

ENVIRONMENTAL STATEMENT VOLUME 1 CHAPTER 2 - APPROACH TO THE ASSESSMENT

Great Lakes UK Limited



2. APPROACH TO THE ASSESSMENT

2.1. INTRODUCTION

- 2.1.1. This chapter outlines the approach and methodology to the Environmental Impact Assessment (EIA) for the assessment of the likely significant effects of the Proposed Development, compliant with the legal requirements for the preparation of this Environmental Statement (ES) which are governed by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations') (Ref. 2.1).
- 2.1.2. In line with the EIA Regulations (Schedule 4, Paragraph 6), the chapter sets out the following:
 - "A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved".
- 2.1.3. The Assumptions and Limitations section of each technical chapter includes any details of difficulties encountered in undertaking the assessment.
- 2.1.4. In summary, this chapter covers the following:
 - Overall Approach to the EIA;
 - The EIA Scoping process, including the EIA Scoping Report and the EIA Scoping Opinion;
 - Technical and public consultation exercises undertaken;
 - Assessment of the Proposed Development, including:
 - · Identification of sensitive receptors
 - Baseline scenario
 - Future baseline conditions
 - Phases of the Proposed Development
 - Design and environmental interface
 - Review of Reasonable Alternatives
 - EIA technical assessments dependant on scale of the Proposed Development
 - Identification of mitigation measures and monitoring arrangements
 - · Assessment of residual effects
 - Cumulative effects:
 - Structure of the Technical Chapters; and
 - Assumptions and Limitations.
- 2.1.5. The approach to consultation is also clearly outlined in this chapter, together with the approach to proportionate assessment including the assessment criteria and the methodology for assessing cumulative effects.
- 2.1.6. The EIA has been undertaken in accordance with the EIA Regulations and relevant current best practice planning and environmental guidance including the following:
 - The National Planning Practice Guidance (NPPG) (Ref. 2.2);
 - Ministry of Housing, Communities & Local Government (2019) Environmental Impact Assessment Guidance (Ref. 2.3);

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- Institute of Environmental Management and Assessment (IEMA) (2017) Delivering Proportionate EIA: A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice (Ref. 2.4); and
- IEMA (2016) Environmental Impact Assessment Guide to: Delivering Quality Development. (Ref. 2.5).
- 2.1.7. The above guidance collectively provides a common governing framework and methodology for the entire environmental assessment including this ES. Where (if any) exceptions have been made to the adoption of the approach in a particular discipline, that is described and explained in the relevant chapter, as is any occasion where guidance specific to a particular technical discipline has been applied, including assumptions and / or limitations which are particular to a single assessment.

2.2. OVERALL APPROACH TO THE EIA

- 2.2.1. As confirmed in **Chapter 1 Introduction**, this ES meets the requirements set out in Regulation 18(3) and Schedule 4 of the EIA Regulations. The approach also follows the guidance outlined within the NPPG.
- 2.2.2. The EIA has been informed by the following:
 - EIA scoping process and agreement of assessment methodologies and approaches;
 - Stakeholder engagement with technical consultees and the public;
 - Establishment of the existing baseline environmental conditions within the Site and surrounding area:
 - Identification of the aspects of the environment (sensitive receptors) likely to be significantly affected by the Proposed Development;
 - Identification, prediction and assessment of the likely significance of the environment effects, both beneficial and adverse, of the Proposed Development (during demolition, construction and operational stages) including effects on socio-economics and population; traffic and transportation; local air quality; noise environment; biodiversity; archaeology; water resources; landscape; ground conditions and contamination;

; and

 Determination of significance criteria to assess the level of any identified likely significant environmental effects of the Proposed Development.

SCOPING (REGULATION 15)

- 2.2.3. As set out in **Section 1.4** of **Chapter 1: Introduction**, a Scoping Report was submitted to Cherwell District Council (CDC) on 4th July 2019 alongside a request for a formal Scoping Opinion in accordance with the EIA Regulation 15(1). As part of CDC's responsibility under EIA Regulation 15, they undertook consultation with the following external consultees:
 - Oxfordshire County Council (OCC);
 - CDC Officers;
 - Thames Water;
 - Natural England;
 - Highways England; and
 - The Environment Agency.



- 2.2.4. The EIA Scoping Report (**Appendix 2.1**) outlined that the Proposed Development has the potential to result in likely significant effects on the environment associated with the following topic areas or elements:
 - Socio-economics (Chapter 5);
 - Transport and Access (Chapter 6);
 - Air Quality (Chapter 7);
 - Noise and Vibration (Chapter 8);
 - Biodiversity (Chapter 9);
 - Archaeology and Cultural Heritage (Chapter 10);
 - Ground Conditions (Chapter 11);
 - Water Resources, Flood Risk and Drainage (Chapter 12);
 - Landscape and Visual Assessment (Chapter 13); and
 - Cumulative Effects (Chapter 14).
- 2.2.5. CDC issued a formal Scoping Opinion on the 30th August 2019 (**Appendix 2.2**). This agreed to the list of topics to be scoped both in and out of the ES, as per the EIA Scoping Report.
- 2.2.6. These topics and their associated likely significant environmental effects have been taken forward and assessed within the ES.
- 2.2.7. The scoping responses received from external consultees are also presented in **Appendix 2.2**. The responses relevant to this ES are summarised in **Table 2-1**, together with an indication of how they have been taken into account during the preparation of the ES. The comments generally follow the structure of the EIA Scoping Report.
- 2.2.8. WSP submitted a response letter to CDC to seek clarification on certain points in the EIA Scoping Opinion on the 7th October 2019, which is included in **Appendix 2.3**, however a response was not received from CDC.

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Table 2-1 - Key comments from the Scoping Opinion and response provided in the ES

Topic	Summary of Comments Provided in Scoping Response	Response
General	Whilst not forming part of the scope of the Environmental Statement (ES) it is advised that the Open Space Assessment forms a stand-alone document, given the issues regarding the loss of the golf course. The purpose of this document needs to be extended to understand the proposed development in the context of paragraph 97 of the NPPF and Policy BSC10 of the Cherwell Local Plan Part 1.	As an alternative to a standalone document, the Open Space Assessment / policy is covered within the Planning Statement prepared by DP9 with specialist input from CBRE in the form of an Advisory Report that considers the loss of 9 of the 18-hole golf course.
General	At paragraph 2.2.7 it is stated that construction would start in 2021 with a two-year construction phase. However, at paragraph 3.4.2 it is states that the year of completion and operation would be 2022. Clarification should be provided on this.	It is confirmed that the construction phase will commence in 2020 and will be complete in 2022. See Chapter 4: The Proposed Development.
Socio-economics	Information provided on employment should be based on the most recently available data. The impact that the development would have on leisure will need to have regard to the different catchments and nature of the proposed development compared to the existing development on the site (i.e. golf course). The information relating to the visitor expenditure outside of the proposed development needs to take consideration of the nature of the proposed development as a destination venue. The importance of the leisure and retail sector locally and the effects of the loss of half of the golf should be expanded upon. The principle of how this development links to other aspects of society and economy locally, regionally and nationally will also be important to fully understand. Reference to 'barriers to housing' within paragraph 5.2.6 should be expanded upon in detail in the ES as to how this proposal would seek to define and address this matter. The	The EIA incorporates these points within Chapter 5: Socioeconomics.



Topic	Summary of Comments Provided in Scoping Response	Response
	types of employment to be created by this development should be made clear in order to understand how, for example, it would contribute towards the local employment market.	
	Mention is made of links to colleges which should be expanded upon in detail with, for example, commitments to the creation of apprenticeships and employment opportunities to meet the future needs of local residents.	
Transport and Access	The identification of pedestrians and cyclists as low sensitivity should be reviewed for the reasons outlined in the attached comments.	The sensitivity of pedestrians and cyclists, which was defined as 'low' in the Scoping Report, has been reviewed as part of preparing the final ES chapter.
	regarding assessing the severity of 'effect'. Paragraphs 6.7.3 and 6.7.4 would suggest that the percentage increase is the only criterion against which the 'effect' of the development on delay and amenity would be considered and the scoping note	The effect of delay has been assessed with reference to the change in traffic flow and with reference to junction capacity modelling.
		The ES chapter details how the trip generation of the development proposals has been assessed and will consider traffic associated with the development and on the local road
	The methodology also provides no information on how the effect of severance would be assessed.	throughout the day.
	The scoping note currently provides limited information about	Details of the proposed shuttle bus service has been provided in the ES chapter.
ar EI da Tr th	the methodology and content of the Transport Assessment and this will need to be updated as detail is determined. The EIA should also assess the impacts of total traffic across the day not just at agreed peak periods. The Travel Plan is considered a measure required to reduce the detrimental impact of the development on the environment rather than enhancement of the environment. The EIA should include the public rights of way and publicly accessible routes as part of the traffic and transport assessment.	The ES chapter will include details of existing public rights of way and proposed changes to these.
		It is acknowledged that a full Travel Plan is required. A framework Travel Plan has been submitted alongside the
		planning application and it is assumed that the final Travel Plan would be secured by Condition (and / or planning obligation).
		Severance has been assessed with reference to guidance provided in the "Guidelines for the Environmental Assessment of Road Traffic" produced by the IEA. Severance has been assessed with consideration of the local conditions including pedestrian and crossing facilities and on



Topic	Summary of Comments Provided in Scoping Response	Response
		the basis of the change in traffic movements as a result the development and the guidance sets that changes in traffic flow of 30%, 60% and 90% can be regarded as producing slight, moderate and substantial changes in severance respectively.
		See Chapter 6: Transport and Access.
Air Quality	The Council's Environmental Protection Officer has reviewed this and is satisfied with the scope of works proposed in this respect.	No response required.
Noise and Vibration	The list of properties at paragraph 7.3.1 should include Stableford House, Kirtlington Road, Chesterton, Bicester, OX26 1TE immediately to the east of the site.	The EIA incorporates these points within Chapter 8: Noise and Vibration , and specifically Stableford House is included in the assessment.
	The impact of existing traffic noise from the M40 and adjacent roads on the proposed users of the site should be considered and this does not appear in Table 7-1.	
Biodiversity	Natural England notes the presence of the Wendlebury Meads & Mansmoor Closes Site of Special Scientific Interest (SSSI) and states that the ES would need to include a full assessment of the direct and indirect effects of the development on the features of special interest within this site and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.	The Natural England response erroneously states it is adjacent to the development Site. The SSSI in question is approximately 4km from the Site. As is industry standard practise, a 2km search radius for nationally designated sites has been used and as such we are not proposing to consider this site in detail. See Appendix 2.3 and Chapter 9: Biodiversity.
Archaeology and Cultural Heritage	It is noted the impact on the development on the setting of the designated heritage assets are to be scoped out of the EIA. However, an assessment of the development on the setting of these designated heritage assets should accompany the planning application given the statutory duties to have special regard to these matters.	Consideration has been given to the potential for impacts upon the setting of designated heritage assets within the ES. See Chapter 10: Archaeology and Cultural Heritage.



Topic	Summary of Comments Provided in Scoping Response	Response
Ground Conditions	The Council's Environmental Protection Officer is satisfied with the scope of works proposed in this respect.	No response required.
Water Resources, Flood Risk and Drainage	SUDs should be used for the site to assist developers in the design of surface water drainage systems. The surface water drainage proposals should be undertaken in accordance with OCC guidance. Runoff must be managed at source (i.e. close to where it falls) with residual flows then conveyed downstream to further storage or treatment components, where required and should mimic the existing drainage regime of the site. Details of source control attenuation and conveyance features should be included and has requested that the attached pro-forma being completed. Thames Water has stated the following should be covered in the EIA: 1. The developments demand for Sewage Treatment and network infrastructure both on and off site and can it be met. 2. The surface water drainage requirements and flood risk of the development both on and off site and can it be met. 3. The developments demand for water supply and network infrastructure both on and off site and can it be met. 4. Build—out / phasing details to ensure infrastructure can be delivered ahead of occupation. 5. Any piling methodology and whether it would adversely affect neighbouring utility services.	With regard to the Thames Water Scoping Response, consultation is ongoing with Thames Water and the comments will be incorporated as part of this consultation. The additional comments are incorporated within Chapter 12: Water Resources, Flood Risk and Drainage.
Landscape and Visual Assessment	The landscape officer has highlighted the importance of considering cumulative effects and the effects of lighting. The effects outlined in Table 12.2 of the Scoping Report should be included within the scope of the EIA as these have	Cumulative effects have been assessed as part of the LVIA, based on the agreed list of cumulative schemes. The LVIA includes assessment of lighting effects, with reference to Hoare Lea's Lighting Impact Assessment.



Topic	Summary of Comments Provided in Scoping Response	Response
	the potential to be significant given the likely scale and size of the proposal. Views from the M40 to the west of the site and views from the road to the south of the site should be included. An assessment of views as you travel along these roads should also be included.	Regarding the receptors outlined in Table 12.2 of the Scoping Report, whilst it is considered that impacts upon these receptors will be negligible / neutral at the most (not significant) and should be scoped out (e.g. National Character Area 108 and the various Registered Parks and Gardens to the west of the Site) – for completeness, the LVIA has described the context and likely effects on these receptors.
		The LVIA includes assessment of sequential views from the M40, based on a series of viewpoints and a set of indicative photomontages (non-verified), as agreed with Highways England. Sequential views and effects on roads to the south of the Site have been described in the LVIA, with specific viewpoint locations along these roads represented by the proposed viewpoints submitted as part of Scoping Report. See Chapter 13: Landscape and Visual Assessment.
Cumulative Effects	The approved applications at the land allocated under Bicester 10 of the Cherwell Local Plan (2015) (16/02586/OUT and 17/02557/REM refers) appear to have been omitted. This should be included in the cumulative assessment.	The list of committed developments for inclusion within the cumulative assessment has been updated to include Bicester 10 of the Cherwell Local Plan (2015). See Chapter 14: Cumulative Effects.



TOPICS SCOPED OUT OF THE ASSESSMENT

- 2.2.9. The following topics have been scoped out of the ES. Justification for this is provided in the EIA Scoping Report (Appendix 2.1) which was subsequently agreed by CDC, as detailed in the Scoping Opinion (Appendix 2.2). These topics are therefore not reported in the ES.
 - Services and Utilities:
 - Sustainability, Energy and Waste;
 - Health and Wellbeing;
 - Climate Change;
 - Microclimate; and
 - Major Accidents and Disasters.

2.3. CONSULTATION

2.3.1. In addition to the formal consultation undertaken in conjunction with the scoping process, technical and public consultation has been undertaken, as described below.

TECHNICAL CONSULTATION

2.3.2. As part of the EIA process technical consultation with a range of statutory and non-statutory consultees has been ongoing. Details of the technical consultation undertaken for each topic area is provided in the respective Chapters.

PUBLIC CONSULTATION

2.3.3. The first public consultation event was held on 14th and 15th June 2019 with a further event held on 26th, 27th and 28th of September. These events were held in Chesterton (at BHGS) and also in Bicester town centre (John Paul II centre). Further details on the public consultation exercise is included in the Planning Statement, Statement of Community Involvement and Design and Access Statement, submitted as separate planning application documents.

2.4. APPROACH TO THE ASSESSMENT OF THE PROPOSED DEVELOPMENT

- 2.4.1. This section outlines the phases of the Proposed Development that have been assessed, together with the approach to the baseline conditions, future baseline conditions, cumulative effects and design tolerances. It also sets out the overarching approach to the EIA, together with project specific requirements for the assessment of effects.
- 2.4.2. The Proposed Development has been assessed against the description, design principles and tolerances and supporting plans as detailed in **Chapter 4: The Proposed Development**. The maximum extent of the planning application boundary and building footprint / height has been assessed as the worst-case situation.

IDENTIFICATION OF SENSITIVE RECEPTORS

2.4.3. Consistent with the EIA Regulations (Schedule 4), the identification of the aspects of the environment likely to be significantly affected by the Proposed Development, have been identified.

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Table 2-2 – Identified Sensitive Receptors

Receptors	Description
Social Infrastructure	Effects as a result of the Proposed Development on local demography and the demand for and supply of: Labour market; Local jobs and availability of local workforce; The recipients of local expenditure; Leisure provision and leisure users; and Skills and qualifications of local residents.
Transport Network	Pedestrians;Cyclists;Bus passengers; andCar drivers.
Local Air Quality	 The existing Bicester Hotel Golf and Spa (BHGS); Residential properties along the A4095, Church Lane, Haydock Road and unnamed roads near to Chesterton; and Future users of the Proposed Development
Noise and Vibration	 Dwellings near to the Site or roads where traffic flow may be altered by the Proposed Development, including: Vicarage Farm¹; Tanora Cottage; and Stableford House. BHGS; and Hotel accommodation and users within the Proposed Development.
Heritage assets, including archaeological and heritage features	Designated heritage assets; andPotential buried archaeology remains.
Hydrological Receptors	 Neighbouring properties; M40 and A4095; Thames Water public sewer; Thames Water mains cold water infrastructure network; Gagle Brook; Cornbrash Formation Secondary A Aquifer; Private water abstractions at Bignell Park and Chesterton Field Farm; Surface water ditches; and Groundwater fed ponds to the north of the Site.
Biodiversity within the Site and surrounding area	 On-site habitats of ecological value (including ponds and deciduous woodland);

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¹ Vicarage Farm was erroneously referred to as 'Alleen' in the EIA Scoping Report.



Receptors	Description
	 Off-site habitat of ecological importance; Badger; Bats; Hazel Dormouse; Other mammals; Birds; Reptiles; Amphibians (including Great Crested Newts (GCN)); and Invertebrates.
Landscape character and features within the Site and surrounding area, including visual amenity	 Individual landscape resources including: land use, land form, vegetation, water bodies, public footpath 161/6/10; Landscape characters at Site level, in the context of the Wooded Estatelands LT and CW/59 Middleton Stoney LDU; and Visual receptors with direct and filtered views of the Site in the short and middle distance, to include:
	 Residents of Vicarage Farm and Stableford House, close to the south-eastern boundary of the Site; Users of PRoW 161/6/10; Visitors to the hotel and spa; and Users of the nearby local roads, in particular from elevated locations.
Ground conditions, contaminated land and controlled waters, subsurface and surface utilities	 Future site users; Construction workers; Third party neighbours; Secondary A aquifer; On-site water features; and Gagle Brook.

2.4.5. Further details of the likely significant effects on the above sensitive receptors are included within the technical chapters of this ES (**Chapters 5 - 13 and Volume II**).

BASELINE SCENARIO

- 2.4.6. Baseline information (environmental characteristics and conditions) has been collated, based upon surveys undertaken in 2019 and desk based information available at the time of the assessment.
 Chapters 5 13 provide details of the baseline information and any limitations establishing the baseline.
- 2.4.7. The dates of surveys and the dates when data sources have been accessed are provided within **Chapters 5 13**.

FUTURE BASELINE

- 2.4.8. The assessment has also taken into consideration, in descriptive terms, how the current baseline conditions may change going forward without the presence of the Proposed Development, known as the future baseline. The future baseline scenario is summarised **Chapters 5 13**.
- 2.4.9. For some topics, such as Transport and Access, Air Quality and Noise and Vibration, projections are as required part of the methodology. The assessment scenarios that have been considered for future years have informed the assessments within **Chapter 6: Transport and Access** and

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Chapter 7: Air Quality and **Chapter 8: Noise Chapters** and have been assessed within the Transport Assessment.

PHASES OF THE PROPOSED DEVELOPMENT

- 2.4.10. Consideration has been given to effects at each of the following relevant stages of the Proposed development which are: (i) site preparation and construction; and (ii) the operational phase. The definitions of these are presented below:
 - Site Preparation and Construction: All works associated with the construction stage of the Proposed Development including any pre-construction investigations. Subject to planning permission, this is assumed to commence in Quarter 3 of 2020 and will extend over approximately 2 years, with construction complete at the end of 2022. The assessment of the likely significant effects of the site preparation and construction phases is reported in each relevant technical chapter; and
 - Operation: Once the Proposed Development is completed and is in use, which is estimated to occur towards the end of 2022.

DESIGN AND ENVIRONMENTAL INTERFACE

2.4.11. The design of the Proposed Development has been directly informed by the baseline environmental and technical design studies relating to biodiversity, flood risk and drainage, transport and access and landscape and visual impacts. The EIA team have worked with the design team to ensure that, where appropriate, adverse environmental effects are avoided through revision of the scheme design to include inherent mitigation before finalising the application plans for assessment. The alternatives that have been considered are discussed in Chapter 3: Reasonable Alternatives and Design Evolution.

ASSESSMENT OF REASONABLE ALTERNATIVES

2.4.12. An outline of the reasonable alternatives studied by the applicant is provided in **Chapter 3:**Reasonable Alternatives and Design Evolution. This also includes a description of the main reasons for the preferred building layout and massing, taking into account the environmental studies which informed the design process. In addition, reference has also been made to the alternatives which have not been studied and why they have not been taken forward.

ASSESSMENT OF THE PROPOSED DEVELOPMENT

- 2.4.13. This ES relates to a detailed planning application as demonstrated by the application plans submitted for approval (relevant plans are provided **in Chapter 4: The Proposed Development** which define the principal components associated with the scale, and massing of the buildings and quantum of land uses proposed).
- 2.4.14. **Chapter 4** sets out a description of the Proposed Development once completed and operational along with the application plans and the details for which approval is sought through the planning application. **Chapter 4** also sets out the indicative construction programme, likely activities and logistics upon which the technical assessment chapters then report the effects of such works. Each technical assessment includes a two-stage assessment of the likely significant effects and mitigation. For the majority of the assessments, the site preparation, and construction stage has been assessed qualitatively rather than quantitatively, unlike the operational stage which reports the assessment of the effects at the opening year (2022) against the baseline of 2019, depending on the

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- discipline, as defined below. Effects arising at the time of construction will for the most part be temporary, but others may result in lasting changes, for example in relation to beneficial effects from remediation of any contamination.
- 2.4.15. Where disciplines have undertaken a quantitative assessment of construction effects, consideration has been given to the busiest/noisiest/dustiest periods of construction and the peak construction vehicle flows as a worst-case scenario. More details on this can be found in **Chapter 4: The Proposed Development**.
- 2.4.16. The Transport Assessment ('TA') and traffic data utilised for the assessment of road traffic effects in respect of air quality and noise includes the predicted total future traffic generation on the local highway network including relevant committed developments within the local area, thus providing a quantitative cumulative transport, air quality and noise assessment. The cumulative assessment for these disciplines is therefore also reported in the ES as it forms a modelling scenario of the impact assessment.
- 2.4.17. The ES reports the likely significant environmental effects based on the definition of the Proposed Development set out in Chapter 4: The Proposed Development using available information and knowledge of the Site and surrounding area gathered from baseline surveys and studies to determine the potential for likely significant environmental effects. Where such effects are identified, additional mitigation measures, not already inherent in the scheme design are recommended to avoid, prevent, reduce, or if possible off-set and remedy, the effects (including where appropriate any monitoring arrangements). In addition, where appropriate, enhancement opportunities have been identified to optimise the benefits and positive aspects of the Proposed Development.

EIA TECHNICAL ASSESSMENTS DEPENDANT ON SCALE OF THE PROPOSED DEVELOPMENT

2.4.18. The specific parameters of the Proposed Development used to inform the technical assessments are shown in **Table 2-3**.

Table 2-3 - Parameters of the Proposed Development used to inform Technical Assessments

Technical Discipline	Parameter of the Proposed Development used in Assessment
Archaeology and Cultural Heritage	Proposed basement depth and extent.
Ground Conditions	
Noise and Vibration	Proposed built height and massing. Traffic data (informed by the parking numbers, staff numbers/ movements and visitor numbers)
Air Quality	Traffic data (informed by the parking numbers, staff numbers/ movements and visitor numbers)
Landscape and Visual Assessment	Proposed built height and massing. Proposed landscaping and planting
Biodiversity	Building footprint, lighting and landscaping proposals.

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Technical Discipline	Parameter of the Proposed Development used in Assessment
Water Resources, Flood Risk and Drainage	Quantum of development, i.e. the land use class and floorspace. Build development and footprint of areas of hardstanding.
Socio-economics	Quantum of development, i.e. the land use class and floorspace.
Transport	Visitor information (numbers and duration of stay).

ASSESSMENT CRITERIA

- 2.4.19. The classification of each effect identified has been assessed based on the magnitude of change (or impact) due to the Proposed Development and the sensitivity/value of the affected receptor to change, as well as a number of other factors that are outlined in more detail below. The classification of residual effects has been assessed with regard to the extent to which secondary mitigation measures will avoid, prevent, reduce or, if possible, offset adverse effects or enhance beneficial effects.
- 2.4.20. The assessment of likely effects for each of the technical topics are presented in **Chapters 5 13** and have taken into account a number of criteria to determine whether or not the likely effects are significant in terms of the EIA Regulations. The following criteria have been taken into account when classifying the likely effects, in accordance with Schedule 4 of the EIA Regulations:
 - Beneficial and adverse effects;
 - Whether the effect is temporary or permanent;
 - Duration (short, medium or long-term), frequency and reversibility of effect;
 - Whether the effect is direct or indirect, secondary or transboundary; and
 - Inter-relationship between different effects (both cumulatively and in terms of likely effect interactions).
- 2.4.21. Several criteria have been used to determine whether or not the likely environmental effects of the Proposed Development will be deemed 'significant'. The effects have been assessed quantitatively, where possible. Generally, the significance of effects has been assessed using international, national and local standards.
- 2.4.22. Where no published standards exist, the assessments presented in the technical chapters describe the professional judgements (assumptions and value systems) that underpin the attribution of significance. For certain technical disciplines, such as air quality, widely recognised published significance criteria and associated terminology have been applied and these are presented in the technical chapters and associated appendices where relevant.
- 2.4.23. The classification of effects (and whether or not they are deemed to be significant or not significant) considers the magnitude of change (from the baseline conditions (2019)), the sensitivity of the affected environment / receptors and (in terms of determining residual effects) the extent to which mitigation and enhancement measures will avoid, prevent, reduce or offset adverse effects.
- 2.4.24. In addition, further influences such as those listed below have been factored into the assessment using professional judgement:
 - Relevant legislation and planning policy;
 - Likelihood of occurrence of the effect;



- Geographical extent of effect;
- The value of the affected resource:
- Adherence of the proposals to legislation and planning policy; and
- Reversibility and duration of the effect; and
- The outcomes of consultations.

SENSITIVITY/VALUE OF RECEPTORS

2.4.25. The sensitivity of receptors/receiving environment to change is defined within Chapters 5 - 13 and has been determined using the consideration of existing designations (such as Conservation Areas and Air Quality Management Areas ('AQMAs')), professional judgement and quantifiable data, where possible. The categories used (high, medium, low, and negligible), unless otherwise stated, are shown in Table 2-4. Where topic specific methodology deviates from this approach, for example as a result of following topic specific guidance, this is set out in the methodology section of the technical chapter.

MAGNITUDE OF CHANGE

- 2.4.26. The magnitude of change for each identified effect is predicted as a deviation from the established baseline conditions, for the site preparation and construction phase, and the operational phase of the Proposed Development. The magnitude of these changes is also defined within Chapters 5 13. The scale used (large, medium, small, negligible and no change), unless otherwise stated, is shown in Table 2-4.
- 2.4.27. The magnitude of change identified is based on the peak potential magnitude of change, i.e. the greatest likely magnitude of change that may be experienced by a sensitive receptor (existing or proposed).

CLASSIFYING EFFECTS

2.4.28. Each effect has been assessed against the change of magnitude and the sensitivity of the receptor as shown in **Table 2-4**.

Table 2-4 - Matrix for Classifying Effects

		Sensitivity of Receptor / Receiving Environment to Change			
		High	Medium	Low	Negligible
of	High	Major	Major	Moderate	Negligible
tude o	Medium	Major	Moderate	Minor to Moderate	Negligible
Magnitude Change	Low	Moderate	Minor to Moderate	Minor	Negligible
2	Negligible	Negligible	Negligible	Negligible	Negligible

- 2.4.29. The terms as used within **Table 2-4** have been defined below, applying to both beneficial and adverse effects:
 - Major (beneficial or adverse) effect: where the Proposed Development would cause a substantial improvement or deterioration to the existing environment/receptor;

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- Moderate (beneficial or adverse) effect: where the Proposed Development would cause a noticeable improvement or deterioration to the existing environment/receptor;
- Minor (beneficial or adverse) effect: where the Proposed Development would cause a
 perceptible improvement or deterioration on to the existing environment/receptors; and
- **Negligible**: where the Proposed Development would result in no discernible improvement or deterioration to the existing environment/receptors.
- 2.4.30. Unless otherwise stated in the technical chapters of this ES, effects that are deemed to be significant for the purpose of this assessment are those that are described as being moderate or major beneficial or adverse.
- 2.4.31. Where an effect is stated as being 'negligible', no further classification of this effect (i.e. in terms of whether it is adverse/beneficial, direct/indirect, permanent/temporary, short/medium/long term) is provided as the effect is considered to be unnoticeable. This applies to all of the technical chapters with the exception of Chapter 10: Archaeology and Cultural heritage, where the definition of negligible effects differs slightly, and so these effects are classified further.
- 2.4.32. Where topic specific methodology deviates from this approach, for example as a result of following topic specific guidance, this is set out in the methodology section of the technical chapter.
- 2.4.33. Tables summarising the likely significant effects associated with each technical topic area, required mitigation measures and residual effects are provided at the end of each technical chapter. The residual effects in these summary tables mirror the criteria set out above (Para 2.4.29) and as per Schedule 4 of the EIA Regulations. Cumulative effects are set out separately in Chapter 14: Cumulative Effects.
- 2.4.34. The characteristics of an effect will vary depending on the duration of the activity causing the effect, the sensitivity of the receptor and the resultant change. It is therefore necessary to assess whether the effect is short, medium or long term; temporary or permanent; beneficial and adverse, and reversible or irreversible. Effects that are temporary are reversible and generally confined to the construction period.
- 2.4.35. For the purposes of this ES the terms used in the assessment of effects are generally defined as follows:
 - Short-term: where the effect would be of short duration and would occur for up to 2 years;
 - Medium-term: where the effect occurs for a period of between 2 10 years;
 - Long-term: where the effect occurs for 10 years or more and includes permanent effects;
 - Temporary: where the effect occurs for a limited period of time and the change at a defined receptor can be reversed;
 - Intermittent: where the effect occurs for short periods of time and may re-occur occasionally at regular or irregular intervals;
 - Permanent: where the effect represents a long-lasting change at a defined receptor;
 - Direct: where the effect is a direct result (or primary effect) of the Proposed Development;
 - Indirect: a secondary effect which occurs within or between environmental components, may include effects on the environment which are not a direct result of the Proposed Development, often occurring away from the proposals or as a result of a complex biological or chemical pathway; and

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- Cumulative: the collective effects of changes that may be insignificant individually but in combination, often over time, have the potential to be significant (see section on cumulative effects below).
- 2.4.36. Where a more appropriate effect duration scale or definition of the above terms is applicable to a technical discipline this is clearly outlined with the technical chapters (**Chapters 5 13 and Volume II**).

MITIGATION AND MONITORING

- 2.4.37. Mitigation measures not already inherent in the design of the Proposed Development have been identified to avoid, prevent, reduce or offset any likely significant adverse environmental effects that remain. Monitoring arrangements refer to the undertaking of post-project analysis to identify the effectiveness of the mitigation measures.
- 2.4.38. Mitigation measures and monitoring arrangements proposed in this ES will be implemented during the demolition, construction and / or operational phases of the Proposed Development. Where mitigation measures and monitoring arrangements are identified, the Applicant will liaise with CDC to identify an appropriate manner for securing them, either through planning conditions or via a Section 106 Agreement (as appropriate)).
- 2.4.39. Each technical chapter details the measures which are recommended to mitigate (and monitor) any identified significant adverse effects, and a summary of the recommended mitigation measures identified from within each of the technical chapters of this ES (Chapters 5 13 and Volume II) is provided in Chapter 15: Summary of Mitigation Measures.

RESIDUAL EFFECT ASSESSMENT

2.4.40. Following the implementation of mitigation measures, an assessment of the likely significance of residual effects has been undertaken. The findings are presented in each technical chapter of this ES and a summary included of all residual effects for this ES are provided in **Chapter 16: Summary** of Residual Effects.

2.5. CUMULATIVE EFFECTS

- 2.5.1. Schedule 4, Paragraph 5(e) of the EIA Regulations states that the ES should include a description of the likely significant effects of the development on the environment resulting from:
 - 'the cumulation of effect with other existing and / or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.'
- 2.5.2. Regulation 4, 2 (e) refers to the need to assess:
 - 'the interaction between the factors referred to in sub-paragraphs (a) to (d)" [where these sub-paragraphs refer to topic-specific factors].
- 2.5.3. In compliance with the EIA Scoping Report (**Appendix 2.1**) and EIA Scoping Opinion (**Appendix 2.2**), we have considered the following types of cumulative effects:
 - In-combination Effects: The interaction and combination of environmental effects of the Proposed Development with committed developments affecting the same receptor. A committed development is defined as development for which planning consent has been granted; and

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- Effect Interactions: The interaction and combination of environmental effects of the Proposed Development affecting the same receptor, identified as part of this EIA. Effect interactions, or intra-project effects, are the combined or synergistic effects caused by the combination of effects of the Proposed Development on a particular receptor which may collectively cause a greater effect than individually.
- 2.5.4. Further details regarding the scope and methodology of the assessment of cumulative effects, the identification of relevant committed developments and a description of those included within the assessment are provided in **Chapter 14: Cumulative Effects**.
- 2.5.5. Through analysis of CDC's online planning portal (**Ref. 2.6**), a number of committed developments have been identified and are considered within this ES. These are presented in **Table 2-5** and **Table 14.3** within **Chapter 14: Cumulative Effects** and are displayed on **Figure 14.1**. The committed developments have been agreed with CDC through the scoping process and includes additional the additional development, Ref Number 13 within **Table 2-5**, which was asked to be included within the cumulative assessment as part of the Scoping Opinion (**Appendix 2.2**).

Table 2-5 - Committed Developments

Ref Number	Development
1	Bicester Golf And Country Club Bicester Golf and Country Club, Akeman Street, Chesterton, Bicester, Oxfordshire, OX26 1TE
2	Kingmere Land South West of Bicester Adjoining Oxford Road and Middleton Stoney Road, Bicester
3	South West Bicester Phase 2 Phase 2 SW Bicester Parcel 7849 North of Whitelands Farm Adjoining Middleton Stoney Road, Bicester, Oxfordshire
4	Bicester Gateway Retail Park Land South of and Adjoining Bicester Services, Oxford Road, Bicester
5	Bicester Office Park, Land North of Bicester Avenue Garden Centre, Oxford Road, Bicester
6	Graven Hill Site C Ploughley Road & Site D & E Ambrosden Road, MOD Bicester, Upper Arncott, Oxfordshire
7	Wretchwich Green South East Bicester, Wretchwick Way, Bicester
8	Audley Gardens, Chesterton
9	RAF Bicester Bicester Heritage, Buckingham Road, Bicester



Ref Number	Development
10	Heyford Park
11	NW Bicester
12	Bicester Sports Association The Tudor Jones Building Akeman Street Chesterton Bicester OX26 1TH
13	Bicester 10 OS Parcel 2200 Adjoining Oxford Road North of Promised Land Farm

- 2.5.6. The assessment of in-combination effects has been undertaken by each technical specialist, which assesses the cumulative effects of the Proposed Development with the committed developments on sensitive receptors identified in this ES.
- 2.5.7. The assessment of effect interactions that may occur between different environmental topics (such as air, noise and road traffic) as a result of the Proposed Development is inherent within the EIA process. Chapter 14: Cumulative Effects presents the findings of the effects interactions, where the residual effects for each environmental topic affecting sensitive receptors are presented in table format. This allows an overview as to whether any of the sensitive receptors identified in this ES experiences one or more residual effect from one or more environmental topics. A summary of the potential effect interactions is presented.
- 2.5.8. The TA and traffic data utilised for the assessment of road traffic effects in respect of air quality and noise includes the predicted total future traffic generation on the local highway network including the committed developments set out in **Table 2-5**. The cumulative assessment for these disciplines is therefore also reported in the ES as it forms a modelling scenario of the impact assessment.
- 2.5.9. A quantitative assessment approach has been adopted where possible, and where data is available, otherwise a qualitative assessment has been undertaken based on the professional judgement of the technical author. Consideration has been given to the timing and spatial influence of the Proposed Development and the identified committed developments.

2.6. STRUCTURE OF THE TECHNICAL CHAPTERS

- 2.6.1. Each technical chapter is generally structured as follows:
 - Introduction;
 - Legislation, Policy and Guidance;
 - Consultation, Scope, Methodology and Significance Criteria;
 - Baseline Conditions:
 - Relevant Elements of the Proposed Development and Establishing the Pre-mitigation Scenario;
 - Assessment of Effects, Mitigation and Residual Effects for the following stages:
 - · Construction Stage;
 - Operational Stage;
 - Limitations and Assumptions;
 - Summary; and
 - References.

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2.7. LIMITATIONS AND ASSUMPTIONS

- 2.7.1. Paragraph 6 of Schedule 4 of the EIA Regulations states that an ES should include:
 - '...details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved...'
- 2.7.2. The key assumptions that have been made and any limitations that have been identified in producing this ES are set out below. Assumptions specific to certain topics are identified in the appropriate technical chapters:
 - All of the principal existing land uses adjoining the Site remain, other than those subject to development by schemes listed in Table 2-5;
 - For the purpose of this EIA, the baseline environmental conditions are generally taken to be the Site in 2019, unless indicated otherwise in the technical chapters;
 - Impact assessments for each EIA topic are based upon current or emerging (as identified)
 legislative and policy framework;
 - The scheme description is as confirmed in Chapter 4: The Proposed Development and assessments are based upon the application plans and schedules submitted as part of the planning application;
 - Site preparation and construction will take place as per the delivery programme, start (2020) and end dates (2022), and indicative methodology as set out in Chapter 4: The Proposed Development;
 - Appropriate conditions or obligations will be attached to the planning permission, if approved, that will minimise disturbance during construction works including the provision of a construction environmental management plan ('CEMP');
 - The TA and traffic data utilised for the assessment of road traffic effects in respect of air quality and noise includes the predicted total future traffic generation on the local highway network including relevant committed developments within the local area, thus providing a quantitative cumulative transport, air quality and noise assessment. The cumulative assessment for these disciplines is therefore also reported in the ES as it forms a modelling scenario of the impact assessment; and
 - Committed developments included with the cumulative effects assessment (Chapter 14: Cumulative Effects) will be implemented as per the information pertaining to the application that is publicly available. It is assumed that these developments will be subject to the relevant environmental standards, legislation, policy and good practice conditions.



2.8. REFERENCES

- Ref. 2.1: HM Government (2017). The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. [Online] Available at: http://www.legislation.gov.uk/uksi/2017/571/pdfs/uksi 20170571 en.pdf
- Ref. 2.2: Ministry of Housing, Communities & Local Government (2016, updated July 2019).
 National Planning Practice Guidance. [Online] Available at:
 https://www.gov.uk/government/collections/planning-practice-guidance
- Ref. 2.3: Ministry of Housing, Communities & Local Government (2019). Environmental Impact Assessment Guidance. [Online] Available at: https://www.gov.uk/guidance/environmental-impact-assessment Accessed: May 2019
- Ref. 2.4: IEMA (2017). Delivering Proportionate EIA: A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice. [Online] Available at: https://www.iema.net/policy/ia/proportionate-eia-guidance-2017.pdf
- Ref. 2.5: IEMA (2016). Environmental Impact Assessment Guide to: Delivering Quality Development. [Online] Available at: https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf
- **Ref. 2.6**: Cherwell District Council (2019). Search the Online Register. [Online] Available at: https://planningregister.cherwell.gov.uk/