

LAND AT BAYSWATER, OXFORDSHIRE

ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

**ON BEHALF OF CHRIST CHURCH, OXFORD AND DORCHESTER
RESIDENTIAL MANAGEMENT**

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1. INTRODUCTION

- 1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared on behalf of Christ Church Oxford and Dorchester Residential Management (the "Applicant") in respect of land at Bayswater (the "Application Site") which is proposed for a residential led mixed use development (the "Proposed Development"). The Application Site is situated within the administrative area of South Oxfordshire District Council (SODC), on the boundary of the administrative area of Oxford City Council (OCC). The location and extent of the Application Site are shown on a figure provided at **Appendix A**.
- 1.2 This Scoping Report has been prepared to identify the likely significant environmental effects of the Proposed Development which will need to be assessed in detail in the EIA and reported within the Environmental Statement (ES), which will accompany the planning application. This Scoping Report has been submitted to SODC to assist in forming their Scoping Opinion.

Requirements of an Environmental Statement

- 1.3 EIA is a process for identifying the likely significant environmental effects (beneficial and adverse) of proposed developments before development consent is granted.
- 1.4 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 require that any proposed development falling within the description of a 'Schedule 2 development' within the meaning of the Regulations, is required to be subject to an EIA where such development is likely to have 'significant' effects on the environment by virtue of such factors as its nature, size or location (Regulation 2(b)).
- 1.5 The Application Site area is greater than the threshold of development area of 'exceeding 5ha' under Schedule 2 Section 10 (b) with respect to Infrastructure Projects that may require the submission of an ES.
- 1.6 The EIA process identifies likely 'significant' environmental effects of proposed developments, by comparing the existing situation, that which pertains before development is carried out (baseline) with the situation once the proposals are in place. The significance of effects during construction should also be considered. Information required to be included within an ES in accordance with Schedule 4 of the EIA Regulations is described in **Appendix B**.

- 1.7 The ES will be prepared with reference to the National Planning Practice Guidance.

Purpose of the Scoping Report

- 1.8 The first stage of the EIA process is to identify the issues which should be addressed in the ES; this is termed 'scoping' and the results are presented as a scoping report.
- 1.9 This Scoping Report sets out the views of the Applicant, as to the proposed scope of the environmental issues to be considered in the EIA and as to the method by which assessment will be undertaken.
- 1.10 Comments of the local planning authority and other stakeholders are invited as to the method and scope of the assessment proposed to be undertaken as set out in this report.

Structure of Report

- 1.11 Section 2 of this report describes, in broad terms, the nature and derivation of the Application Site and the Proposed Development, whilst Section 3 sets out, under a series of headings, the issues which the EIA will address. Section 4 identifies the proposed structure of the ES.
- 1.12 Section 5 identifies the statutory consultees and other parties which will be consulted concerning the ES.

2. APPLICATION SITE**Application Site**

- 2.1 The Application Site boundary and context is identified on a figure provided at **Appendix A**. The Application Site comprises **an area of predominantly arable agricultural land** adjacent to the built up area of Oxford. The urban area of Barton and Barton Park (which is under construction) are located to the immediate south east of the Application Site, and the urban areas of Headington and Marston are located to the south of the Application Site, beyond the A40. Elsfield is the nearest village to Application Site, located approximately 500m to the north.
- 2.2 The Application Site is bounded to the north and east by existing field boundaries and woodland; to the south is the A40 and the Bayswater Brook; to the west is Marston Junction off the A40 and Elsfield Lane between the A40 and the village of Elsfield.
- 2.3 The Application Site comprises arable fields and hedgerows with wet ditches parallel to the hedges. Two Public Rights of Way (PRoW) cross the Application Site, running north-south, connecting Elsfield with a public right of way that runs along the Bayswater Brook, and providing links to the Barton and Headington areas of Oxford. Footpath 201/11/10 runs broadly through the centre of the Application Site, and leads directly to Elsfield. Footpath 201/10/10 runs through the east of the site; passes through Sidlings Copse; and passes to the east of Elsfield before returning back to the village.

Proposed Development

2.4 A set of development parameters will be devised and assessed as part of the EIA. At this stage the parameters will be defined by such conditions including:

- the maximum footprint of the Proposed Development;
- the maximum heights of development;
- landscaping and open space; and
- access and linkages.

2.5 It is anticipated that the Proposed Development could comprise the following key components:

- Up to 750 dwellings;
- Local Centre to include A1, A2, A3, A4, A5, B1 and/or D1 Uses;
- Open space and landscaping;
- Access, parking; and
- Supporting infrastructure and utilities.

3. SCOPE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

- 3.1 **Table 1** sets out how the various environmental parameters as detailed within the EIA Regulations will be considered within the ES. Where a topic has been scoped out of the ES the reasoning is provided.

Table 1: Environmental Parameters

EIA Topic	Scoped In / Out	How/Where addressed/Reason for Scoping Out
Population	Scoped in	To be assessed within the Socio Economic chapter
Human Health	Scoped in	To be assessed within the Socio Economic chapter
Biodiversity	Scoped in	To be assessed within the Biodiversity chapter
Land	Scoped in	To be assessed within the Soils and Agriculture chapter
Soil	Scoped in	To be assessed within the Soils and Agriculture chapter and the Ground Conditions and Contamination chapter
Water	Scoped in	To be assessed in the Hydrology, Flood Risk and Drainage chapter
Air	Scoped in	To be assessed within the Air Quality chapter
Climate	Scoped in	To be assessed in the Air Quality chapter
Material Assets	Scoped out	There are no material assets within or in close proximity to the Application Site
Cultural Heritage	Scoped in	To be assessed within with the Cultural Heritage

		and Archaeology chapter
Landscape	Scoped in	To be assessed in the Landscape and Visual chapter
Interrelationship between above factors	Scoped in	Within each topic chapter under the heading Cumulative and Interactive Effects

3.2 The issues set out below are considered appropriate for assessment in an ES in the event this is found to be necessary. It is considered that the Proposed Development may have the potential to give rise to significant environmental effects in these areas:

- Socio-Economics;
- Landscape and Visual;
- Biodiversity;
- Archaeology and Cultural Heritage;
- Transport and Access;
- Air Quality;
- Noise and Vibration;
- Soils and Agriculture;
- Hydrology, Flood Risk and Drainage; and
- Ground Conditions and Contamination.

3.3 It is proposed that the ES will examine each of these issues in turn in individual chapters. The individual chapters will consider, as appropriate, the direct effects and any indirect, secondary, cumulative, short, medium, long-term, permanent and temporary, positive and negative effects of the development. The assessments will consider the significance of the effects identified with reference to the magnitude of the impact and the sensitivity of the receptor. These evaluations will be specific to each environmental discipline in the ES and may involve the use of recognised standards, industry guidance and professional judgement in the assessment.

3.4 Following the assessment of effects, mitigation measures to reduce and avoid these effects will be identified and detailed, and any residual effects significance evaluated in each chapter.

3.5 The following sections set out the intended scope of each of the above issues.

Introduction

3.6 This chapter of the ES will provide an introduction to the document and present details in terms of the Application Site location and current use, as well as a comprehensive description of the Proposed Development.

Alternatives

3.7 In accordance with the EIA Regulations the ES will include a description of the reasonable alternatives studied by the applicant, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

Socio Economics

Introduction

3.8 This chapter of the ES will consider the socio economic issues relating to the Proposed Development. Likely significant effects on social and economic conditions will arise directly from the uses provided as well as the employment opportunities created during the construction and following the completion of the Proposed Development.

Baseline Conditions

3.9 The Application Site is predominantly agricultural land and a change in land use will result from the Proposed Development. Due to the nature of the Proposed Development, it is considered likely that there will be an effect relating to population, employment, and open space and community facilities.

Scope of the Socio Economic Assessment

3.10 To gain a clear understanding of the scale and nature of the proposed socio economic effects and the need for new or expanded facilities, published statistical information and bespoke research sources will be used to establish existing conditions and indicate where the development is likely to have an effect in the

future. Consultation with appropriate bodies will be undertaken to establish current baseline conditions with respect to facilities and capacities.

3.11 The socio economic effect of the Proposed Development will be evaluated by:

- assessing the levels of housing requirement in the area, including affordable housing needs;
- assessing the effect of the economically active elements of the residential population on the labour market and the prospects for employment;
- assessing the effect of the Proposed Development on primarily public services including education, social services, and health facilities;
- assessing the effect of the Proposed Development on recreational and leisure facilities; and
- consulting the local authority, community groups, business representatives and police as appropriate.

3.12 Where necessary, as a result of these assessments, mitigation strategies will be devised to ensure adequate and/or enhanced facilities and services provision for both existing and future residents of the area.

Landscape and Visual

3.13 This chapter will consider the effects of the Proposed Development on landscape elements, character, visual amenity and the openness of the Green Belt. The assessment will be undertaken with reference to following best practice guidance:

- Guidelines for Landscape and Visual Impact Assessment (3rd Edition, 2013) - Landscape Institute / Institute of Environmental Management and Assessment;
- Photography and photomontage in landscape and visual assessment (2011) - Landscape Institute Advice Note 01/11;
- Topic Paper 6, Techniques and Criteria for Judging Capacity and Sensitivity (2003) - Countryside Agency / Scottish Natural Heritage;
- Landscape Character Assessment Guidance for England and Scotland (2002) - Countryside Agency / Scottish Natural Heritage; and
- An Approach to Landscape Character Assessment (2014) - Natural England.

Baseline Conditions

3.14 The Application Site is located on generally flat topography that slopes 'inwardly' towards the settlement edge of Oxford between 75m AOD on the lower slopes of

Wadley Hill and 61m AOD along the Bayswater Brook corridor. Field hedgerows and tree cover contains the Application Site on the lower ground between Wadley Hill to the north and the Bayswater Brook corridor to south. The Application Site is crossed by two public footpaths between the A40, Barton Park and College Pond to the north and between Barton Park, Field Cottage and Elsfield to the north west. Visually the Application Site is well contained, especially when viewed from the wider countryside beyond its boundaries.

3.15 The Application Site is not located within any statutory or non-statutory landscape protection designations.

3.16 The Application Site includes the following landscape features:

- A network of medium to large scale arable fields on the lower ground subdivided by mixture of 'gappy' flailed hedgerows and taller spreading hedgerows;
- The A40 dual carriageway and Bayswater Brook with associated EA flood zone forming a boundary to the south;
- A farm track and open field boundary extending to Field Barn Cottage to the north which follows a marked change in topography rising to the north at Wadley Hill;
- Field drains following hedgerows crossing the site from east-to-west and north-to-south connecting into the Bayswater Brook; and
- Public Rights of Way (PROW) crossing the Application Site from north to south connecting to the Barton Park development and Headington, and following the Bayswater Brook to Barton in an east-to-west alignment.

3.17 The Application Site is located within the following published Landscape Character Areas (LCAs):

- Natural England, National Character area 109, Midvale Ridge;
- Oxfordshire Landscape and Wildlife Study (OWLS, 2004), Alluvial Lowlands, Estate Farmlands and Wooded Estate lands; and
- South Oxfordshire Landscape Assessment (SOLA, 2003), Oxford Heights.

3.18 The Application Site is located within the surroundings of the following settlements to the north east of Oxford:

- Elsfield located 0.44km to the north;
- Barton located 0.51km to the east;
- Barton Park development (under construction) located immediately to the south east;

- Headington located 0.92km to south east; and
- Marston located 0.59km to the south west.

3.19 The Application Site is located within the surroundings of the following public highways:

- A40 dual carriageway located directly to the south; and
- Elsfield Road located directly to the west.

3.20 The Application Site is located within the surroundings of the following public rights of way:

- Public footpath 201/10/10 crossing the Application Site between Wadley Hill, College Pond, Wick Copse descending to the Bayswater Brook;
- Public footpath 201/11/10 crossing the Application Site between Elsfield, Field Cottage descending to Bayswater Brook;
- Public footpath 320/72/10 to the south east of Application Site following the Bayswater Brook and Barton Park development in an east-west alignment.

Scope of the Landscape and Visual Assessment

3.21 The assessment will include a review of relevant landscape planning policies, designations, landscape character assessments and green infrastructure strategies prior to undertaking an assessment of the effects on landscape elements, character, visual amenity.

3.22 The study area will cover a 5km radius from the Application Site. However, the main focus of the assessment would be within 2km radius of the Application Site as it is considered that even with clear visibility the Proposed Development would not be clearly perceptible beyond this distance.

3.23 The effects on landscape elements would consider:

- The loss/retention of landscape elements and features, such as trees, hedgerows and arable farmland, where relevant; and
- Outline mitigation measures to avoid, reduce or compensate for the removal of any landscape elements and to enhance the character of the Application Site as part of the green infrastructure strategy.

3.24 The effects on landscape character would consider:

- Review and analysis of the published landscape character areas and green infrastructure strategies in relation to the Proposed Development; and

- Assessment of the effects of the Proposed Development on the landscape character of the Application site and its surroundings.

3.25 The effects on visual amenity would consider:

- Visual receptors including the surrounding settlements, residential properties, public highways, public rights of way (PROW) and recreational areas following construction; and
- Representative viewpoints from publicly accessible locations as agreed with the SODC landscape officer (if available).

3.26 The assessment will provide a description of landscape mitigation and enhancement measures included as part of the landscape framework plans and green Infrastructure strategy and would summarise the residual effects on landscape elements, character, visual amenity and the openness of the Green Belt. The assessment will review the effects during construction (short term) and in operation (Year 1 and 15) to consider the effects following the establishment of landscape mitigation measures.

Biodiversity

Introduction

3.27 This chapter of the ES will consider the likely significant biodiversity effects relating to the Proposed Development. Likely significant effects on habitats and species may arise directly from the uses provided both during the construction and following the completion of the Proposed Development.

Baseline

3.28 The Application Site largely comprises agricultural land divided by fences / hedgerows and associated dry and wet ditches. The Application Site is not subject to any statutory or non-statutory ecological designations. A review of MAGIC confirmed that the Application Site is not located within any statutory designated sites for nature conservation. Most notably Sidling's Copse and College Pond SSSI is located approximately 0.5km to the east of the Application Sites north-eastern boundary. The review of MAGIC also identified that the site is located within the SSSI Impact Risk Zone (IRZ) of Sidling's Copse and College Pond SSSI and New Marston Meadows SSSI.

3.29 The Bayswater Brook Site of Local Importance to Nature Conservation (SLINC) is partially located along the Application Site's southern boundary.

Scope of the Biodiversity Assessment

- 3.30 A desktop survey for existing biological and nature conservation data held by statutory and non-statutory organisations, including the local Biological Records Centre and local conservation groups, will be provided within the ES as appropriate.
- 3.31 An extended Phase 1 Habitat Survey will be undertaken and inform the need for any subsequent protected species surveys. Once completed, this survey information will be used to form the baseline for the ecological assessment and provide information on the extent of suitable habitats for protected species.
- 3.32 Potential effects of the Proposed Development on flora and fauna in the Application Site will be identified and assessed with due regard to the 'Guidelines for Ecological Impact Assessment in the United Kingdom' published by the Chartered Institute of Ecology and Environmental Management (CIEEM) and proposals produced to mitigate or avoid these where possible. Indirect effects of the Proposed Development outside the Application Site on flora, fauna and designated sites will be assessed as required including a cumulative assessment of other proposed developments in the vicinity.
- 3.33 Opportunities for ecological enhancements within the Proposed Development will be identified and these will be used to promote a net gain in biodiversity across the development. In particular, these will aim to incorporate the goals of the local Biodiversity Action Plan.

Archaeology and Cultural Heritage

- 3.34 This section of the Scoping Report addresses the potential for significant effects on heritage assets including the archaeological resource, built heritage and historic landscape.

Scope of the assessment

- 3.1 The assessment will consider both designated heritage assets and non-designated heritage assets (including relevant sites recorded on the local authority Historic Environment Record). It will assess both potential physical effects upon heritage assets, and potential effects resulting from alteration to their 'setting'.
- 3.2 Heritage statute, policy and professional guidance will inform and guide the assessment works, notably including:

- The 1979 Ancient Monuments and Archaeological Areas Act 1979;
- The Planning (Listed buildings and Conservation Areas) Act 1990;
- The National Planning Policy Framework;
- The National Planning Practice Guide;
- 'Conservation Principles' (English Heritage 2008);
- Historic England 2015 'Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning 2'
- Historic England 2015 'The Setting of Heritage Assets' (Historic Environment Good Practice Advice in Planning: 3); and
- Chartered Institute for Archaeologists professional guidelines.

Desk-Based Assessment and further surveys

- 3.3 The ES chapter will be informed by a heritage desk-based assessment. The extent for and need for any further surveys will be reviewed in consultation with the archaeological advisor to the LPA.
- 3.4 The heritage desk-based assessment will be informed by suitable sources of information, including:
- Historic England National Heritage List for statutory designated heritage assets (including Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Battlefields and World Heritage Sites);
 - The Historic Environment Record, for details on previous archaeological works, including development control site reports, recorded heritage assets (including archaeological remains), and;
 - The Record Office for documentary sources and historic mapping of relevance to the historic development of the site;
 - The Historic England Archive for any air photographs of the site.
 - A site visit.
- 3.5 In accordance with the requirements of the *National Planning Policy Framework*, the assessment will seek to identify any heritage assets affected, and will attempt to determine, where possible based on the information available, the significance of such assets.

Baseline Conditions

- 3.6 Low-level Bronze Age activity and possible Iron Age funerary activity has been recorded beyond the Bayswater Brook between c. 95m south and c. 340m south-east of the Application Site. A single sherd of Bronze Age pottery has been found within the Application Site, observed in the plough soil following the excavation of postholes for an overhead line.
- 3.7 The putative route of a minor Roman road is recorded in the eastern part of the Application Site, on a north-south alignment. Potential below-ground remains of a. The Application Site also contains cropmarks which are suggestive of Roman or medieval field systems, trackways, and paleochannels.
- 3.8 A Roman villa, which was recorded by an archaeological excavation in 1849, is thought to be located somewhere within the vicinity of the north-eastern part of the Site. The exact location of the villa is unclear, and while it is quite plausible that the villa may lie well outside of the Site to the north, there is still a strong possibility that the villa is located closer at hand, and extends partially within the Site. The extent and survival of the villa is unclear, with various sources providing contradictory accounts. It is possible the villa was located within or adjacent to the eastern area of the site.
- 3.9 The Application Site is located on the edges of the medieval parish of Elsfield, and formed part of a former open field system. Former blocks of ridge and furrow earthworks, some of medieval origin, have been recorded within the Site on historic aerial photographs. These earthworks have since been removed by modern ploughing. Whilst the Application Site is located within the *Turning the Plough* study area, it is not located within a priority township.
- 3.10 A number of hedgerows within the Application Site appear to have been established by 1703, however, many other former historic hedgerows within the Site have been removed in the past, and this historic field system is not substantially intact. The field system is not considered to comprise a non-designated heritage asset. However, the hedgerow along the eastern Application Site boundary forms part of the parish boundary of the historic parishes of Elsfield and Headington. While not comprising a non-designated heritage asset, it is considered an 'important' hedgerow under Scheduled 1 of the Hedgerow Regulations 1997.

The Setting of Heritage Assets

- 3.11 The setting of designated heritage assets will be considered using the methodology contained within the Historic England guidance *The Setting of Heritage Assets* (2015). This will include a review of those designated heritage assets which might be impacted by the proposed development and an assessment of whether, how, and to what degree setting makes a contribution to the significance of these heritage assets.
- 3.12 Views of Oxford's Central (City and University) Conservation Area are possible from many locations within the surrounding countryside. Ten such views identified by Oxford City Council are identified in the Oxford Local Plan 2001 – 2006, Policy HE.10 View Cones of Oxford, and are the subject of the 2015 Assessment of the Oxford View Cones. These view cones are not in themselves a heritage designation or non-designated heritage asset, however, they do comprise a sample of the views which contribute to the significance of the Conservation Area through its aesthetic value. The Elsfield View Cone, from the viewing point on the hillside south-east of the village, overlooks the Site to the distant spires of Oxford beyond. The assessment will include consideration of potential adverse impacts to Oxford's Central (City and University) Conservation Area as a result of alteration to setting.
- 3.13 Other designated heritage assets in the vicinity of the site which will be considered in the assessment include Elsfield Conservation Area, Old Marston Conservation Area, Old Headington Conservation Area and Listed Buildings at Wick Farm.

Scope of the Archaeological and Cultural Heritage Assessment

- 3.14 Should the need for further assessment of the site be identified it will be undertaken in accordance with the Chartered Institute for Archaeologists' (CIfA) Standard Guidance and any mitigation strategy for cultural heritage resource / below ground archaeological remains on the Application Site will be agreed with the archaeological advisor to the LPA, SODC, OCC and Historic England as appropriate.
- 3.15 The ES will:
- Identify any receptors beyond the Application Site which may be sensitive to adverse impacts as a result of alteration to setting by the Proposed

Development, such as Listed Buildings, Registered Parks and Gardens, Conservation Areas and Scheduled Monuments;

- Assess any previous impacts which may have affected resource survival;
- Provide an evaluation of resource value (importance) based on professional judgement where resources have no formal designation;
- Assess development impacts and hence the significance of effects arising from the Proposed Development (both the construction and operation phases);
- Provide recommendations for further investigation and mitigation that would reduce or eliminate any adverse effects;
- Quantify any residual effects (those that might remain after mitigation).

Transport and Access

Introduction

- 3.16 This chapter of the ES will consider the potential effects in the vicinity of the Application Site which could arise on the transport network and which are attributable to changes in predicted travel demand associated with the Proposed Development during both the construction and operational phases.
- 3.17 The chapter will draw and expand upon details from the Transport Assessment (TA) which will be prepared. The TA will contain more detailed operational analyses regarding the determination and assessment of travel characteristics associated with the Proposed Development, particularly in respect of the peak hour effects.

Baseline Conditions

- 3.18 The surrounding highway network comprises the A40 which bounds the Application Site to the south and links the M40 to the east to Cheltenham to the west. To the west of the Application Site at Marston Junction Elsfeld Lane joins the A40 and B4150 which provides a route to Oxford City Centre.

Scope of the Transport Assessment

- 3.19 A desk study will be undertaken, combined with qualitative and quantitative surveys and audits, in order to determine baseline conditions, constraints and opportunities for movement by walking, cycling, public transport and vehicles.

- 3.20 Assessment year baseline conditions would take into consideration forecast changes in travel demand, other allocated or committed development sites and programmed transport infrastructure.
- 3.21 The assessment of individual environmental elements would be carried out in accordance with:
- the “Guidelines for the Environmental Assessment of Road Traffic” published in 1993 by the Institute of Environmental Assessment (IEA) (now Institute of Environmental Management and Assessment);
 - Manual for Streets 1 & 2 published by the Chartered Institution of Highways and Transportation in 2007 and 2010 respectively;
 - Essex County Council Local Transport Plan adopted March 2012;
 - Volume 11 of the Design Manual for Roads and Bridges (DMRB), published by the Highways Agency the executive agency of the Department for Transport (DfT).
- 3.22 The TA would be prepared having regard to the Government’s National Planning Guidance to the NPPF launched as a web-based resource by DCLG on 6 March 2014.
- 3.23 The traffic effect of the Proposed Development on the surrounding highway network will be assessed on existing traffic flows, with applied growth based on standard procedures for applying growth (including allowances for committed development) and the addition of development generated traffic for an agreed forecast year.

Potential Transport Effects

- 3.24 Transport related environmental effects could arise from an increased travel demand which would be identified for each hour throughout a typical day, allowing for relative changes to be identified.
- 3.25 In considering whether the expected changes in travel demand could lead to potentially significant effects, the IEA (1993) Guidelines recommend that the following screening test be applied:
- Test 1: include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
 - Test 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.

3.26 Where the screening test outlined above identifies that significant effects could arise, the following areas will be investigated in greater detail:

- Severance;
- Driver delay;
- Pedestrian delay and amenity;
- Fear and intimidation;
- Accidents and road safety; and
- Hazardous loads.

3.27 A package of transport related measures would be developed in order to mitigate adverse effects associated with the Proposed Development both on completion and during the construction phase will be identified if required.

3.28 An assessment of residual effects would be undertaken in order to identify and quantify any adverse effects remaining after any mitigation measures identified have been implemented.

Air Quality

Introduction

3.29 An assessment of the potential effects of the Proposed Development on air quality will be included within the ES.

Baseline

3.30 SODC has designated three Air Quality Management Areas (AQMAs). Oxford City Council declared the whole of the City an AQMA and the Application Site lies adjacent to the City of Oxford AQMA. Baseline air quality at the Application Site will be determined by identifying relevant monitoring data and existing sources of pollutants in the area. This will include:

- Discussions with SODC and OCC's Air Pollution and Quality team;
- A review of SODC and OCC's emissions regulation processes and collation of published data, as well as any unpublished data made available by the Council;
- Examination of maps and aerial photographs; and
- A review of nearby industrial operations using the Government's Pollutant Release and Transfer Register.

Scope of the Air Quality Assessment

- 3.31 Consultation with SODC will also be undertaken to confirm details regarding the assessment methodology. Notwithstanding this, the following scope of works is proposed:
- A qualitative assessment of the effects of the construction phase on local air quality in terms of dust/particulate generation using relevant publications and guidance; and
 - A quantitative assessment of the effect on air quality due to emissions from traffic associated with the Proposed Development once operational. This will be undertaken using the detailed dispersion model ADMS Roads to predict the impact of the development on local concentrations of NO₂, PM₁₀ and PM_{2.5}. Concentrations will also be predicted at the Application Site in order to assess the likely exposure of future occupants to concentrations of these pollutants.
- 3.32 The assessment will include a sensitivity test for the prediction of nitrogen dioxide road traffic impacts.
- 3.33 Exact details regarding the methodology for the air quality dispersion modelling will be agreed during consultation with the Environmental Health Officer (EHO) at SODC and OCC.

Temporal Scope

- 3.34 The assessment of construction phase effects will take into account the anticipated duration and phasing of the construction works.
- 3.35 The assessment of operational phase effects will consider current and future air quality within the vicinity of the Application Site, both with and without the Proposed Development.

Spatial Scope

- 3.36 The study area for the assessment of construction phase effects will include sensitive receptors (e.g. residential properties, sensitive habitats) located within 350m of the Application Site boundary or near to roads within 500m of the site entrance.
- 3.37 Consideration of the air quality impacts from road traffic will focus on the area identified for the Transport Assessment. Air quality will be assessed at a range of worst-case receptors closest to busy roads, particularly those close to junctions.

Significance Criteria

- 3.38 The predicted concentrations will be compared with the relevant air quality objectives as defined within the Air Quality Regulations 2000 and Amendments 2002, and limit values as defined in the Air Quality Regulations 2010.
- 3.39 There are no statutory objectives for dust. It is therefore common practice to provide a qualitative assessment based largely on experience of the distances over which impacts may occur.
- 3.40 The evaluation of significance of impacts for operation and construction will be based on criteria recommended by the Institute of Air Quality Management^{1 2}. For construction, guidance is that, with appropriate mitigation in place, the effects of construction dust will be 'not significant'. The assessment thus focuses on determining the appropriate level of mitigation so as to ensure that effects will normally be 'not significant'. For operation, the significance criteria take in to account the sensitivity of the receptor (i.e. how close concentrations are to exceeding the air quality objectives) and the predicted change in concentrations as a result of the Proposed Development.
- 3.41 Consideration will also be made to the developer's guidance on air quality published by South Oxfordshire District Council.

Noise and Vibration

Introduction

- 3.42 An assessment of the potential noise and vibration effects of the Proposed Development during construction and operation will be conducted and reported within the ES.

Baseline Conditions

- 3.43 The Application Site currently comprises predominantly agricultural land. Potential noise sources existing at the Application Site include the A40 which passes to the south west of the Application Site and the road leading from the A40 to Elsfield to the north west of the site.

1 Institute of Air Quality Management (2017) Land Use Planning & Development Control: Planning for Air Quality..

2 Institute of Air Quality Management (2014) Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance.

Scope of the Noise Assessment

3.44 Potential issues associated with the development are:

- the effect of existing noise associated with surrounding land uses on any sensitive aspects of the Proposed Development and possible mitigation where appropriate; and
- the effect of noise and vibration resulting from the construction and operation of the Proposed Development on third parties.

Legislation and Guidelines

3.45 Legislation and guidance documents to be used in the assessment will include:

- i. World Health Organisation - Guidelines for Community Noise 1999;
- ii. Department of Transport - Calculation of Road Traffic Noise 1988; and
- iii. BS8233: 2014: Guidance on sound insulation and noise reduction for buildings;
- iv. ProPG: Planning and Noise. New Residential Development. May 2017. ANC, IOA, CIEH.
- v. BS5228+A1:Part1 2014 and BS5228:Part 2 2009: Code of Practice for Noise & Vibration Control on Construction and Open Sites;
- vi. BS6472-1: 2008: Guide to the Evaluation of Human Exposure to Vibration in Buildings. Part 1: Vibration Sources Other than Blasting.

Sources of Baseline Information

3.46 For the purposes of the EIA, the results of a noise survey will be used to determine the suitability of the proposed development. Unattended noise surveys will be undertaken at two locations considered to be the principle noise sources. It is anticipated that this would be along the south western boundary, adjacent to the A40 and the north western boundary adjacent to the road leading to Elsfield. This survey would evaluate the daytime, evening and night time conditions. These measurements would be supplemented with attended daytime measurements at several positions around the Application Site representing proposed residential receptors and existing noise sensitive receptors.

3.47 The baseline noise level information from the site surveys will be used in conjunction with the relevant standards and guidelines to carry out the assessment. Receptors include future residents and users (on site) and existing residents (off site).

Proposed Methods of Identifying the Probable Effects

3.48 The assessment will include the review and interpretation of any work undertaken to date, site surveys and predictions. Noise levels will be compared to impact assessment criteria to determine the significance of any effects. The potential effects to be assessed are:

- construction activities;
- traffic affecting the surrounding area (principally associated with future operational traffic associated with the Proposed Development); and
- The suitability of the site for the future occupants of the Proposed Development.

Construction Activities

3.49 During construction, there will be a number of potential sources of noise and vibration. Based upon likely construction plant, anticipated noise levels will be predicted at the nearest sensitive locations using the methodology set out in BS 5228+A1:Part 1 2014 'Code of Practice for Noise & Vibration Control on Construction and Open Sites'.

Traffic Noise

3.50 Changes in traffic noise on the local roads surrounding the development will be based on changes in traffic flow, speed and percentage of heavy goods vehicles. The changes will be assessed for the operational phases, using data from the Transport Assessment. The standard method used to predict traffic noise levels in the UK is the Calculation of Road Traffic Noise (CRTN).

3.51 Standard acoustic principles will be used to estimate the changes in noise level due to changes in flow, speed, and percentage HGVs. Effects on both existing and future residents will be considered.

Site Suitability

3.52 In accordance with the relevant national and local guidance, the suitability of the proposed uses (e.g. dwellings) within the development area would be considered with respect to the prevailing noise climate which is expected to be principally influenced by road traffic.

3.53 Where appropriate, and based upon the results of the baseline noise monitoring exercise, noise and / or vibration mitigation measures would be identified within

the proposed residential areas of the development, which would seek to ensure a satisfactory noise and vibration environment was achieved.

Soils and Agriculture

Introduction

- 3.54 This chapter of the ES will assess the likely significant effects of the Proposed Development upon soils and the agricultural land use of the Application Site.

Baseline Conditions

- 3.55 The existing conditions with regard to agricultural land quality and soil resources on site will be identified, along with farm businesses using the land.

Scope of the Agricultural Assessment

- 3.56 The Application Site will be the subject of a detailed Agricultural Land Classification survey which will enable an assessment of the potential effects of the Proposed Development on agricultural land to be carried out.
- 3.57 An assessment of the soil resources on the site for possible reuse will be made.
- 3.58 An assessment of the likely effects of the Proposed Development on farm business/es will be carried out by interviewing the potentially affected farmer/s.

Hydrology, Flood Risk and Drainage

Introduction

- 3.59 An assessment of the potential effects on water resources, to encompass surface water and groundwater quality, surface water and groundwater resources (in terms of water quality) and flooding issues within the vicinity of the Application Site will be conducted.

Baseline Conditions

- 3.60 The majority of the Application Site lies within Flood Zone 1 (low probability of flooding) which means that the Application Site comprises land which has been assessed as having a less than 1 in 1,000 annual possibility of flooding from rivers and sea. Part of the Application Site along the southern boundary lies within Flood Zones 2 and 3 associated with flooding from the Bayswater Brook.

Scope of the Hydrology, Flood Risk and Drainage Assessment

- 3.61 The assessment will consider the potential effect on water resources (both surface and groundwater) and local hydrology.
- 3.62 A Flood Risk Assessment (FRA) will be undertaken for the Proposed Development based on the requirements of the National Planning Policy Framework. The FRA will consider:
- Potential sources of flooding
 - Historic flooding
 - Existing conditions
 - Potential outfall routes and the impact on the downstream network
 - Management of surface water including how sustainable drainage can be implemented within the development to manage surface water.
 - Overland flows
 - Climate change effects.
- 3.63 The FRA will include a drainage strategy outlining in principle how the site will be drained. This will be based on using appropriate SUDs in accordance with policy guidelines. Such features shall be designed to ensure that they are readily maintained. The selection of SUDS features shall be dependent on how appropriate they are for their location and role within the wider drainage scheme.
- 3.64 The assessment of the effect on the water environment will involve consultation with the Environment Agency, Oxfordshire County Council (Lead Local Flood Authority), Thames Water and SODC.

Identification of Potential Effects

- 3.65 The EIA process will include the assessment of construction impacts on surface water and groundwater. It will focus on surface runoff and assess the proposed drainage design in the environs of the Application Site. Operational effects such as water consumption, changes in the rate and volume of runoff and the control of pollution will also be assessed in the EIA.
- 3.66 The following potential water resource effects are considered pertinent to the Application Site:

Construction

- General site drainage; and
- Change in the urban form which may have a subsequent effect on surface water drainage patterns.

Operation

- Fluvial flood risk; and
- Site drainage.

Existing Conditions

- 3.67 Publicly available environmental databases will be accessed to obtain information on water resources (abstractions, designations, discharge consents etc) and identified existing biological and chemical surface water quality for any nearby watercourses.
- 3.68 It will be determined through consultation with the Environment Agency, whether the Application Site lies outside of the extent of the extreme flood and the chance of flooding each year.
- 3.69 Baseline environmental data searches will be carried out to show whether the Application Site lies within a groundwater source protection zone (SPZ) or within a Nitrate Vulnerable Zone (NVZ).
- 3.70 BGS mapping together with intrusive ground investigation will be used to illustrate soils underlying the Application Site and leaching potential. Surface and groundwater abstractions will be identified using a suitable database.

Method of Assessment

- 3.71 The methodology for carrying out baseline research involves the following steps:
- Review of previous reports
 - Review of data for the site and 2km radius;
 - Review of local plan;
 - Consultation with the Environment Agency, Lead Local Flood Authority, Thames Water and the Local Planning Authority;
 - Review of BGS mapping and intrusive ground investigation; and
 - Review of the Environment Agency online groundwater vulnerability map.

Significance Criteria

- 3.72 The assessment of the likely effects of the Proposed Development on water resources will be undertaken in accordance with current Government guidance and Environment Agency guidelines on EIA, surface water and groundwater quality and flood risk assessment.

Mitigation

- 3.73 The potential effects of the Proposed Development will be mitigated through a series of measures during both the construction and operational phases of the Proposed Development and these will be identified within the ES.

Ground Conditions and ContaminationIntroduction

- 3.74 This chapter of the ES will address issues relating to existing geo-environmental conditions at the Application Site, with the aim of ensuring that suitable and safe conditions are achieved for the end-use proposed.
- 3.75 The range of effects associated with the design, construction and operation of the Proposed Development will be considered, including potential ground contamination.

Baseline

- 3.76 A Phase 1 Assessment will provide the large part of the baseline information, although given the agricultural land-use of the site there are not envisaged to be any significant sources of potential contaminative concern or highly sensitive receptors.

Scope of the Ground Conditions and Contamination AssessmentPotential Effects

- 3.77 Potential effects to be addressed by this chapter of the ES include:
- Health and safety risks to workers and site visitors during development works from existing ground contamination, ground gas or other potentially hazardous materials;
 - Health and safety risks to future users from existing ground contamination, ground gas or other materials;
 - Risks to proposed new landscaped areas from the release of existing contamination;

- Risks to groundwater and surface water from the release of existing contamination;
- Risks to groundwater and surface water from potential contamination attributable to construction plant / activities;
- Risks to new structures, primarily foundations and services from ground contamination;
- Risks to existing adjacent structures, from proposed construction activities; and
- The opportunities to re-use soil arisings and appropriate 'management' and disposal of contamination or hazardous waste materials removed from the site.

Approach and Methodology

- 3.78 A desk based assessment and an intrusive investigation will be undertaken to identify any constraints on the Application Site. Further investigation will be undertaken in consultation with SODC (where necessary) should the desk based assessment or the intrusive investigation identify the potential for significant effects that may pose a risk to human health and/or controlled waters. This may lead to recommendations for remedial measures to ensure that the developed site is "fit for purpose."

Cumulative and In-combination Effects

- 3.79 A section of the ES will respond to the requirement in the Regulations to assess the cumulative effects of the Proposed Development. For the cumulative assessment, two types of effect will be considered:
- i. The combined effect of individual effects, for example noise, airborne dust or traffic on a single receptor; and
 - ii. The combined effects of development schemes which may, on an individual basis be insignificant but, cumulatively, have significant effect. This will be conducted principally with reference to committed development in the surrounding area.
- 3.80 Impact interactions are also likely to occur for a small number of localised receptors, such as residential buildings. These potential interactions are likely to be related to noise, vibration, dust and traffic. Interactions are likely to take place during the construction phase.

Summary

- 3.81 A summary chapter will be included at the end of the ES, providing a synopsis of the findings of the EIA.
- 3.82 A non-technical summary of the findings will also be prepared, as required by the EIA Regulations.

4. STRUCTURE OF THE ENVIRONMENTAL STATEMENT

4.1 The ES will address the requirements of Parts 1 and 2 of Schedule 4 of the EIA Regulations. The anticipated structure and content of the ES is as follows:

- Chapter 1 Introduction
- Chapter 2 Assessment Methodology
- Chapter 3 The Application Site and Proposed Development
- Chapter 4 Alternatives
- Chapter 5 Socio Economics
- Chapter 6 Landscape and Visual
- Chapter 7 Biodiversity
- Chapter 8 Archaeology and Cultural Heritage
- Chapter 9 Transport and Access
- Chapter 10 Air Quality
- Chapter 11 Noise and Vibration
- Chapter 12 Soils and Agriculture
- Chapter 13 Hydrology, Flood Risk and Drainage
- Chapter 14 Ground Conditions and Contamination
- Chapter 15 Summary

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

- Assessment Methodology
- Baseline Conditions
- Likely Significant Effects
- Mitigation and Enhancement
- Cumulative and In-combination Effects
- Summary of Findings

4.3 The ES will be supported by Technical Appendices, where appropriate, and a non-technical summary.

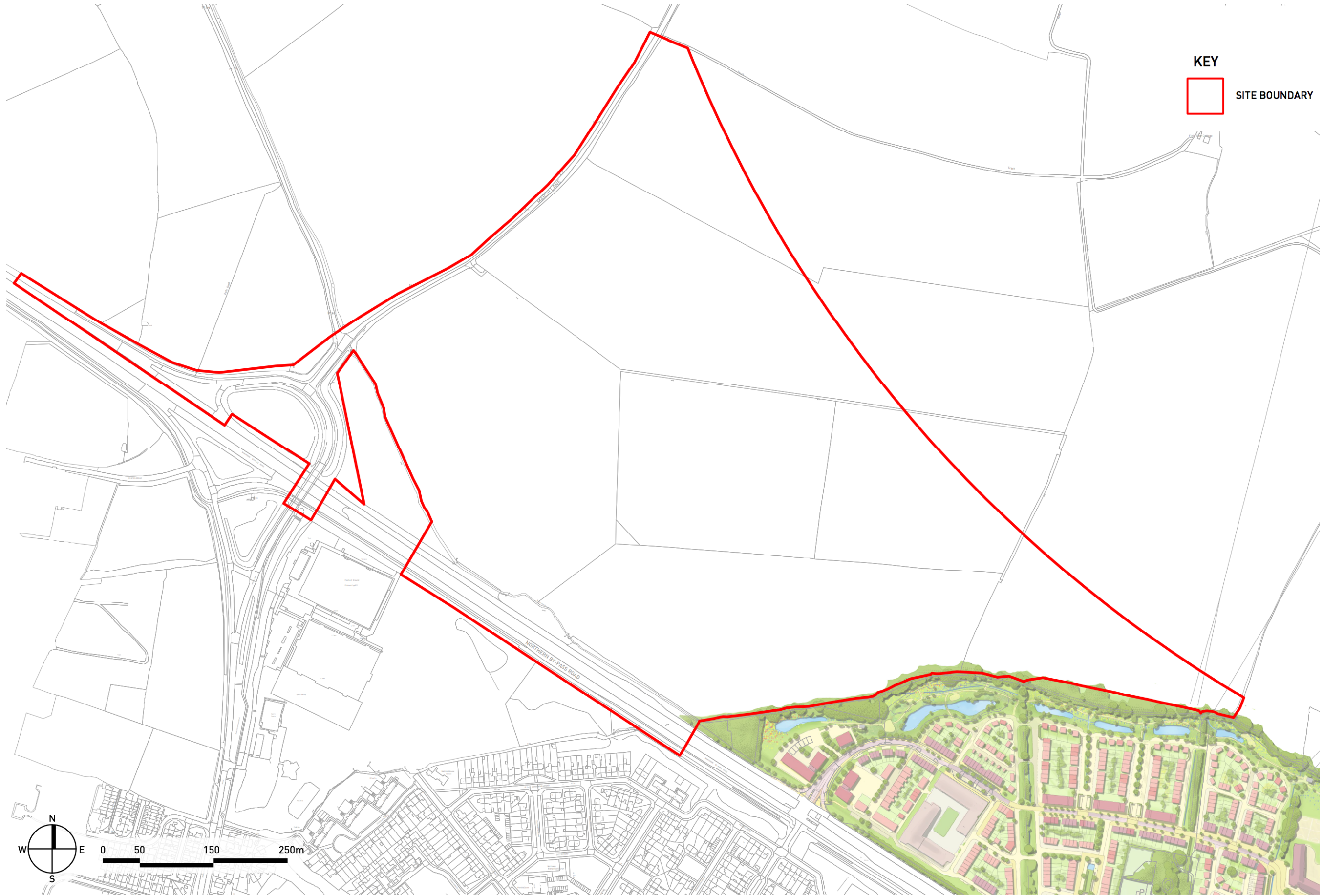
5. STATUTORY AND OTHER CONSULTEES

- 5.1 This Scoping Report is submitted to the Local Authority as part of the request for a Scoping Opinion under Regulation 15 of the EIA Regulations 2017.
- 5.2 It is anticipated that the Local Authority will invite statutory and other consultees to comment on the proposed scope and contents of the ES. It is considered that these consultees are likely to include:
- Environment Agency
 - Natural England
 - Highways England
 - Heritage England
 - Local Authority departments such as Environmental Health
- 5.3 This consultation will also include any other consultation bodies that the Planning Authority nominates.

Appendix A

Application Site Location Plan

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LAND AT BAYSWATER, OXFORDSHIRE - SITE LOCATION PLAN



Appendix B

Schedule 4 of 2017 EIA Regulations

SCHEDULE 4
INFORMATION FOR INCLUSION IN ENVIRONMENTAL STATEMENTS

1. A description of the development, including in particular:
 - (a) a description of the location of the development;
 - (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;
 - (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;
 - (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.
2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.
3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.
5. A description of the likely significant effects of the development on the environment resulting from, inter alia:
 - (a) the construction and existence of the development, including, where relevant, demolition works;
 - (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;
 - (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;
 - (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);
 - (e) the cumulation of effects 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;
 - (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;
 - (g) the technologies and the substances used.

The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into

account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(1) and Directive 2009/147/EC(2).

6. 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.

7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.

8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(3) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(4) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

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

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