





**Chelmsford City Council** 

# Chelmsford Draft Local Plan: Preferred Options Habitats Regulations Assessment

Information to support an assessment under Regulation 102 of the *Conservation of Habitats and Species Regulations 2010* (as amended)





### Report for

Claire Stuckey Principal Planning Officer (Policy) Chelmsford City Council Director of Sustainable Communities Civic Centre Duke Street Chelmsford Essex CM1 1JE

#### Main contributors

Mike Frost

M

| Issued by    |     |   |  |
|--------------|-----|---|--|
| Mike Frost   | 5.  |   |  |
| Approved by  | el  | 2 |  |
| Alex Melling | 0 ~ |   |  |

#### Amec Foster Wheeler

Canon Court Abbey Lawn Abbey Foregate Shrewsbury SY2 5DE United Kingdom Tel +44 (0) 1743 342 000

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# 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, spatial principles, planning policies and site allocations that will guide development in the local authority area to 2036. The first stage in the development of the Local Plan was the publication of the Chelmsford Local Plan Issues and Options Consultation Document (the Issues and Options Consultation Document) that was consulted on between 19<sup>th</sup> November 2015 and 21<sup>st</sup> January 2016. The Issues and Options Consultation Document set out, and sought views on, the planning issues that face Chelmsford over the next 15 years and options for the way they could be addressed in terms of the amount and distribution of future development in the City Area. Following consideration of the Council has selected its preferred options for the Local Plan and these form the Chelmsford Draft Local Plan Preferred Options Consultation Document (the Preferred Options Consultation Document) that is being published for consultation between **30th March and 11th May 2017**.

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 new Local Plan. The HRA seeks to determine whether there will be any likely significant effect on European designation conservations sites as a result of the Local Plan's implementation.

## 1.2 The Chelmsford Local Plan – An Overview

## **Requirement to Prepare a Local Plan**

The NPPF sets out (at paragraphs 150-157) that each local planning authority should prepare a local plan for its area. Local plans should set out the strategic priorities and policies to deliver:

- the homes and jobs needed in the area;
- the provision of retail, leisure and other commercial development;
- the provision of infrastructure for transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);
- the provision of health, security, community and cultural infrastructure and other local facilities; and
- climate change mitigation and adaptation and conservation and enhancement of the natural and historic environment, including landscape.

The Planning Practice Guidance clarifies (at paragraph 002 'Local Plans') that local plans "should make clear what is intended to happen in the area over the life of the plan, where and when this will occur and how it will be delivered".

## Scope of the Chelmsford Local Plan

In this context, the Council is currently preparing a new Local Plan for Chelmsford that will, once adopted, replace the suite of Development Plan Documents (DPDs) that together currently provide the Development Plan for Chelmsford for the period up to 2021 (see **Box 1**).



#### Box 1: Development Plan Documents and Supplementary Panning Documents (SPD)

- Core Strategy and Development Control Policies Development Plan Document (DPD) Adopted February 2008;
- Chelmsford Town Centre Area Action Plan Adopted August 2008;
- A Plan for South Woodham Ferrers SPD Adopted June 2008;
- Making Places SPD (Urban Site Guidance) Adopted June 2008;
- Sustainable Development SPD (Sustainable Design and Construction) Adopted June 2008
- Planning Obligations SPD Adopted June 2014;
- Public Realm Strategy Adopted January 2011;
- North Chelmsford Area Action Plan Adopted July 2011; North Chelmsford Area Action Plan – Adopted July 2011;
- Site Allocations Document Adopted February 2012.

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, spatial principles and spatial strategy for the City Area and will also contain the Council's key planning policies, site specific land use allocations and a Local Plan policies map. Alongside any Neighbourhood Plans that come forward and the Waste and Minerals Local Plans, it will form the Development Plan for the local authority area.

## **Preparation of the Local Plan**

The Council's Local Development Scheme (LDS) was published in June 2016<sup>1</sup>. The LDS sets out the timetable for production of the Local Plan in accordance with the requirements for plan production contained in The Town and Country Planning (Local Planning) (England) Regulations 2012). The key plan preparation milestones are detailed in **Table 1.1**.

### Table 1.1Local Plan Preparation Milestones

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

Adoption of the Local Plan is due to take place in winter 2018. This will have been 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 including SA.

The first formal round of consultation was on the Issues and Options Consultation Document. As noted in **Section 1.1** above, this document set out, and sought views on, the planning issues that face Chelmsford over the next 15 years and options for the way they could be addressed. The specific matters put forward for consultation included:

- Spatial Principles (the high level objectives that guide the approach to the Local Plan);
- Housing Target Projections (options relating to how many houses should be built in the City Area up to 2036);

<sup>&</sup>lt;sup>1</sup> Chelmsford City Council (2016) Chelmsford Local Plan Local Development Scheme 2016-2019.



- Employment Target Projections (options relating to how many jobs should be supported in the City Area up to 2036); and
- > Spatial Options (options relating to where new development should be located in the City Area).

Consultation on the Issues and Options Consultation Document took place between 19<sup>th</sup> November 2015 and 21<sup>st</sup> January 2016. Following consideration of the comments received as part of that consultation, ongoing engagement and further evidence base work, the Council has selected its preferred options for the scale and location of growth for the Local Plan. The preferred options are presented in the Preferred Options Consultation Document that is being published for consultation and is the subject of this HRA Report.

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

## 1.3 The Preferred Options Consultation Document

### **Scope of the Preferred Options Consultation Document**

The Preferred Options Consultation Document comprises the following core components:

- Local Plan Vision and Spatial Principles (which respond to the Strategic Priorities set out in Chapter 3 of the Preferred Options Consultation Document);
- the preferred Local Plan options in terms of the quantum of growth (development requirements) and distribution of growth (Spatial Strategy);
- proposed site allocations to deliver the preferred options across three Growth Areas; and
- plan policies including development requirements for proposed site allocations.

Each plan component is discussed in turn below.

#### Local Plan Vision and Spatial Principles

The Vision for Chelmsford out to 2036 contained in the Preferred Options Consultation Document is reproduced in **Box 2** below.

### Box 2: Local Plan Vision

To continue the existing successes from the growth of Chelmsford City Council's area by embracing our role as England's newest City and the Capital of Essex by being a sub-regional catalyst for change, providing new sustainable neighbourhoods and attracting inward investment for a wide range of businesses across our area. It is also about maximising development opportunities within a compact and vibrant City Centre. This positive change will optimise the opportunities for new and upgraded infrastructure including leisure and recreation facilities, shops, education and healthcare services and also provide even better housing and job opportunities to local residents making places where people want to live and work to further improve their quality of life and wellbeing. This will include improving the way people move around by private and public transport, by bike and on foot and making the most of the area's assets and opportunities such as its river valleys, and improving the built and natural environment.

Strategic Policy S1 lists a total of 11 Spatial Principles that together detail how the Vision will be achieved. The Spatial Principles are:

- Maximise the use of brownfield land for development.
- Continue the renewal of Chelmsford City Centre and Urban Area.
- Locate development at well-connected sustainable locations.
- Utilise garden community principles for strategic development allocations.
- Protect the Green Belt.



- Protect the character of valued landscapes, heritage and biodiversity.
- Respect the pattern and hierarchy of settlements.
- Ensure development is deliverable.
- Ensure development is served by necessary infrastructure.
- Use development to secure new infrastructure.
- Plan for the longer-term.

#### Preferred Development Requirements and Spatial Strategy

Strategic Policy S8 (Development Requirements) of the Preferred Options Consultation Document sets out the amount of growth that is to be delivered over the plan period in terms of housing, provision for Gypsies, Travellers and Travelling Showpeople, employment and retail, as follows:

- Housing: In order to meet the full objectively assessed housing need for the City Area in the period 2013-2036, provision is made for a minimum of 18,515 net new homes at an average annual rate of 805 net new homes per-year. To ensure flexibility and to significantly boost housing supply as required by the NPPF, the Preferred Options Consultation Document allocates sites to provide capacity for a further c20% over the plan period. This totals 22,162 net new homes. When considering existing housing completions (2,088 dwellings) and commitments (9,199 dwellings), the residual requirement for the period to 2036 is 10,875 new homes.
- Gypsies, Travellers and Travelling Showpeople: In order to meet identified need, a total of 10 permanent pitches for Gypsies and Travellers and a total of 24 permanent plots for Travelling Showpeople will be provided in the period 2013-2036.
- Employment: To positively and proactively encourage sustainable and diverse economic growth across Chelmsford, a minimum of 55,000 sqm of employment floorspace is to be delivered to meet the need for an average of 725 new jobs per year in the period to 2036.
- Retail: To meet the need for additional convenience retail floorspace, 13,400 sqm of floorspace is to be provided.

Strategic Policy S9 (The Spatial Strategy) seeks to distribute this growth in accordance with a Settlement Hierarchy, focusing new development across three Growth Areas in the higher order settlements of Chelmsford and South Woodham Ferrers (on brownfield sites and through sustainable urban extensions) and at Key Service Settlements outside of the Green Belt.

To support growth, the Key Diagram within the Spatial Strategy proposes key transportation infrastructure improvements including a Chelmsford North East By-pass, an additional new Radial Distributor Road in North East Chelmsford, improvements to the Army and Navy Junction, A12 and A132 and two park and ride schemes (one located to the south west of Chelmsford around the A414 and the other located to the north east of Chelmsford around the A12 and A138).

The distribution of development proposed in the Preferred Options Consultation Document is set out in **Table 1.2** and represented graphically in the key diagram shown in **Figure 1.1**.



## Table 1.2 Preferred Spatial Strategy

| Development Locations<br>(2021-2036)   |   | Net<br>New<br>Homes | Net New<br>Traveller<br>Pitches | Travelling<br>Showpeople | Net New<br>Employment<br>Floorspace                      |
|--|---|---------------------|---------------------------------|--------------------------|--|
| Location   | tion Growth Area 1 - Central and Urban Chelmsford   |                     |                                 |                          |  |
| 1.   | Brownfield sites<br>in Chelmsford<br>Urban Area   | 2000*               |                                 |                          | Office<br>4,000sqm,Food<br>Retail 11,500sqm              |
| 2.   | West<br>Chelmsford –<br>Warren Farm<br>(North of<br>Roxwell Road)   | 800                 |                                 | 5                        |  |
| 3.   | East Chelmsford<br>- East of Great<br>Baddow / North<br>of Sandon   | 400                 |                                 |                          | Office/High Tech<br>Business Parks<br>5,000sqm           |
| AREA TOTAL   |   | 3,200               |                                 | 5                        | 9,000sqm<br>Office/Business,<br>11,500sqm Food<br>Retail |
| Existing<br>Commitments<br>without<br>Planning<br>Permission<br>(re-allocations) | Lockside,<br>Navigation Rd<br>Peninsula, Wharf<br>Rd, Writtle<br>Telephone<br>Exchange<br>Galleywood<br>Reservoir | 588                 |                                 |                          |  |
| Location   | Growth Area 2 - Nor   | th Chelmsford       |                                 |                          |  |
| 4.   | North East<br>Chelmsford  | 3,000               |                                 | 9                        | Office/High Tech<br>Business Parks<br>45,000sqm          |
| 5.   | Moulsham Hall and North Great Leighs  | 1,100               |                                 | 5                        |  |
| 6.   | North of Broomfield   | 800                 |                                 |                          |  |
| 7.   | East of Boreham   | 145                 |                                 |                          |  |
| AREA TOTAL   |   | 5,045               |                                 | 14                       | 45,000sqm<br>Office/Business                             |
| Existing<br>Commitments<br>with Planning<br>Permission                           | North East<br>Chelmsford<br>Beaulieu and<br>Channels Post-<br>2021 delivery                                       | 2,580               | 10                              |                          | 40,000sqm<br>Office/Business                             |
| Existing<br>Commitments<br>without<br>Planning<br>Permission (re-<br>allocation) | Land South and<br>West of Broomfield<br>Place and<br>Broomfield Primary<br>School Pre-2021<br>delivery            | 223                 |                                 |                          |  |



## Table 1.2 (cont'd) Preferred Spatial Strategy

| Development Lo<br>(2021-2036)  | ocations                          | Net<br>New<br>Homes   | Net New<br>Traveller<br>Pitches | Travelling<br>Showpeople | Net New<br>Employment<br>Floorspace           |
|--|-----------------------------------|-----------------------|---------------------------------|--------------------------|---|
| Location   | Growth Area 3 – So                | outh and East Chelmst | ord                             |                          |   |
| 8.   | North of South<br>Woodham Ferrers | 1,000                 |                                 | 5                        | Office 1,000sqm,<br>Food Retail<br>1,900sqm   |
| 9.   | South of Bicknacre                | 30                    |                                 |                          |   |
| 10.  | Danbury                           | 100                   |                                 |                          |   |
| AREA TOTAL   |                                   | 1,130                 |                                 | 5                        | Office 1,000sqm,<br>Food Retail<br>1,900sqm   |
| Existing<br>Commitments<br>without<br>Planning<br>Permission (re-<br>allocation) | St Giles, Bicknacre               | 32                    |                                 |                          |   |
| Windfall<br>Allowance<br>2021-2036   |                                   | 1,500                 |                                 |                          |   |
| TOTAL  |                                   | 10,875                |                                 | 24                       | Office 55,000sqm,<br>Food Retail<br>13,400sqm |

1.3.1 \* The capacity of 2,000 net new homes on brownfield sites in Central and Urban Chelmsford is a projection of the likely delivery in the period 2021-2036. Sites with a total of 2,407 new homes are allocated in the Preferred Options Consultation Document providing a measure of flexibility to ensure that this projection is met.





## Figure 1.1 Preferred Options Consultation Document Key Diagram



### Growth Areas and Associated Proposed Site Allocations

To implement the preferred Spatial Strategy, new development will be directed to sustainable locations within the following three Growth Areas (reflecting the distribution shown in **Table 1.2** and **Figure 1.1**):

- **Growth Area 1:** Central and Urban Chelmsford.
- **Growth Area 2:** North Chelmsford.
- **Growth Area 3:** South and East Chelmsford.

A total of 44 proposed site allocations are identified in the Preferred Options Consultation Document across these three Growth Areas. The site allocations include: Strategic Growth Sites; Growth Sites; Opportunity Sites; and Existing Commitments, in addition to Special Policy Areas relating to particular existing establishments in the countryside (the Special Policy Areas include Chelmsford Racecourse, Broomfield Hospital, Hanningfield Reservoir Treatment Works, RHS Hyde Hall, Sandford Mill and Writtle University College).

## Local Plan Policies

To support the overall strategy for development, the Preferred Options Consultation Document includes 91 policies across the following chapters:

- Our Vision and Spatial Principles (1 policy);
- Creating Sustainable Development (6 policies);
- How will Future Growth be Accommodated? (8 policies);
- Where will Development Growth be Focused? (45 policies);
- Protecting and Securing Important Assets (22 policies);
- Making High Quality Places (9 policies).

## 1.4 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 site*<sup>2</sup> *or a European offshore marine site*<sup>3</sup> (*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)<sup>4</sup>. 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

<sup>&</sup>lt;sup>2</sup> 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. Additional information on European site designations is provided in Appendix A.

<sup>&</sup>lt;sup>3</sup> '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 (and hence sites) over 12 nautical miles from the coast.

<sup>&</sup>lt;sup>4</sup> The term 'Appropriate Assessment' has been historically used to describe the process of assessment; however, the process is now more accurately termed 'Habitats Regulations Assessment' (HRA), with the term 'Appropriate Assessment' limited to the specific stage within the process.



these effects will result in any adverse effects on the site's integrity. The Council has a statutory duty to prepare the Local Plan and is therefore the Competent Authority for an HRA.

Regulation 102 essentially provides a test that the 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). However, as with Sustainability Appraisal (SA), it is accepted best-practice for the HRA of strategic planning documents to be run as an iterative process alongside plan 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 (NE) and other appropriate consultees.

## 1.5 Purpose of this Report

This report presents the findings of the assessment of the Preferred Options Consultation Document against the conservation objectives of any European sites that may be affected, and summarises the iterative HRA process that has been undertaken to support the plan development and ensure that it meets the requirements of Regulation 102.

As noted, there is no statutory requirement for HRA to be undertaken at this stage, and so the report does not provide a formal conclusion to the HRA process. However, the report provides a preliminary conclusion on the likely effects of the Local Plan, based on the current proposals contained within the Preferred Options Consultation Document, with recommendations for any amendments that may be appropriate to ensure that the plan does not adversely affect any European sites. The report therefore includes the following aspects:

- Details of the approach to the HRA of the Local Plan (Section 2).
- A summary of the baseline condition of the European sites and features that are potentially vulnerable (exposed and sensitive) to the likely effects of the Local Plan, and the impact pathways (Section 3).
- An initial screening assessment, identifying those European sites and features that will not be affected by plan proposals, and those plan aspects (policies or allocations) which will not significantly affect any European sites (Section 4); this section includes a summary of mitigation measures proposed for inclusion in the Local Plan during the iterative assessment process.
- Additional technical assessments of the likely effects of the plan on those European sites and features that are vulnerable to the plan proposals, taking account of mitigation measures identified for inclusion in the final plan (Section 5).
- A summary of the proposed conclusion for the HRA of the Local Plan (Section 6).

The assessment will be reviewed following completion of consultation on the Preferred Options Consultation Document, and following any amendments that are made to the final plan pre- and post-examination. A formal assessment conclusion against the requirements of Regulation 102 will be made at that point, although this report sets out the proposed conclusion for the final assessment.

## 1.6 How to Comment on this Report

This report has been issued for consultation alongside the Preferred Options Consultation Document from **8.45 a.m. on the 30<sup>th</sup> March to 4.45pm on Thursday 11<sup>th</sup> May 2017**. Details of how to respond to the consultation are provided below.



## This Consultation: How to Give Us Your Views

We would welcome your views on any aspect of this report. In particular, we would like to hear your views as to whether the effects which are predicted are likely and whether there are any potential significant effects which have not been considered.

Please provide your comments by 4.45pm on Thursday 11<sup>th</sup> May 2017. The Council encourages people to submit comments via its consultation portal at: <u>www.chelmsford.gov.uk/planningpolicyconsult</u>

Alternatively, comments can be sent to:

- By email planning.policy@chelmsford.gov.uk
- By post Planning and Housing Policy, Chelmsford City Council, Civic Centre, Duke Street, Chelmsford, CM1 1XP
- By hand During normal opening hours to Chelmsford City Council Customer Service Centre (Duke Street, Chelmsford)

A specially designed response form is available online at <u>www.chelmsford.gov.uk/new-local-plan</u> or on request by telephoning (01245) 606330.



# 2. Approach to the HRA of the Local Plan

## 2.1 Overview

An HRA involves determining whether there will be any LSEs on any European sites as a result of a plan's implementation (either on its own or 'in combination' with other plans or projects) and, if so, whether it can be concluded that these effects will not have an adverse effect on the sites' integrity. European Commission guidance<sup>5</sup> suggests a four-stage process for HRA, although not all stages will always be required (see **Box 3**).

#### Box 3 – Stages of Habitats Regulations Assessment

#### 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.

#### Stage 2 – Appropriate Assessment:

Where there are likely significant effects, or where this is uncertain, this stage considers the effects of the plan or project on the integrity of the relevant European Sites, either alone or 'in combination' with other projects or plans, with respect to the sites' structure and function and their conservation objectives. Where it cannot be concluded that there will be no adverse effects on sites' integrity, it is necessary to consider potential mitigation for these effects.

#### Stage 3 – Assessment of Alternative Solutions:

Where adverse effects remain after the inclusion of mitigation, this stage examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of European sites.

#### 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.

The approach summarised in **Box 3** works well at the project-level where the scheme design is usually established and possible effects on European sites can be assessed (usually quantitatively) using a linear stepwise process. In contrast, land-use plans and similar strategies present a number of distinct challenges for HRA and rigid application of the 'staged' approach to assessment suggested by **Box 3** is not always appropriate. In particular, it is preferable for sustainable policies to be developed from the beginning of the plan-making process rather than HRA being a purely retrospective assessment exercise towards the end. Therefore, it is important to recognise that the *process* of strategic HRA is as much about guiding the development of the Local Plan (and demonstrating that effects on European sites have been considered appropriately) as it is about (ultimately) assessing its effects.

## 2.2 Guidance

The following guidance has been used during the review and assessment of the Preferred Options Consultation Document:

- DTA Publications (2016) The Habitats Regulation Handbook [online]. Available at: <u>http://www.dtapublications.co.uk/handbook/</u>. Accessed 02.02.16;
- SNH (2012) Habitats Regulations Appraisal of Plans: Guidance for plan-making bodies in Scotland. Scottish Natural Heritage / David Tyldesley Associates;
- Tyldesley D (2010). Draft Guidance for Plan Making Authorities in Wales: The Appraisal of Plans Under the Habitats Directive. David Tyldesley and Associates, for the Countryside Council for Wales;

<sup>&</sup>lt;sup>5</sup> Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC 2002).



- DCLG (2006). Planning for the Protection of European Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents. Department for Communities and Local Government, HMSO, London;
- English Nature, (1997-2001). Habitats Regulations Guidance Notes 1-9, Natural England, Peterborough;
- European Commission, (2002). Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission, Brussels;
- European Commission, (2001). Assessment of plans and projects significantly affecting Natura 2000 sites. European Commission, Brussels;
- European Communities, (2007). Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/433/EEC. European Commission, Brussels.

## 2.3 Summary of Approach

### **Screening and Appropriate Assessment**

The principles of 'screening'<sup>6</sup> are applied to the emerging Local Plan or its components (i.e. policies and allocations) to allow the assessment stage to focus on those aspects that are most likely to have potentially significant or adverse effects on European sites, as well as shape the emerging strategy. Screening aims to determine whether the Local Plan will have any LSEs on any European site as a result of its implementation. It is intended to be a coarse filter for identifying effects (positive and negative) that may occur, to allow the assessment stage to focus on the most important aspects. A 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 the plan 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 Council is the competent authority for the purposes of the Habitats Regulations, and is therefore responsible for completing the HRA.

Screening can be used to 'screen-out' European sites and plan components from further assessment, if it is possible to determine that significant effects are unlikely (e.g. if sites or interest features are clearly not vulnerable (both exposed and sensitive) to the outcomes of a plan due to the absence of any reasonable impact pathways). For the Local Plan, the screening process has been applied to the Preferred Options Consultation Document 'as a whole', on the European sites themselves and on the key components of the plan (the policies and allocations). The screening takes account of measures included in the Preferred Options Consultation Document to avoid significant effects.

The 'appropriate assessment' stage provides a more detailed examination of policies or allocations where the effects are likely to be significant, or (commonly) where they are uncertain. Note that undertaking a more detailed assessment of policies or sites does not necessarily imply a conclusion of 'significant effects' for those sites or aspects that are 'screened in' since controls within the Local Plan (i.e. policy measures) will also operate to minimise these effects and in many cases the assessment is completed due to a residual uncertainty which the assessment is intended to resolve. The 'appropriate assessment' stage may therefore conclude that the proposals are likely to have an adverse effect on the integrity of a site (in which case they should be abandoned or modified); or that the effects will be significant but not adverse (i.e. an effect pathway exists, but those effects will not undermine site integrity); or that the effects will, if re-screened, be 'not significant' (taking into account the additional assessment or perhaps additional measures proposed for inclusion in the final plan).

### 'In Combination' Assessment

Article 6(3) of the Habitats Directive requires that the potential effects of the plan on European sites must also be considered 'in combination with other plans or projects'. The 'in combination' assessment must also

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<sup>&</sup>lt;sup>6</sup> Note, from a strict procedural perspective, the 'screening' and 'appropriate assessment' stages can only be formally applied to the finalised plan, and not to its various phases or iterations; therefore the term 'screening' is used advisedly within this document.



consider within-plan effects (i.e. between policies or allocations). Consideration of 'in combination' effects is not a separate assessment, but is integral to the screening and appropriate assessment stages and the development of avoidance/ mitigation measures. There is limited guidance available on the scope of the 'in combination' element, particularly with regard to which plans 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 have provided the basis for the assessment of 'in combination' effects; these plans have been reviewed to identify any potential effects and then considered (as necessary) within the assessment. The assessment has not generally included national strategies, national policy or legislation since the Local Plan must be compliant with these. It is considered that in combination effects are most likely in respect of other regional and sub-regional development plans and strategies. The plans considered 'in combination', and the results of the screening, are summarised in Appendix D. Completion of the 'in combination' assessment is directly related to the policy wording, and it will often be possible to remove any risk of 'in combination' effects through careful construction of the policy (i.e. inclusion of 'avoidance measures' during policy development).

## Mitigation and Avoidance

The development of avoidance or mitigation measures is key to the HRA and plan development process. Avoidance measures are those that are incorporated into the plan during its development to prevent significant effects on European sites occurring; mitigation measures are used where significant effects are identified in order to prevent adverse effects on a site's integrity.

Avoidance or mitigation measures should aim to reduce the probability or magnitude of impacts on a European site until 'no likely significant effects' are anticipated, and will generally involve the development and adoption of (for example) wording changes or additional policies. Measures must be specific and targeted, and likely to work; it is not appropriate to re-state existing legislation or policy, such as by adding *"and must have no significant effect on any European site"* (or similar) to every policy. The avoidance or mitigation should also account for the limited influence that the Council can exert on non-planning issues, and should not generally exceed requirements set by national planning policy or guidance.

### Uncertainty and 'Down the Line' Assessment

For most policies, even at the strategic level, it will be clear if adverse effects are likely at an early stage, and in these instances the policy should not be included within the plan since plans should not include proposals which would be likely to fail the Habitats Regulations tests at the project application stage. For other options, however, the effects may be uncertain and it is therefore important that this uncertainty is addressed either through additional investigation or (if this is not possible) appropriate mitigation measures.

It is usually possible to incorporate caveats or 'avoidance measures' within policy text that are sufficient to ensure that significant adverse effects will not occur. However, for other policies this may not be possible because there is insufficient available information about the nature of the development that is being proposed through the policy to enable a robust conclusion to be reached about whether there will be any LSEs. In these instances, current guidance indicates that it may be appropriate and acceptable for assessment to be undertaken 'down-the-line' at a lower tier in the planning hierarchy. For this to be acceptable, the following conditions must be met<sup>7</sup>:

The higher tier plan appraisal cannot reasonably predict the effects on a European site in a meaningful way; whereas;

<sup>&</sup>lt;sup>7</sup> SNH (2012) *Habitats Regulations Appraisal of Plans: Guidance for plan-making bodies in Scotland*. Scottish Natural Heritage / David Tyldesley Associates

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- The lower tier plan, which will identify more precisely the nature, scale or location of development, retains enough flexibility over these (within the terms of the higher tier plan) to enable an adverse effect on site integrity to be avoided; and
- > HRA of the Plan at the lower tier is required as a matter of law or Government policy.

# 3. Scope of Assessment and Baseline Summary

## 3.1 Study Area

An HRA should include any European sites with interest features that may be vulnerable (i.e. potentially exposed and sensitive) to the outcomes of the plan or project. The potential for an interest feature to be exposed is based on the likely environmental outcomes of the plan or project, and hence its 'zone of influence'; European sites within the 'zone of influence', or with interest features that may rely on habitats within that area, should therefore be considered.

The zone of influence of the Local Plan will vary according to the aspect being considered (for example, noise effects would rarely extend more than a few hundred metres from the source), and so it is not usually appropriate to employ 'arbitrary' spatial buffers 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 the screening (based on a thorough understanding of both the plan outcomes and European site interest features) has some important advantages. Using buffers allows the systematic identification of European sites using GIS, so minimising the risk of sites or features being overlooked, and also ensures that sites where there are no reasonable impact pathways 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.

The screening stage therefore considers potential effects on:

- > all European sites within 15km of the Council's Administrative Area;
- > any additional sites that may be hydrologically linked to the Local Plan's zone of influence; and
- > any additional sites identified by Natural England during scoping consultations.

This is considered to be a suitably precautionary starting point for the assessment of the Local Plan. The sites listed in **Table 3.1** are therefore included in the initial screening assessment (see also **Figure 3.1**).

| Site   | Approximate location relative to the CCC Administrative Area   |
|--|--|
| Essex Estuaries SAC  | Includes all of the principal estuaries within Essex; within the CCC area along the River Crouch and its tributaries near South Woodham Ferrers. |
| Crouch and Roach Estuaries (Mid-Essex<br>Coast Phase 3) SPA    | Within the CCC area along the River Crouch and its tributaries near South Woodham Ferrers.   |
| Crouch and Roach Estuaries (Mid-Essex<br>Coast Phase 3) Ramsar | Within the CCC area along the River Crouch and its tributaries near South Woodham Ferrers.   |
| Blackwater Estuary (Mid-Essex Coast Phase<br>4) SPA            | Closest point of this site (near Maldon) is approximately 5.3km from the CCC boundary; hydrologically connected via the River Chelmer.           |
| Blackwater Estuary (Mid-Essex Coast Phase<br>4) Ramsar         | Closest point of this site (near Maldon) is approximately 5.3km from the CCC boundary; hydrologically connected via the River Chelmer.           |
| Benfleet and Southend Marshes SPA                              | Closest point of this site (near Canvey Island) is approximately 8.4km from the CCC boundary; no hydrological connectivity.                      |
| Benfleet and Southend Marshes Ramsar                           | Closest point of this site (near Canvey Island) is approximately 8.4km from the CCC boundary; no hydrological connectivity.                      |
| Foulness (Mid-Essex Coast Phase 5) SPA                         | Approximately 13.6km from CCC boundary; no hydrological connectivity.  |

### Table 3.1 European sites within study area



| Site                                      | Approximate location relative to the CCC Administrative Area  |
|---|---|
| Foulness (Mid-Essex Coast Phase 5) Ramsar | Approximately 13.6km from CCC boundary; no hydrological connectivity.   |
| Thames Estuary and Marshes SPA            | Approximately 13.5km from CCC boundary; no hydrological connectivity.   |
| Thames Estuary and Marshes Ramsar         | Approximately 13.5km from CCC boundary; no hydrological connectivity.   |
| Abberton Reservoir SPA                    | Closest point of this site is approximately 16.6km from the CCC boundary; site included due to the reliance of the Essex Water Resource Zone (which covers Chelmsford) on this source.                                      |
| Abberton Reservoir Ramsar                 | Closest point of this site is approximately 16.6km from the CCC boundary; site included due to the reliance of the Essex Water Resource Zone (which covers Chelmsford) on this source.                                      |
| Dengie (Mid-Essex Coast Phase 1) SPA      | Closest point of this site is approximately 20.0km from the CCC boundary; no hydrological connectivity. Site is included following scoping response from NE, principally due to the potential for visitor pressure effects. |
| Dengie (Mid-Essex Coast Phase 1) Ramsar   | Closest point of this site is approximately 16.6km from the CCC boundary; site included due to the reliance of the Essex Water Resource Zone (which covers Chelmsford) on this source.                                      |

Data on the European site interest features, their distribution, and their sensitivity to potential effects associated with the Local Plan were obtained from various sources and reports, including the Joint Nature Conservation Committee (JNCC) and Natural England (NE) websites (citations; boundaries; Site Improvement Plans (SIPs); etc.); site condition was based on the NE condition assessments for corresponding SSSI units. Additional information on particular sites or features was obtained from other sources where available, including the Wetland Bird Survey (WeBS).

## 3.2 European Site Features and Condition

The interest features of the European sites within the study area, and the current factors affecting them, are summarised in **Table 3.2**. A summary of the conservation objectives is provided below. The percentage of a site in favourable or unfavourable condition was estimated using the NE condition assessments for the corresponding SSSI units, although it must be noted that the boundaries of the component SSSI units (to which the condition assessments relate) do not always match the European site boundaries exactly (i.e. the SSSIs are usually larger) and it is not always possible to split SSSI units to determine the precise area of the European site (or interest feature) that is in each condition category<sup>8</sup>. The current pressures on, and threats to, the sites are also identified, based on the Site Improvement Plans<sup>9</sup>.

There are many factors currently affecting the European sites over which the Local Plan will have no or little influence: analysis of the available European site data and the SSSI condition assessments indicates that the most common reasons for an 'unfavourable' condition assessment of the component SSSI units are due to geomorphological processes (particularly erosion of saltmarshes, which is known to be an issue for the Essex Estuaries) and inappropriate management of some form (e.g. over- or undergrazing, scrub control, water-level management etc.). The potential mechanisms by which the Local Plan could affect these sites are discussed in **Section 3.3**.

<sup>&</sup>lt;sup>8</sup> This is evident in Table 3.1, where the proportion of the site area in each condition category does not always total 100%.

<sup>&</sup>lt;sup>9</sup> Available at: http://publications.naturalengland.org.uk/category/5458594975711232

| Site and interest features  | Conditio                  | on (%)**                                  | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan   |
|---|---------------------------|---|---|
| Essex Estuaries SAC   |                           |   |   |
| <ul> <li>Annex I Features:</li> <li>Estuaries</li> <li>Mudflats and sandflats not covered by seawater at low tide</li> <li>Salicornia and other annuals colonizing mud and sand</li> <li>Spartina swards (Spartinion maritimae)</li> <li>Atlantic salt meadows (Glauco-Puccinellietalia maritimae)</li> <li>Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)</li> <li>Sandbanks which are slightly covered by sea water all the time (Q)</li> </ul> | F<br>UR<br>UD<br>PD<br>NS | 22.8<br>22.0<br>0.0<br>0.1<br>0.0<br>55.0 | The Essex Estuaries SAC covers the major estuaries of the rivers Colne, Blackwater, Crouch and Roach<br>and the associated intertidal and subtidal habitats. The dominant habitat components are therefore the<br>estuaries themselves; extensive intertidal mud and sandflats with a range of sediments and biotopes; and a<br>range of saltmarsh habitats at various successional stages, for which it is considered one of the best sites<br>in the UK. The saltmarsh at the site is known to be generally eroding, due to sea level rise, and so<br>realignment and habitat creation schemes associated with the Shoreline Management Plan and Regional<br>Habitat Creation Programme are an important component of the drive to achieve favourable condition.<br>The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally<br>being areas of saltmarsh that are under pressure from erosion. There are some isolated units in'<br>unfavourable declining 'condition, typically due to inappropriate management of saltmarsh habitats (e.g.<br>insufficient grazing). The SIP indicates that the main pressures on the SAC features are coastal squeeze;<br>general development; fisheries; invasive species; and air pollution (particularly nitrogen deposition). |
| Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA  |                           |   |   |
| <ul> <li>Article 4.1 qualification:</li> <li>Hen harrier <i>Circus cyaneus</i> (W-)</li> <li>Article 4.2 qualification:</li> <li>Dark-bellied brent goose <i>Branta bernicla bernicla</i> (W)</li> <li>Waterbird assemblage (W)</li> </ul>  | F<br>UR<br>UD<br>PD<br>NS | 23.1<br>76.2<br>0.7<br>0.0<br>0.0<br>0.0  | The Crouch and Roach Estuaries SPA covers a complex of salt marsh, grazing marsh and intertidal habitats that provide important feeding and roosting sites for large numbers of waders and waterfowl in winter, particularly Dark-bellied Brent Geese. Unlike the other local estuaries, the intertidal zones of the Crouch and Roach estuaries are relatively narrow and constrained by the sea walls, at least in their upper reaches. These intertidal areas remain important for the site interest features, however, and Dark-bellied Brent geese also make extensive use of the adjacent saltmarsh and grazing marsh habitats; the areas of permanent, ley and rotational grassland included within the SPA are therefore essential for the conservation of this species' population. The site therefore includes a number of terrestrial areas used for roosting and foraging, including grassland within the Blue House Farm nature reserve (east of North Fambridge) and around Marsh Farm Country Park (south of South Woodham Ferrers). Hen harrier were included on the original citation but recommended for removal under the SPA review.   |
|   |                           |   | The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. There are four small areas of grazing marsh in 'unfavourable no change' condition due to inappropriate management (e.g. insufficient grazing). The SIP indicates that the main pressures on the SPA features are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species.  |

| Site and interest features  | Conditio                       | n (%)**   | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan   |
|---|--------------------------------|---|---|
| Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar   |                                |   |   |
| <ul> <li><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (plant and invertebrate assemblages).</li> <li><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</li> <li><u>Criterion 6</u>: regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Dark-bellied brent goose).</li> </ul>   | F<br>UR<br>U<br>UD<br>PD<br>NS | 23.1<br>76.2<br>0.7<br>0.0<br>0.0<br>0.0<br>0.0 | This site is largely coincident with the Crouch and Roach Estuaries SPA. The bird interest features of this site (Criteria 5 and 6) are essentially the same as for the Crouch and Roach Estuaries SPA (see above). The Criterion 2 features are the rare, vulnerable or endangered species of plant and invertebrates, which are predominantly associated with the supra-tidal and terrestrial habitats. The main pressures on the Ramsar interest features will be the same as for the Essex Estuaries SAC and the Crouch and Roach Estuaries SPA.  |
| Blackwater Estuary (Mid-Essex Coast Phase 4) SPA  |                                |   |   |
| <ul> <li><u>Article 4.1 qualification:</u></li> <li>Little tern Sterna albifrons (B);</li> <li>Hen harrier Circus cyaneus (W-);</li> <li>Avocet Recurvirostra avosetta (W+);</li> <li>Golden Plover Pluvialis apricaria (W+);</li> <li>Ruff Philomachus pugnax (W+);</li> <li><u>Article 4.2 qualification:</u></li> <li>Pochard Aythya farina (B-)</li> <li>Ringed plover Charadrius hiaticula (B-,W, P+);</li> <li>Black-tailed godwit Limosa limosa islandica (W);</li> <li>Grey plover Pluvialis squatarola (W);</li> <li>Dunlin Calidris alpina alpina (W);</li> <li>Dark-bellied brent goose Branta bernicla bernicla (W);</li> <li>Redshank Tringa tetanus (W+);</li> <li>Shelduck Tadorna tadorna (W+);</li> <li>Wintering Assemblage.</li> </ul> | F<br>UR<br>UD<br>PD<br>NS      | 23.5<br>74.9<br>0.0<br>1.5<br>0.0<br>0.0        | The Blackwater Estuary is the largest of the Essex Estuaries. The SPA includes extensive intertidal mudflats and the largest area of saltmarsh in Essex, as well as surrounding terrestrial habitats including grazing marsh, associated fleets and ditches, and semi-improved grassland. Shingle and shell banks and offshore islands are also a feature of the tidal flats. These areas provide a range of habitats for the site interest features. Much of the Blackwater saltmarsh is suffering erosion although in a number of locations managed realignment of the sea-defences is taking place, creating new estuarine habitat. The main breeding species (little tern and ringed plover) are associated with the shingle and shell banks and offshore islands, particularly (for little tern) Mersea Island. The wintering species use all of the habitats at the site, particularly the saltmarsh (for roosting) and intertidal areas, although the associated grasslands are important foraging areas for Dark-bellied Brent geese. There is also some functional connectivity with other sites: cormorants from the colony at Abberton Reservoir SPA take a large proportion of their food from here. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. There are areas of grassland on Osea Island intended to provide foraging opportunities for brent geese that are in 'unfavourable declining' condition due to inappropriate management (e.g. insufficient grazing). The SIP indicates that the main pressures on the SPA features are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species. |

| Site and interest features  | Condition (%   | ** Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan  |
|---|--|---|
| Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar   |  |   |
| <ul> <li><u>Criterion 1</u>: sites containing representative, rare or unique wetland types (saltmarsh communities).</li> <li><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (invertebrate assemblage).</li> <li><u>Criterion 3</u>: supports populations of plant/animal species important for maintaining regional biodiversity (saltmarsh communities).</li> <li><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</li> <li><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).</li> </ul> | F 23.5<br>UR 74.5<br>U 0.0<br>UD 1.5<br>PD 0.0<br>NS 0.0 | This site is coincident with the Blackwater Estuary SPA. The bird interest features of this site (Criteria 5 and 6) are essentially the same as for the Crouch and Roach Estuaries SPA (see above). The site meets Criteria 1 and 3 primarily due to the extensive saltmarsh communities that are present. The Criterion 2 features are the invertebrate fauna, primarily associated with the supra-tidal and terrestrial habitats (ditches and grazing marshes). The main pressures on the Ramsar interest features will be the same as for the Essex Estuaries SAC and the Blackwater Estuary SPA.  |
| Benfleet and Southend Marshes SPA   |  |   |
| <ul> <li>Article 4.2 qualification:</li> <li>Knot Calidris canutus (W);</li> <li>Dark-bellied brent goose Branta bernicla bernicla (W);</li> <li>Grey plover Pluvialis squatarola (W);</li> <li>Dunlin Calidris alpina alpina (W-);</li> <li>Ringed plover Charadrius hiaticula (P);</li> <li>Wintering Assemblage.</li> </ul>  | F 0.0<br>UR 100<br>U 0.0<br>UD 0.0<br>PD 0.0<br>NS 0.0   | This site is located on the north shore of the outer Thames Estuary, and covers an extensive area of saltmarsh, intertidal mudflats and shell banks, with associated supra-tidal grassland. The SPA features are primarily associated with the mudflats and saltmarsh, although areas of grassland are used for foraging (particularly by brent geese) and high-tide roosting. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. There are areas of saltmarsh near Canvey Island that are in 'unfavourable no change' condition due to coastal squeeze. The SIP indicates that the main pressures on the SPA features are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species. |
| Benfleet and Southend Marshes Ramsar  |  |   |
| <ul> <li><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</li> <li><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).</li> </ul>  | F0.0UR100U0.0UD0.0PD0.0NS0.0                             | This site is coincident with the Benfleet and Southend Marshes SPA, and the bird interest features of this<br>site (Criteria 5 and 6) are essentially the same as for the SPA (see above). The main pressures on the<br>Ramsar interest features will be the same as for the Benfleet and Southend Marshes SPA.   |

| Site and interest features   | Conditi                   | on (%)**                                 | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan  |
|--|---------------------------|--|--|
| Foulness (Mid-Essex Coast Phase 5) SPA   |                           |  |  |
| <ul> <li>Article 4.1 qualification:</li> <li>Avocet Recurvirostra avosetta (B,W);</li> <li>Common tern Sterna hirundo (B);</li> <li>Little tern Sterna albifrons (B);</li> <li>Sandwich tern Sterna sandvicensis (B);</li> <li>Hen harrier Circus cyaneus (W);</li> <li>Bar-tailed godwit Limosa lapponica (W);</li> <li>Golden Plover Pluvialis apricaria (W+).</li> </ul> Article 4.2 qualification: <ul> <li>Ringed plover Charadrius hiaticula (B);</li> <li>Dark-bellied brent goose Branta bernicla bernicla (W);</li> <li>Knot Calidris canutus (W);</li> <li>Oystercatcher Haematopus ostralegus (W);</li> <li>Grey plover Pluvialis squatarola (W);</li> <li>Redshank Tringa tetanus (W-,P+);</li> <li>Wintering Assemblage.</li> </ul> | F<br>UR<br>UD<br>PD<br>NS | 72.6<br>24.7<br>0.0<br>2.7<br>0.0<br>0.0 | Foulness SPA covers a complex and extensive area of intertidal sand-silt flats, saltmarsh, shell banks, grazing marshes, grassland, islands and creeks. The flats are particularly important for wintering birds with the network of islands, creeks and grazing land providing sheltered feeding and roosting sites. Several of the breeding species (little tern, common tern, sandwich tern, ringed plover) are associated with the shingle and shell banks, particularly around Foulness Point and Maplin Sands, with avocet also using the complex matrix of intertidal and supra-tidal habitats. These areas are also important high-tide roosts for birds from this SPA and from the Crouch, Roach and Thames estuaries. The site is owned by the Ministry of Defence and so access is partly restricted, which further increases its relative value in the area. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. There is an area of grazing marsh that is in 'unfavourable declining' due to the cessation of grazing for H&S reasons. The SIP indicates that the main pressures on the SPA features of the Essex Estuaries are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species, although public disturbance and bait digging activities are less significant here due to MoD controls (although disturbance from military activities still occurs). |
| Foulness (Mid-Essex Coast Phase 5) Ramsar  |                           |  |  |
| <ul> <li><u>Criterion 1</u>: sites containing representative, rare or unique wetland types (saltmarsh communities).</li> <li><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (invertebrate assemblage).</li> <li><u>Criterion 3</u>: supports populations of plant/animal species important for maintaining regional biodiversity (saltmarsh communities).</li> <li>Criterion 5: regularly supports 20 000 or more waterbirds</li> </ul>  | F<br>UR<br>UD<br>PD<br>NS | 72.6<br>24.7<br>0.0<br>2.7<br>0.0<br>0.0 | This site is coincident with the Foulness SPA. The bird interest features of this site (Criteria 5 and 6) are essentially the same as for the Foulness SPA (see above). The site meets Criteria 1 and 3 primarily due to the extensive saltmarsh communities that are present. The Criterion 2 features are the invertebrate fauna, primarily associated with the supra-tidal and terrestrial habitats (ditches and grazing marshes). The main pressures on the Ramsar interest features will be the same as for the Essex Estuaries SAC and the Foulness SPA.   |

<u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.
 <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)

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| Site and interest features  | Condition (%)**                |   | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan  |  |  |
|---|--------------------------------|---|--|--|--|
| Thames Estuary and Marshes SPA  |                                |   |  |  |  |
| <ul> <li><u>Article 4.1 qualification:</u></li> <li>Avocet <i>Recurvirostra avosetta</i> (W);</li> <li>Hen harrier <i>Circus cyaneus</i> (W);</li> <li><u>Article 4.2 qualification:</u></li> <li>Dunlin <i>Calidris alpina alpina</i> (W-);</li> <li>Knot <i>Calidris canutus</i> (W-);</li> <li>Black-tailed godwit <i>Limosa limosa islandica</i> (W-);</li> <li>Grey plover <i>Pluvialis squatarola</i> (W-);</li> <li>Ringed plover <i>Charadrius hiaticula</i> (P, W+);</li> <li>Redshank <i>Tringa tetanus</i> (W-);</li> <li>Wintering Assemblage.</li> </ul> | F<br>UR<br>UD<br>PD<br>NS      | 96.7<br>1.3<br>0.0<br>2.0<br>0.0<br>0.0 | The majority of the Thames Estuary and Marshes SPA is located on the southern side of the Thames estuary. The site is dominated by extensive intertidal mudflats with fringing saltmarsh, with associated terrestrial habitats including grazing marsh; complex channels, fleets and ditches; and semi-improved grassland. A series of disused quarry pits have been transformed to create an extensive series of ponds and lakes at Cliffe Pools. These areas provide a variety of habitat types, which are important feeding and roosting sites for the large populations of bird species that use this site, including those during the spring and autumn migration periods. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, although there are a few isolated areas of saltmarsh or grazing marsh that are in 'unfavourable declining', principally due to local management issues. As with the Essex Estuaries SIP, the main pressures on the SPA features are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species. |  |  |
| Thames Estuary and Marshes Ramsar   |                                |   |  |  |  |
| <ul> <li><u>Criterion 2</u>: supports vulnerable, endangered, or critically endangered species or threatened ecological communities (plant and invertebrate assemblages).</li> <li><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</li> <li><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).</li> </ul>  | F<br>UR<br>U<br>UD<br>PD<br>NS | 96.7<br>1.3<br>0.0<br>2.0<br>0.0<br>0.0 | This site is largely coincident with the Thames Estuary and Marshes SPA. The bird interest features of this site (Criteria 5 and 6) are essentially the same as for the Thames Estuary and Marshes SPA (see above). The site meets Criterion 2 principally though the rarer plants and invertebrates that are primarily associated with the supra-tidal and terrestrial habitats (ditches and grazing marshes). The main pressures on the Ramsar interest features will be the same as for the Thames Estuary and Marshes SPA.   |  |  |

| Site and interest features  | Conditio                       | on (%)**  | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan  |
|---|--------------------------------|---|--|
| Abberton Reservoir SPA  |                                |   |  |
| <ul> <li><u>Article 4.1 qualification:</u></li> <li>Golden Plover <i>Pluvialis apricaria</i> (W+)</li> <li><u>Article 4.2 qualification:</u></li> <li>Wigeon <i>Anas penelope</i> (W-);</li> <li>Pochard <i>Aythya ferina</i> (W-);</li> <li>Teal <i>Anas crecca</i> (W);</li> <li>Goldeneye <i>Bucephala clangula</i> (W-);</li> <li>Mute swan <i>Cygnus olor</i> (W-);</li> <li>Great crested grebe <i>Podiceps cristatus</i> (W-);</li> <li>Gadwall <i>Anas strepera</i> (W);</li> <li>Tufted duck <i>Aythya fuligula</i> (W-);</li> <li>Cormorant <i>Phalacrocorax carbo</i> (B);</li> <li>Shoveler <i>Anas clypeata</i> (W-);</li> <li>Coot <i>Fulica atra</i> (W-);</li> <li>Wintering Assemblage.</li> </ul> | F<br>UR<br>UD<br>PD<br>NS      | 100.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0        | Abberton Reservoir is a 500 ha. storage reservoir approximately four miles south of Colchester. It is the largest freshwater body in Essex. Around 40 000 birds visit the reservoir annually and it is particularly important as a moulting and roosting site for wildfowl and waders, partly due to its proximity to the Essex Estuaries. It is also important as a staging point for birds on passage. The margins of parts of the reservoir have well-developed plant communities that provide important opportunities for feeding, nesting and shelter. In addition, there is a notable breeding population of cormorant, which also use the nearby estuaries for feeding. Water levels (etc.) in the reservoir are controlled according to an agreed operating plan; as part of a recent scheme to increase capacity, the original concrete banks have been removed and the shoreline re-profiled, creating extensive new areas of shallow wetland habitat for the site's waterfowl. The reservoir is therefore in favourable condition. Based on the SIP, the main pressures on the SPA features are siltation (although this is equally a problem for the reservoir as a storage resource, and so is managed accordingly); and disturbance, primarily from aircraft (although the site receives large numbers of visitors the disturbing effect is limited due to management and the nature of the site). |
| Abberton Reservoir Ramsar   |                                |   |  |
| <ul> <li><u>Criterion 5</u>: regularly supports 20,000 or more waterbirds.</li> <li><u>Criterion 6</u>: regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds (Gadwall, Shoveler, Wigeon).</li> </ul>  | F<br>UR<br>U<br>UD<br>PD<br>NS | 100.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | This site is coincident with Abberton Reservoir SPA and the bird interest features (Criteria 5 and 6) are essentially the same as for the SPA (see above). The main pressures on the Ramsar interest features will be the same as for the Abberton Reservoir SPA.  |

| Site and interest fe   | features  | Conditi   | on (%)**  | Summary of current threats and potential vulnerabilities to outcomes of Chelmsford Local Plan  |
|--|---|---|---|--|
| Dengie (Mid-Esse   | x Coast Phase 1) SPA  |   |   |  |
| Article 4.1 qualificat<br>Hen harrier Circ<br>Bar-tailed Godv<br>Article 4.2 qualificat<br>Dark-bellied bre<br>Knot Calidris ca<br>Grey plover Plu<br>Wintering Asse   | <u>ution:</u><br><i>rcus cyaneus</i> (W);<br>wit <i>Limosa lapponica</i> (W+)<br><u>anutus</u> (W);<br><i>anutus</i> (W);<br><i>uvialis squatarola</i> (W);<br>emblage.   | F<br>UR<br>U<br>UD<br>PD<br>NS  | 62.7<br>37.3<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0   | Dengie SPA is a large and unusually (for Essex) remote area of tidal mudflat and saltmarsh at the eastern<br>end of the Dengie peninsula, between the Blackwater and Crouch Estuaries. It covers extensive intertidal<br>flats and the largest continuous area of saltmarsh in Essex, and provides substantial and important feeding<br>and roosting habitats for wintering populations of wildfowl and waders. The majority of the site is in<br>'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that<br>are under pressure from erosion. The SIP indicates that the main pressures on the SPA features of the<br>Essex Estuaries are coastal squeeze; general development; public disturbance; fisheries (particularly bait<br>digging); and invasive species, although public disturbance is thought to be less significant here due to the<br>site's relative isolation compared to the other estuarine areas. |
| Dengie (Mid-Esse   | x Coast Phase 1) Ramsar   |   |   |  |
| <ul> <li><u>Criterion 1</u>: site<br/>types (saltmars</li> <li><u>Criterion 2</u>: sup<br/>endangered spi<br/>(coastal and sa</li> <li><u>Criterion 3</u>: sup<br/>for maintaining</li> <li><u>Criterion 5</u>: regi<br/><u>Criterion 6</u>: regi<br/>of one species/<br/>goose; Knot; O<br/>godwit)</li> </ul>  | es containing representative, rare or unique wetland<br>sh communities).<br>poports vulnerable, endangered, or critically<br>pecies or threatened ecological communities<br>altmarsh plants and invertebrate assemblages).<br>poports populations of plant/animal species important<br>regional biodiversity (saltmarsh communities).<br>jularly supports 20,000 or more waterbirds.<br>jularly supports 1% of the individuals in a population<br>/subspecies of waterbirds (Dark-bellied brent<br>bystercatcher; Grey plover; Redshank; Bar-tailed   | F<br>UR<br>UD<br>PD<br>NS   | 62.7<br>37.3<br>0.0<br>0.0<br>0.0<br>0.0  | This site is largely coincident with the Dengie SPA, and the bird interest features of this site (Criteria 5 and 6) are essentially the same as for the SPA (see above). The site meets Criteria 1 and 3 primarily due to the extensive saltmarsh communities that are present, with Criterion 2 being met by the assemblage of rare coastal flora. The main pressures on the Ramsar interest features will be the same as for the Essex Estuaries SAC and the Dengie SPA.   |
| Key           *         I           W         P           P         I           -         S           +         S           Annex I / II         I           Article 4.1 / 4.2         I           Criterion 1, 2, etc.         I           **         I           F         I           UR         U           UF         U           PD         I           NS         I | Interest features (habitats or species) that are a prima<br>Wintering species<br>Breeding species<br>Species included on original SPA citation but propose<br>Species not included on the original SPA citation but<br>Habitats or species listed on Annex I or II (respectivel<br>Bird species qualifying under Article 4.1 or 4.2 of Dire<br>Ramsar criteria; there are nine criteria used as a basi<br>Based on the condition assessments of the SSSI unit<br>Favourable<br>Unfavourable recovering<br>Unfavourable no change<br>Unfavourable declining<br>Partially destroyed<br>Not stated (e.g. offshore areas where site is not unde | ary reasor<br>added foll<br>y) of Coun-<br>ctive 2009<br>s for select<br>s that corr<br>rpinned b | n for design<br>oval follow<br>owing the<br>ncil Directi<br>9/147/EC o<br>cting Rams<br>respond to<br>y an SSSI | nation; all other habitats and species are qualifying features<br>SPA Review<br>ve 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')<br>on the Conservation of Wild Birds (the 'new Wild Birds Directive')<br>sar sites; see Appendix B<br>o the relevant European sites.   |

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## **Conservation Objectives**

The conservation objectives for all of the sites have been revised by NE in recent years to increase consistency of assessment and reporting. As a result, the high-level conservation objectives for all sites are effectively the same:

For SACs:

- With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'...), and subject to natural change; ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring [as applicable to each site];
  - The extent and distribution of the qualifying natural habitats;
  - The extent and distribution of the habitats of qualifying species;
  - ▶ The structure and function (including typical species) of the qualifying natural habitats;
  - The structure and function of the habitats of qualifying species;
  - The supporting processes on which the qualifying natural habitats rely;
  - The supporting processes on which the habitats of qualifying species rely;
  - ▶ The populations of qualifying species; and,
  - The distribution of qualifying species within the site.

#### For SPAs:

- With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'...), and subject to natural change; ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:
  - The extent and distribution of the habitats of the qualifying features;
  - The structure and function of the habitats of the qualifying features;
  - The supporting processes on which the habitats of the qualifying features rely;
  - The population of each of the qualifying features; and
  - ► The distribution of the qualifying features within the site.

The conservation objectives for Ramsar sites are taken to be the same as for the corresponding SACs / SPAs (where sites overlap). The conservation objectives are considered when assessing the potential effects of plans and policies on the sites; information on the sensitivities of the interest features also informs the assessment.

## 3.3 Outcomes of Local Plan and Impact Pathways

Analysis of the available European site data and the SSSI condition assessments indicates that the most common reasons for an 'unfavourable' condition assessment of the component SSSI units are due to geomorphological processes (particularly erosion of saltmarshes, which is known to be an issue for the Essex Estuaries) and inappropriate management of some form (e.g. over- or undergrazing, scrub control, water-level management 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 mechanism by which the Local Plan could affect these sites are through spatial allocations that have direct or indirect effects on European sites; or through policies that direct development (or do not control development) such that significant effects are likely. The main environmental aspects, and the pathways by which the Local Plan could potentially affect European sites, are summarised in the following sub-sections together with any available baseline data on those aspects to inform the assessment. European sites that are particularly vulnerable to a specific aspect (i.e. sensitive and likely to be exposed due to the Local Plan) are identified.

## **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. For example: some bird species are more sensitive to disturbance associated with walkers or dogs than others; some habitats will be more sensitive to trampling or mechanical disturbance than others; some sites will be more accessible than others.

The most typical mechanisms for recreational effects are through direct damage of habitats, or disturbance of certain species. Damage will most often be accidental or incidental, but many sites are particularly sensitive to soil or habitat erosion caused by recreational activities and require careful management of recreational activities to minimise any effects – for example, through provision and maintenance of 'hard paths' (boardwalks, stone slabs etc.) and signage to minimise soil erosion along path margins.

Disturbance<sup>10</sup> of species due to recreational activities can also be a significant problem at some sites, although the relationship (again) is highly variable and depends on a range of factors including the species, the time of year and the scale, type and predictability of disturbance. Most studies have focused on the effects on birds, either when breeding or foraging. A long term monitoring project by NE on the Thanet Coast that has found that turnstones (a shoreline-feeding waterbird) are particularly vulnerable to disturbance from dogs, which interrupts their feeding behaviour and can prevent them from gaining sufficient body fat for overwintering or migration. Similarly, Finney *et al.* (2005) noted that re-surfacing the Pennine Way significantly reduced the impact of recreational disturbance on the distribution of breeding golden plover, by encouraging walkers to remain on the footpath. In contrast, some species are largely unaffected by human disturbance (or even benefit from it) which can result in local or regional changes in the composition of the fauna. The scale, type and predictability of disturbance is also important; species can become habituated to some disturbance (e.g. noise) particularly if it is regular or continuous). Unpredictable disturbance is most problematic.

Most recreational activities with the potential to affect European sites are 'casual' and pursued opportunistically (e.g. walking, walking dogs, riding) rather than structured (e.g. organised group activities or trips to specific discrete attractions), which means that it can be difficult to quantify or predict either the uptake or the impacts of these activities on European sites and (ultimately) harder to control or manage effects. It also means it is difficult to explore in detail all of the potential aspects of visitor pressure at the strategic level. However, it is possible for plans and strategies to influence recreational use of European sites through the planning process, for example by increasing the amount of green space required within or near developments if potentially vulnerable European sites are located nearby.

With regard to sites within the study area, all will be sensitive to recreational pressure to some extent although the bird interest features of the mid Essex Estuaries SPAs and Ramsar sites and, to a lesser extent, the habitats of the Essex Estuaries SAC are likely to be most sensitive to disturbance or damage due to recreational pressures. However, the extent to which these sites and features are exposed to the Local Plan is not easily established.

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 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. NE, as part of its input to the County Durham Plan, has noted that it adopts a '75%

<sup>&</sup>lt;sup>10</sup> In this case, literal disturbance by human activity; in ecology, 'disturbance' is a more complex concept used in models of ecosystem equilibrium.



rule' to determine significance, whereby recreational buffers are based on the distance within which 75% of visits originate (i.e. taking account of frequency of visits as well as distance travelled); for the Durham Coast SAC, Northumbria Coast SPA / Ramsar and Teesmouth and Cleveland Coast SPA / Ramsar this distance was 6km.

Other studies have identified or used those distances within which approximately 70 - 75% of visitors live when considering recreational buffer areas. Some examples are summarised in **Table 3.3**, although note that these are necessarily selective as not all studies considering visitor pressure have necessarily reported percentiles; however, they provide some good examples for European sites that have similarities to sites near Thanet, including the presence of nearby urban areas.

| Study  | European sites   | Summary of findings  |
|--|--|--|
| Solent Disturbance and<br>Mitigation Project<br>(Feamley <i>et al.</i> 2010) | Solent Maritime SAC<br>Chichester and Langstone Harbours SPA<br>Pagham Harbour SPA<br>Chichester and Langstone Harbours Ramsar<br>Pagham Harbour Ramsar<br>(Coastal sites; major urban areas; disturbance of<br>birds)                         | Half of all visitors arriving on foot lived within<br>0.7km; half of all visitors arriving by car lived more<br>than 4km away.<br>Average travel distance (excluding<br>holidaymakers): 5.04km. 75% of visits from<br>postcodes within 5.6km.  |
| Thames Basin Heaths<br>(Liley <i>et al.</i> 2005)                            | Thames Basin Heaths SPA<br>(Heathland sites; urban areas; disturbance of<br>birds)   | 70% of visitors travel 5km or less to access sites   |
| Whitehall and Bordon<br>Ecotown (EPR 2012)                                   | Wealden Heaths SPA<br>Shortheath Common SAC<br>Woolmer Forest SAC<br>Thursley, Ash, Pirbright and Chobham SAC<br>Thursley and Ockley Bogs Ramsar site<br>(Heathland and woodland sites; urban areas;<br>disturbance of birds; damage to heath) | Average travel distance: 6.7km.<br>70% of visitors travel 4.3km or less to access sites.<br>70% distance values for following component<br>sites:<br>- Frensham Common: 10.7km<br>- Kingsley Common: 7.4km<br>- Bramshott Common: 4.5km<br>- Woolmer Forest: 3.4km<br>- Longmoor Enclosure: 3.2km<br>- Ludshott Common: 2.9km<br>- Broxhead Common: 2.1km<br>- Hogmoor Inclosure: 0.9km<br>- Shortheath Common: 0.6km<br>- Bordon Enclosure: 0.5km |
| Ashdown Forest (UE /<br>University of Brighton<br>2009)                      | Ashdown Forest SPA<br>(Heathland sites; urban areas; disturbance of<br>birds)  | 76% of visitors travel 5km or less to access sites   |

### Table 3.3Travel distances for ~70 – 75% of visitors recorded by previous studies

For most sites, the distance that 70 – 75% of visitors travel is typically less than 6 – 7km. Given that most studies have demonstrated that reported visit frequency increases with proximity to a site, it is reasonable to assume that the '75% distance'<sup>11</sup> for visits to most sites is likely to be less than this. However, it is important to recognise that visitor behaviour is complex and generalised statistics can hide important variations in the use of a site (for example, the 75% distance is likely to vary depending on the access point surveyed; this may be particularly relevant for larger sites such as the Essex Estuaries SAC). Any derived buffers must therefore be applied cautiously as the precise distance will depend on the site: a remote upland European

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<sup>&</sup>lt;sup>11</sup> i.e. the distance within which 75% of visits (as opposed to visitors) originate.



site favoured by recreational walkers will probably have a substantially larger 75% distance for visits than, for example, the Blackwater Estuary SPA which is near Colchester. Similarly, Abberton Reservoir is likely to have a larger 75% distance due to its position as a regional attraction.

Secondary buffers are also sometimes identified to reflect the variation in visitor behaviour, particularly for those that live in close proximity to a site. For example, the studies supporting the County Durham Plan adopted a 400m buffer also, since 59% of respondents living within the 0 - 400 metre buffer were high risk users, i.e. visit the coast between one and three times a day (see also 'Urbanisation', below).

Visitor survey data for the Essex estuary sites is limited; it is understood that there has been only one set of surveys aiming to characterise visitor behaviour in relation to European sites in the region, which was undertaken between 2010 and 2013 by Colchester Borough Council, Tendring District Council and Braintree District Council as part of the monitoring of their Core Strategies. This study (CBC (2012) *Habitat Regulations Assessment Survey and Monitoring; Year 3 Interim Report*) focused on those European sites within the Colchester and Tendring council areas (i.e. Abberton Reservoir SPA / Ramsar, Blackwater Estuary SPA / Ramsar, the Essex Estuaries SAC, the Colne Estuary SPA / Ramsar, the Stour and Orwell Estuaries SPA / Ramsar, and Hamford Water SPA / Ramsar / SAC); of these, the sites associated with Abberton Reservoir and the Blackwater Estuary are within the study area for the Chelmsford Local Plan.

Visitor surveys were undertaken at two locations within the estuary sites (Blackwater, Colne and Stour Estuaries; Hamford Water) and at one location (the visitor centre) at Abberton Reservoir. Unfortunately, the nature of the surveys and data means that it is difficult to draw meaningful conclusions on the use of these sites, particularly in relation to visitors from the Chelmsford area<sup>12</sup>. Although approximate travel distances were obtained for visitor groups, the surveys did not attempt to establish a '75% distance' or similar and many of the observations are influenced by sample size and a range of site-specific factors that cannot be scaled to provide reliable site-wide interpretation. However, based on the 2012 report it is worth noting the following:

- Dog walking and walking were the two main reasons for visits at all of the sites with the exception of Abberton Reservoir and Old Hall Marshes (principally bird-watching sites).
- Approximately 29% of visitors walked to the sites, with around 69% driving.
- The distance that 75% of visitors travelled (note, not the distance within which 75% of visits originate) varied according to the survey location and type of site, but was almost always less than 10 miles (16km) and most commonly less than five miles.
- Visitors from Chelmsford formed an extremely small cohort; of 326 visitor groups questioned in 2012 only four were identified from Chelmsford, all around the Colne estuary. None were recorded in the sites closest to Chelmsford.
- It is clear that the inherent variabilities of the European sites themselves, including accessibility by car, are as important (probably more so) than distance in determining local visitor numbers and pressures, and so management of 'hotspots' (and the role that these might play in diverting visitors from areas where behaviours are more difficult to manage) is an important factor that the Chelmsford Local Plan may have limited influence over.

In the absence of specific data for the sites nearest Chelmsford, the data from other studies has been used as a proxy for identifying areas or allocations where significant effects may occur; therefore, this HRA has identified all allocations within 8km of a European site for possible recreational impacts, with allocations within 500m of an access point being considered as potentially high-risk.

## **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. Typically, this would include aspects such as fly-tipping or vandalism, although the effects of these aspects again depend on the interest features of the sites: for example, predation of some species by cats is known to be sizeable (Woods *et al.* 2003) and

<sup>&</sup>lt;sup>12</sup> The surveys did not cover sites or areas of the sites closest to Chelmsford (and hence those most likely to be used by Chelmsford residents – for example, the Blackwater around Maldon).



can be potentially significant for some European sites. Recreational pressure is arguably one type of effect associated with urbanisation, although this is usually considered separately as it is less closely associated with proximity: as a broad guide urbanisation effects are more likely when developments (etc.) are within a few hundred metres of a designated site, whereas people will typically travel further for recreation. Where sensitive sites are involved, development buffers of around 400m are typically used to minimise the effects of urbanisation: for example, NE has identified a 400m zone around the Chichester and Langstone Harbours SPA within which housing development should not be located due to the potential effects of urbanisation (particularly the risk of chick predation by cats, which cannot be mitigated); similarly, councils around the Thames Basin Heaths SPA identify a 400m zone around the SPA boundary where there is a presumption against new residential development as the impact on the SPA is considered likely to be adverse. None of the condition assessments for European sites within the study area identify this as a particular issue and in reality there is sufficient distance between most sites and the nearest settlement boundaries for this to not be a significant threat. Having said that, allocating development sites within existing settlements where urbanisation has already occurred and where effects are likely to be more manageable, even if near a European site, is arguably a preferable course of action.

### **Atmospheric Pollution**

A number of pollutants have a negative effect on air quality; however, the most significant and relevant to habitats and species (particularly plant species) are the primary pollutants sulphur dioxide (SO<sub>2</sub>, typically from combustion of coal and heavy fuel oils), nitrogen oxides (NOx, mainly from vehicles) and ammonia (NH<sub>3</sub>, typically from agriculture), which (together with secondary aerosol pollutants<sup>13</sup>) are deposited as wet or dry deposits. These pollutants affect habitats and species mainly through acidification and eutrophication. Acidification increases the acidity of soils, which can directly affect some organisms but which also promotes leaching of some important base chemicals (e.g. calcium), and mobilisation and uptake by plants of toxins (especially metals such as aluminium). Air pollution contributes to eutrophication within ecosystems by increasing the amounts of available nitrogen (N)<sup>14</sup>. This is a particular problem in low-nutrient habitats, where available nitrogen is frequently the limiting factor on plant growth, and results in slow-growing low-nutrient specialists being out-competed by faster growing species that can take advantage of the increased amounts of available N.

| Pollutant                             | Pathway   | Summary of Effects  |
|---------------------------------------|---|---|
| Ammonia (NH₃)                         | Primarily from agriculture through decomposition of animal manure and slurry.   | Emissions contribute to acidification and (particularly) eutrophication.  |
| Nitrogen<br>oxides (NO <sub>x</sub> ) | All combustion processes produce oxides of nitrogen (NO <sub>x</sub> ) in air; road transport is the main source, followed by the electricity supply industry. NO <sub>x</sub> emissions have decreased with increased fuel efficiency and catalytic converters | Emissions contribute to acidification<br>and eutrophication; contribute to<br>formation of secondary particles and<br>ground level ozone. |
| Sulphur<br>Dioxide (SO <sub>2</sub> ) | Sulphur dioxide is released when fuels containing sulphur are burnt,<br>especially coal and heavy fuel oils. The energy industry was the primary<br>source, although this has decreased as use of coal has decreased.   | SO <sub>2</sub> dissolves readily in water to form an acid which contributes to acidification of soils and water.                         |

#### Table 3.4 Main air pollutants, pathways and effects

Overall in the UK, there has been a significant decline in SOx and NOx emissions in recent years and a consequent decrease in acid deposition; in England, SO<sub>x</sub> and NO<sub>x</sub> have declined by 90% and 65% respectively since 1990 (NAEI 2014), the result of a switch from coal to gas and nuclear for energy generation, and increased efficiency and emissions standards for cars. These emissions are generally expected to decline further in future years, although use of coal may begin to increase in the power generation sector in the long-term. In contrast, emissions of ammonia have remained largely unchanged: they have declined by 20% in England since 1990 (NAEI 2014), but have remained largely stable since 2008 (1% decrease from 2008 – 2011; 2.8% increase from 2011 – 2012).

<sup>&</sup>lt;sup>13</sup> Secondary pollutants are not emitted, but are formed following further reactions in the atmosphere; for example, SO<sub>2</sub> and NO<sub>x</sub> are oxidised to form SO<sub>4</sub><sup>2-</sup> and NO<sub>2</sub><sup>-</sup> compounds; ozone is formed by the reaction of other pollutants (e.g. NOx or volatile organic compounds) with UV light; ammonia reacts with SO<sub>4</sub><sup>2-</sup> and NO<sub>2</sub><sup>-</sup> to form ammonium (NH<sub>4</sub><sup>+</sup>).

<sup>&</sup>lt;sup>14</sup> Nitrogen that is in a form that can be absorbed and used by plants.



The effect of SO<sub>x</sub> and NO<sub>x</sub> decreases on ecosystems has been marked, particularly in respect of acidification; the key contributor to acidification is now thought to be deposited nitrogen, for which the major source (ammonia emissions) has not decreased significantly. Indeed, although it is estimated that the proportion of UK semi-natural ecosystems that exceed the critical loads for eutrophication will decline from 40% to 32% by 2010 (NEGTAP 2001), eutrophication from N-deposition (again, primarily from ammonia) is now considered the most significant air guality issue for many habitats.

The UK Air Pollution Information System (APIS) has been interrogated to identify those European sites and features where critical loads<sup>15</sup> for nutrient-N deposition and acidification are met or exceeded. APIS provides a comprehensive source of information on air pollution and the effects on habitats and species and although there are limitations to the data (see SNIFFER 2007), particularly related to the scale at which data can be modelled, this provides the best basis for assessing the impacts of air emissions in the absence of site-bysite monitoring data.

Table 3.5 summarises the APIS data for SACs with features that are directly sensitive to air quality in the study area. All SACs are either not sensitive to air emissions, or do not have the Critical Load (CL) exceeded. It should be noted that CL values are generally provided for habitats rather than species, and that watercourses are not included as eutrophication of most watercourses due to air emissions is negligible compared to run-off from agricultural land.

| Site                | Air quality sensitive features                                 | Over CL? |     |  |
|---------------------|--|----------|-----|--|
|                     |  | Acid     | N   |  |
| Essex Estuaries SAC | Estuaries  | n/a      | -   |  |
|                     | Mudflats and sandflats not covered by seawater at low tide     | n/a      | +   |  |
|                     | Salicornia and other annuals colonizing mud and sand           | n/a      | -   |  |
|                     | Spartina swards (Spartinion maritimae)                         | n/a      | -   |  |
|                     | Atlantic salt meadows (Glauco-Puccinellietalia maritimae)      | n/a      | -   |  |
|                     | Mediterranean and thermo-Atlantic halophilous scrubs           | n/a      | -   |  |
|                     | Sandbanks which are slightly covered by sea water all the time | n/a      | n/a |  |

#### Table 3.5 Summary of APIS interrogation

CL Critical load

Acid Acidification

Eutrophication Ν

n/a Critical load not set for feature / feature not sensitive

below minimum CL for that habitat

minimum CL for that habitat is exceeded +

maximum CL for that habitat is exceeded ++

The proposals within the Local Plan may indirectly contribute to local air pollution and wider diffuse pollution, but quantifying these effects is difficult. In practice, the principal source of air pollution associated with the plan will be associated with changing patterns of vehicle use due to the promotion of new development and housing sites (since the plan does not provide for any new significant point-sources). The Department of Transport's Transport Analysis Guidance<sup>16</sup> states that "beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant" and therefore this distance is used to determine the potential significance of any local effects associated with the Local Plan. Environment Agency guidance (EA 2007) also states that "Where the concentration within the emission footprint in any part of the European site(s) is less than 1% of the relevant long-term benchmark (EAL, Critical Level or Critical Load), the emission is not likely to have a significant effect alone or in combination irrespective of the background levels". With regard to the sites in **Table 3.5**, only the Crouch estuary component of the Essex Estuaries SAC and the Crouch and Roach SPA / Ramsar is within the Council's Administrative Area, or within 200m of it; within the Administrative Area, these sites have only one A- or B-road within 200m of them (the A132 near South Woodham Ferrers).

<sup>&</sup>lt;sup>15</sup> 'Critical Loads' are the threshold level for the deposition of a pollutant above which harmful indirect effects can be shown on a habitat or species, according to current knowledge (APIS 2009).

<sup>&</sup>lt;sup>16</sup> See http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013; accessed 15/06/14



More broadly, Local Plan proposals may indirectly contribute to wider diffuse pollution within and beyond the Council's Administrative Area, in combination with other developments, plans and programmes. There is little guidance on the assessment of diffuse pollution, although NE have 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*" 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. As a result, any assessment must focus on the development of suitable mitigating policy that will minimise the contribution of plan-supported development to overall diffuse pollution.

### 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 the Local Plan; 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 the Local Plan.

It is clear that development promoted or supported by the Local Plan is likely to increase demand for water, which could indirectly affect some European sites. When assessing the potential effects of increased water demand it is important to understand how the public water supply (PWS) system operates and how it is regulated with other water resource consents.

Essex and Suffolk Water (ESW) is responsible for supply to the Chelmsford area, which is within its Essex Water Resource Zone (WRZ). The supply network in this area is complex and highly integrated, which provides flexibility for the movement of raw and potable water around the WRZ as it is required (for both public water supply and augmentation of rivers during dry periods). In broad summary, most water for the Essex WRZ (around 77%) is derived from surface water abstractions within the WRZ (water from the rivers Chelmer, Blackwater and Stour, and the Roman River is passed to the storage reservoirs at Hanningfield and Abberton, or treated directly at local treatment works for supply), with a small percentage (~3%) derived from groundwater via chalk well and adit sources in the south and south west of the zone. The remaining 20% is provided as bulk supply from Thames Water's Lea Valley Reservoirs; and by the Ely Ouse Essex Transfer Scheme (EOETS), which is owned and operated by the Environment Agency and which transfers water from the Ely Ouse in Norfolk to Essex to augment flows in the rivers Stour and Blackwater in dry years. The complexity of the supply system means that direct and specific supply relationships (e.g. '*Chelmsford gets its water from X source...*') cannot necessarily be made.

Under the Water Act 2003, all water companies must publish a Water Resources Management Plan (WRMP) that sets out their strategy for managing water resources across their supply area over the next 25 years. WRMPs use calculations of Deployable Output (DO) to establish supply/demand balances; this enables them to identify those WRZs with potential supply deficits over the planning period<sup>17</sup>. The calculations account for any reductions in abstraction that are required to safeguard European sites<sup>18</sup> and so the WRMP process (with other regulations) helps ensure (as far as is achievable) that future changes in demand will not affect any European sites<sup>19</sup>.

<sup>&</sup>lt;sup>17</sup> Forecasts are completed in accordance with the Water Resources Planning Guidelines (published by the Environment Agency) and take into account (inter alia) economic factors (economic growth, metering, pricing), behavioural factors (patterns of water use), demographic factors (population growth, inward and outward migration, changes in occupancy rate), planning policy (LPA land use plans), company policies (e.g. on leakage control and water efficiency measures) and environmental factors, including climate change. The WRMP therefore accounts for these demand forecasts based on historical trends, an established growth forecast model and through review of local and regional planning documents.

<sup>&</sup>lt;sup>18</sup> For example, sustainability reductions required by the Review of Consents (RoC) or the Environment Agency's Restoring Sustainable Abstractions (RSA) programme. It should be noted that, under the WRMP process, the RoC changes (and non- changes to licences) are considered to be valid over the planning period. This means that the WRMP (and its underlying assumptions regarding the availability of water and sustainability of existing consents) is compliant with the RoC and so the WRMP can only affect European sites through any new resource and production-side options it advocates to resolves deficits, and not through the existing permissions regime.

<sup>&</sup>lt;sup>19</sup> Calculations of DO include for Target Headroom (precautionary 'over-capacity' in available water) to buffer any unforeseen variation in predicted future demand; the WRMP is also reviewed on a five-yearly cycle to ensure it is performing as expected and to account for any variations between predicted and actual demand.



ESW has accounted for the growth predicted by the Council and other LPAs in its forecasting for the 2014 WRMP. In essence, a predicted supply-demand deficit identified in the 2010 WRMP has been resolved by increasing the capacity of Abberton Reservoir, and through licence variations, such that the Essex WRZ (as of the 2014 WRMP) is predicted to be in surplus for the planning period. The WRMP has been subject to HRA, which has concluded that it will have no significant effect on any European sites, including those water-resource sensitive sites within the study area (e.g. Abberton Reservoir SPA / Ramsar). The WRMP provides the best estimate of future water resource demand, and therefore it is reasonable to assume that the growth predicted within the Local Plan can be accommodated without significant effects on any European sites due to PWS abstractions. Furthermore, since the WRMP explicitly accounts for the growth predicted by the Council and other LPAs, 'in combination' effects between the Local Plan and the WRMP are unlikely to occur. Having said that, the Local Plan can obviously help manage demand and promote water efficiency measures through its policy controls. It should also be noted that the ESW WRMP is currently being reviewed ahead of publication in 2019, so future review of this may be appropriate.

## Water Quality

Most waterbodies and watercourses in Chelmsford 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 (WwTW) outfalls, which are generally managed through specific consenting regimes that are independent of the Local Plan. 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 the Local Plan is likely to increase demand on wastewater treatment works, and potentially increase run-off which could indirectly affect some European sites. The Anglian River Basin Management Plan (RBMP; EA 2016) identifies a number of water quality issues in the 'Combined Essex' RBMP unit, with the management issues being physical modifications to watercourses, point source and diffuse pollution leading to elevated phosphate levels and changes to the natural water flows and levels. With regard to effects on European sites, it should be noted that the Environment Agency's Review of Consents determined that there was no adverse effect on the integrity of any European sites, including the Thanet Coast sites, from nutrient enrichment due to Environment Agency consents (i.e. associated with sewerage treatment).

Essex County Council and Southend-on-Sea Borough Council produced a WwTW Needs Assessment in 2014, which identified treatment works in the region that are at or near capacity (and which would therefore require upgrading to support additional development). In summary, Chelmsford is served by approximately 11 principal WwTWs, of which seven are within the Council's Administrative Area. Of these, two were considered to be at or near volumetric capacity: Ingatestone, the catchment of which includes the village of Stock, to the southwest of Chelmsford; and Billericay, the catchment of which overlaps very slightly (and inconsequentially) with the Council's Administrative Area. More recently, CCC has commissioned a Water Cycle Study (Aecom 2017)<sup>20</sup> for the Council's administrative area, which specifically considers the growth predicted by the Local Plan. This study concludes that two treatment works within the Council's administrative area, do not currently have sufficient capacity to accommodate all of the development proposed within their catchments under the Local Plan. These treatment works will therefore require uprating alongside delivery of the planned housing numbers.

However, the study specifically notes that "*improvements to Great Leighs and South Woodham Ferrers WRCs are possible using wastewater treatment technologies currently available, demonstrating that an engineering solution is feasible and hence treatment capacity should not be seen as a barrier to growth*". Therefore, provided that the planning process allows for timely identification and delivery of any additional treatment capacity that may be required, then new developments can be accommodated without significant effects on receiving European sites due to developments 'alone' or 'in combination'. The role of the Local Plan should therefore be to ensure, through policy controls, that infrastructure provision is planned and required ahead of developments being completed.

Run-off from impermeable surfaces can have considerable effects on waterbodies and watercourses, and is a notable issue in both urban and rural areas. Development has traditionally sought to capture and divert

<sup>&</sup>lt;sup>20</sup> Note, this water cycle study is draft only at the time of reporting.



rain and run-off to the nearest watercourse or treatment facility as quickly as possible, and extensive drainage networks have been developed to facilitate this. However, as developed areas have increased so the total volumes and flow rates of run-off have increased also. This has two principal effects: firstly, impermeable surfaces provide very little resistance to the mobilisation and transport of pollutants within run-off; and secondly, flow rates and volumes often exceed the capacity of the receiving drains or watercourses, causing localised flooding or the operation of combined sewer overflows (CSOs)<sup>21</sup>. The effect of run-off from developed areas can be mitigated or reduced by the use of Sustainable Drainage Systems (SuDS) and by increasing the area of permeable surfaces (both natural and artificial) within developed areas. These measures offer effective attenuation by reducing the volumes of surface run-off. They also increase the retention of pollutants and, in the case of some SuDS, can allow for treatment of pollutants.

With regard to European sites, those most vulnerable to water quality impacts due to run-off will be the 'downstream receptors' – i.e. the sites associated with the Blackwater and Crouch estuaries. There is no risk of other water quality sensitive sites in the study area being affected (e.g. Abberton reservoir or Benfleet and Southend Marshes) due to the absence of impact pathways. Since the water quality effects of the Local Plan are ultimately either controlled by existing consents regimes (which must undergo HRA) or have diffuse 'in combination' effects that are difficult to quantify, any assessment must focus on the development of suitable mitigating policy that will minimise the impacts of plan-supported development on water quality.

## **Flooding and Water Level Management**

The implementation of the European Floods Directive (Directive 2007/60/EC) in England and Wales is being co-ordinated with the Water Framework Directive. Catchment Flood Management Plans (prepared by the Environment Agency) and Shoreline Management Plans (prepared by coastal Local Authorities and the Environment Agency) set out long term policies for flood risk management. The delivery of the policies from these long term plans will help to achieve the objectives of these plans and the River Basin Management Plans. Much of the Council's Administrative Area is at a low to moderate flood risk (based on the North Essex Catchment Flood Management Plan (CFMP; EA 2009) with the exception of areas of Chelmsford (which are vulnerable to fluvial flooding) and the lower-lying coastal areas around South Woodham Ferrers. Development supported by the Local Plan is unlikely to significantly alter the regional flood risk levels, but may exacerbate the effects of local flooding: run-off from impermeable surfaces can have considerable effects on watercourses. This can lead to local water quality impacts on European sites. The effect of run-off from developed areas can be mitigated or reduced by the use of SuDS and by increasing the area of permeable surfaces (both natural and artificial) within developed areas.

## Effects on Functional Habitats Outside of European Sites

The provisions of the Habitats Regulations ensure that 'direct' (encroachment) effects on European sites as a result of land use change (i.e. the partial or complete destruction of a European site) are extremely unlikely under normal circumstances, and this will not occur as a result of the Local Plan. However, many European interest features (particularly more mobile animal species) may use or be reliant on non-designated habitats outside of a European site during their life-cycle. Developments some way from a European site can therefore have an effect if its interest features are reliant on the habitats being affected by the development. All of the above aspects (recreation, water resources, etc.) can therefore also affect European site integrity indirectly through effects on functional habitats outside of the designated site boundary. With regard to the European sites within the study area, this is only considered a potential issue for the Crouch and Roach Estuaries SPA and Crouch and Roach Estuaries Ramsar, specifically in relation to wintering Dark-bellied Brent geese which are known to forage in agricultural fields at low and high tide. Indeed, Ward (2004) suggests that the majority of birds associated with the Crouch and Roach now forage inland on fields near the estuary, although aggregations on the Crouch are still recorded around Brandyhole (south of the estuary) and Bridgemarsh Island. The species' use of farmland appears variable according to cropping patterns and is not well-recorded by the standard Wetland Bird Survey (WeBS) monitoring techniques.

<sup>&</sup>lt;sup>21</sup> All sewerage pipes have a certain capacity, determined by the size of the pipe and the receiving WTW. At times of high rainfall, this capacity can be exceeded, with the risk of uncontrolled bursts. CSOs provide a mechanism to prevent this, by allowing untreated sewerage to mix with surface water run-off when certain volumes are exceeded. This is then discharged to the nearest watercourse.






# 4.1 Initial Screening of European Sites

All European sites within 15km of the Council's Administrative Area have been included in the scope of the HRA. Often, however, sites or interest features within a study area can be excluded from further assessment at an early stage ('screened out') because the plan or project will self-evidently have either 'no effect' or 'no significant effect' on these sites (i.e. the interest features are not sensitive to the likely effects of a plan or project; or are not likely to be exposed to those effects due to the absence of any reasonable impact pathways).

The following sections provide a brief summary of the screening of the European sites and their interest features based on the baseline data summarised in Section 3 above and the policies and proposals of the Preferred Options Consultation Document. It should be noted that this aspect of the screening process is a 'low bar', with sites, aspects or features only 'screened out' if they will self-evidently be unaffected by the Local Plan (i.e. it is aiming to identify those aspects that will clearly have 'no effect' or 'no significant effect' (alone or in combination) due to an absence of impact pathways). It does not necessarily imply a conclusion of 'significant effects' for those sites that are 'screened in' since controls within the Local Plan (i.e. policy measures) will also operate to minimise these effects (these are considered in Section 5); rather, it allows for the policy development to focus on those effects that are potentially important, and which may require bespoke policy measures to prevent significant effects in addition to the general protective policies.

The screening of the sites and interest features takes account of those general protective policies that are proposed within the Preferred Options Consultation Document, notably Strategic Policy S6 (Conserving and Enhancing the Natural Environment) and Policy NE1 (Ecology and Biodiversity). In addition, it is appropriate to assume that all relevant lower tier consents and permissions (etc.) will be correctly assessed and controlled, and that any activities directly or indirectly supported by the Local Plan will adhere to the relevant legislative requirements and all normal best-practice (e.g. it would be inappropriate to assume that normal controls on, say, the installation of new discharge to a watercourse would not be correctly followed).

# Essex Estuaries SAC (Including Coincident Ramsar Features)

The Essex Estuaries SAC covers the major estuaries of the rivers Colne, Blackwater, Crouch and Roach and the associated intertidal and subtidal habitats. The saltmarsh at the site is known to be generally eroding, due to sea level rise, and so realignment and habitat creation schemes associated with the Shoreline Management Plan and Regional Habitat Creation Programme are an important component of the drive to achieve favourable condition. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. Where appropriate, specific estuaries within the complex (e.g. the Blackwater) are identified, since not all areas of this SAC are likely to be equally exposed to the outcomes of the Local Plan.

| Aspect                   | Screening summary  | Consider further?           |
|--------------------------|--|-----------------------------|
| Recreational<br>pressure | The SAC is within the Chelmsford City Council (CCC) Administrative Area along the Crouch estuary at South Woodham Ferrers, and other estuary habitats may be affected by this aspect. Component estuaries within 8km of the CCC area are considered further. | Yes (components within 8km) |
| Urbanisation             | Effects possible only in relation to the Crouch and Roach components of the SAC and development around South Woodham Ferrers.  | Yes (Crouch Estuary only)   |

# Table 4.1 Summary of site screening based on impact pathways



| Aspect   | Screening summary   | Consider further?  |
|--|---|--|
| Atmospheric<br>pollution                       | The habitat features of the SAC are not particularly sensitive to atmospheric pollutants<br>and the major road routes in and through the Chelmsford area are not within 200m of<br>the site. The possible exception to this is the area around South Woodham Ferrers,<br>where the A132 is approximately 230m from the European site at its closest point; this<br>road may experience increases in traffic volumes associated with growth around South<br>Woodham Ferrers.   | Yes (Crouch Estuary<br>only)   |
| Water resources                                | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within Chelmsford can be accommodated based on the available data. However, the Local Plan policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation).                                    | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision.                 |
| Water quality                                  | The features of this site are sensitive to water quality changes, particularly if this results in eutrophication or smothering, although the tidal processes will attenuate local effects to some extent. Impacts from WwTW discharges are unlikely based on current and predicted capacity data (see <b>Section 3.3</b> ) and so effects are most likely from diffuse pollution or local point sources such as CSOs or unconsented discharges. These will largely be controlled by the EA although the Local Plan policies should aim to ensure that run off is managed appropriately. | No, although ensure<br>policies reflect need<br>to manage run-off<br>and plan for<br>sewerage provision. |
| Flooding / water<br>management                 | Most of this site will have limited sensitivity to flooding or water management effects, comprising sub-tidal or intertidal habitats, or localised areas of grazing marsh (management of water levels usually controlled). Effects on the SAC due to the Local Plan only have the potential to occur around South Woodham Ferrers, where development could conceivably encroach on wetter areas associated with the site, but this is likely to be localised.   | Consider with regard<br>to specific<br>allocations only.   |
| Effects on mobile<br>species away<br>from site | Site does not support any mobile interest features.   | No   |

# Crouch and Roach Estuaries SPA (Including Coincident Ramsar Features)

The Crouch and Roach Estuaries SPA covers a complex of salt marsh, grazing marsh and intertidal habitats that provide important feeding and roosting sites for large numbers of waders and waterfowl in winter, particularly Dark-bellied Brent Geese. The site is within the Council's Administrative Area at South Woodham Ferrers.

| Table 4.2 | Summary of | site screening | based on i | mpact pathways |
|-----------|------------|----------------|------------|----------------|
|           |            |                |            |                |

| Aspect                   | Screening summary   | Consider further?  |
|--------------------------|---|--|
| Recreational pressure    | The SPA is within the CCC area along the Crouch estuary at South Woodham Ferrers; features senisitive and potentially exposed to increased recreational pressure.   | Yes  |
| Urbanisation             | The SPA is within the CCC area along the Crouch estuary at South Woodham Ferrers; features senisitive and potentially exposed to increased urbanisation pressure  | Yes  |
| Atmospheric<br>pollution | The habitat features of the SPA are not particularly sensitive to atmospheric pollutants<br>and the major road routes in and through the Chelmsford area are not within 200m of<br>the site. The possible exception to this is the area around South Woodham Ferrers,<br>where the A132 is approximately 230m from the European site at its closest point; this<br>road may experience increases in traffic volumes associated with growth around South<br>Woodham Ferrers. | Yes  |
| Water resources          | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within Chelmsford can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be                                 | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision. |



| Aspect   | Screening summary   | Consider further?  |
|--|---|--|
|  | appropriate to review this conclusion following completion of the 2019 WRMP (in preparation).   |  |
| Water quality                                  | The features of this site are sensitive to water quality changes, particularly if this results in eutrophication or smothering, although the tidal processes will attenuate local effects to some extent. Impacts from WwTW discharges are unlikely based on current and predicted capacity data (see <b>Section 3.3</b> ) and so effects are most likely from diffuse pollution or local point sources such as CSOs or unconsented discharges. These will largely be controlled by the EA although the Local Plan policies should aim to ensure that run off is managed appropriately. | No, although ensure<br>policies reflect need<br>to manage run-off<br>and plan for<br>sewerage provision. |
| Flooding / water<br>management                 | Areas of grazing marsh associated with this site will be sensitive to changes in flooding<br>or water management, although these areas will generally be managed locally in this<br>regard in any case and will not be affected by the plan proposals unless within close<br>proximity to the site.   | Consider with regard<br>to specific<br>allocations only.   |
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and Dark-bellied brent geese are known to use agricultural land outside the SPA boundary for feeding, so may be exposed to urbanisation or proximity effects associated with the allocations.   | Yes  |

# Blackwater Estuary SPA (Including Coincident Ramsar Features)

This site is approximately 5km from the Council's Administrative Area at its closest point. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. The features of the SAC are vulnerable to a range of potential impacts including: direct encroachment; coastal squeeze or developments (etc.) that alter natural geomorphological processes; visitor pressure; management; air quality changes; and local water quality / quantity changes (note, current abstraction and discharge consents are not having an adverse effect on the site, based on Review of Consent data).

| Aspect                   | Screening summary   | Consider further?  |
|--------------------------|---|--|
| Recreational pressure    | SPA is outside the CCC area but within 8km of the boundary. The SPA interest features (in particular) are thought to be potentially vulnerable to increased visitor pressure, and this aspect may operate in combination with other plans and programmes.   | Yes  |
| Urbanisation             | No site allocations are within 500m of the site and therefore the Local Plan will have no effect via this pathway.  | No   |
| Atmospheric<br>pollution | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.   | No   |
| Water resources          | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation).  | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision                  |
| Water quality            | The features of this site are sensitive to water quality changes, particularly if this results in eutrophication or smothering, although the tidal processes will attenuate local effects to some extent. Impacts from WwTW discharges are unlikely based on current and predicted capacity data (see Section 3.3) and so effects are most likely from diffuse pollution or local point sources such as CSOs or unconsented discharges. These will largely be controlled by the EA although the Local Plan policies should aim to ensure that run off is managed appropriately. | No, although ensure<br>policies reflect need<br>to manage run-off<br>and plan for<br>sewerage provision. |

### Table 4.3 Summary of site screening based on impact pathways



| Aspect   | Screening summary   | Consider further? |
|--|---|-------------------|
| Flooding / water<br>management                 | Areas of grazing marsh associated with this site will be sensitive to changes in flooding or water management, although these areas will generally be managed locally in this regard in any case and will not be affected by the plan proposals unless within close proximity to the site.                          | No                |
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and Dark-bellied brent geese are known to use agricultural land outside the SPA boundary for feeding. However, it is unlikely that birds associated with this site will make significant use of land within the CCC area and so are unlikely to be affected via this pathway. | No                |

### Benfleet and Southend Marshes SPA (Including Coincident Ramsar Features)

This site is approximately 8.4km from the Council's Administrative Area, and is not hydrologically connected. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion.

#### Table 4.4 Summary of site screening based on impact pathways

| Aspect   | Screening summary  | Consider further?   |
|--|--|---|
| Recreational pressure                          | SPA is outside the CCC area and over 8km from the site boundary; it is therefore<br>unlikely that allocations or developments within the CCC area will contribute<br>significantly to the number of visits to this site, although there may be weak in<br>combination effects.   | Yes (in combination)  |
| Urbanisation                                   | No site allocations are within 500m of the site and therefore Local Plan will have no effect via this pathway.   | No  |
| Atmospheric<br>pollution                       | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.  | No  |
| Water resources                                | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation). | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision |
| Water quality                                  | This site is not hydrologically connected to the CCC area and so no effects will occur.  | No  |
| Flooding / water<br>management                 | Areas of grazing marsh associated with this site will be sensitive to changes in flooding<br>or water management, although these areas will generally be managed locally in this<br>regard in any case and will not be affected by the plan proposals unless within close<br>proximity to the site.  | No  |
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and Dark-bellied brent geese are known to use agricultural land outside the SPA boundary for feeding. However, it is unlikely that birds associated with this site will make significant use of land within the CCC area and so are unlikely to be affected via this pathway.  | No  |

### Foulness SPA (Including Coincident Ramsar Features)

This site is approximately 14km from the Council's Administrative Area, and is not hydrologically connected. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. The site is owned by the Ministry of Defence and so access is partly restricted.



| Aspect                                   | Screening summary   | Consider further?  |
|--|---|--|
| Recreational pressure                    | SPA is outside the CCC area and over 8km from the CCC boundary; it is therefore<br>unlikely that allocations or developments within the CCC area will contribute<br>significantly to the number of visits to this site, particularly as access is partly restricted<br>by the MoD in any case, although there may be weak in combination effects.   | Yes (in combination)   |
| Urbanisation                             | No site allocations are within 500m of the site and therefore Local Plan will have no effect via this pathway.  | No   |
| Atmospheric<br>pollution                 | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.   | No   |
| Water resources                          | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation).  | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision                  |
| Water quality                            | The features of this site are sensitive to water quality changes, particularly if this results in eutrophication or smothering, although the tidal processes will attenuate local effects to some extent. Impacts from WwTW discharges are unlikely based on current and predicted capacity data (see Section 3.3) and so effects are most likely from diffuse pollution or local point sources such as CSOs or unconsented discharges. These will be negligible due to the location of the site relative to the Chelmsford area. These will largely be controlled by the EA although the Local Plan policies should aim to ensure that run off is managed appropriately. | No, although ensure<br>policies reflect need<br>to manage run-off<br>and plan for<br>sewerage provision. |
| Flooding / water<br>management           | Areas of grazing marsh associated with this site will be sensitive to changes in flooding or water management, although these areas will generally be managed locally in this regard in any case and will not be affected by the plan proposals unless within close proximity to the site.  | No   |
| Effects on mobile species away from site | The bird interest features are mobile and Dark-bellied brent geese are known to use agricultural land outside the SPA boundary for feeding. However, it is unlikely that birds associated with this site will make significant use of land within the CCC area and so are unlikely to be affected via this pathway.   | No   |

### Table 4.5 Summary of site screening based on impact pathways

# Thames Estuary and Marshes SPA (Including Coincident Ramsar Features)

The vast majority of this site is located on the southern side of the Thames estuary, although a small area (Mucking Flats) is located on the northern side of the estuary approximately 13km from the Council's Administrative Area. The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. The Mucking Flats area is all in favourable' or 'unfavourable recovering' condition.

| Aspect                | Screening summary  | Consider further?    |
|-----------------------|--|----------------------|
| Recreational pressure | SPA is outside the CCC area and over 8km from the CCC boundary; it is therefore<br>unlikely that allocations or developments within the CCC area will contribute<br>significantly to the number of visits to this site although there may be weak in<br>combination effects. | Yes (in combination) |
| Urbanisation          | No site allocations are within 500m of the site and therefore Local Plan will have no effect via this pathway.   | No                   |

### Table 4.6 Summary of site screening based on impact pathways



| Aspect   | Screening summary  | Consider further?   |
|--|--|---|
| Atmospheric<br>pollution                       | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.  | No  |
| Water resources                                | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation). | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision |
| Water quality                                  | This site is not hydrologically connected to the CCC area and so no effects will occur.  | No  |
| Flooding / water<br>management                 | Areas of grazing marsh associated with this site will be sensitive to changes in flooding<br>or water management, although these areas will generally be managed locally in this<br>regard in any case and will not be affected by the plan proposals unless within close<br>proximity to the site.  | No  |
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and some are known to use agricultural land outside the SPA boundary for feeding or roosting. However, it is unlikely that birds associated with this site will make significant use of land within the CCC area and so are unlikely to be affected via this pathway.  | No  |

### Abberton Reservoir SPA (Including Coincident Ramsar Features)

This reservoir is located approximately 17km from the Council's Administrative Area, and is not hydrologically connected other than via its role as a storage reservoir for the ESW Essex WRZ. The site is therefore closely managed and controlled, and so opportunities for effects as a result of the Local Plan are more limited than with other sites. The site is 'favourable' condition.

### Table 4.7 Summary of site screening based on impact pathways

| Aspect                         | Screening summary  | Consider further?   |
|--------------------------------|--|---|
| Recreational pressure          | Public access to the reservoir is limited and controlled by ESW, and access is designed to minimise effects on the interest features of the site. Effects as a result of the Local Plan are therefore very unlikely given the control over access (and hence exposure) that can be ensured at this site.   | No  |
| Urbanisation                   | No site allocations are within 500m of the site and therefore Local Plan will have no effect via this pathway.   | No  |
| Atmospheric<br>pollution       | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.  | No  |
| Water resources                | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site, which is in favourable condition). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation). | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision |
| Water quality                  | This site is not hydrologically connected to the CCC area and so no effects will occur.  | No  |
| Flooding / water<br>management | Areas of grazing marsh associated with this site will be sensitive to changes in flooding<br>or water management, although these areas will generally be managed locally in this<br>regard in any case and will not be affected by the plan proposals.   | No  |



| Aspect   | Screening summary   | Consider further?  |
|--|---|--|
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and will make use of the nearby estuaries for feeding; this is particularly true of the cormorant population. The features of the site may therefore be exposed to increased visitor pressure on the nearby estuarine sites. This effect is likely to be relatively weak, and can obviously be avoided if effects on the estuarine sites are avoided, and therefore this is considered in this context. | Yes (in association<br>with recreational<br>pressure in<br>combination). |

# Dengie SPA (Including Coincident Ramsar Features)

This site is a large and remote area of tidal mudflat and saltmarsh at the eastern end of the Dengie peninsula, between the Blackwater and Crouch Estuaries, located approximately 20km from the Council's Administrative Area. It is not hydrologically connected to Chelmsford (except at the mouths of the adjacent estuaries). The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion.

### Table 4.8 Summary of site screening based on impact pathways

| Aspect   | Screening summary   | Consider further?   |
|--|---|---|
| Recreational pressure                          | Dengie is particularly remote in an Essex context and visitor numbers are known to be relatively low. Most of the site is over 20km from the Chelmsford area and even the closest town within the CCC area (South Woodham Ferrers) is approximately 30 minutes drive away. It is therefore considered unlikely that the CCC area contributes significantly to the currentl recreational pressure at the site, and the growth of the area is unlikely to increase this. Furthermore, the measures that would be employed to reduce recreational pressure on the closer sites (e.g. Crouch and Roach Estuaries SPA) will arguably be effective in moderating pressure on this site. | No  |
| Urbanisation                                   | No site allocations are within 500m of the site and therefore Local Plan will have no effect via this pathway.  | No  |
| Atmospheric<br>pollution                       | Some supporting habitats are vulnerable to diffuse atmospheric pollution and eutrophication, although eutrophication via agricultural run off and flood water is overwhelmingly more significant than air pollution. The distance of the site from the CCC area ensures that significant air quality changes as a result of the plan proposals are unlikely to occur.   | No  |
| Water resources                                | The site features are water resource sensitive, and potentially vulnerable to increased abstraction (although this is not currently affecting the site, which is in favourable condition). The ESW WRMP will have no significant effects on this site, based on its HRA, and therefore growth within CCC can be accommodated based on the available data. However, the policies should allow for the early identification of infrastructure requirements and it may be appropriate to review this conclusion following completion of the 2019 WRMP (in preparation).  | No, although ensure<br>policies reflect need<br>to plan for water<br>resource provision |
| Water quality                                  | This site is not hydrologically connected to the CCC area and so no effects will occur.   | No  |
| Flooding / water<br>management                 | Areas of grazing marsh associated with this site will be sensitive to changes in flooding<br>or water management, although these areas will generally be managed locally in this<br>regard in any case and will not be affected by the plan proposals.  | No  |
| Effects on mobile<br>species away<br>from site | The bird interest features are mobile and some are known to use agricultural land outside the SPA boundary for feeding or roosting. However, it is unlikely that birds associated with this site will make significant use of land within the CCC area and so are unlikely to be affected via this pathway.   | No  |



# 4.2 Initial Screening of Plan Components: Policies and Allocations

### **Overview**

The Preferred Options Consultation Document includes 91 policies (plus 6 sub-policies associated with a strategic allocation in Chelmsford) and 44 site allocations across the following chapters:

- Our Vision and Spatial Principles (1 policy);
- Creating Sustainable Development (6 policies);
- How will Future Growth be Accommodated? (8 policies);
- Where will Development Growth be Focused? (45 policies);
- Protecting and Securing Important Assets (22 policies);
- Making High Quality Places (9 policies).

The following sub-sections consider the potential effects on European sites associated with:

- the strategic and development control policies (including any protective policies that may be relevant); and
- the allocation sites and their associated policies (Chapter 7 of the Preferred Options Consultation Document) (to identify any potential need for bespoke mitigation measures within these policies).

# **Policy Screening**

### Approach

The emerging policies contained in the Preferred Options Consultation Document have been screened. The screening process has considered the European sites potentially vulnerable to the Local Plan and the likely outcomes of the policies as drafted. Policies may have effects in their own right, or they may be used to control potential effects or prevent them occurring. A policy 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 the plan 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. However, it is important that the policy assessment focuses on effects that are objectively possible, rather than just imaginable; furthermore, it is not appropriate for policies to simply re-state existing legislation in place of appropriate mitigating measures.

When considering the likely effects of a policy, it is recognised that some policy 'types' cannot result in impacts on any European sites. Different guidance documents suggest various classification and referencing systems to help identify those policies that can be safely screened out; the general characteristics of these policy types are summarised in **Table 4.10**.

| Broad Policy Type   | Notes   |
|---|---|
| General statements of policy / aspiration   | The European Commission recognises* that plans or plan components that are general statements of policy or political aspirations cannot have significant effects; for example, general commitments to sustainable development.  |
| General design / guidance criteria<br>or policies that cannot lead to or<br>trigger development | A general 'criteria based' policy expresses the tests or expectations of the plan-making body when it comes to consider proposals, or relates to design or other qualitative criteria which do not themselves lead to development (e.g. controls on building design); however, policies with criteria relating to specific proposals or allocations should not be screened out. |

### Table 4.9 Policy 'types' that can usually be screened out



| Broad Policy Type   | Notes  |  |  |
|---|--|--|--|
| External plans / projects   | Plans or projects that are proposed by other plans and are referred to in the plan being assessed for completeness (for example, Highways Agency road schemes; specific waste development proposals promoted by a County Minerals and Waste Plan).   |  |  |
| Environmental protection policies   | Policies designed to protect the natural or built environment will not usually have signifcant or adverse effects (although they may often require modification if relied on to provide sufficient safeguards for other policies).   |  |  |
| Policies which make provision for<br>change but which could have no<br>conceivable effect | Policies or proposals the which cannot affect a European site (no impact pathways and hence no effect; for example, proposals for a new cycle path several kilometres from the nearest European site) or which cannot undermine the conservation objectives, either alone or in combination, if impact pathways exist (no significant effect). |  |  |

\* EC, 2000, Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC April 2000 at 4.3.2

It should be noted that it is inappropriate to apply a policy classification tool uncritically to all policies of a certain type; there will obviously be some occasions when a policy or similar may have potentially significant effects, despite being of a 'type' that would normally be screened out. The criteria in **Table 4.10** have therefore been applied critically to the screening of the Local Plan policies to identify the following policy groups:

- 'No effect' policies: policies that will have 'no effect' (i.e. policies that, if included as drafted, self-evidently would not have any effect on a European site due to the type of policy or its operation; for example, a policy controlling town centre shop signage; a policy setting out sustainable development criteria that developments must meet). Note that 'no effect' policies cannot have in-combination effects.
- 'No likely significant effect' policies: policies where impact pathways exist but the effects will not be significant (alone or in-combination).
- 'Uncertain effect' policies: policies where the precise effects on European sites (either alone or in combination) are uncertain, and hence additional investigation (appropriate assessment) or policy modification is required. Note that further investigation will often demonstrate that there is no significant effect or allow suitable mitigation or avoidance measures to be identified to ensure this.
- 'Likely significant effect' policies: policies which are likely to have a significant effect (either alone or in-combination) and hence which require additional investigation (appropriate assessment) or policy modification. Note that 'likely significant effect' policies are more likely to require that the policy be amended, abandoned or re-worked to avoid significant effects.

### Screening Outcomes

The review of the policies that comprise the Preferred Options Consultation Document is detailed in **Appendix B**; suggestions for policy changes or amendments are made although these are not intended to be prescriptive and a number of approaches for ensuring 'no significant effects' would be acceptable (for example, a policy with a potential significant effect could be abandoned; or modified; or cross-referenced to an over-riding protective policy). The colour coding used in the **Appendix B** tables is as follows:



### Table 4.10 Colour coding for initial review of Local Plan policies

| No LSE – policy will not or cannot affect any European sites and can therefore be screened out (subject to brief review of final policy) |
|--|
| No LSE, but amendments recommended; policies that will not affect any European sites but which could be enhanced or strengthened         |
| Policy requires changes to avoid significant effects (e.g. minor re-wording; referencing mitigating policies), or effects are uncertain. |
| Significant effects likely; policy should be abandoned or re-worked to include specific mitigation (may apply to groups of policies)     |

Note that the inclusion of a policy in the 'red' or 'yellow' categories does not mean that significant effects are inevitable since in many instances the assessments reflect uncertainties that needs to be explored through further assessment (and it would be possible to undertake an appropriate assessment stage and still conclude (following a further screening) that there will be no significant effects).

The screening of the proposed Local Plan policies accounts for overarching or cross-cutting protective policies that may potentially be relied on to ensure that other policies, particularly those that promote or support development but which do not specify the scale or location of that development, do not have significant effects. Note that these policies will not automatically be sufficient to prevent significant effects for all policies, and some policies may require bespoke measures to ensure that significant effects do not occur. The key mitigating policies are:

- Strategic Policy S6 (Conserving and Enhancing the Natural Environment) sets general requirements and commitments to the protection of natural features, including European sites.
- Policy NE1 (Ecology and Biodiversity) sets out requirements and expectations regarding effects on designated sites.
- Policy NE3 (Flooding/SuDS) requires the use of SuDS in larger developments.
- Allocation-specific policies that require the provision / enhancement of green space and infrastructure in developments (Chapter 7).

The review also includes an assessment of 'in-combination' effects between policies.

**Table 4.12** provides a summary of the preferred options policy assessment. It highlights that the vast majority of the policies contained in the Preferred Options Consultation Document have been categorised as 'no effect' or 'no significant effect' policies.

| Policy Status                              | Policies | / Policy Groups   | Notes and recommendations  |
|--|----------|---|--|
| No LSE, but<br>enhancements<br>recommended | S6       | Conserving and<br>Enhancing the<br>Natural<br>Environment | Environmental protection policy. General principles are sound although there may be some benefit in highlighting the importance of utilities provision, for example "The Council will ensure that any new development does not contribute to water pollution and, where possible, enhances water quality. This can be achieved through the use of Sustainable Drainage Systems, which when well designed, may also contribute to enhancing biodiversity and amenity in Chelmsford. Developers should also ensure that there is adequate sewerage capacity and provision to support their proposals". |

### Table 4.11 Summary of review of Local Plan policies and recommendations



| Policy Status                             | Policies / Policy Groups |                                   | Notes and recommendations   |  |
|---|--------------------------|-----------------------------------|---|--|
|   | NE1                      | Ecology and<br>Biodiversity       | Environmental protection policy. General principles are sound but it is recommended that the text be amended slightly to more accurately reflect existing legislative requirements, and ensure that features are safeguarded rather than simply the sites themselves, for example: "Planning permission will not be granted where the development would result in harm to adversely affect the interest features or ecological functioning of designated sites of international, national and local importance, and any other site where protected species are likely or known to be present, unless it can be clearly demonstrated that any harm resulting from the development can be avoided or adequately mitigated. The weight given to the protection of such sites will be dependent on the level of designation. Where development proposals do not comply with the above, they will only be permitted if it has been clearly demonstrated that there is no alternative and that appropriate compensatory measures can be delivered". |  |
| LSE possible                              | S8                       | Development<br>Requirements       | This policy sets out the growth intentions for the Local Plan area and therefore<br>is linked to the consideration of possible in combination effects due to<br>recreational pressure.  |  |
|   | S9                       | The Spatial<br>Strategy           | This policy sets out the proposed spatial distribution of growth; the principle aspect of potential conflict is the inclusion of South Woodham Ferrers in the top tier hierarchy, although this is arguably reasonable given that it is the main settlement area outside Chelmsford. This aspect is explored further.   |  |
|   | SGS8                     | North of South<br>Woodham Ferrers | Allocation is within 500m of Crouch estuary sites so risk of effects by various pathways; modifications suggested following more detailed assessment.   |  |
| 'No effect' or 'no<br>significant effect' | All other                | policies                          | All other policies, as drafted, as considered unlikely to result in significant effects on any European sites or their interest features (alone or in combination), primarily due to the nature of the policy; most, in this regard, are 'no effect' policies.  |  |
| Significant<br>effects likely             | No policies              |                                   | None of the policies are likely to result in significant adverse effects based on the incorporated mitigation measures.   |  |

Note, the recommendations in **Table 4.12** provide guidance only; the incorporation of these amendments, or similar, is assumed within the assessment of the likely effects of the preferred options, although this obviously can only be confirmed during the final stages of the Local Plan's development.

# 4.3 Site Allocations

The preferred site allocations contained in the Preferred Options Consultation Document (and the associated policies set out in Chapter 7) have been reviewed to identify those which (if developed) could result in significant effects on a European site. The review has largely focused on the identification of specific effects that might be associated with specific allocations (and which may therefore require the inclusion of allocation-specific mitigation within the associated policies) rather than the broader 'quantum of development' effects<sup>22</sup>. The risk of effects is obviously strongly dependent on how a particular development is implemented at the project stage and in most cases, potential effects can be avoided using best-practice and standard scheme-level avoidance measures which do not necessarily need to be specified for each allocation (for example, scheduling construction works near the Crouch and Roach SPA for the summer period to avoid potential disturbance of over-wintering birds). However, in some instances there may not be sufficient flexibility or safeguards provided within the Local Plan (as proposed) to ensure that a particular allocation could be delivered without significant effects, if bought forward.

The screening of the European sites (see Section 3.1) has identified recreational pressure as the most likely mechanism for significant effects to occur (other potential mechanisms, such as water resource demands,

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<sup>&</sup>lt;sup>22</sup> Effects due to the overall quantum of development are essentially a within-plan 'in combination' effect.



are unlikely to result in significant effects based on the currently available data and information on the consenting regimes, provided that suitable policy controls for ensuring infrastructure provision are included). The majority of the preferred site allocations are located in or around Chelmsford Urban Area and at Great Leighs – most notably the large 'North East Chelmsford' allocation (Strategic Growth Site 4) and the 'Moulsham Hall and North Great Leighs' allocation (Strategic Growth Site 5). As a result, all of the allocations are at least 10km from the nearest European site (typically the Blackwater Estuary SPA / Ramsar) with the exception of

- Strategic Growth Site 8 ('North of South Woodham Ferrers'), which is within 500m of the Crouch estuary and hence the Crouch and Roach Estuaries SPA / Ramsar and the Essex Estuaries SAC; and
- the three allocations (PF38, PF39 and PF42) comprising Growth Site 9 ('Bicknacre'), located around Bicknacre and approximately 5 – 6km from the Crouch estuary at South Woodham Ferrers.

GIS modelling of driving times from the allocation sites to the roads nearest to the European sites (see **Figures 4.1 – 4.10**) indicates that most allocations (particularly those around Chelmsford City) are almost 30 minutes away from nearest access points to the European sites. Whilst residents from these allocations will almost certainly visit the European sites periodically, it is extremely unlikely that they will do so frequently that the position of the '75% distance' for most of these sites (i.e. the area within which 75% of visits, as opposed to visitors, originate) will be significantly altered. Therefore, despite the size of some of the strategic growth allocations, it is considered unlikely that they will significantly affect a European site due to increased recreational pressure on their own, or in-combination with other Chelmsford site allocations. The exception to this is Strategic Growth Site 8 (North of South Woodham Ferrers), which is within 500m of the Crouch estuary. Therefore, it is considered that further examination of Strategic Growth Site 8 and Chelmsford's contribution to regional in-combination recreational effects is appropriate (see Section 5).

# 4.4 Summary of Initial Screening

The initial screening of the Preferred Options Consultation Document has concluded the following:

- All of the European sites are potentially vulnerable to regional 'in-combination' effects due to visitor pressure, to which the Chelmsford Local Plan will contribute (although this contribution is likely to be relatively limited), and therefore this aspect would benefit from further consideration to ensure that effects as a result of the Local Plan do not occur.
- None of the preferred site allocations are likely to result in significant effects alone, with the possible exception of Strategic Growth Site 8 (North of South Woodham Ferrers), which is within 500m of the Crouch estuary; the potential effects of this allocation on the Crouch estuary sites are therefore considered in more detail in Section 5.
- Other potential pathways for sites to be affected, notably through changes in water quality or water resource permissions, are unlikely to be realised. The scale of any effects will depend on separate consenting (etc.) regimes that the Local Plan must complement and support through appropriate policy controls, but it is considered that policy controls within the Local Plan can adequately mitigate the risk of effects.
- The screening of the proposed Local Plan policies has demonstrated that the vast majority will have no effect on any European sites, typically because they are policy types that do not make provision for changes. In some instances, recommendations are made to improve the performance of the policies with respect to European sites, and the inclusion of these amendments (or similar) will help ensure that the Local Plan (as a whole) ultimately has no significant effects on any European sites.



There are consequently two principal aspects which would benefit from further consideration to ensure that effects as a result of the Local Plan do not occur: the likely effects of the plan due to 'in-combination' recreational pressure; and from the likely development Strategic Growth Site 8 (North of South Woodham Ferrers). This allows those aspects where there is a risk of significant effects to be explored in more detail, and the likely effectiveness of any bespoke measures to be tested, to ensure the initial screening conclusions are robust.

























# 5. Assessment of Residual Uncertainties

# 5.1 Overview

The initial screening of the Preferred Options Consultation Document in **Section 4** has identified two principal aspects of the Local Plan where there are residual uncertainties regarding effects on European sites, specifically:

- potential effects from the likely development Strategic Growth Site 8 (North of South Woodham Ferrers); and
- the contribution of the Local Plan to regional 'in-combination' effects due to visitor pressure.

These aspects are reviewed in this section. Additional data and interpretation is provided to allow for a reasonable assessment of the effects, and to identify appropriate mitigation which can be included within the Local Plan to ensure that adverse effects do not occur. The section references the baseline data provided in **Section 3**.

# 5.2 Strategic Growth Site 8 (North of South Woodham Ferrers)

Strategic Growth Site 8 (SGS8) is an approximately 110 ha. greenfield allocation located across the northern edge of South Woodham Ferrers, between the junction of the A132 and B1012, and the Chelmsford boundary east of Bushy Hill. This allocation is covered by a specific policy in the plan (Strategic Growth Site 8 – North of South Woodham Ferrers) and is expected to comprise:

- ~1,000 new homes, including provision for specialist residential accommodation, self-build and custom-build housing;
- a 5-plot Travelling Showpersons' site;
- 1,000sqm of Flexible Business Space;
- 1,900sqm of food retail floorspace;
- > a new primary school and early years and childcare nursery.

Consequently, the allocation is a relatively large development that is likely to increase the population of South Woodham Ferrers by around 14%<sup>23</sup>.

The SGS8 allocation is close to the Crouch estuary and hence the **Crouch and Roach Estuaries SPA**; the **Crouch and Roach Estuaries Ramsar**; and the **Essex Estuaries SAC**. The western side of the allocation is approximately 280m from these sites at Fenn Creek, to the west of South Woodham Ferrers (the allocation also includes a small tributary of Fenn Creek); the eastern edge is approximately 250m from the creeks at Saltcoats Park, which are included within the SPA and Ramsar sites. As a result, there is scope for this allocation to significantly affect these sites, principally through:

- recreational pressure and urbanisation affecting habitats and species, including functional habitats outside European site boundaries;
- water quality changes, particularly from run off;
- local changes in air quality associated with increased traffic volumes.

The likely effects of these pressures on the Crouch and Roach Estuaries SPA; the Crouch and Roach Estuaries Ramsar; and the Crouch estuary component of the Essex Estuaries SAC are examined in the

<sup>&</sup>lt;sup>23</sup> The 2011 Census population data are reported by 'Lower Super Output Area' (LSOAs), geographical areas that were introduced in 2004 to improve the reporting of small area statistics. The LSOAs for South Woodham Ferrers indicate that the population was around 16,690 in 2011 (it is likely to be larger now); the approximate population equivalent of the SGS8 allocation, based on an average occupancy of 2.3 people per home, would be 2,300.



following sub-sections, with appropriate additional plan-level mitigation measures identified and recommended. It should be noted that this assessment is necessarily high-level and must assume that all normal permissions and consents will be met; the assessment is therefore aiming to identify those aspects that cannot obviously be mitigated or avoided at the scheme level using standard measures that are known to be available, achievable and judged likely to be effective, and which therefore may require bespoke policy-based measures within the Local Plan.

### **Current Issues and Threats to European Sites**

### Crouch and Roach SPA / Ramsar

The Crouch and Roach Estuaries SPA covers a complex of salt marsh, grazing marsh and intertidal habitats that provide important feeding and roosting sites for large numbers of waders and waterfowl in winter, particularly Dark-bellied Brent Geese. The Ramsar site is largely coincident with the SPA, and is essentially designated for the same wintering bird features (although the site also meets Ramsar Criterion 2 for the rare, vulnerable or endangered species of plant and invertebrates that are predominantly associated with the supra-tidal and terrestrial habitats of the grazing marshes). The majority of the site is in 'favourable' or 'unfavourable recovering' condition, with the latter generally being areas of saltmarsh that are under pressure from erosion. There are four small areas of grazing marsh in 'unfavourable no change' condition due to inappropriate management (e.g. insufficient grazing) although these are not near to SGS8. The SIP indicates that the main pressures on the SPA features are coastal squeeze; general development; public disturbance; fisheries (particularly bait digging); and invasive species. It should also be noted that the main feature of the SPA, Dark-bellied Brent geese, are known to forage in non-designated agricultural fields at low and high tide, a behaviour that is variable according to cropping patterns and not well-recorded by the standard Wetland Bird Survey (WeBS) monitoring techniques. The SPA in this area also covers part of the March Farm Country Park.

### Essex Estuaries SAC

The Essex Estuaries SAC covers the major estuaries of the rivers Colne, Blackwater, Crouch and Roach and the associated intertidal and subtidal habitats, although this assessment focuses on the features associated with the Crouch estuary. The main interest features of Crouch estuary component of the SAC are therefore:

- Estuaries;
- Mudflats and sandflats not covered by seawater at low tide;
- Salicornia and other annuals colonizing mud and sand ;
- Spartina swards (Spartinion maritimae);
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*).

Unlike the other local estuaries, the intertidal zones of the Crouch estuary is relatively narrow and constrained by the sea walls, particularly in its upper reaches, and the SAC around South Woodham Ferrers essentially comprises a series of tidal creeks. These areas are all in unfavourable recovering condition, primarily due to salt-marsh erosion which is being addressed through regional habitat creation programmes. The SIP indicates that the main pressures on the SAC features are coastal squeeze; general development; fisheries; invasive species; and air pollution (particularly nitrogen deposition), although the minimum critical load for nitrogen is only exceeded in relation to the 'Mudflats and sandflats not covered by seawater at low tide' feature (see **Table 3.5**).

### **Recreational Pressure**

Damage of habitats or disturbance of species due to recreational activities can be a significant problem at some sites, although the relationship is highly variable and depends on a range of factors including the habitats, the species, the time of year and the scale, type and predictability of disturbance. With regard to the Crouch estuary sites, the main concerns are associated with the bird interest features of the SPA and



Ramsar, and therefore the following section focuses on these receptors; however, the mitigation required for these features is likely to be suitable to minimise impacts on the SAC features also.

Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat). However, birds will also display a range of subtle behavioural responses that can have an energetic cost, through reduced food intake and / or increased energy expenditure. Broadly, disturbance can therefore result in reduced breeding success or increase mortality. At the population scale this can be significant.

#### Allocations and Population Changes

As noted above, SGS8 is likely to increase the population of South Woodham Ferrers by around 14%. Visitor survey data is not available for the Crouch sites and therefore it is necessary to use reasonable proxies to estimate the potential increase in visitor pressure on the site as a result of the population increases predicted by the Local Plan. To provide some context, the current population distribution near the Crouch estuary, and the potential future distribution as a result of the Local Plan, was estimated using the 2011 Census data and the assumed housing levels for the allocations (see Appendix C). This is inevitably a coarse approximation, constrained by the resolution of the census data, but is nevertheless useful when considering the possible magnitude of any increases in recreational pressure. Table 5.1 summarises these data for the Crouch and Roach Estuaries SPA / Ramsar.

|              | ~Current Population* | Predicted increase |      |
|--------------|----------------------|--------------------|------|
|              |                      | Popn.              | %    |
| Within 500m  | 18,994               | 267                | 1.41 |
| Within 2.5km | 67,308               | 2204               | 3.27 |
| Within 5km   | 267,567              | 2251               | 0.84 |
| Within 7.5km | 401,044              | 2463               | 0.61 |
| Within 10km  | 501,355              | 2667               | 0.53 |
| Within 15km  | 775,885              | 11465              | 1.48 |

# Table 5.1 Anticipated population change near the Crouch and Roach Estuaries SPA / Ramsar associated with Chelmsford allocation proposals

\*Estimated, based on LSOA data.

### Site Considerations

Outside of the main settlements (South Woodham Ferrers, North Fambridge and Burnham-on Crouch on the northern bank; and Hullbridge on the southern bank) there are perhaps only five or six minor roads that provide direct access to the estuary, which are generally quite isolated. This means that there are comparatively few access points and much of the estuary requires a reasonably significant effort to access (e.g. walking several kilometres). It is therefore likely that most visitor pressure will be found around these access points; and that the roads on the north bank will generally be favoured by residents associated with SGS8.

It should also be recognised that the developed areas (i.e. South Woodham Ferrers, Burnham-on Crouch and Hullbridge in particular) are already reasonably substantial and that interest features using the SPA and Ramsar will be habituated to disturbance, particularly in the vicinity of these towns. Much of the SPA and Ramsar around South Woodham Ferrers is included within the Marsh Farm Country Park, an area of grazing marsh managed by Essex County Council (ECC) which provides *"ideal dog-walking and wildlife-spotting* 



opportunities, as well as a chance to explore many scenic riverside paths"<sup>24</sup> and which effectively provides a circular walking route around the town. This park allows some control of visitor pressure locally by facilitating recreation in a more closely managed area of the SPA / Ramsar, and residents from the SGS8 allocation are most likely to use this area due to its accessibility on foot and parking provision.

In addition, the principal areas used by Dark-bellied Brent geese within the SPA / Ramsar, based on WeBS data (Brandyhole (south of the estuary) and Bridgemarsh Island), are not easily accessed from South Woodham Ferrers and have little public access. This further reduces the potential for significant disturbance. It should also be noted that HRAs of the Rochford Core Strategy (2014) did not identify substantial measures to reduce the impacts of visitor pressure due to allocations around Hullbridge (although these allocations were smaller than that proposed for South Woodham Ferrers).

### Proposed / Incorporated Mitigation

There are no measures or controls currently identified within the preferred SGS8 policy that are specifically intended to manage potential increases in recreational pressure, although some aspects of the policy requirements are likely to have an effect in this regard, notably:

- the requirement for "an appropriate landscaped setting for development to mitigate visual, biodiversity and heritage impact of the development";
- a layout to be "dictated by wide green margins to include formal and informal public open space";
- the requirement for "provision and/or contribution towards new cycle routes, footpaths, Public Rights of Way and where appropriate bridleways between the site and the surrounding area, to enable the development to integrate with South Woodham Ferrers and provide links into the wider countryside".

These policy aspects could be enhanced to emphasise the importance of green space provision and improving access to areas away from the SPA / Ramsar.

### Assessment of Effects - Crouch and Roach SPA / Ramsar

The principle interest feature of these sites is the wintering population of Dark-bellied Brent geese. WeBS data from 2010/11 indicate that the majority of records of this species are associated with the more remote areas of the SPA / Ramsar, notably the creeks between the Roach and Foulness; the mouth of the Crouch; and the Crouch around Bridgemarsh Island, which is a known foraging and roosting area. These areas are several kilometres from South Woodham Ferrers and are only accessible except by walking along the sea wall. Previous WeBS surveys (1995/1996) found large aggregations around Brandyhole (south of the estuary), although this area did not appear to be used in 2004/5 and 2010/11, possibly due to displacement associated with amendments to the sea wall here.

However, Dark-bellied Brent geese are known to make significant use of agricultural areas adjacent or in close proximity to their estuarine roosts. This behaviour is known to be under-recorded by the standard Wetland Bird Survey (WeBS) monitoring technique, with the result that increasing attention is being paid to the use of agricultural areas by overwintering geese. Indeed, the 2016 SPA Review (JNCC 2016) includes Dark-bellied Brent geese in a broad group of species that are known to be reliant on cropped habitats, which are under-represented in the SPA network (although the SPA Review suggests that this should be addressed outside the SPA Review process through "*wider countryside measures to preserve and promote permanent pasture as feeding and roosting habitat for the species*"). Ward (2004) suggests that the majority of birds associated with the Crouch and Roach now forage inland on fields near or adjacent to the estuary. The 2016 SPA review notes that Brent geese show a high degree of site fidelity, returning to the same sections of coast within a site each year, and it is likely that this fidelity extends to their agricultural habitats (notwithstanding variations in cropping patterns).

Most waders and waterfowl are sensitive to disturbance or displacement due to sudden movements or noises. Disturbance will typically cause changes in behaviour such as the cessation of feeding and the

<sup>&</sup>lt;sup>24</sup> Essex Country Parks website; http://www.visitparks.co.uk/places/marsh-farm-country-park/



adoption of a 'heads up' alert posture, with increasing disturbance resulting in short flights or walks away from the affected area; displacement generally refers to longer term or larger scale movements away from areas that would normally be used.

Disturbance or displacement can affect bird species by:

- increasing energy expenditure (e.g. due to a flight response, or by reducing the time spent at roosts); and / or by
- reducing energy intake (e.g. by reducing feeding time due to increased vigilance, or by reducing foraging efficiency due to increased competition or unfamiliarity with new foraging areas that birds may be displaced to).

The net effects of disturbance or displacement can be quite variable and will depend on a number of factors, including the type of disturbance; its duration and frequency; the availability, location and quality of alternative habitat; and the bird species involved. Some species are likely to be more exposed than others due to their habitat preferences or behavioural characteristics (for example, redshanks tend to be more strongly associated with incised tidal creeks than other waders). Other species may be more sensitive: for example, larger species such as brent geese typically have larger 'flush distances', the distances at which birds typically move when approached by people. Laursen et al. (2005) determined that the mean flush distance brent geese was 319m, in contrast to 70m for dunlin (a much smaller species). Single large disturbance events, or events that are predictable or regular, often have less effect than frequent but irregular disturbance events. Furthermore, bird species may modify their response to disturbance depending on where they are foraging and the type of disturbance experienced; habituation to some noise and visual impact is common, and birds regularly forage in areas that would appear to have a high risk of disturbance, such as industrial sites; indeed, Dark-bellied Brent geese will sometimes use recreational areas (e.g. golf courses) as 'overflow' areas for foraging (JNCC 2016) although areas of higher disturbance risk are generally avoided by this species. However, visual stimuli are thought to be particularly important: Cutts et al. (2013) observe that noise stimuli rarely appear to cause waterbird disturbance before associated visual stimuli have an effect. The effects of visual stimuli are strongly dependent on the proximity and type of visual impact (a dog will often elicit a more significant response than moving or stationary machinery, and activities on the foreshore will be more disturbing than activities on the land).

With regard to the prediction of effects, it is not possible to accurately model the likely increase in the number of visits to the site without substantial investigations into the current behaviour of residents around the estuaries (including those that do not regularly visit the sites). However, it is reasonable to assume that new residents are likely to behave (on average) in a similar manner to existing residents, and therefore the population increase can be used as a proxy for the likely increase in visitor pressure<sup>25</sup>. As noted, most attempts to predict the significance of increased recreation on European sites generally aim to identify the distance within which a certain percentage of visits originate (i.e. taking account of frequency of visits as well as distance travelled), typically 75%. However, analysis of the literature suggests that, for most European sites studied, this distance is usually around 5 - 7km from the site boundary and so the development of SGS8 is likely to significantly increase the number of visits to the European site.

This is not to say that additional visits cannot be controlled and managed: for example, Guillemain *et al.* (2007) investigated the effects of ecotourism in the Camargue and found that waterbodies with more tourists did not support fewer birds in the medium-term; and that in the long term, wildfowl numbers were not related to the number of visitors. Obviously there will always be site-specific variations, but it is known that management can minimise disturbance, provided sufficient funds are available. It is therefore important that the Local Plan provides control mechanisms for monitoring, managing and mitigating any potential effects. Other plans have adopted a range of measures in similar situations, but most commonly these involve developer contributions to site management; and the provision of well-designed green infrastructure that integrates with the developments and allows easy walking access to local greenspace and the wider countryside (i.e. attractive local areas that are more convenient than protected areas). Studies have repeatedly shown that the most important factors influencing dog owners' choice of recreational area are the ability to take their dog off its lead; the proximity to home; and it being traffic-free. Measures that reduce the attractiveness of areas of the estuary in this regard and increase the accessibility and value of local greenspace are likely to be successful in mitigating some potential increases in recreational pressure. Given

<sup>&</sup>lt;sup>25</sup> Although it is possible that visits will increase disproportionately in the short-term as new residents explore the surrounding areas.



the known flush distances of brent geese there would be an argument for targeting measures at areas within 300 – 500m of areas that are known to regularly support large aggregations of roosting or foraging birds – for example, around Bridgemarsh Island.

### Assessment of Effects - Essex Estuaries SAC

The habitat features of the Essex Estuaries SAC are also sensitive to visitor pressure, principally through direct damage (trampling, erosion etc.) and localised eutrophication (e.g. associated with dog faeces); other pressures, for example bait digging, may also increase as a result of the SGS8 allocation. Many of the SAC habitats will have limited exposure to casual recreation (in general, few people will directly affect the intertidal mudflats and sandflats feature for example, other than bait diggers) although the SAC includes most of the sea walls along the Crouch estuary. However, the features are generally fairly resilient to direct disturbance (since coastal habitats are typically exposed naturally to a range of environmental perturbations) and so the measures designed to safeguard the SPA / Ramsar are likely to be largely effective for the SAC also (as far as effects can be related to the SGS8 allocation).

### Additional Mitigation Recommendations

It is likely that visitor pressure on the designated sites will increase as a result of the SGS8 allocation, although future patterns of site usage are likely to be similar to existing and so much of the estuary is likely to remain relatively quiet. Having said that, there are additional policy measures that could be employed to ensure that visitor pressure is managed as allocation SGS8 is developed. The following policy measures are therefore suggested for inclusion within Policy SGS8.

- Green space provision: given the proximity of the SPA / Ramsar it is unlikely that green space provision within the development footprint will substantially moderate recreational use of the European sites, although providing green space and integrating this with the wider countryside will be important. It is therefore suggested that the policy text be amended to as follows:
  - "…an appropriate landscaped setting for development to mitigate visual, biodiversity and heritage impact of the development, particularly potential effects on nearby European sites due to recreational pressure".
  - "Layout dictated by wide green margins to include formal and informal public open space that is well connected to PRoWs and countryside areas away from the estuary"
- Connectivity: the existing text identifies the importance of connectivity with the wider countryside although the importance of this to the moderation of recreational pressure should be clarified, for example "...provision and/or contribution towards new cycle routes, footpaths, Public Rights of Way and where appropriate bridleways between the site and the surrounding area, to enable the development to integrate with South Woodham Ferrers and provide links into the wider countryside. Particular emphasis is placed on the provision or enhancement of high quality circular routes or connections to the wider PRoW network that are located away from the Crouch estuary".
- Developer contributions: the policy includes provision for "…financial contribution towards indoor leisure facilities either through the Community Infrastructure Levy or Section 106 Planning Obligations" and it is suggested that a similar obligation be set for measures to moderate or offset potential effects on European sites, for example through a new bullet stating: "Provision of, or financial contribution towards, measures that maintain and enhance the integrity of the European sites associated with the Crouch estuary either through the Community Infrastructure Levy or Section 106 Planning Obligations, potentially including (but not limited to) funding of habitat management, safeguarding or creation; funding of bird and / or visitor monitoring programmes. Measures will be agreed with Natural England".
- Justification: The reasoned justification should include text summarising the potential vulnerabilities of the European sites and hence the basis for the policy measures required to moderate this, for example: "The site is in close proximity to the Crouch and Roach



Estuaries SPA; the Crouch and Roach Estuaries Ramsar; and the Essex Estuaries SAC. The features of these sites are sensitive to ancillary effects associated with residential development, particularly disturbance due to increased visitor pressure, and therefore measures that encourage residents to use areas away from the estuary, or which help manage or moderate impacts where the estuary is used, are appropriate. These measures will include the provision of green space, paths and routes that link to the wider countryside away from the coast; and contributions towards within-site measures that are known to help reduce visitor pressure effects, such as habitat management, safeguarding (e.g. through the purchase of non-designated functional land) or creation; or site management and educational measures."

### Conclusion

The development of allocation SGS8 has the potential to significantly affect the Crouch and Roach Estuaries SPA, the Crouch and Roach Estuaries Ramsar, and the Essex Estuaries SAC through increases in visitor pressure. There are some moderating factors that are likely to limit the exposure of the interest features to increases in visitor numbers (for example, the distribution of birds within the estuary and the relative accessibility of different sections of the coastline) but overall the population increase will increase the risk of disturbance events. The proposed Local Plan policies contain requirements that are likely to help moderate these potential effects, although suggestions for enhanced policy-based mitigation measures are proposed. Assuming that these measures (or similar) are incorporated into the final plan proposals, it is considered that significant recreational pressure effects as a result of SGS8, alone and in combination, will not occur.

### Water Quality

The SGS8 allocation is within the catchment of the Crouch estuary, and contains a small tributary of Fenn Creek. The habitat features of the Crouch and Roach Estuaries SPA, the Crouch and Roach Estuaries Ramsar, and the Essex Estuaries SAC will be sensitive to reduced water quality if:

- WwTW treatment capacity is not in place ahead of development; or
- ▶ if appropriate surface-water management measures are not employed to manage local run-off.

With regard to WwTW treatment capacity, the Water Cycle Study (Aecom 2017)<sup>26</sup> undertaken for the Council concludes that South Woodham Ferrers WwTW does not currently have sufficient capacity to accommodate all of the development proposed within its catchment under the Local Plan. This treatment works will therefore require uprating alongside delivery of the planned housing numbers. However, the study specifically notes that *"improvements to...South Woodham Ferrers WRCs are possible using wastewater treatment technologies currently available, demonstrating that an engineering solution is feasible and hence treatment capacity should not be seen as a barrier to growth".* Therefore, provided that the planning process allows for timely identification and delivery of any additional treatment capacity is managed through specific consenting regimes that are independent of the Local Plan, although it is important that the plan requires that suitable wastewater infrastructure and capacity be in place prior to the occupation of any developments. The role of the Local Plan should therefore be to ensure, through policy controls, that infrastructure provision is planned and required ahead of developments being completed.

The effect of run-off from developed areas can mitigated or reduced by the use of SuDS and by increasing the area of permeable surfaces (both natural and artificial) within developed areas. These are required by the plan policies, and so significant effects in this regard will not occur.

### **Air Quality**

Some of the features of the Crouch estuary sites are weakly sensitive to changes in air quality (most of the habitats are intertidal or inundation communities and so tend to receive relatively high nutrient loads in any

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<sup>&</sup>lt;sup>26</sup> Note, this water cycle study is draft only at the time of reporting.



case), although the minimum critical load for nitrogen is exceeded in relation to the 'Mudflats and sandflats not covered by seawater at low tide' feature. The development of SGS8 is likely to result in local air quality changes associated with increased traffic, particularly around the access point to the site (on the B1418) and around the A132 and B1012. No bespoke air quality modelling has been undertaken for SGS8, although the Department of Transport's Transport Analysis Guidance<sup>27</sup> states that "*beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant*" and therefore this distance is used to determine the potential significance of any local effects associated with the plan.

The main roads around SGS8 are all over 200m from the Crouch estuary sites, and although there are some local roads within South Woodham Ferrers that are within 200m, the area of habitat potentially exposed to air quality changes is extremely small (less than 10 ha. of a 1735 ha. site). As a result, it is considered unlikely that local air quality changes associated with the SGS8 allocation (and increased traffic its vicinity) will affect the integrity of the European sites.

# 5.3 Recreational Pressure (in-combination)

All of the sites within the study area are sensitive to increases in visitor pressure. However, the extent to which the Local Plan will increase visitor pressure on particular sites (or particular areas of sites) is not easily established. As noted in Section 3.3, most studies have generally aimed to identify the distance within which a certain percentage of visits originate, with the aim of identifying 'buffer zones' within which new development would be considered likely to have significant effects on a site, unless appropriately mitigated. NE, 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 originate (i.e. taking account of frequency of visits as well as distance travelled). Generally, this distance appears to be less than 7km based on various studies.

All of the preferred site allocations are at least 10km from the nearest European site (the Blackwater Estuary SPA / Ramsar) with the exception of SGS8 (discussed above) and the small (and arguably inconsequential) allocations of Growth Site 9 (62 homes in total). As a result, it seems very unlikely that any of these allocations will be within the '75% distance' threshold for any sites. This assessment is supported by GIS modelling of drive times (see **Figures 4.1 – 4.10**), which suggests that most parts of most European sites in the study area are at least 25 - 30 minutes' drive from the allocations, and frequently more. To provide some additional context, Appendix C provides an estimate of the approximate population changes within certain distances of the European sites that are predicted due to the Chelmsford Local Plan. This estimate is based on the LSOA data for the areas surrounding the European sites (with populations assumed to be evenly distributed within these, although obviously this will be a slight simplification) and the predicted population addition associated with the allocations (based on a population equivalent of 2.2 x the number of dwellings in the allocation). These figures should be used mindfully, but do demonstrate that the Chelmsford allocations will, in themselves (with the exception of the SGS8 allocation around the Crouch estuary), result in relatively small increases in population sizes near to the European sites. Population increases are invariably less than 1% of the current population except:

- around the Crouch (in association with the 'North of South Woodham Ferrers' allocation, see above); and
- ▶ if allocations over 15km from the designated sites are considered.

On this basis, it is reasonable to assume that visitors associated with the preferred site allocations will not make a potentially significant proportion of the visits to Benfleet and Southend Marshes SPA / Ramsar; Foulness SPA / Ramsar; Thames Estuary and Marshes SPA / Ramsar; Abberton Reservoir SPA / Ramsar; Dengie SPA / Ramsar; and the associated areas of the Essex Estuaries SAC. It is also evident that residents from allocations within or near the Chelmsford urban area itself will not make a significant proportion of the visits to the Crouch and Roach Estuaries SPA / Ramsar (most additional visitors here will almost certainly be from the SGS8 allocation, which is assessed in **Section 5.2** above, and the Rochford or Maldon Council allocations).

<sup>&</sup>lt;sup>27</sup> http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013; accessed 15/06/14



Therefore, it would seem likely that the only sites where there are potentially significant 'in combination' effects as a result of the Chelmsford Local Plan operating with other plans are:

- the Crouch and Roach Estuaries SPA / Ramsar (the 'North of South Woodham Ferrers' allocation<sup>28</sup> operating in combination with allocations in the Rochford, Maldon, Basildon, Castle Point and Southend council areas; and
- ▶ the Blackwater Estuary SPA / Ramsar, particularly around Maldon where:
  - some Chelmsford allocations are within 10km and / or a 15 20 minute drive of the SPA / Ramsar at Maldon; and
  - > allocations in the Maldon, Braintree and Colchester council areas are also within 10km.

Most of the adjacent local authorities are currently amending or updating their Local Plans, and so detailed assessment of specific allocations (e.g. for journey times) has not been undertaken due to data constraints. However, modelling of allocation locations has not been c

With regard to the Crouch and Roach Estuaries SPA / Ramsar, it is considered that the potential 'alone' effects as a result of the SGS8 allocation will be avoided or mitigated by the Chelmsford plan, assuming the measures proposed in Section 5.2 are incorporated into the plan; by extension the Chelmsford plan addresses those aspects of the potential 'in combination' effects that it can reasonably control and influence, and so must rely to some extent on the incorporation of similar measures within the other Local Plans.

With regard to the Blackwater Estuary SPA / Ramsar, the Chelmsford Local Plan will (if all allocations are delivered) on its own result in a ~0.8% increase in the population within 10km of this site (see Appendix C). This is arguably a negligible increase, particularly as only a very small fraction of these additional residents will be a 'heavy user' of the estuary (more than 2 - 3 visits per week, for example), and allocations associated with other councils are more likely to result in significant effects alone (and be a more substantial component of any 'in combination' effects). For example, the allocation numbers estimated in the emerging Maldon Local Plan suggest a population equivalent increase around Maldon town of over 6000, with all Maldon allocations (which will all be within 10km of the Blackwater) adding around 9700 to the local population (approximately 3.7% of the current population within 10km of the Blackwater). Similarly, allocations within Braintree (around Witham) and Colchester will have a greater influence on the future populations within 10km of the Blackwater than the Chelmsford plan. It is suggested that the key area (as far as in combination effects for the Chelmsford plan are concerned) will be around Maldon where the zone of influences of several allocations in neighbouring authorities are likely to overlap, and easy accessibility by car increases the risk of increased visitor pressure.

Having said that, the data in Appendix C indicate that the allocations in Chelmsford will provide a relatively small increase in the populations within 10km of the SPA / Ramsar, and it remains likely that the vast majority of the visits to the Blackwater originate within a few kilometres of the site boundary. The Local Plan policies, including those relating to specific allocations, typically require the provision of greenspace (particularly around the larger allocations) and the delivery of "...new and enhanced cycle routes, footpaths, Public Rights of Way and where appropriate bridleways between the sites and the surrounding area to enable the development to integrate with existing development areas and to provide links into the wider countryside and beyond" which will go encourage recreation close to the allocation sites. It should also be noted that recreational pressure is generally lower in the winter months (when the SPA / Ramsar interest features are potentially exposed) and the journey time from Chelmsford to the sites further reduces the likelihood of casual recreational use of these sites during the limited hours of daylight in winter. It is inevitable that residents from allocations in Chelmsford will make periodic use of the local estuaries for recreation, but this use is unlikely to significantly increase visitor pressure on these sites and additional planlevel bespoke measures to avoid or mitigate this are not considered necessary. On this basis, it is considered that the Chelmsford Local Plan addresses those aspects of the potential 'in combination' effects that it can reasonably control and influence.

<sup>&</sup>lt;sup>28</sup> It is unlikely that residents from allocations within or near the Chelmsford urban area itself will make a significant proportion of the visits to the Crouch and Roach Estuaries SPA / Ramsar





# 6. Summary

Chelmsford City Council (the Council) is currently preparing a new Local Plan, which will set out the vision, objectives, planning policies and site allocations that will guide development in the local authority area to 2036. The Council has commissioned Amec Foster Wheeler to assist with the HRA of its Local Plan and the emerging policies and proposals set out in the Preferred Options Consultation Document have been reviewed and recommendations made to ensure that the final Local Plan is not likely to result in any significant effects on any European sites, alone or in combination with other plans or projects.

The initial screening of the Preferred Options Consultation Document has concluded the following:

- All of the European sites are potentially vulnerable to regional 'in combination' effects due to visitor pressure, to which the Local Plan will contribute (although this contribution is likely to be relatively limited).
- None of the allocations are likely to result in significant effects alone, with the possible exception of Strategic Growth Site 8 (North of South Woodham Ferrers), which is within 500m of the Crouch estuary.
- Other potential pathways for sites to be affected, notably through changes in water quality or water resource permissions, are unlikely to be realised.
- The screening of the proposed Local Plan policies has demonstrated that the vast majority will have no effect on any European sites, typically because they are policy types that do not make provision for changes.

Two principal aspects have therefore been subjected to further assessment to determine the likely scale of any effects, and to identify any bespoke policy measures required to ensure that significant effects do not occur; these are:

- the likely effects of the Local Plan due to 'in combination' recreational pressure; and
- the likely effects due to the development Strategic Growth Site 8 (North of South Woodham Ferrers).

The additional assessment has determined the following:

- The development of allocation SGS8 has the potential to significantly affect the Crouch and Roach Estuaries SPA, the Crouch and Roach Estuaries Ramsar, and the Essex Estuaries SAC through increases in visitor pressure. There are some moderating factors that are likely to limit the exposure of the interest features to increases in visitor numbers (for example, the distribution of birds within the estuary and the relative accessibility of different sections of the coastline) but overall the population increase will increase the risk of disturbance events. The proposed Local Plan policies contain requirements that are likely to help moderate these potential effects, although suggestions for enhanced policy-based mitigation measures are proposed. Assuming that these measures (or similar) are incorporated into the final Local Plan, it is considered that significant recreational pressure effects as a result of SGS8, alone and in combination, will not occur.
- the preferred site allocations Local Plan may contribute to increased visitor pressure on European sites in combination with the growth proposals set out in other local plans in the region. However, the distance of the preferred site allocations from most of the sites ensures that the contribution of the Chelmsford Local Plan to any in combination effects will be minimal, and substantially outweighed by the allocations associated with other local plans.

The assessment of the Preferred Options Consultation Document has concluded that **there will be no significant effects on any European sites as a result of the Preferred Options Consultation Document Local Plan, alone or in combination**, provided that the avoidance and mitigation measures identified within this report are included within the final Local Plan.


It will be necessary to review any post-consultation changes that are made to the emerging Local Plan, to ensure that the HRA conclusions remain applicable; and again, should any amendments be required following examination in public. A formal assessment conclusion against the requirements of Regulation 102 will be made at that point.



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# Appendix A European Site Terminology

### Table A.1 European site terminology

| Name                                | Abbreviation | Notes   |
|-------------------------------------|--------------|---|
| Special Area of<br>Conservation     | SAC          | Designated under the EU <i>Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora</i> , and implemented in the UK through the <i>Conservation of Habitats and Species Regulations 2010</i> (as amended), and the <i>Conservation (Natural Habitats, &amp; c.) Regulations (Northern Ireland) 1995</i> (as amended).  |
| Sites of<br>Community<br>Importance | SCI          | Sites of Community Importance (SCIs) are sites that have been adopted by the European Commission but not yet formally designated by the government of each country. Although not formally designated they are nevertheless fully protected by <i>Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora</i> , the <i>Conservation of Habitats and Species Regulations 2010</i> (as amended), and the <i>Conservation (Natural Habitats, &amp; c.) Regulations (Northern Ireland) 1995</i> (as amended).  |
| Candidate SAC                       | cSAC         | Candidate SACs (cSACs) are sites that have been submitted to the European Commission, but not yet formally adopted as SCIs. Although these sites are still undergoing designation and adoption they are still fully protected by <i>Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora</i> , the <i>Conservation of Habitats and Species Regulations 2010</i> (as amended) and the <i>Conservation (Natural Habitats, &amp; c.) Regulations (Northern Ireland) 1995</i> (as amended).  |
| Possible SACs                       | pSAC         | Sites that have been formally advised to UK Government, but not yet submitted to the European Commission. As a matter of policy the Governments in England, Scotland and Wales extend the same protection to these sites in respect of new development as that afforded to SACs.  |
| Draft SACs                          | dSAC         | Areas that have been formally advised to UK government as suitable for selection as SACs, but have not been formally approved by government as sites for public consultation. These are not protected (unless covered by some other designation) and it is likely that their existence will not be established through desk study except through direct contact with the relevant statutory authority; however, the statutory authority is likely to take into account the proposed reasons for designation when considering potential impacts on them.   |
| Special<br>Protection Area          | SPA          | Designated under <i>EU Council Directive 79/409/EEC on the Conservation of Wild Birds</i> (the 'old Wild Birds Directive') and <i>Directive 2009/147/EC on the Conservation of Wild Birds</i> (the 'new Wild Birds Directive, which repeals the 'old Wild Birds Directive'), and protected by Article 6 of <i>Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.</i> These directives are implemented in the UK through the <i>Wildlife &amp; Countryside Act 1981</i> (as amended), the <i>Conservation of Habitats and Species Regulations 2010</i> (as amended), the <i>Wildlife (Northern Ireland) Order 1985</i> , the <i>Nature Conservation and Amenity Lands (Northern Ireland) Order 1985</i> and <i>The Conservation (Natural Habitats, &amp;C.) (Northern Ireland) Regulations 1995</i> (as amended) and the <i>Offshore Marine Conservation (Natural Habitats &amp; c.) Regulations 2007.</i> |
| Potential SPA                       | pSPA         | These are sites that are still undergoing designation and have not been designated by the Secretary of State; however, ECJ case law indicates that these sites are protected under Article 4(4) of <i>Directive 2009/147/EC</i> (which in theory provides a higher level of protection than the Habitats Directive, which does not apply until the sites are designated as SPAs), and as a matter of policy the Governments in England, Scotland and Wales extend the same protection to these sites in respect of new development as that afforded to SPAs, and they may be protected by some other designation (e.g. SSSI).   |
| Ramsar                              |              | The Convention on Wetlands of International Importance especially as Waterfowl Habitat<br>(Ramsar Convention or Wetlands Convention) was adopted in Ramsar, Iran in February 1971.<br>The UK ratified the Convention in 1976. In the UK Ramsar sites are generally underpinned by<br>notification of these areas as Sites of Special Scientific Interest (SSSIs) (or Areas of Special<br>Scientific Interest (ASSIs) in Northern Ireland). Ramsar sites therefore receive statutory<br>protection under the Wildlife & Countryside Act 1981 (as amended), and the Nature<br>Conservation and Amenity Lands (Northern Ireland) Order 1985. However, as a matter of policy<br>the Governments in England, Scotland and Wales extend the same protection to listed Ramsar<br>sites in respect of new development as that afforded to SPAs and SACs.  |

## Appendix B Preferred Option Policy Review

### Table B.1 Preferred Option Policy Review

| Policy                   | Title   | LSE                  | Notes / Rationale  |
|--------------------------|---|----------------------|--|
| Strategic<br>Policy SI   | Spatial Principles                                      | No                   | General statement of policy / aspiration - general principles are consistent with safeguarding of European sites   |
| Strategic<br>Policy S2   | Securing Sustainable<br>Development                     | No                   | General statement of policy / aspiration - small risk of conflict with European sites<br>dues to presumption in favour of sustainable development but this aspect is is<br>moderated by references to other policies and requirements that will safeguard.   |
| Strategic<br>Policy S3   | Addressing Climate<br>Change and Flood Risk             | No                   | Protective policy likely to reduce the risk of effects on European sites.  |
| Strategic<br>Policy S4   | Promoting Community<br>Inclusion                        | No                   | General statement of policy / aspiration   |
| Strategic<br>Policy S5   | Conserving and<br>Enhancing the Historic<br>Environment | No                   | Environmental protection policy  |
| Strategic<br>Policy S6   | Conserving and<br>Enhancing the Natural<br>Environment  | No -<br>Amend        | Environmental protection policy. General principles are sound although there may<br>be some benefit in highlighting the importance of utilities provision, for example<br>"The Council will ensure that any new development does not contribute to water<br>pollution and, where possible, enhances water quality. This can be achieved<br>through the use of Sustainable Drainage Systems, which when well designed, may<br>also contribute to enhancing biodiversity and amenity in Chelmsford. <b>Developers</b><br>should also ensure that there is adequate sewerage capacity and provision to<br>support their proposals". |
| Strategic<br>Policy S7   | Protecting and<br>Enhancing Community<br>Assets         | No                   | General statement of policy / aspiration   |
| Strategic<br>Policy S8   | Development<br>Requirements                             | Uncertain -<br>Amend | This policy underpins the growth intentions for the CCC area and therefore is<br>linked to the consideration of possible in combination effects due to recreational<br>pressure  |
| Strategic<br>Policy S9   | The Spatial Strategy                                    | Uncertain -<br>Amend | This policy underpins the spatial distribution of growth; the principle aspect of potential conflict is the inclusion of South Woodham Ferrers in the top tier hierarchy, although this is arguably reasonable given that it is the main settlement area outside Chelmsford. This aspect is explored further.  |
| Strategic<br>Policy S10  | Delivering Housing<br>Growth                            | No                   | General statement of policy / aspiration regarding provision of market and affordable housing  |
| Strategic<br>Policy SI I | Delivering Economic<br>Growth                           | No                   | General statement of policy / aspiration regarding support for employment sites  |
| Strategic<br>Policy S12  | Infrastructure<br>Requirements                          | No                   | General design / guidance criteria   |
| Strategic<br>Policy S13  | Securing Infrastructure                                 | No                   | General design / guidance criteria   |
| Strategic<br>Policy S14  | The Role of the<br>Countryside                          | No                   | Policy provides some safeguarding for rural areas  |



| Policy                            | Title  | LSE | Notes / Rationale  |
|-----------------------------------|--|-----|--|
| Strategic<br>Policy S15           | The Role of City, Town<br>and Neighbourhood<br>Centres                 | No  | General statement of policy / aspiration   |
| Policy GRI                        | Growth in Chelmsford<br>Urban Area                                     | No  | General design / guidance criteria for housing in Chelmsford   |
| Strategic<br>Growth Site Ia       | Chelmer Waterside  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWIa | Former Gas Works,<br>Wharf Road  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWIb | Peninsula, Wharf Road  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWIc | Lockside, Navigation<br>Road   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWId | Baddow Road Car Park<br>and Land to the East                           | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWIe | Travis Perkins,<br>Navigation Road                                     | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Chelmer<br>Waterside Site<br>CWIf | Navigation Road Sites  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site Ib       | Essex Police HQ and<br>Sports Ground, New<br>Court Road                | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site I c      | Meteor Way including<br>Car park and Adjoining<br>Land                 | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site Id       | Former St Peter's<br>College, Fox Crescent                             | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site Le       | North of Gloucester<br>Avenue (John Shennan)                           | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site If       | Civic Centre Land,<br>Fairfield Road                                   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Strategic<br>Growth Site Ig       | Riverside Ice and<br>Leisure, Victoria Road                            | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Growth Site Ih                    | Chelmsford Social Club<br>and Private Car Park, 55<br>Springfield Road | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |
| Growth Site Ii                    | Garage Site and Land,<br>Medway Close                                  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |
| Growth Site Ij                    | Former Chelmsford<br>Electrical and Car Wash,<br>Brook Street          | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |



| Policy                        | Title  | LSE | Notes / Rationale  |  |  |  |
|-------------------------------|--|-----|--|--|--|--|
| Growth Site Ik                | Waterhouse Lane<br>Depot and Nursery   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site II                | Eastwood House Car<br>Park, Glebe Road   | No  | General design / guidance criteria for allocation plot; low risk of 'in combinati<br>effects (regional visitor pressure issues)    |  |  |  |
| Growth Site<br>I m            | Church Hall Site,<br>Woodhall Road   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site In                | 10 - 30 Coval Lane,<br>Chelmsford  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site Io                | British Legion, New<br>London Road   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site Ip                | Garage Site, St Nazaire<br>Road  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site Iq                | Car Park r/o Bellamy<br>Court, Broomfield Road                                     | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site Ir                | Ashby House Car Parks,<br>New Street   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Growth Site Is                | BT Telephone Exchange,<br>Cottage Place  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Opportunity<br>Site OSIa      | Former Royal Mail<br>Premises, Victoria Road                                       | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Opportunity<br>Site OSIb      | Rivermead, Bishop Hall<br>Lane   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Opportunity<br>Site OSIc      | Railway Sidings, Brook<br>Street   | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Strategic<br>Growth Site 2    | West Chelmsford  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |
| Strategic<br>Growth Site 3a   | Land East of<br>Chelmsford/North of<br>Great Baddow - Manor<br>Farm                | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Strategic<br>Growth Site 3b   | Land East of<br>Chelmsford/North of<br>Great Baddow - Land<br>North of Maldon Road | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Strategic<br>Growth Site 3c   | Land East of<br>Chelmsford/North of<br>Great Baddow - Land<br>South of Maldon Road | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Existing<br>Commitment<br>ECI | Land North of<br>Galleywood Reservoir  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Existing<br>Commitment<br>EC2 | Land Surrounding<br>Telephone Exchange,<br>Ongar Road                              | No  | General design / guidance criteria for allocation plot; low risk of 'in combination'<br>effects (regional visitor pressure issues) |  |  |  |
| Strategic<br>Growth Site 4    | North East Chelmsford  | No  | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)    |  |  |  |



| Policy                        | Title   | LSE                  | Notes / Rationale  |  |  |  |  |
|-------------------------------|---|----------------------|--|--|--|--|--|
| Strategic<br>Growth Site 5    | Moulsham Hall and<br>North of Great Leighs  | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Strategic<br>Growth Site 6    | North of Broomfield   | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination effects (regional visitor pressure issues)                             |  |  |  |  |
| Strategic<br>Growth Site 7    | East of Boreham   | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Travellers Site<br>TSI        | Drakes Lane Gypsy and<br>Traveller Site   | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Existing<br>Commitment<br>EC3 | Land to the South and<br>West of Broomfield<br>Place and Broomfield<br>Primary School | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination effects (regional visitor pressure issues)                             |  |  |  |  |
| Strategic<br>Growth Site 8    | North of South<br>Woodham Ferrers   | Uncertain -<br>Amend | Allocation is within 500m of Crouch estuary sites so risk of effects by various pathways; modifications suggested following more detailed assessment.      |  |  |  |  |
| Growth Site 9                 | South of Bicknacre  | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Growth Site 10                | Danbury   | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Existing<br>Commitment<br>EC4 | St Giles, Moor Hall<br>Lane, Bicknacre  | No                   | General design / guidance criteria for allocation plot; low risk of 'in combination' effects (regional visitor pressure issues)                            |  |  |  |  |
| Policy SPA I                  | Broomfield Hospital<br>Special Policy Area  | No                   | General statement of policy / aspiration; site is not linked to European sites   |  |  |  |  |
| Policy SPA2                   | Chelmsford City<br>Racecourse Special<br>Policy Area                                  | No                   | General statement of policy / aspiration; site is not linked to European sites   |  |  |  |  |
| Policy SPA3                   | Hanningfield Reservoir<br>Special Policy Area   | No                   | General statement of policy / aspiration; reservoir is used by species that also use nearby European sites but the policy is safeguarding in this respect. |  |  |  |  |
| Policy SPA4                   | RHS Hyde Hall Special<br>Policy Area  | No                   | General statement of policy / aspiration; site is not linked to European sites   |  |  |  |  |
| Policy SPA5                   | Sandford Mill Special<br>Policy Area  | No                   | General statement of policy / aspiration; site is not linked to European sites   |  |  |  |  |
| Policy SPA6                   | Writtle University<br>College Special Policy<br>Area                                  | No                   | General statement of policy / aspiration; site is not linked to European sites   |  |  |  |  |
| Policy HOI                    | Size and Type of<br>Housing   | No                   | General design / guidance criteria re. size and type of housing  |  |  |  |  |
| Policy HO2                    | Affordable Housing and<br>Rural Exception Sites                                       | No                   | Statement of policy re. affordable housing requirements and exception sites  |  |  |  |  |
| Policy HO3                    | Gypsy, Traveller and<br>Travelling Showpeople<br>Sites                                | No                   | General design / guidance criteria   |  |  |  |  |
| Policy EMI                    | Employment Areas  | No                   | Statement of policy re. development in employment areas  |  |  |  |  |



| Policy      | Title  | LSE           | Notes / Rationale  |  |  |  |  |
|-------------|--|---------------|--|--|--|--|--|
| Policy EM2  | Primary And Secondary<br>Frontages in Chelmsford<br>City Centre & South<br>Woodham Ferrers,<br>Neighbourhood Centres<br>and Upper Floors | No            | General design / guidance criteria re. frontages in towns  |  |  |  |  |
| Policy COI  | Green Belt, Green<br>Wedges, Green<br>Corridors and Rural<br>Areas   | No            | Protective policy likely to reduce the risk of effects on European sites.  |  |  |  |  |
| Policy CO2  | New Buildings and<br>Structures In The Green<br>Belt   | No            | General design / guidance criteria for buildings in the green belt   |  |  |  |  |
| Policy CO3  | New Buildings and<br>Structures in Green<br>Wedges and Green<br>Corridors  | No            | General design / guidance criteria for buildings in the green wedges etc.  |  |  |  |  |
| Policy CO4  | New Buildings and<br>Structures in the Rural<br>Area   | No            | General design / guidance criteria for buildings in rural areas  |  |  |  |  |
| Policy CO5  | Infilling in the Green<br>Belt, Green Wedges,<br>Green Corridors and<br>Rural Area   | No            | General design / guidance criteria for infilling   |  |  |  |  |
| Policy CO6  | Change of Use (Land<br>And Buildings) and<br>Engineering Operations  | No            | General design / guidance criteria for change of use, including in rural areas   |  |  |  |  |
| Policy CO7  | Extensions to Existing<br>Buildings Within the<br>Green Belt, Green<br>Wedges, Green<br>Corridors and Rural<br>Area                      | No            | General design / guidance criteria for building extensions   |  |  |  |  |
| Policy CO8  | Rural and<br>Agricultural/Forestry<br>Workers Dwellings  | No            | General design / guidance criteria   |  |  |  |  |
| Policy HEI  | Designated Heritage<br>Assets  | No            | Protection of listed etc buildings   |  |  |  |  |
| Policy HE2  | Non-Designated<br>Heritage Assets  | No            | Protection of non-designated heritage assets   |  |  |  |  |
| Policy HE3  | Archaeology  | No            | Guidance for developments affecting archaeological resources.  |  |  |  |  |
| Policy NE I | Ecology and Biodiversity   | No -<br>Amend | Environmental protection policy. General principles are sound but it is recommended that the text be amended slightly to more accurately reflect existing legislative requirements, and ensure that features are safeguarded rather than simply the sites themselves, for example: "Planning permission will not be granted where the development would result in harm to adversely affect the interest features or ecological functioning of designated sites of international, national and local importance, and any other site where protected species are likely or known to be present, unless it can be clearly demonstrated that any harm resulting from the development can be avoided or adequately mitigated. The weight given to the protection of such sites will be dependent on the level of designation. Where development proposals do not comply with the above, they will only be permitted if it has been clearly demonstrated that there exists an overriding public interest and (for European protected sites) that there is no alternative and that appropriate compensatory measures can be delivered". |  |  |  |  |



| Policy     | Title   | LSE | Notes / Rationale  |
|------------|---|-----|--|
| Policy NE2 | Trees, Woodland and<br>Landscape Features   | No  | Protection for ecological and landscape features   |
| Policy NE3 | Flooding/SuDS   | No  | Requirements for the use of SuDS; likely to provide incidental safeguards for European sites |
| Policy NE4 | Renewable Energy and<br>Low Carbon Energy   | No  | General design / guidance criteria for renewable energy schemes                              |
| Policy CAI | Delivering Community<br>Assets  | No  | Support for community assets with criteria   |
| Policy CA2 | Protecting Community<br>Assets  | No  | Safeguarding of community assets   |
| Policy MPI | Design and Place<br>Shaping Principles  | No  | General requirements for development design  |
| Policy MP2 | High Quality Design   | No  | General requirements for development design  |
| Policy MP3 | Sustainable Buildings   | No  | General requirements for development design  |
| Policy MP4 | Design Specification for<br>New Dwellings and<br>Houses in Multiple<br>Occupation | No  | General requirements for development design  |
| Policy MP5 | Parking Standards   | No  | General requirements for development design  |
| Policy MP6 | Tall Buildings  | No  | General requirements for development design  |
| Policy MP7 | Provision of Broadband  | No  | General requirements for development design  |
| Policy PA1 | Protecting Amenity  | No  | General requirements for development design  |
| Policy PA2 | Contamination and Pollution   | No  | General requirements for hazardous sites and air quality zones.                              |



Table C1 provides an estimate of the approximate population changes within certain distances of the European sites that are predicted due to the Chelmsford Local Plan. This estimate is based on the LSOA data for the areas surrounding the European sites (with populations assumed to be evenly distributed within these, although obviously this will be a slight simplification) and the predicted population addition associated with the allocations (based on a population equivalent of 2.2 x the number of dwellings in the allocation). These figures should be used mindfully, but do demonstrate that the Chelmsford allocations will, in themselves (with the exception of the allocations around the Crouch estuary), result in relatively small increases in population sizes within near to the sites. Population increases are invariably less than 1% of the current population except:

- > around the Crouch (in association with the 'North of South Woodham Ferrers' allocation); and
- if allocations over 15km from the designated sites are considered.



### Table C.1 Approximate population changes around European sites associated with Chelmsford allocations

| European site   | Current Population |              |            |              |             |             |  |
|---|--------------------|--------------|------------|--------------|-------------|-------------|--|
|   | Within 500m        | Within 2.5km | Within 5km | Within 7.5km | Within 10km | Within 15km |  |
| Essex Estuaries SAC   | 52,522             | 182,396      | 439,846    | 666,457      | 844,763     | 1,177,061   |  |
| Abberton Reservoir SPA / Ramsar                                   | 1,313              | 11,754       | 75,632     | 159,128      | 204,882     | 299,625     |  |
| Benfleet and Southend Marshes SPA / Ramsar                        | 42,311             | 212,224      | 296,399    | 401,117      | 521,272     | 716,260     |  |
| Blackwater Estuary (Mid-Essex Coast Phase 4) SPA / Ramsar         | 2,229              | 45,201       | 62,180     | 128,532      | 263,389     | 561,350     |  |
| Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA / Ramsar | 18,994             | 67,308       | 267,567    | 401,044      | 501,355     | 775,885     |  |
| Dengie (Mid-Essex Coast Phase I) SPA / Ramsar                     | 1,323              | 3,684        | 14,527     | 27,293       | 46,916      | 239,011     |  |
| Foulness (Mid-Essex Coast Phase 5) SPA / Ramsar                   | 6,136              | 35,807       | 83,452     | 160,612      | 254,965     | 426,819     |  |
| Thames Estuary and Marshes SPA / Ramsar                           | 8,582              | 64,230       | 238,532    | 557,457      | 913,907     | 1,364,551   |  |

| European site   | Predicted population addition associated with Chelmsford Local Plan |              |            |              |             |             |  |
|---|---|--------------|------------|--------------|-------------|-------------|--|
|   | Within 500m   | Within 2.5km | Within 5km | Within 7.5km | Within 10km | Within 15km |  |
| Essex Estuaries SAC   | 207   | 2204         | 2251       | 2463         | 2857        | 15741       |  |
| Abberton Reservoir SPA / Ramsar                                   | 0   | 0            | 0          | 0            | 0           | 0           |  |
| Benfleet and Southend Marshes SPA / Ramsar                        | 0   | 0            | 0          | 0            | 0           | 2218        |  |
| Blackwater Estuary (Mid-Essex Coast Phase 4) SPA / Ramsar         | 0   | 0            | 0          | 37           | 2187        | I 3860      |  |
| Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA / Ramsar | 267   | 2204         | 2251       | 2463         | 2667        | 11465       |  |
| Dengie (Mid-Essex Coast Phase I) SPA / Ramsar                     | 0   | 0            | 0          | 0            | 0           | 0           |  |
| Foulness (Mid-Essex Coast Phase 5) SPA / Ramsar                   | 0   | 0            | 0          | 0            | 0           | 473         |  |
| Thames Estuary and Marshes SPA / Ramsar                           | 0   | 0            | 0          | 0            | 0           | 0           |  |

| European site   | % population increase associated with Chelmsford Local Plan (blanks = zero values) |              |            |              |             |             |
|---|--|--------------|------------|--------------|-------------|-------------|
| -   | Within 500m  | Within 2.5km | Within 5km | Within 7.5km | Within 10km | Within 15km |
| Essex Estuaries SAC   | 0.39   | 1.21         | 0.51       | 0.37         | 0.34        | 1.34        |
| Abberton Reservoir SPA / Ramsar                                   |  |              |            |              |             |             |
| Benfleet and Southend Marshes SPA / Ramsar                        |  |              |            |              |             | 0.31        |
| Blackwater Estuary (Mid-Essex Coast Phase 4) SPA / Ramsar         |  |              |            | 0.03         | 0.83        | 2.47        |
| Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA / Ramsar | 1.41   | 3.27         | 0.84       | 0.61         | 0.53        | 1.48        |
| Dengie (Mid-Essex Coast Phase I) SPA / Ramsar                     |  |              |            |              |             |             |
| Foulness (Mid-Essex Coast Phase 5) SPA / Ramsar                   |  |              |            |              |             | 0.11        |
| Thames Estuary and Marshes SPA / Ramsar                           |  |              |            |              |             |             |



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**D1** 



Table C1 provides an estimate of the approximate population changes within certain distances of the European sites that are predicted due to the Chelmsford Local Plan. This estimate is based on the LSOA data for the areas surrounding the European sites (with populations assumed to be evenly distributed within



### Table D.1 Review of plans for 'in combination' effects

| Plan   | Summary   | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes   |
|--|---|---|-----------------------|---|
| Essex and Suffolk Water<br>(2014) Final Water<br>Resources Management<br>Plan          | Water companies in England and Wales are required to produce a Water<br>Resources Management Plan that sets out how they aim to<br>maintain water supplies over a 25-year period. The current Water<br>Resources Management Plan was published in 2014.<br>The Essex and Suffolk Water WRMP demonstrates how in the medium<br>to long new resources intend to be developed, leakage tackled and<br>sensible water use promoted through metering and water efficiency<br>campaigns. The long term strategy is to increase the robustness of the<br>water resources network to climate change and reduce unsustainable<br>abstractions.   | No significant effect.  | No                    | ESW's WRMP for the next 25 years explicitly<br>accounts for any reductions in abstraction that<br>are required to safeguard European sites (see<br>Section 3) and for the growth predicted by<br>CCC and other LPAs in its forecasting.<br>Therefore, the future water resource<br>requirements of Chelmsford are factored into<br>the abstraction regime, such that they will not<br>affect European sites (i.e. the growth provided<br>for by the Chelmsford plan is in line with SW<br>predictions and will not increase water<br>resources pressure on any European sites,<br>alone or in combination). |
| River Basin Management<br>Plan Anglian River Basin<br>District                         | <ul> <li>The River Basin Management Plan contains the following objectives/targets for the Anglian River Basin District:</li> <li>By 2015, 16 per cent of surface waters (rivers, lakes, estuaries and coastal waters) in this river basin district are going to improve for at least one biological, chemical or physical element, measured as part of an assessment of good status according to the Water Framework Directive. This includes an improvement of 1,700 km of the river network in relation to fish, phosphate, specific pollutants and other elements.</li> <li>By 2015 19 per cent of surface waters will be at good ecological status/potential and 45 per cent of groundwater bodies will be at good status. In combination 20 per cent of all water bodies will be at good status by 2015.</li> </ul> | No significant effect   | No                    | The plans will be complementary and the<br>policies within both plans do not create a<br>scenario where there is insufficient flexibility at<br>the project stage to allow significant effects to<br>be avoided.  |
| Environment Agency (2010)<br>Essex and South Suffolk<br>Shoreline Management Plan<br>2 | Shoreline Management Plan provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. With regard to Chelmsford, the principal proposals are for a 'hold the line' approach around south Woodham Ferrers.  | No adverse effect on<br>sites also exposed<br>to effects of CCC<br>plan.  | No                    | None of the sites exposed to potentially<br>significant changes as a result of the SMP will<br>be directly affected by the Chelmsford<br>proposals / allocations so in combination risks<br>are limited.  |



| Plan   | Summary  | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes   |
|--|--|---|-----------------------|---|
| Essex Waste Local Plan<br>(2001)   | <ul> <li>The objectives of the Waste Local Plan are:</li> <li>minimising waste by recycling/composting and other means;</li> <li>making adequate provision of necessary waste management facilities; and</li> <li>safeguarding the environment of Essex, and the quality of life of its residents.</li> </ul>  | No significant effect   | No                    | CCC plan is complementary and the policies<br>within both plans do not create a scenario<br>where specific developments cannot be<br>delivered due to the risk of significant effects.  |
| Joint Municipal Waste<br>Management Strategy for<br>Essex (2007-2032) (2008) | This Strategy sets out Essex's approach to dealing with municipal waste<br>up to 2032. It sets out a waste hierarchy which follows reduce, re-use,<br>recycle, recover and dispose.  | No significant effect   | No                    | CCC plan is complementary and the policies<br>within both plans do not create a scenario<br>where specific developments cannot be<br>delivered due to the risk of significant effects.  |
| Essex Minerals Local Plan<br>(2014)  | <ul> <li>The Local Plan will need to consider the 'preferred sites' identified within the Minerals Plan and the associated implications as part of the Plan preparation.</li> <li>The SA Framework should include objectives/guide questions which ensure the vision/objectives of the Minerals Plan are included and in physical terms the locations of the 'preferred sites' are taken into account as part of the assessment process.</li> </ul>  | No significant effect   | No                    | CCC plan is complementary and the policies<br>within both plans do not create a scenario<br>where specific developments cannot be<br>delivered due to the risk of significant effects.  |
| Essex Local Flood Risk<br>Management Strategy (2013)                         | <ul> <li>The LFRMS sets out how flood risk will be managed in Essex. The Strategy sets out nine guiding principles to manage flood risk which are:</li> <li>Focus on reducing disruption from flooding as well as the causes.</li> <li>Effective flood risk management could reduce the long-term damage caused to properties and impacts on human health and well-being.</li> <li>Decisions should be based on a sound evidence base and made against clear criteria.</li> <li>Increase the flood risk knowledge base across all stakeholders.</li> <li>Public organisations have a duty to inform households of their susceptibility to flooding and advise on what steps they can take to make their property more resilient.</li> <li>Co-operation among relevant public agencies is essential for long-term comprehensive flood risk management.</li> <li>New developments should ensure there is no increase in flood risk and seek to reduce the flood risk which already exists.</li> <li>Emerging local plans should direct new development away from areas of flood risk where possible.</li> <li>Cumulative impact of small developments on flood risk is as significant</li> </ul> | No significant effect   | No                    | CCC plan is complementary and the policies<br>within both plans do not create a scenario<br>where specific developments cannot be<br>delivered due to the risk of significant effects<br>The Local Plan contains appropriate controls<br>to direct new development away from areas at<br>risk of flooding and seek to reduce the risk of<br>flooding overall. |



| Plan  | Summary  | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes  |
|---|--|---|-----------------------|--|
| Essex Transport Strategy;<br>The Local Transport Plan for<br>Essex (2011)                   | <ul> <li>This is the third Local Transport Plan and has been produced to respond to the needs of the communities in Essex.</li> <li>The vision of the Plan is "for a transport strategy that supports sustainable economic growth and helps deliver the best quality of life for the residents of Essex".</li> <li>The Plan sets five outcomes which comprise:</li> <li>Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration.</li> <li>Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology.</li> <li>Improve safety on the transport network and enhance and promote a safe travelling environment.</li> <li>Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use.</li> <li>Provide sustainable access and travel choice for Essex residents to help create sustainable communities".</li> </ul> | No significant effect   | No                    | CCC plan is complementary and the policies<br>within both plans do not create a scenario<br>where specific developments cannot be<br>delivered due to the risk of significant effects. |
| North Essex Catchment<br>Flood Management Plan<br>Summary Report (2009)                     | <ul> <li>The aim of the CFMP is to "understand the scale and extent of flooding now and in the future, and set policies for managing flood risk within the catchment".</li> <li>The CFMP "should be used to inform planning and decision-making by key stakeholders" such as the Environment Agency, regional/local authorities, internal drainage boards, transportation planners, land owners/managers, the public and local businesses.</li> <li>The CFMP identifies the following objectives:</li> <li>Where possible, flood risk should be managed by storing water on the floodplain upstream of Chelmsford.</li> <li>Redevelopment of floodplain areas is an opportunity to increase their flood resilience.</li> <li>Flood awareness plans will be used to manage the consequences of flooding.</li> </ul>   | No adverse effect on<br>sites also exposed<br>to effects of CCC<br>plan   | No                    | None of the sites exposed to potentially<br>significant effects as a result of the CCC plan<br>will be significantly affected by the CFMP so in<br>combination risks are limited.      |
| Braintree District Council<br>Site Allocations and<br>Development Management<br>Plan (2014) | The pre submission site allocations plan shows the location of smaller<br>non-strategic site allocations needed to meet the Council's Core Strategy<br>required level of housing development up to 2026.<br>The ADMP has reviewed existing employment sites in accordance with<br>the NPPF requirements and identifies which employment sites in current<br>or recent use, should be protected for employment uses, and which<br>should instead be allocated for housing, retail or other purposes.  | No significant effect   | No                    | Potential 'quantum of development' effects<br>through recreational pressure on some sites;<br>explored in Section 5.   |



| Plan  | Summary  | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes  |
|---|--|---|-----------------------|--|
| Braintree District Council<br>Core Strategy (2011)  | The Core Strategy sets out strategic growth locations and the level of provision that should be made for future housing in each of the towns, key service villages and other villages in the District.<br>The Core Strategy sets out the overall target for job provision in the District between 2001 and 2026, as well as identifying strategic employment allocations.<br>The Core Strategy identifies broad areas of growth for town centre retailing and regeneration.  | No significant effect   | No                    | Potential 'quantum of development' effects<br>through recreational pressure on some sites;<br>explored in Section 5. |
| Maldon District Council Pre-<br>submission Local<br>Development Plan 2014-<br>2019 (2014) | The LDP covers the whole of the Maldon District Council authority area.<br>This equates to an area of 36,000 hectares which includes 70 miles of<br>coastline.<br>The settlements of Maldon, Heybridge and Burnham-on-Crouch are<br>important drivers to the local economy. They collectively contribute<br>approximately 18,000 jobs, which amounts to approximately two-thirds of<br>all jobs in the District Historically, Maldon's economy was based on<br>agricultural production, coastal trade and manufacturing. However, in<br>recent decades there has been a shift towards a mixed economy with an<br>increased service sector.<br>The District has strong spatial connections with a number of important<br>growth areas including, the Haven Gateway, the Thames Gateway,<br>London, Chelmsford and the M11 corridor.<br>The District's natural landscape is dominated by the two estuaries and<br>the extensive flat and gently undulating alluvial plain along the Rivers<br>Blackwater and Crouch. | No significant effect   | No                    | Potential 'quantum of development' effects<br>through recreational pressure on some sites;<br>explored in Section 5. |



| Plan   | Summary   | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes  |
|--|---|---|-----------------------|--|
| Rochford District Council<br>Core Strategy (2011)    | The District of Rochford is situated within a peninsula between the<br>Rivers Thames and Crouch, and is bounded to the east by the North<br>Sea. The District has land boundaries with Basildon and Castle Point<br>District and Southend–on–Sea Borough<br>Councils. It also has marine boundaries with Maldon and Chelmsford<br>Districts. The District has linkages to the M25 via the A127 and has a<br>direct rail link to London.                                     | No significant effect   | No                    | Potential 'quantum of development' effects<br>through recreational pressure on some sites;<br>explored in Section 5. |
|  | The District is predominantly rural, which is reflected in the fact that 12,763 hectares are designated as Metropolitan Green Belt. Large areas of the District are of ecological importance, with Sites of Special Scientific Interest totalling 12,986 hectares.  |   |                       |  |
|  | The strength of the spheres of influence of the large neighbouring<br>centres of Southend, Basildon and Chelmsford means that traffic is<br>drawn through Rochford District's own centres to them. This not only has<br>an impact on traffic congestion ingeneral, but also engenders concern<br>with regards to air quality within the District's town centres.  |   |                       |  |
|  | Particular locations where this is a concern include east of Rayleigh,<br>where commuters to Basildon and<br>Chelmsford are drawn through the centre of Rayleigh; west of Hockley,<br>where those commuting by car to Southend or Chelmsford/Basildon are<br>drawn through the centre<br>of Hockley or Rayleigh, respectively; and east of Rochford, where<br>vehicular movements would inevitably be directed through Rochford's<br>historic centre.                       |   |                       |  |
| Rochford District Council<br>Allocations Plan (2014) | The Core Strategy is the overarching planning policy document of the LDF, which sets out our main issues for the future and the policies which will shape the future development of the District. The Allocations Document sits below the Core Strategy in the LDF.   | No significant effect   | No                    | Potential 'quantum of development' effects through recreational pressure on some sites; explored in Section 5.       |
|  | The Allocations document provides a structure for clear, visible,<br>consistent decision making by ensuring that land allocations for different<br>uses are clearly set out. The Allocations Document does not just identify<br>land for residential, educational, and employment development, sites<br>across the District are also set out in this document for protection,<br>including the Green Belt, Local Wildlife Sites, open spaces and the<br>Upper Roach Valley. |   |                       |  |



| Plan   | Summary  | Likely net effect of<br>plan on European<br>sites (based on<br>plan HRAs) | LSE with TDC<br>Plan? | Notes  |
|--|--|---|-----------------------|--|
| Basildon 2031 - Local Plan<br>Core Strategy (emerging) | The Core Strategy Revised Preferred Options Report is a draft planning<br>blueprint being prepared by Basildon Borough Council as the Local<br>Planning Authority for next twenty years to establish a framework for the<br>Borough's future growth until 2031.  | ТВС   | No                    | Potential 'quantum of development' effects through recreational pressure on some sites; explored in Section 5. |
| Colchester Adopted Local<br>Plan 2001 – 2021           | The Council currently has a set of adopted Development Plan<br>Documents which are intended to plan for the future of the borough up to<br>2021. These comprise the following documents: Core Strategy (adopted<br>2008, amended 2014), the Site Allocations DPD (adopted 2010),<br>Development Policies DPD (adopted 2010, amended 2014), Proposals<br>Maps (adopted 2010) and the Tiptree Jam Factory DPD (adopted 2013) | No significant effect   | No                    | Potential 'quantum of development' effects through recreational pressure on some sites; explored in Section 5. |
| Colchester Emerging Local<br>Plan 2017-2033            | Emerging local plan currently at preferred options stage; HRA not<br>publically available but no allocations etc likely to interact with the CCC<br>plan except through broader 'quantum of development' effects through<br>recreational pressure on some sites, notably the Blackwater estuary.   | TBC   | No                    | Potential 'quantum of development' effects through recreational pressure on some sites; explored in Section 5. |



