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By email to Kathryn.oleman@braintree.gov.uk

12th November 2021

Dear Kathryn,

**The Town and Country Planning (Environmental Impact Assessment) Regulations 2017
Request for Scoping Opinion
Land at Wethersfield Airfield, Braintree, Essex, CM7 4AZ**

Introduction

Cushman and Wakefield (C&W) is instructed by the Ministry of Justice to prepare and submit this request for a Scoping Opinion (under Part 4, Section 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (hereafter known as the 2017 EIA Regulations) for two prisons which will operate independently of each other once operational and each have a full suite of ancillary facilities. One prison will be a Category B and the second a Category C Prison and there will be a common access to both prisons at Wethersfield Airfield, Braintree.

Environmental Impact Assessment (EIA) is the process of identifying and assessing the significant effects likely to arise from a proposed development. Although no formal response has been received to date of our correspondence to confirm the Screening Opinion (Ref. 21/02425/SCR) of Braintree District Council (BDC), it is considered that the proposed development is EIA development. An Environmental Statement (ES) will therefore accompany the outline planning permission to be submitted to BDC.

1) Purpose of this Scoping Letter

The purpose of this request is to provide information to BDC to enable a Scoping Opinion to be made under Regulation 15 of the 2017 EIA Regulations. This Scoping Letter provides details of the matters likely to have significant effects on the environment and are therefore 'scoped in' to the report. This letter provides a summary of each proposed chapter of the ES highlighting the baseline studies undertaken (or currently ongoing), the assessment of likely effects and any issues to be scoped out. The letter also highlights those matters likely to be excluded from the ES.

This Scoping Letter has been prepared by C&W and Mace, with information from Pick Everard, CGO Ecology, Ramboll, Heritage Advisory, Hydrock, Stantec and Tyler Grange.

2) Context

The Site and its Surroundings

The proposed application site consists of a military airfield constructed during World War II, which since 1993 has been in active use by the Ministry of Defence (MoD) as a police headquarters and training site. The site is currently within the ownership of the MoD.

The total area of the application site is 47.34 ha. The extent of the site is shown on the Site Location Plan at Figure 1 (below). The redline identifies the extent of the proposed development and the blue line is additional land that will form part of the MoJ's ownership. The site topography is flat as befits its use as a former airfield. The runways are still in situ surrounded by grassland. The site is not allocated for development as part of the Braintree District Development Plan.



Figure 1: Site Boundary

Land to the north of the site is predominantly agricultural. Park Wood, a local Nature Reserve, lies to the north of the airfield, outwith the site boundary. Gainsford Hall lies to the north, and Ostend Woods to the north-west is an ancient woodland. To the east are a number of operational farms and agricultural land. The surrounding area is largely agricultural in character and land use.

There are a number of access points to the site, from the B1053 and B1057 (north/south and west respectively) and from local roads to the east. The main MoD access point is located to the south of the site along Shaw Drive. There is a further smaller site access from Shaw Drive to the north of the main MoD access point. There is an alternative access from the local roads in the south east corner.

The site is in a rural location, Wethersfield village lies 3.2km to the south of the site, and Finchingfield lies 3.8km to the west. Braintree is the nearest town which lies c.15km to the south of the site. Haverhill lies 16.4km to the north. Access to these villages and towns is via local B-roads (the B1053 and B1057). The nearest bus stop is c.2km from the site.

Braintree and Braintree Freeport are the nearest railway stations (15.1km and 16.1km respectively). These provide direct access to London Liverpool Street and Stansted Airport. The site also lies 26.5km from London Stansted Airport. The M11 is the closest national motorway, approximately 34km to the west of the site.

Project Description

The outline planning application will seek the redevelopment of the site for 2 new men's prisons which will each deliver around 1,715 prison places across 7 houseblocks (3,430 places in total). It is anticipated that the proposals will include a Category B Training Prison and a Category C Resettlement Prison.

The total proposed built development area incorporating both prisons is 155,939sqm. The outline proposals will also encompass associated development to support the prisons and will include the following elements illustrated in the indicative Site Layout Plan appended to this letter:

Category C Men's Prison:

- 7 x 4 storey houseblocks, including 1 x residential block for elderly persons providing 1,715 prison places in total;
- Entrance Resource Hub
- Workshop
- Central Services Hub
- Kitchen
- A Care and Segregation Unit (CASU)
- Supporting buildings
- Car parking
- Perimeter fencing
- Access road
- Utility infrastructure
- Landscaping
- Site entrance

Category B Men's Prison:

- 7 x 4 storey houseblocks including 1 x residential block for elderly persons providing 1,715 prison places in total;
- Workshop x 2
- Support Building
- Entrance Resource Hub
- Central Services Hub
- Kitchen
- A Care and Segregation Unit (CASU)
- Car parking
- Perimeter fencing
- Access road
- Utility infrastructure

Landscaping
Site entrance

Planning Context

The Development Plan for Braintree District Council comprises the following:

Braintree District Local Plan 2013 – 2033 Section 1 (2021)
Braintree Core Strategy (2011)
Local Plan Review (2005)
The Essex and Southend Waste Local Plan (2017)
Essex Minerals Local Plan (2014)

The National Planning Policy Framework (NPPF 2021) and any relevant Supplementary Planning Documents ('SPDs') are material considerations in the determination of planning applications.

The Local Plan 2013-2033 is a document in two sections which will include all major planning policy for Braintree District. Once adopted it will replace both the Core Strategy (2011) and the Local Plan Review (2005). Both Sections were submitted to the Planning Inspectorate in 2017.

Section 1 is a strategic plan for North Essex. It was adopted by Braintree District Council in February 2021. It is shared with Colchester and Tendring Councils and covers all three authorities. Section 1 has replaced a number of the strategic policies contained within the Braintree District Core Strategy, adopted in 2011 .

Section 2 contains policies, maps and sites for development, housing, employment, regeneration etc within Braintree District Council. Section 2 examination is taking place in summer 2021.

The policies map shows that the application site is not allocated for development and is located in a 'countryside area'. There are three Protected Wildlife Sites identified at the site within the Development Plan. The site is not allocated for development in the emerging Draft Proposals Map. The site was not considered as a development site in the emerging Local Plan. The proposed development is contrary to the Development Plan and the policies in the emerging Local Plan.

The following Development Plan policies are therefore considered to be the key policies in the consideration of the planning application:

Core Strategy Policies:

CS4 Provision of Employment
CS7 Promoting Accessibility for All
CS8 Natural Environment and Biodiversity
CS9 Built and Historic Environment
CS11 Infrastructure Services and Facilities

Saved Policies from the Local Plan Review are also a material consideration, however the policies in the Local Plan Review are time expired (the end date of this plan was 2011) and the weight to be attributed to them will depend on their consistency with the NPPF.

RLP 27 Location of Employment Land

RLP 53 Generators of Travel Deman
RLP 54 Transport Assessments
RLP 55 Travel Plans
RLP 65 External Lighting
RLP 69 Sustainable Drainage
RLP 72 Waste Quality
RLP 80 Landscape Features and Habitats
RLP 81 Trees, Woodland Grasslands and Hedgerows
RLP 87 Protected Lane
RLP 90 Layout and Design of Developments
RLP 91 Site Appraisal

3) EIA Context

Requirement for EIA

The legislative framework for EIA is set by European Directive 2011/92/EU, as amended by Directive 2014/52/EU (collectively referred to as the EIA Directive). The EIA Directive requires EIA to be prepared for planning permission for certain types of project. For projects in England the European legislative requirements are provided in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

The proposed development is within Schedule 2, 10(b) Urban Development Projects of the 2017 EIA Regulations. The site is not located within a sensitive area as defined in the 2017 EIA Regulations, however, it is above the thresholds identified within Schedule 2, 10 (b)¹. Accordingly, a Screening Letter was prepared² to identify if there were to be any significant environmental effects. Although no formal response has been received to confirm the Screening Opinion of BDC, the Screening Letter confirmed that the development will have significant environmental effects and therefore constitutes EIA development. An ES is therefore required as part of the outline planning application for the site.

Information Required for ES

Whilst there is no statutory provision as to the form of an ES, it must include the information at Regulation 18(3), Schedule 4 of the 2017 EIA Regulations. The information supplied in the ES must provide a clear understanding of the likely significant environmental effects of the project.

ES Structure

The ES will be structured logically and will include the following sections:

Volume 1 - Non Technical Summary
Volume 2 - Written Statement
Volume 3 – Appendices

EIA Methodology

Each environmental topic will form a separate Chapter of the ES. Each Chapter will include an overview of

1 (i) The development includes more than 1 hectare of urban development which is not dwellinghouse development and (iii) the overall area of the development exceeds 5 hectares thresholds.

2 The screening letter was issued to BDC on 17th September 2021.

the relevant legislative and planning policy context. For each topic the following criteria will be addressed:

Methodology and assessment criteria

Baseline conditions

Identification of likely effects

Evaluation and assessment of the significance of identified effects (taking into account any mitigation measures proposed as part of the development)

Cumulative Impacts (if any are identified)

Identification of any further mitigation measures to avoid, reduce or remedy adverse effects (in addition to those measures which form part of the proposals)

Methodology and Assessment Criteria

Each topic chapter will provide details of the methodology for baseline data collection and the assessment of effects. Details of the proposed approach for each topic are provide within Section 5 of this Scoping Letter. Each identified environmental topic will be authored by a specialist in that area. The identification and evaluation of effects will take into account topic specific guidance where available and applicable.

Baseline Conditions

The baseline conditions are existing and likely future environmental conditions in the absence of the project. Each topic based chapter will include a description of the existing (baseline) environmental conditions. Consideration will also be given to any likely changes between the time of survey and the future baseline for the construction and operation of the project. Where appropriate, this section will be supported by baseline technical reports (included in the ES appendices). The baseline conditions at the sites form the basis of the assessment.

The consideration of future baseline conditions will also take into account the likely effects of climate change (in so far as these are known at the time of writing). This will be based on information available for the UK Climate Projections project (UKCP18)³, which provides information on changes in climate for the UK.

Identification of likely effects

The 2017 EIA Regulations require the identification of the likely significant environmental effects of the project. Each subject chapter will consider the sensitivity of the receptors affected and the likely impact in determining the significance of the effect.

Receptors are defined as the resource or user that would be affected by the proposed development. The baseline studies for each topic will identify environmental receptors and evaluate their sensitivity to the proposed development.

Impacts are defined as physical changes to the environment directly attributable to the project. Each topic chapter will identify the likely environmental impacts and assess their magnitude.⁴ Impacts will be defined as either adverse or beneficial. Depending on topic they may also be described as direct (i.e. activities associated with the project), or indirect (impacts on the environment which are not a direct result of the project). Impacts will be divided into those occurring during the construction phase and those occurring during operation.

³ UK Climate Projections is a climate analysis tool that forms part of the Met Office Hadley Centre Climate Programme

⁴ The assessment of magnitude impact is likely to include the extent of the impact, duration, frequency and reversibility.

Significance of Effects

Effect is the term used to define the consequence of an impact, which is determined by correlating the magnitude of the impact to the sensitivity of the receptor or resource. The significance of the effect depends both on the impact magnitude and the sensitivity of the receptor.

Levels of significance to be used in the assessment are detailed below (in descending order):

- Major
- Moderate
- Minor
- Negligible

Negligible is defined as having either no effect or the effect would be beneath the levels of perception. These significance levels will be defined for each topic within the methodology sections of each chapter.

Cumulative Effects

Any cumulative effects of the proposed development within the locality will also be considered.

Mitigation and Monitoring Measures

The 2017 EIA Regulations state that the ES should include, '*a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce or, if possible, offset likely significant adverse effects on the environment*'⁵.

The development of mitigation measures will be developed throughout the EIA process in response to the findings of initial assessments. The proposed development will include a number of mitigation measures designed to reduce or prevent significant adverse environmental effects (where practicable). In most cases the proposed measures are likely to result in the enhancement of environmental conditions.

The topic chapters will therefore take into account all measures proposed as part of the proposed development.

Primary Mitigation - measures included as part of the project design

Construction Mitigation - measures to be employed during the construction phase to minimise environmental impacts (e.g. Construction Environment Management Plan (CEMP))

Legislative Requirements - measures required as a result of legislative requirements

Where needed, further mitigation measures will be identified as part of each topic chapter. These measures will typically prevent, reduce or offset any residual adverse effects on the environment.

Where appropriate, monitoring measures will be identified.

4) Scope of Assessment

Work undertaken to date

⁵ Part 5, Section 18, Paragraph 3(b) of 2017 EIA Regulations

The following studies have been undertaken or are currently ongoing in respect of the proposed development:

Topographical Survey & CCTV Drainage
Heritage Statement
Geo-environmental assessment including borehole records, geo-technical testing, ground investigation, UXO and waste classification
Flood Risk Assessment (FRA)
Noise Impact Assessment
Preliminary Ecological Assessment
Dormouse Survey
Reptile Survey
Breeding Birds Survey
Wintering Birds Survey
Invasive Non Native Species Survey
Great Crested Newt Survey
Biodiversity Net Gain (BNG) Assessment
Air Quality Assessment
Noise and Vibration Assessment
Desk Based Archaeology Assessment
Arboricultural Impact Assessment
Transport Assessment
Outline Travel Plan

Topics to form part of the ES

It is proposed that the ES will include the following topic areas:

Transport, Traffic and Access – the proposals will generate increased traffic movements which will have an impact on the local highway network

Air Quality – the increased traffic movements will have an associated impact on air quality

Noise and Vibration – the provision of two new prisons in this location is likely to impact on noise and vibration levels

Heritage – the WWII Airfield is non-designated heritage asset, and together with other heritage assets in the vicinity it is considered that the development could have an impact on heritage assets

Landscape and Visual Impact Assessment – the topography of the site is flat with long views, the proposed development is therefore likely to have a landscape and visual impact on the wider area

Ecology – the development will involve the loss of habitat which could be significant in terms of biodiversity. Mitigation will be provided (where necessary)

Climate Change Mitigation and Adaptation – the development will need to consider the impact of climate change with particular reference to an increase in flood risk and the need to generate energy sustainably

Socio-Economics and Human Health – the proposals will have a social economic impact and are likely to generate significant benefits in terms of increased employment and investment in the wider economy

Water Resource and Flood Risk – the proposals are likely to have an impact on the local hydrology which will be assessed as part of this chapter of the ES

Topics to be scoped out of the ES.

Taking into account initial findings of the above studies together with the knowledge of the site and the wider area. It is proposed the following topics are not included in the scope of the ES.

Planning Policy Context

The ES will provide an overview of the relevant legislative and planning policy context within each topic chapter. Planning Policy context will also be covered in detail within the Planning Statement submitted with the planning application. It is therefore not proposed to include a separate chapter on planning policy context within the ES.

Archaeology

A Desk Based Archaeological Assessment by Orion Heritage has confirmed that the application site has a low potential to contain finds and features from all periods. The site was located within the agricultural hinterland of medieval and post medieval settlement and a wooded area until the 1940s when it became part of Wethersfield airfield, which was in use during the second world war and then subsequently by the USA air force. As such, no significant effects are expected. This report will form part of the planning application. Should any further works be requested by the County Archaeologist it is considered that these could be addressed during the determination period or by planning condition. It is therefore considered that the overall impact on archaeology is likely to be low and that archaeology can be scoped out of the EIA process.

Arboriculture

An Arboricultural Impact Assessment (AIA) and Method Statement is currently being prepared which will include a desk study of planning issues and designations; a summary of results from the tree survey schedule; site photographs; and a tree survey plan to show the species, conditions, locations and heights. The survey will identify species that need protection, which will influence the design of the site. Following the completion of the Arboricultural Survey an Arboricultural Impact Assessment will be prepared for the site. It is considered that as the proposals will result in no significant tree loss or loss of protected trees the overall impact on trees is likely to be low and therefore arboriculture can be scoped out of the EIA process.

Daylight, Sunlight and Overshadowing

The proposed development will have a maximum height of 4 storeys. There are no buildings immediately adjacent to the site. Therefore, it is not anticipated that there will be any overshadowing of other developments within close proximity to the new prisons. In addition, the design team has experience in prison design (e.g. HMP Wellingborough), and understand that positioning of blocks or buildings can affect the amount of daylight and sunlight a development has. This information will inform the design of the proposals and form part of the Design and Access Statement which will be submitted with the planning application. It is therefore considered that as the impact on daylight, sunlight and overshadowing is likely to be low, it can be scoped out of the EIA process.

Land Quality

The majority of the application site is previously development land and is therefore categorised as 'Non-Agricultural' Land under the Agricultural Land Classification (ALC) 6. The site is a MoD Police facility and was a RAF Station used during the second World War. It was used until 1970 as a United States Air Force fighter airfield and was held as a reserve airfield until 1993, when it became controlled by the MoD. No high quality agricultural land would be lost as result of the proposed development and therefore, it is proposed

6 Natural England (2021) Available at: <http://publications.naturalengland.org.uk/category/5954148537204736>

that agricultural land quality be scoped out of the EIA process.

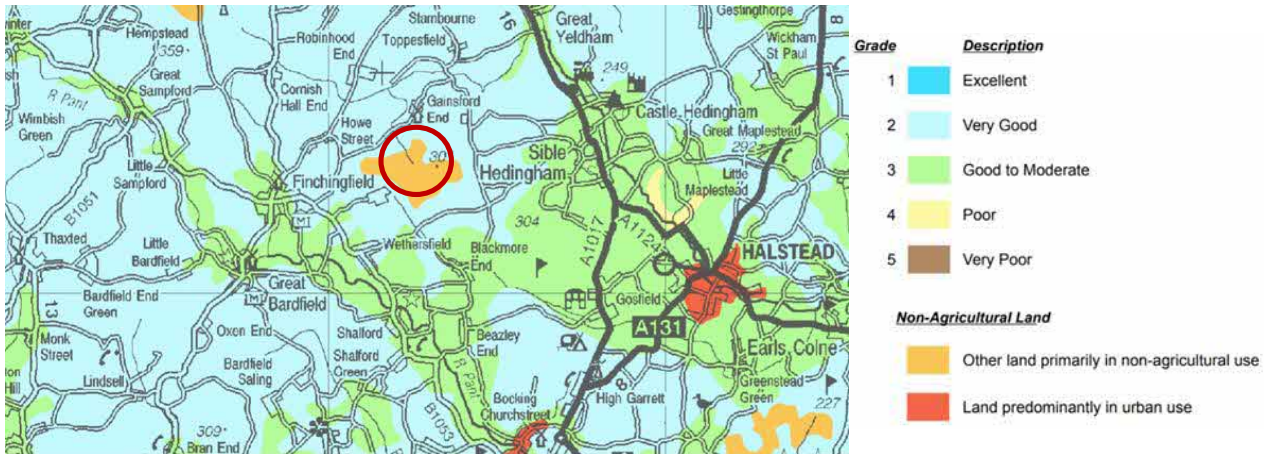


Figure 2 – 'Non-Agricultural' Agricultural Land Classification at the Site taken from Natural England's website

Ground Conditions and Contamination

An initial Geoenvironmental Appraisal identified non-agricultural land and an airfield, with made ground localised up to 0.50m thick and natural ground containing firm and stiff clays (locally softened). No significant risks have been identified with regards to mining and quarrying. Furthermore, no risks were identified for contamination or hazardous gas during the investigation however, further surveys are proposed. These surveys (including an Unexploded Ordnance Survey) will take place during the preparation of the planning application and will inform any appropriate mitigation. It is considered that any further works (intrusive surveys or mitigation) could be addressed through an appropriately worded planning condition. It is therefore considered that ground conditions and contamination can be scoped out of the EIA process.

Lighting

There are no light sensitive designations that would be directly impacted by the proposed development. In addition, the MoD Police facility is currently artificially lit and does not have any significant effects on residents or local amenity. A typical ZoI (Zone of Influence) for lighting is usually taken as 100m and therefore, no significant effect is expected. Notwithstanding this, the proposed development will be artificially lit during the hours of darkness and therefore there is potential for indirect secondary impacts on ecology and human receptors, as such it is proposed that these likely significant effects will be addressed in the Landscape and Visual Impact and Ecology Chapters of the ES. (e). A lighting design strategy will form part of the outline planning application for the site. As such, it is proposed that lighting be scoped out of the EIA process.

Wind Microclimate

The proposed development is not located within a built environment and the maximum building height is 4 storeys. As such, the application site is not expected to manipulate wind, such as causing wind tunnels. The proposals will be carefully designed to take into account wind microclimate. Therefore it is considered that the impact of the proposed development on wind microclimate is likely to be low and therefore it can be scoped out of the EIA process.

Waste

The BREEAM Pre-Assessment and Sustainability Statement identify the proposed mitigation to reduce waste, including how waste streams are to be managed and following the Waste Hierarchy of prevention, reuse, recycle, recover and as a last resort, disposal to landfill. The best use will be made of resources to minimise environmental impact of materials. A Resource Management Plan will be produced for the site.

All waste transported off the site will be to the appropriate licenced receivers of such materials. The number of vehicles associated with the removal of waste material associated with decommissioning and construction will be considered within the Transport, Traffic and Access chapter of the ES. As such, it is proposed that waste be scoped out of the EIA process.

Telecommunications and Utilities

Discussions with utilities providers including gas, electricity, water and foul water have commenced for the application site. Those discussions will inform the design proposals (including the location of necessary sub stations and the provision of a water treatment plant on site). A Utilities Report will form part of the planning application documentation for this site. It is considered that the impact on Utilities can be addressed through the planning application and therefore telecommunications and utilities can be scoped out of the EIA process.

Aviation

The site is an old RAF station that is no longer in use as an airfield. The closest airport is Stanstead Airport, which is located approximately 24km south-west of the site. The proposed development will be 4 storeys in height, so it is unlikely to affect aviation routes or any airport. There will be a comprehensive lighting strategy for the site submitted with the planning application. The lighting (security lighting) will face downwards and will not provide a distraction for air traffic. It is considered that the proposals will have a minimal impact on aviation and therefore this topic can be scoped out of the EIA process.

Structure of the ES

The proposed structure of the ES is as follows:

Structure of ES	
Chapter 1	Introduction
Chapter 2	Project Description
Chapter 3	Need and Alternatives Considered
Chapter 4	Environmental Assessment Methodology
Chapter 5	Transport, Traffic and Access
Chapter 6	Air Quality
Chapter 7	Noise and Vibration
Chapter 8	Heritage
Chapter 9	Landscape and Visual Impact Assessment
Chapter 10	Ecology
Chapter 11	Climate Change Mitigation and Adaptation
Chapter 12	Socio-Economics and Human Health
Chapter 13	Water Resource and Flood Risk
Chapter 14	Conclusions

Table 1: Structure of ES

5) Technical Assessments

Chapter 1: Introduction

This chapter will provide details of the need for the ES and its structure.

Chapter 2: Project Description

The 2017 EIA Regulations require an ES to include, '*a description of the proposed development comprising information on the site, design, size and other relevant features of the development*'.

Chapter 2 will include details of the site and a description of the key components of the proposed development (i.e. the redevelopment of the site for 2. new men's prisons, each delivering around 1,715 prison places across 7 houseblocks), providing a total of 3,430 new prison places.

The description will also include details of the key works and processes at the construction phase and the operational phase.

Where options remain at the time of assessment (for example in respect of construction techniques), the ES will make clear any assumptions made. Where appropriate, a worst case scenario will be assessed.

Chapter 2 will also include details of mitigation measures identified and developed through the EIA process which have been incorporated into the proposed design of the development.

Chapter 3: Need and Alternatives Considered

Chapter 3 will briefly consider the need for the proposed development. The 2017 EIA Regulations require, '*a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment*'.

This chapter will summarise the reasons for the site selection and provide a description of the alternatives (where applicable) considered during the EIA process, including a description of the alternative options considered.

Chapter 4: Environmental Assessment Methodology

This chapter provides details of the overall approach to the EIA together with details of the screening/scoping process, consultation undertaken and the overall approach to the assessment of significance. Topic specific methodologies (such as survey methods) will be provided in each topic chapter.

Chapter 5: Transport, Traffic and Access

This chapter of the ES will assess the likely significant environmental effects of the proposed development in terms of transport, traffic and access.).

The introduction to this chapter will include an overview of the relevant legislative and planning policy context related to Transport, Traffic and Access.

Baseline Information

The Traffic, Transport and Access chapter of the ES will be informed by a comprehensive Transport Assessment which will offer a full review of the trips that the proposed development is expected to generate, the accessibility of the site by sustainable modes of transport, a review of the last 5 year's road accident

data, and peak hour modelling of appropriate junctions on the local highway network within a study area agreed with the Local Highway Authority. A summary of the baseline information and analysis offered in the Transport Assessment will be provided in the EIA.

Sustainable Travel

The accessibility of the development site by sustainable transport will be thoroughly reviewed as part of the Transport Assessment. This will include a review of the existing accessibility of the site by walking, cycling and public transport. At this stage it is known that accessibility by these modes is very limited. The Transport Assessment will seek to identify the scope for the use of the various sustainable modes by staff and visitors based on the likely distances that they would be expected to travel. This assessment will identify which modes of transport have most scope to increase their use and so reduce car trips before going on to explore opportunities to improve accessibility for these mode where and if possible to do so. In addition, appropriate levels of cycle parking and 20% of car parking spaces on site will have electric car charging facilities , and a Framework Travel Plan will be submitted with the planning application to consider and action further potential measures to reduce the number and impacts of car trips generated by the development An assessment of these sustainable transport related findings and proposed actions will be reported in the ES.

Proposed Approach

From traffic survey data collected for the purpose of undertaking the Transport Assessment at all junctions within the agreed study area and at an Automatic Traffic Count within the study area, Annual Average Daily Traffic (AADT's) and Annual Average Weekly Traffic (AAWT's) will be calculated for the following scenarios and reported in the ES:

Baseline year background traffic – 2021

Construction traffic year for first prison – (year to be confirmed when we receive the construction traffic schedule)

Opening year for first prison – 2027

- Baseline traffic + committed development traffic no prison development traffic or construction traffic
- Baseline traffic + committed development traffic + first prison traffic assuming full occupation of first prison + construction traffic for second prison

Opening year for second prison – 2029

- Baseline traffic + committed development traffic
- Baseline traffic + committed development traffic + first prison traffic assuming full occupation of first prison
- Baseline traffic + committed development traffic + first and second prison traffic assuming full occupation of both prisons

Assessment of Effects

The Transport, Traffic and Access chapter will consider all data analysis undertaken and conclude if there are likely to be any significant transport and traffic impacts relating to the peak hour trips generated by the fully occupied development and will include a description and rationale of any proposed measures intended to mitigate against any significant traffic impacts. A summary of the proposed mitigation measures and their rationale will be provided in the ES.

A review of the calculated AADT's and the AAWT's will be undertaken to consider how the level of traffic during the construction phases compares with the level of traffic during the site occupation phases.

Where relevant the calculated AADT's and AAWT's will be used in the assessment of Air Quality and Noise & Vibration for the proposed development (refer to Chapters 6 and 7).

Issues Proposed to be Scoped Out

No issues are proposed to be scoped out for Chapter 5.

Chapter 6: Air Quality

The Air Quality chapter of the ES will be undertaken by Ramboll UK Ltd. This section provides an overview of the scope of the work that will be completed.

The introduction to this chapter will include an overview of the relevant legislative and planning policy context related to Air Quality.

Baseline Information

BDC has not declared an Air Quality Management Area (AQMA) within its district. There are no air quality monitoring sites within the vicinity of the proposed development site. The closest monitoring sites are located approximately 9.7 km south-east of the proposed development at the kerbside of Headingham Road (BR18) and High Street (BR19) in Halstead town. Measured concentrations at BR18 and BR19 in 2019 were well below the annual mean NO₂ national air quality objective (NAQO), measuring 33 µg/m³ and 27 µg/m³, respectively. Three roadside monitoring locations located on Head Street in Halstead, sites BR14, BR16 and BR17, were found to be exceeding the NAQO in 2019.

The site is located in a rural setting, surrounded by green space and agricultural fields and away from major roads. Pollutant concentrations at the site are therefore expected to be significantly lower than the measured concentrations in Halstead.

The Defra modelled background concentrations for 2019 at the site are well below the NAQO's for annual mean NO₂ and fine airborne particles (PM₁₀ and PM_{2.5})⁷, predicted to be 7 µg/m³ for NO₂, 15.6 µg/m³ for PM₁₀ and 9.3 µg/m³ for PM_{2.5}. The Defra background concentrations are likely to be representative of pollutant concentrations in the vicinity of the site.

No protected conservation areas are within 200 metres of roads where there would be a potential traffic increase brought about by the proposed development of more than 1000 AADT⁸.

Proposed Approach

In order to support the planning application, consideration will need to be given to the potential impacts of the construction and operation of the proposed development on air quality at sensitive receptor locations.

Construction Stage

A qualitative dust risk assessment from demolition and construction activities will be undertaken with reference to the Institute of Air Quality Management's (IAQM) 'Guidance on the Assessment of Dust from Demolition and Construction'⁹. The guidance will be used to identify an appropriate level of mitigation. With appropriate mitigation in place, the effect of demolition and construction dust impacts on air quality will not be significant.

⁷ Department of the Environment, Food and Rural Affairs (Defra), 2021. UK Air - Air Information Resource: 2018 Based Background Maps for NO_x, NO₂, PM₁₀ and PM_{2.5}

⁸ Institute of Air Quality Management, 2020. A guide to the assessment of air quality impacts on designated nature conservation sites Institute of Air Quality Management. V1.1

⁹ Holman, et al., 2014. Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction. IAQM: London

The impacts of construction phase traffic emissions will be assessed qualitatively by comparing the increase in construction traffic with the thresholds outlined below for the operational phase assessment. As appropriate, construction traffic will be included in the modelling scenarios for the proposed development.

Operational Stage

Air quality impacts arising from road traffic will be assessed with reference to guidance issued by the IAQM and Environment Protection UK (EPUK) on 'Land-use Planning & Development Control: Planning for Air Quality'¹⁰. The indicative criteria for requiring an air quality assessment include a change in LDV flows of more than 500 AADT and a change in HDVs flow of more than 100 AADT outside of an AQMA.

The increases in operational traffic are likely to be greater than the above thresholds local to the proposed development. It is anticipated that the proposed development traffic flows will be below the thresholds in Halstead, where exceedances of the annual mean NO₂ NAQO were identified in 2019. For those road links where the thresholds are met, dispersion modelling using the ADMS Roads dispersion modelling package will be undertaken. As there are no representative air quality monitoring sites surrounding the site to validate the modelling assessment, a conservative approach is proposed by applying a verification factor of 3 to adjust the modelled results.

Assessment of Effects

Construction Stage

With appropriate mitigation in place, the effect of demolition and construction dust impacts on air quality will not be significant. The assessment of the effects of construction traffic will be the same as for operational traffic.

Operational Stage

The assessment of the significance of the effects of road traffic emissions will follow the guidance provided in the IAQM/EPUK guidance referenced above. Appropriate mitigation will be described commensurate with the significance of the predicted effects.

Issues Proposed to be Scoped Out

No issues are proposed to be scoped out for Chapter 6.

Chapter 7: Noise and Vibration

This chapter of the ES will assess the likely significant environmental effects of the proposed development in respect of noise and associated vibration.

The introduction to this chapter will include an overview of the relevant legislative and planning policy context related to noise and vibration.

Baseline Information

The likely significant noise and vibration effects to be considered within the ES are as follows:

Changes in the noise environment, and associated effects, associated development generated road traffic during the construction and operational phases of the development

¹⁰ Moorcroft and Barrowcliffe. et al. (2017). Land-use Planning & Development Control: Planning for Air Quality. v1.2. IAQM: London

All such effects will be considered for the proposed development in isolation and, if necessary as information exists, for the development together with relevant cumulative schemes.

Proposed Approach

The quantitative assessment of the changes in road traffic noise levels associated with development-generated road traffic during the works and with the completed and operational development will be carried out in accordance with DMRB current guidance. As a minimum, this will include the following scenarios:

Baseline year background traffic – 2021

Construction traffic year for first prison – (year to be confirmed upon receipt of construction traffic schedule)

Opening year for first prison – 2027

Baseline traffic + committed development traffic no prison development traffic or construction traffic

Baseline traffic + committed development traffic + first prison traffic assuming full occupation of first prison + construction traffic for second prison

Opening year for second prison – 2029

Baseline traffic + committed development traffic

Baseline traffic + committed development traffic + first prison traffic assuming full occupation of first prison

Baseline traffic + committed development traffic + first and second prison traffic assuming full occupation of both prisons

During the opening years for each prison, it is assumed that the corresponding part of the development will be fully occupied, in order to provide a robust assessment of noise.

Assessment of Effects

Development-Generated Road Traffic

DMRB provides guidance on defining the magnitude of noise impacts associated with changes in road traffic flows, related to the Proposed Development.

The magnitude of effect can be determined on the basis of a change in road traffic noise level, in terms of LAeq, 18hour, as detailed in Table 2. However, it is considered that the absolute level of road traffic noise is also relevant in the determining of noise impacts.

Level of Magnitude	Short Term Change in Noise Level L_{10,18hour} dB(A)	Long Term Change in Noise Level L_{10,18hour} dB(A)	Significance of Impact – as described in DMRB
High	≥ 5.0	≥ 10.0	Major
Medium	3.0-4.9	5.0-9.9	Moderate
Low	1.0-2.9	3.0-4.9	Minor
Negligible	0.1-0.9	0.1-2.9	Negligible
	0.0	0.0	No Change

Table 2: Short Term and Long Term Magnitude of Change in Road Traffic Noise, according to DMRB

Magnitude of Effect

Table 3 describes the magnitude of noise and vibration impact effects. These magnitude descriptors are based upon IEMA Guidelines for Environmental Noise Impact Assessment, and the descriptions based on the Noise Exposure Hierarchy in PPG-Noise.

Descriptor	Description
High	Impact resulting in a considerable change in baseline environmental conditions predicted either to cause statutory objectives to be significantly exceeded or to result in severe undesirable/desirable consequences on the receiving environment.
Medium	Impact resulting in a discernible change in baseline environmental conditions predicted either to cause statutory objectives to be marginally exceeded or to result in undesirable/desirable consequences on the receiving environment.
Low	Impact resulting in a change in baseline environmental conditions with undesirable/desirable conditions that can be tolerated.
Negligible	No discernible change in baseline environmental conditions.

Table 3 Magnitude of Impact

Sensitivity of Receptor

Table 4 describes the sensitivity of receptors.

Descriptor	Description
High	Receptor/resource has little ability to absorb change without fundamentally altering its present character, or of international or national importance. For example, hospitals, residential care homes, and internationally and nationally designated nature conservation sites which are also known to contain noise sensitive species (i.e. noise may change breeding habits or threaten species in some other way).
Medium	Receptor/resource has moderate capacity to absorb change without significantly altering its present character. For example, residential dwellings, offices, schools, and play areas. Locally designated nature conservation sites which are also known to contain noise sensitive species (i.e. noise may change breeding habits or threaten species in some other way).
Low	Receptor/resources is tolerant of change without detriment to its character or is of low or local importance. For example, industrial estates.
Negligible	Receptor/resource is not sensitive to noise.

Table 4 Sensitivity of Receptor

Significance of Effect

The significance of effect is determined by the interaction between magnitude of impact (Table 2) and sensitivity of receptor (Table 5). Magnitude descriptors are based upon IEMA Guidelines for Environmental Noise Impact Assessment, and the descriptions based on the Noise Exposure Hierarchy in PPG-Noise.

Magnitude of Effect	Sensitivity of Receptors			
	High	Medium	Low	Negligible
High	Substantial	Major	Moderate	Minor
Medium	Major	Major	Moderate	Neutral
Low	Moderate	Moderate	Minor	Neutral
Negligible	Minor	Neutral	Neutral	Neutral

Table 5 Significance of Effect Matrix, according to IEMA Guidelines

In terms of significant of effect (in EIA terms), the threshold between insignificant and significant lies between 'Moderate' and 'Major' as identified within Table 5. Moderate impacts may be noticeable and intrusive but may cause a small change in behaviour. Whereas Substantial impacts are likely to be noticeable and disruptive, and might cause a material change in behaviour or attitude.

Issues Proposed to be Scoped Out

The following potential noise impacts are not considered likely to be significant, and are therefore scoped out of the ES, but are considered in outline terms, in a standalone noise impact assessment:

The potential noise and vibration impact at existing sensitive receptors, associated with construction activities

The potential impact of existing transportation noise at proposed noise sensitive receptors

The potential impact of existing industrial/commercial noise at proposed noise sensitive receptors; and,

The potential impact of proposed industrial/commercial noise at existing noise sensitive receptors

Chapter 8: Heritage Assets

The Heritage Assets chapter of the EIA will assess the likely impact of the proposed development upon the historic environment and heritage assets within and / or surrounding the development site. Information below sets out the proposed approach that will be taken in the assessment of heritage, together with a summary of information that is currently available.

The introduction will include an overview of the relevant legislative and planning policy context related to Heritage.

Baseline Information

Whilst the proposed location of development is not subject to any statutory heritage designation, it is nevertheless located within the setting of a number of statutory designated heritage assets, with Wethersfield airfield itself being noted as a non-designated heritage asset. Therefore, heritage assets of relevance include:

1. Sculpin's Farmhouse, Sculpins Farm Lane

List Entry Number: 1139033

Date First Listed: 17th May 1985

2. Cotton's Farmhouse, Sculpin's Farm Lane

List Entry Number: 1338165

Date First Listed: 17th May 1985

3. Boyton Hall Farmhouse, Toppesfield Road

List Entry Number: 1123485

Date First Listed: 2nd May 1953

4. Barn approximately 60 metres north northeast of Boyton Hall, Toppesfield Road

List Entry Number: 1337794

Date First Listed: 17th May 1985

5. Welcome Slough Farmhouse

List Entry Number: 1170150

Date First Listed: 15th Oct 1984

6. Welcome Slough Farm, barn approximately 10 metres south of house

List Entry Number: 1122864

Date First Listed: 15th Oct 1984

7. Whitehall Farmhouse, Toppesfield Road

List Entry Number: 1123313

Date First Listed: 19th March 1986

8. Ffuleslo

List Entry Number: 1123486

Date First Listed: 17th May 1985

9. Deeks Farmhouse

List Entry Number: 1122861

Date First Listed: 15th October 1984

10. Morris Green Farmhouse

List Entry Number: 1170112

Date First Listed: 16th October 1981

11. Willow's Farmhouse

List Entry Number: 1338080

Date First Listed: 15th October 1984

12. Gainsford Hall

List Entry Number: 1317343

Date First Listed: 21st June 1962

13. Woodley's Farmhouse

List Entry Number: 1122996

Date First Listed: 29th August 1984

14. Wethersfield Airfield – Given the history, layout and features of this airfield, it is considered a non-designated heritage asset.

Listed buildings are statutorily designated and provide a nationally recognised resource that are subject to a grading process – being Grade I, II*, or II. Such a grading system is indicative of a presumed level of inherent

interest and therefore significance based on rarity, period, architecture, etc. However, all levels of designation are subject to equal protection under the Planning (Listed Buildings and Conservation Areas) Act, 1990. As such, any building subject to statutory designation is considered to be of a high sensitivity.

All of the statutory designated structures set out above are designated Grade II, and are located within a 1km radius of the application site.

Proposed Approach

For the purposes of the assessment, heritage assets are deemed to include both above ground (the built heritage) and below ground remains. The assessment will consider direct and indirect effects upon the following receptors:

World Heritage Sites, Scheduled Monuments, Listed Buildings, Historic Parks and Gardens, Registered Battlefields, Conservation Areas.

The assessment will involve:

Consultation with statutory and non-statutory authorities to obtain data establishing the baseline conditions for the Development site and its surrounding area

Desk-based studies to contribute to and validate data relevant to establishing the baseline conditions

Site visits to establish and validate the baseline conditions, assisting in an assessment of indirect effects

Assessment of the likely effects of the Development upon the baseline conditions

Assessment of the significance of the effects taking into account the sensitivity of the Development site (and selected features beyond the Development site), the magnitude of effects (both direct and indirect) and the likelihood of such effects occurring; and

Identification of means to mitigate and avoid, where possible, adverse effects occurring, as well as the assessment of the residual effects which may exist after mitigation

Methodology

The assessment of physical effects will consider direct effects upon relevant heritage assets. Direct effects are likely to occur during the construction and decommissioning phases of the Development, and are permanent and irreversible.

The assessment of indirect effects will consider changes in the setting which have the potential to affect the significance of the heritage asset. Within Annex 2: Glossary of the NPPF, the setting of a heritage asset is defined as 'the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral'. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, and therefore, may affect the ability to appreciate that significance or may be neutral.

Therefore, the importance of "setting" is in what it contributes to the significance of a heritage asset. Setting can therefore either be tangible, such as a defined boundary, or intangible, such as atmosphere or ambience. Setting should not be identified by a visual envelope as it can encompass an archaeological or historic context, which may not be readily identifiable visually. The main concern for visual effects on a heritage setting is the potential for the development to fragment the historic landscape, separate connectivity between historic sites and impinge upon the ability to appreciate significance.

However, it is important to note that setting is only one attribute that contributes to the inherent interest and therefore significance of a specific heritage asset. Whilst a change in setting may occur, the setting may make little or no contribution to the significance of an asset, or a change in setting may not be considered to lead to any loss of significance of an asset.

Assessment of Effects - Significance Criteria

The heritage assessment will take into consideration the sensitivity of the specific heritage asset (Table 6) being evaluated and weigh this against the magnitude of any potential effect following the implementation of proposals (Table 7). Such an assessment will result in an overarching significance of the effect.

For the purposes of this assessment, sensitivity will be directly linked to designation status i.e. whether the heritage asset is designation Grade I, II* or II. However, and in accordance with paragraph 203 of the NPPF, the effect of an application on the significance of a non-designated heritage asset must also be taken into account.

Level of Sensitivity	Designation Status
Very High	World Heritage Sites, which are internationally important.
High	Scheduled Monuments, Listed Buildings, Registered Battlefields, Registered Historic Parks and Gardens, which are considered to be nationally important.
Medium	Regionally important archaeological features and areas (as defined in the Historic Environment Record). Conservation Areas, which are considered regionally important.
Low	Sites and features noted as locally important in the Historic Environment Record. Other, non-designated features of cultural heritage significance.
Negligible	Badly preserved / damaged or very common archaeological features / buildings of little or no value at local or other scale.

Table 6 Sensitivity of heritage assets

Level of Magnitude	Definition
Very High	Loss, blocking or severance of key visual or other aspect of setting, resulting in the reduction in the contribution that the setting makes to the significance of the asset of such magnitude that the asset itself suffers a major loss of significance.
High	Major physical damage to or significant alteration to a site, building or other feature. Extensive change (e.g., loss of dominance, intrusion on key view or sightline) to the setting of a Scheduled Monument, Listed Building or other feature registered as nationally important, which may lead to a major reduction in the contribution of that setting to the significance of the heritage asset itself leading to a loss of significance for the asset itself.
Medium	Damage or alteration to a site, building or other feature. Encroachment on an area considered to have a high archaeological potential. Change in setting (e.g., intrusion on designed sight-lines and vistas) to monuments / buildings and other features, which may lead to a moderate reduction in the contribution of that setting to the significance of the heritage asset leading to a loss of significance for the asset itself.
Low	Minor damage or alteration to a site, building or other feature. Encroachment on an area where it is considered that low archaeological potential exists. Minor change in setting (e.g., above historic skylines or in designed vistas) of Monuments, Listed Buildings, sites and other features, which may lead to a

	small reduction in the contribution the setting makes to the significance of the heritage asset leading to a minor or negligible loss of significance.
Negligible	No physical effect. Slight or no change in setting, with no or very limited change in the contribution that setting makes to the significance of the asset. No or negligible loss of significance of the asset itself.

Table 7 Magnitude

The significance of an effect is then ascertained following the matrix below (Table 8).

Sensitivity of Receptor	Negligible	Low	Medium	High
Negligible	Negligible	Negligible	Negligible	Negligible
Low	Negligible	Minor	Minor	Moderate
Medium	Negligible	Minor	Moderate	Major
High	Negligible	Moderate	Major	Major

Table 8 Significance of Effects Matrix

For the purposes of EIA, the significance of an effect is generally assessed as being either:

- Negligible – no detectable or material change to a location, environment or species
- Minor – a detectable but non-material change to a location, environment or species
- Moderate – a material, but non-fundamental change to a location, environment or species; or
- Major – a fundamental change to a location, environment or species

The assessments will begin with a brief description of the asset, its designation status, its significance (in terms of its archaeological, architectural, artistic and/or historic interest), and a description of its setting. Consideration will be given to what contribution that this setting makes to the significance of the asset itself.

The assessment will then go on to consider the extent to which the identified setting would be altered by the Development, before summarising whether the Development will impact on the attributes of setting which contribute to the significance of the specific heritage asset being assessed. The overarching effect is then assessed, identifying whether any identified change in the contribution made by the setting to the significance of the asset is of such magnitude that the significance of the asset is itself changed (diminished).

Likely effects that are assessed as “minor” or “not significant” are both considered to be “not significant” in terms of the EIA Regulations. Here, it is important to note that the matrix based approach will be used in conjunction with professional judgement, based on experience.

Issues Proposed to be Scoped Out

All relevant effects have been selected, therefore, it is not deemed that any specific effects require scoping out.

Chapter 9: Landscape and Visual Impact

Pegasus Group will prepare the Landscape and Visual Impact chapter of the ES, which will be informed by the Landscape and Visual Impact Assessment (LVIA) which will be submitted with the planning application. This chapter of the ES will assess the likely effects of the proposed development on landscape character and visual amenity.

The introduction will include an overview of the relevant legislative and planning policy context related to Landscape and Visual Impact.

Baseline Information

The application site is a former RAF station and now the headquarters and training centre of the MoD Police. There are vast areas of hard standing on site which create an open character, with some long distance views from the site looking west.

Whilst the site is contained both physically and visually to some extent by both mature and emerging/young woodland planting, there are several localised high points and soft ridgelines across the landscape, from where there are likely to be views of the tallest elements of the proposed development. This is supported by a preliminary Zone of Theoretical Visibility (ZTV), produced by Pegasus Group, as well as initial fieldwork.

At a national level the site is situated within National Character Area (NCA) 86: South Suffolk and North Essex Clayland. The published landscape character assessment (Braintree Landscape Character Assessment, 2006) is usefully informative insofar as it offers context and descriptions of the prevailing landscape. The site lies within Area B9 – Stambourne Farmland. Whilst the site and study area do share some commonality with the published assessment, it is useful to go a step further and consider the site and its local landscape character in order to understand what if any further influences are at play. An exercise will be undertaken by way of a detailed analysis/description of local landscape character, and the subsequent assessment of impacts upon it, as an inherent part of the LVIA. This will include physical impacts on a character area/type and also potential indirect changes to nearby landscape character areas/types.

Proposed Approach

This chapter of the ES will be undertaken with reference to best practice guidance, as set out in the following documents:

Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition
Natural England (2014) An Approach to Landscape Character Assessment
Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals; and
Landscape Institute Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations

This chapter of the ES will adopt a detailed methodology which has been developed based on the above documents. The LVIA will also meet validation requirements, as per Braintree District Council's Local Validation List (Landscape Impact Assessment).

The assessment will consider landscape and visual effects during construction, at completion, but also in the longer term after fifteen years when mitigation measures (such as planting) will have matured, and the mitigation measures are likely to perform the intended function (for example, screening or enhancement of landscape infrastructure).

The following receptors will be considered to inform the assessment process:

Landscape character, including physical landscape resources; and
Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users

Information will be collated using a process of desk study and field survey work in order to capture a comprehensive description of the baseline position for landscape and visual receptors. The desk study will include reference to published landscape character studies and other relevant planning policy guidance.

A series of representative photographs will be taken during the field work. These will be presented as a series of viewpoints and will be used to inform both the landscape and, separately, visual assessment. The locations of these viewpoints will be agreed with BDC.

Assessment of Effects

Having established the relevant baseline position the assessment process will then complete the following specific stages:

- evaluate the sensitivity of the landscape receptors and visual receptors, specifically in response to the nature of the proposed development (sensitivity is not standard and depends on the nature and type of development proposed and also the value and susceptibility of the receptor)

- identify the potential magnitude of impact on the physical landscape, on landscape character and on visual receptors; and

- combine judgments on the nature of the receptor (sensitivity) and the nature of the impact (magnitude) to arrive at a clear and transparent judgment of significance

For both landscape effects and visual effects, the final conclusions on significance will be based on the combination of magnitude of impact (change) and sensitivity of receptor and a balanced justification of these. The rationale for the overall judgement on significance will be based on the application of professional analysis and judgement and the subsequent combination of each of the criteria individually leading to a balanced justification and conclusion.

These judgements will also consider the influence of mitigation, including mitigation which forms an integral part of the proposed development (for example, avoidance of impacts through retained areas of vegetation).

Issues Proposed to be Scoped Out

No issues are proposed to be scoped out of chapter 9.

Chapter 10: Ecology

The Ecology chapter of the ES will assess the likely impact of the proposed development upon the ecology within and surrounding the site.

The introduction will include an overview of the relevant legislative and planning policy context related to Ecology. The Ecology chapter will be in line with the Chartered Institute of Ecology and Environmental Management (CIEEM) – Guidelines for ecological impact assessment. With regards to mitigation, the assessment will follow the biodiversity hierarchy Avoidance, Minimisation, Rehabilitation/Restoration and Offsetting.

Baseline Information

Surveys have been completed at the site to identify whether there is a presence of the following species:

- Dormouse
- Reptile
- Bats and Birds

Great Crested Newts Wintering Birds

Habitats

The site is mostly improved grassland, semi-improved neutral grassland, and hardstanding. There is some young plantation broadleaved woodland, continuous and scattered scrub, and 9 ponds. There are no statutory designated sites within 1km radius of the site. There are four Local Wildlife Sites within a 1km radius of the proposed site, one of which is on or adjacent to the site, one of which is on or adjacent to the site, and a review of MAGIC maps identified that the site contains, or is in close proximity to, ancient woodland and deciduous woodland Priority Habitats.

Great Crested Newts

The site holds a medium population of Great Crested Newts (GCN); 2 ponds, with a peak count of 70. Furthermore, 7 ponds on site were negative for GCN however, within 500m of the site there is at least 1 additional GCN pond, several negative ponds and 8 unsurveyed ponds on third party land. The site is optimal habitat for GCN, with grassland, woodland and scrub. As such, it proposed to scope in GCN's and their habitats.

Breeding Birds

A total of 6 surveys found 50 bird species, comprising:

- 1 Birds Directive 2009 Annex I species (red kite)
- 3 Wildlife and Countryside Act 1981 (as amended) Schedule 1 species (barn owl, brambling, red kite)
- 5 Birds of Conservation Concern (BoCC) Red List species (herring gull, linnet, skylark, song thrush, yellowhammer)
- 11 BoCC Amber List species (black-headed gull, bullfinch, common gull, dunnock, kestrel, lesser black-backed gull, meadow pipit, reed bunting, stock dove, swift, willow warbler); and
- 30 BoCC Green List species; and two introduced species (pheasant, red-legged partridge)

The open grassland areas of the airfield are important breeding areas for skylark, with at least 29 territories in early June, of which 26 are within the site. There are also a range of other nesting sites/ territories within the site:

- At least 5 meadow pipit territories;
- Linnets nests in the south-east, with potential presents in the north-east
- Dunnock nests; and
- Yellowhammer, brambling, bullfinch, song thrush, and willow warbler are generally restricted to fringes of the site (no nests will be affected)

The following birds were also seen within in the site:

- A barn owl was observed on visits 2-4, foraging in the south of the site and a barn owl pellet was found in the north-west (no nesting or regular roosts will be affected)
- Red kite foraged over the site on 3 occasions
- A low number of foraging gulls were present on visit 6; and
- A kestrel was regularly seen (no nest on site)

The other species mostly occupy hedgerows and woodland surrounding the site however, there are a few Green List passerines nests in scrub patches on site.

Wintering Birds

The initial Preliminary Ecological Appraisal (PEA) did not consider wintering birds, but given the site's large size, mostly seminatural nature and its importance for breeding birds, the site could support significant numbers of wintering birds. A Wintering Bird Survey between November 2021 to March 2022, with a single monthly walkover survey, will identify if any wintering birds are present.

Other Groups

Hazel dormouse, reptile and Invasive Non-Native Species (INNS) survey results were negative. As such, no INNS infestations, badgers, protected mammals, reptiles, invertebrates, or other issues identified. Bats may forage around the peripheries of the site, but generally not the open grassland areas.

Proposed Approach

Great Crested Newts

The site holds a medium population of GCN and some of the ponds will be removed, which means that the GCN's will need to be translocated to a new habitat. A GCN District Level Licensing Scheme operated by Natural England will be utilised to translocate the CGN's. As such, it is proposed to scope in GCN's.

Breeding Birds

With regards to birds, no Annex I/Schedule 1 nests or roosts will be affected, but nesting and foraging habitat will be lost for Red List species (skylark c.26 pairs, linnet c.2 pairs) and Amber List species (meadow pipit c.5 pairs, dunnoek c.2 pairs). Foraging habitat for 9 other Red List and Amber List species and nesting habitat for 4 Green List and 2 non-native species will also be lost. As such, it proposed to scope in breeding birds.

Wintering Birds

If the Wintering Bird Survey identifies any wintering birds within the site, this will be scoped in to the EIA.

Other Groups

No other protected species were identified, with the exception of bats that may forage around the peripheries of the site, but generally not the open grassland areas where development is proposed. Therefore, no other species are scoped in to the assessment.

Mitigation

Great Crested Newts

A traditional Natural England licensed, or a District Level Licensing route will need to be followed to allow for the translocation of mitigation/offset the impacts.

Breeding Birds

Works will be timed to avoid harm to nesting birds, especially with regards to skylark, but also for meadow pipit, linnet, dunnoek, and common passerines. All other species nest off-site.

To compensate for the loss of breeding and foraging habitat for skylark, a large area of compensatory grassland restoration will be needed. This may include the restoration of arable or improved pasture to a more biodiverse grassland with longer sward. The needs of all the other bird species affected would be met by this provision and would help achieve in excess of 10% Biodiversity Net Gain (BNG). This will make up an additional Green Aim. A BNG assessment will also be completed as part of the assessment. The use of DEFRA Biodiversity Metric 3.0 will be used and the assessment will follow CIEEM Biodiversity Net Gain Report and Audit templates.

Summary

It proposed to scope in GCN's and Breeding Birds, including their habitats.

Assessment of Effects

The assessment of likely significant effects as a result of the proposed development will consider both the construction and operational phases. An effect will be considered to be either significant or not significant and likely to be either beneficial or adverse. Furthermore, the duration of the effect will be assessed as either 'short-term', 'medium-term' or 'long-term'. Short-term is up to 1 year, medium-term is between 1 and 10 years and long-term is considered to be greater than 10 years. A degree of confidence will also be assigned to assess the likelihood of an effect occurring in line with CIEEM guidance.

An effect is significant if it is likely to effect the integrity of a habitat or the conservation status of a species. Technical definitions of integrity and conservation status will follow the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance.

Issues Proposed to be Scoped Out

At the stage, is proposed to scope out bats, badgers, hazel dormouse, other protected mammals, reptiles, invertebrates, and Invasive Non-Native Species. The results of the wintering birds survey will determine whether wintering birds are scoped in to the assessment.

Chapter 11: Climate Change Mitigation and Adaptation

The Environment Act 2021 was given Royal Assent on the 10th November 2021 and introduces a statutory requirement to set long term targets to improve air quality, biodiversity, water, and waste reduction and resource efficiency. Braintree District Council declared a Climate Change Emergency in July 2019 and have since produced a Climate Change Initial Action Plan (September 2021-March 2023). Furthermore, the MoJ is committed to playing an important role in ensuring that government meets its Greening Government Commitments¹¹. Keeping global temperatures to below 1.5°C is crucial to avoid the climate collapsing and is a major political and social issue at present. IEMA's guidance states that all emissions are considered significant and EIA's should ensure the project addresses these emissions through mitigation. As such, it is proposed to scope in Climate Change Mitigation and Adaptation.

The introduction to this chapter will include an overview of the relevant legislative and planning policy context related to climate change mitigation and adaptation.

Proposed Approach

11 UK GOV (2020) Greening Government Commitments

The assessment will include two-parts, as required by the 2017 EIA Regulations and in line with IEMA's Guidance :

Emissions Reduction

The potential effects of the proposed development on climate change, with measures included in the project to reduce the emissions of greenhouse gases (GHGs) (not to be confused with 'EIA mitigation'); and

Climate Change Adaptation

Both the vulnerability of the proposed development to climate change and also the implications of climate change for the predicted impacts of the project, as assessed by the other topic specialists ('in-combination climate impacts').

There is no prescribed way in which climate change should be incorporated into an ES. By its very nature, climate change interacts with a range of other environmental and social topics and is therefore considered elsewhere in this ES and in other planning documents. The overall approach for the two-parts is outlined below.

Baseline Information

Data on GHG emissions is available from the National Atmospheric Emissions Inventory. As this data presents information on GHG emissions at a local authority scale, it cannot be related directly to the assessment of emissions associated with the proposed development. It does, however, provide useful context with respect to the key current sources of GHG emissions.

The proposed development is located within the administrative boundary of Essex County Council. As such, the assessment will provide a breakdown of GHG emissions from sectors relevant to the proposed development within Essex County administrative area.

Methodology

The assessment will consider both direct emissions and indirect emissions.

The two direct sources of GHG emissions are:

- road traffic during construction and operation; and
- on-site combustion construction and operation

The two indirect sources of emissions are:

- off-site CO₂ emissions such as energy produced from fossil fuels (e.g. electricity, cooling, heating and electric vehicle charging); and
- embodied carbon arising from materials and systems

The ES will determine the significance of effects for the 4 sources of emissions outlined above.

As is commonly the case, it is not feasible to quantify the emissions from embodied carbon within the materials of the proposed development at the ES stage. This is due to the limited detail available in terms of the materiality and the planned construction processes for the development.

An alternative, qualitative, approach will be taken to the assessment of both offsite and embodied emissions, reflecting the design and carbon management principles for the proposed development which are detailed in the Sustainability Statement and BREEAM Pre-Assessment. This is in line with IEMA's guidance on

'Assessing Greenhouse Gas Emissions and Evaluating their Significance' which states that a qualitative approach is acceptable where data is unavailable.

Assessment of Effects - Significance Criteria

There are no established thresholds for assessing the significance of an individual project's contribution to climate change. However, IEMA's EIA Guide to: Assessing GHG Emissions states the following:

"GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit, as such any GHG emissions or reductions from a project might be considered to be significant.....Therefore in the absence of any significance criteria or a defined threshold, it might be considered that all GHG emissions are significant and an EIA should ensure the project addresses their occurrence by taking mitigating action."

In addition to this, the IEMA guidance also requires a proportionate approach to the assessment of climate change effects. It therefore suggests some alternative means for assessing these effects, either in relation to defined GHG thresholds or by comparing performance against recognised benchmarks and standards such as BREEAM performance standards for energy/CO₂ emissions.

The MoJ will achieve a minimum Excellent BREEAM rating, with a route to endeavour Outstanding, with the latter being the highest rating available. The BREEAM Pre-Assessment shows the route to deliver BREEAM Outstanding. In order to achieve an Outstanding rating, the project will have to score 85% or over through BREEAM credits, that are divided into 10 categories. These categories include Energy, Transport, Materials and Pollution and the target for these categories will be used to inform the emissions reduction assessment and determine significance.

Climate Change Adaptation

The effects of the changing climate on the proposed development will largely be assessed in relation to the site as defined by the site boundary and its immediate surroundings. For example, the site is not located near a coastal area and will not be subject to sea level rises however, it is important that the proposed development can withstand rises in atmospheric temperatures and is comfortable for occupants. The Climate Change Adaptation assessment includes two parts: projections of future climatic conditions and the consideration of climate change adaptation within all EIA topics.

Future Climatic Conditions

In considering future climate change scenarios, the IEMA guidance recommends the use of the UK Climate Projections Website (Met Office, 2017). 'Probabilistic' projections will be provided for a range of variables including temperature, precipitation and sea level rise. Wind speed and storm frequency/intensity are considered separately as global modelling information is currently more limited. The current projections, UKCP18, released in November 2018, are now the most up to date climate change projections available. The UKCP18 projections for temperature and precipitation are presented for the UK as a whole and also on a regional basis. The UK projections consider three variables:

Timeframe: between 2020-2039, 2040-2059, 2060-2079 and 2080-2099

Probability: 5, 10, 50, 90 and 95%

Representative Concentration Pathways (RCP): RCP2.6, RCP4.5, RCP6.0 and RCP8.0

The pathways describe different GHG and air pollutant emissions resulting in a range of different global mean temperature increases over the 21st century.

The assessment will use 2080-2099 as this is appropriate for the project's lifespan; 10%, 50% and 90% probability projections; and RCP8.0 which is the worst case scenario and in line with IEMA's guidance.

Consideration of Climate Change Adaptation within EIA Topics

All topic authors will be provided with a summary of the climate change projections and will be asked to consider the relevance of this for their baseline descriptions, i.e. the sensitivity (susceptibility/vulnerability) of the receptor to climate change.

The responses from the topic specialists will inform the assessment and professional judgement will be used to identify the significance.

Issues Proposed to be Scoped Out

It is not possible at this stage to say which topics are scoped in and out for the climate change adaptation assessment. Once topic specialists consider how the future climatic conditions will effect their topics, it will be possible to determine which topics are scoped in.

Chapter 12: Socio-Economic and Health

Given the scale of proposed development and new employment creation, it is anticipated that the proposed development will have a significant beneficial effect. The socio-economic Impact chapter I focus on both the construction and operation phases of the proposed development. The assessment will comprise of a baseline assessment, a quantification of impacts and an assessment of the significance of these impacts, and any associated mitigation measures.

Baseline Information

The baseline conditions will focus on both local and regional conditions, including economic conditions, employment, the prison sector, demographics and skills.

Proposed Approach

The socio-economics chapter will consider the following economic effects:

Direct effects:

Construction phase

Operational phase

Indirect effects:

Economic impact

Local supply chain

In addition to economic effects, the chapter will also consider social effects as result of the development. Social effects are likely to include, but not limited to, access to open space, education and skills.

Assessment of Effects – Significance Criteria

There is no defined way to determine significance of socio-economics effects. As such, professional judgement and previous experience will be used to define the significance of likely effects. With regards to employment, it is likely that effects will be positive and therefore, no mitigation will be required.

Issues Proposed to be Scoped Out

No issues are proposed to be scoped out of Chapter 12.

Human Health

The 2017 EIA Regulations introduced human health as a topic to EIA. Whilst this is related to other topics such as air quality, noise and climate change, it can also be assessed through a Health Impact Assessment (HIA). A HIA will be used to judge potential health effects of the development and will include recommendations to maximise positive health effects and reduce any negative effects. As such, a HIA will be appended to the EIA.

Chapter 13: Water Resource and Flood Risk

The assessment of water resource and flood risk implications of the development is being undertaken by Hydrock Consultants Ltd (Hydrock).

The introduction will include an overview of the relevant legislative and planning policy context related to hydrology.

Baseline Information

Hydrology and Flood Risk

The Environment Agency's (EA) Flood Map for Planning shows the site to be located in Flood Zone 1, representing a low risk of flooding from the sea, or rivers with a catchment area greater than 3km². The topographically elevated position of the site means that no watercourses are located within the immediate vicinity, or uphill of the site, with the nearest watercourse to the site (Finchingfield Brook) being located around 2.2km west of the site.

The site is underlain by bedrock geology of the Thanet Formation and Lambeth Group, consisting of clay, silt and sand. Superficial deposits of the Lowestoft Formation, consisting of diamicton have been identified as overlying the site. The generally low permeability of the geology is unlikely to be conducive to groundwater emergence. Furthermore, the topographically elevated position of the site means that any sub-surface groundwater flows are likely to be directed downhill and away from the site, preferentially emerging within the surrounding lower-lying land, e.g. the Finchingfield Brook valley around 2.2km west of the site.

Surface Water

The EA's Flood Risk from Surface Water mapping shows the site to predominantly be at 'very low risk' of surface water flooding. There is an elevated risk following depressions in the topography, which directs any site-generated overland flow from the centre of the site towards the eastern, southern and western boundaries. These areas make up the existing surface water drainage system, directing overland flows to existing ditches to the south and south-east of the site, preventing 'ponding' within the site.

Water Quality

The EA's Catchment Data Explorer shows the site lies within the Bourne Brook Water Body catchment. The catchment has a Water Framework Directive (WFD) overall waterbody quality classification of 'poor' (based on an ecological status of 'poor' and a chemical status of 'fail').

Potable Water Supply

Potable water is supplied by Anglian Water within the area. The EA classify the Anglian Water region as 'moderately water stressed'. Pressures are projected to grow due to population growth and longer periods of low rainfall predicted as a result of climate change.

Foul Water

It is understood that the existing foul water system would be unable to accommodate the proposed development and therefore an on-site water treatment plant will form part of the development proposals.

Likely Effects

Potential effects of the proposed development to be addressed by the ES include:

Loss of potential floodplain storage and/or impedance of overland flood flows routes through the temporary or permanent obstruction of 'dry valleys' within the site. Such potential effects could influence the flood risk posed on-site and to downstream third-party land

If unmitigated, the volume of surface water run-off and foul water discharge from the Development could significantly increase the likelihood of downstream adverse effects, in terms of increasing flood risk as a result of surcharging waterbodies and/or sewerage systems

The discharge of additional surface and foul water from the site has the potential to adversely affect downstream / aquifer water quality, if unmitigated. Surface water discharges have the potential to contain pollutants generated as part of construction and operation activities, whilst foul water discharges could adversely affect water quality in receiving waterbodies if not appropriately treated.

The development will involve the use and consumption of potable water, both during construction and operation. This has the potential to adversely affect water resource availability within the region

Assessment of Effects

Surface water flooding- the site experiences some increased risk of surface water flooding, following depressions in the topography. As the development could lead to the impedance of overland flow routes and increases to the volume of surface run-off, surface water flooding should be scoped into the EIA

Surface water quality- the site's catchment has a waterbody quality of 'poor', as the development has the potential to increase discharge from the site, surface water quality should be scoped into the EIA

Potable water- the development has the potential to put further stress on the already 'moderately stressed' potable water supply, therefore this effect should be scoped into the EIA

Methodology

The assessment will be supported and informed through consultations with various stakeholders, including: the design team, Essex County Council, the Environment Agency, Natural England, Highways England and Anglian Water.

It is proposed that the Hydrology chapter will assess the likely significant effects of the development and identify suitable mitigation measures through the following:

Flood risk: the assessment of flood risk will primarily be presented within a standalone Flood Risk Assessment (FRA) report, to be undertaken by Hydrock. This assessment will inform the preparation of the Hydrology chapter and will be appended to the ES as a Technical Appendix. This will be National Planning Policy Framework compliant and based upon a desk-top assessment, information gathered from a topographical survey of the site, and a site walkover survey. The masterplan will be developed through discussions with the design team to ensure the Development is suitably located and designed to ensure no adverse effects on flood risk

Surface water quantity and quality: the potential effect of the development on off-site run-off and groundwater contamination will be determined and a Surface Water Drainage Strategy will be prepared, identifying Sustainable Drainage Systems (SuDS) and any other additional mitigation appropriate to address any identified adverse impacts on the quality and quantity of run-off from the development

Foul water: A new water treatment plant is proposed at the site

Potable water supply: the potential demand on potable water supply as a result of the development will be identified, along with an assessment of the potential impact of such demand on water resource availability, and in turn any management / mitigation measures required

Issues Proposed to be Scoped Out

The following issues are proposed to be scoped out on the basis that their effects are considered to be non-significant/negligible:

Fluvial flooding- the site is situated in Flood Zone 1, and is located 2.2km away from any watercourses, therefore the risk of fluvial flooding is considered non-significant. This will be assessed as part of the FRA submitted with the planning application

Surface Water – Owing to planning application requirements a detailed drainage strategy will be prepared for the site and this will outline how the potential effects will be managed. On the basis this will form embedded mitigation and installed as enabling works, the risk is considered as being managed and therefore non-significant. A surface water drainage strategy will be submitted as part of the planning application

Tidal flooding- due to the site's location inland and away from tidally influenced rivers, the risk of tidal flooding is considered non-significant. Notwithstanding this, tidal flooding will be included in the FRA submitted with the application

Groundwater flooding- due to the generally low permeability of the site's geology, and the site's elevated position, the risk of groundwater flooding is considered to be non-significant. Notwithstanding this, groundwater flooding will be included in the FRA

Policy and Guidance

The following guidance and policy documents will be considered as part of the water resource and flood risk assessment:

The Sustainable Drainage Systems Design Guide for Essex 2020
Chapter 7 of the 'Caria SuDS Manual C753'

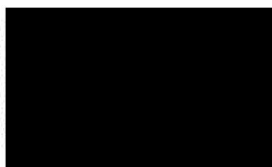
Chapter 14: Conclusions

This chapter will provide a summary of the ES and its findings.

I trust that the above is in order, and will enable the Council to issue a Scoping Opinion for the site to inform

the preparation of the ES. I would be happy to discuss the above either via telephone or via a team's meeting if this would be helpful. Should you have any questions or wish to discuss in more detail please do not hesitate to contact me.

Yours sincerely



Charlotte Tucker MRTPI
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