

Chelmsford Local Plan

Habitats Regulations Assessment: Initial Scoping

1. Introduction

1.1 Overview

Chelmsford City Council (the Council) is currently preparing a new Local Plan for its Administrative Area (the City Area). The new Local Plan will set out the vision, objectives, planning policies and site allocations that will guide development in the local authority area to 2036. Amec Foster Wheeler Environment and Infrastructure UK Ltd (Amec Foster Wheeler) has been commissioned by the Council to undertake a Habitats Regulations Assessment (HRA) of the Local Plan.

This Technical Note has been prepared to support discussions with Natural England regarding the scope and content of the HRA of the Local Plan. Natural England is the statutory consultee for HRA. This Technical Note and subsequent discussions will help to ensure that there is broad agreement on the approach to the HRA of the Local Plan from the outset, helping to ensure that the assessment is robust.

1.2 The Local Plan for Chelmsford City

The new Local Plan for Chelmsford will, once adopted, replace the suite of Development Plan Documents (DPDs) that currently provide the Development Plan for Chelmsford for the period up to 2021. The new Local Plan will guide growth and development in the Chelmsford City Area for the period up to 2036 and beyond. It will be a single document that will provide the Council's vision, objectives and spatial strategy. It will also contain strategic development policies, development management policies, site-specific land use allocations and a Local Plan policies map. Alongside any Neighbourhood Plans that come forward, it will form the Development Plan for the local authority area.

The Council's Local Development Scheme (LDS) was published in July 2015¹. The LDS sets out the timetable for production of the Local Plan in accordance with the requirements of The Town and Country Planning (Local Planning) (England) Regulations 2012). The key plan preparation milestones are detailed in **Table 1.1**.

¹ Available from

http://www.chelmsford.gov.uk/sites/chelmsford.gov.uk/files/files/committee_files/local%20development%20scheme%20appendix.pdf
[Accessed July 2015].

Table 1.1 Local Plan Preparation Milestones

Stage	Date
Evidence gathering and public participation – Scoping Consultation (Regulation 18) (Issues and Options)	November 2015-January 2016
Preferred Options Consultation (Regulation 18)	July-September 2016
Consultation on Draft Pre-Submission Local Plan (Regulation 19)	March-April 2017
Submission (Regulation 22)	August 2017
Examination in Public (Regulation 24)	August 2017-March 2018
Adoption (Regulation 26)	May 2018

Adoption of the Local Plan is due to take place in May 2018. This will be preceded by three principal periods of consultation during which the Local Plan will be developed and refined taking into account (inter-alia) national planning policy and guidance, the Council's evidence base, the outcomes of consultation and the findings of socio-economic and environmental assessments and appraisal. As part of this process, the Council has prepared the Chelmsford Local Plan Issues and Options Consultation Document (the Issues and Options Consultation Document). This document sets out the planning issues that face Chelmsford over the next 15 years and options for the way they could be addressed. Consultation on the Issues and Options Consultation Document is taking place between 19th November 2015 and 4.45pm on 21st January 2016.

Further information in respect of the preparation of the Local Plan is available via the Council's website: <http://www.chelmsford.gov.uk/new-local-plan>.

1.3 Habitats Regulations Assessment

Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (as amended) (the 'Habitats Regulations') states that if a land-use plan is "*(a) is likely to have a significant effect on a European site² or a European offshore marine site³ (either alone or in combination with other plans or projects); and (b) is not directly connected with or necessary to the management of the site*" then the plan-making authority must "*...make an appropriate assessment of the implications for the site in view of that site's conservation objectives*" before the plan is given effect.

The process by which Regulation 102 is met is known as Habitats Regulations Assessment (HRA)⁴. An HRA determines whether there will be any 'likely significant effects' (LSE) on any European site as a result of a plan's implementation (either on its own or 'in combination' with other plans or projects) and, if so, whether these effects will result in any adverse effects on the site's integrity. The current European Commission (EC)

² Strictly, 'European sites' are: any Special Area of Conservation (SAC) from the point at which the European Commission and the UK Government agree the site as a 'Site of Community Importance' (SCI); any classified Special Protection Area (SPA); any candidate SAC (cSAC); and (exceptionally) any other site or area that the Commission believes should be considered as an SAC but which has not been identified by the Government. However, the term is also commonly used when referring to potential SPAs (pSPAs), to which the provisions of Article 4(4) of Directive 2009/147/EC (the 'new wild birds directive') apply; and to possible SACs (pSACs) and listed Ramsar Sites, to which the provisions of the Habitats Regulations are applied a matter of Government policy (NPPF para. 118) when considering development proposals that may affect them. "European site" is therefore used in this report in its broadest sense, as an umbrella term for all of the above designated sites.

³ 'European offshore marine sites' are defined by Regulation 15 of *The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007* (as amended); these regulations cover waters over 12 nautical miles from the coast.

⁴ The term 'Appropriate Assessment' has been historically used to describe the process of assessment; however, the process is now more usually termed 'Habitats Regulations Assessment' (HRA), with the term 'Appropriate Assessment' limited to the specific stage within the process; see also Box 1.

guidance⁵ suggests a four-stage process for HRA as shown in **Box 1**, although not all stages may be necessary.

Box 1 Stages of Habitats Regulations Assessment
<p>Stage 1 – Screening: This stage identifies the likely impacts upon a European site of a project or plan, either alone or ‘in combination’ with other projects or plans, and considers whether these impacts are likely to be significant.</p>
<p>Stage 2 – Appropriate Assessment: Where there are likely significant effects, or effects are uncertain, then ‘appropriate assessment’ is required. This stage considers the impacts of the plan or project on the integrity of the relevant European sites, either alone or ‘in combination’ with other projects or plans, and with respect to the sites’ structure and function and their conservation objectives. Where there are adverse impacts, it also includes an assessment of the potential mitigation for those impacts.</p>
<p>Stage 3 – Assessment of Alternative Solutions: Where adverse impacts are predicted, this stage examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of European sites.</p>
<p>Stage 4 – Assessment Where No Alternative Solutions Exist and Where Adverse Impacts Remain: This stage assesses compensatory measures where it is deemed that the project or plan should proceed for imperative reasons of overriding public interest (IROPI). The EC guidance does not deal with the assessment of IROPI.</p>

Regulation 102 essentially provides a test that a final plan must pass; there is no statutory requirement for HRA to be undertaken on draft plans or similar developmental stages (e.g. issues and options; preferred options in the context of local plans). However, as with Sustainability Appraisal (SA), it is accepted best-practice for the HRA of local plans to be run as an iterative process alongside their development, with the emerging policies or options continually assessed for their possible effects on European sites and modified or abandoned (as necessary) to ensure that the subsequently adopted plan is not likely to result in significant effects on any European sites, either alone or ‘in combination’ with other plans. This is undertaken in consultation with Natural England and other appropriate consultees. The Council has a statutory duty to prepare the Local Plan and is therefore the Competent Authority for an HRA.

At the ‘screening’ stage, the plan should be considered ‘likely’ to have an effect if the competent authority is unable (on the basis of objective information) to exclude the possibility that it could have significant effects on any European site, either alone or in combination with other plans or projects; an effect will be ‘significant’ if it could undermine the site’s conservation objectives. The ‘screening’ stage or ‘test of significance’ is therefore a relatively low bar: ‘significant effects’ can generally be interpreted as any effects that are not negligible or inconsequential. If a significant effect is likely, or if this is uncertain, then ‘appropriate assessment’ is required; the scale and scope of such an assessment is not defined and will depend on the type of plan and the effects that require assessment.

1.4 This Technical Note

There are three European sites within the Chelmsford administrative area (Essex Estuaries SAC; Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA; and the Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar site). The Local Plan can only directly influence or control development within the local authority area and so ‘direct’ effects on sites outside the administrative area will not occur as a result of the Plan. However, it is accepted that local plans can affect European sites beyond their administrative boundaries through a range of mechanisms and that it is appropriate to identify and avoid or mitigate potential effects during the development of the plan.

Having said that, distance is a strong determinant of the scale and likelihood of most effects and the scope of any HRA should reflect the likely environmental outcomes of the plan and its ‘zone of influence’, as well as the interest features of nearby European sites and their potential vulnerabilities⁶. The distance between the Chelmsford City Council administrative area and some European sites is such that most of the potential effects typically ascribed to local plans (e.g. increases in visitor pressure) are likely to be weak or effectively absent in this instance.

⁵ *Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC 2002).*

⁶ The vulnerability of an interest feature will depend on its ‘sensitivity’ and ‘exposure’ to a particular environmental aspect.

This Technical Note is not a screening report; it provides some background for discussions with Natural England regarding the scope and content of the HRA, and is intended to assist with these discussions and the identification of any data gaps or potential mitigation measures that might be employed to avoid effects. The note therefore includes questions for Natural England.

The remainder of this Technical Note is structured as follows:

- ▶ **Section 2** defines the proposed spatial scope of the HRA and provides information relating to the European sites to be considered as part of the assessment of the Local Plan.
- ▶ **Section 3** identifies the main mechanisms by which the Local Plan could affect European sites within the proposed study area.
- ▶ **Section 4** presents initial observations based on the analysis of potential impact pathways in Section 3.
- ▶ **Section 5** sets out the next steps in the HRA process

1.5 Commenting on this Technical Note

This Technical Note is being issued to Natural England as part of the HRA of the Local Plan and includes a series of questions. The Council would welcome Natural England's response to these questions or any other aspect of the HRA of the Local Plan. We would be grateful if Natural England could provide comments by **4.45pm on 21st January 2016**. Comments should be sent to:

By email: planning.policy@chelmsford.gov.uk

By post: Planning Policy, Chelmsford City Council, PO Box 7544, Civic Centre, Duke Street, Chelmsford, CM1 1XP

It is the Council's intention to discuss the contents of this Technical Note with Natural England both prior to, and following, the receipt of comments.

2. Proposed Scope

2.1 Spatial Scope

It is not usually appropriate to employ 'arbitrary' distance zones to determine those European sites that should be considered within an HRA. However, as distance is a strong determinant of the scale and likelihood of most effects, the considered use of a suitably precautionary search area as a starting point for screening (based on a thorough understanding of both the plan outcomes and European site interest features) has some important advantages. It allows the systematic identification of European sites using GIS, so minimising the risk of sites or features being overlooked, and also ensures that where there are no reasonable impact pathways, sites can be quickly and transparently excluded from any further screening or assessment. It also has the significant advantage of providing a consistent point of reference for consultees following the assessment process, allowing the screening to focus on the potential effects, rather than on explaining why certain sites may or may not have been considered in relation to a particular aspect of the plan.

We propose that the HRA of the Local Plan considers potential effects on all European sites within 15km of the Chelmsford City Council administrative area boundary. This is considered to be a suitably precautionary starting point for the assessment of the Local Plan. This area includes the following European sites:

- ▶ Essex Estuaries SAC
- ▶ Benfleet and Southend Marshes SPA
- ▶ Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA
- ▶ Blackwater Estuary (Mid-Essex Coast Phase 4) SPA

- ▶ Foulness (Mid-Essex Coast Phase 5) SPA
- ▶ Thames Estuary and Marshes SPA
- ▶ Benfleet and Southend Marshes Ramsar
- ▶ Blackwater Estuary (Mid-Essex Coast Phase 3) Ramsar
- ▶ Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar
- ▶ Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar
- ▶ Foulness (Mid-Essex Coast Phase 5) Ramsar

In addition, Abberton Reservoir SPA and Abberton Reservoir Ramsar will be considered due to the reliance of the Essex Water Resource Zone (which covers Chelmsford) on this source, although the operation of this source is highly regulated in accordance with regional water resource demands and the Essex and Suffolk Water Water Resources Management Plan (WRMP). There are no additional sites that have a direct hydrological connection to the administrative area (i.e. downstream sites).

Q1: Is Natural England content that the proposed spatial scope is reasonable for the HRA of the Local Plan?

2.2 European Sites and Features

The European sites and interest features to be considered in the screening are detailed in **Table 2.1** and shown in **Figure 2.1**. It is considered that there will be no effects (as opposed to 'no significant effects') on any other sites due to their distance from the Local Plan area and the absence of reasonable impact pathways.

Table 2.1 European Sites within the Proposed Study Area

Site	Location [†]	Interest Features
Essex Estuaries SAC	Within area (downstream receptor)	<u>Annex I Features:</u> Estuaries; Mudflats and sandflats not covered by seawater at low tide; <i>Salicornia</i> and other annuals colonizing mud and sand; <i>Spartina</i> swards (<i>Spartinion maritimae</i>); Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>); Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>); Sandbanks which are slightly covered by sea water all the time (Q)
Abberton Reservoir SPA	16.9km to NE	<u>Article 4.1 qualification:</u> Golden Plover <i>Pluvialis apricaria</i> (W+) <u>Article 4.2 qualification:</u> Wigeon <i>Anas penelope</i> (W-); Pochard <i>Aythya ferina</i> (W-); Teal <i>Anas crecca</i> (W); Goldeneye <i>Bucephala clangula</i> (W-); Mute swan <i>Cygnus olor</i> (W-); Great crested grebe <i>Podiceps cristatus</i> (W-); Gadwall <i>Anas strepera</i> (W); Tufted duck <i>Aythya fuligula</i> (W-); Cormorant <i>Phalacrocorax carbo</i> (B); Shoveler <i>Anas clypeata</i> (W-); Coot <i>Fulica atra</i> (W-); Wintering Assemblage.
Benfleet and Southend Marshes SPA	8.5km to S	<u>Article 4.2 qualification:</u> Knot <i>Calidris canutus</i> (W); Dark-bellied brent goose <i>Branta bernicla bernicla</i> (W); Grey plover <i>Pluvialis squatarola</i> (W); Dunlin <i>Calidris alpina alpina</i> (W-); Ringed plover <i>Charadrius hiaticula</i> (P); Wintering Assemblage.
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	5.4km to E (downstream receptor)	<u>Article 4.1 qualification:</u> Little tern <i>Sterna albirostris</i> (B); Hen harrier <i>Circus cyaneus</i> (W-); Avocet <i>Recurvirostra avosetta</i> (W+); Golden Plover <i>Pluvialis apricaria</i> (W+); Ruff <i>Philomachus pugnax</i> (W+); <u>Article 4.2 qualification:</u> Pochard <i>Aythya ferina</i> (B-); Ringed plover <i>Charadrius hiaticula</i> (B,W, P+); Black-tailed godwit <i>Limosa limosa islandica</i> (W); Grey plover <i>Pluvialis squatarola</i> (W); Dunlin <i>Calidris alpina alpina</i> (W); Dark-bellied brent goose <i>Branta bernicla</i>

Site	Location [†]	Interest Features
		<p>bernica (W); Redshank <i>Tringa tetanus</i> (W+); Shelduck <i>Tadorna tadorna</i> (W+); Wintering Assemblage.</p>
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA	Within area (downstream receptor)	<p><u>Article 4.1 qualification:</u> Hen harrier <i>Circus cyaneus</i> (W-)</p> <p><u>Article 4.2 qualification:</u> Dark-bellied brent goose <i>Branta bernicla bernicla</i> (W);</p>
Foulness (Mid-Essex Coast Phase 5) SPA	12.4km to SE	<p><u>Article 4.1 qualification:</u> Avocet <i>Recurvirostra avosetta</i> (B,W); Common tern <i>Sterna hirundo</i> (B); Little tern <i>Sterna albifrons</i> (B); Sandwich tern <i>Sterna sandvicensis</i> (B); Hen harrier <i>Circus cyaneus</i> (W); Bar-tailed godwit <i>Limosa lapponica</i> (W); Golden Plover <i>Pluvialis apricaria</i> (W+).</p> <p><u>Article 4.2 qualification:</u> Ringed plover <i>Charadrius hiaticula</i> (B); Dark-bellied brent goose <i>Branta bernicla bernicla</i> (W); Knot <i>Calidris canutus</i> (W); Oystercatcher <i>Haematopus ostralegus</i> (W); Grey plover <i>Pluvialis squatarola</i> (W); Redshank <i>Tringa tetanus</i> (W-,P+); Wintering Assemblage.</p>
Thames Estuary and Marshes SPA	13.3km to S	<p><u>Article 4.1 qualification:</u> Avocet <i>Recurvirostra avosetta</i> (W); Hen harrier <i>Circus cyaneus</i> (W);</p> <p><u>Article 4.2 qualification:</u> Dunlin <i>Calidris alpina alpina</i> (W-); Knot <i>Calidris canutus</i> (W-); Black-tailed godwit <i>Limosa limosa islandica</i> (W-); Grey plover <i>Pluvialis squatarola</i> (W-); Ringed plover <i>Charadrius hiaticula</i> (P, W+); Redshank <i>Tringa tetanus</i> (W-); Wintering Assemblage.</p>
Abberton Reservoir Ramsar	16.9km to NE	<p><u>Criterion 5:</u> regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6:</u> regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Gadwall, Shoveler, Wigeon).</p>
Benfleet and Southend Marshes Ramsar	8.5km to S	<p><u>Criterion 5:</u> regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6:</u> regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Knot; Dark-bellied brent goose; Grey plover).</p>
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar	5.4km to E (downstream receptor)	<p><u>Criterion 1:</u> sites containing representative, rare or unique wetland types (saltmarsh communities).</p> <p><u>Criterion 2:</u> supports vulnerable, endangered, or critically endangered species or threatened ecological communities (invertebrate assemblage).</p> <p><u>Criterion 3:</u> supports populations of plant/animal species important for maintaining regional biodiversity (saltmarsh communities).</p> <p><u>Criterion 5:</u> regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6:</u> regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Black-tailed godwit; Grey plover; Dunlin; Dark-bellied brent goose).</p>
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar	Within area (downstream receptor)	<p><u>Criterion 2:</u> supports vulnerable, endangered, or critically endangered species or threatened ecological communities (plant and invertebrate assemblages).</p> <p><u>Criterion 5:</u> regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6:</u> regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Dark-bellied brent goose).</p>

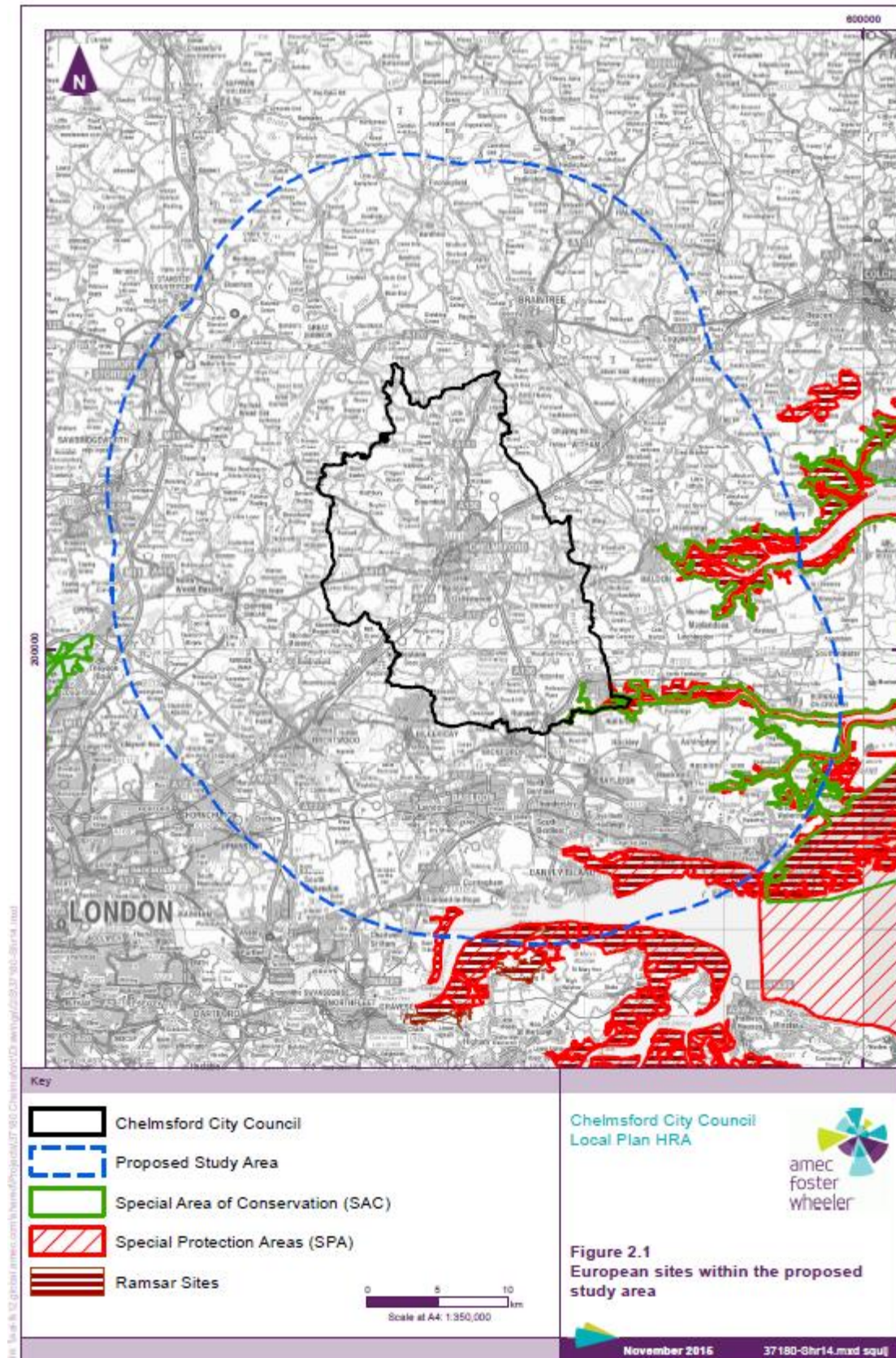
Site	Location [†]	Interest Features
Foulness (Mid-Essex Coast Phase 5) Ramsar	12.4km to SE	<p><u>Criterion 1</u>: sites containing representative, rare or unique wetland types (saltmarsh communities).</p> <p><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (invertebrate assemblage).</p> <p><u>Criterion 3</u>: supports populations of plant/animal species important for maintaining regional biodiversity (saltmarsh communities).</p> <p><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6</u>: regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Dark-bellied brent goose; Knot; Oystercatcher; Grey plover; Redshank; Bar-tailed godwit)</p>
Thames Estuary and Marshes Ramsar	13.3km to S	<p><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (plant and invertebrate assemblages).</p> <p><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</p> <p><u>Criterion 6</u>: regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Ringed plover; Black-tailed godwit; Grey plover; Dunlin; Knot; Redshank).</p>

Table Notes

- † Location relative to Chelmsford administrative area.
- * Priority features
- Q Species / habitats present as a qualifying feature; all other features are primary reasons for selection of the site.
- W During winter
- P On passage
- B Breeding
- +/- Additions / exclusions proposed by the SPA review; for the purposes of assessment all SPA interest features identified in the citation or the SPA review will be considered.

Annex I / II	Habitats or species listed on Annex I or II (respectively) of <i>Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora</i> (the 'Habitats Directive')
Article 4.1 / 4.2	Bird species qualifying under Article 4.1 or 4.2 of <i>Directive 2009/147/EC on the Conservation of Wild Birds</i> (the 'new Wild Birds Directive')
Criteria 1, 2, 3, 5, 6	Ramsar criteria; there are nine criteria used as a basis for selecting Ramsar sites.

Figure 2.2 European Sites within the Proposed Study Area



2.3 In Combination Plans and Programmes

HRA requires that the effects of other projects, plans or programmes be considered for effects on European sites 'in combination' with the Local Plan. There is limited guidance on the precise scope of 'in combination' assessments for local plans, particularly with respect to the levels within the planning hierarchy at which 'in combination' effects should be considered. However, the assessment should not necessarily be limited to plans at the same level in the planning hierarchy and there is consequently a wide range of plans that could have potential 'in combination' effects with the Local Plan. There is also limited guidance on the mitigation that may be appropriate if a European site is already being significantly affected by other plans; this is possible, since some plans will pre-date the requirement for HRA of plans, and therefore cannot be relied on to have no significant effect in their own right.

The plans identified by the SA will provide the basis for the assessment of any 'in combination' effects; these plans will be reviewed to identify any potential effects and then considered (as necessary) within the screening or appropriate assessment. The assessment will not include national strategies, national policy or legislation since the Local Plan must be compliant with these.

It should also be noted that the assessment of in combination plans depends, to some extent, on the alone assessment: if the plan will have no effects on a site (as opposed to no significant effects) then it cannot have in combination effects.

3. Initial Review of Impact Pathways

3.1 Typical Impact Pathways

The main mechanisms by which the Local Plan could affect European sites are:

- ▶ through spatial allocations that have indirect effects on European sites; or
- ▶ through policies that direct development (or do not control development) such that significant effects are likely.

The typical environmental aspects associated with strategic plans, and the pathways by which the Local Plan for Chelmsford could potentially affect European sites, are as follows:

- ▶ **Recreational pressure:** Many European sites will be vulnerable to some degree of impact as a result of recreational pressure, although the effects of recreational pressure are complex and very much dependent on the specific conditions and interest features at each site. Local plans can influence recreational pressure through their allocations and associated controls. Attempts to predict the effects of increased recreation on European sites that may be associated with development or allocations derived from strategic plans generally aim to identify the distance within which a certain percentage of visits originate. Several studies have used site-specific questionnaire surveys to identify visitor catchments and characterise the typical use of a site; these data are then used to identify 'buffer zones' within which new development would be considered likely to have significant effects on a site, unless appropriately mitigated. Natural England, as part of its input to the County Durham Plan, has noted that it adopts a '75% rule' to determine significance, whereby recreational buffers are based on the distance within which 75% of visits are made to the site; analysis of available information from sites across the country suggests this distance is usually less than 6km. We are not aware of any specific studies of recreational pressure on the Mid-Essex Estuaries suite of sites, although we would welcome the opportunity to discuss this aspect further with Natural England.
- ▶ **Urbanisation:** Urbanisation is generally used as a collective term covering a suite of often disparate risks and impacts that occur due to increases in human populations near protected sites. This would include varied aspects such as fly-tipping or vandalism, predation by cats, or the dispersal of invasive species, although the effects of these aspects depend on proximity, accessibility and the interest features of the sites. Recreational pressure is arguably one type of effect associated with urbanisation, although it is usually considered separately as it is less closely associated with proximity.

- ▶ **Atmospheric pollution:** The most relevant air pollutants to habitats and species (particularly plant species) are the primary pollutants sulphur dioxide (SO₂, typically from combustion of coal and heavy fuel oils), nitrogen oxides (NO_x, mainly from vehicles) and ammonia (NH₃, typically from agriculture). These pollutants affect habitats and species mainly through acidification and eutrophication. In general, the assessment of effects associated with local plans focuses on local air pollution rather than regional diffuse pollution: there is little guidance on the assessment of diffuse pollution, although Natural England has previously indicated to Runnymede Borough Council that the HRA of its local plan “*can only be concerned with locally emitted and short range locally acting pollutants*” (i.e. emission and deposition within 1 – 2 km or less) as wider diffuse pollution is beyond the control or remit of the authority. This is arguably correct, since trans-boundary air pollution can only be realistically addressed by national legislation or higher-tier plans, policies or strategies.
- ▶ **Water resources and flow regulation:** The exploitation and management of water resources is connected to a range of activities, most of which are not directly controlled or influenced by local plans; for example, agriculture, flood defence, recreation, power generation, fisheries and nature conservation. Much of the water supply to water-resource sensitive European sites is therefore managed through specific consenting regimes that are independent of local plans. Increased housing growth (which is likely to be supported by a local plan) increases demand on public water supply abstractions, some of which are associated with European sites; however, the consenting regimes are subject to HRA and, importantly, water companies are required to produce 25 year WRMPs that take into account predicted population growth and protected sites when considering future water resource provision. It is therefore very unlikely that development within one local planning authority area could have direct and consequential effects on a European site if growth is in line with water company predictions, particularly as most water companies operate conjunctive-use systems that do not rely on single-source provision.
- ▶ **Water quality:** Most waterbodies and watercourses are affected to some extent by point or diffuse sources of pollutants, notably nitrates and phosphates. Point sources are usually discrete discharge points, such as wastewater treatment works (WTW) outfalls, which are generally managed through specific consenting regimes that are independent of local plans. In contrast, diffuse pollution is derived from a range of sources (e.g. agricultural run-off; road run-off) that cannot always be easily traced or quantified. Development promoted or supported by local plans is likely to increase demand on wastewater treatment works, and potentially increase run-off which could indirectly affect downstream European sites – although there will inevitably be attenuation as distance from the source increases.

3.2 Sensitivities, Pressures and Threats

Analysis of the available data for European sites within the proposed study area and the condition assessments for their component Sites of Special Scientific Interest (SSSIs) indicate that the most common reasons for an ‘unfavourable’ condition assessment of the component SSSI units are coastal erosion, inappropriate management of some form (e.g. over- or undergrazing, water-level management etc.) or secondary effects from agriculture (e.g. local drainage, eutrophication, grazing pressure etc.). These are aspects over which the Local Plan will have no or little influence, although it is important to understand the pressures currently experienced (particularly when considering ‘in combination’ effects). The main mechanisms by which the Local Plan could affect the sites are therefore likely to be recreational pressure and (depending on infrastructure capacity) nutrient enrichment associated with sewerage discharges.

Table 3.1 summarises the principal pressures, threats and sensitivities of the European sites within the proposed study area, based on the Site Improvement Plans, citations, the Regulation 33 advice for the Essex Estuaries European Marine Site⁷, and any Supplementary Advice available from Natural England.

⁷ English Nature (2000) Essex Estuaries European marine site: English Nature’s advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994. Natural England, Peterborough.

Table 3.1 Principal Pressures, Threats and Sensitivities of European Sites within the Proposed Study Area and Potential Impact Pathways for the Local Plan

Site	Principal Pressures / Threats / Sensitivities	Potential Local Plan Impact Pathways
Essex Estuaries SAC	<ul style="list-style-type: none"> Coastal squeeze Fisheries: Commercial / recreational marine and estuarine Invasive species Air Pollution: risk of atmospheric nitrogen deposition Physical loss / damage Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment Biological disturbance 	<p>The Crouch and Roach Estuaries component on this SAC is on the southern boundary of the Chelmsford administrative area, and so the Local Plan could directly affect this site (e.g. coastal squeeze etc.). The Blackwater estuary is downstream of Chelmsford and therefore potentially vulnerable to changes in nutrient inputs associated with growth and WwTW treatment capacity (although this is regulated by separate mechanisms). Recreational pressure due to growth in the Chelmsford City Area is also possible, although the features of the SAC are less sensitive to this aspect than the SPA features.</p>
Abberton Reservoir SPA	<ul style="list-style-type: none"> Siltation Disturbance (esp. aircraft) Bird strike Nutrient and/or organic enrichment Air pollution: risk of atmospheric nitrogen deposition 	<p>Abberton Reservoir is approximately 17km from the Chelmsford administrative area, and so direct effects will not occur. The principal impact pathway is through water resource demands since the reservoir is a key component of the Essex WRZ, although it must be noted that the operation of this source is highly regulated (taking into account its protected status) and significant effects are unlikely provided that any growth in Chelmsford is in line with the growth rates modelled in the Essex and Suffolk Water WRMP.</p>
Benfleet and Southend Marshes SPA	<ul style="list-style-type: none"> Coastal squeeze Public access / disturbance Fisheries: Commercial / recreational marine and estuarine Invasive species Air pollution: risk of atmospheric nitrogen deposition Physical loss / damage Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment Urbanisation (illicit vehicle use) 	<p>Benfleet and Southend Marshes are approximately 8.5km south of the Chelmsford City Area at their closest point. The Local Plan will not influence many of the current threats and pressures (e.g. coastal squeeze). The principle mechanism by which the Local Plan could affect this site will be recreational pressure, although the citation notes that <i>"Recreational activities are not a problem"</i>.</p>
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	<ul style="list-style-type: none"> Public access/disturbance Coastal squeeze Fisheries: Commercial / recreational marine and estuarine Invasive species Air pollution: risk of atmospheric nitrogen deposition Physical loss / damage Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment Biological disturbance 	<p>The Blackwater Estuary (Mid-Essex Coast Phase 4) SPA is approximately 5.4km to the east of the Chelmsford City Area. The Local Plan will not influence many of the current threats and pressures (e.g. coastal squeeze), although the site is downstream of Chelmsford and therefore potentially vulnerable to changes in nutrient inputs associated with growth and WwTW treatment capacity (although this is regulated by separate mechanisms). Recreational pressure due to growth in the Chelmsford City Area is also possible.</p>

Site	Principal Pressures / Threats / Sensitivities	Potential Local Plan Impact Pathways
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA	<ul style="list-style-type: none"> Public access/disturbance Coastal squeeze Fisheries: Commercial / recreational marine and estuarine Invasive species Air pollution: risk of atmospheric nitrogen deposition Physical loss / damage Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment Biological disturbance 	The Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA is located on the southern boundary of the Chelmsford City Area, and therefore the Local Plan could directly affect the site (e.g. coastal squeeze etc.). The part of the site catchment is within the Chelmsford City Area, although this catchment does not include any larger towns. Recreational pressure due to growth in the Chelmsford City Area is also possible.
Foulness (Mid-Essex Coast Phase 5) SPA	<ul style="list-style-type: none"> Coastal erosion Fisheries: Commercial / recreational marine and estuarine Invasive species Air pollution: risk of atmospheric nitrogen deposition Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment 	This site is over 12km from the Chelmsford City Area and so effects are likely to be weak, particularly as much of the area is owned by the Ministry of Defence and is not, therefore, subject to development pressures or public disturbance. It is likely that this site could be screened out of the assessment.
Thames Estuary and Marshes SPA	<ul style="list-style-type: none"> Public access/disturbance Coastal squeeze Fisheries: Commercial / recreational marine and estuarine Invasive species Air Pollution: risk of atmospheric nitrogen deposition Physical loss / damage Increased synthetic and/or non-synthetic toxic contamination Nutrient and/or organic enrichment Biological disturbance 	This site is over 13km from the Chelmsford City Area and so effects are likely to be weak or absent. The Local Plan will not influence many of the current threats and pressures (e.g. coastal squeeze). The principle mechanism by which the Local Plan could affect this site will be recreational pressure, although the extent to which this is correlated with growth in the Chelmsford City Area is uncertain and recreational pressure is understood to be being addressed as part of an estuary management plan. It may be possible to screen this site out of the assessment.
Abberton Reservoir Ramsar	<ul style="list-style-type: none"> As for Abberton Reservoir SPA 	As for Abberton Reservoir SPA
Benfleet and Southend Marshes Ramsar	<ul style="list-style-type: none"> As for Benfleet and Southend Marshes SPA 	As for Benfleet and Southend Marshes SPA
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar	<ul style="list-style-type: none"> As for Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Essex Estuaries SAC 	As for Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Essex Estuaries SAC
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar	<ul style="list-style-type: none"> As for Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Essex Estuaries SAC 	As for Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Essex Estuaries SAC
Foulness (Mid-Essex Coast Phase 5) Ramsar	<ul style="list-style-type: none"> As for Foulness (Mid-Essex Coast Phase 5) SPA and Essex Estuaries SAC 	As for Foulness (Mid-Essex Coast Phase 5) SPA and Essex Estuaries SAC
Thames Estuary and Marshes Ramsar	<ul style="list-style-type: none"> As for Thames Estuary and Marshes SPA 	As for Thames Estuary and Marshes SPA

Q2: Are there any other threats, pressures or sensitivities that Natural England are concerned about for the European sites identified, and which the Local Plan could significantly influence?

Q3: Is Natural England aware of any other data sets (e.g. visitor survey data) or ongoing studies that may be relevant to the HRA of the Local Plan?

Q4: Does Natural England think that any of the European sites could be reasonably 'screened out' of further assessment, based on the characteristics and sensitivities of their interest features (e.g. Foulness (Mid-Essex Coast Phase 5) SPA / Ramsar)?

4. Summary and Initial Screening Observations

A brief, initial assessment of the European sites within 15km of the Chelmsford City Area (including a review of their condition and the current threats and pressures affecting them) has been presented in **Section 3**. Although the Local Plan is in the early stages of development, it will obviously not directly influence or control development outside of the Chelmsford City Council administrative area; 'direct' effects (e.g. associated with development and coastal squeeze) will not therefore occur for most sites. It is also clear that many effects typically attributed to local plans are likely to be weak or absent due to the distances involved; the characteristics and features of the sites; and the lack of impact pathways. 'In combination' effects with other plans may be possible (e.g. through recreational pressure) but again, the contribution of the Local Plan to these effects may be limited by distance. The main environmental aspects that could affect the European sites would therefore appear to be as follows:

- ▶ **Coastal squeeze**, specifically with regard to those sites associated with the Crouch and Roach estuaries (where the Local Plan will have a direct influence on development); this should be avoided through review of the emerging allocations and planning policies.
- ▶ **Water quality** changes affecting for downstream sites, specifically those associated with the Blackwater estuary and the Crouch and Roach estuaries (note, the Chelmsford administrative area is outside the hydrological catchment of any other European sites). Information on WTW capacities will be obtained although it is expected that effects can be reliably avoided with appropriate co-ordination of development and infrastructure upgrades, and the use of robust planning policies to ensure this.
- ▶ **Water supply** pressures on Abberton Reservoir associated with growth in Chelmsford, although the current operational parameters and the modelling provisions of the Essex and Suffolk WRMP arguably make this unlikely. Information on WTW capacities will be obtained although it is expected that effects can be reliably avoided with appropriate co-ordination of development and infrastructure upgrades, and the use of robust planning policies to ensure this.
- ▶ **Recreational pressure** in combination with other plans, particularly with regard to those sites associated with the Blackwater estuary and the Crouch and Roach estuaries (significant increases in recreational pressure on more distant sites as a result of the Local Plan would appear unlikely, based on existing evidence from other European sites (e.g. the Solent). We are not aware of any specific studies of recreational pressure on the Mid-Essex estuaries suite of sites, although we would welcome the opportunity to discuss this aspect further with Natural England and determine an appropriate scope for any data collection.

The HRA will focus on the assessment and review of the emerging Local Plan policies and proposals to ensure that they minimise the risk of any effects as far as possible, particularly weak 'in combination' effects with other plans and programmes; it will also review the location of any allocations.

Q5: Does Natural England broadly agree with the above initial assessment of the likelihood of effects on European sites as a result of the Local Plan (based on equivalent plans locally, recognising that the detail of the Local Plan is not yet established and will be subject to review)?

5. Next Steps

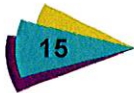
The Council would welcome Natural England's response to the questions contained in this Technical Note or any other aspect of the HRA of the Local Plan. We would be grateful if Natural England could provide comments by **4.45pm on 21st January 2016**. Comments should be sent to:

By email: planning.policy@chelmsford.gov.uk

By post: Planning Policy, Chelmsford City Council, PO Box 7544, Civic Centre, Duke Street, Chelmsford, CM1 1XP

It is the Council's intention to discuss the contents of this Technical Note with Natural England both prior to, and following, the receipt of comments.

As noted in **Section 1.2**, the Council is currently consulting on the Issues and Options Consultation Document. The responses to the consultation, alongside evidence base work and assessment, will be used to help refine and select the preferred options to be taken forward as part of the Local Plan. The preferred options, in addition to emerging Local Plan policies and site allocations, will form the Preferred Options Consultation which is due to take place in Summer 2016. At this stage, it is expected that there will be greater certainty with respect to the scope and content of the Local Plan. In consequence, the Council intends to undertake an initial screening exercise of the Preferred Options Consultation Document to inform the ongoing plan preparation process.



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Reviewer

Alex Melling

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