

2.0 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

Introduction

- 2.1 This chapter explains the EIA methodology and describes the ES structure and content. In particular, it details the process of identifying and assessing the likely significant environmental effects of the Development.
- 2.2 The ES has been prepared in accordance with the 2017 EIA Regulations, as amended, and reference has also been made to currently available good practice guidance on EIA including the Planning Practice Guidance issued by the Ministry of Housing, Communities and Local Governmentⁱ.

Scoping

- 2.3 Scoping involves focusing the content of an ES on issues of significance. It is an important tool for identifying the likely significant effects of a proposed development through its design, construction and completed phases and ensures that appropriate mitigation options are considered where necessary. A combined Screening and Scoping Report (Appendix 2.1a) was submitted to LBWF on 9th April 2020. The Scoping Report aimed to scope out all assessment topics with the exception of Air Quality, Noise and Vibration, Townscape and Visual Impacts, and Climate Change. Discussions with LBWF and their consultant following submission of the Scoping Report identified a need to broaden the scope of the proposed ES to include assessments of Daylight, Sunlight and Overshadowing, Biodiversity, Wind Microclimate and Cultural Heritage. The potential for including assessments of Transport, and Population & Human Health was also raised however, the provision of further information to LBWF enabled confirmation these latter topics could be scoped out. This confirmation letter is provided in Appendix 2.1b.
- 2.4 A Scoping Opinion was adopted by LBWF on 3rd August 2020 and is included within Appendix 2.2 parts a, b and c. The key issues raised in the adopted Scoping Opinion and the location where they are addressed in the ES are set out in Table 2.1.

Table 2.1: Issues raised in the EIA Scoping Process

Issue Raised in Adopted Scoping Opinion	ES Chapter where addressed
It is noted that a full evidence base to justify the appropriateness / robustness of the effects proposed have not been provided at the EIA Scoping stage. As such, construction traffic noise, noise levels in proposed amenity space, noise and/or vibration impacts on future	Chapter 7 Noise and Vibration

Issue Raised in Adopted Scoping Opinion	ES Chapter where addressed
sensitive residential units need evidence that there will not be significant effects on future sensitive receptors and therefore should be scoped in the ES.	
It is noted that despite the fact that the proposed development is unlikely to lead to significant contributions to greenhouse gas emissions (and therefore climate change impacts and effects), current Institute of Environmental Assessment and Management (IEMA) guidance on the matter advises that any contribution to greenhouse gas emissions should be considered as significant. This generalised, blanket approach to the consideration of carbon emissions is not in the spirit of the EIA Regulations that seek to focus EIA on where significant environmental effects are likely due to the size, nature and location of development. However, inclusion of a greenhouse gases and climate change assessment in the ES will not be in breach of the EIA Regulations.	Chapter 8 Climate Change
The Cultural Heritage topic to be scoped in the ES should include the following: <ul style="list-style-type: none"> An up to date archaeological desk-based assessment that includes a strong focus on the early modern history of the Forest and the site's notable twentieth century history A public realm and interpretation strategy informed by the above An assessment of development impact informed by a study of geotechnical and levels data to model the extent and depth of the twentieth century terracing. 	Chapter 12 Cultural Heritage
The scope of the assessment can be limited to effects on European designations as the site itself is of limited ecological value, however this assessment will need to be coordinated with a Habitats Regulations Assessment (HRA) report to address the potential impacts on the SAC.	Chapter 13 Biodiversity

2.5 The topics scoped out of the ES and explanatory justification is provided in Table 2.2.

Table 2.2: Topics Scoped Out of the ES

Assessment Topic	Justification for Scoping out of the ES
Transport and Access	The Development will change the traffic flows in and around the Site for the duration of the demolition and construction phase, and then on completion. A Construction Environmental Management Plan (CEMP) and Construction Traffic Plan will control the movement of Heavy Goods Vehicles (HGVs) in the local area to ensure effects from construction traffic are managed to acceptable levels. The Site is in commercial use which attracts vehicle movements, and the proposed residential use of the site will involve significantly reduced numbers of car parking spaces. It is considered that with the implementation of good design measures, the use of a residential travel plan secured through planning conditions, provision of cycle storage and access to public transport, that the effects of the Development on transport and access provisions would not be significant and therefore this topic has been scoped out of the ES.
Population and Human Health	The Development will provide 583 residential dwellings which will result in a beneficial effect on local housing need however this effect is not considered to be significant and can be scoped out of the ES. The design of the Development will ensure no significant effects on health result, and any effects on education can be addressed through plain and easily understood mitigation such as through a financial contribution. On this basis, an assessment of population and human health has been scoped out of the ES. A Health Impact Assessment has been submitted with the planning application and is to be found at Appendix 2.3. There will be a loss of employment opportunities as a result of the closure of the Homebase Store, and the Development will result in some employment generation however these levels will be very low and no significant effects will result.
Agricultural Land	The Site is an urban developed location and there will be no loss of agricultural land therefore, this topic has been scoped out of the ES

Assessment Topic	Justification for Scoping out of the ES
Contaminated Land	The Site is currently in commercial retail use and on this basis is unlikely to be heavily contaminated. Significant effects associated with contamination are therefore not considered likely. A Phase 1 Ground Conditions Assessment has been submitted alongside the planning application however as no significant effects are anticipated, land contamination is scoped out of the ES.
Water Environment	According to the Gov.UK flood map for planning website, the Site is located in Flood Zone 1 and is at a low risk of flooding from rivers and seas. A large part of the Site comprises buildings and hardstanding and is in commercial use and therefore significant effects are not anticipated in respect of flood risk or water resources. A Flood Risk Assessment & Drainage Strategy has been submitted with the planning application which has considered flooding from all sources. This topic has been scoped out of the ES.
Waste	Waste will be generated during the demolition and clearance phase of the Development as a result of the removal of existing buildings and infrastructure; through the construction phase from disused construction materials; and through the operational phase from the proposed residential and commercial uses. The materials resulting from demolition and clearance of the existing buildings and infrastructure on site would be removed and either reused or recycled for use on or off the Site. It is therefore considered likely that disposal to landfill any secondary impacts relating to additional HGV movements would be minimised. During construction, waste would be managed in accordance with the CEMP submitted in support of the planning application. Waste generated once the Development is complete and occupied would be managed in accordance with the LBWF's Refuse and Recyclables in Developments Guide ⁱⁱ . On this basis the likely significant effects of waste generation during the demolition, construction, and operational phases of the Development are not considered to be significant and therefore waste is scoped out of the ES.
Lighting	The Site lies within an existing urbanised area typical of Environmental Zone E3 (suburban), as defined by the Institute of Lighting Professionals. The Development will change one urban form to another and with good lighting design is not anticipated to produce a significant lighting impact. Accordingly, this topic has been scoped out of the ES.
Accidents and Disasters	The Development will be primarily residential in nature with some limited commercial uses, which are not considered to be hazardous. The site is not in a location which is at risk of disasters such as flooding, land instability or earthquakes. A stage 1 unexploded ordnance (UXO) Risk assessment states that the Site is within an area at moderate risk of UXO being present. However, a Stage 2 Detailed UXO Risk Assessment will be undertaken and any necessary mitigation identified to deal with risks. During construction, all applicable health and safety legislation will be complied with. No likely significant effects are anticipated and therefore this topic has been scoped out of the ES.

Consultation Process

2.6 Consultation was undertaken with the local community, LBWF, the Greater London Assembly and the London Wildlife Trust. Consultation with the local community involved two main stages of consultation. On June 21 issued an A5, 4-page folded newsletter to the local community asking for ideas about the regeneration of the site. The newsletter was printed on postcard stock and hand delivered to just under 5,000 addresses around the site and information was also sent out electronically via LBWF's own local engagement newsletter. As well as a physical newsletter, bespoke website which was launched www.FulbourneRoadRegen.co.uk.

2.7 On July 18 for the second stage of consultation, an A4, 4-page folded newsletter was issued

to the local community which summarised the vision for the Development and asked for further comments to be submitted by 3 August. The newsletter contained a summary of the Stage 1 Community Engagement feedback, an indicative masterplan, ground floor use plan, artist impression, the engagement timeline and contact details.

- 2.8 Over two hundred people responded via the website form and using Freepost postcards. The issues raised in the local community and key statutory stakeholder consultation process are discussed further in Chapter 4 of this ES and the Statement of Community Involvement submitted in support of the planning application.
- 2.9 In addition to consultation with LBWF and local individuals, consultation has also been undertaken with statutory consultees.

Assessment Methodology

- 2.10 The EIA Regulations stipulate that an ES should identify, describe and assess the likely significant effects of a development on the environment. Therefore, this ES identifies and assesses the likely significant effects of the Development in relation to both the construction and the completed phases. Environmental effects have been evaluated with reference to definitive standards and legislation where available. Where it has not been possible to quantify effects, qualitative assessments have been carried out, based on available knowledge and professional judgement. Where uncertainty exists, this has been noted in the relevant assessment chapter.

Structure of Technical Chapters

- 2.11 Each technical chapter of the ES (Chapters 6-14) has been set out broadly in line with Table 2.3 below.

Table 2.3: 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.

Heading	Content
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.
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.

Baseline Conditions

- 2.12 The ES includes a description of the prevailing environmental conditions, the 'Baseline Conditions', against which the likely significant environmental effects of the Development have been assessed. These are taken to be the conditions at the time or immediately prior to the submission of the planning application in 2020. Each technical assessment has also identified the Future Baseline conditions in the absence of the Development.

Determining Significance

- 2.13 It is broadly accepted that significance reflects the relationship between two factors:
- The actual change taking place to the environment (i.e. the magnitude or severity of an effect); and
 - The sensitivity, importance or value of the affected resource or receptor.

Magnitude

- 2.14 The magnitude of an effect is often quantifiable in terms of, for example, extent of land take, or predicted change in noise levels. A methodology for determining the scale, or magnitude, of effect is set out in Table 2.4 below.

Table 2.4: 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

2.15 The sensitivity, importance or value of the resource or receptor is normally derived from:

- Legislative controls;
- Designated status within the land use planning system;
- The number of individual receptors such as residents;
- An empirical assessment on the basis of characteristics such as rarity or condition; and/or
- Ability of the receptor to absorb change.

2.16 The sensitivity of a receptor is based on the relative importance of the receptor using the scale in Table 2.5 below.

Table 2.5: 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

2.17 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can be beneficial or adverse. Table 2.6 below shows how magnitude and sensitivity interact to derive effect significance.

Table 2.6: 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

2.18 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 Assessment Methodology.

Mitigation

2.19 Any adverse environmental effects have been considered for mitigation at the design stage and, where practicable, specific measures have been put forward. 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.

2.20 Mitigation recommended during the demolition and construction phase would be set out in the CEMP to be agreed with LBWF prior to the commencement of work and implemented throughout the duration of the works. Outline mitigation measures to be included in a future CEMP are set out in Chapter 5 of this ES: Construction Methodology.

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

Cumulative and Interactive Effects

Cumulative Effects

2.22 A requirement of the EIA Regulations is to assess cumulative effects. Cumulative effects are generally considered to arise from the combination of effects from the Development and from other proposed or permitted schemes in the vicinity, acting together to generate elevated levels of effects. The assessment has been informed by Planning Practice

Guidance¹, specifically the section: '*When should cumulative effects be assessed?*' which states:

"Each application ... should be considered on its own merits. There are occasions, however, when other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development. The local planning authorities should always have regard to the possible cumulative effects arising from any existing or approved development."

2.23 The schemes that have been included as part of the cumulative effects assessment are those set out in Table 2.7 and shown on Figure 2.1.

Table 2.7: Cumulative Schemes

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
Ref: 192987 Land at Hylands Road	Demolition of existing buildings and construction of three buildings ranging from 4 to 9 storeys in height, comprising 120 affordable residential units with associated disabled and cycle parking spaces.	Approved 07/02/2020	350m to the east
Ref: 141145 Thorpe Coombe Hospital, Forest Road	Demolition of existing buildings on the site with the exception of Thorpe Coombe House building and construction of six blocks (ranging from 2 to 5 storey) to provide 91 residential units	Approved 05/07/2016	400m to the south-west
Ref: 151652 Marlowe Estate	Demolition of the existing Marlowe Road Estate and phased redevelopment of the site comprising 436 residential units and commercial space in blocks ranging from two to seven storeys, along with car parking (208 spaces) and associated works.	Approved 20/09/2016	500m to the south
Ref: 200180 Block P5, P6 & P7 Marlowe Road Estate Marlowe Road Walthamstow E17 3HB	Internal alterations, and associated elevation and fenestration alterations to deliver 12 additional residential units in Blocks P5, P6, P7 within the Marlowe Road Estate Regeneration (98 total).	Valid	700m
Ref: 194037 Ross Wyld Lodge Nursing Home 458 Forest Road Walthamstow London E17 4PZ	Demolition of existing building and construction of a part 3, part 4, part 5 storey building accommodating 90 Pocket homes (100% affordable), together with associated private and communal amenity space, waste and cycle storage and 2 off-street accessible car parking spaces.	Valid	1.2km
Ref: 183989 Juniper House 221 Hoe Street Walthamstow London E17	Demolition of existing office and construction of a part-four and part-sixteen storey building comprising a commercial unit (flexible Use Class B1(a)/A1/A3/A4/D1) at ground level; 91-residential units (Use Class C3;) and a two-	Approved 16/08/2019	1.5km

¹ Paragraph: 024 Reference ID: 4-024-20170728, Revision date: 28/07/2017

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
9PH	storey building comprising a nursery (Use Class D1) together with associated landscaping improvements, public realm works, car parking and refuse and cycle storage		
Ref: 183632 Central House 189-203 Hoe Street Walthamstow E17 3AP	Demolition of the existing buildings and erection of an eleven-storey hotel building (Use Class C1) comprising 90 bedrooms and ancillary ground floor restaurant (3,465 sqm floorspace), and a five-storey building comprising 1,517 sqm of office floorspace (Use Class B1) and 112 sqm of flexible commercial floorspace (Use Class A1/A2/A3/B1)at ground floor, along with associated cycle storage, car parking and landscaping.	Approved 28/03/2019	1.5km

2.24 Each of the technical assessments considers the likely significant cumulative effects of the Development with the cumulative schemes set out in Table 2.7. The level of detail of assessment has been dependent on the information available for each scheme and has generally been undertaken in a qualitative manner. Where no cumulative effects are predicted, this has also been stated.

Interactive Effects

2.25 Interactive effects are also considered in the ES. Interactive effects arise where effects from one environmental element bring about changes in another environmental element. These effects are also reviewed in each of the technical chapters of this ES. Examples of the main potential types of interactive effects are as follows:

- effects of traffic on noise;
- effects of traffic on air quality;
- effects of water discharges on ecology; and
- effects of landscaping on ecology.

Assumptions and Limitations

2.26 The principal assumptions that have been made and any limitations that have been identified, in preparing this ES are set out below. Assumptions relevant to specific topics have been made in the appropriate chapter:

- All of the principal existing land uses adjoining the Site remain;
- Information received by third parties is complete and up to date;
- The design, construction and completed stages of the Development will satisfy minimum

environmental standards, consistent with contemporary legislation, practice and knowledge;

- Significant environmental effects have been assessed using the development parameters;
- Each chapter within the ES sets out the limitations and assumptions regarding any assessment scenarios that have been established in order to assess the Development;
- Conditions will be attached to the planning permission that will control disturbance during the construction works;
- Necessary off-site services infrastructure for the Development will be provided by statutory undertakers; and
- The planning permission, when granted, will contain conditions that will be sufficient to limit the Development to what has been assessed.

Objectivity

2.27 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.

2.28 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.

REFERENCES

ⁱ <https://www.gov.uk/guidance/environmental-impact-assessment>

ⁱⁱ https://www.walthamforest.gov.uk/sites/default/files/LBWF%20Guidance%20for%20Developers%20v10_2.pdf