Technical Appendix A: Scoping

Contents

1. Scoping request letter to Rochford District Council, March 2014
2. Land North West of Rayleigh EIA Scoping Report, March 2014
3. Rochford District Council Scoping Opinion, May 2014
4. Individual scoping responses from consultees, April - May 2014
5. Scoping response table, August 2014
Mr J Whitlock  
Head of Planning  
Rochford District Council  
Council Offices  
South Street  
Rochford  
Essex  
SS4 1BW

27th March 2014

Reference: 180605

Dear Mr Whitlock,

Proposed Development of Land North West of Rayleigh

Scoping Request under Town and Country Planning (Environmental Impact Assessment) Regulations 2011

We have recently completed an Environmental Impact Assessment (EIA) scoping exercise for the proposed development of land north west of Rayleigh. I have pleasure in enclosing two paper copies of the EIA scoping report for yourselves and consultees, and in formally requesting a scoping opinion.

In order that we can consider any changes as soon as possible, I would be grateful if consultee responses could be copied to me once received. Please could you also confirm the organisations that you will be consulting on, for our records?

The primary purposes of an EIA, as defined by Directive 2011/92/EU, are to ensure that the authority giving the primary consent for a development project makes its decision in the knowledge of any likely significant effects on the environment, and to provide information such that the public can properly understand the importance of the predicted effects.

There has, however, been a trend for increasing scale and complexity of EIAs over recent years, largely because non-significant issues have been included. The result is often that it is difficult for the determining authority, consultees and the public to review the environmental statement holistically and understand the significant effects associated with the proposed development; hence defeating the principal objectives of the EIA process.
In the preparation of the enclosed scoping report we have given careful consideration to the scale and nature of the proposed development, in the context of site-specific and local environmental baseline conditions. Our intention has been to scope in those issues considered to be potentially significant.

Where a particular issue has not been included within the proposed scope of the EIA, this is not to suggest that there will be no associated effects, rather these will not be significant.

We anticipate that following the five-week period that is indicated as being needed for responses, the total scope of the EIA will have been established and agreed between ourselves.

In addition to the hard copies, we have supplied an electronic pdf copy on disc that hopefully will further assist you with the scoping consultation. However, if you require additional hard copies of the scoping report, further information or clarification, please do not hesitate to contact me.

Yours sincerely

Emma Robinson
Associate Director

Enc: Land north west of Rayleigh Scoping Report (two paper copies and one disc)
cc: Steve Price – Countryside Properties (UK) Ltd
    Kevin Coleman – Phase 2 Planning and Development Ltd
<table>
<thead>
<tr>
<th>Issue / revision</th>
<th>Prepared by</th>
<th>Emma Robinson</th>
</tr>
</thead>
<tbody>
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<td>27 March 2014</td>
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<tr>
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<td>Richard Burton</td>
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<td>Please return by</td>
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Appendix B Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011: information for inclusion in an ES
1 Introduction

Purpose of the scoping report

1.1 Countryside Properties (UK) Ltd intends to apply to Rochford District Council (RDC) for outline planning permission to develop land north west of Rayleigh (figure 1) for primarily residential use (the proposed development). The proposed development also includes a link road between London Road and Rawreth Lane, attenuation ponds and public open space. Details of the junctions of the new link road with London Road and Rawreth Lane will be submitted in detail. In addition, there will be local off-site highway enhancements.

1.2 Countryside Properties (UK) Ltd considers that the location, scale and nature of the proposed development have the potential to give rise to significant effects on the environment. This being the case, the proposed development therefore falls within Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (hereafter the EIA Regulations) and therefore considered to be an environmental impact assessment (EIA) development, as defined by the EIA Regulations. The planning application will be accompanied by an environmental statement (ES) prepared in accordance with the EIA Regulations. Countryside Properties (UK) Ltd has therefore prepared this report in order to inform RDC’s formal EIA scoping opinion under the EIA Regulations.

1.3 This report presents information to assist the council in its process of preparing a written opinion on the scope of the information that should be set out in the ES. It also outlines Countryside Properties (UK) Ltd’s initial assessment as to the potentially significant environmental effects that the EIA would need to examine and the preliminary scope of the information that would need to be provided in the ES. To assist the council in meeting its regulatory requirements to engage with the consultation bodies and Countryside Properties (UK) Ltd ahead of issuing its scoping opinion, a suggested list of consultees is included at Appendix A.

1.4 This scoping report constitutes a formal request for a scoping opinion.

Report structure

1.5 The report is structured as follows:

• Application Site description (chapter 2)
• Proposed development (chapter 3)
• Environmental impact assessment – an overview (chapter 4)
• Scoping and environmental impact assessment (chapter 5)
• Scoping methodology (chapters 6)
• Identification of significant effects (chapters 7)
• The results of the scoping process (chapters 8 to 19)
• Conclusion as to the information to be provided in the ES and its proposed structure (chapter 20)
2 Application site description

2.1 The 52 ha Application Site lies to the north west of Rayleigh and comprises arable fields, delineated by hedgerows and ditches (figure 1). The Application Site is bounded to the west by arable fields and to the north by Rawreth Lane. There is a residential area, a superstore, Rawreth Industrial Estate and a wooded area adjacent to the Application Site's eastern boundary, from north to south respectively. The southern boundary is formed by the A129 London Road.

2.2 To the north and west of the Application Site lie fields, isolated farms and dwellings, Rawreth Hall (approximately 50m), the small village of Rawreth (approximately 870m) and the A1245 Chelmsford Road. To the south of the Application Site lie fields, Our Lady of Ransom RC Primary School and Wheatley Farm Nursery (approximately 190m and 42m respectively). The urban area of Rayleigh lies to the east of the Application Site.

2.3 The Application Site is predominantly arable land. Two rows of electricity pylons run north to south close to the western boundary of the Application Site. The Rawreth Brook runs from east to west through the Application Site and is joined by another watercourse further west of the Application Site. Several land drainage ditches flow into the brook from the north and south. There are two small ponds within the Application Site. There are no locally, nationally or internationally designated conservation areas present at the Application Site.

2.4 The general slope of the Application Site is to the west. It also slopes from the north and south towards the Rawreth Brook in the centre. There are no public rights of way on the Application Site.

2.5 There are several tree preservation orders (TPOs) present on and adjacent to the Application Site. TPO/0026/09 is an area of woodland consisting of mainly hawthorn, oak, field maple and sycamore located just beyond the south eastern corner of the Application Site. TPO/00104/08 runs northwards along the western edge of the small tributary to Rawreth Brook. TPO/00011/11 includes three ash trees, one field maple and two oak trees bounding the Application Site to the east, adjacent to Rawreth Industrial Estate. This is supplemented by TPO 1/82, which includes several poplar trees on the western boundary of the Rawreth Industrial Estate, adjacent to the proposed development Application Site.

2.6 The River Crouch is located approximately 1.5 km to the north of the Application Site and forms part of the Crouch and Roach Estuaries Special Area of Conservation (SAC), Ramsar site and Site of Special Scientific Interest (SSSI) and the Essex Estuaries Special Protection Area (SPA). The nearest listed building is an 18th/19th century barn, which is listed grade II and is located approximately 40 m east of Rawreth Hall and 120m west of the Application Site.
3 Proposed development

3.1 The proposed development comprises approximately 34 ha of residential dwellings and approximately 0.3 ha of non-residential uses (which could include: A1 (retail), A2 (financial / professional services), A3 (restaurants / cafes), A4 (public house), A5 (takeaways), C2 (residential care / nursing home), D1 (non-residential institutions such as doctors surgery, health centres, day nurseries) with some C3 (dwellings) above and a petrol filling station).

3.2 A new link road, running north-south through the Application Site and connecting London Road and Rawreth Lane is included, in addition to new pedestrian and cycle links.

3.3 Two attenuation ponds will be created in the western part of the Application Site. Landscaped areas will be provided around the watercourses, attenuation ponds and along Application Site boundaries as appropriate. Public open space will also be provided, integrating the pylons along the western part of the Application Site.

3.4 The proposed development, on approximately 34 hectares, is anticipated to result in 475 dwellings and it is proposed that this dwelling figure be enshrined in a planning condition. For sensitivity testing purposes and for robustness, the EIA will assess 475 plus 10%.
5 Scoping an environmental impact assessment

Background

5.1 The purpose of an ES is to report the findings of the EIA. The EIA process examines the likely significant effects of an EIA development on its receiving environment. This is encapsulated in the advice given in the DCLG EIA guidance (under the section "What Information should the Environmental Statement contain?"):

"Whilst every Environmental Statement should provide a full factual description of the development, the emphasis of Schedule 4 is on the "main" or "significant" environmental effects to which a development is likely to give rise. The Environmental Statement should be proportionate and not be any longer than is necessary to assess properly those effects. Where, for example, only one environmental factor is likely to be significantly affected, the assessment should focus on that issue only. Impacts which have little or no significance for the particular development in question will need only very brief treatment to indicate that their possible relevance has been considered."

5.2 This approach is reinforced by case law from UK and European courts. Judgements have stated that, even in relation to the minimum requirements for an ES, not every possible effect has to be considered. The focus should be on the main effects and remedying the significant adverse effects. The Milne judgement (R v Rochdale MBC ex parte Milne) states that "the environmental statement does not have to describe every environmental effect, however minor, but only the main effects or likely significant effects". The Tew judgement (R v Rochdale MBC ex parte Tew) noted that the underlying objective of EIA is that decisions be taken "in full knowledge" of a project's likely significant effects and stated:

"that is not to suggest that full knowledge requires an environmental statement to contain every conceivable scrap of environmental information about a particular project. The directive and the Assessment Regulations require the likely significant effects to be assessed. It will be for the local planning authority to decide whether a particular effect is significant".

5.3 There is no formal definition of main or significant effects in the Regulations, although guidance provided by the European Union(1) advises that:

"Those responsible for scoping often find difficulties in defining what is ‘significant’. A useful simple check is to ask whether the effect is one that ought to be considered and to have an influence on the development consent decision".

5.4 Therefore, while scoping is an important early stage in EIA, as it sets the context for the remainder of the process, it needs to be approached with the above points in mind.

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The purpose of scoping

5.5 A comprehensive and focused scoping process, culminating in a constructive scoping opinion that identifies the likely significant effects and any EIA methodologies that RDC wishes to see employed, will enable the production of an ES that provides a concise and objective analysis that deals with the significant areas of impact and highlights the key issues relevant to the decision-making process.

5.6 The planning authority’s scoping opinion (provided pursuant to Regulation 10(1) of the EIA Regulations) represents its formal opinion on the information that needs to be presented in the ES that will accompany the planning application for EIA development. Countryside Properties (UK) Ltd considers that this information can be grouped under the following areas, which this scoping report has focused on:

1. The identification of the aspects of the environment that may be affected by the proposed development and consideration of whether any of these will be significantly affected.

2. A description of the EIA methodologies that will be used to determine the degree of significance to be attached to the significant effects.

5.7 If the required information is defined too narrowly, some critical area of uncertainty or a significant adverse effect may emerge late in the process, which may have potential consequences for the design of the proposals and timetables for development. If the required information is too loosely defined, much time, expense and effort may be wasted on pursuing unnecessary detail. Therefore, Countryside Properties (UK) Ltd considers point 1 at paragraph 5.6 above to be the primary focus of this scoping report.

5.8 When addressing point 1, careful consideration has to be afforded to the scale and nature of the proposed EIA development, in the context of site specific and local environmental baseline conditions and, where relevant, the potential cumulative implications with other schemes either operational, approved or for which planning consent is currently being sought.

5.9 The purpose of point 1 at paragraph 5.6 is to ‘scope in’ only those aspects considered to have likely significant environmental effects. Where a particular environmental feature or component of it has not been included within the proposed scope of the EIA, this is not to suggest that there will be no associated effects; rather that these are not considered to be among the significant effects. In line with DCLG’s EIA guidance (as highlighted in paragraph 5.1 above), these effects will be given “very brief treatment [within the scoping report] to indicate that their possible relevance has been considered”, but no detailed assessment work is proposed for them.

5.10 As required under Schedule 2 of the Regulations scoping is an identification process that will need to be kept under constant review throughout the EIA process of the proposed development, ensuring any new potentially significant environmental effects are identified and included in the assessment. Countryside Properties (UK) Ltd will amend the scope of the EIA as required and, in the event of a significant change to the proposals or the baseline conditions, it may approach RDC for a further scoping opinion.
6 Scoping methodology

Introduction

6.1 The scoping methodology used by Terence O'Rourke Ltd has two stages, which are explained in this chapter. Chapter 7 then sets out the results of the first stage of scoping for the proposed development. The subsequent chapters address the second stage of the scoping process, summarise the findings of both stages and therefore identify those matters to be included in the EIA for each topic heading, before setting out the proposed assessment methodology for each topic heading. The concluding chapter summarises all of the matters that Countryside Properties (UK) Ltd considers should be addressed in the EIA.

Stage 1

6.2 Stage 1 uses a checklist of environmental features and their components to identify:

i. Those environmental features, or components of them, that clearly have the potential to be subjected to likely significant environmental effects arising from the proposed development, and that these have the potential to be likely significant environmental effects (and therefore should be included in the EIA).

ii. Those environmental features, or components of them, that may be subjected to effects arising from the proposed development, but it is not clear whether these effects have the potential to be likely significant environmental effects (and therefore further consideration is required to determine whether those should be included in the EIA).

iii. Those environmental features, or components of them, that are either of no relevance to the proposed development, or will clearly not be subjected to the proposed development's likely significant environmental effects (and therefore should not be included in the EIA).

6.3 This checklist is based on the features of the environment referred to in the EIA Regulations and:

- Preparation of environmental statements for planning projects that require environmental assessment – a good practice guide (Department of Environment, 1995)
- Guidance on EIA Scoping (European Commission, 2001)
- Guidelines for environmental impact assessment (The Institute of Environmental Management and Assessment, 2004)

6.4 The completed checklist is shown in table 7.1.

Stage 2

6.5 As well as summarising the environmental effects that clearly have the potential to be significant (i.e. those that fall within paragraph 6.2(i) above), stage 2 of the scoping process involves a more detailed examination of the potential effects that fall within paragraph 6.2(ii) above to assess, where possible, if any of these effects are likely to be significant and should be included within the EIA.
6.6 To determine whether these remaining effects are likely to be significant, the relative importance of the potential receptors (classified as high, medium, low or negligible) is compared to the magnitude of the envisaged changes (classified as large, medium, small or negligible) to which they would be subjected, using the matrix in figure 2.

6.7 Where an effect falls within the orange shaded area of the matrix, it is considered likely to be significant and should be included within the scope of the EIA. Effects falling within the green areas on the matrix are considered to have no likelihood of being significant and should not be included within the scope of the EIA. Where an effect falls within the yellow area on the matrix, the uncertainty may be such that it cannot be confirmed at the scoping stage whether it is likely to be a significant effect or not. Such effects warrant further consideration through the EIA process and so these effects will be included in the scope of the EIA.

Figure 2: The scoping matrix

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<th>Importance / sensitivity of receptor</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
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<td>Large</td>
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<td>Medium</td>
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Likely to be significant | Possibly significant | Not significant
7 Stage 1: Identification of significant effects

7.1 The stage 1 process was undertaken using the methodology set out in chapter 6. This was based on the currently available details of the proposed development, the currently available baseline data and the judgment of experienced EIA practitioners.

7.2 The stage 1 process examined a large group of potential environmental effects, as set out in table 7.1. Where potential environmental effects were identified, a distinction was drawn between those effects that clearly have the potential to be significant (highlighted purple in the table) and those effects that could be significant but require more detailed analysis in stage 2 of the scoping process (highlighted blue in the table).

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<th>Environmental aspect</th>
<th>Component</th>
<th>Possible construction effect envisaged?</th>
<th>Possible operational effect envisaged?</th>
<th>Likely main effect to be considered during the scoping?</th>
<th>Comments</th>
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<td>AIR AND CLIMATE</td>
<td>Local air quality (criteria pollutants)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Increased road traffic emissions during and post-construction</td>
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<td>Dust</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Generation of dust during construction</td>
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<td>Odour</td>
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<td>Local climatic effects</td>
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<td>Transboundary air quality</td>
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<td>No</td>
<td>No</td>
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<td>Global climate</td>
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<td>Carbon dioxide budget / emissions</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Emissions from traffic during and post-construction, use of materials in construction, energy use in buildings post-construction</td>
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<td>COMMUNITY, SOCIAL, AND ECONOMIC</td>
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<td>Increased population density arising from new dwellings</td>
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<td>Altered demography as a result of new population</td>
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<td>Housing supply</td>
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<td>Provision of new market and affordable housing</td>
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<td>Yes</td>
<td>Yes</td>
<td>Creation of employment during and post-construction</td>
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<td>Lifestyle / standard of living</td>
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<td>Education, health and local services</td>
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<td>Yes</td>
<td>Yes</td>
<td>Increased demand for local services by new residents</td>
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<td>Public health and safety</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>The presence of overhead power lines on site raises the potential for health and safety environmental effects</td>
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<td>Local environmental amenity</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Construction works may affect the amenity of local residents. The nature of the proposed development means there is no potential for effects on amenity post-construction</td>
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<td>Electromagnetism / radiation</td>
<td>No</td>
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<td>No</td>
<td>The proposed development will not generate any electromagnetic or radiation effects. The layout of the Application Site will be designed in accordance with National Grid's guidance on developing sites near overhead lines</td>
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<td>Telecommunications</td>
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<td>The scale of the proposed development limits the potential for microclimate effects</td>
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<td>Tourism</td>
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<td><strong>CULTURAL HERITAGE</strong></td>
<td>Archaeology</td>
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<td>No</td>
<td>Yes</td>
<td>Potential for disturbance of archaeological remains on site during construction</td>
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<td>Scheduled monuments</td>
<td>Yes</td>
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<td>Yes</td>
<td>Potential for setting effects on the scheduled monument to the south east of the Application Site</td>
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<td>Architecture / buildings / structures</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Potential for changes to settings of nearby listed buildings during and post-construction</td>
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<td>Historic parks and gardens</td>
<td>No</td>
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<td>No</td>
<td>There are no registered historic parks and gardens within 5 km of the Application Site</td>
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<td>Other historic interest</td>
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<td>Yes</td>
<td>Changes to the historic landscape of the Application Site</td>
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<td><strong>GROUND CONDITIONS</strong></td>
<td>Geology and geomorphology</td>
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<td>No</td>
<td>No</td>
<td>The nature of the proposed development means that effects on geology are unlikely</td>
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<td>Ground contamination</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Potential for mobilisation of any existing contamination during and post-construction</td>
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<td></td>
<td>Mineral resources</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>The Application Site is not used or allocated for commercial minerals extraction</td>
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<td></td>
<td>Soils / agricultural land</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Loss of agricultural land</td>
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<td>Agriculture / horticulture</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>There is no commercial forestry on the Application Site or proposed</td>
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<td>Forestry</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Provision of new public open space land use at the Application Site</td>
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<td>Recreation / open space / rights of way</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Provision of new public open space land use at the Application Site</td>
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<td><strong>LAND USE</strong></td>
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<td>No</td>
<td>No</td>
<td>No minerals extraction on site or proposed</td>
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<td>Industrial / commercial / retail</td>
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<td>No</td>
<td>No new industrial / commercial / retail uses proposed</td>
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<td>Yes</td>
<td>Yes</td>
<td>Provision of new residential land use at the Application Site</td>
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<tr>
<td></td>
<td>Health / social / education</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Provision of new education land use at the Application Site</td>
</tr>
<tr>
<td></td>
<td>Waste disposal</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No waste disposal uses at the Application Site or proposed</td>
</tr>
<tr>
<td><strong>LANDSCAPE AND VISUAL EFFECTS</strong></td>
<td>Landform / topography</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>There are no proposed changes to the landform / topography</td>
</tr>
<tr>
<td></td>
<td>Landscape character</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Character of the Application Site will change from rural to urban</td>
</tr>
<tr>
<td></td>
<td>Protected landscapes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>There are no designated landscapes in the vicinity of the Application Site</td>
</tr>
<tr>
<td></td>
<td>Sensitive views</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Changes to views from residential properties, public rights of way and the wider countryside</td>
</tr>
<tr>
<td><strong>NATURAL HERITAGE</strong></td>
<td>Habitat types</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Loss of on-site habitats and creation of new habitats</td>
</tr>
<tr>
<td></td>
<td>Faunal communities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>The proposed development could change the way the Application Site is used by faunal groups</td>
</tr>
<tr>
<td></td>
<td>Individual / protected species</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Potential for a range of protected species on site – potential for disturbance and habitat loss effects</td>
</tr>
<tr>
<td></td>
<td>Ecosystem integrity</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>The nature of habitats in the vicinity suggests overall integrity will not be affected</td>
</tr>
<tr>
<td></td>
<td>Wildlife conservation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Potential for effects on locally, nationally and internationally designated nature conservation sites</td>
</tr>
<tr>
<td></td>
<td>Resource management</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>The management of natural resources will not be affected</td>
</tr>
<tr>
<td></td>
<td>Natural processes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No changes are predicted to natural processes</td>
</tr>
<tr>
<td><strong>NOISE AND VIBRATION</strong></td>
<td>Noise</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Generation of noise during construction works, increased traffic noise during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Vibration</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Generation of vibration during construction</td>
</tr>
<tr>
<td><strong>TRAFFIC AND TRANSPORT</strong></td>
<td>Infrastructure</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Construction of new access junctions and link road</td>
</tr>
<tr>
<td></td>
<td>Traffic flows</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Increased traffic particularly post-construction, and to a lesser degree during construction</td>
</tr>
<tr>
<td></td>
<td>Pedestrians and cyclists</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Creation of new links</td>
</tr>
<tr>
<td></td>
<td>Public transport</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Increased use of bus services and change to existing routes to serve the Application Site</td>
</tr>
<tr>
<td></td>
<td>Air traffic</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>There is no potential for effects on air traffic</td>
</tr>
<tr>
<td></td>
<td>Water traffic</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>There is no potential for effects on water traffic</td>
</tr>
</tbody>
</table>
Table 7.1: Stage 1 scoping checklist

7.3 The stage 1 process set out in table 7.1 has identified those environmental effects that will be considered in the stage 2 process (effects that either clearly have the potential to be significant or could be significant but require further analysis) and those that will not be included within the EIA. The following chapters summarise the effects that clearly have the potential to be significant, and examine the possible effects to assess if any are likely to be significant and therefore should be included in the EIA. As discussed above, where uncertainty remains at the end of the stage 2 processes, these effects will also be included in the EIA.

7.4 Chapter 20 of this scoping report summarises all of the matters that will be addressed in the EIA.
8 Air quality

Introduction

8.1 The key pollutants affecting human health are nitrogen dioxide (NO₂) and particulate matter of less than 10 microns (PM₁₀). The concentrations of these pollutants at sensitive receptors in the vicinity of the proposed development and along the local road network should be examined and compared with UK air quality objectives. The UK objectives for NO₂ are 200 µg/m³ hourly mean (not to be exceeded more than 18 times a year) and 40 µg/m³ annual mean concentrations, and for PM₁₀ are: 50 µg/m³ 24-hour mean (not to be exceeded more than 35 times a year) and 40 µg/m³ annual mean concentrations.

8.2 The proposed development has the potential to give rise to changes in the air quality at sensitive receptors in the vicinity of the Application Site through fugitive dust emissions associated with site preparation and construction work and through emissions to air from traffic associated with the proposed development. The generation of carbon dioxide (CO₂) from traffic and energy use in the proposed buildings and the use of materials during construction have the potential to affect CO₂ levels.

Currently known baseline

8.3 RDC monitors air quality within its local authority area in accordance with its Local Air Quality Management (LAQM) obligations under Part IV of the Environment Act 1995, the Air Quality (England) Regulations 2000 and the subsequent air quality (assessment) regulations 2002. The most recent council Updating and Screening Assessment (2012) provides monitoring data for 2011.

8.4 In 2010, RDC declared an air quality management area (AQMA) encompassing Rawreth Industrial Estate, including Rowan Close, Stirling Close, and Victoria Avenue, due to annual PM₁₀ (fine dust) level exceedances as defined by the Air Quality Standards Regulations 2010. This order was subsequently revoked on the 01/04/2013 in consultation with DEFRA, as a result of improved air quality. The nearest RDC monitoring station to the Application Site (an urban/industrial PM₁₀ beta attenuation mass analyser) is immediately adjacent to the eastern side of the Application Site in Rawreth Industrial Estate (approximately 100m). The mean annual PM₁₀ concentration at this location in 2011 was 31.0 µg/m³, lower than the 40.0 µg/m³ national annual limit.

8.5 There is an urban NO₂ diffusion tube monitoring station on the High Street in Rayleigh town centre, by the junction by Eastwood Road. The mean annual NO₂ concentration at this location was 45.1 µg/m³, in excess of the 40.0 µg/m³ national annual limit. An AQMA for NO₂ has been suggested for Rayleigh town centre and its environs, approximately 1.9 km to the south-east of the Application Site. The predominant source of NO₂ in these areas is the ambient background, influenced by cars. However, the council has deferred a decision on the implementation of an AQMA until a public consultation exercise has taken place. The public consultation exercise has also been deferred to allow Rochford District and Castle Point Borough Councils to act together on the issue. The official stance of the councils is to take no further action in respect of the AQMA for the time being.
8.6 Given the proximity of the Application Site to residential dwellings and the potential designation of an AQMA, and with reference to the scoping matrix (figure 2), it is considered that existing receptors in the area are likely to be of high sensitivity.

Potential significant effects

8.7 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to environmental effects on air quality. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

• Mobilisation of dust during site preparation and construction activities - subject to the nature of the ground conditions, site preparation and construction activities and meteorological conditions, construction sites have the potential to mobilise dust that can then be deposited on surrounding areas. The significance of dust deposition tends to decrease with increasing distance from the source and is only commonly significant within 100 m of the dust generation source. Due to the presence of residential properties within 100 m of the Application Site and the recent revocation of the Rawreth Industrial Estate AQMA, which was implemented due to PM₁₀ exceedances, it is considered that there could be a dust generation effect of small magnitude, which given the high sensitivity of local receptors has the potential to be significant.

• Emissions from vehicles during the construction phase - the movement of materials, personnel and waste to and from a construction site will have associated emissions. However, the majority of construction traffic is likely to access the Application Site from the A130 to the west, rather than via the town centre. In addition the proportional increase in traffic is likely to be below the level that would lead to a significant change in emissions. EPUK air quality assessment guidance states that assessment may be required for: ‘Proposals that will give rise to a significant change in either traffic volumes, typically a change in annual average daily traffic (AADT) or peak traffic flows of greater than 5 or 10%, depending on local circumstances (a change of 5% will be appropriate for traffic flows within an AQMA)’ or ‘Proposals that would significantly alter the traffic composition on local roads, for instance, increase the number of HDVs by say 200 movements or more per day’. Neither of these apply in relation to the proposed development and therefore any effect arising is considered to be of negligible magnitude and unlikely to be significant. Emissions from construction traffic has therefore been scoped out of the EIA.

• Emissions from post-construction traffic associated with the proposed development - background NOₓ levels in the town centre are above the national air quality objective level. Therefore, given the scale of the proposed development, it is considered that increased traffic-related emissions of NOₓ and PM₁₀ could generate an effect of small magnitude and given the high sensitivity of local receptors could give rise to a significant effect. This issue has therefore been scoped into the EIA.

• Effects on CO₂ budget – traffic and energy use associated with the use of
the proposed development will generate CO₂ emissions, as will the development’s construction. Given the scale of the proposed development the changes are not considered likely to be significant to the UK’s carbon budget. (The government’s Carbon Plan 2011 states ‘in buildings, since 1990 emissions have fallen by 18% despite the growth in population and housing’. Further, the UK successfully met its first carbon budget in 2012 and is projected to be on target for its second and third budgets. Future projections in the ability to meet targets have taken into account the electrification of heating, transport, GDP growth, industry and population growth). It is therefore proposed that CO₂ emissions are examined qualitatively in the sustainability statement, rather than the ES.

Air quality effects summary

8.8 The findings of stages 1 and 2 of the scoping process in relation to air quality effects are summarised in table 8.1 with relevant receptors identified in brackets in the "receptor importance/sensitivity" column.

<table>
<thead>
<tr>
<th>Stage 1 Effect</th>
<th>Stage 2 Effect</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulates and dust generation during construction</td>
<td>Clearly significant?</td>
<td>Receptor importance/sensitivity</td>
</tr>
<tr>
<td>X</td>
<td>High (Neighbouring population)</td>
<td>Small Short term</td>
</tr>
<tr>
<td>Road vehicle emissions during construction</td>
<td>X</td>
<td>High (Neighbouring population and AQMA)</td>
</tr>
<tr>
<td>Road vehicle emissions post construction</td>
<td>X</td>
<td>High (Neighbouring population and AQMA)</td>
</tr>
<tr>
<td>Effects on CO₂ budget</td>
<td>X</td>
<td>High (UK CO₂ emissions)</td>
</tr>
</tbody>
</table>

Table 8.1: Air quality effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

8.9 The air quality baseline will be examined using historic empirical data and current monitoring data from RDC’s diffusion tube network. RDC’s environmental health officer will be contacted regarding the provision of air quality monitoring data and assessment reports and to agree the approach and methodology to be used for the assessment.

8.10 Construction phase effects such as dust are considered to be temporary effects that can be controlled by implementation of standard mitigation measures frequently used during the construction of new development. The assessment of the potential effects associated with the construction phase will be qualitative and based on the Institute of Air Quality Management’s Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance (2012).

8.11 The traffic-related air quality assessment will appraise the impact of post-construction traffic movements. Detailed dispersion modelling will be undertaken; the focus of the modelling will be NO₂, PM₁₀ and PM₂.₅ and the

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potential for effects on specific sensitive receptors. The geographical extent of the assessment will comprise the local road network in the vicinity of the Application Site, consistent with the transport assessment. The assessment will be undertaken using the best practice methodology published by Environmental Protection UK in Development Control: Planning for Air Quality (2010 Update).
9 Community, social and economic effects

Introduction

9.1 The proposed development has the potential to cause a range of community, social and economic effects. These include population changes, an increased provision of market and affordable housing, generation of employment and the increased demand for and provision of local services.

9.2 The Application Site is located in Downhall and Rawreth ward, which had a population of 4,843 at the time of the 2011 Census. There were 1,853 dwellings in the ward in 2011. The town of Rayleigh (comprised of Rayleigh central ward, Trinity ward, and Lodge ward) is the nearest population centre to the Application Site, with a population of 12,040 at the time of the 2011 Census. Unemployment in the district is below national and regional averages (www.nomis.co.uk).

9.3 RDC’s Local Development Framework: Core Strategy Adoption (2011) and the Thames Gateway South Essex Strategic Housing Market Assessment (2008) identified the need for the provision of 250 additional dwellings per annum and 131 net additional affordable dwellings. Rayleigh has the highest waiting list demand for affordable housing in the district. In addition, a need for a single-form entry primary school and the expansion of existing secondary schools has been identified.

9.4 Based on the above preliminary information and with reference to the scoping matrix (figure 2), it is considered that existing receptors in the area are likely to be of medium - high sensitivity.

Potential significant effects

9.5 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to community, social and economic effects. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Increased provision of market and affordable housing – given the identified need above, the increased provision associated with the proposed development has the potential to have an effect of small - medium magnitude and could therefore have a significant impact on the local population and the council’s housing supply.

- Effect on local population and demography – the potential increase in the population has the potential to alter the population density and demography of Rayleigh and Downhall and Rawreth ward. Given the relatively small number of households in the ward in 2011, it is considered that this effect has the potential to be of medium magnitude and therefore of potential significance.

- Increase in demand for local facilities and provision of new facilities – the increased population has the potential to lead to a corresponding increase in demand for local facilities such as schools, healthcare and recreation facilities. Given that there are some capacity issues in Rayleigh, it is considered that this has the potential to generate an effect of medium
magnitude and therefore be of potential significance

- Effects on amenity during construction – there is the potential for construction works to reduce the local amenity. However, the effects that could cause this reduction are examined in other topics, including air quality, noise and traffic, so it is not considered appropriate to duplicate coverage in this section

- Public health and safety post-construction – there is the potential for the existing power lines at the Application Site to pose a risk to the health and safety of new residents. However, the proposed development will be designed in accordance with National Grid’s A Sense of Place: design guidelines for development near high voltage overhead lines, which will minimise the potential for any environmental effects. Scale of effect is therefore considered to be of negligible magnitude and of no significance

- Effects on employment during and post-construction – employment will be generated during construction and in the proposed school post-construction. In the context of the current poor economic climate, it is considered that this has the potential to be an effect of small – medium magnitude and therefore of significance

**Community, social and economic effects summary**

9.6 The findings of stages 1 and 2 of the scoping process in relation to community, social and economic effects are summarised in table 9.1 with relevant receptors identified in brackets in the “receptor importance/sensitivity” column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
</tr>
<tr>
<td>Change to local population and demography</td>
<td>X</td>
</tr>
<tr>
<td>Increased provision of affordable housing</td>
<td>X</td>
</tr>
<tr>
<td>Generation of employment during and post-construction</td>
<td>X</td>
</tr>
<tr>
<td>Increased demand for and provision of local facilities</td>
<td>X</td>
</tr>
<tr>
<td>Effect on public health and safety post-construction</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 9.1: Community, social and economic effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

**Proposed assessment methodology**

9.7 The existing community, social and economic baseline conditions will be established in detail through a desk-based study, which will obtain data from a range of sources, including Rochford District Council, Essex County Council and the Office for National Statistics. The potential population increase arising from the proposed development will be estimated based on the 2011 average household size for Downhall and Rawreth ward and this will form the basis for the predictions of increased demand for services and facilities.
9.8 The assessment will also include detailed consideration of existing healthcare provision in the area (e.g. doctors surgeries, dental surgeries, pharmacies, opticians and hospitals) and capacity of services both now and with the proposed development in place. As the EIA will be considering the health implications of the proposals no separate or additional Health Impact Assessment is required.

9.9 The likely significant environmental effects will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix. Potential effects will be considered at the ward, town and district level as appropriate.
10 Cultural heritage

Introduction

10.1 New development can affect cultural heritage assets, including buried archaeology, the historic landscape and built heritage features. A development can directly impact on features of interest, such as through the loss of buried archaeology, and can also have indirect effects, such as altering the setting of listed structures and monuments.

Currently known baseline

10.2 The study area agreed through consultation with Essex County Council is a 1km radius from the Application Site. The nearest scheduled monument to the Application Site is Rayleigh Castle, approximately 1.4 km to the south east. The undesignated archaeological resource of the Application Site has been the subject of a desk based assessment followed by consultation that recommended non-intrusive surveys in the form of fieldwalking and geophysical survey to be undertaken. The results of these site evaluations were used to investigate certain anomalies by a scheme of trench evaluation. The results of these schemes will be used to inform a mitigation strategy and subsequent iterations of the master plan.

10.3 The nearest listed building is an 18th/19th century barn, listed grade II approximately 40 m east of Rawreth Hall, which lies 120 m west of the Application Site boundary. Rawreth Hall itself is locally listed. There are a total of nine grade II listed buildings and two locally listed buildings within 1 km of the Application Site, the majority of which are farmhouses.

10.4 The Application Site is part of the Historic Environment Character Zone (HECZ) 13; Rawreth, HECZ: 14 Rayleigh and HECZ: 40 Land to the West of Rayleigh, as defined in RDC’s Historic Environment Characterisation Project (2006).

10.5 The nearest conservation area is the Rayleigh conservation area, which covers an area including High St, Rayleigh Castle and part of the town centre. The conservation area, as defined by the RDC’s Rayleigh Conservation Area: Appraisal and Management Plan (2007) is approximately 1.4 km to the south of the Application Site. There are no registered historic parks and gardens within 5 km of the Application Site.

10.6 Based on the above preliminary information and with reference to the scoping matrix (figure 2), it is considered that existing receptors in the area (i.e. the known archaeology, scheduled monument, listed buildings and conservation area) are likely to be of medium - high sensitivity, with the exception of historic landscape character, which is considered to be low.

Potential significant environmental effects

10.7 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development is likely to have the following cultural heritage effect that clearly has the potential to be significant:

- Impacts on the buried remains during construction

10.8 Stage 1 of the scoping process also identified that the proposed development has the potential for a number of other effects on cultural heritage. In order to determine whether these effects are likely to be significant and therefore should
be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Impact on the setting of the scheduled monument to the south east of the Application Site – given the distance of the scheduled monument from the Application Site, and its current urban setting, it is considered that there would be a negligible magnitude of effect and therefore no potential for significant setting effects during or post-construction.

- Impact on the settings of nationally and locally listed buildings – it is considered that there is the potential for small – medium scale effects, giving rise to potentially significant effects on the setting of listed buildings in the vicinity of the Application Site as a result of changes to views and increased traffic on the local road network.

- Change to historic landscape character – the Application Site’s partial development will lead to the loss of some of its historic agricultural character, which is an effect of medium – large magnitude and therefore a potentially significant effect.

- Change to the setting of Rayleigh conservation area – given the distance from the Application Site and the lack of intervisibility, it is considered that there will an effect of negligible magnitude, which will not be significant in terms of the setting of the conservation area.

### Cultural heritage effects summary

10.9 The findings of stages 1 and 2 of the scoping process in relation to cultural heritage effects are summarised in table 10.1 with relevant receptors identified in brackets in the “receptor importance/ sensitivity” column.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on archaeological remains on site during construction</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity</td>
<td>Magnitude or scale of effect</td>
</tr>
<tr>
<td>Change to setting of scheduled monument</td>
<td>X</td>
<td>High (Scheduled monument)</td>
<td>Negligible Short and long term</td>
</tr>
<tr>
<td>Change to settings of listed buildings</td>
<td>X</td>
<td>Medium to high (Listed buildings in vicinity of Application Site)</td>
<td>Small to medium Short and long term</td>
</tr>
<tr>
<td>Change to setting of Rayleigh conservation area</td>
<td>X</td>
<td>Medium (Conservation area)</td>
<td>Negligible Long term</td>
</tr>
<tr>
<td>Change to the Application Site’s historic landscape character</td>
<td>X</td>
<td>Low (Application Site’s historic landscape)</td>
<td>Medium to long Long term</td>
</tr>
</tbody>
</table>

**Table 10.1: Cultural heritage effects summary**

**Notes:**

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

### Proposed assessment methodology

10.10 An assessment of designated and undesignated heritage assets will be undertaken in accordance with paragraphs 126 to 141 of the National Planning Policy Framework (2012) and The Setting of Heritage Assets: English Heritage Guidance (2011) including national and international policy and best practice.
guidance. The assessment will cross reference with the landscape and visual assessment as appropriate. A desk-based investigation has been undertaken, supplemented by a non-intrusive archaeological evaluation, the methodology of which was approved by ECC Historic Environment.

10.11 The significance of effects will be determined by combining the importance of identified receptors with the predicted magnitude of change, using a matrix.
11  Ground conditions

Introduction

11.1 The existing ground conditions of a site can be of concern due to the potential for mobilisation of existing contaminants, or the exposure of sensitive receptors such as construction workers, groundwater, surface waters and future residents to such material.

Currently known baseline

11.2 The baseline ground conditions at the Application Site are currently unknown. Given the current agricultural use of the Application Site, no significant contamination is predicted on site. However, it is possible that there may be localised hotspots of contamination associated with the use and storage of fuels / agricultural chemicals.

11.3 There are three industrial sites that pose a potential off site source of contamination located in Rawreth Industrial Estate. One site (Cottis household, commercial and industrial waste transfer station) has breached its environmental permit conditions with potentially minor environmental effects.

11.4 There are no known historic landfill records for the Application Site listed by the Environment Agency. There is one record of a cluster of small mixed use historic landfill sites, which were discontinued in the 1960’s and known as Hambro Hill and Devenish Limited, approximately 1.5 km to the east of the Application Site. Environment Agency records suggest these were used for inert, commercial and household waste, in addition to disposal of liquids and sludge at the smaller Devenish Limited site. Given the distance from the historic landfills, no significant risk from landfill gas is predicted at the Application Site and this issue is not considered further.

11.5 All potential receptors, including construction workers, future residents / visitors and areas of nature conservation interest, are, with reference to the scoping matrix (figure 2), considered to be of high sensitivity.

Potentially significant effects

11.6 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to effects on ground conditions. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Mobilisation of contaminants into the water environment during construction
- Potential for human health effects from contact with contaminates during construction
- Potential human health effects from contact with contaminants post-construction during use of gardens and public open space

11.7 As it is not currently known whether the Application Site is contaminated, the potential for health effects and the mobilisation of contaminants has been included within the scope of the EIA on a precautionary basis. The potential for
effects as a result of the loss of agricultural land is examined in the land use section that follows in chapter 12.

Ground conditions effects summary

11.8 The findings of stages 1 and 2 of the scoping process in relation to ground conditions effects are summarised in table 11.1 with relevant receptors identified in brackets in the "receptor importance/ sensitivity" column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Effect</th>
<th>Clearly significant?</th>
<th>Receptor importance / sensitivity(^0)</th>
<th>Magnitude or scale of effect(^0)</th>
<th>Likely significant?</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Risk to human health from contact with contaminants during construction</td>
<td>X</td>
<td>High (Construction workers)</td>
<td>Uncertain Short term</td>
<td>?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Risk to the water environment from mobilisation of existing contaminants during construction</td>
<td>X</td>
<td>High (SAC, SPA, SSSI)</td>
<td>Uncertain Short term</td>
<td>?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Risk to human health from contact with contaminants post construction</td>
<td>X</td>
<td>High (Future residents and visitors to the Application Site)</td>
<td>Uncertain Long term</td>
<td>?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 11.1: Ground conditions effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

11.9 A desk-top phase 1 study considering geology, information from a Landmark Envirocheck report and existing and past land uses will be undertaken to determine the existing information available and the Application Site history. Any previous potential for contamination will be identified, together with any pathways and receptors. If the phase 1 study indicates the likely presence of contamination, then soil sampling will be undertaken to confirm the Application Site's geology and determine contamination levels. Groundwater samples will be analysed to determine contamination levels.

11.10 If significant contamination is detected, the potential for activities associated with the construction or post-construction phases of the development to result in the migration of historic contaminants will be assessed. A conceptual model will be used to identify if there is the potential for any link between a source of contamination and a sensitive receptor to result in a significant adverse effect. A suitable mitigation / remediation strategy will then be devised, setting out proposed measures to remediate contamination, minimise off site disposal of contaminated spoil and facilitate retention of inert material on site. Statutory regulators, including RDC and the Environment Agency, will be consulted on all contamination matters.
12 Land use

Introduction

12.1 Proposed developments can have an effect on the local area through the introduction of a new land use, which can complement, co-exist with or conflict with the existing land uses, and through the loss of existing uses on the Application Site.

Currently known baseline

12.2 The Application Site consists of adjoining agricultural fields, separated by marginal hedgerows; the agricultural land is classified at grade 3 (good to moderate) on the Natural England 1:250,000 provisional agricultural land classification map.

12.3 With reference to the scoping matrix (figure 2), the Application Site is generally considered to be of low sensitivity and the existing agricultural land is considered to be a receptor of low – medium sensitivity.

Potential significant effects

12.4 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to effects on land use. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Loss of agricultural land – the proposed development will result in the loss of approximately 52 ha of agricultural land. Given the relatively small area of land to be lost in relation to the total area of arable land in Essex of 300,534 ha (ICS, 20103), it is considered that the loss of this land constitutes an effect of negligible magnitude and therefore will not be significant

- Provision of new residential, commercial and public open space land uses – the effects associated with the introduction of these new land uses and the potential for effects on public rights of way are likely to be of small magnitude and not significance in terms of land use, but will be examined in the community, social and economic effects assessment and it is not considered appropriate to duplicate coverage in this section

Land use effects summary

12.5 The findings of stages 1 and 2 of the scoping process in relation to land use effects are summarised in table 12.1 with relevant receptors identified in brackets in the "receptor importance/ sensitivity" column. This confirms that there will not be a specific land use chapter of the ES, although issues associated with the provision of new land uses will be examined within the community, social and economic chapter.

---

<table>
<thead>
<tr>
<th>Effect</th>
<th>Clearly significant?</th>
<th>Receptor importance / sensitivity(a)</th>
<th>Magnitude or scale of effect(b)</th>
<th>Likely significant?</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of agricultural land at the Application Site</td>
<td>X</td>
<td>Low to medium (Agricultural land at the Application Site)</td>
<td>Negligible Long term</td>
<td>X</td>
<td>None of the effects identified will be considered in a specific land use chapter, but will be addressed in the community, social and economic effects chapter</td>
</tr>
<tr>
<td>Introduction of new residential land use</td>
<td>X</td>
<td>Low (Land use at the Application Site)</td>
<td>Small Long term</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Introduction of new commercial land use</td>
<td>X</td>
<td>Low (Land use at the Application Site)</td>
<td>Small Long term</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Introduction of new public open space land use</td>
<td>X</td>
<td>Low (Land use at the Application Site)</td>
<td>Small Long term</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Table 12.1: Land use effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)
13 Landscape and visual effects

Introduction

13.1 Effects on the landscape can arise from a development giving rise to direct changes to the physical elements of the receiving landscape, which may affect its features, character and quality; or from indirect effects on the character and quality of the surrounding landscape. Visual effects can result if the proposed development changes the character and quality of people's views. Landscape and visual effects are linked, but have different attributes, so are considered as two elements.

Currently known baseline

13.2 The Application Site falls within the Northern Thames landscape character area, as identified in Essex County Council's Essex landscape character assessment (2003). The key characteristics of the area include areas of ancient woodland inventory, arable farmland, and marginal hedgerows, in generally moderate condition, which creates a sense of openness. The Application Site is predominantly rural in character, however there is a strong urban influence due to the adjacent industrial estate and the nearby presence of Rayleigh. The settlement pattern and built form near the Application Site is that of a principally dormitory town, with visually prominent housing areas wrapping over hillsides and valley sides in some areas.

13.3 The visibility of the Application Site is fairly uncontained from the neighbouring roads and Rawreth Industrial Estate, with a lack of marginal hedgerows or screening vegetation on and around the Application Site. The generally flat topography contains the visibility of the Application Site; screening vegetation contains views from residential properties east of the Application Site.

13.4 With reference to the scoping matrix (figure 2), it is considered that the existing landscape character of the area at and around the Application Site is of low – medium sensitivity. Views into the Application Site are considered likely to be of medium – high sensitivity.

Potential significant effects

13.5 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to landscape and visual effects. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Change to the landscape character of the Application Site – a section of the Application Site will remain as agricultural land and the proposed built development will change the character of the Application Site from rural with an urban fringe to semi-rural with a prominent urban influence and fringe. This is considered to be an effect of medium – large magnitude, which is likely to be significant

- Change to sensitive views into the Application Site which influences the public perception of landscape character change – the changes in the land use on the Application Site and the increase in lighting has the potential to
affect views of the Application Site. This is likely to be an effect of medium magnitude, but only significant in very close proximity.

**Landscape and visual effects summary**

13.6 The findings of stages 1 and 2 of the scoping process in relation to landscape and visual effects are summarised in table 13.1 with relevant receptors identified in brackets in the “receptor importance/ sensitivity” column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td>Change to landscape character of Application Site</td>
<td>X</td>
<td>Low to medium (Application Site’s landscape character)</td>
</tr>
<tr>
<td>Change to sensitive views into Application Site</td>
<td>X</td>
<td>Medium to high (Visual receptors in vicinity of the Application Site)</td>
</tr>
</tbody>
</table>

Table 13.1: Landscape and visual effects summary

Notes:
1. Categories = high, medium, low, negligible (takes into account geographical level of importance)
2. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

**Proposed assessment methodology**

13.7 The Countryside Agency’s Landscape Character Assessment Guidance for England and Scotland (2002) and the Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition (2013) produced by the Landscape Institute and the Institute for Environmental Management and Assessment will be used to guide the assessment of the Application Site and surrounding area. Reference will also be made to Essex County Council’s Landscape Character Assessment (2003).

13.8 The landscape and visual assessment will include determination of the landscape character of the Application Site and surrounding area, the quality of the landscape, the existing land cover and the Application Site’s existing topography. This will be undertaken through a desk study and site visits. A detailed study of the visual setting of the Application Site and the potential visual receptors that may be affected by the proposed development will be undertaken. This will include mapping of the zone of theoretical visual influence (ZTV), which will inform the extent of the study area (potentially up to 5km from the Application Site boundary based on a combination of site visits, professional judgement and utilising zone of influence mapping).

13.9 Representative viewpoints will be established and agreed with Essex County Council’s landscape department. Photographs will be taken at each viewpoint and used to create a panorama of the view. The precise locations (Ordnance Survey grid reference), date, time of day and weather conditions will be described for each viewpoint taken.

13.10 The significance of the effects on landscape and visual receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix.
14 Natural heritage

Introduction

14.1 Potential natural heritage effects that could arise from a development such as that proposed at Rayleigh include habitat loss, disturbance of animals during and post construction, loss of or modification to breeding and foraging habitat and effects on designated nature conservation sites.

Currently known baseline

14.2 There are no locally, nationally, or internationally designated conservation areas present on the Application Site. The River Crouch 1.5 km to the north of the Application Site, forms part of the Crouch and Roach Estuaries SSSI, Ramsar site and SAC and the Essex Estuaries SPA. The nearest locally designated nature conservation site is located 2.7 km to the north east of the Application Site and is therefore not considered further in the scoping process.

14.3 Surveys assessing the presence of great crested newts and badgers on the Application Site have found a population of great crested newts in the moat at Rawreth Hall and the presence of a single badger sett. The Application Site comprises of several habitats including hedgerows, small ponds, wet ditches, isolated trees and agricultural land. Bat transect surveys identified low levels of foraging activity, with common and Nathusius’s pipistrelle recorded along with a long-eared and a pipistrelle species. No bat roosts have been identified. Water vole droppings were recorded along one ditch but no signs of otter were found. Fourteen species of bird were recorded breeding within the survey area.

14.4 With reference to the scoping matrix (figure 2) and the above information, it is considered that existing habitats at the Application Site are of low – medium sensitivity, faunal communities are of medium – high sensitivity, protected species are of high sensitivity and the local estuaries, SPA and SAC are all of high sensitivity.

Potential significant effects

14.5 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to natural heritage effects. In order to determine whether these effects are likely to be significant and should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Loss of existing habitats and creation of new habitats on site – the proposed development will lead to the loss of existing habitats on part of the Application Site, which is likely to be of large magnitude and has the potential to be significant

- Effects on the faunal community’s use of the Application Site due to habitat loss and isolation – the Application Site is used by a range of animal communities and there is the potential for small – medium scale effects of potential significance on these

- Disturbance of protected species – there is the potential for significant disturbance of protected species both during and post construction, which is considered to be of small – medium magnitude and therefore of potential
significance

- Effects on nationally and internationally designated nature conservation sites – the Rawreth Brook that runs through the Application Site is a tributary to the River Crouch, so any changes to the brook’s water quality have the potential to affect the designated area. The magnitude of effect is likely to be small, but given the high sensitivity of the receiving environment, could give rise to a significant effect. Consideration of the potential effects of the proposals alone and cumulatively on the conservation objectives of the SPA will be undertaken as part of the EIA.

Natural heritage effects summary

14.6 The findings of stages 1 and 2 of the scoping process in relation to natural heritage effects are summarised in table 14.1 with relevant receptors identified in brackets in the “receptor importance/ sensitivity” column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity (1)</td>
</tr>
<tr>
<td>Loss of existing habitats and creation of new habitats at the Application Site</td>
<td>X</td>
<td>Low to medium (Habitats at the Application Site)</td>
</tr>
<tr>
<td>Effects on the faunal community’s use of the Application Site due to habitat loss and isolation</td>
<td>✓</td>
<td>Medium to high (Application Site’s faunal)</td>
</tr>
<tr>
<td>Disturbance of protected species during and post-construction</td>
<td>✓</td>
<td>High (Protected species on Application Site)</td>
</tr>
<tr>
<td>Effects on the River Crouch and associated nature conservation areas</td>
<td>X</td>
<td>High (Crouch and Roach Estuaries Ramsar, Crouch and Roach Estuaries SAC, Essex Estuaries SPA)</td>
</tr>
</tbody>
</table>

Table 14.1: Natural heritage effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

14.7 A desk-top and Phase 1 habitat survey have been undertaken, along with badger, bat, breeding bird, otter, water vole, barn owl and great crested newt surveys. It is not proposed that further survey work will be conducted prior to an application being submitted.

14.8 The assessment will be undertaken in accordance with the Institute of Ecology and Environmental Management’s Guidelines for Ecological Impact Assessment in the United Kingdom (2006) and, where appropriate, other best practice guidelines for specific species and faunal groups. In order to facilitate consistency of assessment methodology throughout the ES, the method will be adapted to include consideration of the significance of effects by combining the importance of the identified receptors with the predicted magnitude of change, using a matrix.

14.9 With specific regard to potential impacts from residential development on the nearby European site (Crouch and Roach Estuaries SPA), in particular increased recreational pressure, background research into bird distribution and public
open space along the River Crouch will be undertaken and information will be collated and submitted to RDC to allow them to assess whether or not a Habitats Regulations Assessment of the proposals will be necessary in light of the conservation objectives of the SPA and any proposed mitigation measures.
15 Noise and vibration

Introduction

15.1 The proposed development has the potential to generate noise and vibration during site preparation and construction. Additional road traffic has the potential to increase noise levels during and post-construction.

Currently known baseline

15.2 No noise monitoring has been undertaken to date. The likely existing noise sources on the Application Site are the A129 London Road, the A1245 Chelmsford Road, and the Rawreth Industrial Estate.

15.3 With reference to the scoping matrix (figure 2) and based on the location of the Application Site adjacent to a residential area to the east and school to the south, it is considered that local land uses are likely to be of medium – high sensitivity.

Potential significant effects

15.4 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to effects on noise and vibration. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Generation of noise during site preparation and construction works – as the westernmost properties in Rayleigh are adjacent to the site boundary, it is considered that there is the potential for a noise effect during construction of small magnitude and potential significance

- Increased traffic noise during construction – Guidelines for the Environmental Assessment of Road Traffic (1993) state that: ‘Typically, a halving or doubling of flow produces a 3dB(A) change in noise level. Where existing flows are high, incremental traffic flow increases (except for the largest types of development) are unlikely to produce noticeable changes in perception.’ It is therefore unlikely that the construction traffic generated by the proposed development will result in double existing flows on the A130 to the west and therefore the increased traffic levels will be below those that would trigger a significant effect

- Increased traffic noise post-construction - given the scale of the proposed development it is considered that the increased traffic has the potential to lead to an effect of small – medium magnitude on noise levels at receptors adjacent to the local road network, which is potentially significant

- Generation of vibration during construction – the potential for vibration associated with this site is uncertain at this stage, so the generation of vibration during construction works has been included within the scope of the EIA on a precautionary basis
Noise and vibration effects summary

15.5 The findings of stages 1 and 2 of the scoping process in relation to noise and vibration effects are summarised in table 15.1 with relevant receptors identified in brackets in the "receptor importance/sensitivity" column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity(1)</td>
</tr>
<tr>
<td>Generation of noise during Application Site preparation and construction</td>
<td>X</td>
<td>Medium to high (Receptors adjacent to Application Site)</td>
</tr>
<tr>
<td>Increased traffic noise during construction</td>
<td>X</td>
<td>Medium to high (Receptors near local road network)</td>
</tr>
<tr>
<td>Increased traffic noise post-construction</td>
<td>X</td>
<td>Medium to high (Receptors near local road network)</td>
</tr>
<tr>
<td>Generation of vibration during construction</td>
<td>X</td>
<td>High (Buildings adjacent to Application Site)</td>
</tr>
</tbody>
</table>

Table 15.1: Noise and vibration effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

15.6 The scope of the proposed noise monitoring, monitoring locations and the assessment methodology will be agreed with RDC’s environmental health officer. The potential for increases in noise and vibration during construction will be assessed in accordance with the guidance set out in BS5228:2009 Noise and vibration control on construction and open sites Part 1 Noise and Part 2 Vibration, with assumptions made regarding construction plant and piling methods where required. It is envisaged that post-construction traffic noise increases will be predicted using the methodology set out in The Calculation of Road Traffic Noise (Department of Transport, 1988).

15.7 The significance of noise and vibration effects on sensitive receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix.

15.8 There is the potential for noise from the Rawreth Industrial Estate to affect the design of the proposals. This issue is principally related to the suitability of the proposals in terms of land use and is a planning and design issue, rather than an EIA issue (EIA deals with the effects of the proposal on the environment, not the effects of the environment on the proposal). This issue will therefore be examined in a separate report to be submitted in support of the planning application, in accordance with the guidance set out in the National Planning Policy Framework (2012).
16 Traffic and transport

Introduction

16.1 The proposed development will lead to increased traffic on the local road network during and post-construction. There will also be an effect on the local road infrastructure as the proposals include new Application Site access junctions on the A129 London Road and Rawreth Lane, and a new link road. New pedestrian and cycle links to Rayleigh will also be provided and existing bus services may be diverted to serve the Application Site.

Currently known baseline

16.2 Essex County Council’s Essex Transport Strategy: the Local Plan for Essex identifies that the nearby A127, A13, and A130 all operate at or near capacity during peak periods and become congested easily during these periods. The plan also identifies the narrow roads of Rayleigh as a source of congestion in the town.

16.3 There are several bus stops along the southern perimeter, on the A129 London Rd (served by eight bus services, provided by First Group, Stepenson’s of Essex and Regal Busways). The nearest bus stop to the north of the Application Site is 80 m to the north west on Rawreth Lane (served by the Regal Busways’ 3 and 3a service to Southend-on-sea / Chelmsford). The nearest train station is Rayleigh station, 1.2 km to the south east of the Application Site.

16.4 It is considered that existing receptors in the area (i.e. local road network users, local road infrastructure, public transport services and their users, pedestrians and cyclists) are all likely to be of high sensitivity.

Potential significant effects

16.5 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development is likely to have the following traffic and transport effect that clearly has the potential to be significant:

\[ \text{\textbullet\ Increased traffic flows - particularly post-construction and to a lesser degree during construction} \]

16.6 Stage 1 of the scoping process also identified that the proposed development has the potential to lead to a number of other effects on traffic and transport. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

\[ \text{\textbullet\ Alterations to local road infrastructure – the proposed development will introduce new junctions onto the A129 London Road and Rawreth Lane and it is considered that this has the potential to be an effect of small - medium magnitude. Given the high sensitivity of the local road infrastructure this is potentially a significant effect} \]

\[ \text{\textbullet\ Creation of new pedestrian and cycle links – the proposed development will create new pedestrian and cycle links within the Application Site and between the Application Site and Rayleigh and it is considered that this effect, of small magnitude, has the potential to be significant} \]
• Increased use of public transport and the extension of the public transport network – there is the potential for increased use of existing public transport services. An existing bus route may be re-routed through the proposed development, and it is considered that this is an effect of small magnitude, but given the high sensitivity of the receptors, has the potential to be significant

Traffic and transport effects summary

16.7 The findings of stages 1 and 2 of the scoping process in relation to traffic and transport effects are summarised in table 16.1 with relevant receptors identified in brackets in the “receptor importance/ sensitivity” column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity(1)</td>
</tr>
<tr>
<td>Increased traffic post construction and to a lesser degree during construction</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Changes to local road infrastructure</td>
<td>X</td>
<td>High (Local road infrastructure)</td>
</tr>
<tr>
<td>Provision of new pedestrian and cycle links</td>
<td>X</td>
<td>High (Users of local pedestrian and cycle network)</td>
</tr>
<tr>
<td>Increased use of public transport and potential extension of existing services</td>
<td>X</td>
<td>High (Local public transport services and users)</td>
</tr>
</tbody>
</table>

Table 16.1: Traffic and transport effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

16.8 A transport assessment (TA) will be scoped with both Essex County Council and the Highways Agency and will be submitted in support of the planning application. It will assess the impact of the proposed development on the capacity of highway infrastructure. The EIA will summarise the findings of this, but will focus on environmental issues associated with potential increases in traffic flows and any consequent effects on the local community, such as severance, driver delay or an increased accident rate.

16.9 The assessment will take account of paragraphs 32 to 36 of the National Planning Policy Framework (2012) and the Institute of Environmental Management and Assessment’s Guidelines for the Environmental Assessment of Road Traffic (1993). Close consultation will be undertaken with key stakeholders, such as the Highways Agency and Essex County Council.

16.10 A desk study and site visits will be undertaken to identify key features of the existing road and pedestrian / cycle networks in the vicinity of the Application Site, obtain data on existing accident rates and identify existing public transport services. It is proposed that traffic surveys will be undertaken at key junctions and links surrounding the Application Site, trip generation will be estimated for the proposed development using sources such as the TRICS database and surveyed traffic flows and predicted traffic flows and junction capacities will be modelled using appropriate software. The significance of traffic and transport
effects on sensitive receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix.
17 Waste

Introduction

17.1 Proposals for development should ensure that waste is reduced as much as possible and that, during the construction and post-construction phases of the proposals, waste arisings are minimised, re-used or recycled where feasible. During construction, waste should be correctly segregated to maximise re-use and recycling. Where any contaminated or hazardous arisings cannot be treated on site during remediation works, suitable disposal options should be identified as part of the environmental assessment process.

Currently known baseline

17.2 The fields present on the Application Site may be a source of small quantities of agricultural waste.

17.3 A waste transfer facility for hazardous and non-hazardous waste is located to the north west of the Application Site. Household recyclables collected in Rochford district are sent to nationwide reprocessing facilities. Green waste is sent to a composting plant in Kent. The district’s residual waste is currently sent to landfill.

17.4 With regard to the scoping matrix (Figure 2) existing local waste management facilities are considered likely to be of medium sensitivity.

Potential significant effects

17.5 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development has the potential to lead to effects on waste generation and management. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Generation of waste during construction – waste arising from site preparation and construction processes will require management. Information on site waste management will be prepared in due course to ensure that construction waste is minimised, re-used and recycled wherever possible and will ensure that there will be no significant effects on the capacity of local waste management infrastructure as a result of this phase of the proposed development. In addition, there is limited likelihood of contamination on site and the generation of significant quantities of contaminated waste requiring management and / or disposal is considered to be unlikely. An effect of negligible magnitude is therefore considered likely to arise, which will be of no significance.

- Generation of waste post-construction – the proposed development will lead to the generation of increased amounts of municipal waste post-construction. However, it is proposed that this issue should be examined qualitatively in the sustainability statement, rather than in the EIA, as the quantities involved are likely to be insignificant in relation to existing waste generation and management in Essex.
17.6 It is therefore proposed that waste is not scoped into the EIA and will not be considered in the ES.

**Waste effects summary**

17.7 The findings of stages 1 and 2 of the scoping process in relation to waste effects are summarised in table 17.1 with relevant receptors identified in brackets in the "receptor importance/ sensitivity" column.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity&lt;sup&gt;(1)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Generation of construction waste that requires management / disposal</td>
<td>X</td>
<td>Medium (Local waste management facilities)</td>
</tr>
<tr>
<td>Generation of municipal and commercial / industrial waste that requires management / disposal</td>
<td>X</td>
<td>Medium (Local waste management facilities)</td>
</tr>
</tbody>
</table>

**Table 17.1: Waste effects summary**

*Notes:*
1. Categories = high, medium, low, negligible (takes into account geographical level of importance)
2. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)
18 Water environment

Introduction

18.1 The water environment assessment will focus on effects associated with the potential increase in runoff from the Application Site, reduced groundwater recharge rates and any effects on surface water and groundwater quality. The assessment will also examine the proposed drainage system and consider the increase in demand for wastewater treatment and drinking water supply.

Currently known baseline

18.2 The Rawreth Brook flows westwards across the centre of the Application Site, following the field margins, and is joined by another watercourse further west of the Application Site. Several land drainage ditches flow into the brook from the north and south. The brook drains via a culvert under the A1245 Chelmsford Road into the River Crouch. The River Crouch is of international conservation importance and is designated as a SPA, SAC, Ramsar site and SSSI. There is no information available on the ecological and chemical status for the section of the Rawreth Brook running through the Application Site. However, the ecological status of the brook at its confluence with the River Crouch is monitored by the Environment Agency, where it is classified as moderate. The site contains two ponds with standing water.

18.3 There are areas of flood zone 2 and 3 associated with the Rawreth Brook and the watercourse to the west of the Application Site. The Application Site is outside the 1-in-1000 year flood level for the River Crouch. A level 2 flood risk assessment (FRA) has been undertaken by URS (April 2013). The Application Site is located downstream of a significant surface water flow path from the Rayleigh critical drainage area and has limited drainage potential. It is also considered to be at moderate flood risk from surface water, and as a result of the proposed increase in impermeable areas and alteration of flow routes associated with the proposed development, fluvial flooding is also of a high risk on parts of the Application Site and has the potential to increase as a result of the potential loss of floodplain and impediment of flows. The risk from all other sources is considered to be low.

18.4 The Application Site is not within a groundwater source protection zone. The centre of the Application Site is underlain by a secondary (A) aquifer of intermediate vulnerability, while the north is underlain by unproductive strata.

18.5 RDC’s Local Development Framework Core Strategy (2011) identifies the need for additional water supply infrastructure to accompany the proposed development and Essex and Suffolk Water is designated as an area of serious water stress by the Environment Agency. As identified in the Essex Thames Gateway Water Cycle Study – Scoping Study (2009), potable water is provided from the Hanningfield water treatment works, which has additional supply capacity. Rayleigh east and Rayleigh west wastewater treatment works, located to the north east and north west of Rayleigh respectively, both have process capacity. However, for additional processing to occur at Rayleigh east, a reduction in the level of microbial discharge from the wastewater treatment works will be necessary.
18.6 With reference to the scoping matrix (figure 2) it is considered that existing receptors in the area (i.e. groundwater, wastewater treatment services and potable water supply) are all likely to be of medium sensitivity.

Potential significant effects

18.7 Following the methodology identified in section 6 of this report, stage 1 of the scoping process identified that the proposed development is likely to have the following water environment effects that clearly have the potential to be significant:

- Effects on surface water quality as a result of leaks/spills and sedimentation during construction and contaminated road runoff post-construction
- Effects on surface water hydrology and associated flood risk

18.8 Stage 1 of the scoping process also identified that the proposed development has the potential to lead to a number of other effects on the water environment. In order to determine whether these effects are likely to be significant and therefore should be included within the EIA scope, the following sub-headings have been examined further in stage 2 of the scoping process:

- Groundwater quality – there is the potential for effects on the quality of groundwater beneath the Application Site from leaks/spills during construction and contaminated road runoff post-construction. This effect is considered likely to be of small – medium magnitude and could therefore be significant
- Groundwater hydrology – the increased impermeable area at the Application Site could reduce groundwater recharge rates. Given the size of the Application Site, it is considered that this effect has the potential to be of small – medium magnitude and therefore of significance
- Demand for wastewater treatment / potable water supply – the proposed development will increase demand for the area’s wastewater treatment and potable water supply networks. The local wastewater and drinking supply infrastructure has spare capacity; however, the quality of the Rayleigh east may be detrimentally affected due to the possible additional demand. Therefore, it is considered that the effect of the proposed development on the local infrastructure has the potential to be of medium magnitude and therefore significant

Water environment effects summary

18.9 The findings of stages 1 and 2 of the scoping process in relation to water environment effects are summarised in table 18.1 with relevant receptors identified in brackets in the "receptor importance/sensitivity" column.
<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>To be included in the EIA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Clearly significant?</td>
<td>Receptor importance / sensitivity&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Pollution of surface water during and post-construction</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Increased surface water runoff post-construction and associated increase in flood risk</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Pollution of groundwater during and post-construction</td>
<td>X</td>
<td>Medium (Groundwater beneath the Application Site)</td>
</tr>
<tr>
<td>Reduced groundwater recharge post-construction</td>
<td>X</td>
<td>Medium (Groundwater beneath the Application Site)</td>
</tr>
<tr>
<td>Increased demand for wastewater treatment and potable water supply</td>
<td>X</td>
<td>Medium (Area’s wastewater treatment and potable water supply networks)</td>
</tr>
</tbody>
</table>

Table 18.1: Water environment effects summary

Notes:
1 Categories = high, medium, low, negligible (takes into account geographical level of importance)
2 Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

18.10 A desk study will be undertaken to determine the existing water environment on and in the vicinity of the Application Site and to identify potential sensitive receptors. Proposals to address surface water runoff will be considered and sustainable drainage systems will be incorporated into the master plan where possible. Soakaway testing will be undertaken to inform this process and an outline drainage strategy will be prepared.

18.11 A flood risk assessment will be undertaken in accordance with the Technical Guidance to the National Planning Policy Framework (2012) and the results will be summarised in the ES chapter. The assessment methodology and findings will be discussed with the Environment Agency.

18.12 The significance of effects on the water environment will be determined by combining the sensitivity of the identified receptors with the predicted magnitude of change, using a matrix.
19 Cumulative effects and alternatives

Cumulative effects

19.1 The effects of the proposed development in combination with other schemes that are operational / constructed, consented or for which planning permissions are currently being sought, will be assessed within the EIA where appropriate. Cumulative effects will be considered on an issue-by-issue basis and the scope of the EIA will be expanded, if necessary, to include any cumulative issues that arise in the future. The cumulative effects of other developments will be considered only when sufficient information is available, i.e. when a project is within the planning domain and there is adequate information publicly available. Consultees are requested to suggest projects that should be covered in the cumulative effects assessment. Countryside Properties (UK) Ltd is currently aware of the following projects for inclusion in the assessment of cumulative effects:

- The total developable area within the SER1 allocation including the Application Site (550 dwellings, plus 10% for sensitivity testing purposes)
- Hullbridge (500 dwellings)
- Rawreth Industrial Estate (220 dwellings)

19.2 The potential for cumulative effects to arise through the interaction of two or more impacts on the same receptor will also be examined where applicable.

Alternatives

19.3 The ES will include details of alternatives considered by Countryside Properties (UK) Ltd (e.g. Application Site layout, building heights and access arrangements) and will set out the reasons for the final selection. The results of public consultation and its subsequent influence on the design and nature of the proposals will also be covered.
20 Summary

20.1 From this scoping exercise, it has been possible to reach a preliminary view on the environmental features that are likely to be significantly affected by the proposed development and should be included within the EIA.

20.2 All the identified effects that are likely to be significant are listed in table 20.1.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Effects that are likely to be significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air quality</td>
<td>Generation of particulates and dust during construction</td>
</tr>
<tr>
<td></td>
<td>Road vehicle emissions post-construction</td>
</tr>
<tr>
<td>Community, social and economic effects</td>
<td>Increased provision of market and affordable housing</td>
</tr>
<tr>
<td></td>
<td>Increased demand for and provision of local facilities</td>
</tr>
<tr>
<td></td>
<td>Changes to local population and demography</td>
</tr>
<tr>
<td>Land use</td>
<td>Generation of employment during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Issues associated with the loss of agricultural land, provision of new land uses and temporary loss of playing fields</td>
</tr>
<tr>
<td>Cultural heritage</td>
<td>Impact on archaeological remains at the Application Site during construction</td>
</tr>
<tr>
<td></td>
<td>Change to settings of listed buildings during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Change to the Application Site’s historic landscape character</td>
</tr>
<tr>
<td>Ground conditions (unknown)</td>
<td>Risk to human health from contact with contaminants during construction</td>
</tr>
<tr>
<td></td>
<td>Risk to the water environment from mobilisation of existing contamination during construction</td>
</tr>
<tr>
<td></td>
<td>Risk to human health from contact with contaminants post-construction</td>
</tr>
<tr>
<td>Landscape and visual effects</td>
<td>Change to the landscape character of the Application Site</td>
</tr>
<tr>
<td></td>
<td>Change to sensitive views into the Application Site</td>
</tr>
<tr>
<td>Natural heritage</td>
<td>Loss of existing habitats and creation of new habitats at the Application Site</td>
</tr>
<tr>
<td></td>
<td>Effects on the use of the Application Site by fauna due to habitat loss and fragmentation</td>
</tr>
<tr>
<td></td>
<td>Disturbance of protected species during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Effects on the River Crouch and associated nature conservation areas</td>
</tr>
<tr>
<td>Noise and vibration</td>
<td>Generation of noise during site preparation and construction</td>
</tr>
<tr>
<td></td>
<td>Increased traffic noise post-construction</td>
</tr>
<tr>
<td>Traffic and transport</td>
<td>Generation of vibration during construction</td>
</tr>
<tr>
<td></td>
<td>Changes to local road infrastructure</td>
</tr>
<tr>
<td></td>
<td>Provision of new pedestrian and cycle links</td>
</tr>
<tr>
<td></td>
<td>Increased use of public transport and potential for diversion of existing services</td>
</tr>
<tr>
<td>Water environment</td>
<td>Pollution of surface water during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Increased surface water runoff post-construction and associated increase in flood risk</td>
</tr>
<tr>
<td></td>
<td>Pollution of groundwater during and post-construction</td>
</tr>
<tr>
<td></td>
<td>Reduced groundwater recharge post-construction</td>
</tr>
<tr>
<td></td>
<td>Increased demand for wastewater treatment and potable water supply post-construction</td>
</tr>
</tbody>
</table>

Table 20.1: Effects that are likely to be significant

20.3 Although the environmental features are described here under separate headings, the EIA will pay close attention to the interrelationships of the various factors in order to assemble a holistic picture of the likely significant effects and mitigation measures. It should also be noted that EIA is an iterative process, enabling matters not recognised at a preliminary stage to be addressed subsequently.

20.4 Based on the preliminary scope determined within this report, the provisional ES chapters are envisaged to be as follows:

Non-technical summary

1. Introduction
2. Site description and proposed development (including alternatives considered)
3. Environmental issues and methodology
4. Air quality
5. Community, social and economic effects
6. Cultural heritage
7. Ground conditions
8. Landscape and visual effects
9. Natural heritage
10. Noise and vibration
11. Traffic and transport
12. Water environment
13. Summary tables
14. Glossary

20.5 Each ES environmental chapter will follow a similar format, including sections on guidance and legislation, methodologies, reporting the baseline conditions, discussion of the future baseline, impact assessment during and post-construction, mitigation, residual effects and cumulative effects (where relevant). The ES will include appropriate visual presentation material (maps, diagrams and photographs) and will be supported by technical documents that will be supplied as appendices.

20.6 The consideration of the potential significant effects in this scoping report is preliminary. RDC and consultees are invited to comment on the intended scope of the EIA and to highlight any likely significant environmental issues that they consider should be included in the EIA.
Appendix A – Suggested consultees

Rochford District Council
  • Planning
  • Housing
  • Environmental health
  • Leisure, culture and tourism
  • Woodland, parks and open spaces

Essex County Council
  • Highways and transportation
  • Education
  • Archaeology and heritage
  • Natural environment

Natural England

Environment Agency

English Heritage

Highways Agency

Essex Wildlife Trust

Rawreth Parish Council

Essex and Suffolk Water

Royal Society for the Protection of Birds
Appendix B – Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011: information for inclusion in an ES

PART I

1. Description of the development, including in particular-
   (a) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;
   (b) a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;
   (c) an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.

2. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choices made, taking into account the environmental effects.

3. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

4. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:
   (a) the existence of the development;
   (b) the use of natural resources;
   (c) the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant or appellant of the forecasting methods used to assess the effects on the environment.

5. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

6. A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.

7. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant or appellant in compiling the required information.

PART II

1. A description of the development comprising information on the site, design and size of the development.

2. A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.

3. The data required to identify and assess the main effects which the development is likely to have on the environment.
4. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choices made, taking into account the environmental effects.

5. A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.
Date: 19th May 2014

Dear Ms Robinson,

Land North of London Road, Rayleigh, Essex

I refer to your request, in a letter dated the 27th March 2014 for a Scoping Opinion in relation to the Scoping Report submitted on this same date in relation to the above-mentioned site.

The Local Authority has consulted a number of organisations including the relevant consultation bodies as defined in the Regulations, namely;

- Essex County Council (ECC) Minerals and Waste Planning
- ECC Public Rights of Way
- Essex and Suffolk Water
- ECC Archaeology
- Environment Agency
- Rochford District Council (RDC) – Ecology
- RDC Environmental Health
- RDC Arboriculture
- Natural England
- ECC Highways

The Local Authority has considered the consultation responses and taken account of the specific characteristics of the development and the environmental features likely to be affected by the development and considers that the scope for the ES as detailed in the submission would cover all likely significant environmental effects.

There is no statutory provision as to the form that an ES must take but it must contain the information specified in Part II (of Circular 02/99) and the relevant aspects of Part I as detailed in your Scoping Opinion submission at Appendix B. It appears from the submitted information that all
of the necessary information with regard to Parts I and II would be included but in this regard please note that:

- the site plan in the ES which shows the application site edged red should be altered to accurately reflect the application site (once finalised) and ownership (it is understood that a small portion of the site north of the existing sports ground is not within the applicants ownership).
- the outline of the Scoping Report states that the ES will be supported by technical documents, for clarity, these should include the data required to identify and assess the main effects which the development is likely to have on the environment as required by Part II.

In accordance with the requirement in Regulation 13 you were consulted on the preliminary Scoping Opinion prior to the adoption of this final Scoping Opinion.

Yours sincerely,

Shaun Scrutton
Head of Planning and Transportation
Dear Ms Rodgers

SCOPING OPINION REQUEST. LAND NORTH WEST OF RAYLEIGH.

Thankyou for consulting us on the scoping opinion for the above development.

We have reviewed the Environmental Impact Assessment Scoping Report for the proposed development, Ref: 180605, prepared by Countryside Properties (UK) Ltd, dated 27 March 2014.

We note the topics which will be included in the Environmental Statement, in particular, we support the inclusion of chapters on Flood Risk, Drainage and Water Resources, and Ground Conditions. It is disappointing that no mention is made of sustainable construction. Further information on all of this is provided below.

Flood Risk

The site lies within Flood Zones 1, 2 and 3, defined in the National Planning Policy Framework as being the low, medium and high probability zones. The application is proposing the construction of approximately 475 houses which are classified as a 'more vulnerable' land use by the NPPF. Therefore the application needs to pass the sequential and exception tests and be supported by a site specific Flood Risk Assessment to comply with the NPPF and policy ENV3 of your core strategy.

If you consider the Sequential Test to be passed, then you should ensure the Sequential Approach is applied to the site layout. Areas shown to be Flood Zone 2 and 3 should ideally be used for landscaping, Sustainable Drainage Systems (SUDs), and other water compatible uses, as supported by paragraph 3.32 of your site allocation DPD.

For more information, our flood risk standing advice can be found on https://www.gov.uk/government/publications/flood-risk-standing-advice-for-local-
planning-authorities-frsa. You should also refer to the NPPF practice guide.

**Flood Defence Consent**

The applicant should also be aware that under the terms of the Water Resources Act 1991, our prior written consent is required for any proposed works or structures, in, under, over or within 9 metres of the top of the bank/foreshore of the Rawreth Brook, a designated ‘main river’. The flood defence consent will control works in, over, under or adjacent to main rivers (including any culvertting).

To gain consent the applicant will need to demonstrate that:

- there is no increase in flood risk either upstream or downstream
- access to the main river network for maintenance and improvement is not prejudiced.
- works are carried out in such a way as to avoid unnecessary environmental damage.

Mitigation is likely to be required to control:

- off site flood risk

We will not be able to issue our consent until this has been demonstrated.

Opportunities should also be taken to enhance the river to benefit both the ecology and water quality. If done well this will provide a more attractive environment which is likely to lead to social and economic benefits. This is supported by policy DM26 of your Draft Development Management Policies.

**Surface water management**

The Scoping Report advises the site is 34 hectares in size. Development of this scale can generate significant amounts of surface water runoff; an FRA is therefore required to demonstrate that flood risk will not increase as a result of the proposal.

The Floods and Water Management Act 2010 and NPPF require developers to include sustainable drainage (SUDS), where practicable, in new developments; this is supported by Policy ENV4 of your Core Strategy. Whilst not all SUDS options will be appropriate for all development sites, a sustainable drainage approach should be possible on almost every development site. Approved Document Part H of the Building Regulations 2000 advises that the first option should be SUDS which encourage infiltration e.g. soakaways or infiltration basins. It should be established that this is feasible using the guidance in BRE Digest 365 or CI/R/A guidance R156. The ground conditions in the site (detailed below) may mean other options also need to be considered.

A development of this size presents an opportunity to provide an exemplary SuDS which will not only manage surface water but will provide benefits to the wider environment. This is supported by policy ENV4 of your core strategy. We would encourage the applicant to consider this from an early stage to ensure the maximum benefits can be delivered.

Rawreth Brook is located on site and additional surface water drains are located in close proximity which may be capable of accepting run-off from the site. However, if infiltration is proposed, the existing ground conditions may not provide sufficient soakage rates. This will need consideration in the FRA.

Cont'd..
The ES should also carefully consider the implications and impact of potentially contaminated surface water drainage on the quality of surface waters and groundwaters in the vicinity of the site.

**Ground Conditions**

The site is underlain by the solid geology of London Clay, designated as Unproductive Strata. This is overlain by superficial deposits comprising Head and Alluvium in the central/southern part of the site. Alluvium is designated as a Secondary A Aquifer, while Head deposits are designated as a Secondary B Aquifer. Alluvium and Head deposits are designated as Essex Gravels Drinking Water Protected Area for the purposes of Water Framework Directive. The nearest surface water feature is Rawreth Brook, which flows westwards across the site.

The current use of the site is described as agricultural land. However, the report highlights activities that may have given rise to contamination such as fuel storage. As such, we agree with the report's conclusion that potential contamination should be given due consideration. Any impacts of the development on groundwater and surface water quality during construction and operation should also be considered. In addition, piling or other ground improvement methods could have an adverse impact on the groundwater quality or provide preferential pathways for contaminant migration to the underlying aquifers during construction and after the completion of the development.

With respect to land that may have been affected by contamination as a result of its previous use or that of the surrounding land, sufficient information should be provided with the planning application, in the form of a Phase I Contaminated Land Assessment (including a desk study, conceptual model and initial assessment of risk), to provide assurance the risks to controlled waters are fully understood and can be addressed through appropriate measures. This is supported by policy ENV11 of your core strategy.

We understand that the proposal includes a petrol filling station (PFS). As such, the impacts of on-site fuel storage on the water environment should also be considered. The proposal will need to comply with our appropriate Groundwater Protection: Principles and Practice (GP3, 2013) position statements on underground and sub-water table storage of pollutants (A2 to A8 and D1 to D4). We recommend that the PFS be placed on a part of the site designated as Unproductive Strata where this is practicable in order to minimise the potential risks to the water environment. The Groundwater Protection: Principles and Practice document can be found on [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297347/LTT_7660_9a3742.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297347/LTT_7660_9a3742.pdf).

**Sustainable Development**

Climate change is one of the biggest threats to the economy, environment and society. New development should therefore be designed with a view to improving resilience and adapting to the effects of climate change, particularly with regards to already stretched environmental resources and infrastructure such as water supply and treatment, water quality and waste disposal facilities. We also need to limit the contribution of new development to climate change and minimise the consumption of natural resources.

Opportunities should therefore be taken in the planning system, no matter the scale of the development, to contribute to tackling these problems. In particular we recommend
the following issues are considered at the determination stage and incorporated into suitable planning conditions:

- **Overall sustainability**: a pre-assessment under the appropriate Code/BREEAM standard should be submitted with the application. We recommend that design Stage and Post-Construction certificates (issued by the Building Research Establishment or equivalent authorising body) are sought through planning conditions.
- **Resource efficiency (including water and waste)**: see additional advice provided in the technical appendix.
- **Net gains for nature**: see additional advice provided in the technical appendix.
- **Sustainable energy use**: the development should be designed to minimise energy demand and have decentralised and renewable energy technologies (as appropriate) incorporated?

This approach is in line with the objectives of the NPPF as set out in paragraphs 7 and 93-108, and policy ENV9 of your core strategy.

We trust this advice is useful.

Yours sincerely

[Signature]

**Ms Rebecca Bromley**  
Sustainable Places Planning Advisor

Direct dial 01473 706081  
Direct e-mail rebecca.bromley@environment-agency.gov.uk

**On behalf of:**

**Miss Lizzie Griffiths**  
Sustainable Places Planning Advisor

Direct dial 01473 706820  
Direct e-mail lizzie.griffiths@environment-agency.gov.uk
Technical Appendix – Sustainability

We suggest the following points are addressed by the applicant to limit the developments impact on the environment and ensure it is resilient to future climate change.

Water Efficiency

Over the next 20 years demand for water is set to increase substantially yet there is likely to be less water available due to a drier climate and tighter controls on abstraction. To address this new development should be designed to be as water efficient as possible. This will not only reduce water consumption but also reduce energy bills as approximately 24% of domestic energy consumption in the UK goes to heating water (DTI 2002).

Simple solutions such as dual-flush toilets, water-saving taps and showers, water butts and appliances with the highest water efficiency rating should all be included in the development. The use of greywater recycling and rainwater harvesting will achieve a higher efficiency for the development and should be installed wherever possible.

Any submitted scheme should include detailed information (capacities, consumption rates, etc) on proposed water saving measures. Where rainwater recycling or greywater recycling is proposed, this should be indicated on site plans. Applicants are also advised to refer to the following for further guidance: http://www.water-efficient-buildings.org.uk/; and http://www.savewatersavemoney.co.uk/.

Resource Efficiency

The management of waste should be considered early in the design phase and all developments encouraged to follow the Construction Waste Hierarchy of prevention > re-use > recycling > recovery > disposal. Further information on this can be found at www.defra.gov.uk/publications/files/pb13530-waste-hierarchy-guidance.pdf.

Measures to be included to reduce construction waste include procedures to prevent the over-ordering of materials, reducing damage to materials before use by careful handling and segregating waste on site into separate skips. The developer should also consider how they will incorporate recycled/recovered materials into the building programme, including the use of secondary and recycled aggregates, and re-use of any on-site demolition waste.

Development design can also facilitate household waste recycling and we would suggest that designs incorporate facilities to aid this in line with local recycling provision, especially in multiple-occupancy buildings. We would also suggest that consideration is given to the provision for recycling within public areas. We recommend the following websites which provide ideas and further information: http://www.wrap.org.uk and http://www.tcpa.org.uk/pages/towards-zero-waste.html.

Net Gains for Nature

Landscaping proposals should demonstrate that thought has been given to maximising potential ecological enhancement. Paragraph 9 of the NPPF sets out that planning should seek positive improvements and includes an aim to move from a net loss of biodiversity to achieving net gains for nature in line with the Natural Environment White
Paper (2011). In determining planning applications Local Authorities are asked to conserve and enhance biodiversity and encourage opportunities to incorporate biodiversity in and around developments (para.118). This presents an opportunity to provide multi-functional benefits - providing open space for residents, sustainable transport links, wildlife/ecological value, climate change resilience, improved water quality and flood risk management.

Incorporating green and/or brown roofs and walls, as promoted in paragraph 3.4 of your site allocation DPD, are particularly effective. They provide valuable urban habitats; increased energy efficiency of buildings and attenuation of rain water. Research from the journal ‘Environmental Science and Technology’ claims that green walls deliver cleaner air at street level where most people are exposed to the highest pollution. They can also add to an attractive street scene if designed well – a good example of this is the Transport for London Green Wall near Blackfriars station.

Additional Useful Resources

In April 2012 we took on full responsibility for the governments Climate Ready support service which provides advice and support to businesses, the public sector and other organisations on adapting to climate change. The aim is to ensure businesses and services assess how they will be impacted by a changing climate so that they are both resilient and can thrive in the future. The Climate Ready pages of our website (http://www.environment-agency.gov.uk/research/137557.aspx) provide information including guidance on carrying out impact assessments and evaluating adaptation strategies.

The UK Green Building Council has also published a series of documents to help Local Authorities and developers to understand sustainability issues. These documents are available on their website at: http://www.ukgbc.org/content/advice-planners-and-developers.

The most recently published technical guidance to the Communities and Local Government’s ‘Code for Sustainable Homes’ also provides useful guidance: http://www.planningportal.gov.uk/uploads/code_for_sustainable_homes_techguide.pdf.
Katie Rodgers
Rochford District Council

BY EMAIL ONLY

Dear Katie

Environmental Impact Assessment Scoping consultation (Regulation 15 (3) (i) of the EIA Regulations 2011): Approximately 34ha of residential dwellings (approx. 500 houses) and approximately 0.3ha of non-residential uses, a new link road and public open space
Location: Land North West of Rayleigh, Essex

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 04 April 2014.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law¹ and guidance² has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England’s advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Ross Holdgate on 0300 060 4657. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk

Yours sincerely

Ross Holdgate
Essex, Herts, Beds, Cambs and Northants Area Team

¹ Harrison, J in R. v. Cornwall County Council ex parte Hardy (2001)
Annex A – Advice related to EIA Scoping Requirements

1. General Principles
Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the ‘in combination’ effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement
Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S.118 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites
The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g., designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2010. In addition...
paragraph 118 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites)
The development site is a short distance from the following designated nature conservation site:

- Crouch and Roach Estuaries SSSI and SPA (approx. 2km)
- Hockley Woods SSSI (approx. 3km)

Further information on the SSSI and its special interest features can be found at www.natureonthemap.naturalengland.org.uk. Natura 2000 network site conservation objectives are available on our internet site here.

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects. The development has potential to impact on these sites through an increase in recreational pressure. However it may be possible to address this issue through the provision of sufficient areas of good quality natural greenspace within the application site and potentially through promoting access to nearby non-designated areas of open space such as Sweyne Park to the east and access land at Wheatley Wood to the south. Promotion of these sites could include the provision of new footpath links and/or upgrading of their facilities/quality for visitors.

2.3 Regionally and Locally Important Sites
The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010
The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.
The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.

2.5 Habitats and Species of Principal Importance
The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as ‘Habitats and Species of Principal Importance’ within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available in the Defra publication ‘Guidance for Local Authorities on Implementing the Biodiversity Duty’.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, ‘are capable of being a material consideration...in the making of planning decisions’. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (eg from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (eg whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.6 Contacts for Local Records
Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

3. Designated Landscapes and Landscape Character

Landscape and visual impacts
Natural England would wish to see details of local landscape character areas mapped at a scale
appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

Heritage Landscapes
You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm and further information can be found on Natural England’s landscape pages here.

4. Access and Recreation
Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way, Access land, Coastal access and National Trails
The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Appropriate mitigation measures should be
incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality
Impacts from the development should be considered in light of the Government’s policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The applicant should consider the following issues as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether ‘best and most versatile’ agricultural land is involved.

   This may require a detailed survey if one is not already available. For further information on the availability of existing agricultural land classification (ALC) information see www.magic.gov.uk Natural England Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land also contains useful background information.

2. If required, an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, eg one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, ie 1.2 metres.

3. The Environmental Statement should provide details of how any adverse impacts on soils can be minimised. Further guidance is contained in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites.

6. Air Quality
Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation
The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development’s effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment ‘by establishing coherent ecological networks that are more resilient to current and future pressures’ (NPPF Para 109), which should be
demonstrated through the ES.

8. **Cumulative and in-combination effects**
A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.
Specialist Archaeological Advice

Dear Katie,

Re: Land North West of Rayleigh – Environmental Impact Assessment Scoping Opinion request

Thank you for consulting the Historic Environment Advisor of Place Services on the above Scoping request.

The Historic Environment Record shows that the proposed development area lies within a potentially sensitive area of archaeological deposits. The applicant has been in contact with our office and initial archaeological investigations have already been carried out on this site. The scoping document supplied indicates that the applicant has identified that archaeological assessment will need to be included within an EIA, and the EIA should recommend a mitigation strategy. The results of the archaeological investigation will have to identify the significance of the surviving archaeological deposits on the site, the impact of the development and any proposed mitigation strategy to either preserve in situ and or fully excavate deposits identified.

If you have any questions, please do not hesitate to contact me.

Yours sincerely

Alison Bennett
Historic Environment Advisor

Telephone: 03330 136851
E-mail: alison.bennett@essex.gov.uk

NOTE: This letter is advisory and should only be considered as the opinion formed by specialists in relation to this particular matter.
Dear Emma,

Please see email below received n respect of the Scoping Opinion consultation.

Regards

Katie

From: Ivor Chapman
Sent: 24 April 2014 14:11
To: Katie Rodgers
Subject: RE: Regulation 10(1) Scoping Opinion request - consultation - Land North West Rayleigh, Essex

Dear Katie,

I have reviewed the “Ground conditions” chapter, which relates to land contamination.

The proposals appear satisfactory and the Phase 1 study will indicate whether further investigation will be required.

Yours sincerely,
Ivor

Ivor Chapman
Environmental Health Officer
Environmental Health
Rochford District Council
01702 318047
http://www.rochford.gov.uk

Please rate this email

From: Katie Rodgers
Sent: Friday, April 04, 2014 1:20 PM
To: Ivor Chapman
Cc: Martin Howlett
Subject: Regulation 10(1) Scoping Opinion request - consultation - Land North West Rayleigh, Essex

Dear Ivor,

Land North West of Rayleigh, Essex

The Local Planning Authority has received a request for a Scoping Opinion in relation to the above-mentioned site. In respect of this request, the Local Planning Authority must advise the applicant on the information that should be provided in the Environmental Statement to accompany the planning application for the site.

A copy of the information received from the applicant has been forwarded to you by email, this includes a plan of the site between pages 3 and 4.

In accordance with Regulation 10 of the EIA Regulations 1999, the Scoping Report contains a brief description of the nature and purpose of the development and its possible effects on the environment. It also provides a brief outline of the proposed structure of the Environmental Statement.

To assist the Local Planning Authority’s assessment of the Scoping Opinion request, I would welcome your views on the adequacy of the information proposed to be included in the Environmental Statement in relation to issues appropriate to you as a consultee.

In view of the short statutory time frame available to the Local Planning Authority in this matter I would be grateful for your written comments on or before 24th April 2014.

Although a Screening Opinion under Regulation (5) 1 has not been specifically requested by the applicant I would also welcome your view on whether the proposal would give rise to any significant environmental effects such as to warrant Environmental Impact Assessment being required in the first instance.

Should you as consultee be involved in a number of different issues please clearly identify which issue(s) your comments relate to.

Thank you for your cooperation and please do not hesitate to contact me should you wish to discuss any aspect of this matter.

Yours sincerely,

Katie Rodgers
Team Leader, Development Management (South)
Tel: 01702 318094

Our Vision is to make Rochford District a place which provides opportunities for the best possible quality of life for all who live, work and visit here.

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Subject: RE: Scoping Opinion - Land North of London Road
Date: Thursday, 8 May 2014 15:58:33 British Summer Time
From: Katie.Rodgers@Rochford.gov.uk
To: emma.robinson@torltd.co.uk

Dear Emma,

Natural England raise a valid point that the impact of the proposed development on soils should be considered as consideration will be given to the identified paragraph 109 in the determination of the application. The Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites referred to by Natural England may be helpful. In terms of impact on soil I think we would be looking to see that negative impacts would be minimised and soil resources used on site in the most effective and appropriate way. We do not consider that the impacts on soil would amount to a likely significant environmental impact and as such would not necessarily require inclusion in an Environmental Statement (EA), the impacts on soils could be submitted separately.

In terms of agricultural land classification, given that the site has been allocated for residential development we do not consider that the loss of the agricultural land will form a significant environmental impact.

We are happy to issue the draft Scoping Opinion as the final document and I will forward you a copy shortly.

Please do not hesitate to contact me if you would like to discuss further.

Regards

Katie

From: Emma Robinson [mailto:emma.robinson@torltd.co.uk]
Sent: 07 May 2014 19:07
To: Katie Rodgers
Subject: Re: Scoping Opinion - Land North of London Road

Dear Katie

Thank you for forwarding Rochford District Council’s draft scoping opinion for our comment.

With reference to Natural England’s comments on soil and agricultural land quality, our scoping document scoped out the loss of agricultural land on the basis that it will be a very small loss in the context of arable land in Essex generally (i.e. 52 ha in the context of 300,534 ha). The agricultural land at the site is identified on the MAGIC website as grade 3 and again, this needs to be set in context with the rest of Essex, which has a high proportion of grade 2 land. The small loss of an area of grade 3 land is therefore not considered likely to give rise to a significant impact.

We would be very grateful if you could give this matter further consideration.

Many thanks

Kind regards

Emma

Emma Robinson
From: <Katie.Rodgers@Rochford.gov.uk>
Date: Thursday, 1 May 2014 08:48
To: Emma Robinson <emma.robinson@torltd.co.uk>
Subject: Scoping Opinion - Land North of London Road

Dear Emma,

Please find attached a copy of the Council's draft Scoping Opinion.

We are required to send it to you for comment before we issue so I would be grateful for your comments on this electronic copy after which I will get the final one signed and sent out to you.

Regards

Katie

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life for all who live, work and visit here.

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Response to Rochford District Council’s Scoping Opinion

The scoping report was submitted to Rochford District Council and a number of other organisations in March 2014. These tables present the key issues raised by the consultees and provides responses to each of the comments. Where applicable, cross-references are made to where the issues have been addressed in the environmental statement. Please note, where the scoping comments received from consultees are quite lengthy, the main points have been extracted and noted in the comments column below.

<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rochford District Council – Planning / overall scoping response</strong></td>
<td></td>
</tr>
<tr>
<td>The Local Authority has considered the consultation responses and taken account of the specific characteristics of the development and the environmental features likely to be affected by the development and considers that the scope for the ES as detailed in the submission would cover all likely significant environmental effects.</td>
<td>The scope of the ES is in line with the scope set out in the Rayleigh EIA Scoping report prepared in March 2014.</td>
</tr>
<tr>
<td>There is no statutory provision as to the form that an ES must take but it must contain the information specified in Part II (of Circular 02/99) and the relevant aspects of Part I as detailed in the Scoping Opinion submission at Appendix B. It appears from the submitted information that all of the necessary information with regard to Parts I and II would be included but in this regard please note that;</td>
<td>See responses below.</td>
</tr>
<tr>
<td>- The site plan in the ES which shows the application site edged red should be altered to accurately reflect the application site (once finalised) and ownership (it is understood that a small portion of the site north of the existing sports ground is not within the applicants ownership)</td>
<td>Noted. Please see figure 1.1: Site location and application boundary, in the ES.</td>
</tr>
<tr>
<td>- The outline of the Scoping Report states that the ES will be supported by technical documents, for clarity, these should include the data required to identify and assess the main effects, which the development is likely to have on the environment as required by Part II.</td>
<td>Technical appendices A – H contain all necessary information / data to identify and assess the main effects of the proposals</td>
</tr>
</tbody>
</table>
| In response to a query regarding Natural England’s comment on the impact of the proposed development on soils, RDC responded:  
*“Natural England raise a valid point that the impact of the proposed development on soils should be considered as consideration will be given to the identified paragraph 109 in the determination of the application. The Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites referred to by Natural England may be helpful. In terms of impact on soil I think we would be looking to see that negative impacts would be minimised and soil resources used on site in the most effective and appropriate way. We do not consider that the impacts on soil would amount to a likely significant* | Information on the soil resource and how it will be used in the most effective and appropriate way has been covered in the ES in Chapter 7: Ground conditions. |
### Comments

Environmental impact and as such would not necessarily require inclusion in an Environmental Statement (EA), the impacts on soils could be submitted separately. In terms of agricultural land classification, given that the site has been allocated for residential development we do not consider that the loss of the agricultural land will form a significant environmental impact.

**Rochford District Council - Environmental Health Officer**

The proposal appears satisfactory and the Phase 1 study will indicate whether further investigation will be required.

**Historic Environment Advisor - Essex County Council**

The Historic Environment Record shows that the proposed development area lies within a potentially sensitive area of archaeological deposits. The applicant has been in contact with our office and initial archaeological investigations have already been carried out on this site. The scoping document supplied indicates that the applicant has identified that archaeological assessment will need to be included within an EIA, and the EIA should recommend a mitigation strategy. The results of the archaeological investigation will have to identify the significance of the surviving archaeological deposits on the site, the impact of the development and any proposed mitigation strategy to either preserve in situ/and or fully excavate deposits identified.

**Response**

A Phase 2 intrusive investigation was carried out at the site during October 2013, as detailed in RSA Geotechnics Limited interpretative report 13892/SI dated December 2013. Laboratory testing and associated assessment indicated that site topsoil was potentially suitable for re-use in the development.

It would be proposed to re-use soils as far as possible in the development of the site, to maximise sustainability and minimise the requirement for import and export.

Further testing would be anticipated to confirm the suitability of site-won soils.

See Chapter 7 Ground conditions for further details.

Chapter 6: Cultural heritage sets out the results of a number of schemes of intrusive and non-intrusive archaeological evaluation. All were undertaken in consultation with the historic environment advisor and were focussed upon master plan proposals for infrastructure across this arable farmland. The results have shown that an area of Late Iron Age/Romano-British date survives in the southern portion of the site. A mitigation strategy to preserve this suspected farmland by record is proposed and delivers a beneficial effect in terms of understanding this former settlement. Appropriate levels of dissemination of the results will ensure the findings are known by as wide an audience as possible.
Comments

**Environment Agency**

**Flood Risk**

The site lies within Flood Zones 1, 2 and 3, defined in the National Planning Policy Framework as being the low, medium and high probability zones. The application is proposing the construction of approximately 475 houses which are classified as a ‘more vulnerable’ land use by the NPPF. Therefore the application needs to pass the sequential and exception tests and be supported by a site specific Flood Risk Assessment to comply with the NPPF and policy ENV3 of the core strategy.

If the Sequential Test is considered to be passed, then the Sequential Approach must be applied to the site layout. Areas shown to be Flood Zone 2 and 3 should ideally be used for landscaping, Sustainable Drainage Systems (SuDs), and other water compatible uses, as supported by paragraph 3.32 of the site allocation DPD.

**Flood Defence Consent**

The applicant should also be aware that under the terms of the Water Resources Act 1991, prior written consent is required for any proposed works or structures, in, under, over or within 9 metres of the top of the bank/foreshore of the Rawreth Brook, a designated ‘main river’. The flood defence consent will control works in, over, under or adjacent to main rivers (including any culverting).

To gain consent the applicant will need to demonstrate that:

- There is no increase in flood risk either upstream or downstream
- Access to the main river network for maintenance and improvement is not prejudiced.
- Works are carried out in such a way as to avoid unnecessary environmental damage. Mitigation is likely to be required to control off site flood risk

The Agency will not be able to issue its consent until this has been demonstrated. Opportunities should also be taken to enhance the river to benefit both the ecology and water quality. If done well this will provide a more attractive environment which is likely to lead to social and economic benefits. This is supported by policy DM26 of the Draft Development Management Policies.

Response

As the site is listed within the Rochford District Council Local Development Framework Allocations Plan, it is considered to be necessary development and therefore passes the Sequential Test.

As stated in paragraph 5.5.2 of the FRA, the sequential approach to the site layout has been taken as no residential development will be in Flood Zone 2 or 3.

As stated in paragraph 3.3.3 of the FRA, the land that is shown to be in Flood Zone 2 and 3 will be set aside for public open space and natural/semi-natural green space.

Flood defence consents: the developer will complete necessary flood defence consents for any proposed works within 9m of the river corridor.

See above.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Surface Water Management</strong></td>
<td>The FRA forms Technical Appendix H to the ES.</td>
</tr>
<tr>
<td>The Scoping Report advises the site is 34 hectares in size. Development of this scale can generate significant amounts of surface water runoff; an FRA is therefore required to demonstrate that flood risk will not increase as a result of the proposal.</td>
<td>High level calculations of surface water storage requirements for all rainfall events up to the 1 in 100 year + 30% climate change are discussed within the FRA. A detailed surface water drainage strategy will be completed once the site layout has been agreed. The provision of betterment in runoff and environmental quality through the use of SuDS is noted.</td>
</tr>
<tr>
<td>The Floods and Water Management Act 2010 and NPPF require developers to include sustainable drainage (SuDS), where practicable, in new developments; this is supported by Policy ENV4 of the Core Strategy. Whilst not all SuDS options will be appropriate for all development sites, a sustainable drainage approach should be possible on almost every development site. Approved Document Part H of the Building Regulations 2000 advises that the first option should be SuDS which encourage infiltration e.g. soakaways or infiltration basins. It should be established that this is feasible using the guidance in BRE Digest 365 or CIRIA guidance R156. The ground conditions in the site (detailed below) may mean other options also need to be considered.</td>
<td>As set out in Chapter 2 of the ES, the proposed surface water drainage system includes a range of SuDS elements.</td>
</tr>
<tr>
<td>A development of this size presents an opportunity to provide an exemplary SuDS which will not only manage surface water but will provide benefits to the wider environment. This is supported by policy ENV4 of your core strategy. We would encourage the applicant to consider this from an early stage to ensure the maximum benefits can be delivered.</td>
<td>This issue is discussed in the FRA in Technical Appendix H.</td>
</tr>
<tr>
<td>Rawrath Brook is located on site and additional surface water drains are located in close proximity which may be capable of accepting run-off from the site. However, if infiltration is proposed, the existing ground conditions may not provide sufficient soakage rates. This will need consideration in the FRA.</td>
<td>This is assessed in Chapter 12 Water Environment of the ES.</td>
</tr>
<tr>
<td>The ES should also carefully consider the implications and impact of potentially contaminated surface water drainage on the quality of surface waters and groundwaters in the vicinity of the site.</td>
<td>Reference has been made in ES Chapter 7 Ground conditions, to the Drinking Water Protected Area.</td>
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</table>

**Ground Conditions**

The site is underlain by the solid geology of London Clay, designated as Unproductive Strata. This is overlain by superficial deposits comprising Head and Alluvium in the central/southern part of the site. Alluvium is designated as a Secondary A Aquifer, while Head deposits are designated as a Secondary B Aquifer. Alluvium and Head deposits are designated as Essex Gravels Drinking Water Protected Area for the purposes of Water Framework Directive. The nearest surface water feature is Rawrath Brook, which flows westwards across the site.
Comments

The current use of the site is described as agricultural land. However, the report highlights activities that may have given rise to contamination such as fuel storage. As such, the Agency agrees with the report’s conclusion that potential contamination should be given due consideration. Any impacts of the development on groundwater and surface water quality during construction and operation should also be considered. In addition, piling or other ground improvement methods could have an adverse impact on the groundwater quality or provide preferential pathways for contaminant migration to the underlying aquifers during construction and after the completion of the development.

With respect to land that may have been affected by contamination as a result of its previous use or that of the surrounding land, sufficient information should be provided with the planning application, in the form of a Phase I Contaminated Land Assessment (including a desk study, conceptual model and initial assessment of risk), to provide assurance the risks to controlled waters are fully understood and can be addressed through appropriate measures. This is supported by policy ENV11 of the core strategy.

The Agency understands that the proposal includes a petrol filling station (PFS). As such, the impacts of on-site fuel storage on the water environment should also be considered. The proposal will need to comply with our appropriate Groundwater Protection: Principles and Practice (GP3, 2013) position statements on underground and sub-water table storage of pollutants (A2 to A8 and D1 to D4). We recommend that the PFS be placed on a part of the site designated as Unproductive Strata where this is practicable in order to minimise the potential risks to the water environment. The Groundwater Protection: Principles and Practice document can be found on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297347/LI_T_7660_9a3742.pdf.

Sustainable Development

Climate change is one of the biggest threats to the economy, environment and society. New development should therefore be designed with a view to improving resilience and adapting to the effects of climate change, particularly with regards to already stretched environmental resources and infrastructure such as water supply and treatment, water quality and waste disposal facilities. We also need to limit the contribution of new development to climate change and minimise the consumption of natural resources.

Response

There was no obvious indication of fuel storage on site. Petrol filling stations were historically present to the south west of the site (approximately 400 m distant), and an open petrol filling station was present approximately 200 m south of the site. However, the presence of the low permeability London Clay (and cohesive Head deposits) beneath the site will mitigate the risk of migration of contamination to impact the site, and no significant impact has been identified from the investigations to date. Vigilance will be maintained throughout the groundworks for any previously undiscovered contamination, which if found will be assessed by the geoenvironmental engineer.

The desk study, conceptual site model and associated risk assessment are contained within the RSA Geotechnics Limited site investigation report 13692SI, December 2013.

The proposals no longer include a petrol filling station.

Noted – see below.
**Comments**

Opportunities should therefore be taken in the planning system, no matter the scale of the development, to contribute to tackling these problems. In particular we recommend the following issues are considered at the determination stage and incorporated into suitable planning conditions:

- Overall sustainability: a pre-assessment under the appropriate Code/BREEAM standard should be submitted with the application. We recommend that design Stage and Post-Construction certificates (issued by the Building Research Establishment or equivalent authorising body) are sought through planning conditions.
- Resource efficiency (including water and waste): see additional advice provided in the technical appendix.
- Net gains for nature: see additional advice provided in the technical appendix.
- Sustainable energy use: the development should be designed to minimise energy demand and have decentralised and renewable energy technologies (as appropriate) incorporated?

This approach is in line with the objectives of the NPFF as set out in paragraphs 7 and 93-108, and policy ENV9 of the core strategy.

**Response**

Pre-application discussion with Katie Rodgers has confirmed that our approach of not committing to the Code for Sustainable Homes given its impending deletion through the Housing Standards Review is acceptable. In its place we will clearly demonstrate how the proposed development is promoting key sustainable development issues.

The issue of BREEAM is also being left to detailed design given that at this outline stage, little can be done to influence any BREEAM outcome.

Given the outline nature of the application, Katie has also confirmed that it is appropriate to leave the issue of renewables and low carbon technologies to detailed design. The Sustainability Statement has calculated the predicted energy demand of the development and outlined which renewable energy technologies are not suitable and which will be considered during detailed design. The Statement has also clearly presented the benefits of the "fabric first" option to energy use and carbon emission reductions which is being prioritised over the use of renewable energy technologies.

We have proposed positive water efficiency and management measures however in response to the local water management issues.

The Sustainability Statement supporting the application does refer to the range of climate change adaptation and mitigation measures that have been incorporated within the scheme.

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**Natural England**

**1. General Principles**

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.

**Noted.**

A description of the development and discussion of the alternatives considered are provided in Chapter 2 of the ES. Descriptions of the aspects of the environment likely to be significantly affected, difficulties in compiling the required information, predicted residues and emissions, likely significant effects of the development and mitigation...
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<td>• An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.</td>
<td>measures are set out in the topic chapters (ES Chapters 4 to 12). The non-technical summary forms the front of the ES folder and is also available as a separately bound document.</td>
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<td>• A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.</td>
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<td>• A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.</td>
<td></td>
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<tr>
<td>• A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.</td>
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<tr>
<td>• A non-technical summary of the information.</td>
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<tr>
<td>• An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.</td>
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It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

An outline of the methodology undertaken in line with IEEEM guidance is provided in Chapter 9 Natural Heritage including the considerations and process in determining the significance of any likely impact.

Noted.
**2.2 Internationally and Nationally Designated Sites**

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g., designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2010. In addition, paragraph 118 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

**Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites).** The development site is a short distance from the following designated nature conservation site:

- **Crouch and Roach Estuaries SSSI and SPA** (approx. 2km)
- **Hockley Woods SSSI** (approx. 3km)

Further information on the SSSI and its special interest features can be found at [www.natureonthemap.naturalengland.org.uk](http://www.natureonthemap.naturalengland.org.uk). Natura 2000 network site conservation objectives are available on our internet site here.

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects. The development has potential to impact on these sites through an increase in recreational pressure.

**Response**

Chapter 9 Natural Heritage of the ES includes reference to the NPPF.

The ES has addressed the potential of the development to adversely affect the interest features of the nearby Crouch Estuary SPA/SAC both alone and in combination and is included in Chapter 9 Natural Heritage.

As set out in Chapter 9 Natural Heritage of the ES, this issue was addressed through an HRA at the Core Strategy stage and appropriate mitigation was identified to protect designated sites.

See above.

The potential for effects on these sites is examined in Chapter 9 Natural Heritage of the ES.

A full assessment, including details of a field visit are provided in Chapter 9 Natural Heritage to assess the potential for direct and indirect impacts on all nearby designated sites.
**Comments**

However it may be possible to address this issue through the provision of sufficient areas of good quality natural greenspace within the application site and potentially through promoting access to nearby non-designated areas of open space such as Swayne Wood to the east and access land at Wheatley Wood to the south. Promotion of these sites could include the provision of new footpath links and/or upgrading of their facilities/quality for visitors.

**Response**

An assessment of the potential impacts on Fenn Washland LNR, Kendal Park LNR and Marylands LNR is provided in Chapter 9 Natural Heritage to assess the potential for impacts on nearby regionally and locally important sites.

### 2.3 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

### 2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for

The Natural Heritage Technical Appendix (Technical Appendix E) details the timing, survey effort and species recorded on site undertaken by a suitable qualified ecologist undertaken using best practice guidance. Chapter 9 Natural Heritage of the ES details the potential effects of protected species both during and post construction in the context of species populations in the wider area and provides details on appropriate mitigation measures where needed.

The conclusions, recommendations and relevant duties imposed under the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010 and Government Circular 06/2005 has been adhered to and reference where necessary within Chapter 9.

All protected species surveys were undertaken during optimal survey time periods by professional ecologists. Details are provided in the Natural Heritage Technical Appendix (Technical Appendix E).
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<td>protected species which includes links to guidance on survey and mitigation.</td>
<td>Chapter 9 Natural Heritage includes consideration of the potential for effects on habitats and species of principal importance.</td>
</tr>
<tr>
<td><strong>2.5 Habitats and Species of Principal Importance</strong></td>
<td>Chapter 9 Natural Heritage includes consideration of the potential for effects on Biodiversity Action Plan species and habitats.</td>
</tr>
<tr>
<td>The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NER Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available in the Defra publication 'Guidance for Local Authorities on Implementing the Biodiversity Duty'</td>
<td>A full suite of phase 2 protected species surveys were undertaken and informed by an extended phase one survey of the Application Site and a wider survey area following best practice guidance. These were further informed from the records obtained from the county biological record centre. Full details are provided in Chapter 9 and Technical Appendix E.</td>
</tr>
<tr>
<td>Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration...in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.</td>
<td>Chapter 9 Natural Heritage of the ES details the potential effects on protected species both during and post construction and provides details on appropriate mitigation measures where needed.</td>
</tr>
<tr>
<td>Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:</td>
<td>Noted.</td>
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<tr>
<td>• Any historical data for the site affected by the proposal (eg from previous surveys);</td>
<td></td>
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<tr>
<td>• Additional surveys carried out as part of this proposal;</td>
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<td>• The habitats and species present;</td>
<td></td>
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<td>• The status of these habitats and species (eg whether priority species or habitat);</td>
<td></td>
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<tr>
<td>• The direct and indirect effects of the development upon those habitats and species;</td>
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<tr>
<td>• Full details of any mitigation or compensation that might be required.</td>
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<tr>
<td>The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.</td>
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<tr>
<td>The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.</td>
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</table>
2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geocconservation group or other recording society and a local landscape characterisation document).

Chapter 8 Landscape and Visual Effects of the ES includes a map of relevant local landscape character areas and an assessment of both landscape and visual effects.

3. Designated Landscapes and Landscape Character

Landscape and visual impacts

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. Natural England encourages the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

The national and Essex landscape character areas have been mapped for the site and surrounding area. The effects on local landscape character have been assessed.

Natural England supports the publication Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

The methodology used includes the following guidance:

- Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition)

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Details of alternatives considered are set out in Chapter 2 of the ES. Chapter 8 Landscape and Visual Effects includes details of measures taken during the design process to reduce the potential for significant landscape and visual effects. Further information on the design is
### Comments

**Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.**

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

**Heritage Landscapes**

You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm and further information can be found on Natural England’s landscape pages here.

**4. Access and Recreation**

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

**Rights of Way, Access Land, Coastal Access and National Trails**

The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

### Response

Provided in the Design and Access Statement. High quality design has been referred to in the policy and mitigation sections.

Potential cumulative developments have been agreed with the authority and the effects have been considered.

Chapter 8 Landscape and Visual Effects includes examination of both national and local landscape character areas.

There is no such land in the vicinity of the Application Site.

Access and recreational concepts including the safeguarding of the existing footpaths and links to the wider green network and public open spaces have been incorporated into the design of the scheme and are outlined in the Design and Access Statement.

The potential for effects on rights of way during and post construction has been assessed with Chapter 5 Community, Social and Economic Effects. The balance between enhancing access and recreational pressure has to be balance against potential impact on the interest features of designated sites. An assessment of this is included within Chapter 9 Natural Heritage.
5. **Soil and Agricultural Land Quality**

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. Natural England also recommends that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

Soil is a finite resource that fulfills many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The applicant should consider the following issues as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether 'best and most versatile' agricultural land is involved. This may require a detailed survey if one is not already available. For further information on the availability of existing agricultural land classification (ALC) information see www.magic.gov.uk. Natural England Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land also contains useful background information.

2. If required, an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, eg one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, ie 1.2 metres.

3. The Environmental Statement should provide details of how any adverse impacts on soils can be minimised. Further guidance is contained in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites.

6. **Air Quality**

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant

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<td>See response noted under Rochford District Council - Information on the soil resource and how it will be used in the most effective and appropriate way has been covered in the ES Chapter 7: Ground conditions.</td>
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<td>Given the low levels of air pollutants in the vicinity of the site (see ES Chapter 4 Air Quality), the nature of the proposed development and the distance to sensitive habitats, it was not considered appropriate to examine the potential for effects on biodiversity as a result of air pollution.</td>
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### Comments

Impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

### Response

7. Climate Change Adaptation

The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development’s effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment ‘by establishing coherent ecological networks that are more resilient to current and future pressures’ (NPPF Para 109), which should be demonstrated through the ES.

### Response

Details on how the design on the scheme has reflected the need for coherent creation and the maintenance of ecological networks and green corridors in line with the principles set out in DEFRA’s Biodiversity 2020 is provided in Chapter 9 of the ES.

8. Cumulative and In-Combination Effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment. The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

- existing completed projects;
- approved but uncompleted projects;
- ongoing activities;
- plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

### Response

The ES considers cumulative effects with the following projects:

- The total developable area within the SER1 allocation including the Application Site (550 dwellings, plus 10% for sensitivity testing purposes)
- Hullbridge (500 dwellings)
- Rawreth Industrial Estate (220 dwellings)

In-combination effects have also been considered where appropriate.