2 EIA METHODOLOGY

Introduction

2.1 This chapter sets out the methodology used to prepare each chapter of the ES and describes its structure and content. In particular, it sets out the process of identifying and assessing the likely significant effects of the Development on the environment.

2.2 The ES has been prepared in accordance with the Regulations 2017 and reference has also been made to currently available good practice guidance on EIA including the Planning Practice Guidance[i].

Scoping

2.3 The Development has been the subject of a scoping exercise to identify the likely significant effects on the environment that may arise from the demolition and construction and operational phases of the Development. A request for an EIA Scoping Opinion was submitted to WDC on 13th October 2020. The scoping exercise identified the topics considered likely to require assessment within the ES and those topics for which there would not be likely significant effects, that could therefore be scoped out of the ES. A copy of the EIA Scoping Report is attached at Appendix 2.1. WDC adopted a scoping opinion on 30th November 2020 which is attached at Appendix 2.2. Barton Willmore responded to the Scoping Opinion via email on 1st December 2020 to clarify the topics to be scoped in and out of the ES and a subsequent email response was provided by WDC on 11th December 2020 (refer to Appendix 2.3).

2.4 The topics scoped into the ES comprise:

- Landscape and Visual;
- Biodiversity;
- Water Resources and Flood Risk;
- Cultural Heritage; and
- Land Contamination.

Topics Scoped out of the ES

2.5 The topics for which the Development is not expected to give rise to likely significant effects and which are therefore not included in the ES are discussed below.

Population and Human Health

2.6 The Development will provide housing and construction employment opportunities. The scale of the Development is such that no significant effects on population and human health are anticipated. Standard mitigation measures, implemented through a Construction Environmental Management Plan (CEMP) to be secured through a pre-commencement planning condition would also minimise potential health effects during the construction phase. Therefore, this topic has been scoped out of the ES.

Transport & Access

2.7 A comprehensive Transport Assessment (TA) will be submitted in support of the planning application. The TA will set out transport issues relating to the Development and identify measures which will be taken to deal with the anticipated transport impacts. A Framework Travel Plan will also be submitted with the TA that sets out measures to encourage modal shift from the private car to more sustainable means of travel including walking, cycling and public transport.

2.8 Consideration has been given to the expected change in vehicle trips on the A22 as a result of the Development and this is summarised in Table 2.1 below.

Table 2.1: Preliminary Development Traffic Impact – A22 (north of Site access)

Receptor	Baseline Two-way Flow	Development Trips (Two-Way)	% Change
Morning Peak Hour	2,562	156	6.1
Evening Peak Hour	2,450	156	6.4

2.9 The IEMA Guidelines advise that changes in traffic flow of over 30% on the majority of highway links, or 10% of specifically sensitive highway links, can be required as thresholds for screening of the requirements for detailed assessment of the traffic impact of development. Based on the traffic data presented at Table 2.1 above, it is evident that the Development will not result in a significant change in traffic movements on the local highway network and does not exceed the threshold set out in the IEMA guidelines for requiring further assessment of transport impacts as part of an ES.

2.10 The Development is not considered to have a detrimental effect upon highway safety, the capacity of junctions and links or upon the wider highway network. The A22 is located adjacent to the Site and will provide main vehicular access into the Development. The A22 is not considered to be sensitive to the Development. As part of the TA, appropriate capacity assessments/junction modelling will be completed and a Road Safety Audit will be undertaken for the proposed access arrangements and pedestrian/cycle works along the A22/Bell Farm

Road.

2.11 In addition, vehicle and cycle parking will be provided across the Site in accordance with parking standards.

2.12 The Development will include pedestrian and cycle connections through the Site, through the updating of existing informal pathways and the creation of new routes. This will promote walking and cycling and ensure access to the countryside is accessible to all.

2.13 Therefore, it is considered that the Development is not anticipated to generate significant effects and this topic has been scoped out of the ES.

Air Quality

2.14 As stated above, the Site is not located within an AQMA. The nearest AQMA to the Site is the Lewes Town Centre AQMA, located approximately 12km to the southwest of the Site.

2.15 The vehicle movements associated with the construction phase of the Development are not considered to be substantial enough to significantly affect air quality although the construction phase will result in some dust emissions. However, standard measures to mitigate significant effects from dust are well understood and will be included in the CEMP.

2.16 During operation of the Development, any increase in air quality emissions would be associated with operational traffic, including from the A22. However, given the expected change in vehicle trips on the A22 as a result of the Development (Table 2.1 above), the expected changes in road traffic emissions are not likely to be significant. There is also an existing belt of woodland located adjacent to the A22 which will be retained as part of the Development, reducing any impact of traffic emissions.

2.17 Based on the above, an assessment of the effects of the Development on air quality has been scoped out of the ES.

Noise and Vibration

2.18 The construction works will affect residents adjacent to the Site and, as the Development progresses, residents of the Site. Standard mitigation measures for the construction works would be set out in the CEMP. The CEMP will stipulate working hours, best practice methods of minimising noise and vibration effects from construction, and ensure the contractors are as considerate as practicable.

2.19 Once complete and occupied, noise and vibration effects would primarily be from road traffic associated with the Development which could affect existing and future residents of the area. However, given the small increase in traffic anticipated (Table 2.1 above), it is considered that noise effects will not be significant and where necessary will be addressed at the detailed design stage to mitigate any potential effects. As noted above, it is also proposed that the existing belt of woodland located adjacent to the A22 will also be retained and this will reduce potential noise effects from traffic on the Development. Noise and Vibration has therefore been scoped out of the ES.

Wind Microclimate

2.20 Due to the low-rise nature of proposed buildings, likely significant wind effects are not anticipated and thus, this topic has been scoped out of the ES.

Daylight, Sunlight & Overshadowing

2.21 The scale and massing of the Development will not cause changes to daylight or sunlight availability or cause overshadowing of residents or amenity space. This topic has therefore been scoped out of the ES.

Agricultural Land

2.22 With reference to the DEFRA online Magic Map tool[1], the agricultural land on the Site comprises Grade 3b and Grade 4, which is not considered to be best and most versatile (BMV) agricultural land quality.

2.23 Grades 1, 2 and 3a are considered to be BMV agricultural land quality. There is no accepted guidance on the assessment of significance of effects on agricultural land. However, as a rule, effects are generally considered to be significant when the threshold (Sites + 20ha) for the requirement for consultation with the Department for the Environment and Rural Affairs due to the loss of BMV agricultural land is exceeded. In this instance the DEFRA threshold of 20 hectares BMV agricultural land is not exceeded, and thus this discipline has been scoped-out of the ES.

Lighting

2.24 The Site is located to the northwest of the town of Uckfield and adjacent to residential areas

[1] https://magic.defra.gov.uk/magicmap.aspx (accessed 1.05.22)

which are already well lit. In addition, lighting will be designed carefully in accordance with relevant Institute of Lighting Professionals (ILP) (2020) Guidance Notes for the Reduction of Obtrusive Light[ii] and BS 5489-1:2013[iii] and BS EN 13201-2:2015[iv]. Therefore, the Development is not anticipated to produce a significant lighting impact. Where appropriate, lighting will be considered within the ES, including the Biodiversity chapter of the ES. Lighting has therefore been scoped out of the ES.

Waste

2.25 Waste will be generated during the construction phase from disused construction materials and through the operational phase from the proposed residential land use.

2.26 Construction waste will be disposed of in accordance with measures set out in the Construction Environmental Management Plan (CEMP), which will be secured by planning condition. The plan will describe the strategy concerning construction waste generation, storage, handling and collection requirements.

2.27 Operational waste would be disposed of in line with WDC requirements and managed in accordance with all applicable legislation.

2.28 On this basis, the likely significant effects of waste generation during the construction and operational phases of the Development are not considered to be significant and therefore waste has been scoped out of the ES.

Climate Change & Greenhouse Gases

2.29 Climate change and greenhouse gases, as a separate chapter, has been scoped out of the ES. Chapter 3 Site and Development Description summarises the findings of the ES relevant to climate change and the climate change adaptation measures integrated into the Development. This draws upon technical chapters and reports, including the FRA (Appendix 8.1), and the Energy, Waste and Sustainability Assessment (Appendix 5.1) and Transport Assessment (submitted separately with the planning application) and summarises the sustainability and energy provisions included within the Development, setting out how the Development would mitigate and adapt to climate change. This is considered a suitably proportionate approach.

Accidents & Natural Disasters

2.30 The Development is residential in nature and does not include uses which are considered to be hazardous, nor is the Site in a location which is at risk of disasters such as land instability

or earthquakes. The Site is located in Flood Zone 1 (at a low risk of flooding from rivers).

2.31 During construction, which is considered the only part of the Development which could be considered as hazardous, all applicable health and safety legislation will be complied with and standard mitigation measures implemented through a CEMP to be secured by a planning condition. This topic has therefore been scoped out of the ES.

Consultation Process

2.32 The planning application is the culmination of an extensive design process which has involved consultation with WDC, the local community, statutory consultees, and other key stakeholders.

2.33 The Applicant and the project team have engaged in a series of design workshops, including pre-application consultation with WDC to help shape the design of the Development. A letter and consultation leaflet was also issued to residents living closest to the Site requesting comments on the proposals and offering the opportunity to discuss the proposals with the design team.

2.34 Further details in relation to the consultation undertaken for the Development is provided within the Planning Statement, submitted separately in support of the planning application.

2.35 In addition to consultation with WDC (various departments), consultation has also been undertaken with the following statutory consultees:

- Natural England;
- Highways England;
- Historic England;
- Environment Agency;
- ESCC; and
- Southern Water.

Approach to Technical Studies

2.36 The EIA studies commenced at an early stage in the development process. The findings of these baseline environmental studies have played an important role in the design of the Development by defining the environmental sensitivities, constraints and opportunities associated with the Site.

2.37 The technical studies have been undertaken in accordance with current best practice. Specific guidance used is referenced within each of the respective assessment chapters. The majority of assessments involved consultations with statutory and non-statutory bodies, desk-based research, site inspections and surveys, impact prediction and mitigation.

2.38 The assessment and conclusions of the ES are based on the description of the Development provided in Chapters 3 and accompanying figures. Chapter 5 sets out details of the construction phase of the Development, on which the ES is based.

Structure of Technical Chapters

2.39 Each technical chapter of the ES (Chapters 6-10) has been set out broadly in line with Table 2.2 below.

Table 2.2: Structure of the Technical Chapters

Heading	Content
Introduction	Each of the technical chapters begins with an introduction providing context to the EIA completed.
Policy Context	This section includes a summary of policies of relevance to the environmental discipline and explains its purpose in the context of the Development and the ES.
Assessment Methodology	This section describes the method and approach employed in the assessment of likely significant effects, the criteria against which the significance has been evaluated, the sources of information used and any technical difficulties encountered. Relevant legislation is also identified.
Baseline Conditions	This section describes and evaluates the baseline environmental conditions i.e. the current situation and anticipated changes over time assuming the Site remains undeveloped (future baseline).
Likely Significant Effects	This section identifies the likely significant effects on the environment resulting from the Development during construction and operational phases. A description of the likely significant effects of the Development and an assessment of their predicted significance is provided.
Mitigation Measures	This section describes the measures which would be implemented to mitigate against potential adverse impacts. Where possible, enhancement measures have also been proposed.
Residual Effects	The residual effects, i.e. the remaining effects of the Development assuming implementation of the proposed mitigation measures, have been estimated and presented.
Cumulative Effects	This section considers the cumulative effects of the Development with committed developments identified within the vicinity of the Site. Any likely significant effects on the environment arising in this respect are set out in this section.
Summary	Each technical chapter concludes with a brief summary outlining the potential residual effects for the construction phase (short/medium) and operation (medium/long-term) phase of the Development.

Likely Significant Effects

2.40 The assessment of impact significance has been undertaken using appropriate national and international quality standards. Where no such standards exist, the judgments that underpin the attribution of significance are described. The guidelines, methods and techniques used in

the process of determining significance of effects are contained within each of the technical chapters presented.

Magnitude

2.41 The methodology for determining the scale, or magnitude, of effect is set out in Table 2.3 below.

Table 2.3: Methodology for Assessing Magnitude

Magnitude of Impact	Criteria for Assessing Effect
Major	Total loss or major/substantial alteration to key elements/features of the baseline conditions such that the post development character/composition/attributes will be fundamentally changed.
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.
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.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Sensitivity

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

Table 2.4: Methodology for Assessing Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Significance

2.43 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can be beneficial or adverse. Table 2.5 below shows how magnitude and sensitivity interact to derive effect significance.

Table 2.5: Methodology for Assessing Significance

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 Adverse/Beneficial - Negligible
Negligible	Negligible	Negligible	Negligible

2.44 The above magnitude and significance criteria have been provided as a guide for technical specialists to assess impact significance. Where discipline specific methodology has been applied that differs from the generic criteria above, this has been clearly explained within the given chapter under the heading of Assessment Methodology.

Mitigation

2.45 Any adverse environmental effects have been considered for mitigation at the design stage and, where practicable, specific measures have been put forward. Measures have been considered based on the following hierarchy of mitigation:

- Avoidance;
- Reduction;
- Compensation;
- Remediation; and
- Enhancement.

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

2.47 Mitigation recommended during the construction phase would be set out in the CEMP to be agreed with WDC prior to the commencement of work and implemented throughout the duration of the works. Outline mitigation measures to be included in the future CEMP are set out in Chapter 5 Construction Methodology and Programme.

2.48 Mitigation to be implemented during the operational phase would be secured through planning conditions and obligations.

Cumulative Effects

2.49 The ES considers the potential for likely significant effects on the environment resulting from committed developments in the area. PPG[v] identifies that:

> *"…There are occasions where other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development..."*

2.50 Table 2.6 sets out the committed schemes which have been identified for the assessment of likely significant cumulative effects on the environment. It is considered appropriate to include major schemes within 2km of the Site that either have planning permission or are in the process of being implemented, as well as major planning applications which have been submitted but not yet determined. The nearby cumulative schemes which have the potential to lead to likely significant effects on the environment are also shown on Figure 2.1.

Table 2.6: Cumulative Schemes

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
Approved Applications			
Land West of Uckfield, Ridgewood Farm, Uckfield (WD/2015/0209/MEA)	Outline application for a residential-led mixed use urban extension to provide up to 1,000 dwellings, up to a 2-FE primary school and early years facility, retail, community, health, leisure and up to 13,495sqm of employment uses.	Approved 24 March 2016	Approximately 1km south of Site
(WD/2017/1368/MRM)	Reserved matters application for phases 1a & 1b of development at Ridgewood farm (details of appearance, landscaping, layout and scale) pursuant to planning consent WD/2015/0209/MEA for the erection of 250 no. Dwellings and associated car parking, play areas, hard and soft landscaping, drainage ponds and earthworks.	Approved 21 September 2017	
(WD/2019/1773/MRM)	Reserved matters pursuant to wd/2015/0209/MEA (outline application for redevelopment of land, including demolition of existing building and associated structures, comprising a residential-led mixed use urban extension, engineering works and construction of new buildings and structures to provide residential accommodation (up to 1000 net additional dwellings), up to a two form entry primary school and early years facilities, retail, community, health, leisure and up to 13,495 sq.m. of employment uses together with ancillary and associated development including new and enhanced pedestrian/cycle routes and open spaces, car parking and vehicular access - all matters reserved save for full details submitted for access points at site boundaries and the creation of sangs	Approved 20 November 2019	

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
Approved Applications			
	including demolition of existing buildings, car parking and access on land west of the a22) comprising enabling works for construction of new roundabout involving soil excavation and the creation of two permanent stockpiles (3 & 4).		
Land North of Mallard Drive, Uckfield TN22 5JQ (WD2010/2874/FE) (WD/2013/0415/MRM)	Residential development comprising of 146 dwellings, including affordable housing, open space including children's play areas and an equipped play area, structural landscaping and associated works, with access from Mallard Drive.	Approved 15 March 2011	Approximately 1.7km southeast of Site
	Reserved Matters application for application WD/2010/2874/FE for 119 dwellings.	Committee resolution to approve given 14 May 2020	
Land off Eastbourne Road, Uckfield (WD/2020/0410/MA0)	Outline planning application for up to 90 residential dwellings (including up to 35% affordable housing), introduction of structural planting and landscaping, informal public open space and children's play area, surface water flood mitigation, vehicular access point from Eastbourne Road and associated ancillary works.	Approved September 2021	Approximately 2km south of Site
Pending Consideration			
Charlwood Manor, Snatts Road, Uckfield (WD/2020/1650/F)	Demolition of existing buildings and construction of five dwellings with new access provided.	Submitted August 2020	Adjacent to east of Site
Charlwood Manor, Snatts Road, Uckfield (WD/2021/1764/MAJ)	Conversion and extension of the existing care home and the demolition of the existing bungalow and garage building to allow for the creation of 17 no. dwellings, 6 no. of which are affordable tenure. The creation of a new road access, closure of the existing access and associated works.	Submitted July 2021	Adjacent to east of Site
Land at Bird in Eye Farm, south of Bird in Eye Hill, Framfield, TN22 5HA (WD/2021/2198/MAO)	Outline planning application for the erection of up to 290 dwellings, associated landscaping, informal open space and strategic SANG, with access from the B2102.	Submitted August 2021	Approximately 2km southeast of Site

2.51 ES Chapters 6-10 have assessed the potential for likely significant effects on the environment as a result of the above committed and reasonably foreseeable developments.

Residual Effects

2.52 The likely significant effects on the environment, assuming the successful implementation of mitigation measures proposed, have been identified within each chapter.

Assumptions and Limitations

2.53 The principal assumptions that have been made and any limitations that have been identified in preparing the ES are set out in each technical chapter. General assumptions include the following:

- Assessments assume the baseline conditions at the time of ES preparation (2021 and 2022) unless otherwise stated in the technical chapter;
- It is assumed that current surrounding land uses do not change, with the exception of the committed and reasonably foreseeable developments identified;
- Assessments are based on published sources of information and primary data collection. Sources are provided as necessary; and
- Assessments are based on the description of development set out in Chapter 3 (Site and Development Description) and the anticipated construction methodology and phasing described in Chapter 5.

Objectivity

2.54 The technical studies undertaken within the ES have been progressed in a transparent, impartial and unbiased way with equal weight attached, as appropriate, to beneficial and adverse effects. Where possible, this has been based upon quantitative and accepted criteria together with the use of value judgments and expert interpretations.

2.55 The assessment has been explicit in recognising areas of limitation within the ES and any difficulties that have been encountered, including assumptions upon which the assessments are based. Where appropriate, the assessment of significance has been given confidence levels to give a judgement to the likelihood of an effect occurring.

References

[i] https://www.gov.uk/guidance/environmental-impact-assessment
[ii] Guidance Note 01/20. Guidance Notes for the Reduction of Obtrusive Light (2020). Institute of Lighting Professionals.
[iii] British Standards 5489-1:2013 Code of practice for the design of road lighting.
[iv] British Standards EN 13201-2:2015 Road Lighting Performance requirements.