. Para 001 addresses how the character of landscapes can be assessed to inform plan-making and planning decisions. It states that:

"One of the core principles in the National Planning Policy Framework is that planning should recognise the intrinsic character and beauty of the countryside. Local plans should include strategic policies for the conservation and enhancement of the natural environment, including landscape. This includes designated landscapes but also the wider countryside.

Where appropriate, landscape character assessments should be prepared to complement Natural England's National Character Area profiles. Landscape Character Assessment is a tool to help understand the character and local distinctiveness of the landscape and identify the features that give it a sense of place. It can help to inform, plan and manage change and may be undertaken at a scale appropriate to local and neighbourhood plan-making. Natural England provides guidance on undertaking these assessments."

Local planning policy

- 4.8.10 Coventry's Development Plan comprises the Coventry Local Plan and City Centre Area Action Plan. The Landscape and Visual Issues chapter will make reference to all local planning policies relevant to landscape and visual matters, which are likely to include the following policies within Coventry Local Plan:
- Policy GE1: Green Infrastructure
 - Policy GE3: Biodiversity, Geological, Landscape and Archaeological Conservation

⁵ Para 127, MHCLG, NPPF (July 2018)

⁶ Section 15 and para 170, MHCLG, NPPF (July 2018)

⁷ Para 128, MHCLG, NPPF (July 2018)

- Policy GE4: Tree Protection
- Policy DE1: Ensuring High Quality Design

Preliminary Assessment of Baseline Conditions

Landscape character

- 4.8.11 At a national level the site is situated within National Character Area (NCA) 97: Arden. Reference will also be made to the Warwickshire Landscape Guidelines, specifically the Ancient Arden Landscape Type.
- 4.8.12 Published landscape character assessment will form an integral part of the baseline evaluation process for the site. Reference will be made to the descriptions, key characteristics and any guidance for relevant character areas/types, so as to understand potential direct physical impacts on a character area/type and also potential indirect changes to nearby landscape character areas/types. Furthermore, a detailed review and analysis of the local character of the site and its context will enable judgements to be made as to what extent the site is consistent with published character documents.
- 4.8.13 The landscape components identified in the baseline character evaluation will define constraints and opportunities in relation to the site. The design evolution for the site masterplan will then be able to respond more appropriately to the context of the local landscape character. Furthermore, the design of the site masterplan can incorporate measures which respond to the more specific guidance set out by published landscape character assessment.

Visual amenity

- 4.8.14 There are several potential visual receptors in the local area, these include users of public rights of way (PROW) such as the public footpath that follows the northern boundary of the site and other PROW in the local area. Visual receptors may also include occupiers of residential properties near to the site, for example in more isolated dwellings and properties through the rural area but also in relation to the fringes of Keresley Newlands, linear development east of Thompson's Farm and also vehicle users travelling through the area using the local road network.

Potential Impacts/Effects

Likely Causes of Impact

- 4.8.15 All landscapes possess some intrinsic sensitivity, but different landscapes may respond differently to change depending on their characteristics and the nature of the change. Temporary construction works which may give rise to impacts on landscape and visual receptors include:
- Site clearance (including vegetation clearance where necessary) and accommodation works;
 - Movement and presence of associated construction vehicles and plant;

- Presence of construction compounds, site offices and welfare facilities; and
- Earthworks and construction of internal road infrastructure and practical development platforms.
- Permanent components of the proposed development which may give rise to impacts on landscape and visual receptors include:
 - The built form of residential built form (incorporating highways infrastructure);
 - Mitigation integrated into the proposed development (i.e. green infrastructure and strategic landscaping), including retained trees, hedgerows, open space provision, SUDs and attenuation areas, new planting and footpaths.

Likely Landscape Effects

- 4.8.16 Landscape effects deal with the way in which the Proposed Development may alter the physical fabric of the site as a result of changes in land use, loss of landscape elements or distinctive features and/or the introduction of new and contrasting elements and features. Landscape effects also consider the way in which these changes may affect the perception of landscape character both on the site and across the wider area.

Likely Visual Effects

- 4.8.17 Visual effects deal solely with changes to views of the landscape available to people. It covers the way in which the proposed development may affect the content and character of views experienced by individual or groups of people at particular locations and how this alters their visual amenity. This includes local visual receptors, such as users of PROW, the local road network and occupiers of residential properties.

Scope and Methodology of Assessment

- 4.8.18 The spatial scope for the LVIA will be initially determined by reference to the area of landscape that may be affected and from which the Proposed Development may be visible. Following the early stages of desk study and field work, this broad area of search will be refined to an approximate radius of 1.5km from the site. In some specific instances it may be necessary to vary this distance in order to consider the potential for impacts on specific landscape resources or from specific long-distance viewpoints.
- 4.8.19 The professional judgements in the LVIA will consider landscape and visual effects in the short term, at completion, but also in the longer term after fifteen years when mitigation measures (such as planting) will have matured and the mitigation measures are likely to perform the intended function (for example, screening or enhancement of landscape infrastructure).
- 4.8.20 The following receptors will be considered to inform the assessment process:
- Landscape character, including physical landscape resources; and

- Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.
- 4.8.21 Landscape features and elements provide the physical environment for flora and fauna and the associated importance of biodiversity assets. The LVIA will not consider the value, susceptibility or importance of ecology and biodiversity receptors, nor will it consider impacts from an ecological stance (see Ecology and Nature Conservation).
- 4.8.22 Heritage assets such as Scheduled Monuments, Listed Buildings and Conservation Areas all contribute to the overall landscape character, context and setting of an area. These aspects will be given consideration in the LVIA in terms of physical landscape resources (for example trees and hedgerows) and also landscape character. However, the chapter will not address the historic significance, importance or potential impacts on heritage assets and designations (see Cultural Heritage and Archaeology).
- 4.8.23 Information will be collated using a process of desk study and field survey in order to capture a comprehensive description of the baseline position for landscape and visual receptors. The desk study will include reference to published landscape character studies and other relevant planning policy guidance.
- 4.8.24 A series of representative photographs will be taken during the field work as noted previously. These will be presented as a series of viewpoints and will be used to inform both the landscape and, separately, visual assessment. The locations of these viewpoints will be agreed with the local authority.
- 4.8.25 Having established the relevant baseline position the assessment process will then complete the following specific stages:
- evaluate the sensitivity of the landscape receptors and visual receptors, specifically in response to the nature of the proposed development (sensitivity is not standard and depends on the nature and type of development proposed and also the value and susceptibility of the receptor);
 - identify the potential magnitude of impact on the physical landscape, on landscape character and on visual receptors; and
 - combine judgments on the nature of the receptor (sensitivity) and the nature of the impact (magnitude) to arrive at a clear and transparent judgment of significance.
- 4.8.26 For both landscape effects and visual effects, the final conclusions on significance will be based on the combination of magnitude of impact (change) and sensitivity of receptor and a balanced justification of these. The rationale for the overall judgement on significance will be based on the application of professional analysis and judgement and the subsequent combination of each of the criteria individually leading to a balanced justification and conclusion.

Preliminary Discussions of Mitigation and Enhancement Measures

- 4.8.27 The key elements of a landscape mitigation and enhancement strategy for the Site include the development envelope and layout, which should be influenced by landscape and visual constraints and opportunities. This includes setbacks from the existing PROW corridor to the north; the use of existing hedgerow network to create 'green corridors' throughout the Proposed Development; and the creation of a central linear open space that allows the retention of Thompson's Farm copse and provides for a landscape-led drainage strategy.
- 4.8.28 In relation to the 'green corridors', these will be based on landscape elements which have been retained and integrated into the layout. This approach will include appropriate stand offs to trees and hedgerows which will help to avoid potential impacts on the root protection zones of these elements during future construction activity. In some instances, these existing landscape elements will be reinforced and enhanced through additional landscaping and improved management; the aims of which will consider location, function and also biodiversity objectives.
- 4.8.29 The location and extent of green infrastructure and open space within the Site has influenced the formation and extent of the development envelope. The retained areas of vegetation (as described above) ensures that the built form of the Proposed Development will be contained in a robust and diverse framework of green infrastructure and open spaces; the strategy for retaining existing vegetation combined with proposals for landscaping will provide a landscape context that shows a variety of stages of establishment and maturity; this will enhance the quality of the Proposed Development and also help to integrate the Site into the local landscape character.

4.9 Ecology and Nature Conservation

Introduction

- 4.9.1 The Application Site was originally subject to initial ecological survey work by Aspect Ecology Ltd during May to July 2010 as part of consideration of a wider area.
- 4.9.2 Subsequently, specific ecological survey work has been undertaken, relating to the current Application Site boundary during 2017 in order to identify the broad habitats present and inform initial consideration of likely constraints and considerations associated with the potential development of the Site.
- 4.9.3 Survey work undertaken has included extended Phase 1 Habitat survey and desk-based assessment of biological records undertaken using methodologies recommended by Natural England. Background information has previously been obtained from Warwickshire Biological Records Centre (WBRC) and will be updated to ensure compliance with standard guidance and terms to reflect any relevant progression of the development scheme. During the survey work undertaken, specific attention has been paid to the potential presence of faunal species, including protected species groups in order to identify any need for further surveys or consideration in order to inform the proposals.
- 4.9.4 Further specific phase 2 faunal survey work has been undertaken at the Site during the appropriate seasons in 2017 to inform the current proposals, including in regard to bats (activity survey work and appraisal of potential roosting opportunities); Great Crested Newt (initial appraisal of ponds and full survey work of ponds where access was available); Reptiles; Birds; and Badger.

Relevant Policy and Guidance

- 4.9.5 The primary policy, legislative and guidance documents considered relevant in regard to ecological matters as part of the Environmental Impact Assessment are;
- The National Planning Policy Framework
 - DEFRA/ODPM Circular 06/2005
 - Coventry City Council Local Plan, adopted 6th December 2017 (including in particular policies GE1 and GE3)
 - Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA, 2011 – updated 2013)
 - Biodiversity: Code of Practice for planning and development. (BS 42020: 2013)
 - Guidelines for ecological impact assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. (CIEEM - September 2018)
 - The Conservation of Habitats and Species Regulations 2017
 - Wildlife and Countryside Act 1981 (as amended)
 - Natural Environment and Rural Communities Act (2006)
 - Countryside and Rights of Way Act (2000)

- The Hedgerows Regulations (1997)
- Protection of Badgers Act (1992)

4.9.6 The Ecology and Nature Conservation chapter will make reference to the relevant local planning policies of relevance to nature conservation, including in particular, (in line with the above) as set out at Policies GE1 and GE3 within the Coventry City Council Local Plan, which refer to ecological matters. Policy GE1 (Green Infrastructure) requires that new developments include provision for biodiversity, specifically stating that a long term aim of Green Infrastructure should be the maintenance, improvement and expansion of biodiversity. Policy GE3 relates specifically to ecology and nature conservation, including requirements for new developments to ensure the protection of ecological designations and lead to net gains in biodiversity, where appropriate, by means of approved Ecological Assessments. The policy requires developments to ensure the protection and enhancement of biodiversity and avoid negative impacts and preserve/protect relevant species of concern.

Preliminary Review of Baseline Conditions

4.9.7 The vast majority of the Site is formed by arable land, which offers low to negligible ecological value and is unlikely to pose a particular constraint to any masterplanning/layout. Field boundary hedgerows and trees provide valuable corridors and cover for wildlife, whilst a single pond is present within the centre of the site.

4.9.8 Based on the information reviewed, there are no identified statutory ecological designations located within the Site or surrounding areas, with the closest such designation (Bedworth Sloughs LNR) located approximately 3.8km north east of the Site.

4.9.9 Faunal survey work undertaken has identified no evidence for any reptiles or Great Crested Newt at the Site to date. Some low levels of use of the site boundary corridors by bats, along with common nesting birds (including small numbers of declining farmland species), whilst Badgers are known to be present within the surrounding area and likely make use of the Site.

Potential Impacts/effects

4.9.10 Potential impacts/effects on protected species groups at the Site will be assessed based on the results of the survey work undertaken, along with the emerging scheme proposals. Based on the current levels of information, potential impacts/effects to be considered are likely to focus on the following which may occur both temporarily (through the construction period) and more permanently as a result of the operational phase of the Proposed Development:

- Potential for loss of ecologically valuable habitats (mature trees, key boundary hedgerow corridors and pond);
- Potential for impacts on faunal species (potential impacts/effects on Badgers);

- Potential for loss of habitats/increased levels of external lighting and disturbance to bat commuting and foraging corridors/habitats; and
- Potential impacts/effects on nesting birds).

Scope and Methodology of Assessment

- 4.9.11 A qualitative and quantitative ecological impact assessment will be undertaken of the proposals, following the principles set out in the CIEEM publication 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine' (September 2018), and will include consideration and assessment of potential for impacts arising from the Proposed Development on ecological receptors, including loss or damage to existing habitats (permanent or temporary); effects on protected, or other notable species of nature conservation value, potential for indirect impacts such as disturbance and any cumulative impacts. Details of appropriate mitigation measures to be implemented as part of the proposals, along with details of proposed ecological enhancement measures will be set out, and any residual effects on ecological receptors (should any exist following mitigation) considered and detailed within the final assessment.
- 4.9.12 Based on the nature of any impacts/effects identified, an assessment will be made whether the effect on a habitat or species is likely to be ecologically 'significant'. CIEEM guidance defines a 'significant effect' as "an effect that either support or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general", going onto state that "significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)."
- 4.9.13 Significance is also assessed at an appropriate geographic scale. For example, a significant effect on a Site of Special Scientific interest (SSSI) would be of national significance. Notwithstanding this however, consideration is also given to whether an effect is significant at a scale below the geographic context in which the feature is considered important.
- 4.9.14 For some ecological features (notably designations), there may be an existing statement of the conservation status of a feature and objectives and targets against which the effect can be judged. For example, Sites of Special Scientific Interest (SSSI) are assessed by Natural England under six condition categories, namely favourable, unfavourable recovering, unfavourable no change, unfavourable declining, part destroyed, and destroyed. An effect that exerts a change between these condition categories would be considered as significant.
- 4.9.15 Where no existing statement of conservation status is available, an assessment will be made against the existing status and condition of the habitat or species population, as recorded by survey data and background information, taking into account the level of ecological resilience or existing conditions that a habitat or species is currently subject to. An effect resulting in a long-term change to the existing background population trend or status at a given geographical level would

be considered as significant. In this regard, a significant beneficial impact could be defined as one that prevents or slows an existing decline in the favourable conservation status of a habitat or population as much as one that permitted a population or habitat area to increase.

Preliminary Discussions of Mitigation and Enhancement Measures

4.9.16 It is anticipated that suitable mitigation strategies will be prepared where appropriate, within the developing masterplan, which will be considered as part of the Proposed Development. To date, such mitigation measures which have been considered include:

- the sensitive design of lighting;
- enhancement measures (e.g. new native planting; bird and bat boxes) in regard to identified protected/other faunal species (in particular bats, Badger and nesting birds);
- setbacks from key vegetated corridors (including in particular the northern corridor) and retention/enhancement of the existing hedgerow network to provide ecological benefits and corridors through the Proposed Development for wildlife movement; and
- the provision of new native planting and habitat creation, including to allow for compensation, as well as ecological enhancement at the site where appropriate.

4.9.17 Furthermore, the implementation of safeguarding measures to protect important habitats (existing pond/wooded area, trees and hedgerows) and any protected species are likely to be suggested during construction works, in addition to specific mitigation/protection (e.g. maintenance of fencing and working practices).

4.10 Archaeology and Built Heritage

Introduction

- 4.10.1 The Environmental Statement chapter would cover potential effects relating to archaeology and built heritage. A Heritage Assessment (Pegasus Group 2017) and geophysical survey of the Site (Magnitude Surveys 2017) have already been undertaken. These have informed the proposed scope of evaluative works to be undertaken upon agreement the archaeological advisor to Coventry City Council.

Relevant Policy and Guidance

- 4.10.2 Key heritage statute, policy and professional guidance will inform and guide the assessment works, including:
- The 1979 Ancient Monuments and Archaeological Areas Act 1979;
 - The Planning (Listed buildings and Conservation Areas) Act 1990;
 - The National Planning Policy Framework;
 - The National Planning Practice Guide;
 - 'Conservation Principles' (English Heritage 2008);
 - Historic England 2015 'Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning 2'
 - Historic England 2017 'The Setting of Heritage Assets' (Historic Environment Good Practice Advice in Planning: 3); and
 - Chartered Institute for Archaeologists professional guidelines.

Local planning policy

- 4.10.3 Coventry's Development Plan comprises the Coventry Local Plan and City Centre Area Action Plan. The Archaeology and Built Heritage chapter will make reference to all local planning policies relevant, which are likely to include the following policies within Coventry Local Plan:
- Policy GE3: Biodiversity, Geological, Landscape and Archaeological Conservation
 - Policy HE2: Conservation and Heritage Assets

Review of Baseline Conditions

Archaeology

- 4.10.4 Corley Camp Scheduled Monument, a univallate hillfort, is located c. 420m north-west of the Site (MWA369) however development within the proposed site is not anticipated to adversely affect the heritage significance of this monument through changes to its setting. Archaeological excavations of the hillfort have recorded possible hut circles and finds include worked flint dating from the Mesolithic-Neolithic as well as Iron Age and Roman pottery and other Roman finds (MWA6098, MWA6140).

- 4.10.5 Fieldwalking in the vicinity of the site has identified concentrations of prehistoric worked flint in a field immediately north-west of the Site (MCT150, MWA374, MWA6038), and also in a field c.150m south-west of the Site (CHER ref. MCT7814, MCT16785, MCT7829), thought to represent occupation sites. This activity would appear to correspond with a ridge of higher ground running between Burrow Hill and Hounds Hill. Further worked flint comprising three flakes is recorded to the south-east of Bunsons Wood, c.420m south-east of the Site (CHER ref. MCT7833). No prehistoric or Roman period finds or features are currently recorded within the Site.
- 4.10.6 The Site formed part of the agricultural hinterland to settlements at Corley and Keresley from at least the medieval period. A lane of at least medieval origin, *Le Heynelane* (MCT2077), crosses the site along the historic Corley/Keresley parish boundary, preserved as a footpath. Hedgerows along the historic Corley/Keresley parish boundary and boundaries described by the 1410-11 St Mary's Priory Cartulary may be considered 'Important' under the Hedgerow Regulations 1997 criteria for archaeology and history. These hedgerows, and the historic *Le Heynelane*, are considered to be of a significance commensurate to a non-designated heritage asset, at the lowest end of this spectrum.
- 4.10.7 Thompson's Lane, which bounds the southern edge of the Site (MCT2086; MCT14323; MCT14324), is recorded in 15th century sources as *Le Cartelane*. It survives as a holloway way for part of its length and is bounded by hedgerows potentially of medieval origin. These hedgerows, and the historic *Le Cartelane*, are considered to be of a significance commensurate to a non-designated heritage asset, at the lowest end of this spectrum.
- 4.10.8 Also recorded within the wider vicinity of the Site are the following:
- A park of potential medieval origin, Newlands Hall Park (MWA12657), is recorded to the east of the Site, within the historic parish of Exhall.
 - Fieldwalking recorded two sherds of medieval pottery to the south-west of Bunsons Wood (CHER ref. MCT16787) as well as ceramic building material possibly of medieval date (MCT16784, MCT16788). Occurrences of medieval finds in plough soil are not necessarily indicative of below-ground archaeological remains as it is common for material to have been transported from settlements during manuring.
 - A possible medieval moated manor house and associated fishpond complex is recorded c. 400m south-west of the Site (MCT149).
 - Ridge and furrow (MCT7830), earthworks (MCT7831) and 'ground level changes' (MCT7832) of possible medieval origin are recorded in Bunsons Wood, south of the Site.
- 4.10.9 A geophysical survey of the Site was undertaken in 2017 which identified no anomalies of archaeological interest.

Built Heritage

- 4.10.10 An electricity sub-station lies within the eastern edge of the Site and was established before 1936. A single-storey outbuilding lies within the east Site but is not a heritage asset.
- 4.10.11 Holly Farmhouse Grade II Listed Building is located c.200m north of the Site. The heritage asset is screened from the site by intervening buildings and vegetation. Additionally, due to an absence of any key historical or functional relationship, the Site is not considered to make any notable contribution to the significance of Holly Farmhouse. Development of the Site will not adversely impact the significance of Holly Farmhouse Grade II Listed Building.

Potential Impacts/effects

- 4.10.12 There is potential for physical impacts to below ground archaeological remains, and potential non-physical impacts to the non-designated heritage asset.
- 4.10.13 Non-physical impacts to the designated heritage asset Holly Farmhouse are unlikely given the asset is screened from the Site by intervening buildings and vegetation.

Scope and Methodology of Assessment

Articulating Value (Significance)

- 4.10.14 As defined in the NPPF, significance is *'the value of a heritage asset to this and future generations because of its heritage interest'*. Historic England provides advice on assessing significance and advocates considering four types of heritage value: evidential, historical, aesthetic and communal. Significance results from a combination of any, some or all of these values. These four values essentially cover the heritage 'interests' given in the glossary of NPPF, which comprise archaeological, architectural, artistic and historic interest.

Setting and Significance

- 4.10.15 Setting can contribute to, detract from or be neutral with regards to heritage values, and so change to setting has the potential to diminish, enhance or leave unchanged the significance of a heritage asset through change to the value(s).

Levels of Significance

- 4.10.16 Significance will be articulated in terms that directly relate to key policy, principally NPPF. Four levels of significance may be identified:
- Designated heritage assets of the highest significance, as identified in paragraph 194 of NPPF comprising Grade I and II* Listed buildings; Grade I and II* Registered Parks and Gardens; Scheduled Monuments; Protected Wreck Sites and Registered Battlefields (and also including some Conservation Areas);

- Designated heritage assets of less than the highest significance, as identified in paragraph 194 of NPPF, comprising Grade II Listed buildings and Grade II Registered Parks and Gardens (and also some Conservation Areas);
- Non-designated heritage assets; and
- Sites, buildings or areas which have little or no heritage significance and thus do not constitute heritage assets.

4.10.17 Footnote 63 of NPPF clarifies that 'Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets'.

Assessment of significance of effect of development

4.10.18 The assessment of the significance of effect of development will be articulated in qualitative terms that directly relate to key policy, principally NPPF. The following levels of harm may potentially be identified:

- Substantial harm or total loss. It has been clarified in a High Court Judgement of 2013 that this would be harm that would 'have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced';
- Less than substantial harm. Harm of a lesser level than that defined above; and
- No harm (preservation). A High Court Judgement of 2014 is relevant to this, in which it was held that with regard to preserving the setting of Listed building or preserving the character and appearance of a Conservation Area, 'preserving' means 'doing no harm'.

4.10.19 The identification of significant effects in EIA terms will be based on professional judgement. Substantial harm to a designated heritage asset will be deemed to be a significant effect. Less than substantial harm to a designated heritage asset, or substantial harm to a non-designated heritage asset may also represent a significant effect, determined on the basis of professional judgement. Less than substantial harm to a non-designated heritage asset does not usually represent a significant effect in EIA terms.

4.10.20 Proposed development may also result in benefits to heritage assets, and these will be articulated in terms of how they enhance the heritage values and hence the significance of the assets concerned.

Preliminary Discussions of Mitigation and Enhancement Measures

4.10.21 Graham Tait, Historic Environment Record Officer for Coventry City Council, has requested pre-determination trial trenching of the site to suitably evaluate its archaeological potential. The level of trenching is yet to be confirmed.

4.11 Ground Conditions

Introduction

- 4.11.1 This chapter discusses the proposed scope of the assessment of the potential impacts of the Proposed Development on the existing ground conditions at the Site. This includes consideration of the potential impacts on the soils, physical geology, geological resources and land contamination.

Relevant Policy and Guidance

- 4.11.2 The legislative framework and policies and guidance relevant to the Proposed Development are outlined below:

- National Planning Policy Framework, Chapter 11, 2018;
 - Planning Practice Guidance, 2014;
 - Coventry City Council Local Plan, adopted December 2017;
 - North Warwickshire Local Plan, 2006;
 - Warwickshire County Council, Minerals Core Strategy, 2009 and proposed 2018 updates (currently under consultation);
 - Part 2A of the Environmental Protection Act, 1990 as amended by the Environment Agency Act 1995;
 - Contaminated Land (England) (Amendment) Regulations, 2012;
 - The Water Framework Directive, 2000;
 - The Water Resources Act, 1991 (as amended);
 - The Waste Framework Directive, 2008 and Waste Management (England and Wales) Regulations, 2016 (as amended);
 - The Environmental Permitting (England and Wales) Regulations, 2016;
 - The Control of Substances Hazardous to Human Health Regulations, 2002 (as amended) (COSHH Regulations);
 - The Government's Good Practice Guide for Environmental Impact Assessment (EIA), 2006⁸;
 - Department of Food and Rural Affairs (DEFRA) – Contaminated Land Statutory Guidance, 2012;
 - DEFRA and the Environment Agency – Model Procedures for the Management of Land Contamination, Contaminated Land Report 11, 2004;
 - Construction Industry Research and Information Association (CIRIA) C655, 2007;
- and

⁸ Department for Communities and Local Government (2006). Environmental Impact Assessment: A Guide to Good Practice and Procedures. It should be noted that this document has been withdrawn; however, it still constitutes good advice and should be referred to in the absence of alternative guidance documents

- Mineral Resource Information for Development Plans, West Midlands, British Geological Survey (BGS), 2009.

4.11.3 The Ground Conditions assessment will consider the relevant local planning policies with specific reference to Policies H3, GE3, GB1, EM6, EM8 and EM10 as set out in Coventry City Council Local Plan, adopted 2017. The relevant policies are summarised below:

- H3 - Provision of New Housing – ensures that a suitable residential environment will be safe from environmental pollutants such as land contamination.
- Policy GB1 identifies greenbelt areas which will be removed to accommodate future development needs. This includes land at Keresley if it is proposed for residential land use;
- Policy GE3 relates to the principles for protecting any sensitive geological and other conservation sites.
- Policy EM6 requires that any new development on previously developed land does not lead to pollution of controlled water receptors.
- Policy EM8 defines the Council’s Waste Management Strategy including requirements for new development proposals to include measures to minimise waste generation during construction, use and life of buildings; and
- Policy EM10 defines the requirements to consult The Coal Authority in areas where proposed non mineral development is considered in a potential mineral safeguarding area. Although the site is not located in a mineral safeguarding area, it lies within a coal mining reporting area with the potential for deep coal seams, therefore this policy is considered relevant.

Preliminary Review of Baseline Conditions

4.11.4 A Phase 1 Desk Study⁹ including a preliminary Conceptual Site Model (PCSM) and risk assessment has been prepared to establish the baseline conditions at the Site in relation to geology, soil and mineral resources, hydrology, contaminated land and historical uses. No site-specific ground investigation has been undertaken at this stage.

4.11.5 The Phase 1 Desk Study⁹ report is included in Appendix C and a summary of the baseline conditions is provided below:

4.11.6 **Current and Historical Land Use:** The Site comprises predominantly greenfield land that has been in agricultural use since at least the mid-1800s. The area surrounding the Site (within 250m) has mainly comprised agricultural land with some industrial activities including a pumping station, mineral workings and quarries;

⁹ Atkins, (March 2018), Thompson's Farm, Keresley, Geo-environmental Desk Study Report, Lioncourt Strategic Land.

- 4.11.7 **Published Geology:** British Geological Survey (BGS) mapping indicates that the Site is underlain by the Keresley Member (Sandstone and Argillaceous rocks) bedrock. No superficial deposits are indicated to be present on available BGS records underlying the Site or within the vicinity of the Site. Made Ground may be potentially present at the Site overlying the Keresley Member;
- 4.11.8 **Geological Hazards:** A geological fault is mapped on the western corner of the Site. The Site and the surrounding area has low or very low risk of ground instability hazards;
- 4.11.9 **Radon:** The Site lies within a lower probability radon area, as less than 1% of the homes are above the action level. Therefore, no radon protection measures are necessary in the construction of new dwellings or extensions;
- 4.11.10 **Geological Features:** There are no important geological Sites within 500m of the site;
- 4.11.11 **Coal Mining:** The Site is located within a coal mining reporting area with the potential for deep coal seams to be present at depths of between 50m and 1.2km below ground level. However, there are no records of coal mining sites within 250m of the Site;
- 4.11.12 **Mineral Resources:** Available records for the Warwickshire area¹⁰ indicate that the Site does not lie within a Mineral Safe Guarding Area;
- 4.11.13 **Soils and Agricultural Land Classification:** The soils underlying the site are mapped by BGS as Luvisols (clay-enriched subsoil, slightly acid loamy with impeded drainage and moderate to high fertility)¹¹. However, the site is not classified under the agricultural land Best and Most Versatile (BMV) classification scheme¹². Further information on this matter is also discussed under Agricultural Resources within Section 5;
- 4.11.14 **Hydrogeology:** The Site is underlain by a Principal Aquifer (Keresley Member) and is located within a Source Protection Zone 3 (Total Catchment). However, there are no groundwater abstractions within 250m of the Site. The groundwater level and regime across the Site is currently unconfirmed as no detailed ground investigation has been undertaken at this stage;
- 4.11.15 **Hydrology:** At least two ponds and several surface water ditches (along field boundaries) are located within the Site. Two unnamed watercourses are present within 250m of the Site. There are no discharge consents or surface water abstractions within 250m of the Site;

¹⁰ British Geological Survey (2009). Minerals Safeguarding Areas for Warwickshire Reference OR/08/065.

¹¹ British Geological Survey [online] UK Soil Observatory website. <http://mapapps2.bgs.ac.uk/ukso/home.html> (accessed October 2018).

¹² Natural England (2017) 1: 250,000 Likelihood of 'Best and Most Versatile' Agricultural Land Maps, South West Region.

- 4.11.16 **Unexploded Ordnance (UXO):** There is a low risk of UXO within the majority of the Site with a moderate risk of UXO along the eastern boundary and the area within 250m to the east of the Site¹³;
- 4.11.17 **Sensitive Land Use:** The Site is located within a Nitrate Vulnerable Zone. Two areas of Ancient Woodland (Bunsons Wood and Hall Yard Wood) are present within 250m of the site;
- 4.11.18 **PCSM:** Based on the desk study information, potential contamination sources at the Site are considered to include the current and historical use of the Site as agricultural land, potential Made Ground associated with the infilling of ponds on Site, historical drains and potential coal mining underlying the Site. Potential sources of contamination off-site include a pumping station, mineral workings and quarries and the coal mining legacy. The PCSM concluded that there was a potential moderate to low risk to human health and controlled water receptors, mostly associated with off-site historical land uses and the potential presence of unknown filled (Made Ground) areas on the site.

Limitations and data gaps

- 4.11.19 No intrusive ground investigation, ground gas or groundwater monitoring data is available for the Site. The desk study recommended an intrusive ground investigation to be undertaken in order to verify the ground conditions at the Site and identify potential contamination.

Potential Impacts/effects

- 4.11.20 Potential impacts and effects of the Proposed Development to be considered as part of this chapter of the Environmental Statement will include:

Construction Phase:

- Potential impacts of ground disturbance associated with the construction works and the potential to expose unknown contamination;
- Potential impacts associated with the introduction of new sources of contamination (such as leaks and spills) as a result of the construction works on the site;
- Likely physical effects on the current ground profile, ground instability, soil erosion, or other effects associated with the construction works on the site; and
- Potential of loss of good quality (BMV) agricultural land as a consequence of the development works.

Operational Phase:

- 4.11.21 Based on the proposed development, it is considered unlikely that there will be any significant impacts on the ground conditions during the operational phase.

¹³ Zetica [Online]. Unexploded Ordnance Risk Maps <https://zeticauxo.com/downloads-and-resources/risk-maps/> (accessed October 2018).

- 4.11.22 There is the potential for post-construction beneficial effects to be realised if any potential contamination encountered and physical impacts are mitigated during the detailed design works and soil reuse is maximised.

Scope and Methodology of Assessment

- 4.11.23 The assessment will follow the government's Good Practice Guide for Environmental Impact Assessment (EIA)¹ which outlines the potential environmental effects that should be considered for ground conditions.
- 4.11.24 The assessment will consider the potential effects of the Proposed Development on the ground conditions including physical effects, effects on soil as a valuable resource, effects associated with ground contamination and soils reuse. The effects of the Proposed Development on geology as a valuable resource is scoped out of the assessment, as the Proposed Development is unlikely to impact any Local Geological Sites.
- 4.11.25 Hydrogeology will only be considered in this chapter in terms of a pathway and receptor for contamination. The effect of the works on groundwater regime will be considered in the Water Resources (if necessary).
- 4.11.26 The study area for effects associated with ground contamination (including risks to human health, controlled waters, ecological and property receptors) comprises the Site and its immediate surrounds within a 500m radius. To consider the physical effects of the Proposed Development, the study area is will include the area within the red line boundary (the Site).

Methodology of Assessment

- 4.11.27 The assessment methodology will comprise the following:

Establishing the baseline conditions:

- 4.11.28 The baseline conditions for the site will be established by:
- A review of the available baseline information and PCSM produced as part of the existing desk study⁹;
 - A review of any ground investigation data undertaken as part of the detailed stage for the proposed development (if available);
 - An additional assessment of the potential risk of UXO at the site; and
 - The development of an updated CSM and a risk assessment for each phase of the Proposed Development (including construction and operation).

Assessment Criteria:

Physical Effects on Geology and Soil Resources

4.11.29 The assessment of the potential effects of the Proposed Development on physical geology and soil resources will be undertaken considering the effects on topography, soil compaction, soil erosion and ground stability, and loss/destruction of valuable soil resource. The assessment will be undertaken using a qualitative approach which will be based on the baseline information and an understanding of the construction works including enabling and temporary works, earthworks, proposed foundations and structures and construction methods. The assessment will consider the value/sensitivity of any receptors and the magnitude of change in accordance with the Good Practice Guidance for EIA⁸.

Land Contamination

4.11.30 The land contamination assessment will include an updated baseline land contamination risk assessment followed by an impact assessment.

4.11.31 The updated land contamination assessment will follow a risk based approach in accordance with guidance document CLR11¹⁴ and the EIA Good Practice Guidance⁸. The level of risk will be updated using a combination of the probability and the consequence of the risk in accordance with CIRIA C552¹⁵ and the Environment Agency Report R&D66¹⁶. The level of risk will be identified using the matrix in Table 4.11.1 with the definitions provided at Appendix D.

Table 4.11.1 Classification of Risk by Comparison of Consequence and Probability

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High likelihood	Very high	High	Moderate	Low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

4.11.32 The impact assessment will be undertaken by comparing the updated baseline risk assessment with the construction and operational phases risk assessment and identifying any change in impacts. For the construction and operational phases, it will consider potential impacts from new sources of contamination.

4.11.33 This assessment approach allows effects to be identified as either beneficial or adverse. The significance of identified effects is then determined based on the value

¹⁴ Environment Agency (2004). Contaminated Land Report 11 Model Procedures for the Management of Land Contamination.

¹⁵ CIRIA (2001) C552 Contaminated Land Risk Assessment, A Guide to Good Practice.

¹⁶ National House-Building Council and Environment Agency (2008) Guidance on the Safe Development of Housing on Land Affected by Contamination (R&D66).

of the resource (importance of receptor) and the magnitude of potential impact (change).

- 4.11.34 Following the classification of an effect, a clear statement will be made as to whether the effect is 'significant' or 'not significant'. For ground conditions, major and moderate effects will be classed as significant and minor and negligible effects not significant.
- 4.11.35 The tables outlining the assessment criteria that will be used to define significance of effect are included in Appendix D of this document.

Preliminary Discussions of Mitigation and Enhancement Measures

- 4.11.36 Mitigation measures will be adopted to reduce any significant effects identified from the Proposed Development in relation to physical effects and effects associated with ground contamination and soil re-use.
- 4.11.37 Some of the mitigation measures likely to be adopted as part of the detailed design of site development will include:
- Further assessment of the ground conditions underlying the site through the completion of a ground investigation including ground gas and groundwater level monitoring and groundwater and surface water sampling (where relevant);
 - Preparation of an interpretative report and updated contaminated land risk assessment to confirm the likely risks from ground contamination and to enable implementation any remedial measures (if necessary);
 - Design of earthworks to allow retention of as much material as possible on site, and the long-term storage and management of materials on site to be minimised;
 - Design of foundations and selection of construction materials taking into account the prevailing ground conditions;
 - Drainage strategy / SUDs design / flood prevention measures considering the ground conditions and any contamination identified on the site following the ground investigation;
 - Health and safety risk assessments, method statements and appropriate Personal Protective Equipment (PPE) for the protection of construction workers will be implemented (as required);
 - Preparation of a Construction Environmental Management Plan (CEMP) to manage impacts during construction works including stockpile management, implementation of working methods to manage groundwater and surface water, implementation of dust suppression measures and management of unidentified / unknown contamination that may be encountered during the works;

- Implementation of appropriate Materials Management Plan (MMP) and verification report in accordance with the CL: AIRE Code of Practice current at the time of the works. The MMP will be produced using the information from the ground investigation;
- Implementation of a site waste management plan (SWMP) to provide a detailed assessment of the suitability of soils for re-use and the appropriate destination for waste, if required; and
- It is assumed that the Proposed Development will be operated in accordance with the relevant regulations and Best Practicable Measures (BPM) in applying Best Available Techniques (BAT).

4.12 Water Resources

Introduction

4.12.1 This chapter describes the context, both physically and regulatory, of the Site in terms of water resources, and identifies the potential impacts that the Proposed Development may have. An indication of possible mitigation measures is also included.

Relevant Policy and Guidance

4.12.2 The planning policy and legislation relevant to the Proposed Development are set out in Table 4.12.1.

Table 4.12.1 Policy and guidance overview

Scale	Policy Document	Key Considerations for the Scheme
National	National Planning Policy Framework	Sets strict tests to protect people and property from flooding which all local planning authorities are expected to follow with a view to achieving sustainable development.
	Planning Practice Guidance	Sets out the general approach to the management of flood risk associated with development in terms of assessing, avoiding, managing and mitigating flood risk. Development is directed towards areas of lowest flood risk through the use of the Sequential and Exception Tests defined in the Guidance. The definitions of each Flood Zone are provided in conjunction with details of the development types considered compatible with each. The requirement for sustainable drainage systems (SuDS) to be incorporated into developments is included.
	Non-statutory Technical Standards for Sustainable Drainage Systems	Defines the high-level operating and performance parameters that should be achieved by SuDS.
	Water Framework Directive (2000/60/EC)	High level framework for the protection and improvement of waterbodies in terms of water quality. This dictates the baseline quality of the waterbodies within and adjacent to the Site.
	Land Drainage Acts 1991 & 1994	Defines the responsibilities of riparian owners and other regulatory authorities. The high-level principles for the management of surface water are also set out.
Local	Coventry Local Plan 2016	Policy EM4 Flood Risk Management: Defines how developments must ensure that they are not at risk of flooding or adversely affect flood risk in other areas.

Scale	Policy Document	Key Considerations for the Scheme
		Policy EM5 Sustainable Drainage Systems (SuDS): Establishes the principles for the inclusion of SuDS within a development including maximum discharge rates and maintenance arrangements.
	Coventry City Council Strategic Flood Risk Assessment	Provides an overview of flooding issues within the Coventry area. Information relating to required standards of protection and flood risk management are provided.
	Coventry City Council Preliminary Flood Risk Assessment	Identifies areas that have flooded in the past and those that are considered susceptible to flooding in the future from a range of different sources.
	Coventry Water Cycle Study 2015	Provides information relating to the availability of waste water treatment and water supply capacity within the city for different future development scenarios.
	Coventry City Council Surface Water Management Plan	Defines the long-term strategy for the management and reduction of surface water flood risk within the city
	Coventry City Council Local Flood Risk Management Strategy	Presents the strategy for managing flood risk, how and when specific measures will be implemented, assessment processes, funding arrangements and associated environmental issues.
	Flood Risk Management & Drainage – Planning Standing Advice	Provides high level performance parameters for surface water drainage strategies to ensure management of flood risk throughout the city and inclusion of allowances for climate change.

Preliminary Review of Baseline Conditions

Flood Risk

- 4.12.3 The Site, according to the Environment Agency Flood Map, is located wholly within Flood Zone 1 (low risk) in terms of fluvial flooding. There are a number of ditches and small watercourses within and adjacent to the Site that are too small to feature on the Flood Map by may still have associated floodplains, albeit small.
- 4.12.4 A number of areas within and adjacent to the Site have been identified as being potentially at risk of surface water flooding. The flooding within the Site generally follows the site topography with flows concentrated into a shallow valley feature that falls towards Bennetts Road North. Bennetts Road North and the residential area to the east, downstream of the Site, are also shown as being at risk of surface water flooding.
- 4.12.5 The Coventry City Council Preliminary Flood Risk Assessment identifies the Site has being within an area with a risk of groundwater flooding of less than 25%. This is due to the limited permeability of the underlying ground conditions.

- 4.12.6 There are no records of sewer flooding in the vicinity of the Site and Severn Trent Water has not raised any concerns regarding existing flooding issues. There are no artificially impounded waterbodies such as reservoirs or canals in the area surrounding the Site hence the risk of flooding as a result of a failure of these is considered negligible.

Drainage

- 4.12.7 The Site in its current undeveloped condition does not contain any positive, piped drainage systems. Surface water run-off either infiltrates into the ground or is intercepted by a number of ditches running along field boundaries. These convey the flows either off the Site into adjacent watercourses or an existing pond in the centre of the Site.
- 4.12.8 There are public combined sewers present within Bennetts Road North and Thompsons Lane. These have a diameter of 225mm and flow towards a 300mm diameter public foul water sewer that runs in an easterly direction beneath the rear gardens of properties on the northern side of Howat Road. There are also further foul water sewers with diameters between 150mm and 225mm that also discharge into this sewer. Foul water flows are ultimately conveyed to Finham Wastewater Treatment Works (WwTW) for treatment. The available treatment capacity at Finham WwTW is currently subject to investigation by Severn Trent Water.
- 4.12.9 Public surface water sewers are located within Thompsons Lane and Bennetts Road North. The sewers run east along Thompsons Lane before turning north to flow along Bennetts Road North. Adjacent to the access to Keresley Newland Primary Academy school, the sewer again turns to flow in an easterly direction. It runs at the rear of properties fronting onto Howats Road before discharging into a watercourse which continues to flow in an easterly direction. The surface water sewers have a diameter of up to 225mm within Thompsons Lane increasing to 300mm diameter along Bennetts Road North. At the outfall into the watercourse, the sewer has a diameter of 600mm.

Water Quality

- 4.12.10 According to Environment Agency data, the water quality of watercourses adjacent to and downstream of the Site is currently poor ecologically and good chemically. The poor ecological quality is attributed to diffuse pollution associated with agricultural activities, in particular, livestock, and domestic septic tanks.
- 4.12.11 The underlying groundwater is also classified as being poor quality both chemically and quantitatively. This status is due to high levels of abstraction and agricultural activities, in particular poor management of nutrients and pesticides.

Water Supply

- 4.12.12 The Water Cycle Study states that water supply capacity within the Coventry area is limited by environmental constraints. Taking into account the forecast development in the area, without intervention, the security of water supply would be at risk.

4.12.13 Severn Trent Water have advised that there are capacity constraints within the local water supply network that limit the water currently available to the Site.

Potential Impacts/effects

- 4.12.14 The potential impacts/effects of the Proposed Development are summarised below:
- Increased flows in downstream watercourses as a result of additional impermeable area being introduced onto the Site with a consequential increase in fluvial flood risk.
 - Diversion of existing or creation of new surface water overland flow paths potentially exposing new areas to surface water flood risk.
 - Increased flows within existing surface water overland flow paths as a result of the Proposed Development introducing additional impermeable area on the Site, which could exacerbate existing flooding issues.
 - Overloading of existing public surface water sewers leading to downstream flooding.
 - Increased flows entering the existing public foul water sewerage system that may exceed the current conveyance capacity of the system and available treatment capacity.
 - Degradation in water quality in watercourses downstream as a result of increased pollution from traffic within the Proposed Development.
 - Pollution of groundwater due to contaminated water running off paved surfaces, such as carparks and highways, and percolating into the ground.
 - Increased demand on the local water supply network that may have implications on the availability of supplies for existing users.

Scope and Methodology of Assessment

- 4.12.15 The assessment will consider the impacts on the following:
- Fluvial flood risk
 - Surface water flood risk
 - Surface water drainage
 - Foul water sewerage
 - Groundwater quality
 - Water supply
- 4.12.16 The magnitude of a specific potential impact will be assessed using the criteria set out in Table 4.12.2. The sensitivity of a specific receptor will be determined using the criteria shown in Table 4.12.3. The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can

be beneficial or adverse. The effect significance matrix is shown in Table 4.12.4 **Error!**
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Table 4.12.2 Methodology for assessing magnitude

Magnitude of Impact	Criteria for Assessing Impact	Examples
Major	Total loss or major/substantial alteration to key elements/ features of the baseline (pre-development) conditions such that the post-development character/composition/ attributes will be fundamentally changed.	Change in risk resulting in a change of more than one Flood Zone (e.g. 1-3; 3-1). Additional or fewer properties flooded internally. Failure of utility service affecting a wide area. Increase or decrease in groundwater qualitative or quantitative WFD status. Pollution or loss of potable source of abstraction.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post-development character/composition/attributes of the baseline will be materially changed.	Change in risk resulting in a change of a single Flood Zone (e.g. 1-2, 2-3). Existing internally flooded properties flooded to a greater or lesser depth. Additional or fewer properties flooded externally. Change in performance of utility service affecting a wider area. Increase or decrease in the yield or quality of an aquifer, but insufficient to change its WFD classification.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.	Change in risk but insufficient to change the Flood Zone. Existing external flooding increased or decreased but no change in properties affected. Localised change in performance of a utility service affecting the immediate area surrounding the Site. Localised change in water quality immediately adjacent to the Site. Reversible change in the yield or quality of an aquifer, but insufficient to change its WFD classification.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.	No/minimal change in flood risk. No/minimal change in utility performance. No/minimal change in water quality. No significant impact on the economic value of the feature. No change to the integrity of an aquifer.

Table 4.12.3 Methodology for determining receptor sensitivity

Sensitivity	Characteristics of Receptor	Examples
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance, with very limited potential for substitution.	Existing residential properties. Principal Aquifer with public water supply abstractions. Site is within Inner or Outer Source Protection Zones (SPZ 1 to 2). WFD classification 'High'. Site protected/designated under EC or UK habitat legislation (SAC, SPA, SSSI, Water Protection Zone (WPZ), Ramsar site, salmonid) Water/Species protected by EC legislation.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high quality and rarity on regional scale or medium quality and rarity on regional or national scale, with limited potential for substitution.	Principal aquifer providing locally important resource or supporting river ecosystem. Site is within a Catchment SPZ (SPZ 3). Secondary A aquifer with limited water supply abstractions for industrial or agricultural use. Site is within Inner or Outer SPZ (SPZ 1 to 2). WFD classification 'Good'. Local sewerage systems. Water supply networks.
Low	The receptor/resource is tolerant of change or is of medium quality and rarity on regional scale or low quality and rarity on national scale, with limited potential for substitution.	WFD classification 'Moderate'. Secondary Aquifer with limited water supply abstractions for industrial or agricultural use. SPZ3 (total catchment). Highway areas.

Table 4.12.4 Effect significance matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/beneficial	Major – Moderate Adverse/beneficial	Moderate – Minor Adverse/beneficial
Moderate	Major – Moderate Adverse/beneficial	Moderate – Minor Adverse/beneficial	Minor Adverse/beneficial
Minor	Moderate – Minor Adverse/beneficial	Minor Adverse/Beneficial	Minor – Negligible Adverse/beneficial
Negligible	Negligible	Negligible	Negligible

Preliminary Discussions of Mitigation and Enhancement Measures

- 4.12.17 The potential mitigation and enhancement measures that could be incorporated into the Proposed Development are summarised below:
- Design of the proposed ground profile to safely contain and direct overland flows into areas where they will not adversely affect existing areas at risk of flooding.
 - Incorporate a positive surface water drainage system to intercept run-off before it can leave the Proposed Development. Run-off will be stored and released at a rate not exceeding the existing annual average greenfield equivalent run-off rate for all rainfall events up to and including the 1 in 100-year +40% event. This will mitigate any downstream adverse impact on fluvial flood risk.
 - Incorporate SuDS within the surface water drainage system to both store run-off and improve its quality before it is discharged from the Proposed Development. The SuDS will be integrated into the wider landscaping scheme to additionally provide both amenity and biodiversity benefits.
 - Off-site foul water capacity improvements to ensure sufficient capacity is available to convey the anticipated flows. Works may also be required at Finham WWTW.
 - Use low water consumption fittings within each proposed dwelling to reduce the overall water demand of the Proposed Development.
 - Undertake off-site supply network reinforcement works to ensure that an adequate supply capacity is available for the Proposed Development without adverse consequences elsewhere.

4.13 Transport

Introduction

- 4.13.1 This Chapter describes the scope and methodology adopted for the assessment of impacts and effects on traffic and transport. It describes the existing baseline of the proposed Scheme in terms of transport. It additionally summarises the potential impacts that could arise as a result of the construction and post-completion (operation) of the proposed scheme and/or summarises additional survey work required to enable potential impacts to be identified. The assessment methodology proposed to be undertaken is also described.
- 4.13.2 The application and ES chapter will be supported by a Transport Assessment (TA) and Travel Plan (TP).

Relevant Policy and Guidance

- 4.13.3 The approach to the assessment has been based on the 1993 Institute of Environmental Assessment (now the Institute of Environmental Management and Assessment - IEMA) publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic, and the 2007 Welsh Assembly Government, Department for Communities and Local Government (DCLG) and the Department for Transport (DfT) publication Guidance on Transport Assessment.
- 4.13.4 Reference has also been made within this assessment to the Revised National Planning Policy Framework (NPPF, 2018) as well as other relevant local planning policy documents including the Movement for Growth (Transport for West Midlands - West Midlands Combined Authority) and the Coventry Local Plan, adopted in 2017.

Preliminary Assessment of Baseline Conditions

- 4.13.5 The Application Site is located to the north of Coventry. It is bound by Bennetts Road North to the east, residential properties on Thompsons Road to the south, Keresley RFC playing fields to the north, and greenfield land to the west.
- 4.13.6 The Application Site forms part of the Keresley Sustainable Urban Extension (SUE), allocated within the Coventry Local Plan (adopted December 2017) under Policy H2:1.

Local Highway Network

Bennetts Road North

- 4.13.7 Bennetts Road North is a single carriageway road, operating in a north/south alignment. The road is approximately 6m in width and is subject to a 30mph speed limit. This speed limit increases to 40mph to the north of the Bennetts Road North/Grove Lane priority junction. Bennetts Road North meets Thompsons Lane to the south by means of a priority junction. There are pedestrian footways on both sides of the carriageway until approximately 100m to the north of Bennetts Road North/Howat Road priority junction where the footway on the western edge ends.

Thompsons Road

- 4.13.8 Thompsons Road is a single carriageway road, operating in an east/west alignment. The road is approximately 6m in width and is subject to a 30mph speed limit. The initial 280m of Thompsons Road is adopted highway, it then forms Thompsons Lane, a private drive and footpath/track (not officially designated as a Public Right of Way).

Pedestrian/Cycle Facilities

- 4.13.9 There are lit footways, approximately 1-2m in width on both sides of Bennetts Road North, until approximately 100m to the north of Bennetts Road North/Howat Road priority junction where the footway on the western edge ends.

- 4.13.10 There are no dedicated cycle facilities in the vicinity of the site.

Public Transport

- 4.13.11 Bus stops are located within the vicinity of the development site on Howat Road and Bennetts Road. Services from these stops provide connections to Nuneaton, Hinkley, Bedworth and Coventry.

Potential Effects

- 4.13.12 Transport related environmental effects could arise from an increased travel demand which would be identified through the TA process. The following traffic and transport effects identified for inclusion within the assessment include:

- Net change in vehicular traffic patterns;
- AM and PM peak hour junction capacity;
- Local footway provision;
- Local cycle facility provision; and
- Effect on personal injury collisions.

Scope and Methodology of Assessment

- 4.13.13 The traffic and transport impact of the proposed development will be assessed in line with guidance contained within the DCLG 'National Planning Policy Guidance' (March 2014) and the DfT publication 'Guidance on Transport Assessment' (March 2007) and the Institute of Environmental Assessment (now IEMA) 'Guidelines for the Environmental Assessment of Road Traffic'.

- 4.13.14 As recommended by the IEMA guidelines, the following environmental effects will be considered when considering traffic as a result of the Proposed Development:

- Severance;
- Driver Delay;
- Pedestrian Delay;
- Pedestrian Amenity;

- Fear and Intimidation; and
- Accidents and Safety.

4.13.15 The extent of the transport impact will be determined using pre-defined significance criteria, outlined within the IEMA guidance. The criteria will be based on the net change in journeys as a result of the Proposed Development. The significance criteria will establish the scale of any beneficial or adverse effects the development will have on the transport network.

Preliminary Discussions of Mitigation and Enhancement Measures

4.13.16 Consideration has been given to the promotion of a number of mitigation measures. The mitigation measures likely to be included as part of the assessment are, but not limited to, the following:

- The development of a site access point and sustainable connections (i.e. foot/cycle/public transport);
- Localised junction improvements, to be determined following detailed capacity assessments; and
- A contribution to the Keresley Link Road.

4.13.17 Any additional mitigation measures required following the conclusion of the TA will be discussed with the highway authority.

4.14 Noise Environment

Introduction

- 4.14.1 The dominant source of noise across the proposed development site is road traffic noise. This is generally attributable to road traffic present on the M6 between Junctions 3 and 3A. This stretch of road lies north of the proposed site, and its influence envelopes Keresley and the surrounding area.
- 4.14.2 Other sources of noise that contribute to the noise climate within the site boundary include localised road traffic, aircraft movements, birds and rustling foliage.
- 4.14.3 An assessment will be undertaken that includes the potential effects associated with the proposed development with respect to noise and vibration. This will consider the construction phase effects that will be temporary in nature and operational phase effects that will be permanent. Several existing noise sensitive receptors are situated adjacent to, or in the proximity of, the site boundary. These are mostly residential properties.
- 4.14.4 A noise and vibration assessment will also consider the suitability of the site for the proposed residential development and any outline mitigation measures required to provide suitable external and internal noise levels.

Relevant Policy and Guidance

- 4.14.5 The following legislation, policy and guidance will be referenced in the preparation of the noise and vibration impact assessment:

Table 4.14.1 Effect significance matrix

Legislation/Policy/Guidance	Summary of Requirements
Legislation	
Control of Pollution Act 1974 (as amended)	Section 60 – Control of noise on construction sites. Section 61 – Prior consent for work on construction sites. Section 71 – Codes of practice for minimising noise. Section 72 – “Best practicable means”.
Environmental Protection Act 1990 (as amended)	Section 79 (1) (ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street constitutes a statutory nuisance (NB: local authorities should inspect their areas to detect any statutory nuisances) Section 79 (9) provides interpretation of “best practicable means”.
Policy	
Noise Policy Statement for England (NPSE), 2010	Within the context of Government policy on sustainable development: <ul style="list-style-type: none"> i. Avoid significant adverse effects as a result of the scheme. ii. Mitigate and minimise adverse effects as a result of the scheme. iii. Contribute to the enhancement of the acoustic environment.
National Planning Policy Framework (NPPF), 2018	Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well

Legislation/Policy/Guidance	Summary of Requirements
	<p>as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:</p> <ol style="list-style-type: none"> i. Mitigate and reduce to a minimum potential adverse impact resulting from noise from the development – and avoid noise giving rise to significant adverse impacts on health and quality of life. ii. Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.
Guidance	
<p>Planning Practice Guidance Noise (PPG-N), 2014</p>	<p>PPG-N provides advice on how planning can manage potential noise impacts in new development. Noise should not be considered in isolation and should instead be viewed in relation to social, economic and environmental context.</p>
<p>Professional Practice Guidance “ProPG: Planning and Noise”, 2017 – ANC, IOA & CIEH (Pro-PG)</p>	<p>This guidance document aims to collate and fill the gaps in the existing technical guidance relating to noise and planning, to help achieve more consistent decision making during the planning process.</p>
<p>British Standard 5228:2009+A1:2014 ‘Code of practice for noise and vibration control on construction and open sites’ (BS 5228:2009+A1:2014)</p>	<p>BS 5228:2009+A1:2014 - Part 1 Noise and Part 2 Vibration, provides guidance on appropriate methods for assessing and minimising noise and vibration during construction phases.</p>
<p>British Standard 4142:2014 ‘Method for rating and assessing industrial and commercial sound’ (BS 8233: 2014)</p>	<p>BS 4142:2014 provides guidance on assessing the impact of noise from fixed external building services plant.</p>
<p>British Standard 8233:2014 ‘Guidance on Sound Insulation and Noise Reduction for Buildings’ (BS 4142: 2014)</p>	<p>BS 8233:2014 provides guidance on suitable indoor noise levels in bedrooms and living rooms, and methods for controlling noise ingress via the building envelope.</p>
<p>WHO Guidance Documents: -Environmental Noise Guidelines, 2018 -Night Noise Guidance, 2009 -Guidelines for Community Noise, 2000</p>	<p>These documents collate findings from research projects and provides guidance on noise levels, from various sources, in various settings and their potential impacts on human health i.e. night-time sleep disturbance.</p>
<p>Calculation of Road Traffic Noise, DfT, 1988 (CRTN)</p>	<p>CRTN is the industry standard method for calculating noise from road traffic.</p>
<p>Design Manual for Roads and Bridges, Volume 11 Section 3 part 7 – HD213/11 Noise and Vibration (DMRB HD213/11)</p>	<p>DMRB HD213/11 provides method for assessing the magnitude of changes in road traffic noise levels.</p>

Preliminary Assessment of Baseline Conditions

- 4.14.6 Long and short-term noise monitoring was undertaken at various locations across the site. The short term attended monitoring was carried out at four locations across the site, with three, non-consecutive, 15-minute sample measurements taken at each position on Wednesday 29th November 2017. Prominent noise sources during each measurement were noted, together with the relevant meteorological conditions.
- 4.14.7 The longer term unattended noise monitoring, from 29th November to 6th December 2017. Continuous 15-minute measurements were taken at two different locations throughout the survey period. Prominent noise sources were noted during the deployment and collection of the monitoring equipment. Meteorological conditions were also continuously monitored by an unmanned weather station throughout the survey period.
- 4.14.8 The noise climate across the site is affected predominantly by reasonably consistent levels of road traffic noise from the M6 approximately 700 metres to the north. Additional road traffic noise contributions were noted from the B4098 approximately 600 metres to the west and, more noticeably, from the adjacent Bennetts Road North on the eastern site boundary.
- 4.14.9 Daytime ambient noise levels across the site typically varied between 52 to 54 dB $L_{Aeq,16hrs}$. Night-time noise levels were typically varied between 46 to 50 dB $L_{Aeq,16hrs}$.
- 4.14.10 Existing background noise levels were approximately 50 to 52 dB L_{A90} during the daytime and 43 to 47 dB L_{A90} at night.

Potential Impacts/Effects

- 4.14.11 There is potential for noise and vibration effects to occur as a result of:
- Construction phase activities taking place in the vicinity of existing sensitive receptors situated adjacent to the site boundary;
 - Additional vehicle movements on the local highway network following the introduction of the proposed development, in conjunction with other committed developments in the area;
 - Baseline road traffic noise levels influencing the site suitability for its intended use and potential need for development mitigation in the form of noise barriers and/or building envelope design measures; and
 - Any fixed external building services plant (or similar) associated with any existing or proposed non-residential units.
 - No residual significant adverse effects are currently anticipated in relation to noise and vibration from the above list of potential impacts/effects, although some mitigation measures are likely to be required.

Scope and Methodology of Assessment

- 4.14.12 As discussed previously, a baseline noise survey has been undertaken and this will inform the EIA. Consultation with the Local Authority's Environmental Health Department. Agreement on the assessment methodologies and acoustic criteria outlined in this report during consultation with the Local Authority's Environmental Health Department.
- 4.14.13 In terms of assessing significance of noise and vibration effects, the Explanatory Note to the NPSE assists in the definition of 'significant adverse' and 'adverse' with the following concepts:
- NOEL – no observed effect level. This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.
 - LOAEL – lowest observed adverse effect level. This is the level above which adverse effects on health and quality of life can be detected.
 - SOAEL – significant observed adverse effect level. This is the level above which significant adverse effects on health and quality of life occur.
- 4.14.14 Government policy and guidance does not state values for the NOEL, LOAEL and SOAEL, rather, it is considered that they are dependent on the relevant noise sources, receptors, and time period. NOEL, LOAEL, and SOAEL values should be defined on a strategic or project basis, taking into account the specific features of that area, source or project.
- 4.14.15 It is important to note that noise levels predicted to exceed the SOAEL do not necessarily result in a significant environmental effect in EIA terms. An overall judgement on significant environmental effects would consider factors including: absolute noise level; magnitude of change; the sensitivity of the receptors; duration of effect; number/proportion of receptor(s) effected, and other contextual considerations.
- 4.14.16 The assessment methodologies that will be adopted in the EIA are outlined below.

Construction Phase

- 4.14.17 Construction phase noise and vibration levels will be predicted and assessed in accordance with the methodology and criteria set out in BS5228:2009+A1:2014, Parts 1 and 2, respectively.
- 4.14.18 Significance of noise effects will be determined using Example Method 2 '+5dB Change', whereby construction activity noise levels are compared to the measured baseline noise levels. Where construction activity noise exceeds the baseline noise levels by more than +5dB, a significant effect may occur. This is subject to minimum cut-off noise level values and significance will also be dependent on the duration of the effects. Guidance on this is provided also in BS 5228-1.

- 4.14.19 The construction phase noise assessment will identify where mitigation measures are likely to be required to minimise or offset adverse effects at surrounding receptors. The outline mitigation measures identified during this process would be used to inform the Construction Environmental Management Plan for the development.
- 4.14.20 In relation to construction phase vibration levels, a peak particle velocity (PPV) threshold of 0.3mm/s would be appropriate for the identification of the onset of adverse effects (LOAEL), above which vibration might be just perceptible in residential environments.
- 4.14.21 Vibration levels of 1mm/s can be assumed to be the onset of significant adverse effects (SOAEL). Above this level within a residential environment, vibration from construction would likely disturb, startle, cause annoyance or interfere with work activities of receptors. These levels are based on the guidance values provided in BS 5228-2. Higher levels of vibration may be tolerable and acceptable, if only for a limited period(s), provided that Best Practicable Means (BPM) mitigation measures are implemented and prior notice is given to residents.

Operational Phase - Road Traffic Noise

- 4.14.22 Basic Noise Level (BNL) calculations will be undertaken in general accordance with the methodology provided in CRTN and/or a 3D computer noise model will implement the CRTN methodology to predict road traffic noise levels. The Do-minimum (baseline) situation will be compared to the Do-Something (Scheme) and Do-Something (Scheme)+ scenarios.
- 4.14.23 Changes in noise will be assessed in accordance with guidance contained in DMRB HD213/11, reproduced in Table 4.14.2 below.

Table 4.14.2: Classification of Magnitude of Noise Impacts

Short Term Noise Change dB LA10,18hr	Magnitude of Impact (Adverse or Beneficial)
0	No Change
0.1 – 0.9	Negligible
1 – 2.9	Minor
3 – 4.9	Moderate
5+	Major

- 4.14.24 Overall Significance of environmental effects will consider the predicted change in noise and the absolute noise levels predicted. Major road schemes have tended to equate the SOAEL with the thresholds for entitlement under the Noise Insulation Regulations (NIR)¹⁷ i.e. above an absolute noise level of 68 dB LA10,18h (façade noise level which is assumed to be 2.5 dB higher than the equivalent free-field noise level).

¹⁷ Statutory Instrument, 1975, No. 1763. Building and Buildings. The Noise Insulation Regulations 1975. As amended by Statutory Instrument 1988 No. 2000. Building and Buildings. The Noise Insulation (Amendment) Regulations 1988.

- 4.14.25 A Significant environmental effect, in EIA terms, is likely to occur if absolute noise levels at receptors exceed 68 dB $L_{A10,18hr}$ and there has been a Moderate to Major increase in noise, as defined in Table 1.

Operational Phase - External Building Services

- 4.14.26 The assessment of operational phase noise generated by mechanical and electrical plant items serving the proposed development will be undertaken in accordance with the methodology outlined within British Standard 4142:2014 'Method for rating and assessing industrial and commercial sound' (BS 4142). It may be that this can be scoped out if no non-residential buildings are proposed and there is no fixed external plant servicing the residential units.

Site suitability

- 4.14.27 Guidance on the acceptable noise levels for living rooms and bedrooms within residential buildings is given in BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings' (BS 8233). Advice is given on the design range of internal noise levels, depending on the use of each room and the sensitivity to noise of the operations expected to be conducted in the rooms. An extract of the indoor ambient noise levels for dwellings is reproduced in Table 4.14.3.

Table 4.14.3: Indoor Ambient Noise Levels for Dwellings

Activity	Location	Time period	
		07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,T}$	-
Dining	Dining room/area	40 dB $L_{Aeq,T}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,T}$	30 dB $L_{Aeq,T}$

- 4.14.28 The following statement is made in respect of the internal noise levels derived from BS 8233 that are presented in Table 4.14.3 (above):
- 4.14.29 *'Where development is considered necessary or desirable, despite external noise levels above WHO guidelines¹⁸, the internal target levels may be relaxed by up to 5 dB and reasonable internal conditions still achieved.'*
- 4.14.30 BS 8233:2014 also states the following in relation to noise levels within external amenity areas:
- 4.14.31 *'For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognised that these guideline values are not achievable in all circumstances where development might be desirable.'*

¹⁸ Guideline for Community Noise, World Health Organisation, 2000

4.14.32 Significant adverse effects may only occur if the above noise levels limits cannot be achieved through reasonably practicable design/mitigation measures.

Information requirements

- 4.14.33 To undertake the above assessment the following information will be required:
- Construction phase proposals (if available) – i.e. phasing, methods, access points, compound location, plant, mitigation etc.
 - Site Layout & masterplan (CAD.dwg/.dxf format) – 3D or 2D plus building heights;
 - Site topography (3D CAD .dwg/.dxf format);
 - Outline design proposals (if available) i.e. typical window size / room dimensions;
 - Details of any external fixed building services plant / power generation;
 - Traffic forecasts – flows, average speeds and composition for surrounding road network (Annual Average Weekday Traffic). Scenarios required: Do-Minimum, Do-Something (scheme) & Do-Something+ (scheme & committed developments)

Preliminary Discussions of Mitigation and Enhancement Measures

- 4.14.34 Where adverse or Significant adverse effects are identified as part of the assessment, mitigation measures will be introduced, where practicable, and the residual effects presented.
- 4.14.35 The construction phase activities will require application of a Best Practicable Means (BPM) approach to controlling noise and vibration effects. Specific consideration may be required to any piling works in proximity to existing sensitive receptors and any receptors located close to site access routes.
- 4.14.36 Operationally, any fixed building services plant or on-site power generation may require noise attenuation to minimise likelihood of complaints.
- 4.14.37 The proposed residential units are likely to require the glazed and trickle vents element to have a nominal sound insulation specification (TBC) to control noise ingress, to meet planning requirements.
- 4.14.38 Solid perimeter noise fencing is likely to be required where gardens are adjacent to main access roads to, and within, the development site. The site layout will also seek to minimise potential noise effects in external amenity areas.

4.15 Air Quality

Introduction

- 4.15.1 An assessment will be carried out within the Environmental Statement (ES) to consider the potential air quality effects associated with both the construction and operation of the Proposed Development. To consider the scope of such assessment, a preliminary level assessment of the potential local air quality effects has been undertaken.
- 4.15.2 The assessment focuses on the air pollutants nitrogen dioxide (NO₂) and fine particulate matter (PM₁₀ and PM_{2.5}), which are associated with road vehicles.

Relevant Policy and Guidance

- 4.15.3 The assessment will take account of relevant air quality policy and guidance, as set out below.

UK Legislation

- 4.15.4 There are two types of air quality regulations that apply in England:
- Regulations implementing mandatory European Union Directive limit values: The Air Quality Standards Regulations 2010 (Statutory Instrument (SI) 2010 No. 1001); and
 - Regulations implementing national air quality objectives: Air Quality (England) Regulations 2000 (SI 2000 No. 928) and Air Quality (England) (Amendment) Regulations 2002 (SI 2002 No. 3043).

EU Limit Values

- 4.15.5 In April 2008, the European Commission adopted the Directive on ambient air quality and cleaner air for Europe (2008/50/EC). This Directive merged the previous Air Quality Framework Directive and the first three daughter directives and introduced new objectives for PM_{2.5}. UK regulations (SI 2010 No. 1001) implement the EU Directive.

National Air Quality Strategy

- 4.15.6 The 2007 Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland¹⁹ (UK AQS) sets out the national air quality standards and objectives for a number of local air pollutants. The standards define the level of pollution below which health effects are expected to be minimum or low risk even for the most sensitive members of the population. The objectives are targets for air pollution levels to be achieved by a specified timescale.

¹⁹ Department for Environment, Food and Rural Affairs (Defra), 2007. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. <http://archive.Defra.gov.uk/environment/quality/air/airquality/strategy/documents/air-qualitystrategy-vol1.pdf>

- 4.15.7 Local authorities have a responsibility (under Part IV of the Environment Act 1995²⁰, see below) to review and assess local pollution levels against these objectives. These criteria are defined in Regulations SI 2000 No. 928 and SI 2002 No. 3043. It should be noted that the UK AQS objectives only apply in locations likely to have 'relevant exposure' i.e. where members of the public are exposed for periods equal to or exceeding the averaging periods set for the standards. For this assessment, locations of relevant exposure include building façades of residential premises, schools, public buildings and medical facilities; places of work (other than certain community facilities) are excluded.
- 4.15.8 In May 2018, the UK Government published a draft Clean Air Strategy for consultation²¹, which sets out actions to improve air quality by reducing pollution from a wide range of sources. The consultation will inform the final Clean Air Strategy and detailed National Air Pollution Control Programme, to be published by March 2019. Within the draft strategy, the Government sets an ambitious target to reduce the population exposed to concentrations of PM_{2.5} above 10 µg/m³ by 2025.

Local Air Quality Management

- 4.15.9 Local authorities are responsible for managing air quality on a local level, and this is done through the review and assessment procedure which is guided by the DEFRA technical guidance document Local Air Quality Management (LAQM.TG(16))²². Where a local authority anticipates an objective is expected to be breached within their area, they must designate an Air Quality Management Area (AQMA) and develop an action plan to improve pollution levels and work towards achieving the AQS objectives.
- 4.15.10 Local authorities are responsible for managing air quality on a local level, and this is done through the review and assessment procedure which is guided by the Defra technical guidance document Local Air Quality Management (LAQM.TG(16)). Where a local authority anticipates an objective is expected to be breached within their area, they must designate an Air Quality Management Area (AQMA) and develop an action plan to improve pollution levels and work towards achieving the AQS objectives.
- 4.15.11 In July 2017 the Government published the UK plan for tackling roadside nitrogen dioxide concentrations²³. One of the provisions of this plan is to require local authorities with the worst affected populations to develop and implement new air quality action plans at pace so that air quality limits are achieved within the shortest time possible. Coventry City Council is one of the 28 local authorities identified with "*persistent exceedances required to undertake local action to consider the best option to achieve statutory NO₂ limit values within the shortest possible time*".

National Planning Policy

²⁰ Part IV of the Environment Act 1995 <http://www.legislation.gov.uk/ukpga/1995/25/part/IV>

²¹ Defra 2018, Clean Air Strategy. https://consult.defra.gov.uk/environmental-quality/clean-air-strategy-consultation/user_uploads/clean-air-strategy-2018-consultation.pdf

²² <https://laqm.defra.gov.uk/documents/LAQM-TG16-February-18-v1.pdf> (accessed October 2018)

²³ Defra & DfT, UK plan for tackling roadside nitrogen dioxide concentrations., July 2017, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633270/air-quality-plan-detail.pdf (accessed October 2018)

- 4.15.12 Planning policy, at both a national and local scale, aims to manage the impact of new development upon air quality. The National Planning Policy Framework (NPPF) and associated Planning Policy Guidance (PPG) provide the overarching guidance on planning decisions and air quality. The type of development and its location need to be taken into account, and where there are concerns over its potential impact on air quality, an appropriate assessment should be undertaken.

Local Planning Policy

Coventry Local Plan

- 4.15.13 Coventry Local Plan was adopted in December 2017 and includes reference to air quality within the policies H3 Provision of New Housing and AC2 Road Network. A specific policy relating to air quality, Policy EM7 states:

"Major development schemes should promote a shift to the use of sustainable low emission transport (electric vehicles and vehicles that use biofuels) to minimise the impact of vehicle emissions on air quality. Development will be located where it is accessible to support the use of public transport, walking and cycling. All major development proposals should be suitably planned to design out any adverse impact on air quality and be in accordance with the West Midlands Transport Emissions Framework and associated policies.

Major Development proposals will require the submission of an air quality assessment, as they may lead to a significant deterioration in local air quality resulting in unacceptable effects on human health, local amenity or the natural environment. The air quality assessment should address:

- *a) The existing background levels of air quality;*
- *b) The cumulative background levels of air quality (related to the cumulative impact of developments in an area);*
- *c) The feasibility of any measures of mitigation that would prevent the national air quality objectives being exceeded, or would reduce the extent of the air quality deterioration.*

A Supplementary Planning Document will be developed to support this"

Coventry City Council – Air Quality Supplementary Planning Document

- 4.15.14 Since adoption of the Local Plan in December 2017, the City Council published their draft Air Quality Supplementary Planning Document²⁴ (SPD) for public consultation, which closed in September 2018. This document advises on how matters of air quality will be considered as part of the planning process, focusing on mitigating impacts from development at the design stage and provides technical guidance and support to Policy EM7 of the Coventry Local Plan. The guidance details how to classify each

²⁴ Coventry City Council -Air Quality Supplementary Planning Document-Draft, August 2018, http://www.coventry.gov.uk/downloads/download/5199/air_quality_draft_supplementary_planning_document_spd (accessed October 2018)

development and the level of air quality assessment and mitigation required for each development classification.

Air Quality Action Plan

- 4.15.15 In response to the UK Government plan for tackling roadside NO₂ concentrations, Coventry City Council (CCC) and its partners will set out how they will achieve reductions in NO₂ concentrations in a Local Air Quality Action Plan (LAQAP) for Coventry.
- 4.15.16 Air quality monitoring has identified a number of locations across the city where NO₂ levels need to be reduced to meet the thresholds set by Government and the European Union. The LAQAP will identify a range of measures to be implemented by the City Council and its partners to achieve compliance with the NO₂ threshold in the shortest possible time. This is due to be submitted to Government by the end of 2018 following consultation, and finalised in early 2019.
- 4.15.17 A comprehensive traffic data collection programme has been undertaken to provide evidence of the current volume and composition of traffic in the city, including the age of vehicles and the type of fuels used.

Non-Statutory Guidance

- 4.15.18 Guidance concerning local air quality management is given in DEFRA's technical guidance LAQM.TG(16). The guidance provides relevant methods concerning treatment and interpretation of data for local authorities in relation to the LAQM regime but is frequently applied when undertaking assessments for planning applications.
- 4.15.19 Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM)'s 'Land-use Planning and Development Control: Planning for Air Quality' (2017)²⁵ guidance (EPUK/IAQM Planning Guidance) sets out to ensure that air quality is adequately considered in the land-use planning and development control processes.
- 4.15.20 The IAQM Dust Guidance²⁶ provides a framework for a risk-based approach to the assessment of dust emissions from demolition and construction land development schemes and outlines options for mitigation depending on the level of 'dust risk' identified for a site through the assessment process.

Preliminary Assessment of Baseline Conditions

- 4.15.21 As set out earlier in this report, the Proposed Development is situated to the north of Coventry near to the village of Keresley west of Junction 3 on the M6, within the administrative boundaries of CCC. The site, currently farmland, is bordered to the north and west by farmland and playing fields and to the east and south by housing

²⁵ Environmental Protection UK and Institute of Air Quality Management (2017), 'Land-Use Planning & Development Control: Planning for Air Quality',

²⁶ <http://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf> (accessed October 2018)

along Bennetts Road North and Thompsons Road. The proposed new roundabout access is located at the access to Keresley Newlands Primary Academy.

- 4.15.22 The Proposed Development is within the designated Coventry city-wide air AQMA, which was declared by CCC in 2009 for the whole administrative boundary. This is due to the exceedances of the annual mean NO₂ AQS objective at housing located close to some of the busiest roads in Coventry. The latest CCC LAQM report, published in February 2018²⁷, identified current hotspots at parts of Holyhead Road, Walsgrave Road, Foleshill/Longford Road, and Stoney Stanton Road, which are all located in the northern side of the city in urban areas of Coventry between 5 and 8 kilometres from the Proposed Development.

Continuous Monitoring Data

- 4.15.23 CCC no longer undertake any continuous monitoring within its administrative region. Results from the DEFRA automatic urban and rural network (AURN) monitoring sites, which include Coventry Allesley (representative of urban background) and Coventry Binley Road (representative of urban traffic), are published on the DEFRA UK-AIR website²⁸. The two AURN continuous monitoring sites (CMS) measure NO₂ and PM_{2.5} and are located approximately 6 and 7 kilometres to the south of the Proposed Development respectively.
- 4.15.24 The Coventry Binley Road monitoring site is located to the east of the city centre within 10 metres of Binley road and is representative of busy roads in the Coventry urban area. As such, it is not considered representative of air quality in the vicinity of the Proposed Development.
- 4.15.25 The Coventry Allesley monitoring site is located in mainly open land 6 kilometres south of the Proposed Development. The nearest major road is the A45, which lies approximately 75 metres to the west. Although the Proposed Development is in a rural area and 700 metres from the M6 motorway, Coventry Allesley is the only urban background monitoring undertaken in the Coventry area and is therefore used to represent existing pollutant concentrations in the study area.

Table 4.15.1 Measured NO₂ concentrations, µg/m³, at Coventry Allesley CMS

Monitoring Site	Air Quality Criteria	Annual Mean		
		2015	2016	2017
Coventry Allesley	Annual Mean	22.8	22.6	21.9
	No. of 1-hour means > 200 µg/m ³	2	0	0

²⁷ Coventry City Council, 2017 Air Quality Annual Status Report.
http://www.coventry.gov.uk/downloads/file/27350/2017_air_quality_annual_status_report_asr
²⁸ <https://uk-air.defra.gov.uk/>

Table 4.15.2 Measured PM_{2.5} concentrations, µg/m³, at Coventry Allesley CMS

Monitoring Site	Air Quality Criteria	Annual Mean		
		2015	2016	2017
Coventry Allesley	Annual Mean	10.9	10.4	11.4

4.15.26 Annual mean NO₂ and PM_{2.5} concentrations have been below relevant AQS objectives at this urban background location over the last three years, since monitoring at this location commenced in 2015.

Passive Monitoring Data

4.15.27 Annual mean NO₂ concentrations are measured by CCC using diffusion tubes. The nearest diffusion tube site is located approximately 3 kilometres to the southeast of the Proposed Development, at a roadside site within 10 metres of Beake Avenue, within the Coventry city-wide AQMA (Site ID BA1c). Annual mean NO₂ concentrations measured at this site is presented in Table 4.15.3 and its location is shown in the Figure overleaf.

4.15.28 Annual mean NO₂ concentrations have been below the AQS objective of 40 µg/m³ at this roadside location since monitoring commenced at the site in 2015. As the Proposed Development is located in an open, rural environment which is 3 kilometres northwest of the suburban area where BA1c is located, it is expected that the concentration of NO₂ will be lower than those recorded at BA1c.

Table 4.15.3 Measured annual mean NO₂ concentrations, µg/m³, at relevant diffusion tube sites in CCC

Monitoring Site	Air Quality Criteria	Annual Mean		
		2015	2016	2017
BA1c	Annual Mean	33.9	30.3	25.2

DEFRA Mapped Concentrations

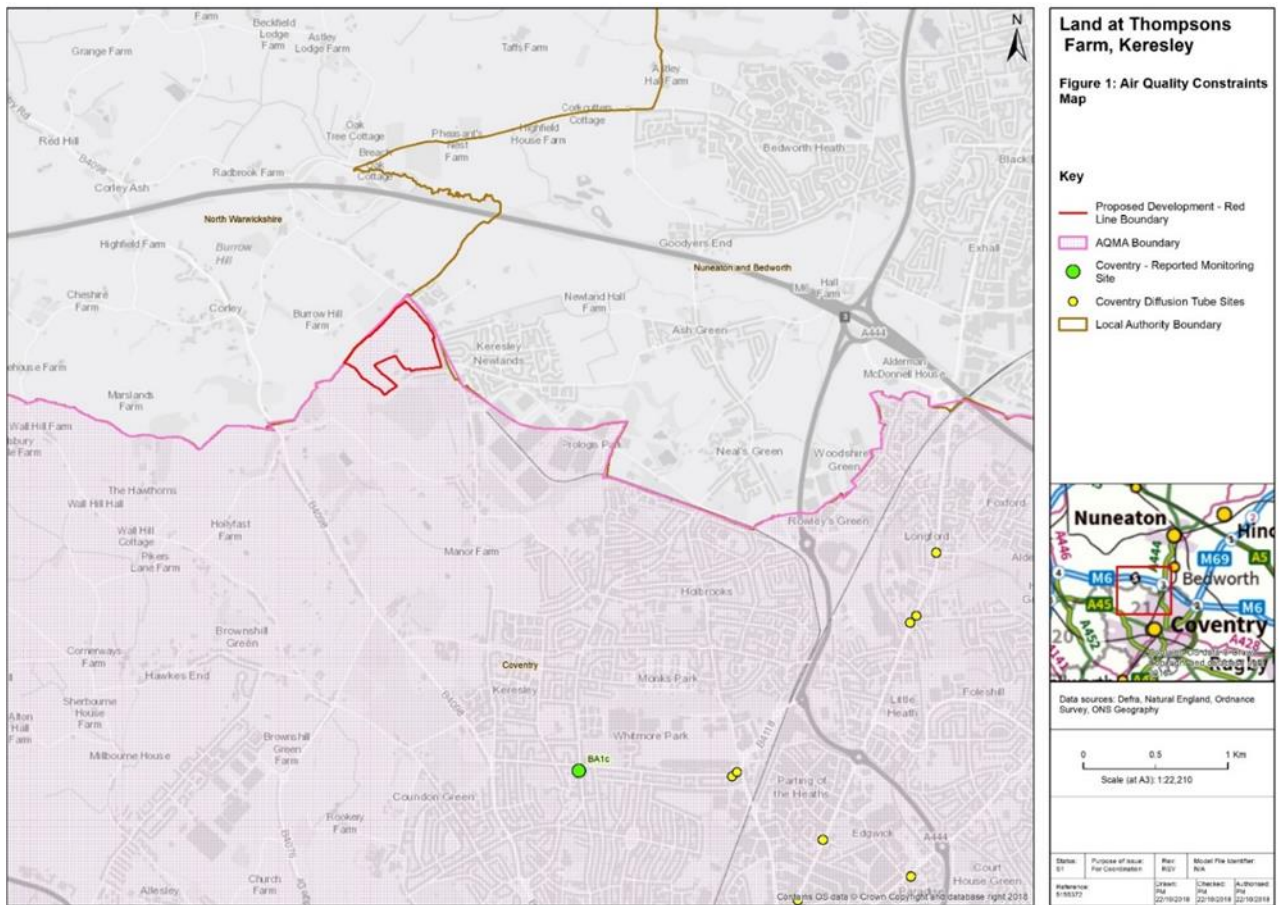
4.15.29 Estimates of current and future year background pollutant concentrations in the UK are available on the DEFRA UK-AIR website. The background estimates, which are a combination of measured and modelled data, are available for each one-kilometre grid square throughout the UK for a base year of 2015 and future year estimates up to 2030. These background estimates include contributions from all source sectors, e.g. road transport, industry and domestic and commercial heating systems.

4.15.30 Estimated annual mean background concentrations for the one kilometre grid squares that include the Proposed Development for the baseline year (2017) and the Proposed Development earliest operational year (2020) are presented below in Table 4.15.4 for the pollutants NO₂, PM₁₀ and PM_{2.5}. The mapped concentrations of key

pollutants indicate that background concentrations at the Proposed Development site are expected to be well below relevant AQS objectives.

Table 4.15.4 DEFRA mapped background concentrations, $\mu\text{g}/\text{m}^3$

Grid Square	2017			2020		
	NO ₂	PM ₁₀	PM _{2.5}	NO ₂	PM ₁₀	PM _{2.5}
431500,285500	18.0	16.0	10.5	15.2	15.6	10.1
431500,284500	12.3	13.5	9.1	10.7	13.1	8.8



Summary

4.15.31 Although there are no monitoring sites in close proximity to the Proposed Development, the air quality is likely to be relatively good, based on the monitoring data that is available in other areas of the borough. Relevant monitoring data from neighbouring local authorities will be considered in the assessment for the ES.

Potential Impacts / Effects

- 4.15.32 The Proposed Development has the potential to affect local air quality, both during construction and once operational in the following ways:
- There could be increased emissions of dust during construction of the Proposed Development from dust-raising activities on and off site;
 - Air quality could be affected by changes in traffic flows during construction, as a result of temporary traffic management measures and/or additional vehicles travelling to and from the construction site transporting materials, plant and labour;
 - Once operational, air quality could be affected (positively or negatively) by changes in vehicle activity (flows, speeds and composition) at the location of sensitive receptors (for human health and ecological impacts); and
 - Operationally, air quality could also be affected by any changes to the distance between sources of emissions and air quality sensitive receptors through changes to the existing road network.

Construction

- 4.15.33 Demolition and construction activities can give rise to dust emissions, if not effectively managed, which could potentially affect nearby sensitive residential receptors. Implementation of best practice mitigation measures seeks to control construction dust and minimise any short term adverse effects.
- 4.15.34 In addition, the local highway network may experience changes in traffic flows and speeds during construction because of temporary traffic management measures and / or additional vehicles travelling to and from the construction site transporting plant, materials and labour.

Operation

- 4.15.35 Introducing new housing is likely to result in increases in traffic in the vicinity of the development. The new housing may introduce new areas of exposure i.e. new residential receptors near to existing sources of pollution. The proposed new roundabout may change the distances between existing receptors and road sources.

Scope and Methodology of Assessing Significance of Effect

- 4.15.36 The Proposed Development is classed as a 'major' development by CCC SPD guidance²⁴ as it comprises over 50 residential units and is located within or adjacent to an AQMA with the provision of more than 100 parking spaces. The level of assessment required for a 'major' development is set out in detail in the CCC SPD. The following methodology will be followed to provide the appropriate level of assessment for the ES.

Baseline

4.15.37 Information on existing baseline air quality conditions within the study area, as gathered for this scoping report, will be obtained from the following sources:

- CCC and other local authority air quality review and assessment reports²⁹;
- Air quality background concentrations and published monitoring network data from DEFRA's Air Information Resource (UK-AIR)³⁰;
- OS mapping to identify sensitive receptor locations for human health; and
- Designated ecological site information from Natural England's online mapping portal, Magic³¹.

Construction Phase

4.15.38 The IAQM Dust Guidance³² provides a framework for a risk-based approach to the assessment of dust emissions from demolition and construction. The assessment of dust emissions during construction of the Proposed Development will be considered in the context of the overall scale and nature of the development under consideration and the potential sensitivity of neighbouring land uses. The quantity and distribution of dust emissions varies according to type, duration and location of activity, weather conditions and the effectiveness of suppression (mitigation) measures. Good practice control measures that are "highly recommended" or "desirable" for dust control for the appropriate dust risk category will be recommended.

Construction Dust Risk Assessment

4.15.39 Assessment of the potential impact of the construction phase of the Proposed Development on air quality with regards dust and PM₁₀ emissions will be carried out with reference to the four step process described in the IAQM Dust Guidance. These steps are summarised below:

- Step 1 – Screening
- Step 2 – Assessment of the risk of dust effects
- Step 3 – Site specific mitigation in terms of the identified risks is identified.
- Step 4 – Assessment of the significance of the residual dust risk, after the application of the site specific mitigation.

Vehicle Emissions

4.15.40 The EPUK/IAQM Planning Guidance advises that an air quality assessment would be required where a development causes a change in heavy duty vehicle (HDV)³³ flows on local roads of more than 25 per day within an AQMA or more than 100 per day outside an AQMA. Details of the numbers of construction vehicles will be used, where available, to quantitatively or qualitatively assess the potential impact on roads

³⁰ <https://uk-air.defra.gov.uk/>

³¹ <http://www.natureonthemap.naturalengland.org.uk/>

³² <http://www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf>

³³ HDV comprises goods vehicles and buses >3.5 tonnes gross vehicle weight

affected during construction. It should be noted that any effect on air quality from construction traffic will be temporary, limited to the construction period only.

Operational Phase

Local air quality assessment

- 4.15.41 Local air quality impacts from changes in road traffic flows with the Proposed Development in the appropriate opening year will be assessed with reference to published guidance and using air quality assessment tools from DEFRA's Technical Guidance LAQM.TG(16) and assessment criteria in the EPUK/IAQM Planning Guidance²⁵.
- 4.15.42 As the Proposed Development comprises approximately 500 dwellings (in total) further assessment is recommended using the indicative traffic change criteria in the EPUK/IAQM Planning Guidance. The relevant traffic change criteria are:
- a change of light duty vehicles (LDV) of more than 500 AADT (or more than 100 AADT within or adjacent to an AQMA); or
 - a change of HDV of more than 100 AADT (or more than 25 AADT within or adjacent to an AQMA).
- 4.15.43 When the traffic screening calculations have been completed, consultation with the CCC Environmental Health Officer, will be required to agree the assessment methodology. It is expected that detailed modelling of traffic emissions will be required, which would be undertaken using ADMS-Roads.

Assessment Scenarios

- 4.15.44 Traffic data for the following scenarios will be considered:
- Base Year (to allow comparison with air quality monitoring data);
 - Opening year without the Proposed Development;
 - Opening year with the Proposed Development; and
 - Opening year with the Proposed Development and mitigation measures in place (if required).

Emission Factors

- 4.15.45 Vehicle exhaust emissions of NO_x, PM₁₀ and PM_{2.5} for each road link in each modelled scenario will be calculated using DEFRA's Emissions Factors Toolkit (EFT, version 8.0.1, December 2017) for the base and opening year (without the Proposed Development and with the Proposed Development) scenarios.
- 4.15.46 If appropriate, a sensitivity test will be carried out to allow for any uncertainty in future trends in vehicle emissions.

Background Concentrations

- 4.15.47 The output from the dispersion model providing the contribution from road traffic emissions to annual mean concentrations of NO_x and PM₁₀ at discrete receptor points will be combined with estimates of background concentrations, to account for other sources of air pollution, to derive total annual mean concentrations. Background concentrations will be derived from DEFRA's background maps or appropriate local monitoring data.

Receptors

- 4.15.48 Concentrations will be modelled at locations representative of existing sensitive human health receptors (e.g. residential properties and schools) and locations representative of new properties that will be introduced with the Proposed Development. No statutory designated ecological sites have been identified for assessment at this stage.

Model Verification

- 4.15.49 Model verification for all modelling of pollutant concentrations will follow DEFRA guidance LAQM.TG (16).

Assessment of Significance

- 4.15.50 Concentrations modelled at receptors and estimated changes in concentration as a result of the Proposed Development will be compared with relevant AQS objectives. The significance of those changes will be assessed in line with EPUK/IAQM Planning Guidance.

Cumulative Impacts

- 4.15.51 Consideration of planned committed developments will be included where suitable information is available about how these proposals will affect traffic flows in the Proposed Development opening year.

Mitigation Measures

- 4.15.52 Dust mitigation measures appropriate to the dust risk assessment level will be proposed in order to manage any potential adverse effects on health and amenity.
- 4.15.53 Mitigation measures which address significant air quality changes will be considered in accordance with CCC's SPD where deemed required.

Preliminary Discussions of Mitigation and Enhancement Measures

Construction Phase

- 4.15.54 Construction works associated with the Proposed Development have the potential to generate dust emissions, which will require effective control/minimisation for the duration of the construction project through a Construction Environmental Management Plan (CEMP) or similar.

- 4.15.55 Examples of suitable mitigation measures (as given in the IAQM Dust Guidance), applicable to the assigned dust risk level of the construction site of the Proposed Development will be provided. With appropriate mitigation measures in place, any adverse effects resulting from medium risk construction works would be minimised such that a significant residual effect on receptors is unlikely.

Operational Phase

- 4.15.56 The Government's Planning Practice Guidance for Air Quality advises that "*Mitigation options where necessary will be locationally specific, will depend on the proposed development and should be proportionate to the likely impact. It is important therefore that local planning authorities work with applicants to consider appropriate mitigation so as to ensure the new development is appropriate for its location and unacceptable risks are prevented*"
- 4.15.57 Following the full assessment, consideration will be given to whether further mitigation measures will be necessary in line with CCC's SPD.

4.16 Summary Chapter and Non-Technical Summary

- 4.16.1 A chapter summarising each of the above disciplines findings will be presented. A separate Non-Technical Summary will also be provided in accordance with the EIA Regulations.

5. Topics proposed to be scoped out and not included within the Environmental Statement

5.1 Agriculture Resources

5.1.1 Coventry City Council (CCC) commissioned an Agricultural Land Classification (ALC) of 880 ha of land to the west of Coventry in 2008 (Soil Environmental Services Limited, 2008). This survey identified the whole of the Application Site to comprise Subgrade 3b "moderate" quality agricultural land. The plans submitted as part of this study are included at **Appendix E**.

5.1.2 The National Planning Policy Framework in paragraphs 170 and 171 requires that the economic and other benefits of the best and most versatile agricultural land be taken into consideration. Where significant development of agricultural land is considered to be necessary, poorer quality should be used in preference. The best and most versatile agricultural land is defined as that in Grades 1, 2 and 3a.

5.1.3 Given the Site comprises all Subgrade 3b, which is poorer quality land in the context of the policy advice in the NPPF and does not fall within the BMV category, it is reasonable to conclude that the loss of this land, in relation to agricultural resources, is not significant in EIA terms.

5.1.4 Furthermore, it is generally accepted that the loss of less than 20 of BMV agricultural land or the loss of any quantity of non-BMV land (Grades 3b, 4 and 5) is a 'low' magnitude effect. Combined with the 'moderate' quality of the Grade 3b soils, this is considered to be a minor adverse impact, as demonstrated by the widely accepted matrix below. In EIA terms, this is not considered a significant effect. If deemed applicable, topsoil resources could be preserved for reuse; this measure could be secured by condition, potentially within a Soil Management Plan.

Table 5.1.1 Significance Matrix

Magnitude	Sensitivity		
	High	Medium	Low
High	Major Adverse / Beneficial	Moderate Adverse / Beneficial	Minor Adverse / Beneficial
Medium	Moderate Adverse / Beneficial	Minor Adverse / Beneficial	Minor Adverse / Beneficial
Low	Minor Adverse / Beneficial	Minor Adverse / Beneficial	Minor Adverse / Beneficial
Negligible	Negligible	Negligible	Negligible

5.1.5 In relation to farming businesses, the farm land is occupied by a substantial farming business based on a farm some 18 km from the Site. The Application Site comprises about 10% of the land farmed, however given that it is so detached, it is not considered to be of key importance to the wider farm business.

5.1.6 For these reasons it is proposed that Agricultural Resources can be scoped out of the ES.

5.2 Wind Microclimate

- 5.2.1 It is not considered the Proposed Development would result in significant effects on human receptors in relation to wind micro climate. The Application Site is located primarily alongside agricultural land and although there are residential dwellings along Bennetts Road North, there are no existing tall buildings which may create trapped vortices/wind tunnelling, nor are there considered to be any significant effects in relation to the proposed built form and any potential changes in micro climate.
- 5.2.2 Given the location of the Application Site, and the nature of the Proposed Development, it is considered appropriate that wind microclimate is scoped out of the EIA and resultant ES.

5.3 Daylight, Sunlight, Overshadowing and Glare

- 5.3.1 The Application Site is located primarily alongside agricultural land, and although there are residential buildings to the east of the Site along Bennetts Road North, these are unlikely to be close enough to the Proposed built form such that there would be significant changes to daylight, sunlight or cause overshadowing. The design of the development will also seek to reduce any excessive shadowing, by the consideration of roof treatments if required. The materials used for the buildings will also seek to reduce unnecessary glare.
- 5.3.2 Given the location of the Application Site, and the likely design of the Proposed Development, it is considered appropriate that impacts on daylight, sunlight, overshadowing and glare are scoped out of the EIA and resultant ES.

5.4 Electronic Interference

- 5.4.1 It is not considered that the Proposed Development would cause electronic interference and therefore this is proposed to be scoped out of the EIA and resultant EIA.

5.5 Material Assets

- 5.5.1 Material assets in EIA is a very broad term which considers both physical and non-physical sectors that could be said to have material value. On review of the Application Site's location and context, it is not considered there are any further 'material assets' to those already addressed within other EIA topics, and therefore no further consideration of material assets is proposed within the EIA and resultant ES.

6. Structure of the Environmental Statement (ES)

6.1.1 The ES will report the findings of the EIA and will address the requirements of Schedule 4 of the EIA Regulations, as set out in section 4.

6.1.2 The ES is anticipated to include 3 volumes:

- Volume 1: Environmental Statement Main Text: sets out the findings to each of the environmental disciplines, including accompanying Figures (i.e. plans/drawings)
- Volume 2: Accompanying Technical Appendices: supports the main assessments within Volume 1; and
- Volume 3: Transport Assessment
- Non-Technical Summary (NTS) would also be provided as a separate document

6.1.3 The anticipated structure and content of Volume 1 (and Volume 2 where applicable) of the ES is likely to be as follows:

- Chapter 1 Introduction
- Chapter 2 Assessment Scope and Methodology
- Chapter 3 The Application Site
- Chapter 4 Proposed Development and Alternatives
- Chapter 5 Planning Policy
- Chapter 6 Socio Economics Issues
- Chapter 7 Landscape and Visual Issues
- Chapter 8 Ecology and Nature Conservation
- Chapter 9 Archaeology and Cultural Heritage
- Chapter 10 Ground Conditions
- Chapter 11 Water Resources
- Chapter 12 Transport and Access
- Chapter 13 Noise and Vibration
- Chapter 14 Air Quality
- Chapter 15 Summary

6.1.4 Within each of the assessment chapters the main structure of the information presented, although not exclusively, will be as per the following headings:

- Introduction
- Assessment Approach (including methodology, assessment of significance, legislative and policy framework, scoping criteria, limitation)
- Baseline Conditions
- Assessment of Likely Significant Effects (Assessment of Impacts, including construction and operation)

- Mitigation, Enhancement and Residual Effects
- Cumulative and in-combination effects
- Summary

7. Environmental Statement Scoping Summary

- 7.1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared on behalf of Lioncourt Strategic Land (the "Applicant") in respect of land at Thompsons Farm, Keresley (the "Application Site") which is proposed for residential led development (the "Proposed Development").
- 7.1.2 This Scoping Report has been prepared to accompany a formal EIA Scoping Request to Coventry City Council under Regulation 15 of the Town and Country Planning (EIA) (Amended) Regulations 2018 and has set out the proposed scope of the EIA and resultant Environmental Statement (ES) which is anticipated to support a forthcoming planning application.
- 7.1.3 From the initial assessments undertaken to date and as outline and justified within this Scoping Report, it is proposed the ES will consider the topics listed in **Table 7.1**.

Table 7.1 Summary of Proposed ES Scope

EIA Topic	Scoped In / Out	Where Addressed within ES
Population	Scoped in	To be assessed within the Socio Economic chapter
Human Health	Scoped in	To be assessed within various chapters as follows: Air Quality, Noise Environment, Landscape and Visual, Socio Economic, Ground Conditions and Transport
Biodiversity (e.g. flora and fauna)	Scoped in	To be assessed within the Ecology and Nature Conservation chapter
Land (e.g. land take)	Scoped in / out	To be assessed within the Ground Conditions, Landscape and Ecology Chapters. Given the Site is comprised of Grade 3b soils however, it is proposed Agricultural Resources is scoped out.
Soil	Scoped in	To be assessed within the Ground Conditions Chapter. Given the Site is comprised of Grade 3b soils however, it is proposed Agricultural Resources is scoped out.
Water	Scoped in	To be assessed within the Water Resources and Ecology and Nature Conservation chapters
Air	Scoped in	To be assessed within the Air Quality chapter
Climate	Scoped in	Climate change and greenhouse gas emissions to be assessed within various chapters as follows: Air Quality, Water Resources
Material Assets	Scoped out	It is not considered there are any further 'material assets' to those already addressed within other EIA topics (refer to Section 6)
Cultural Heritage (including Architectural and Archaeological aspects)	Scoped in	To be assessed within the Archaeology and Built Heritage Chapter
Landscape	Scoped in	To be assessed in the Landscape and Visual chapter
Interrelationship between above factors	Scoped in	Within each topic chapter

- 7.1.4 The Applicants look forward to receiving the Local Planning Authorities Scoping Opinion within 5 weeks, as set out within Regulation 15 of the EIA Regulations (Amended 2018.)

