



EIA Scoping Report

Land at Oakdown Farm, Basingstoke

Newlands Developments

June 2020

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For and on behalf of Avison Young

1. Introduction

Overview

- 1.1 Newlands Developments ('the Applicant') is seeking to obtain outline planning permission for the construction of up to 271,000 sqm of commercial and industrial floorspace, specifically B8 uses supported by ancillary B1 uses, at the Land at Oakdown Farm, Basingstoke.
- 1.2 The site is located in the administrative area of Basingstoke and Deane Borough Council (BDBC). The adopted development plan for the Borough includes the Local Plan 2011 – 2029 and was formally adopted in May 2016.
- 1.3 The Applicant is in the process of undertaking a range of environmental surveys and technical assessments across the site. The information obtained to date has been used to inform the scope of the Environmental Impact Assessment (EIA) as set out in this Scoping Report.

Requirement for Environmental Impact Assessment

- 1.4 The Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017 (hereafter referred to as the 'EIA Regulations') require that for certain planning applications, an EIA must be undertaken. Schedule 1 of the EIA Regulations lists developments that always require EIA and Schedule 2 of the EIA Regulations list developments that may require EIA if it is considered that they could give rise to significant environmental impacts.
- 1.5 Regulation 6 of the EIA Regulations makes provision for a developer to request a 'Screening Opinion' from the Local Planning Authority (LPA) to ascertain whether an EIA is required if a development is classed as a Schedule 2 development. This decision is based on the likelihood of significant environmental effects arising in relation to the development proposals. In this instance, the development is of a type that is described in Schedule 2, Category 10 'Infrastructure Projects' subsection (a) 'Industrial Estate Development Projects' and exceeds the relevant threshold. It has therefore been assumed for the purposes of the application that a statutory EIA will be required based on the scale of the proposals.
- 1.6 We therefore seek BDBC's scoping opinion as to the range of environmental matters to be assessed through the EIA process and provide the information required by regulation 15(2)(a) of the EIA Regulations. In accordance with Regulation 15(4) of the EIA Regulations, we request that BDBC provides a Scoping Opinion within 5 weeks of receipt of this report.

EIA Scoping

- 1.7 Under Section 15 of the EIA Regulations, a person who is minded to make an EIA application may ask the relevant planning authority to state in writing their opinion as to the information to be provided and subsequently reported in an Environmental Statement (ES) (a 'Scoping Report'). The scoping process is an integral part of undertaking an EIA and its purpose is to provide relevant background information about the

site, the proposed development, key environmental issues and the approach for the assessment of potential effects.

1.8 This Scoping Report outlines the proposed development and identifies issues that will be assessed by the EIA and reported in the ES that will accompany the planning application. The objectives of the scoping process are to:

- Provide a description of the development, including its physical characteristics and land use requirements;
- Identify key environmental topics that the EIA will consider;
- Define the extent to which environmental topics will be investigated;
- Allow consultation with the LPA, and Statutory and Non-Statutory consultees; and
- Provide a mechanism for agreeing the content and methodology of the EIA with stakeholders at an early stage in the process.

Structure of the Report

1.9 The report is divided into the following sections:

- **Section 2: Site Context:** This section describes our understanding of the current conditions of the site and the surrounding area.
- **Section 3: Description of Development:** This section provides a description of the proposed development.
- **Sections 4: EIA Approach:** This section provides the proposed approach to undertaking the EIA.
- **Section 5: Alternatives:** This section sets out the approach to the consideration of the main alternatives studied by the developer.
- **Section 6: Planning Policy Context:** This section sets out the planning policy context that will be considered in the EIA.
- **Section 7-16 Environmental Assessment Topics:** Outlines the proposed methodology for the ES and for each technical assessment expressed as chapters and/or appendices of the ES.
- **Section 17: Non-Significant Issues:** Sets out those environmental issues deemed to be non-significant for the purposes of EIA and that would not be included as a chapter in the ES.
- **Section 18: Structure of the Environmental Statement:** Defines the proposed structure of the formatting of the ES, chapters and document formats.

1.10 It should be noted that the Scoping Report has been produced using currently available information in relation to the site and the proposed development. However, the design of the proposed development is still evolving and will continue to do so throughout the EIA process. This is important as it allows an iterative design process to be followed which takes account of environmental issues and allows for the incorporation of mitigation measures into the proposals. Therefore, non-material changes to the proposals between the scoping of the EIA and the submission of the application should not necessarily require the EIA to be fully re-scoped. The scope of the assessments presented here relates to the general principles of the outline proposals; hence the proposed scope can accommodate non-material changes to the proposals if they

evolve during the assessment process. However, if scheme changes are material, then the scoping exercise may have to be revisited prior to the submission of an application.

2. Site Context

- 2.1 This section sets out the geographical context of the site and identifies environmental constraints and potentially sensitive receptors in the vicinity.

Site Location and Description

- 2.2 The site comprises two areas of land located either side of the M3 and extends to approximately 45 ha and comprises agricultural land located adjacent to Junction 7 (J7) of the M3 and A30. The site is circa. 1.5km south east of Kempshott and 7km south east of the centre of Basingstoke. The village of Dummer is located approximately 500m to the south of the site. The village is small and rural and contains only a very limited number of dwellings and services. Approximately 1.5 km to the west of the site is the village of North Waltham.
- 2.3 The northern part of the site is bound to the north by the A30 with agricultural and farmland beyond. The southern boundary of the site lies adjacent to the M3 motorway. To the east, the site is bound by the Winchester Road section of the A30 that connects to Junction 7 of the M3 motorway as well as Basingstoke Golf Club and the western boundary is formed by a minor road (Up Street). The site therefore has direct access to both the M3 and A30, with the A30 providing direct access to the centre of Basingstoke to the north and Winchester to the south. The M3 also provides connections to the south, namely Eastleigh and Southampton and to the north to London and beyond. The southern part of the site is bound by the M3 to the north, Up Street to the west and agricultural land to the south and west.
- 2.4 Four bus stops are located in close proximity to the site. To the north, two bus stops are located at: Southwood Farm (N) and Southwood Farm (S) on the A30. These are served by routes 16, 95A and 96A and provide access to Steventon, Winchester and Hatch Warren. To the south west of the site, there are a further two bus stops on the A30, The Sun Inn (N) and The Sun Inn (S), which serve routes 16 and 95A. All services are intermittent and are not deemed to be frequent enough to provide commuter services.
- 2.5 Basingstoke train station is located circa. 9.5km to the north of the site and provides national and local rail services.
- 2.6 According to the Environment Agency Flooding Map, the full site is located within Flood Zone 1 which is defined as having a less than 1 in 1000 annual probability of flooding, which indicates a low probability of flooding.
- 2.7 There are no active landfills located either within the site boundary or within 1km of the proposed development.
- 2.8 There are no statutory ecologically designated sites either within the site boundary or within 2km of the site. The nearest statutory designated site is the River Test SSSI, approximately 5.8km north west of the site.
- 2.9 There are a number of trees located across the site, none of which are subject to a Tree Preservation Order (TPO).

- 2.10 There are no statutory heritage designations (Scheduled Monuments, Grade I or Grade II Listed Buildings, Conservation Areas, Registered Parks and Gardens or Registered Battlefields) within the site boundary. However, two Grade II Listed Milestones are located to the east of the site along the A30. In addition, the whole of the village of Dummer is located within the Dummer Conservation Area. Within the Conservation Area are a number of designated heritage assets, including a Grade I Listed Church.
- 2.11 The site is not located within an Air Quality Management Area (AQMA); the closest AQMA is the Winchester Town Centre AQMA located to approximately 3.5km south west of the site.
- 2.12 An oil pipeline is located to the north of the site which will be diverted to accommodate the development.

Environmental Constraints and Potentially Sensitive Receptors

- 2.13 Features of the site and surrounding area may form a constraint to development or be identified as a sensitive receptor that may be affected by the proposed development. Identifying such constraints and receptors early in the design process ensures that mitigation measures are designed into the proposals progressively from the outset and are fully integrated into the design where appropriate. Details on specific environmental constraints and opportunities found at and around the site are presented within the technical sections of this document (see sections 7 to 16).

3. Description of the Development

- 3.1 The planning application will be in outline with all matters reserved except for access. The planning application will seek approval for the following:

Outline

- Proposed development of up to 271,000 sqm of commercial and industrial floorspace, specifically B8 uses supported by ancillary B1 uses, at the Land at Oakdown Farm, Basingstoke.

Full Detail

- Vehicular access from the A30.

Development Parameters

- 3.2 The EIA parameters, along with the written description of the proposed development allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured. The assessment of effects will be undertaken on the basis of set parameters including the quantum of development and the planning application drawings. Table 3.1 outlines the parameters included in the assessment.

Table 3.1: Assessment Parameters

EIA Parameter	Purpose
Planning Application Boundary	Defines the extent of the site and the proposed development.
Parameter Plan	Defines the type of development and blue / green infrastructure permissible within identified zones. Defines the finished ground and floor levels and maximum height of development permissible within the identified land-use zones. Heights will be defined in metres and taken from the proposed topographical / development platform level.
Detailed Application Drawings for Access	Provides detailed information on access arrangements.

- 3.3 In addition to the above EIA Parameters for which approval will be sought, as part of the planning application a series of supporting plans for each site will be provided which will include the following:

- Indicative Masterplan;
- Indicative Landscape Framework;
- Platform Plan;

- Site Location Plan;
- Indicative Sections; and
- Site Surface Water Drainage Plan.

4. EIA Approach

- 4.1 This section details the proposed technical areas for assessment within the ES. It sets out the legislative framework, an outline of the intended approach to assessment and the potential effects that have been identified at this stage. Where appropriate and where sufficient information is known, it outlines potential mitigation measures.

Potentially Significant Issues

- 4.2 The scoping exercise has identified several study areas which have the potential to generate significant environmental effects. Accordingly, the following environmental issues have been 'scoped in' to the EIA for the proposed development:

- Landscape and visual;
- Ecology and Nature Conservation;
- Archaeology and Heritage;
- Ground Conditions and Soils;
- Drainage and Flood Risk;
- Transport and Access;
- Air Quality and Dust;
- Noise and Vibration;
- Socio Economics; and
- Climate Change.

- 4.3 Each of these technical assessment areas is discussed in greater detail in sections 7–16 of this report.

EIA Approach and Methodology

- 4.4 The ES will be prepared to fully comply with Schedule 4 of the EIA Regulations: 'Information for Inclusion in Environmental Statements'; and in accordance with National Planning Practice Guidance (NPPG).
- 4.5 The 2017 EIA Regulations state that an ES should include:

"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*:

the construction and existence of the development, including, where relevant, demolition works;

the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

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;

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;

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(a) and Directive 2009/147/EC(b)."

4.6 As such a consistent approach will be adopted throughout the EIA to ensure that likely significant effects are identified and evaluated in a transparent manner. Each environmental assessment topic will adopt the following approach:

- Baseline Assessment and Identification of the Study Area;
- Identification of Sensitive Receptors;
- Identification of Embedded Mitigation Measures;
- Identification of Likely Significant Effects during Construction and Operation of the Proposed Development (including indirect, direct, adverse and beneficial);
- Assessment of Significance;
- Identification of Additional Mitigation Measures;
- Assessment of Residual Effects; and
- Assessment of Cumulative Effects.

Assessment Parameters Approach

- 4.7 The EIA Regulations, supported by precedents in UK case law, have established a code of compliance for the process of EIA and the contents of environmental statements. More specifically, as a result of a legal case associated with Rochdale Metropolitan Borough Council, the 'Rochdale Envelope Principle' is now an accepted way of dealing with uncertainty in preparing and assessing development projects, especially those proposed through outline applications where full detail is not available. It seeks to ensure that a proposed scheme is reasonably representative of the eventual development and has sufficient detail to identify, predict and assess the significance of any potential environmental effects. It is done so through the identification and assessment of defined parameters. These defined parameters then form the framework for any future reserved matters application. Refer to Table 3.1 above for information.

Significance Criteria

- 4.8 The assessment of significance will be undertaken for all potential effects to determine their importance. The following criteria will be considered when assessing their significance:
- Magnitude (size of effect);
 - Spatial extent (size of the area affected);
 - Duration (short, medium or long term);
 - Nature of the effect (direct or indirect, reversible or irreversible);
 - Sensitivity of the surrounding environment and receptors;
 - Inter-relationship between effects;
 - International, national or local standards; and
 - Relevant planning policy.
- 4.9 Where appropriate and not restricted by the requirements of specific guidance, the significance criteria below will be used to categorise predicted effects. Where alternative classifications have been used in order to comply with specific guidance, they will be explained in the methodology sections within each technical assessment. The significance levels identified can be either adverse or beneficial.

Table 4.1: Significance Criteria

Significance	Criteria
Major	These impacts are likely to be important considerations at a regional or district scale but, if adverse, are potential concerns to the project, depending upon the relative importance attached to the issue during the decision making process. Mitigation measures and detailed design work are unlikely to remove all of the impact upon the receptor.
Moderate	These impacts, if adverse, while important at a local scale, are not likely to be key decision making issues. Nevertheless, the cumulative effect of such issues may lead to an increase in the overall effects on a particular area or a particular resource. They represent issues where impacts will be experienced but mitigation measures and detailed design work may ameliorate/enhance some of the consequences upon affected communities or interest. Some residual impact may still arise.
Minor	These effects may be raised as local issues but are unlikely to be of importance in the decision making process. Nevertheless, they are of relevance in the detailed design of the project and consideration of mitigation measures.
Negligible	Potential impact is beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.
No Impact	No Impact is predicted.

Mitigation

- 4.10 Mitigation is defined as those measures that are required to avoid, remedy or offset the identified environmental impacts of a project. As described in Section 3, those mitigation measures that are identified through the EIA process and which have been designed in to the proposals such that they appear on the parameters plans and are integral to the development will be considered to be part of the development for the final assessment as presented in the ES. This 'embedded' mitigation will be described in each technical chapter prior to the assessment of potential impacts. It is placed in this order to enable an assessment of the impacts to be made which takes into account the mitigation measures which have been designed in to the proposed development, i.e. embedded into the design.
- 4.11 Mitigation that is not embedded into the proposals and which requires a commitment from the applicants to carry out further actions will be specified in the Mitigation section of each technical chapter and summarised in the Summary of Mitigation and Residual Effects chapter. These measures would then be secured through the application of suitably worded conditions attached to the planning permission or through an appropriate legal framework, such as a Section 106 agreement.

Residual Effects

- 4.12 Each ES chapter will conclude with a summary of the residual effects of the development once all related mitigation measures have been taken into account.

Cumulative Effects

- 4.13 The EIA Regulations require the assessment of cumulative effects. Cumulative effects may be divided into two categories as follows:
- Additional impacts arising from interrelationships within the same scheme; and

- Those arising from the scheme in combination with other proposed developments.
- 4.14 Most cumulative effects result when construction phases of more than one development overlap. However, the assessment will also assess operational effects of more than one development, where appropriate.
- 4.15 Cumulative effects will be discussed as a separate chapter, assessing the potential for cumulative effects for each technical assessment, thus ensuring that the LPA can evaluate the impacts of the development in isolation and in conjunction with other developments in the area.
- 4.16 A cumulative site search for planning applications within the vicinity of the application site which have the potential to result in cumulative effects has been undertaken. Currently, the majority of land surrounding the site is undeveloped agricultural land. The cumulative assessment within the ES would normally focus on committed schemes only, however, there are number of sites that are either allocated or being actively promoted in the Local Plan Review in south west Basingstoke which have the potential to result in cumulative effects. Therefore, the cumulative assessment will firstly undertake an assessment of those committed schemes where information is available to provide a robust assessment and then secondly consider allocations or sites being promoted through the Local Plan review in the form of a sensitivity test.
- 4.17 Table 4.2 below provides a summary of these cumulative sites, which includes sites that have a planning application (committed), sites allocated for development without an application and sites promoted in the Local Plan Review.
- 4.18 For the purposes of the cumulative assessment within the ES, all sites listed should be assessed either in full detail or as a sensitivity test as noted above.

Table 4.2: Proposed Cumulative Sites

Ref	Site	App no.	Proposal	Status	Estimated Construction & Completion Dates
Committed Sites					
1	Basingstoke Golf Course (Allocated site)	19/00971/OUT	Outline planning application for the demolition of all existing building and removal of existing hardstanding and development of up to 1,000 home (C3), local centre (comprising a community facility (D1 / D2), a day nursery (D1), and local retail uses A1-5), formal and informal open space, sports provision, a Gypsy and Traveller pitch, pedestrian and cycle links, noise barriers, and vehicular access from Winchester Road (all matters reserved except for access), [Amended Description]	Awaiting determination – consultation responses and amendments still regularly being uploaded as of April 2020.	Construction beginning in 2020. Completion 2030. Construction programme assumes around 100-120 homes are completed each year
2	Hounsme Fields (Allocated site)	15/04503/OUT	Outline application for 750 units	Subsequent full and reserved matters applications have been approved on site. A Reserved Matters application for phase A2 of development is awaiting determination (19/03286/RES)	Construction started 2017. Completion 2028/29
3	Kennel Farm (Allocated site)	15/00905/RES	Reserved Matters pursuant to an OPA for up to 310 units (BDB77382)	Decided September 2015	Currently under construction
4	Land at Beggarwood Lane	14/02752/FUL	Detailed application for 96 units	S73 allowing for amendments to the elevational treatment approved Aug 2017	Currently under construction

Ref	Site	App no.	Proposal	Status	Estimated Construction & Completion Dates
				(17/00862/ROC)	
5	North Manydown (Allocated site)	17/00818/OUT	Outline application for 3,200 units	Committee 24th March Cancelled but officer's recommendation within committee report for approval; determination deadline June 2020. Approval of linked application: 19/02649/FUL – December 2019 for Advanced planting of approximately 4.5ha of new habitat and the reinforcement of existing habitat with associated ground works and agriculture field drainage, providing ecological and landscape mitigation for the Manydown outline planning application	TBC
6	Overton Hill	16/00626/RES	Reserved Matters pursuant to an OPA (13/00197/OUT) for up to 310 units (BDB77382)	Decided June 2016	Currently under construction
Sites subject to sensitivity test					
7	South Manydown	N/A	Site identified for a total of up to 5,000 dwellings	Promoted in Local Plan Review. Not allocated.	N/A
8	Society of Merchant	N/A	The LPA confirm that the promoter responsible for the submission has confirmed that the development of	Not allocated	N/A

Ref	Site	App no.	Proposal	Status	Estimated Construction & Completion Dates
	Ventures Land		the site should be residential-led, however, highlights an opportunity for the provision of a new hospital on site (see below). Estimated yield of up to 4,500 dwellings		
9	Former Hospital Site	15/01225/OUT (Permission Lapsed)	Hybrid Application for hospital with access in outline.	Permission Lapsed, although NHS Trust had received funding to progress an Options Assessment for a new hospital. It is likely that the results of this assessment would identify the former site as the most appropriate location. Prior to submitting a planning application the Trust will need to go through an internal business case. For robustness – to be included in the assessment as a sensitivity test.	N/A

- 4.19 The assessment of the cumulative sites will be based on the description of development, red line plans and any available masterplans/parameter plans for the identified cumulative sites.
- 4.20 We invite BDBC to confirm whether there are any existing, approved or reasonably foreseeable developments in the area that should be included within the assessment of cumulative effects.
- 4.21 Consideration will also be given to the potential synergistic cumulative effects, arising from the interaction of two or more environmental effects associated with the proposed development on a given receptor or resource.

5. Alternatives

5.1 If, at an early stage in the project, consideration is given to possible alternatives to the development proposals, some environmental effects can be avoided. Schedule 4, section 2 of the EIA Regulations requires that the ES reports:

“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.”

5.2 Therefore, the ES will define the following types of alternatives considered by the Applicant:

- The ‘do nothing’ alternative: Consideration of the impacts in the absence of the development;
- Alternative uses, layout and designs: A description of the design evolution based on environmental constraints, potential effects and other considerations, with a description and account of the main reasons why alternative layouts were dismissed and why the preferred design option was selected.

5.3 No alternative sites were considered for the development as the applicant does not have any other sites under their control.

6. Planning Policy Context

- 6.1 A planning policy context chapter will be included within the ES to assess the proposals against relevant planning policy. The details of policies relating to specific topics addressed within the ES will be contained within the relevant technical chapters.

Context

National Planning Policy

- 6.2 The Planning Policy will comprise a series of national planning documents including the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) alongside any relevant policies and guidance. Local planning policy documents will inform the approach to the EIA and the requirement for the proposed development.
- 6.3 The NPPF states the key role of planning is to contribute to the achievement of sustainable development. The NPPF sets out a series of planning policies under thirteen headings to achieve sustainable development. Those policies of relevance will be considered and reviewed in light of the proposed development.

Local Planning Policy

- 6.4 The adopted Development Plan for the area comprises:
- Local Plan 2011 – 2029 - formally adopted in May 2016.
- 6.5 The ES will review any relevant adopted planning policies and take these into account within the technical assessment which form part of this Local Plan Review.

Approach

- 6.6 The merits of the proposed developments will be examined against the relevant planning policies and guidance adopted at national and local levels.
- 6.7 In particular, the following issues will be considered:
- General planning principles;
 - The compatibility and appropriateness of the proposed uses;
 - The Environment;
 - Housing;
 - Transport;
 - Sustainability, Energy and Climate Change; and
 - Design (policy and guidance).

7. Landscape and Visual

- 7.1 Landscape and visual effects are independent but related issues. Landscape effects are changes in the landscape as a resource, including its constituent elements, the aesthetic and perceptual aspects of the landscape, and its distinctive character; visual effects relate to the effects of change upon the views available to people and their visual amenity. The Landscape and Visual Assessment is to be carried out by FPCR.

Site Context

Landscape Character

- 7.2 At a national scale, the site lies within Natural England's National Character Area (NCA) 130 'Hampshire Downs'. This NCA stretches from Basingstoke in the north to Winchester in the south, and from Andover in the west to the edge of Farnham in the east. The area forms part of the central southern England belt of Chalk and the majority of this NCA is described as *"an elevated, open, rolling landscape dominated by large arable fields with low hedgerows on thin chalk soils, scattered woodland blocks and shelterbelts."*
- 7.3 The Hampshire Integrated Character Assessment (2012) was undertaken at County level. It defines the area within which the site lies as Landscape Character Area (LCA) 7b: 'Hannington and Dummer Downs'. The assessment further subdivides the LCA and categorises it as Landscape Character Type (LCT) 'Open Downs'. Key characteristics for this LCT include large open farmlands enclosed with hedgerows, trees and woodlands.
- 7.4 The Basingstoke and Deane Landscape Assessment (2011) was adopted at a Local level. It locates the site within LCA 17 'Dummer and Popham Down'. This LCA is a well-defined dry valley running through and unifying the landscape; however, it has a varying landscape pattern comprising open farmland, semi-enclosed fields and road network (M3, A30 and A3030).

Site Landscape

- 7.5 The site lies southwest of Basingstoke. The northern part of the site comprises five agricultural fields of varying sizes as well as a cluster of buildings. This northern part of the site is contained by the M3 to the south, the A30 to the north, Winchester Road to the east and Up Street to the west. The field boundaries are largely made up of hedgerows and trees, the exception being a raised bund with post and rail fencing along the southern site boundary parallel to the M3. Oakdown Farm, in the eastern section of the site, comprises a cluster of buildings and hardstanding. The southern part of the site comprises agricultural land bound by the M3 to the north, Up Street to the west and agricultural land to the west and south. Beyond the site, the landscape comprises mostly arable fields with scattered woodlands throughout the wider surrounding area. A few properties lie in proximity to the site – the Dummer Depot and a caravan site to the east; a private dwelling in the north west surrounded by the site boundary, a pub and a garden centre on the A30 to the north and a group of private dwellings to the southwest of the site. Beyond the immediate site context are the villages of Dummer and North Waltham as well as the southern urban edge of Basingstoke.

- 7.6 Additional to existing properties, there are residential developments which have been consented immediately north of the site on the southwestern edge of Basingstoke.

Designations

- 7.7 The site and its immediate landscape are not covered by any other statutory or non-statutory landscape designations (e.g. National Park or Area of Outstanding Natural Beauty). The South Downs National Park is located over 8km to the southeast of the site. It is not anticipated that there would be any inter-visibility between the site and the National Park.
- 7.8 In terms of heritage assets, the Dummer Conservation Area (CA) is located around 450m south of the site and the North Waltham CA lies roughly 1.25km west of the site. Some views are expected from parts of the Dummer CA as the village is elevated in relation to the site, whereas it is not likely that the site will be visible from the North Waltham CA west of the site due to intervening landform and existing vegetation.

Planning Policy Context

National Planning Policy

- 7.9 Paragraph 7 of the NPPF states that: *"The purpose of the planning system is to contribute to the achievement of sustainable development."*
- 7.10 The NPPF sets out a series of 17 core land-use planning principles. At paragraph 124, states that *"The creation of high quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable in communities."*

Planning Practice Guidance

- 7.11 The Planning Practice Guidance (PPG) (DCLG) (Ref. 15-3) provides a web-based resource in support of the NPPF.
- 7.12 PPG: Design – Section 1: The Importance of Good Design, states that: *"As a core planning principle, planmakers and decision takers should always seek to secure high quality design"*. Section 3 focuses on the qualities that define well designed places and spaces, stating that: *"A well designed space has a distinctive character"*. It lists the physical aspects that contribute to distinctiveness, including the local pattern of street blocks and blocks, building forms, details, materials, style and vernacular. It further adds that: *"Distinctiveness is not solely about the built environment"* – it also reflects an area's function, history, culture and its potential need for change.

Local Planning Policy

- 7.13 Local planning policy relevant to the proposed development in respect of landscape are:
- EM1 – Landscape requires that *"development proposals must respect, enhance and not be detrimental to the character or visual amenity of the landscape likely to be affected, paying particular regard to:*

- *The particular qualities identified within the council's landscape character assessment and any subsequent updates or relevant guidance;*
- *The visual amenity and scenic quality;*
- *The setting of a settlement, including important views to, across, within and out of settlements;*
- *The local character of buildings and settlements, including important open areas;*
- *Trees, ancient woodland, hedgerows...and other landscape features and their function as ecological networks...*

Development proposals must also respect sense of place, sense of tranquillity or remoteness, and the quiet enjoyment of the landscape from public rights of way. Development proposals will not be accepted unless they maintain the integrity of existing settlements and prevent coalescence".

- EM5 – Green Infrastructure recognises the importance of delivering the LPA's Green Infrastructure (GI) Strategy and will not support development proposals that prejudice it. Proposals will be supported where they "seek to improve links and remedy identified deficiencies in the green infrastructure network in accordance with the council's Green Infrastructure Strategy".

7.14 Other relevant strategies at a local planning level also include:

- The Green Infrastructure Strategy for Basingstoke and Deane (2018); and
- The Landscape, Biodiversity and Biodiversity and Trees Supplementary Planning Document (2018).

Recognised Guidance

7.15 The landscape and visual assessment will be undertaken in accordance with the principles set out in 'Guidelines for Landscape and Visual Impact Assessment' GLVIA3 (2013) published by the Landscape Institute and Institute of Environmental Management and Assessment; and 'Guidance on Landscape Character Assessment' (2002) published by the Countryside Agency and Scottish Natural Heritage. Viewpoint photographs will be prepared in accordance with the Landscape Institute's Technical Guidance Note 06/19 'Visual Representation of Development Proposals' (2019).

Approach

7.16 The landscape and visual assessment will assess the effects on landscape character and visual amenity. The main aims of the assessment will be to:

- Establish the landscape and visual baseline in terms of its existing character and its sensitivity to the development proposals;
- Identify the landscape and visual effects resulting from the development proposals; and
- Determine the significance of these effects on the landscape character and visual amenity.

7.17 The components of the Landscape and Visual chapter will include baseline studies (based on desktop study and site visit); description and details of the landscape proposals and other embedded mitigation measures to be adopted as part of the proposed development; and identification and description of likely effects arising from the proposed development and additional mitigation measures to be implemented.

- 7.18 The landscape character assessment will consider the likely effects on both the local landscape resource and the wider context of the site; from the physical effects on site-based features and characteristics, to the likely effects on the wider landscape character.
- 7.19 Similarly, the visual assessment will consider the likely visual effects upon receptors within the site, bordering the site and within the surrounding area. Key visual receptors will include residents, public footpath users and road users within or adjacent to the site or within the immediately surrounding area. The visual assessment will assess approximate visibility through computerised Zone of Theoretical Visibility (ZTV) showing areas of land within which the proposed development is theoretically visible (GLVIA3, 2013). Key viewpoints will be identified and photographs will be taken from these points.
- 7.20 The viewpoint photographs will be included as annotated viewpoint photographs (Visualisation Type 1, LI Technical Guidance Note 06/19). Additionally, a handful of carefully selected viewpoints photographs, which represent sensitive visual receptors affected by the development, will be reiterated as wireframe photomontages. These montages will be made up of a wireframe model of the development proposals overlaid on site photography (Visualisation Type 3, LI Technical Guidance note 06/19).
- 7.21 Conclusions on effects, whether adverse or beneficial, will be drawn from the separate judgements on the sensitivity of the receptors and the magnitude of the effects. This overall judgement will involve a reasoned professional overview of the individual judgements against the criteria below to make the final overall judgement.
- 7.22 For the assessment, the following descriptive thresholds will be used with regard to effects:
- Major: An effect that will fundamentally change and be in direct contrast to the existing landscape or views;
 - Moderate: An effect that will markedly change the existing landscape or views but may retain or incorporate some characteristics/ features currently present;
 - Minor: An effect that will entail limited or localised change to the existing landscape/ views or will entail more noticeable localised change but including both adverse and beneficial effects and is likely to retain or incorporate some characteristics/ features currently present;
 - Negligible: An effect that will be discernible yet of very limited change to the existing landscape or views.
- 7.23 Finally, a judgement will be reached based on the assessment, whether an effect is significant or not.

Cumulative Effects

- 7.24 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites identified through the scoping process.

8. Ecology and Nature Conservation

- 8.1 This section of the ES will present an assessment of the likely effects of the proposed development on ecological receptors, which have been identified through desk-based research, and site surveys. The approach proposed in this Scoping Report has been informed by the findings of both the desk-based and site survey work, and published best practice guidance. The ecological and nature conservation assessment will be undertaken by FPCR.

Site Context

- 8.2 The northern part of the site comprises agricultural land located adjacent to J7 of the M3 and the A30. The site is bordered by main roads on three sides: the M3, the A30, and Winchester Road; whilst the western boundary is formed by a minor road (Up Street). Surrounding land uses are largely made up of arable field compartments divided by hedgerows and woodland parcels. A golf course is located to the north-east of the site with the environs of Basingstoke beyond it. The southern part of the site is bound by the M3 to the north, Up Street to the west and agricultural land to the south and west.
- 8.3 A preliminary ecological appraisal of the site was undertaken in March 2020. The site consists of five field compartments divided by hedgerows. At the time of survey four of the fields contained arable crops whilst the fifth consisted of semi-improved grassland. Mature trees are present within the site but are largely confined to hedgerows. However, there is a wooded drive leading to a complex of five farm buildings surrounded by a small area of grassland (Oakdown Farm).
- 8.4 There is a small lined pond within the grounds of Oakdown Farm. Colour 1:25000 Ordnance Survey (OS) base maps show only one other pond within 250m of the site, this is a small waterbody located approximately 200m north of the site on the other side of the A30. There are three ditches located around the site's boundaries but these were all found to be dry at the time of survey (March 2020).
- 8.5 There are no statutory or non-statutory sites of importance for nature conservation within the site boundary. The only international statutory site of nature conservation importance within 15km of the site is the River Itchen Special Area of Conservation (SAC), which is located approximately 11km to the south of the site. There are no waterways within or adjacent to the site that would provide hydrological links to the SAC.
- 8.6 There are no statutory sites of national importance (e.g. SSSI (Sites of Special Scientific Interest) or LNR (Local Nature Reserves) within 2km of the site.
- 8.7 There are three non-statutory sites of importance for nature conservation (SINCs) within 1km of the site. These are: Peak Copse SINC, located approximately 70m to the west of the Site on the other side of Winchester Road; Ganderdown Copse SINC, situated approximately 70m to the north of the Site on the other side of the A30; and, South Wood SINC located approximately 340m to the north on the other side of the A30. The wooded drive on-site is classed as lowland deciduous woodland (a U.K. priority habitat).

8.8 Based on the habitats present, the following protected / notable species are anticipated to be present on-site. The presence or likely-absence of these species will be determined through a series of further species-specific surveys that are to be undertaken in 2020:

- Bats (bat activity and bat roost surveys);
- Breeding birds (notably barn owl *Tyto alba*, and sky lark *Alauda arvensis*);
- Great crested newts (GCN) *Triturus cristatus*;
- Reptiles; and
- Dormice *Muscardinus avellanarius*.

Planning Policy Context

8.9 A review of relevant legislation and key national planning policies will be undertaken and will form part of the ecological impact assessment. This will include the legislation listed below, the NPPF and policies relating to ecology and nature conservation within local planning policy:

National Planning Policy and Legislation

- The Conservation of Habitats and Species Regulations 2017 (as amended) (The Habitat Regulations);
- Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities Act 2006 (NERC);
- Hedgerow Regulations 1997;
- The Protection of Badgers Act 1992;
- Section 11: NPPF. Conserving and enhancing the natural environment; and
- Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts on the Planning System.

Local Planning Policy

8.10 The ES chapter will be prepared in the context of the following policy in the Basingstoke and Deane Local Plan 2011-2029 (Adopted May 2016):

- Policy EM4 – Biodiversity, Geodiversity and Nature Conservation, which states “*Development proposals will only be permitted if significant harm to biodiversity and/or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated and where it can be clearly demonstrated that:*
 - a) There will be no adverse impact on the conservation status of key species; and*
 - b) There will be no adverse impact on the integrity of designated and proposed European designated sites; and*
 - c) There will be no harm to nationally designated sites; and*

d) There will be no harm to locally designated sites including Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs); and

e) There will be no loss or deterioration of a key habitat type, including irreplaceable habitats; and

f) There will be no harm to the integrity of linkages between designated sites and key habitats."

And:

"In order to secure opportunities for biodiversity improvement, relevant development proposals will be required to include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features including measures that help to link key habitats. Approaches to secure improvements could be achieved through:

a) A focus on identified Biodiversity Opportunity Areas and Biodiversity Priority Areas as identified in the councils Green Infrastructure Strategy (and subsequent updates) where appropriate; and through

b) On-site and/or off-site provision linked to new development in accordance with the council's adopted green space standards."

Approach

8.11 An assessment will be undertaken of the likely significant effects of the proposed development with respect to ecology and nature conservation.

8.12 The following topics will be considered for inclusion within the scope of the Environmental Assessment:

- One statutory designated Site for Nature Conservation - the River Itchen SAC;
- Three non-statutory Sites for Nature Conservation - Peak Copse SINC, Ganderdown Copse SINC, and South Wood SINC
- Habitats and botanical species interest;
- Bats;
- Breeding birds;
- GCN;
- Reptiles; and
- Dormice.

8.13 Baseline information gathered from the following sources:

- Online resources including the Multi Agency Geographic Information for the Countryside (MAGIC) website, 1:25,000 scale OS maps and aerial photographs;
- Information from organisations holding biological records; and
- Ecological surveys for habitats, bats, breeding birds, GCN, reptiles and dormouse.

- 8.14 The search area for ecology and nature conservation information is related to the importance of sites and species and potential zones of influence, as follows:
- 15km around the site for sites of International Importance for Nature Conservation (e.g. SAC, Special Protection Area (SPA), Ramsar site);
 - 2km around the site for sites of National or Regional Importance for Nature Conservation (e.g. Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR); and species records (including protected species, species of principal importance for nature conservation under the Natural Environment and Rural Communities (NERC) Act 2006, local biodiversity action plan (LBAP) or notable species).
 - 1km around the site for sites of County/Local Importance (e.g. Sites of Importance for Nature Conservation (SINC), and Local Wildlife Sites (LWS),
- 8.15 Ecological surveys will be undertaken in relation to the protected species/groups identified above. Namely bats, birds, GCN, reptiles and dormice.

Impact Assessment

- 8.16 The assessment will be undertaken with reference to current best practice and in particular the Guidelines for Ecological Impact Assessment in the UK and Ireland (Chartered Institute of Ecology and Environmental Management (CIEEM), September 2018 (updated 2019)).
- 8.17 Features of nature conservation value with potential to be affected by the proposed development will be identified and evaluated on a geographical scale of importance ranging from International to Local importance. CIEEM (2019) has identified various characteristics that can be used to identify ecological resources or features likely to be important in terms of biodiversity. Determination of nature conservation value also takes account of the status of species and habitats listed in Section 41 of the NERC Act as Habitats and Species of Principal Importance for Nature Conservation, as well as published status lists including Red Data Book lists and Birds of Conservation Concern. Wildlife legislation is also considered in respect of protected sites and species.
- 8.18 Likely effects of the proposed development on these features will be identified and assessed. The sensitivity of features subject to potential impacts will be determined based on the nature conservation value of the feature and its vulnerability.
- 8.19 Assessment of impact magnitude will take account of the likely effects arising from the proposed development in relation to the baseline resources of features of biodiversity importance.
- 8.20 In order to determine whether the effects of changes to the baseline conditions are significant, it is necessary to assess whether or not an impact will result in an effect (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of a habitat or species within a given geographical area.
- 8.21 CIEEM (2019) states that: *“significant effects encompass impacts on the structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)”*. Once an effect is considered to be significant then the scale of effect will be assessed on a geographical scale.

- 8.22 Proposals for avoidance, mitigation and compensation of effects will then be considered following the determination of the residual effects. 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 accordance with the aims of the NPPF, local policies and the NERC Act.

Cumulative effects

- 8.23 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites identified through the scoping process.

9. Archaeology and Heritage

- 9.1 This section of the EIA will present an assessment of the likely effects of the proposals on the archaeology and heritage of the site which will be identified through desk-based research, site surveys and consultation with key stakeholders. The assessment will be undertaken by Border Archaeology.

Site Context

- 9.2 Border Archaeology (BA) has been commissioned to undertake an Archaeological Desk Based Assessment and Heritage Impact Assessment with regard to the proposed development on land at Oakdown Farm, Dummer.

Site Location

- 9.3 The site of the proposed development comprises agricultural land located to the N and SW of Oakdown Farm, about 520m NW of the village of Dummer, SW of Basingstoke (Hants.). The site lies immediately adjacent to Junction 7 of the M3 motorway and the northern section of the site is bordered to the N and E by the A30 (Winchester Road), to the S by the M3 motorway and to the SW by Up Street, an unclassified lane leading NW from Dummer to the A30. The site rises gradually from NW to SE, from an approximate height of 135m AOD to a height of 155m AOD towards its SE extremity (close to the line of the M3 motorway). The southern part of the site is bound by the M3 to the north, Up Street to the west and agricultural land to the south and west.
- 9.4 The British Geological Survey (BGS) records the underlying solid geology across the site as consisting of sedimentary bedrock of the Seaford Chalk Formation, formed approximately 84 to 90 million years ago in the Cretaceous Period, with no superficial deposits recorded. The Soil Survey of England and Wales (SSEW) records the predominant soils as consisting of typical palaeo-argillic brown earths of the CARSTENS series (581d), comprising well drained fine silty over clayey, clayey and fine silty soils, often, overlying plateau drift and clay-with-flints. Located within the central and southwestern portions of the site, the SSEW records discrete pockets of typical argillic brown earths of the CHARITY 2 series (571m), defined as well drained flinty fine silty soils in valley bottoms, with calcareous fine silty soils over chalk or chalk rubble on valley sides, sometimes shallow. The underlying geology is recorded as flinty or chalky drifts over chalk.

Baseline Environment - Archaeology

- 9.5 The following section briefly summarises the baseline archaeological information relating to the site, primarily based on information contained in the Hampshire Historic Environment Record (HER). Consultation of the Hampshire HER identified a total of 54 archaeological monuments within a 1km radius of the site.
- 9.6 **Prehistoric:** Significant evidence of prehistoric remains has been identified in the vicinity of the site. The underlying clay-with-flints geology has demonstrable potential for the preservation of early prehistoric remains, as evidenced by the discovery of a substantial assemblage of Palaeolithic to Bronze Age worked flints within the southwestern portion of the site (HER 18785). Considerable evidence of Bronze Age ritual and funerary activity has been identified in the immediate and wider vicinity of the site. At least five, possibly seven Bronze Age barrow sites are recorded on the Hampshire HER within a 1km radius of the site, the

nearest being a possible round barrow recorded on aerial photographs to the northwest of the A30 (about 80m northwest of the site) at NGR SU 58007 46844 (HER 63607). Excavations at Hounsme Fields (northeast of the site) have revealed extensive remains of Iron Age settlement and associated field systems (HER 69102).

- 9.7 **Romano-British:** A section of the northern site boundary runs adjacent to the line of the Roman road from Silchester to Winchester (HER 29812) and there is potential for evidence of buried remains associated with the road (such as roadside ditches) or roadside occupation features to be identified. No definite evidence for Romano-British occupation has been recorded within or in especially close proximity to the site boundary, however extensive evidence of Romano-British rural settlement has been identified in the wider locality including two villa sites at Southwood (HER 18704) and The Wheatsheaf Hotel (HER 18747; 18757) and other smaller rural settlements nearby.
- 9.8 **Medieval:** Throughout the medieval and early post-medieval periods, the site lay within the Stoke Field, a large open common field lying to the north and northeast of the medieval settlement of Dummer. It appears unlikely that evidence of medieval occupation will be identified, although there is limited potential to reveal buried evidence of cultivation features (ridge and furrow) associated with this medieval open field system.
- 9.9 **Post-Medieval:** The majority of the site appears to have remained under cultivation throughout the post-medieval period and indeed right up to the present day. There is potential to encounter buried remains of an early 19th century windmill (destroyed in a fire in 1833) which appears to have been situated close to the southeastern boundary of the site at NGR SU 58639 47014 (HER 56225).

Baseline Environment - Heritage

- 9.10 Consultation of the Hampshire HER identified a total of 47 designated and undesignated built heritage assets within a 1km radius of the site. There are no built heritage assets or Scheduled Ancient Monuments within the boundaries of the site, the nearest Scheduled Ancient Monument is a group of three bell barrows near Bell Bushes Farm, about 1.8km northwest of the site. The site is not located within a Conservation Area, the nearest being the Dummer Conservation Area, as designated by Basingstoke and Deane Council, the boundary of which is located about 520m SE of the site at its closest point.
- 9.11 Designated and undesignated heritage receptors that might be affected by the proposed development include the following: 1/A Grade II listed mid-18th century milestone at Ganderdown on the A30 about 50m northwest of the site (HER 65888); 2/Southwood Farmhouse, a Grade II listed early 19th century farmhouse, approximately 300m north of the site (HER 2246); 3/Glebe Cottages, a Grade II listed row of cottages about 545m southeast of the site (HER 6583; 6584) and 4/The Sun Inn, an unlisted 18th century coaching inn on the A30 about 60m northwest of the site. It is considered that there may be potential for the development to affect the setting of the Dummer Conservation Area, particularly towards its northern extremity.

Planning Policy Context

Legislative Context

- 9.12 With regard to archaeological (buried) assets, the relevant legislation is contained in the Ancient Monuments and Archaeological Areas Act 1979. With particular reference to Scheduled Monuments, it should be noted that Section 2(2) of the Ancient Monuments and Archaeological Areas Act 1979 requires

applicants to seek scheduled monument consent for any works that demolish, repair or alter scheduled monuments. Scheduled monument consents are determined by the Secretary of State. There is no statutory protection of the setting of scheduled monuments, but setting is protected in national planning policy.

- 9.13 With regard to built heritage assets, the relevant legislation may be summarised thus. Legislation regarding buildings of special architectural or historic interest is contained in the Planning (Listed Buildings and Conservation Areas) Act 1990. Section 66 of the 1990 Act is relevant as it states that the local planning authority 'shall have special regard to the desirability of preserving a listed building and its setting.'

National Planning Policy

- 9.14 Section 16 of the NPPF, entitled 'Conserving and enhancing the historic environment' provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development, while recognising the desirability of sustaining and enhancing the significance of heritage assets and their respective settings and putting them to viable uses consistent with their conservation;
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- Conservation of England's heritage assets in a manner appropriate to their significance; and
- Recognition of the value that heritage makes to our knowledge and understanding of the past

Local Planning Policy

- 9.15 The relevant local planning policies are contained in the Basingstoke and Deane Local Plan 2011-2029 (Adopted May 2016).
- 9.16 Particular attention may be directed to Policy EM11-The Historic Environment, which states that 'All development must conserve or enhance the quality of the borough's heritage assets in a manner appropriate to their significance. Development proposals which would affect designated or non-designated heritage assets will be permitted where they: **a)** Demonstrate a thorough understanding of the significance of the heritage asset and its setting, how this has informed the proposed development and how the proposal would impact on the asset's significance. This will be proportionate to the importance of the heritage asset and the potential impact of the proposal; **b)** Ensure that extensions and/or alterations respect the historic form, setting, fabric and any other aspects that contribute to the significance of the host building; **c)** Demonstrate a thorough understanding of the significance, character and setting of conservation areas and how this has informed proposals, to achieve high quality new design which is respectful of historic interest and local character; **d)** Conserve or enhance the quality, distinctiveness and character of heritage assets by ensuring the use of appropriate materials, design and detailing and **e)** Retain the significance and character of historic buildings when considering alternative uses and make sensitive use of redundant historic assets.

Approach

- 9.17 An Archaeological Desk-Based Assessment and a separate Heritage Impact Assessment will be carried out, to determine all likely significant effects arising from the proposed development on the historic environment, both in terms of archaeological (i.e. buried) assets and built heritage (i.e. above ground) assets.
- 9.18 In brief, these effects on archaeological and built heritage assets can be divided into two broad categories, namely 'direct effects', where the proposed development has the potential to directly impact upon both known and as yet unrecorded remains and 'indirect effects', where it has the potential to affect a heritage asset both physically (in terms of changes in land use, groundwater regime etc.) and/or visually (in terms of changes to the setting of a heritage asset). Further details as to the nature of these direct and indirect effects are given below.

Baseline Data Collection

- 9.19 A study area defined as 1km around the development site boundary will be used to establish baseline information relevant to the potential for direct effects, although background information outside this study area will also be considered where this may have a bearing on the assessment of the site.
- 9.20 With regard to indirect effects, a nominal study area defined as 1km around the site boundary will be used to establish baseline information relevant to the potential for indirect effects; it will also take into account factors such as the predicted viewshed of the proposed development and consequently sites identified as lying outside the 1km boundary, where they could potentially be impacted in visual terms by the development will also be included in the assessment.
- 9.21 Baseline information which will be collected to inform the compilation of the Archaeological Desk-Based Assessment and Heritage Impact Assessment and the relevant chapter of the Environmental Statement will be derived from the following sources:
- Data held by the Hampshire HER, the National Heritage List for England and the National Record of the Historic Environment database (www.pastscape.org), on known archaeological sites, monuments, findspots, events and historic landscape character areas.
 - Vertical and oblique aerial photographs held by Hampshire HER, the Hampshire Record Office and the Historic England Archive.
 - Historic maps and documentary sources held by the Hampshire Record Office, The Willis Museum, Basingstoke, the British Library and the National Archives.
 - Relevant secondary sources pertaining to the archaeology and history of the study area will be consulted, including unpublished archaeological reports held at the Hampshire Historic Environment Record, the Historic England Archive and Basingstoke Museum, published articles contained in *Hampshire Studies* and other relevant archaeological and historical journals.
 - LiDAR data will be consulted using datasets held by the Environment Agency.
 - A detailed site visit will be carried out and a photographic record taken from key vantage points, both within the site and the surrounding locality, to inform the archaeological and built heritage assessments.

Assessment of Archaeological (Buried) Assets

- 9.22 **The Archaeological Desk Based Assessment** will be compiled in accordance with criteria detailed in the *Standard and guidance for historic environment desk-based assessment* issued by the Chartered Institute for Archaeologists (revised edition 2014).
- 9.23 The methodology for the assessment of impact upon archaeological assets will be based upon the criteria detailed in *Design Manual for Roads and Bridges (DMRB) Sustainability and Environment Appraisal LA 106: Cultural Heritage Assessment* (revised January 2020) and informed by relevant Historic England guidance regarding the assessment of archaeological assets, including *Statements of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12* (Historic England 2019) and *Preserving Archaeological Remains* (Historic England 2016).
- 9.24 In summary, this assessment process will consist of the following key elements:
- 9.25 **Identification of Archaeological Receptors and an Assessment of their Importance:** Baseline information regarding archaeological receptors within the Project Site and within a distance of 1km around the site boundary will be obtained from the Hampshire HER. Having identified the archaeological receptors within the study area, their importance will be assessed using criteria contained in the DMRB and relevant guidance documents listed above.
- 9.26 **Assessment of Magnitude of Impact:** Having identified the archaeological receptors that could potentially be affected by the Project, both directly and indirectly, the magnitude of impact upon these heritage assets will be assessed utilising the criteria contained in the DMRB and relevant guidance documents listed above.
- 9.27 **Overall Conclusion:** A conclusion will then be drawn integrating both the assessment of the importance of the archaeological receptors and the magnitude of impact upon each individual receptor to produce an overall assessment of the significance of impact upon these receptors. This overall assessment will be based on criteria contained in the DMRB and relevant guidance documents listed above.

Assessment of Built Heritage (Above Ground) Assets

- 9.28 **The Heritage Impact Assessment** will be undertaken in accordance with criteria for assessing visual and physical impact on cultural heritage assets contained in *Design Manual for Roads and Bridges (DMRB) Sustainability and Environment Appraisal LA 106: Cultural Heritage Assessment* (revised January 2020) and relevant Historic England guidance for assessing heritage assets and their respective settings, namely *Statements of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12* (Historic England 2019), *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning 3 Second Edition* (Historic England, 2017), *Conservation Principles Policies and Guidance for the Sustainable Management of the Historic Environment* (Historic England 2015), *Understanding Place: Historic Area Assessments: Principles and Practice* (EH, 2010 [Rev. 2012]) and *Seeing the History in the View* (EH 2011b [Rev. 2012]).
- 9.29 'Setting' is herein defined as "the surroundings in which [the asset] is experienced". It is acknowledged that these surroundings may evolve and that elements of a setting may i) make a positive or negative contribution to the significance of an asset, ii) affect the ability to appreciate that significance or iii) be

9.30 In summary, the assessment process can be described as comprising the following elements:

9.31 **Identification of the Heritage Assets and their Associated Settings:** Baseline information regarding the heritage assets in the vicinity of the site will be obtained from the Hampshire HER, the National Heritage List for England and the Historic England Archive. A photographic record of the site, the nearby heritage assets and their respective settings will be undertaken from key vantage points.

9.32 **Assessment of the Significance of the Heritage Assets and the extent to which their Settings respectively contribute to their Significance:** The significance of the heritage assets will be assessed with reference to the criteria contained in the DMRB and relevant Historic England guidance, in particular *Statements of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12* (Historic England 2019) and Section 2.6 of *Understanding Place: Historic Area Assessments: Principles and Practice* (EH 2010 [Rev. 2012]) which are briefly outlined below:

- *Rarity:* Does it exemplify a pattern or type seldom or never encountered elsewhere? It is often assumed that rarity is synonymous with historical importance and therefore high value, but it is important not to exaggerate rarity by magnifying differences and downplaying common characteristics.
- *Representativeness:* Is its character or type representative of important historical or architectural trends? Representativeness may be contrasted with rarity.
- *Aesthetic appeal:* Does it (or could it) evoke positive feelings of worth by virtue of the quality (whether designed or artless) of its architecture, design or layout, the harmony or diversity of its forms and materials, or through its attractive physical condition?
- *Integrity:* Does it retain a sense of completeness and coherence? In a historic landscape with a high degree of integrity the functional and hierarchical relationships between different elements of the landscape remain intelligible and nuanced, greatly enhancing its evidential value and often its aesthetic appeal.
- *Associations:* Is it associated with important historic events or people? Can those associations be verified? If they cannot, they may still be of some significance, as many places and buildings are valued for associations that are traditional rather than historically proven.

9.33 Consideration will be given as to whether the setting of the heritage assets contributes or detracts from its significance, with reference to the following attributes, namely:

- Topography
- Presence of other heritage assets
- Formal design
- Historic materials and surfaces
- Land use
- Trees and vegetation
- Openness, enclosure and boundaries
- History and degree of change over time
- Integrity
- Surrounding townscape character

- Views from, towards and across the asset (to including the asset itself)
- Visual prominence & role as focal point
- Intentional inter-visibility with other historic and natural features
- Sense of enclosure, seclusion, intimacy or privacy
- Accessibility, permeability and patterns of movement
- The rarity of comparable survivals of setting
- Associative relationships between heritage assets
- Cultural associations

9.34 **Assessment of the Magnitude of Impact of the Proposed Development on Heritage Assets and their Settings:**

The magnitude of direct or indirect impact resulting from the Project on the Heritage Assets and their respective settings will then be assessed, supported by a photographic survey of the area from key vantage points. This assessment will be carried out in accordance with recognised criteria contained in the DMRB and relevant Historic England guidance listed above.

9.35 Consideration will be given to key attributes of the proposed development in terms of:

- Location and siting, e.g. proximity to asset, extent, degree to which location will physically or visually isolate the asset & position in relation to key views;
- Form and appearance, e.g. prominence/conspicuousness, competition with or distraction from the asset, scale and massing, proportions, materials, architectural style or design;
- Additional effects e.g. change to built surroundings and spaces, change to general character and tree cover;
- Permanence.

9.36 **Overall Assessment of the Significance of Impact on the Heritage Assets:** An overall conclusion is then drawn integrating both the assessment of the significance of the heritage assets and their associated settings and the magnitude of impact of the proposed development to produce an overall assessment of the implications of the development proposals. This overall assessment will be carried out in accordance with criteria contained in the DMRB and relevant Historic England guidance listed above.

Cumulative Effects

9.37 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites identified through the scoping process.

10. Ground Conditions and Soils

- 10.1 The ground conditions and soils assessment will assess the potential effects related to ground conditions and soils, including contamination and agricultural land quality, during both the construction and operational phases. The Ground Conditions and Soils chapter will be prepared by Hydrock.

Site Context

Existing Land-Uses

- 10.2 The Site currently comprises arable farmland, sloping gently downward from the site centre to the north and west, with hedgerow and mature trees along the field boundaries and site limits. In the southwest of the Site, an area has been utilised for the treatment and storage of sewage wastes for use as fertiliser. In the north east of the Site, an access road lined by mature trees separates an area of the site left to pasture. In the north west is a residential property surrounded by the site. At the southern end of the access road two residential properties and three shed/warehouse structures are present, one of which is currently utilised for vehicle maintenance. The shed/warehouse buildings are known as Oakdown Farm and are surrounded to the north, south and west by a soil bund standing approximately 2m in height. A fuel pipeline is known to run within the site along the northern limit, parallel to the A30.
- 10.3 The development of the Site is likely to include earthworks to reprofile the Site to suitable development levels.

Historical Context

- 10.4 A review of historical map extracts does not indicate any significant previous development within the confines of the site boundary. Chalk pits are noted to be present from the earliest available mapping records (1875) in the central north and south west extents of the site.
- 10.5 Residential and shed/warehouse buildings are present in the north east of the Site in map extracts from 1960s onward.
- 10.6 The M3 motorway to the south of the Site and A30 to the north and the associated infrastructure joining the two are noted to be present in extracts from the 1970s onward.
- 10.7 Anecdotal evidence indicates that the two former chalk pits were infilled with 'inert' materials, but the nature of these materials is unknown at present.
- 10.8 The shed/warehouse buildings are understood to have served as a dispatch depot for the local ambulance service.

Geological Context

- 10.9 Made Ground is anticipated in the vicinity of the infilled former chalk pits, residential and shed/warehouse buildings, soil bund and along existing service corridors and roadways. Made Ground may also be present sporadically across the site at field boundary crossings and entrances.

- 10.10 Superficial Deposits of the Clay with Flints Formation (clay, silt sand and gravel) are documented by the British Geological Survey (BGS) as present along the south eastern parts of the site. Hydrock have previously undertaken limited investigation, comprising 1 day of trial pitting in restricted areas of the site (07/10/2019) indicating that the Clay with Flints Formation is likely to be found across much of the site, thickening toward the south eastern boundary. It is also likely, although not recorded, that Head Deposits are present across the site resulting from soil creep over sloping areas of the site.
- 10.11 Bedrock geology underlying the Site comprises the Seaford Chalk Formation.
- 10.12 Dissolution features are often associated with clay deposits overlying chalk. There is therefore potential for such features to be present at the Site, which may present a geotechnical hazard as a result.

Hydrogeological Context

- 10.13 The Clay with Flints Formation is designated as unproductive strata and the Seaford Chalk Formation is designated as a Principal Aquifer.
- 10.14 The southern part of the Site falls within a Zone 3 – Total Catchment Source Protection Zone linked to abstractions in Basingstoke and Whitchurch. Groundwater abstractions listed in records within 1000m of the Site relate to spray irrigation.
- 10.15 A walkover survey of the site indicates soils in the far south of the Site have potential to become waterlogged and surface soils respond to weather patterns, having been very soft following periods of precipitation and becoming firm during periods of limited precipitation.

Hydrological Context

- 10.16 There are no recorded surface water features within 250m of the Site. A pond is present within the garden area close to the shed buildings.

Geo-environmental Context

- 10.17 Potential contaminant sources of note include the storage, repair and maintenance of vehicles within Oakdown Farm, infilled former chalk pits, soil bunds and the area utilised for sewage treatment and storage.
- 10.18 Environment Agency, Local Authority, Department of the Environment and BGS records indicate that there are no operational or historical landfills or licensed waste facilities within 1,000m of the Site.
- 10.19 Preliminary Unexploded Ordnance (UXO) screening indicates that the Site is within an area designated as low risk.
- 10.20 The Site is underlain by soils (chalk) that have high leaching potential and potential to transmit a range of contaminants over great distances in a short period of time.
- 10.21 Arable farming of the Site is likely to have included the use of herbicides and pesticides and is known to have utilised treated sewage as fertiliser.
- 10.22 The condition of the fuel pipeline is unknown.

Agricultural Land Quality

- 10.23 A Post 1988 Agricultural Land Classification survey of the north eastern half of the site (report ref: ALCR01995, map ref: 1501/019/95 EL 15/144), produced in March 1995, undertaken by ADAS is publicly available on the Natural England website.
- 10.24 The survey indicates that agricultural areas of the surveyed area of site are of moderate to good in quality, graded as 3a and 3b.

Planning Policy Context

National Planning Policy and Legislation

- 10.25 The following legislation will form the framework for undertaking the assessment in the ES chapter:
- Construction (Design and Management) Regulations 2015;
 - Town and Country Planning Act 1990;
 - Environmental Protection Act 1990;
 - The Environment Act 1995;
 - Contaminated Land (England) Regulations, 2006;
 - Groundwater (England and Wales) Regulations, 2009;
 - Environmental Damage (Prevention and Remediation) Regulations, 2009 (SI 153); and
 - Groundwater Directive (2006/118/EC).
- 10.26 National policy of particular relevance to ground conditions is set out below.
- 10.27 Section 178 of the NPPF states that planning policies and decisions should ensure that:
- a) *"a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);*
 - b) *after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and*
 - c) *adequate site investigation information, prepared by a competent person, is available to inform these assessments."*

Local Planning Policy

- 10.28 The following relevant local planning policies are contained in the Basingstoke and Deane Local Plan 2011-2029 (Adopted May 2016). The policies are supported by information contained within the "Policies Map", presented on the BDBC planning webpage.

Policy EM4 – Biodiversity, Geodiversity and Nature Conservation

- 10.29 It is noted that the relevant part of this policy with respect to ground conditions relates to potential Geodiversity. The Local Plan terms Geodiversity as “The variety of rocks, minerals, fossils, soils, landforms and natural processes”. On this basis, geologically important sites should be preserved and not impacted or sterilised by development. Typically, geologically important sites are designated as Sites of Special Scientific Interest (SSSIs). The Basingstoke and Deane Policies Map which supports the adopted Local Plan shows that no SSSIs designated for geological purposes are present in the vicinity of the site.

Policy EM6 – Water Quality

- 10.30 BDBC outline that they “will work in partnership to protect, manage and improve the water quality of the borough’s water environment, particularly the quality of water bodies which are currently failing to meet the Water Framework Directive (WFD). In the interests of positively managing the water quality of the borough, new development should incorporate sustainable drainage systems.”
- 10.31 Water quality should be considered in terms of surface water and groundwater. The Council note that, “Potentially contaminating development proposals on Principal aquifers or within Source Protection Zones will need to demonstrate that groundwater and surface water is adequately protected to prevent a deterioration of water quality and pollution of the water source.”

Policy EM12 – Pollution

- 10.32 The NPPF defines pollution as “anything that affects the quality of land, air, water or soil, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light.” It is noted that noise and air quality are considered in Chapters 13 and 14 of this Scoping Report, and as such, these will not be considered further in this chapter.
- 10.33 BDBC state that “Development will be permitted provided that it does not result in pollution which is detrimental to quality of life, or poses unacceptable risks to health or the natural environment. The policy goes on to state that “Development that would result in unavoidable pollution will only be permitted where measures to adequately mitigate these polluting effects can be implemented.”

Minerals Safeguarding Area (MSA)

- 10.34 BDBC is required (as set out in the NPPF) to identify the MSAs in the Local Plan (as shown on the Policies Maps), however, the specific policies to which the MSAs relate are set out in the Hampshire Minerals and Waste Plan – October 2013, which forms part of the council’s Development Plan. MSAs include viable resources of aggregates and are defined so that proven resources of aggregates are not sterilised by non-mineral development. The site does not fall within the vicinity of a defined MSA and therefore minerals safeguarding is not considered to require further assessment.

Approach

- 10.35 A Phase 1 Desk Study, and an Agricultural Land Classification assessment will be carried out on the Site allowing assessment of likely significant environmental effects from the proposed development in relation to Ground Conditions and Soils, including geo-environmental, hydrogeological and geotechnical aspects.
- 10.36 Baseline data collection activities and the impact assessment will, in consideration of Local and National Planning Policy discussed above, be undertaken with reference to the current best practice in accordance with, but not limited to, the following:
- BS 5930: 2015 Code of Practice for Site Investigations;
 - BS 10175: 2011 Investigation of Contaminated Sites – Code of Practice;
 - AGS Good Practice Guidelines for Site Investigations, 2006; and
 - Land Contamination Risk Management, Environment Agency, 2020.

Baseline Data Collection

- 10.37 The Site and surrounding area will be subject to Phase 1 Desk Study assessment including:
- Site walkover;
 - Review of topographical, geological and hydrogeological maps;
 - Commission and review of site-specific UXO Desk Study;
 - Commission and review of a site-specific Chalk Cavities Database search;
 - Commission and review of historical site maps, to identify former potentially contaminative uses of the site and immediately surrounding area;
 - Commission and review of a site-specific environmental database search to identify former flooding events, local landfills, pollution incidents etc. which may have impacted the site; and
 - Production of a Phase 1 Desk Study Report.
 - The site will be subject to an Agricultural Land Classification (ALC) assessment to provide ALC grading of the area in its existing state.

Impact Assessment

- 10.38 The likely effects of the proposed development on ground conditions; including environmental, geotechnical and hydrogeological considerations will be identified and assessed in general accordance with the approach and methodology set out in Chapter 4 of this report.
- 10.39 Assessment of receptors (soils, groundwater bodies, human health, eco system, building or infrastructure) will be based on their vulnerability to potential impacts from the proposed development during the construction and operational phases.
- 10.40 Assessment of impact magnitude will take into account the likely effects of the proposed development in relation to ground conditions.

- 10.41 Source-Pathway-Receptor (SPR) Linkages will be assessed in general accordance with the guidance in CIRIA Report C552 with significance determined by level of risk associated with each linkage eventuality occurring. SPR Linkage risk will be assessed by likelihood of eventuality and consequence of eventuality of SPR being completed and receptor being impacted.
- 10.42 Risk classifications as outlined within CIRIA 552, determined by level of consequence, are presented below in Table 10.1.

Table 10.1: Definition of risk class in relation to consequence.

Risk Class	Definition	Example
Minor	Potential for harm, although not significant, which may result in financial loss to resolve. Ground conditions where the use of PPE would readily mitigate risks posed to human health.	Low level contamination hotspots within made ground / demolition fill materials. Stunted or impeded plant growth due to poor soil quality.
Mild	Pollution of non-sensitive water resources or damage to crops, plant growth, below ground utilities or structures.	Perched groundwater contamination overlying low permeability aquifer or aggressive sulphate concentrations in soils.
Medium	Sources of contamination identified on site that have the potential to cause both long- and short-term health effects on site residents / users. Alternatively (or in conjunction with) sources of contamination that may have the potential to impact surface or groundwater quality or impede vegetation growth.	Elevated concentrations of hydrocarbon contamination reported within topsoil tested within residential gardens as a result of inadequate or incomplete previous remediation works. Movement of contaminated groundwater leaking from below ground storage tanks into an adjacent surface water course.
Severe	Sources of contamination that pose a credible and acute risk to human health with potential for "Significant Harm" occurring as defined by the Part IIA of the Environmental Protection Act (1990). Alternatively (or in conjunction with risks posed to human health) sources of contamination that may pose an immediate risk to controlled water resources or ecosystems.	Grossly contaminated soils are encountered or disturbed during excavation works, causing an immediate release of toxic soil vapour and leachate / contaminated groundwater flow across adjacent land.

- 10.43 Likelihood classifications, or probability of SPR eventuality, are presented below in Table 10.2.

Table 10.2: Probability Assessment

Classification	Definition
High likelihood	A credible pollutant linkage has been identified and it is very likely contaminants will impact identified receptors in both the short or long term (or is already actively doing so). The potential for harm to be caused is highly

Classification	Definition
	likely.
Likely	Pollutant linkages between the sources of contamination and identified receptors are present and it is considered likely they will become active given the right set of circumstances (e.g. contaminants currently buried below ground that are likely to be exposed or disturbed during construction / excavation works). The circumstances are such that an event is not inevitable but is possible in the short term and likely over the longer term.
Low likelihood	A theoretical pollutant linkage has been identified that has the potential to expose receptors to contaminants under the correct circumstances. However, the likelihood of such an event occurring is not a certainty, even in the long term.
Unlikely	There is no / minimal likelihood a pollutant linkage would occur, even over the long term.

10.44 Determination of risk rating, a factor of consequence and probability of SPR eventuality is presented below in Table 10.3.

Table 10.3: Consequence versus probability assessment

		Consequence			
		Severe	Medium	Mild	Minor
Probability	Highly Likely	Very High Risk	High Risk	Moderate Risk	Low Risk
	Likely	High Risk	Moderate Risk	Low Risk	Very Low Risk
	Low Likelihood	Moderate Risk	Low Risk	Low Risk	Very Low Risk
	Unlikely	Low Risk	Very Low Risk	Very Low Risk	Very Low Risk
	No Linkage	No Risk			

10.45 Risk rating definition and description are outlined below in Table 10.4.

Table 10.4: Description of risks posed

Risk Definition	Description
Very High	Active pollutant linkages between a significant source of contamination and identified receptors have been established and there is a high likelihood of severe harm occurring to

Risk Definition	Description
	said receptors unless immediate investigation and remediation action is taken.
High Risk	Receptors are likely to be harmed by an identified hazard in the short and long term. Urgent investigation of the contaminant issue will be required, and remedial treatment is likely.
Moderate Risk	The possibility of harm has been identified toward receptors under the right circumstances. The severity of harm may be relatively mild where probability is likely, or alternatively the severity of harm may be higher if probability is less likely. Further investigation of identified issues would be prudent and there is possible need for remedial measures in the long term.
Low Risk	It is possible designated receptors could be harmed by an identified hazard, but it is likely (if realised) any harm would be (at worst) mild.
Very Low Risk	No significant pollutant linkages have been identified and the possibility of harm occurring to receptors is low.
No Risk	No plausible pollutant linkage.

- 10.46 Risks identified as very high and high will be considered as of major significance. Risks identified as moderate will be considered as of moderate significance. Risks identified as low to very low will be considered of minor significance. Where existing risks are identified, but will be reduced or removed by the proposed development, by the introduction of mitigation measures or through remediation, these will be considered as beneficial in significance.
- 10.47 Where existing risks are identified and will not be reduced or removed and have the potential to be mobilised, concentrated or spread with negative impact to existing ground conditions on site during the construction phase, these will be considered as adverse in significance.
- 10.48 Where potential risk to ground conditions is identified as a result of the construction and / or operational phase of the proposed development and no mitigating measures can be implemented, this will be considered as adverse in significance.
- 10.49 Development at the site will result in loss of agricultural land, currently understood to be of moderate to good value. An up to date agricultural land classification report will be produced to provide more detailed assessment as a baseline assessment in the ES.
- 10.50 At present, a safe stand-off corridor along the route of the pipeline is required to ensure it is not compromised or damaged by strike or vibration during ground investigation works. This corridor will not be investigated until such time as the pipeline is removed for re-routing. Excavations cannot be undertaken closer than 20m to the pipeline. During removal of the pipeline it is recommended that a watching brief is undertaken, including sampling as necessary to validate the soils beneath the pipeline, provide baseline data and subsequent impact assessment in this area of the site.

- 10.51 Mitigation measures, with regards to Human Health and Controlled Waters, may be required during the development of the Site, dependant on findings of Phase 1 and Phase 2 works. Required mitigation will be outlined in a Remediation Method Statement report and also included within the ES.

Cumulative Effects

- 10.52 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites identified through the scoping process.

11. Drainage and Flood Risk

- 11.1 The purpose of this assessment will be to assess the likely effects on the wider catchment of drainage of the site as a result of the proposed development. It will also provide an assessment of flood risk and a Flood Risk Assessment (FRA) will form an appendix to the ES. The FRA and ES Chapter will be completed by Vectos.

Site Context

- 11.2 The site lies wholly within Flood Zone 1 (land having less than a 1 in 1,000 annual probability of river or sea flooding) and is currently greenfield land.
- 11.3 The baseline conditions for this development are as follows:
- The nearest waterbody is a partially culverted surface water drainage ditch that is located in the grass verge that bisects the western site boundary and the A30. Runoff entering this ditch from the existing site will do so at greenfield runoff rates;
 - A review of the Environment Agency online flood maps for planning confirm the site lies entirely within Flood Zone 1 (less than 1 in 1000 annual probability of flooding);
 - The site is not at risk of flooding from reservoirs;
 - The Environment Agency online flood maps confirm; and
 - The Environment Agency online flood maps also confirm there are isolated areas of medium/high surface water flood risk along the north west boundary of the site. Based on the existing drainage characteristics of the site this flooding is likely to be caused by an accumulation of highway runoff from the A30 and greenfield runoff from the site, converging along the north western boundary of the site. The existing surface water drainage ditch is also likely to be related to these areas of flood risk.

Planning Policy Context

National Planning Policy and Legislation

- 11.4 NPPF Section 10: Meeting the challenge of climate change, flooding and coastal change states that Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. One of the key aims of the NPPF is to ensure that a flood risk is taken into account at all stages of the planning process to avoid inappropriate development in areas at risk of flooding and directing development away from areas of risk of flooding. It advises that where development is necessary in areas of high risk, it should be safe, and that flood resilience should be incorporated into the design. It also advises that new development should not increase flood risk elsewhere and new developments should aid in mitigating flood risk to the wider area.

- 11.5 Other national guidance and legislation of relevance to the site is provided in the NPPG and Water Framework Directive.

Local Planning Policy

- 11.6 Hampshire County Council acting as Lead Local Flood Authority (LLFA) provides advice and guidance on what is required of developers, designers and planners to support planning applications for new developments. The following points (although not exhaustive) provide some of the pertinent guidance that will be used in the development of this scheme:
- Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably possible: 1. Infiltration, 2. To a surface water body, 3. To a surface water sewer, highway drain or other drainage system, 4. To a combined sewer.
 - A number of key considerations when proposing surface water drainage solutions for a development, including layout of proposals, density, topography, ground conditions and potential of multiple benefits.
- 11.7 In 2016 BDBC adopted the Local Plan 2011-2029. This document forms part of the statutory development plan for the borough and provides advice and guidance on both residential and commercial/distribution developments.

Approach

- 11.8 Understanding the current baseline conditions of the site and surrounding catchment area, as highlighted above, will be key in providing an assessment (of flood risk) and the formulation of an appropriate drainage strategy.
- 11.9 In terms of baseline studies, the main sources of information to be used in the assessment will include:
- OS Mapping;
 - Environment Agency online flood maps for planning;
 - The Basingstoke and Deane Borough Council Strategic Flood Risk Assessment (SFRA); and
 - The Hampshire County Council document: Surface Water and Sustainable Drainage Guidance for Developers, Designers and Planners.
- 11.10 Data will be sought from the following organisations:
- Hampshire County Council;
 - Thames Water;
 - Southern Water; and
 - The Environment Agency.

- 11.11 A Flood Risk Assessment (FRA) will be prepared to support the application. This will include an assessment of the risk to the development from all relevant flooding sources and would also include a drainage strategy. The FRA would also assess the use of sustainable drainage systems (SuDS) to be incorporated into the proposed development in order to attenuate surface water on site, in order to ensure there is no increase in runoff rates as a result of the development. The proposed runoff rate would be agreed via consultation with Hampshire County Council.
- 11.12 The surface water receptors and receptors potentially affected by flooding will be identified, together with the likely impacts on them.
- 11.13 The potential impact that the development will have on drainage and flood risk will be dealt with predominantly by the proposed drainage design that will be required to convey surface water runoff and foul water from the development.
- 11.14 The FRA will be used to inform the ES chapter and to identify the potential effect that the development could have on flood risk within the site and in the wider area. Mitigation measures will be recommended where appropriate and the significance of the effect on flood risk and drainage post mitigation will then be stated.

Cumulative Effects

- 11.15 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the site.

12. Transport and Access

- 12.1 This section of the ES will assess the potential impacts of the proposed development on the strategic road network in the surrounding area to the site. The assessment of transport and access will be undertaken by Vectos.
- 12.2 The transport and access ES chapter utilise relevant information and assessment within the detailed Transport Assessment (TA), which will form an Appendix to the ES.

Site Context

- 12.3 The site is located to the north of the M3 at junction 7, adjacent to the A30 near Basingstoke.
- 12.4 The northern part of the site is bound to the north by the A30 with agricultural and farmland beyond. To the south the site is adjacent to the M3 motorway with the Parish and Village of Dummer located just south of the M3 approximately 500m from the site. To the west of the site is also predominantly agricultural land with the Civil Parish and Village of North Waltham approximately 1.5 km away. To the east of the site is the Winchester Road section of the A30 that connects to Junction 7 of the M3 motorway as well as Basingstoke Golf Club that currently has development proposals. The junction at this location is traffic signal controlled, where the A30 provides a direct link to Basingstoke located approximately 7km north east of the site. The southern part of the site is bound by the M3 to the north, Up Street to the west and agricultural land to the south and west.
- 12.5 Given the semi-rural location of the site on the outskirts of Basingstoke, the pedestrian, cycle facilities, public transport and access to local facilities and services are limited. However, the development will seek to enhance this.

Planning Policy Context

National Planning Policy

- 12.6 The presumption in favour of sustainable development is a central theme running through the NPPF and transport planning policies are seen as a key element of delivering sustainable development as well as contributing to wider sustainability and health objectives. To achieve these objectives paragraph 30 states that when making decisions, local authorities should:

"Support a pattern of development which, where reasonable to do so, facilitate the use of sustainable modes of transport."

- 12.7 In addition, paragraph 35 states that opportunities for the use of sustainable transport modes for the movement of goods or people should be protected and exploited. On this basis, future developments should be located and designed where practical to:

- Accommodate the efficient delivery of goods and supplies.

- Give priority to pedestrian and cycle movements and have access to high quality public transport facilities.
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones.
- Consider the needs of people with disabilities by all modes of transport.
- Detail any nearby settlements and the associated services needed to take into consideration.
- Give details in relation to car and cycle parking standards accordingly. In particular, reflecting national policy when setting the car parking levels, the developer will take account of:
 - The accessibility of the development;
 - The type, mix and use of the development;
 - The availability of and opportunities for public transport;
 - Local car ownership levels; and
 - An overall need to reduce the use of high emissions vehicles.

Local Planning Policy

12.8 The following documents are relevant and will be considered in detail:

- Hampshire County Council Local Transport Plan (2011-2031);
- Adopted Basingstoke and Deane Local Plan (2011 - 2029);
- Basingstoke and Deane Borough Council Parking Supplementary Planning Document (2018);
- Basingstoke Transport Strategy (November 2018);
- Basingstoke and Deane Cycling Strategy (March 2016); and
- Basingstoke and Deane Cycle Feasibility Study (February 2017).

12.9 Hampshire County Council's Local Transport Plan (LTP) details the primary long-term vision on how transport within Hampshire will be developed over the 20 year period up to 2031. There are three main transport priorities identified within the LTP, which sets the overarching aim of the LTP. These can be broken down into supporting economic growth, providing a resilient road network and manage traffic to maximise efficiency of existing networks. This is supported by the Basingstoke Transport Strategy, which focuses on transport within the town. It has set the transport outcomes it hopes to achieve, including increased use of public transport, increase in walking and cycling, minimising growth in car travel (taking account of BDBC's Parking Standards SPG), increasing accessibility to local services and to maintain journey times and reliability.

12.10 Basingstoke and Deane's Local Plan – Policy SD1 notes that there will be a presumption in favour of sustainable development, working proactively with applications can be approved wherever possible, securing developments that can improve the economic, social, and environmental conditions in the area.

12.11 Policy CN9 details Basingstoke's commitment to promote a safe, efficient and convenient transport system. It notes that development proposals will be permitted that:

- Integrate into existing movement networks;
- Provide safe, suitable and convenient access for all potential users;
- Provide an on-site movement layout compatible for all potential users with appropriate parking and servicing provision; and
- Do not result in inappropriate traffic generation or compromise highway safety.

12.12 Key to sustainable development within Hampshire and BDBC is the Basingstoke Cycling Strategy and the Feasibility Study that accompanies it. The key objectives of the strategy is to encourage more people to walk and cycle for local, everyday journeys, promoting the personal health and well-being benefits, and to encourage more sustainable travel within the Borough. Further to this, the strategy also notes the key role cycling plays in multi-modal journeys, wanting to encourage greater use of all non-car modes of transport, and the need for integration between travel modes in order to achieve this.

Approach

Baseline Data Collection

12.13 An accessibility audit of the existing transport networks surrounding the site will be undertaken to understand how the site connects with non-motorised forms of transport. This will be reflected within the TA and ES.

12.14 To develop a good understanding of the baseline traffic conditions for the road network in the vicinity of the site, the following data has been obtained:

- Adopted highway data;
- Baseline classified manual traffic count (MCC) survey data for a typical weekday; and
- Baseline Automatic Traffic Count (ATC) survey data (1-week period).

12.15 In addition to the above data, Census data, Ordinance Survey data and topographical survey data will also be used as part of assessing the development proposal.

12.16 MCC data was obtained on 26th November 2019 in the following locations:

- M3 junction 7;
- A30 / A30 signal controlled junction; and
- A30 / Trenchyards Lane.

12.17 An ATC survey was undertaken for a 7-day period, starting on the 26th November 2019, at various locations on the A30 westbound.

Trip Generation

12.18 To determine the likely effects the development will have on the transport network, various aspects of the development will be considered, such as trip generation.

12.19 The vehicular trip generation will be determined using TRICS trip rates. TRICS is a database of trip generation from a wide variety of land uses (retail, employment, leisure etc.) across the UK. Traffic surveys are carried out

to measure how many people travel to a site, by what mode and at what time of day. The purpose of the database is to provide an estimate of likely trip generation to/from a land use, by comparing it with trip generation from existing comparative sites of the same land use. When selecting the most appropriate vehicular trip rates, the most appropriate parameters will be used.

Scope & Methodology of Assessment

- 12.20 The site will be directly accessed from the A30 via a new left in access for HGVs and a new all movements roundabout junction on the A30 further west. The local and wider highway network will form the network to be assessed within the EIA.
- 12.21 The transport effects during the construction and operational phases will be analysed according to the trip generation and the methodology set out above.
- 12.22 The impact of the construction phase will also be considered in greater detail as part of a construction management plan and would be subject to the necessary risk assessments.
- 12.23 The following scenarios will be considered within the ES in relation to the operational phase of the proposed development:
- Opening Year 2024 without the proposed development (inclusive of all committed development);
 - Opening Year 2024 with full occupation of the proposed development;
 - Design Year 2030 without the proposed development (inclusive of committed development); and
 - Design year 2030 with full occupation of the proposed development.
- 12.24 In line with best practice, the assessment of transport related environmental effects will be undertaken based on the following relevant guidance:
- Guidelines on the Environmental Assessment of Road Traffic (GEART) published in 1990 by the Institute of Environmental Assessment (IEA, now the Institute of Environmental Management and Assessment (IEMA)); and
- 12.25 GEART states that when considering the impact of development traffic, it is only generally necessary to consider 'highway links where traffic flows will increase by more than 30%'. It further states that 'as a starting point, a 30% change in traffic flow represents a reasonable threshold for including a highway link within the assessment'.
- 12.26 The environmental effects within GEART that will be considered as part of the ES are summarised below:
- Severance;
 - Driver Delay;
 - Pedestrian Delay;
 - Pedestrian and Cyclist Amenity;
 - Fear and Intimidation; and
 - Accidents and Safety.

- 12.27 The significance of the transport and access effects, adverse or beneficial, will be determined based on their magnitude and the sensitivity of the receptor during both the construction and operational phases of the development.
- 12.28 A Transport Assessment and Interim Travel Plan will be produced to support the planning application and will be submitted as part of the ES appendices.

Preliminary Mitigation & Enhancement Measures

- 12.29 A detailed Mobility Strategy will be provided within the Transport Assessment, with the overarching strategy to minimise the effect of new car trips from the proposed development through a range of measures and innovative transport services.
- 12.30 The Transport Assessment will be supported by an Interim Travel Plan which will detail the opportunities for sustainable and active travel, as well as contain initiatives to encourage travel by these modes. The Travel Plan will also outline the health, social and economic benefits of walking and cycling.
- 12.31 It is proposed to engage with a local bus operator or Arriva Click, in order to develop an extended service to conveniently serve the development site.

Cumulative Effects

- 12.32 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the site identified through the scoping process.

13. Air Quality and Dust

- 13.1 The planning process is a key means of improving air quality, particularly in the long term, through the strategic location and design of new developments. Any air quality consideration that relates to land use and its development can be a material planning consideration in the determination of planning applications, dependent upon the details of the proposed development. The Air Quality and Dust assessment will be undertaken by Vanguardia.

Site Context

Local Air Quality Management

- 13.2 The Site is located within the jurisdiction of BDBC. BDBC have not declared any Air Quality Management Areas (AQMAs) within its jurisdiction. Within Basingstoke nitrogen dioxide (NO₂) is monitored through a network of diffusion tubes. The closest monitoring locations to the site are situated along the A30 Winchester Road. Table 13.1 provides details of these monitoring locations.

Table 13.1: Local Authority Air Quality Monitoring Data (µg/m³)

Site ID	Site Name	Type	2014	2015	2016	2017	2018
P Site 52	Winchester Road. A30	UB	-	-	-	-	20.8
Site 53	Winchester Road. A30	R	-	-	-	-	26.5

- 13.3 A review of the monitoring results indicates that there were no exceedances of nitrogen dioxide (NO₂) annual mean objective (40 µg/m³) in 2018.

Defra Background Mapping

- 13.4 The Defra website includes estimated background air pollution data for NO_x, NO₂, PM₁₀ and PM_{2.5} for each 1km by 1km OS grid square across the UK. Background pollutant concentrations are modelled from the base year of 2017 and based on ambient monitoring, meteorological data from 2017 and then projected for future years. The background pollutant concentrations for site for 2020 presented in Table 13.2 have been taken from the closest 1km x 1km grid from the site. All background concentrations are well within the air quality objectives as presented in the Air Quality Standards (AQS).

Table 13.2: Background Pollutant Concentrations

Grid Reference	NO ₂	PM ₁₀	PM _{2.5}
P 408500:146500	15.6	16.1	9.7

Ecological Sites

- 13.5 A review of the Defra Magic Map website indicates no statutory sites are located within a close proximity of the site. However, there are a number of non-statutory sites. These include the Peak Copse SINC, located

approximately 70m to the west of the site; Ganderdown Copse SINC, located approximately 70m to the north of the site, and South Wood SINC located approximately 340m to the north of the site.

- 13.6 A consideration of the potential impacts upon these non-statutory sites during the construction and operational phases of the proposed development will be made within the main assessment.

Planning Policy Context

National Planning Policy and Legislation

- 13.7 NPPF states at paragraph 181 that *"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement"*.

- 13.8 Other guidance particularly relevant to air quality assessment is set out in:

- Department for Environment, Food and Rural Affairs (DEFRA) (2007) 'The Air Quality Strategy for England, Scotland, Wales and Northern Ireland';
- Department for Environment, Food and Rural Affairs (DEFRA) (Feb 2009) 'Part IV The Environment Act 1995';
- Department for Environment, Food and Rural Affairs (DEFRA) (April 2016) Local Air Quality Management Review and Assessment Technical Guidance LAQM.TG(16);
- Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) (January 2017) 'Guidance on Land-Use Planning and Development Control: Planning for Air Quality (v.1.2)'; and
- Institute for Air Quality Management (IAQM) (2014) 'Guidance on the Assessment of Dust from Demolition and Construction (v1.1).

Local Planning Policy

- 13.9 The Basingstoke and Deane Local Plan (2011 to 2029) was adopted in May 2016 and provides the vision for the jurisdiction and policy mechanisms to aid in determining planning applications.

- Policy EM12 – Pollution states:

Development will be permitted provided that it does not result in pollution which is detrimental to quality of life or poses unacceptable risks to health or the natural environment.

Development that would result in unavoidable pollution will only be permitted where measures to adequately mitigate these polluting effects can be implemented.

Development which is sensitive to pollution will only be permitted where:

- a) *There would be no detrimental impact on quality of life as a result of existing, historic, or nearby land uses and activities; and*

- b) *It would not lead to unacceptable risks to human health or the natural environment, as a result of existing, historic, or nearby land uses and activities; or*
- c) *Adequate remedial or mitigation measures are proposed and can be implemented”.*

Approach

Introduction

- 13.10 The scope of the assessment will be determined in the following way:
- A consultation will be undertaken with the environmental health officer BDBC to agree the scope assessment and the methodologies to be applied; and
 - A desktop study will be undertaken to confirm the location of the nearby existing receptors that may be sensitive to changes in air quality
- 13.11 The scope of the assessment will include consideration of the likely significant effects on local air quality resulting from:
- Dust and particulate matter (PM₁₀) generated by on-site activities during the construction phase;
 - Increases in pollutant concentrations as a result of exhaust emissions arising from construction traffic and plant; and
 - Increases in pollutant concentrations as a result of exhaust emissions arising from traffic generated by the proposed development once occupied.

Construction Phase

- 13.12 Dust is the generic term used in the British Standard document BS:6069, (Part Two) to describe particulate matter in the size range 1–75µm (micrometres) in diameter. Dust nuisance is the result of the perception of the soiling of surfaces by excessive rates of dust deposition.
- 13.13 An assessment of the likely significant effects on local air quality due to the generation and dispersion of dust and PM₁₀ during the construction phase will be undertaken using the relevant assessment methodology published by the IAQM (2014) the available information for this phase of the proposed development will be provided by the Project Team; and based upon professional judgement.
- 13.14 The IAQM methodology assesses the risk of potential dust and PM₁₀ impacts from the following four sources:
- Demolition;
 - Earthworks;
 - Construction; and
 - Track-out.
- 13.15 The assessment will consider the nature and scale of the activities undertaken for each of the above sources and the sensitivity of the area to an increase in dust and PM₁₀ levels, resulting in a risk rating. Risks will be

described in terms of there being a low, medium or high risk of dust impacts. Once the level of risk has been ascertained, then site- specific mitigation proportionate to the level of risk will be identified, and the significance of residual effects determined.

13.16 Emissions from stationary plant and construction vehicles are also likely to affect local air quality. A qualitative assessment of the likely effects on local air quality will be undertaken using professional judgement and by considering the following:

- The duration of the construction phase and the type of construction activities being undertaken;
- The distance from the source causing an impact; and
- The number and type of construction traffic and plant likely to be generated by the construction phase.

Operational Phase

13.17 Of the nine pollutants included in the AQS, the focus will be on changes in concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ & PM_{2.5}) in the assessment as road traffic is a major source of these pollutants.

13.18 The predictions of the likely effects associated with emissions arising from the proposed development will be undertaken using the dispersion model ADMS-Roads (version 4.1.1.0). The model uses detailed information regarding traffic flows on the local road network, surface roughness, and local meteorological conditions to predict pollutant concentrations at specific receptor locations, as determined by the user.

13.19 Meteorological data, such as wind speed and direction, is used by the model to determine pollutant transportation and levels of dilution by the wind. The DEFRA guidance, *Local Air Quality Management Technical Guidance* LAQM.TG(16), recommends meteorological stations within 30km of an assessment area as being suitable for detailed modelling. Based upon this and available meteorological stations, data will be obtained from the observation station at Odiham meteorological station, which is approximately 15km east of the site. This station is considered to provide representative data for the assessment.

Selection of Sensitive Receptors

13.20 Sensitive receptors / locations are places where a human receptor or ecological habitat may be exposed to pollutants from the proposed development during the construction and operational phases. These include locations which are sensitive to an increase in dust deposition and particulate matter (PM₁₀) exposure as a result of on-site construction activities, locations sensitive to exposure to gaseous pollutants emitted from the exhausts of construction and operational traffic associated with the proposed development.

Dust Impacts Receptors for Construction Phase

13.21 The IAQM (2014) assessment guidance sets out the following criteria for recommended requirements for the undertaking of a qualitative assessment of dust and emissions associated with the construction phase:

- A 'human receptor' within:
 - 350m of the boundary of the site; or

- 50m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance(s).
- An 'ecological receptor' within:
 - 50m of the boundary of the site; or
 - 50m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance(s).

13.22 It is considered that within these distances that the impacts of dust soiling and increased dust in the ambient air will have the greatest impact on local air quality at sensitive receptors.

13.23 A number of 'high' sensitive residential receptors are located to the south west of the site and there is one private dwelling in the north west surrounded by the site. There are commercial 'medium' sensitive receptors to the north and east of the site. A number of non-statutory ecological sites (as set out in paragraph 13.5), are located within a close proximity of the site, which will be considered within the dust assessment.

Traffic Impact Receptors for Construction & Operational Phase

13.24 In terms of locations that are sensitive to pollutants emitted from engine exhausts, these will include places where members of the public are likely to be regularly present over the period of time prescribed in the AQS. For example, on a footpath where exposure will be transient (for the duration of passage along that path) comparison with a short-term standard (i.e. 15 minute mean or 1 hour mean) may be relevant. At a school or adjacent to a private dwelling, where exposure may be for longer periods, comparison with a long-term standard (such as 24 hour mean or annual mean) may be more appropriate. Box 1.1 of LAQM.TG16 provides examples of the locations where the air quality objectives should/should not apply.

13.25 To complete the assessment of operational phase impacts, a number of 'receptors', (representative of locations of relevant public exposure) will be identified and predicted pollution concentrations will be provided.

13.26 The EPUK & IAQM (2017) assessment guidance sets thresholds for undertaking of an impact assessment on sensitive human receptors due to the changes in daily vehicular traffic due to a proposed development when the daily traffic movements change by the following:

- A change of Light Good Vehicles (LGV) flow of:
 - More than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA; or
 - More than 500 AADT elsewhere.
- A change of Heavy Good Vehicles (HGVs) flow of:
 - More than 25 AADT within or adjacent to an AQMA; or
 - More than 100 AADT elsewhere.

13.27 It is considered that below these thresholds the likely effects would be 'negligible' and therefore not significant upon sensitive receptors.

- 13.28 The specific receptor locations will be defined once the proposed development traffic data has been screened against the above criteria.

Significance Criteria

Construction Phase

- 13.29 The IAQM (2014) guidance does not provide a method for assessing the significance of effects before mitigation and advises that pre-mitigation significance should not be determined. It is considered that with appropriate mitigation in place, the IAQM (2014) guidance is clear that the residual effect will normally be 'not significant.'
- 13.30 For the assessment of the impact of exhaust emissions from plant used on-site and construction vehicles accessing and leaving the Site on local concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ & PM_{2.5}), the significance of residual effects will be determined using professional judgement and the principles outlined in the EPUK & IAQM (2017) guidance, set out below.

Operational Phase

- 13.31 Currently there is no formal guidance on the absolute magnitude and significance criteria for the assessment of air quality impacts upon ecological and human receptors. However, the approach provided in the EPUK & IAQM (2017) guidance will be used within this assessment to assist in describing the air quality effects of additional traffic emissions from the operational phase of the proposed development.
- 13.32 The guidance recommends that the degree of an impact is described by expressing the magnitude of incremental change in pollution concentration as a proportion of the relevant assessment level and examining this change in the context of the new total concentration and its relationship with the assessment criterion, as summarised in Table 13.3.

Table 13.3: Impact Descriptors for Individual Receptors

Long term average Concentration at Receptor in Assessment Year	% Change in Concentration Relative to Air Quality Assessment Level (AQAL)			
	1	2-5	6-10	>10
75% or less of AQAL	Negligible	Negligible	Slight	Moderate
76-94% of AQAL	Negligible	Slight	Moderate	Moderate
95-102% of AQAL	Slight	Moderate	Moderate	Substantial
103-109% of AQAL	Moderate	Moderate	Substantial	Substantial
110% or more of AQAL	Moderate	Substantial	Substantial	Substantial

- 13.33 The EPUK & IAQM (2017) advice provides guidance on the severity of an impact as a descriptor. However, although the impacts might be considered 'Slight', 'Moderate' or 'Substantial' at one or more receptor location, the overall effects of a proposed development may not always be judged as being significant. The

overall significance should be based on professional judgement, taking into account several factors, including:

- The existing and future air quality in the absence of the proposed development;
- The extent of current and future population exposure to the impacts; and
- The influence and validity of any assumptions adopted when undertaking the prediction of impacts.

Temporal Scope

13.34 The assessment of likely air quality effects due to changes in traffic during construction of the proposed development will be undertaken for the following scenarios:

- Future 'without the scheme' traffic emissions for the peak year during the construction ; and
- Future 'with the scheme' traffic emissions for the peak year during the construction phase.

13.35 The assessment of air quality effects due to changes in traffic during the construction and operational phase of the proposed development will be undertaken for the following scenarios:

- Model Verification, in line with the latest monitoring data available from BDBC;
- Opening Year without the proposed development (inclusive of all committed development); and
- Opening Year with full occupation of the proposed development.

Limitations & Assumptions

13.36 In order to reduce the uncertainty associated with predicted concentrations, model verification will be carried out following guidance set out in LAQM.TG16.

13.37 Furthermore, it has been widely known for some time that NO_x and NO₂ levels are not reducing as quickly as anticipated and this was identified by Defra in 2011. This was reiterated in an IAQM Interim Position Statement (v1.1) released in July 2018, recognising that emissions from diesel vehicles have not declined as expected by Defra. It states:

"it has been known since around 2011 that [NO_x] emissions from diesel vehicles have not declined as expected despite the introduction of increasingly more stringent European Union (EU) emission limits"

13.38 Consequently, a 'Calculator Using Realistic Emissions for Diesels' (CURED) sensitivity test will be included to provide a reasonable worst-case set of emission factors for modelling. The CURED emission factors will take account of recent real-world emissions test data. This method will be used as part of the modelling process to reduce the model uncertainty for both vehicular and background air quality concentrations.

Cumulative Effects

- 13.39 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites as identified throughout the scoping process.

14. Noise and Vibration

- 14.1 The noise and vibration assessment will assess the impacts of the proposed development on existing local noise and vibration sensitive receptors only. The assessment will consider, as far as the available data permits, the potential impacts during both the construction and operational phases of the proposed development. Where necessary, mitigation measures will be recommended to meet national and local policy requirements. The Noise and Vibration assessment will be undertaken by Vanguardia.

Site Context

- 14.2 The site, located to the southwest of Basingstoke, currently comprises of farmland and Oakdown Farm.
- 14.3 The site and surrounding area are affected by road traffic noise from the M3 motorway to the southeast and the A30 to the northwest. Further information about the site is contained in the Approach section of this chapter.

Planning Policy Context

National Planning Policy

- 14.4 The NPPF states at paragraph 180 that:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site of the wider area to impacts that could arise from the development. In doing so they should;

- a) Mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
- b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and*
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”*

- 14.5 Other noise and vibration policies and standards which are particularly relevant to the site are:

- Noise Policy Statement for England (2010);
- Planning Practice Guidance for Noise (2014 as revised);
- British Standard 8233: 2014 Guidance on sound insulation and noise reduction for buildings;
- British Standard 4142: 2014 Method for rating and assessing industrial and commercial sound;
- British Standard 7445-1: 2003 Description and measurement of environmental noise. Guide to quantities and procedures;

- British Standard 5228: 2009+A1: 2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites Parts 1 and 2; and
- Calculation of Road Traffic Noise (1988).

Local Planning Policy

14.6 The Basingstoke and Deane Local Plan (2011 to 2029) was adopted in May 2016 and provides the vision for the policy mechanisms to aid in determining planning applications.

14.7 Policy EM12 – Pollution states:

‘Development will be permitted provided that it does not result in pollution¹ which is detrimental to quality of life², or poses unacceptable risks to health or the natural environment. Development that would result in unavoidable pollution will only be permitted where measures to adequately mitigate these polluting effects can be implemented. Development which is sensitive³ to pollution will only be permitted where:

- There would be no detrimental impact on quality of life as a result of existing, historic or nearby land uses and activities; and
- It would not lead to unacceptable risks to human health or the natural environment, as a result of existing, historic or nearby land uses and activities; or
- Adequate remedial or mitigation measures are proposed and can be implemented.

14.8 The Council also have a technical guidance note, ‘Environmental Protection – Guidance Note for Developers and Consultants’, to assist developers, agents and their consultants where noise is a consideration for any proposed development. This document provides guidance on when a noise assessment is required, the contents of the assessment, how to perform the assessment and the corresponding criteria for the development.

Approach

Baseline information

- 14.9 The primary sources of existing environmental noise in the area around the site are road traffic, particularly traveling along the M3 to the southeast and the A30 to the northwest.
- 14.10 To characterise and quantify the existing noise environment, a noise survey was undertaken between 17th and 25th of March 2020. The baseline noise survey was conducted following the principles set out in BS 7445-2:1991 and BS 4142:2014+A1:2019.
- 14.11 The monitoring locations have been selected to allow for the assessment of existing noise levels at the nearest noise-sensitive receptors to the proposed development. These will be used to determine the existing

¹ Pollution is defined as anything that affects the quality of land, air, water or soil, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light (NPPF Glossary).

² This refers to those impacts which cannot be measures by health impacts. An example of this would include a reduction in the quality of residential amenity due to external factors e.g. unacceptable increases in noise levels.

³ This includes housing, hospitals, schools, residential care and nursing homes, parks and recreational spaces.

baseline noise environment against which any future change can be assessed. The monitoring strategy was agreed with BDBC Senior Environmental Health Officer Mark Jones.

14.12 The monitoring locations are shown in red in Figure 14.1 below.

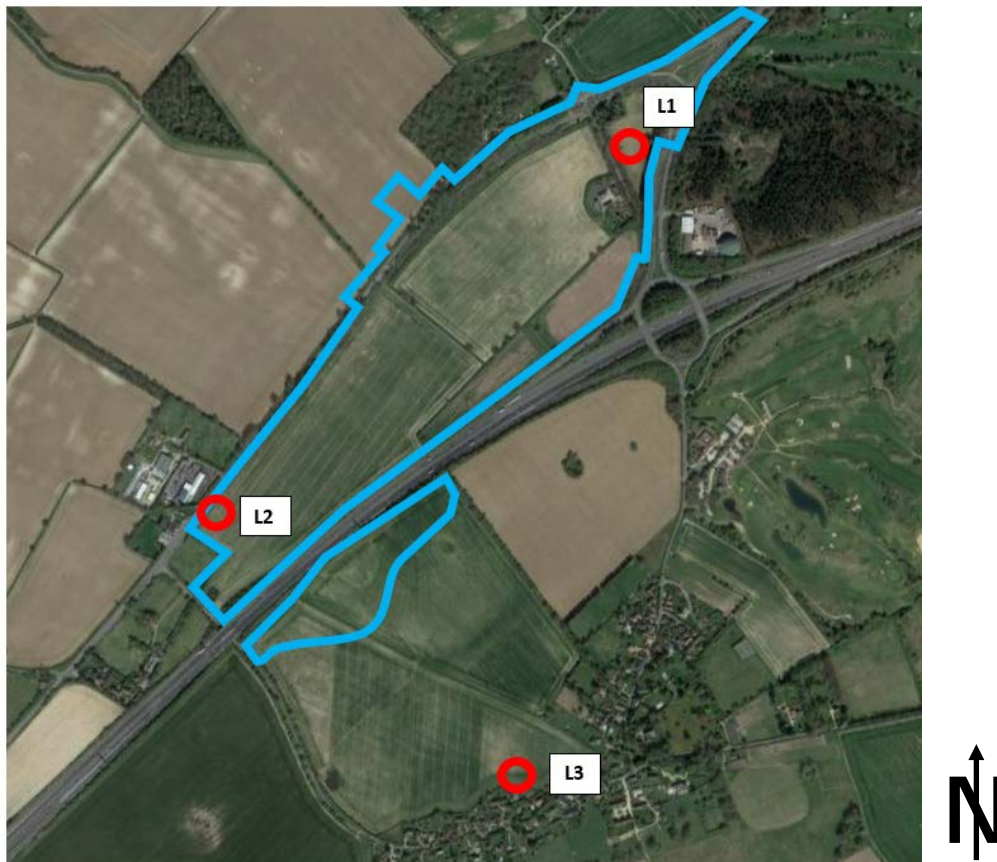


Figure 14.1 - Noise Monitoring Locations in red, site boundary shown in blue

14.13 Full details of the baseline noise survey methodology and results will be provided in the Noise and Vibration ES chapter.

14.14 It should be noted that during the survey, the Government brought in measures to encourage social distancing and restrict travel to control the spread of COVID-19. These measures reduced typical road, air and rail transport and might have affected other noise sources. This presents some challenges in obtaining representative baseline sound levels during this period. In line with the Institute of Acoustics and Association of Noise Consultants Guidance⁴ an approach will be developed with the relevant officers at the Council to establish the appropriate background sound levels to use for the assessment. This is likely to be based upon the first few days of the survey data and other relevant sources of information.

Receptors

14.15 It is generally recognised in the assessment of noise and vibration, that if the potential effects meet the local and national policy objectives at the nearest sensitive receptors, then the potential effects at receptors further from the site would also meet the policy requirements.

⁴ Institute of Acoustics and The Association of Noise Consultants, 23rd March 2020, Joint Guidance on the Impact of COVID-19 on the Practicality and Reliability of Baseline Level Surveying and the Provision of Sound & Noise Impact Assessments.

- 14.16 Relevant sensitive receptors will be selected to be representative of specific noise-sensitive premises, or area/groups of noise-sensitive premises. The number and geographical distribution of relevant sensitive receptors will vary based on the type of noise being assessed (e.g. construction, traffic or operational noise) and the type of receptor.

Significance Criteria

- 14.17 The magnitude of the impact and the significance of the effect on dwellings is dependent upon several factors, including:
- The noise level from the particular activity;
 - The existing sound environment;
 - The resulting change in noise level; and
 - The duration, timing and character of the different noise sources.
- 14.18 In accordance with the NPPF, NPSE and PPG(N) policy for noise, lowest observed adverse effect level (LOAEL) and significant observed adverse effect levels (SOAEL) will be proposed for each noise and vibration source under assessment.
- 14.19 For some sources this will be simply in terms of an absolute threshold, for others it will be a combination of the change in impact as a result of the proposed development and the absolute threshold.
- 14.20 For example, for construction noise the likely exposure threshold for potential effects is outlined in the table below.

Table 14.1: Threshold of potential effects of construction noise at receptors

Effect	Time Period	Threshold Value (LAeq,T)a
LOAEL	Day (07:00 – 23:00)	65
	Evening (19.00 – 23.00)	55
	Night (23.00 – 07.00)	45
SOAEL	Day (07:00 – 23:00)	75
	Evening (19.00 – 23.00)	65
	Night (23.00 – 07.00)	55
Notes: <i>These effects are expected to occur if the programme of works indicates that the relevant threshold values are likely to be exceeded over a period of at least one month.</i>		

- 14.21 If it is expected that the SOAEL will be exceeded, mitigation measures will be put in place to avoid this from occurring. If the impact is between LOAEL and SOAEL reasonable steps will be taken to mitigate and minimise the impact. If it is not possible to mitigate the impact above SOAEL this will be defined as a significant effect.
- 14.22 For daytime road traffic noise, a combination of change and absolute threshold will be used. The noise exposure thresholds for LOAEL and SOAEL at residential receptor locations used in this assessment are shown in Table 14.2.

Table 14.2: Thresholds for potential effects of road traffic noise at residential receptors

Effect	Time Period	Threshold Value (LAeq,T) ^{a,b}
LOAEL	Day (07:00-23:00)	50 dB
	Night (23:00-07:00)	40 dB
SOAEL	Day (07:00-23:00)	65 dB
	Night (23:00-07:00)	55 dB
^a This is the average daily value at a position one metre from a residential building façade containing a window, ignoring the effect of an acoustic reflection from that façade.		
^b For the night-time period of 23.00 – 07.00, the relevant noise indicator is L _{night} .		

- 14.23 The magnitude of the change in impact will be determined in accordance with Tables 14.3 and 14.4. It can be seen that the magnitude descriptor used depends on whether the resulting absolute level is between the LOAEL and the SOAEL or above the SOAEL.

Table 14.3 Descriptors of magnitude of daytime road traffic noise change

Magnitude of Impact	Resulting Absolute Level between LOAEL and SOAEL	Resulting Absolute Level above SOAEL
No Change	0	0
Negligible	Up to 2.9dB	Up to 0.9 dB
Minor	3 – 4.9 dB	1.0 – 2.9 dB
Moderate	5.0 – 9.9 dB	3.0 – 4.9 dB
Major	10.0 dB and over	5.0 dB and over

Table 14.4 Descriptors of magnitude of night-time road traffic noise change

Magnitude of Impact	Resulting Absolute Level between LOAEL and SOAEL	Resulting Absolute Level above SOAEL
No Change	0	0
Negligible	Up to 0.9dB	Up to 0.9 dB
Minor	1 – 2.9 dB	1.0 – 2.9 dB
Moderate	3.0 – 4.9 dB	3.0 – 4.9 dB
Major	5.0 dB and over	5.0 dB and over

- 14.24 Whether or not a significant adverse effect is expected to occur will be determined by comparing the predicted noise level (with the Proposed Development) with the LOAEL and SOAEL values shown in Table 14.2 and considering the increase in noise due to the proposed development. If the result for any property falls in the categories shown by the shaded boxes and with the text in bold in Tables 14.3 and 14.4, that indicates the property is regarded as likely to experience a significant adverse effect with respect to Government policy. A significant adverse effect could also be experienced if there were a cluster of properties in a single location, where impact magnitude was major and the predicted noise level with the proposed development was between the LOAEL and SOAEL.

Assessment Methodology

Construction Noise

- 14.25 A noise assessment of the noise impact from the expected construction works will be undertaken. At this stage, the likely methodologies that would be used would be based on similar sites elsewhere. Indicative noise levels at the various sensitive receptors would be predicted using the methods set out in British Standard BS 5228-1:2009+A1:2014⁵. The potential significance of these effects would be assessed using the thresholds set out in Table 14.1 above.
- 14.26 Where necessary, measures to avoid any significant adverse effects on health and quality of life and to mitigate and reduce to a minimum any adverse effects would be identified. This would include providing information on best practicable means (BPM).

Construction Vibration

- 14.27 Of all the potential construction activities, only piling would be likely to give rise to levels of vibration which may cause an adverse effect at nearby receptors. Generally, no material adverse effects are likely to occur when the distance between the piling and the nearest receptor is 100m. If piling is required within 100m of a receptor any potential vibration effects that might arise will be considered using the guidance from BS 5228-2:2009+A1:2014⁶.

Operational Road Traffic Noise

- 14.28 The noise levels associated with changes in road traffic arising as a result of the proposed development will be predicted using the methodology detailed in the Calculation of Road Traffic Noise (CRTN⁷). The predictions will be based on data supplied by the traffic consultant. It is understood that traffic data will be available for the year of opening and the design year (15 years after opening), both with and without the development as well as the baseline conditions. All scenarios will be assessed and the potential effects of the predicted change in noise levels will be assessed as described in Tables 14.2 – 14.4 above. If required potential mitigation measures would be identified to comply with national and local policy.

Operational Noise associated with the proposed land uses

- 14.29 At the moment, only the approximate sizes of the units, their generic footprint and the amount of activity expected at each unit is known. However, information concerning the exact locations of the units is not known. It is proposed, therefore, to generate indicative noise levels, for the daytime and night-time in terms of L_{Aeq} and L_{Amax} and to use those as the basis for the operational noise assessment. The calculations will draw on information from similar sites elsewhere, and take account of the various operational activities such as HGV manoeuvres and loading/unloading.
- 14.30 Where these indicative results indicate that mitigation measures may be required, these will be identified in order to comply with national and local policy.

⁵ BS 5228-1:2009+A1:2014 – Code of Practice for noise and vibration control on construction and open sites, Part 1: Noise

⁶ BS 5228-2:2009+A1:2014 – Code of Practice for noise and vibration control on construction and open sites, Part 2: Vibration

⁷ CRTN, Calculation of Road Traffic Noise, Department of Transport 1988

Operational Vibration

- 14.31 The operational use of the Proposed Development is not anticipated to introduce any new sources of vibration. It is expected that the HGVs would use the access roads to the proposed development, and it is not anticipated that there will be any significant vibration effects as the access roads would be newly surfaced and smooth.

Cumulative Effects

- 14.32 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any other committed developments within the vicinity of the sites as identified through the scoping process.

15. Socio-economics

- 15.1 The purpose of this chapter is to identify and assess the likely significant socio-economic effects of the proposed development. The assessment is concerned with the socioeconomic effects of the proposals relating specifically to job creation and contribution to the economy in respect of adopted policy. The socio-economic assessment will be carried out by Avison Young.

Site Context

- 15.2 The site is located in the Borough of Basingstoke & Deane, in the Ward of Oakley & North Waltham. It is located adjacent to the M3 junction 7 with distinct road boundaries on all sides, including A30 and M3. The villages of North Waltham and Dummer are located to the west and south of the site respectively. Basingstoke lies to the north-east of the site.
- 15.3 There are no publicly accessible spaces or Public Rights of Way within the site. There is an existing track along the western side of the site which leads to a subway under the M3 motorway. Further consideration of transport and access is provided within Section 12 - Transport and Access.
- 15.4 At present, there are limited employment opportunities at the site, restricted to the currently agricultural activities / operations on-site associated with Oakdown Farm.
- 15.5 The total resident population within the administrative area of Basingstoke and Deane Borough Council was estimated to be 175,700 in 2018, with 62.7% of the population aged 16 – 64. Across Hampshire, the total resident population was estimated to be 1,376,300 in 2018, with 60.1% of the population aged 16-64.
- 15.6 The Indices of Multiple Deprivation use a combination of information relating to income, employment, education, health, skills and training, barriers to housing and services and crime to create an overall score of deprivation for local authorities, with 1 being the lowest rank and 319 being the highest rank. Basingstoke and Deane was ranked 246 out of 319 district local authorities in the Indices of Multiple Deprivation 2019, indicating that the Borough was in the 50% least deprived areas in England. Hampshire was ranked 136 out of 151 upper-tier authorities in 2019, indicating that the County was in the 20% least deprived authorities in England.
- 15.7 In Basingstoke and Deane, the proportion of individuals classified as 'economically active' between October 2018 and October 2019 was 86.0%, which was higher than the average across Hampshire (82.8%), the South East (81.9%) and Great Britain (78.9%). The jobs density (i.e. the number of jobs divided by the individuals aged 16-64) within Basingstoke and Deane was 0.85 in 2018, lower than the average for Hampshire (0.86). This indicates less availability of employment opportunities compared with the regional (0.88) and national (0.86) averages.
- 15.8 In Basingstoke and Deane, in line with Hampshire as a whole, Services is the largest employment sector, with Wholesale and Retail Trade, Repair and Vehicles and Motorcycle the largest sub-sector of employment.

Planning Policy Context

National Planning Policy Framework (NPPF)

- 15.9 The NPPF sets out the Government's planning policies and how these are expected to be applied. Central to this framework is the presumption in favour of sustainable development; it is identified as "the golden thread running through both plan-making and decision-taking" (para 14). Three dimensions of sustainable development are defined by the NPPF in setting out the role of the planning system:
- Economic - the planning system is able to perform an economic role through supporting growth and innovation.
 - Social - the planning system can perform a social role by supporting strong, vibrant and healthy communities. This includes providing the supply of housing required to meet the needs of present and future generations and through accessible local services that reflect the communities' needs and support its health social and cultural well-being.
 - Environmental - the planning system is able to perform an environmental role by protecting and enhancing the natural, built and historic environment.
- 15.10 NPPF notes that these roles are mutually dependent and so should not be undertaken in isolation: "to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system" (para 8).
- 15.11 Of particular relevance to the assessment of socio-economic benefits of the proposed development are the 'positive improvements' identified by the NPPF which the planning system should seek to achieve (para. 9): Making it easier for jobs to be created in cities, towns and villages; and Improving the conditions in which people live, work, travel and take leisure.
- 15.12 Local planning authorities should "proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs" (para 17).
- 15.13 Economic sustainability is particularly relevant to the proposed development, this would support: Building a strong, competitive economy - the planning system is expected to encourage rather than impede sustainable growth and significant weight should be given to supporting economic growth (para 21).

Local Planning Policy

- 15.14 The key local planning policy documents of relevance are as follows.
- 15.15 Basingstoke and Deane Local Plan (2011 - 2029) May 2016:
- Policy SD1 - Presumption in Favour of Sustainable Development;
 - Policy EP1 - Economic Growth and Investment; and
 - Policy EP2 - Employment Land and Premises (B-Use Classes).

Approach

Scope and Methodology

- 15.16 Given the nature of the proposed development, the assessment will focus on the following socio-economic effects:
- Direct, indirect and induced job creation associated with the construction and operational stages.
 - Contribution of the proposed development to the economy during the operational stage.
- 15.17 The first stage of the assessment is to establish the baseline conditions through interrogation of published data or other sources for Basingstoke and Deane.
- 15.18 This will include a review of local and national policies and strategies related to economic development and regeneration, which will be used to identify priorities at the local and national level. The existing economic and social conditions will be established through reference to a number of published data sources such as Census data, the Office of National Statistics website, NOMIS and the Indices of Deprivation.
- 15.19 The baseline analysis will consider the following broad topics:
- Population.
 - Deprivation.
 - Employment.
 - Economy.
- 15.20 The second stage is to assess the socio-economic effects during both the construction and operational phases of the development. The impact assessment will utilise a range of different data sources including CLG guidance on labour ratios in the construction sector, HCA Employment Density Guide, and the HCA Additionality Guide.
- 15.21 During the construction stage, the key issues relate to the generation of construction-related employment at a local and regional level. This will consider both the direct employment effect and the indirect / induced effects associated with the supply chain and the impact of construction worker spend on local goods and services. These effects will be quantified and their significance evaluated.
- 15.22 In terms of operational effects, the key issues for assessment comprise the generation of direct, indirect and induced employment opportunities as a result of the proposed development. This will include quantification of both on-site jobs at the proposed development and wider off-site jobs.

Significance Criteria

- 15.23 There are no industry standard significance criteria for the assessment of socio-economic effects. The assessment will seek to quantify effects where possible. In circumstance where this is not possible, qualitative statements based on professional judgement will be made and justified.
- 15.24 The assessment will identify the sensitivity of each identified receptor. In a socio-economic assessment, receptors are not sensitive to changing environmental conditions in the same way as many environmental

receptors are. To address this, the assessment will draw on a combination of measurable indicators and a consideration of the importance of the receptor in policy terms to gauge the receptor's sensitivity. For example, the number of jobs in an area may increase as new developments are completed and occupied by businesses. This is considered alongside the weight attached to these issues in local policy. For example, the Local Plan may have identified that growth in the stock of employment land is a particular priority.

15.25 Table 15.1 below sets out the sensitivity criteria that will be used in the assessment.

Table 15. 1: Criteria for Sensitivity

Sensitivity	Description/Criteria
High	<p>Evidence of direct and significant socio-economic challenges e.g. areas with levels of considerable unemployment / levels of economic inactivity.</p> <p>Accorded a high priority in local, regional, or national economic regeneration policy.</p>
Medium	<p>Some evidence of socio-economic challenges e.g. areas with levels of unemployment or levels of economic inactivity just above the national / regional averages.</p> <p>Change relating to the receptor has medium priority in local, regional, and national economic and regeneration policy.</p>
Low	<p>Little evidence of socio-economic challenges e.g. area with levels of unemployment or levels of economic inactivity in line with national / regional averages.</p> <p>The receptor is accorded a low priority in local, regional, and national economic and regeneration policy.</p>
Negligible	<p>No socio-economic issues relating to the receptor e.g. area of very limited unemployment or levels of economic inactivity (well below the national / regional averages).</p> <p>The receptor is not considered a priority in local, regional, and national economic development and regeneration policy.</p>

15.26 The magnitude of impact upon each receptor will be determined by considering the predicted deviation from baseline conditions, both before and-if required-after mitigation. The criteria that will be used for the assessment of the magnitude of impact, which can be either positive (beneficial) or negative (adverse) is shown below in Table 15.2.

Table 15. 2: Criteria for Magnitude of Impact

Magnitude of Impact	Description/Criteria
Substantial	Proposed Development would cause a large change to existing socio-economic conditions in terms of absolute and/or percentage change.
Moderate	Proposed Development would cause a moderate change to existing socio-economic conditions in terms of absolute and/or percentage change.
Minor	Proposed Development would cause a minor change to existing socio-economic conditions in terms of absolute and/or percentage change.
Negligible	No discernible change in baseline socio-economic conditions.

- 15.27 The significance of effect will be identified by combining the sensitivity of the receptor with the magnitude of impact, see the matrix shown in Table 15.3. Any effect that is moderate or above will be considered to be 'significant' (including for both adverse and beneficial impacts).

Table 15.3: Significance of Effect Assessment Matrix

Magnitude of Impact	Sensitivity of Receptor				
		High	Medium	Low	Negligible
	Substantial	Major	Major	Moderate	Negligible
	Moderate	Major	Moderate	Minor	Negligible
	Minor	Moderate	Minor	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Cumulative Effects

- 15.28 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites as identified through the scoping process.

16. Climate Change

- 16.1 The Climate Change Act (2008) set up a framework for the UK to achieve its long-term goals of reducing greenhouse gases, and develop a climate change adaptation programme. The 2017 EIA Regulations seek to account for climate in greater detail than before, and require a description of 'the impact of the project on climate', and 'the vulnerability of the project to climate change' (Schedule 4, paragraph 5(f)).
- 16.2 In relation to the proposed development, the purpose of the climate change chapter is to consider both:
- Climate change mitigation (i.e. acknowledging that all greenhouse gas emissions (GHGs) play a part cumulatively in climate change, and identifying ways in which these can be reduced); and
 - Climate change resilience (i.e. the measures the proposed development will use to adapt to the manifestations of a changing climate).

Site Context

- 16.3 The development comprises of up to 271,000 sqm of commercial and industrial floor space, specifically B8 uses supported by ancillary B1 uses, at the Land at Oakdown Farm, Basingstoke.

Planning Policy Context

National Planning Policy

- 16.4 The NPPF 2019 (Ref. 16.4) describes ways in which the challenge of climate change can be met. Chapter 14 of the NPPF highlights that planning plays a key role in mitigation against climate change. It states that "*new development should be planned for in ways that:*
- a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and
 - b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.
- 16.5 To help increase the use and supply of renewable and low carbon energy and heat, plans should:
- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
 - b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
 - c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers".

Local Planning Policy

- 16.6 In terms of the Local Planning Policy, the assessment will be aligned to the following Local Plan:
- Basingstoke and Deane Local Plan (2011 – 2029) formally adopted in May 2016 and in particular the following sections and policies:
 - Section 6 - Environmental Management and Climate Change
 - Policy EM8 – Commercial Renewable/Low Carbon Energy Generation
 - Policy EM9 – Sustainable Water Use
 - Policy EM10 – Delivering High Quality Development

Approach

- 16.7 Paragraph 3.11 of the Adopted Local Plan states '*Climate change mitigation and adaption and minimising carbon emissions will be key for the future success of the borough;*' To address this statement we will prepare a high level climate change assessment of the development.
- 16.8 The assessment will firstly consider the resilience of the development to climate change during its estimated design life. This will be evaluated through a climate change risk assessment principally considering the project against Part L of the Building Regulations and the associated Greenhouse Gas (GHG) emissions of the development.
- 16.9 The overall purpose of this part of the assessment is to demonstrate that the proposed development will be designed in such a way that carbon reductions will exceed the 'typical' build case (i.e. Part L notional building). It can subsequently be demonstrated that the development will have a positive impact.
- 16.10 Alternatively, if it cannot be demonstrated to reduce the level of carbon compared to this baseline case then it will be deemed to have a negative effect and high level recommendations for further mitigation and adaptation measures will be presented to ensure that the development project is resilient to climate change over its design life.
- 16.11 Detailed energy modelling is usually undertaken on the basis of Standard Assessment Procedure (SAP) assessments for residential development and Simplified Building Energy Model (SBEM) assessments for non-domestic buildings. It is understood that SAP & SBEM assessments are unlikely to be available at this stage and Avison Young will therefore need to base the assessment on industry standard energy and emissions benchmarks.

Cumulative Effects

- 16.12 A separate cumulative effects chapter will be presented at Chapter 17 of the ES. This will assess the cumulative impacts of the proposed development in conjunction with any committed developments within the vicinity of the sites as identified through the scoping process.

17. Non-Significant Issues

- 17.1 This section sets out those environmental issues deemed to be insignificant for the purposes of EIA, and as such have been 'scoped out' of the EIA process.

Lighting

- 17.2 Artificial lighting is provided to encourage a safe environment for a range of activities including driving, cycling and walking. It is also used to enhance the environment by means of decorative and flood lighting of areas, features and buildings. Any new lighting proposed as part of the development at the sites will be in accordance with British Standards, The Institution of Lighting Professionals ('ILP') and The Chartered Institution of Building Services Engineers ('CIBSE') which prescribes required lighting levels. This would be referenced in Chapter 5: Description of the Development, within the ES. The proposed lighting will be selected with reference to the following design standards and codes of practice:

- BS EN 5489-1: 2003 +A2 (2008) Code of Practice for the design of road lighting: Part 1 Lighting of roads and public amenity areas;
- BS EN 13201-2: 2003 Road lighting – Part 2: Performance requirements;
- ILE GN01: Guidance notes for the reduction of obtrusive light;
- ILE TR12: Lighting of pedestrian crossings (2007); and
- ILE TR25: Lighting for traffic calming features.

- 17.3 Lighting will be designed in conjunction with the design team and landscape consultant to ensure that lighting is appropriate in terms of the potential effects on public realm and surroundings of the site. As this mitigation can be 'designed-in' to the proposals and secured through appropriate planning controls, it is considered that a detailed assessment of lighting is not required as part of the EIA.

Daylight, Sunlight and Overshadowing

- 17.4 Development in densely urbanised locations or of a high-rise nature can cause impacts to the levels of light received by adjacent properties. The proposed development is in a self-enclosed area of land and is not high-rise in nature. There would be no potential for issues of overshadowing or light obstruction to adjacent properties such that an assessment would need to be undertaken to quantify the impact and propose mitigation. It is therefore proposed that this be scoped out of the EIA.

Wind

- 17.5 The proposed development will not comprise buildings of sufficient size and scale to affect wind flow and dynamics such that significant environmental effects could result. As such, a wind assessment would not need to be undertaken for the proposed site and it is proposed that this be scoped out of the EIA.

Waste

- 17.6 Given the nature of the proposed development, materials required for the construction of the proposed development are unlikely to be particularly scarce or environmentally sensitive, nor is the proposed development likely to result in materials becoming scarce. Consideration will be given throughout the design process to the specification of suitable materials, including their sustainability and environmental implications, to support an environmentally sensitive and high-quality development. As a result, the proposed development is not likely to have any significant effects in relation to materials.
- 17.7 Waste will be generated during the construction phase, as a result of the construction of the new industrial buildings. Waste management will be considered carefully throughout the design and construction of the proposed development, to ensure compliance with legislation, and to minimise costs associated with waste disposal. The volume of construction waste likely to be generated by the development would be in line with what would be expected from a development of this size and will not significantly affect the capacity of local waste infrastructure.
- 17.8 During the operation of the development, waste (including recyclables) generated from the commercial uses will be managed by commercial operators. None of the proposed users are anticipated to be major generators of waste and the wastes generated by the proposed development should not significantly affect the capacity of local waste infrastructure.
- 17.9 Following the implementation of standard mitigation measures including the adoption of a Site Waste Management Plan ('SWMP'), construction waste arisings can be reduced to a minimum such that it is not significant.

Accidents and Disasters

- 17.10 The EIA Regulations require that an ES considers the impact on human health of a proposed development. The nature of this proposed development is not considered to result in potential for direct health impacts to any nearby sensitive receptors (residents). Any potential impacts on highways, and subsequently on noise and air quality, as a result of the proposed development that could give rise to indirect impacts on human health are expected to be mitigated appropriately to result in no significant residual effects and therefore no significant residual effect on human health. As such, assessment of impact on human health is not proposed to be included as part of this EIA.

Human Health

- 17.11 The new EIA Regulations 2017 require that an ES needs to include a description of the expected effects of the proposed development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters that are relevant to the project concerned. In this case, the nature of the proposed development is not considered to pose risk of major accidents and/or disasters. As such, accidents and disasters are not proposed to be included as part of this EIA.

18. Proposed Structure of the Environmental Statement

Volume 1: Non-Technical Summary

- 18.1 A Non-Technical Summary is required under the EIA Regulations and presents the findings of the ES in a manner suitable for use by non-experts.

Volume 2: Environmental Statement

- 18.2 This Volume will contain the main text of the ES. The proposed topics for consideration and their respective chapter headings are set out below:

- Introduction;
- Approach;
- Site Description;
- Alternatives;
- The Proposed Development;
- Planning Policy Context;
- Landscape and Visual;
- Ecology and Nature Conservation;
- Archaeology and Heritage;
- Ground Conditions;
- Drainage and Flood Risk;
- Transport and Access;
- Air Quality and Dust;
- Noise and Vibration;
- Socio Economics;
- Climate Change; and
- Cumulative Impacts; and
- Summary of Mitigation and Residual Effects.

Volume 3: Appendices

- 18.3 This volume contains supporting information and a collection of technical reports upon which the conclusions of the ES are based.

19. Summary and Conclusions

19.1 The Scoping Report has been prepared to support a formal request to BDBC for a Scoping Opinion under the EIA Regulations regarding the scope of the EIA and the likely content of the ES which will accompany the Planning Application for the proposed industrial development in Basingstoke.

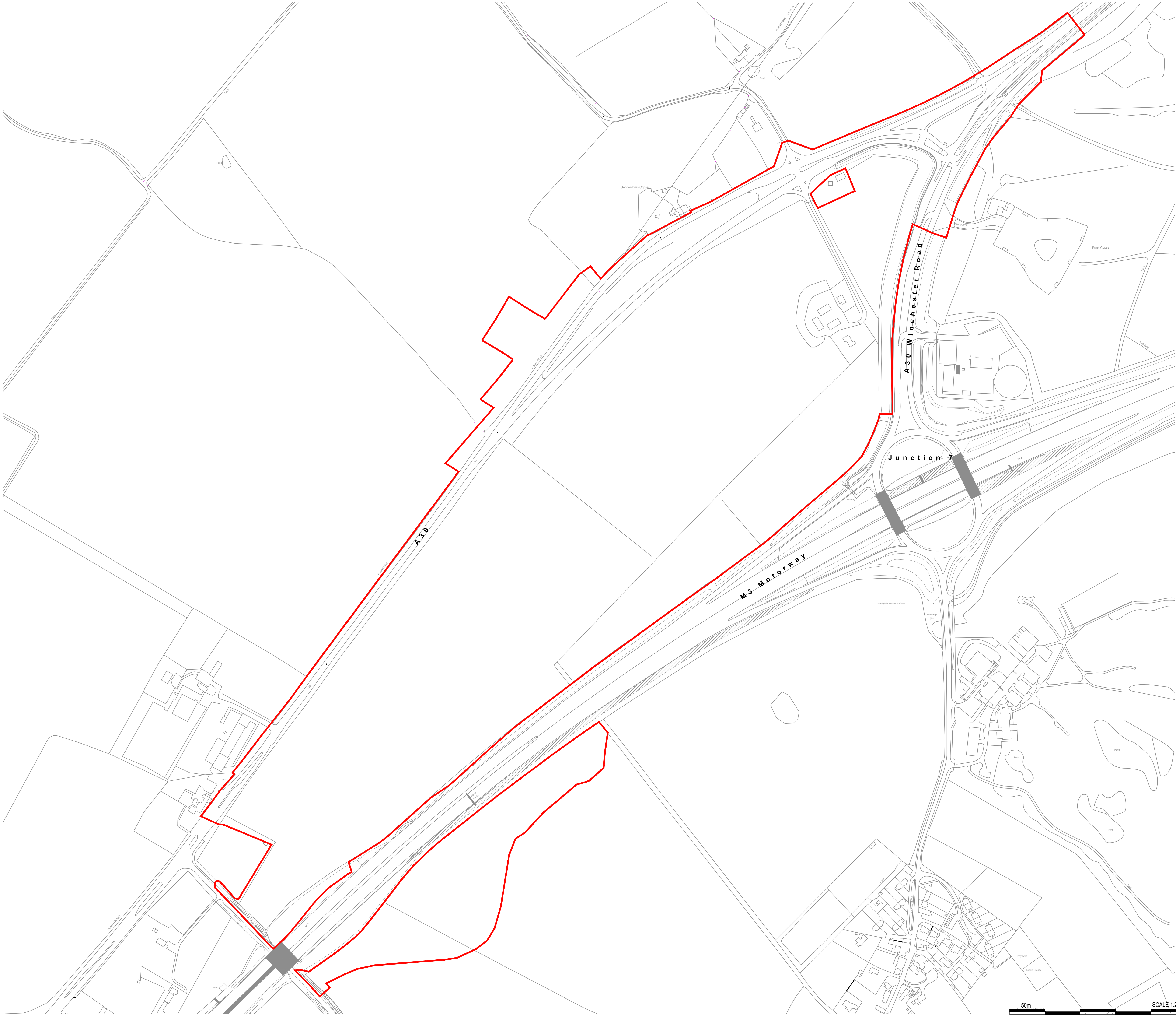
19.2 The Scoping Report provides:

- An overview of the baseline environmental conditions;
- Details of the proposed development;
- An overview of the likely environmental issues associated with the development; and
- Methodologies proposed to undertake the specialist assessments.

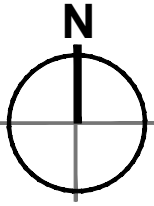
19.3 We would welcome feedback on the proposed approach to the EIA and would be grateful if BDBC would respond by way of a formal Scoping Opinion within the requisite 5 weeks in accordance with Regulation 13(5) of the EIA Regulations. If the Local Planning Authority require any additional information in order to make a decision, please do not hesitate to contact Avison Young.

Appendix I

Site Location Plan



- Dimensions are in millimeters, unless stated otherwise.
- Scaling of this drawing is not recommended.
- It is the recipients responsibility to print this document to the correct scale.
- All relevant drawings and specifications should be read in conjunction with this drawing.



Key

— EIA Scoping Boundary

PLANNING

rev	amendments	by	ckd	date
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Junction 7, M3
Basingstoke
EIA Scoping Boundary Plan



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Drawing Status:	Planning
Drawn / Checked:	JMS / MDS
Date:	30/04/2020
Scale:	1:2500 A1
Drawing no:	Revision:
19155 P0005	E

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