

Colchester Borough Council

Publication Draft Local Plan (Regulation 19) – Section Two

Habitat Regulations Assessment Report

Spatial Policy Team

June 2017

Contents

1. Introduction	3
2. Methodology and Screening Assessment	4
European sites.....	4
Colchester Local Plan.....	5
3. Pathways of impact and likely significant effects.....	7
Recreational disturbance (physical site disturbance and disturbance to birds).....	7
Air quality	7
Water quality.....	8
Water resources	8
Urbanisation (fly tipping and predation)	8
4. Screening	9
European Sites that were screened out.....	9
Policies that were screened in	12
5. The Appropriate Assessment stage	14
Colne Estuary SPA.....	14
Blackwater Estuary SPA.....	21
Essex Estuaries SAC.....	27
Stour and Orwell Estuaries SPA.....	35
6. In-combination assessment.....	37
Recreational disturbance.....	37
Water based recreation	41
Water resources and water quality	41
7. Conclusion and summary of recommendations	42
Appendices	44
Appendix A: Information about European Sites scoped into Section 2 of the Colchester Local Plan.....	45
Appendix B: Loss of offsite functional habitat	66
Appendix C: Summary of other plans and projects for in-combination assessment ...	69

Appendices D (HRA Screening Matrix for Section 2 of the Colchester Local Plan) and E (New Policies Screening) are include in a separate document.

1. Introduction

The Habitats Regulations Assessment of land use plans relates to Special Protection Areas (SPAs), Special Areas of Conservation (SAC) and Ramsar Sites. SPAs are sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), more commonly known as the Birds Directive. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species. SACs are classified in accordance with EC Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Article 3 of this Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive. These sites are known as the Natura 2000 network and are commonly referred to as European sites. Whilst the Directives do not define European sites a statutory definition is given in regulation 8 of the 2010 Regulations.

Ramsar Sites are designated under the International Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention, Iran 1971 and amended by the Paris Protocol 1992). Although Ramsar Sites are not protected in law by the Birds and Habitats Directives as a matter of policy government has decreed that unless otherwise specified procedures relating to SPAs and SACs will also apply to Ramsar Sites.

The Conservation of Habitats and Species Regulations 2010 consolidated the former 1994 Regulations. The 2010 Regulations transpose various obligations of both the European Birds and Habitats Directives.

Habitat Regulations Assessment is a step by step decision making process. It can be broken down into the following four stages:

1. Screening
2. Appropriate assessment
3. Alternative solutions
4. Imperative reasons of overriding public interest and compensatory measures.

This report is stage 2, the appropriate assessment. The Local Planning Authority (LPA) prepared a screening matrix in December 2016 and consulted Natural England. The screening opinion concluded that likely significant effects alone and in-combination cannot be ruled out for a number of policies and so an appropriate assessment is required. This appropriate assessment will consider likely significant effects and suggest mitigation measures where necessary to enable the LPA to conclude that Section 2 of the Local Plan will not adversely affect the integrity of European sites alone or in-combination, and avoid the need for the process to proceed to stage 3 (alternative solutions).

It is important to recognise that the Habitat Regulations Assessment does not necessarily restrict growth, it can be a positive tool to ensure that new development in the Borough has a positive impact on the environment and negative impacts are avoided or mitigated, through for example, increased provision of open space, sustainable urban drainage systems and high quality design.

2. Methodology and Screening Assessment

The appropriate assessment has been undertaken using the DTA Handbook 'Habitat Regulations Assessment Handbook', advice from Natural England, research of good practice, Appropriate Assessment guidance, the appropriate assessment of Section 1 and the Local Planning Authority's (LPA) previous experience of HRA.

European sites

It is established practice in HRAs to consider European sites within the LPA area covered by the Local Plan, and also within a buffer distance of 10km to 20km. Consistent with the HRA for Section 1 of the Local Plan, a distance of 20km was used to identify European sites likely to be affected.

European sites within 20km of Colchester Borough include the following:

- Essex Estuaries SAC
- Hamford Water SAC, SPA and Ramsar site
- Stour and Orwell Estuaries SPA and Ramsar site
- Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site
- Outer Thames Estuary SPA
- Abberton Reservoir SPA and Ramsar site
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site
- Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar site
- Deben Estuary SPA and Ramsar site
- Alde-Ore-Estuary SPA and Ramsar site
- Alde, Ore and Butley Estuaries SAC
- Orfordness – Shingle Street SAC
- Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site
- Sandlings SPA
- Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site
- Staverton Park and The Thicks, Wantisden SAC
- Breckland SPA
- Devil's Dyke SAC

The following European sites are located within Colchester Borough:

Designated under the Birds Directive:

- Abberton Reservoir SPA;
- Blackwater Estuary (Mid Essex Coast Phase 4) SPA; and
- Colne Estuary (Mid Essex Coast Phase 2) SPA.

The Stour and Orwell Estuaries SPA is located outside of the Borough, but receives discharges from villages in the north of the Borough and is thus included in the HRA.

These sites are also designated under the Ramsar Convention on wetlands and the conservation features of this designation must also be considered.

Designated under the Habitats Directive:

- Essex Estuaries SAC.

As part of screening, the LPA identified that the European sites within Colchester Borough and the Stour and Orwell Estuaries SPA/ Ramsar were the only sites likely to be significantly affected by proposals and policies within Section 2 of the Colchester Local Plan, either alone or in-combination. Pathways of impact and likely significant effects were also identified as part of the screening process. Natural England were consulted on the European sites and likely significant effects to be included in the appropriate assessment of Section 2 of the Colchester Local Plan and agreed that likely impacts are limited to these European sites.

Appendix A includes a full summary of each of the European sites and their features. This includes information related to site specific threats and vulnerabilities for each European site, as highlighted in Natural England's Site Improvement Plan (SIP). A SIP has been developed for each European site in England as part of the Improvement Programme for England's Natura 2000 Sites. These plans provide a high level overview of the issues affecting the condition of European features on the sites and outlines priority measures required to improve the condition of the features. The Essex Estuaries SIP, of relevance to this assessment, covers the Blackwater Estuary SPA, Colne Estuary SPA and Essex Estuaries SAC.

The conservation objectives provide a framework which should inform the HRA. The conservation objectives for the European sites include maintaining qualifying features (habitats and species) in favourable condition. Conservation objectives are provided by Natural England. Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Birds Directive.

Integrity is defined in the DTA Handbook as "the coherence of its ecological structure and function across its whole area, that enables it to sustain the habitat, complex of habitats and/ or the levels of populations of the species for which the site is designated". Integrity can also include the quality or condition of the site.

The appropriate assessment is appropriate and proportional given the strategic level of the Colchester Local Plan. Planning applications with likely significant effects on European sites will be subject to Habitat Regulations Assessment.

Colchester Local Plan

The Colchester Local Plan is being prepared in two parts. Section 1 covers North Essex and includes proposals for three garden communities within Colchester, Braintree and Tendring. Section 2 includes Colchester specific policies and site allocations. Section 2 sets out strategic proposals for housing and employment within Colchester Borough. Land Use Consultants (LUC) prepared a screening report for Part 1 (HRA Screening Report for North Essex Authorities Strategic Part 1 for Local Plans, January 2017) and an appropriate assessment for Section 1 (HRA North Essex Authorities Shared Strategic Part 1 for Local Plans). The LPA has prepared a screening matrix for Section 2 of the Colchester Local Plan and has consulted Natural England. This report includes the findings of the screening opinion and takes account of comments made by Natural England. This is the LPAs appropriate assessment of Section 2 of the Publication Draft Colchester Local Plan.

A meeting was held on 24 November 2016 with representatives from Colchester Borough Council, Braintree District Council, Tendring District Council, Natural England and LUC. The LPA outlined the policies it had screened out. The range of zones of influence used to screen policies was discussed, based on the LPAs survey and monitoring work (2010-13). The need for a mitigation strategy for the Colne and Blackwater estuaries was discussed. It was agreed that a further meeting would be required in early 2017 to further discuss Part 1 and the mitigation strategy.

Representatives from the same organisations met on 8 February 2017. LUC outlined the conclusions from the Section 1 HRA screening. At this meeting the following conclusions were agreed amongst those present. The findings of the Section 1 HRA screening need to be considered in-combination with Section 2. It was acknowledged that if evidence is lacking policy wording must include a caveat to ensure that development will not come forward until infrastructure is in place, this may be necessary in relation to water quality. It was agreed that within coastal areas dog walkers are the biggest issue/ threat to European sites and the issue of recreational disturbance should form a key part of the appropriate assessment. Natural England acknowledged that it is difficult to link activities such as jet skis. Natural England said that in order to conclude no likely significant effects the North Essex LPAs would all be expected to contribute towards and work on a Recreational Avoidance and Mitigation Strategy. This should be adopted as SPD and must be in place prior to plan adoption.

DRAFT

3. Pathways of impact and likely significant effects

Recreational disturbance (physical site disturbance and disturbance to birds)

Physical site disturbance

Physical disturbance relates to actual damage or degradation of habitat from direct human activities. Examples in the context of this assessment relate to damage to habitat from walking (trampling of vegetation) and the abrasion of intertidal or freshwater habitat from boat wash/anchoring. This issue is relevant to the habitats for which European sites are designated (e.g. damage to saltmarsh communities on the Essex Estuaries SAC) or habitat which supports designated species (e.g. sand and gravel shores on the Colne Estuary SPA). Recreational users can damage habitat and cause severe disturbance to wildlife, particularly nesting birds in summer and feeding and roosting waterfowl in winter.

Disturbance to birds

Many human activities have the effect of degrading parts of estuarine ecosystems through for example, over-exploitation of their natural resources and excessive discharge of wastes and pollution. However, over a third of the population nationally live in towns and cities around estuaries and so careful consideration is needed to protect these environmentally important sites and manage the increasing recreation impacts associated with a growing population.

The primary source of non-physical disturbance relates to an increase in the number of visitors to European sites due to increases in housing, an associated increase in demand for recreation and tourism facilities near to these sites. This is a key issue for Colchester's Local Plan and one that could not be screened out. Colchester's objectively assessed need for housing is 920 dwellings per year and this is likely to increase visitor pressure to the Borough's European sites.

Air quality

Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels that can then affect plant health, productivity and species composition.

In terms of vehicular traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water.

Central government is currently consulting on a draft plan to improve air quality by reducing nitrogen dioxide levels in the UK. The plan includes a range of measures that could be taken to mitigate the impact of action to improve air quality. A final plan is expected to be published on 31 July 2017.

Water quality

A growth in population resulting from an increase in housing will result in increased demands on the wastewater treatment system and will likely necessitate increased discharge consents and possibly even the establishment of new wastewater treatment works. Population expansion has the potential to increase nutrient loading to the European sites, with the potential for impacts on site integrity through eutrophication.

Water resources

Unsustainable rates of abstraction reduce water flows and may result in lower flow velocities, reduced depths and reduced flow continuity that may alter ecological status. This, combined with higher concentrations of nutrients such as phosphate and nitrate may lead to algal blooms. More frequent periods of summer low rainfall are expected under current climate change prediction scenarios which may increase the environmental impact of flow problems. The largest demand for water comes from the public water supply and in order to reduce abstraction, abstractors have been tasked to use water more efficiently.

Urbanisation (fly tipping and predation)

The impact of urbanisation is closely linked to recreational pressure. Both result from an increase in population close to European sites. Fly tipping can adversely affect European sites through the introduction of invasive species. It is becoming a greater problem in rural areas.

Predation of ground nesting birds by cats is potentially a significant issue for European sites. This is particularly relevant where new housing allocations are provided within 0.5 - 1km of a European site, which is the distance recommended by the RSPB as being the typical range of influence for domestic cats. This issue in Colchester Borough relates to the predation of ground nesting species such as Little Tern and Ringed Plover. Following discussions with Natural England as part of previous appropriate assessment work it was considered that cat predation was unlikely to be an issue for this strategic level assessment. Most sites are in themselves more than 1km wide, and for coastal sites, this therefore provides an adequate buffer for foreshore nesting birds, even if development abutted the site. It is considered therefore that the issue of predation will not result in any direct effects on European sites and can be screened out.

4. Screening

The LPA prepared a screening matrix in December 2016. The categories in the DTA Handbook were used to explain the reasons why policies and site allocations were screened in or out alone and in-combination. This section of the report outlines the European sites that were screened out and those policies that were screened in to the appropriate assessment. More detail, including the justification for this, is available in the screening opinion tables in appendix D (please note appendix D is a separate document).

European Sites that were screened out

Survey and monitoring programme

As an outcome of the appropriate assessment of the Core Strategy (2008) the LPA carried out a 3-year survey and monitoring programme to establish a baseline understanding of visitors to European sites in Colchester Borough and Tendring District. This programme was carried out jointly with Tendring District Council and Braintree District Council and so European sites in Tendring District were also surveyed. In December 2009 the LPA sent Natural England a draft methodology for the programme. Natural England responded positively to the methodology in June 2010. The only suggestion made was to carry out surveys in June and November, which covers the sensitive breeding and overwintering periods and also catches higher visitor numbers. The LPA were happy to incorporate Natural England's suggested amendment into the methodology. In October 2010 the LPA met with Natural England in advance of the commencement of the first survey in November 2010. The locations and frequency of the surveys and the questionnaire was agreed. Contact was maintained with Natural England throughout the 3-year survey and monitoring period. Natural England were sent a copy of the report produced for each of the six survey periods and meetings were held in January 2013 and May 2013.

The European sites in Colchester and Tendring are incredibly large, coastal/estuarine sites and it is not possible to monitor visitors to every single part of the sites. With the exception of Abberton Reservoir which is a more contained site, surveys took place at two different locations within each European site. These locations were agreed by Natural England. Survey sites were selected based on their proximity to key centres of population, extent of the public footpaths and the availability of car parking. In several cases survey work took place within nature reserves and country parks. Whilst it is accepted that survey work can only ever be a snapshot of visitors, the surveys show patterns, which provides useful data on why people like to visit European sites, where they travel from, how frequently they visit, etc. Surveys took place twice a year (in June and November) for three years, and so a good understanding of visitors to European sites in Colchester and Tendring has been gathered. The surveys identified site characteristics which influence visitor numbers and show that many sites clearly serve certain functions. Natural England commented in a letter dated 7 June 2013 that: "knowing these site specific factors is invaluable in understanding the distribution of visitors, as is noting any other important sources of disturbance to birds".

The visitor monitoring surveys carried out by the LPA has enabled the LPA to set a zone of influence. This is the distance that the majority of visitors at any site are drawn

from. Natural England recommend setting the zone of influence based on the distance where 75% of visitors have travelled to a European Site. However, owing to the survey and monitoring methodology it has not been possible to identify where 75% of visitors travel from. The data instead allows the LPA to identify where the majority of visitors travel from and use this to set a zone of influence. The table, below, shows the zone of influence set for each European site. There are unlikely to be significant numbers of visitors from outside of the zone of influence and so development outside of this zone can be concluded as not likely to lead to significant effects to European sites from recreational disturbance.

European site	Zone of influence	Notes
Abberton Reservoir	10 miles / 16 km	53% of groups travelled less than 10 miles
Blackwater Estuary	5 miles / 8km	70% of groups at The Strood Channel travelled less than 5 miles 64% of groups at Old Hall Marshes travelled less than 5 miles
Colne Estuary	15 miles / 24km	70% of groups at Cudmore Grove travelled less than 15 miles
Stour and Orwell Estuaries	5 miles / 8km	67% of groups at Stour Estuary travelled less than 5 miles 53% of groups at The Walls travelled less than 5 miles

Abberton Reservoir SPA

Abberton Reservoir is a large fresh water reservoir located approximately 6 miles south west of Colchester. The site is a designated SSSI, SPA and Ramsar site principally for the internationally important populations of regularly occurring Annex 1 and migratory bird species. There is an Essex Wildlife Trust Visitor Centre at Abberton Reservoir that is accessible from the B1026. There is no public access around the reservoir itself however there are a number of permissive routes around the reserve leading to bird hides which provide excellent visual access to wildlife visiting the site. The surveys showed that 79% of visitors interviewed over the 3-year period were visiting to bird watch. Abberton Reservoir was screened out of the HRA because access is quite restricted, with the existing public and permissive rights of way set well back from the waters' edge to minimise bird disturbance. Abberton Reservoir is well policed, which keeps trespassing/ disturbance to an acceptably low level and dogs are not permitted on the reserve.

Abberton Reservoir does not supply water to Colchester Borough, there are therefore no likely significant effects in terms of water quality or resources alone or in-combination.

Consequently, Section 2 of the Colchester Local Plan will not lead to likely significant effects to Abberton Reservoir alone or in-combination.

Stour and Orwell Estuaries SPA

The Stour and Orwell Estuaries SPA was screened out of the adopted Site Allocations Development Plan Document (2010) as it was concluded that the site allocations in the adopted development plan would not result in a significant increase in visitors to

the Stour and Orwell Estuaries SPA and would not therefore adversely affect the integrity of the SPA. This decision was agreed by Natural England.

The Stour and Orwell Estuaries SPA was screened out of the Section 2 HRA by the LPA in terms of recreational disturbance because, as highlighted in the previous section, the LPAs survey work supports the view that an increase in population in Colchester Borough will not result in a significant increase in visitors to the Stour and Orwell Estuaries SPA and therefore not result in significant adverse effects. This decision is not supported by Natural England.

An opinion delivered to the Court of Justice of the European Union (Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22 Nov 2012) commented that:

"The requirement that an effect in question be 'significant' exists in order to lay down a de minimus threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

The Section 1 HRA screening report recognises that there are many uncertainties associated with using set distances to determine zones of influence as there are very few standards available as a guide to how far impacts will travel (paragraph 4.2). The screening report goes on to say that each European site susceptible to the effect of recreation will typically have a zone of influence within which increases in population would be expected to result in likely significant effects. Zones of influences are usually established following targeted visitor surveys and findings are typically specific to each European site and often to specific areas within a European site (paragraph 4.18).

The LPA questions the figure of 15km suggested by Natural England to be applied as a zone of influence for the Stour and Orwell Estuaries SPA. It is understood that this figure was suggested by Footprint Ecology as part of their work on the north shore of the Stour and Orwell Estuaries SPA. However, this work does not consider the south shore of the Stour and Orwell Estuaries SPA and is at odds with the findings of the Colchester Borough survey and monitoring, which established a zone of influence of 8km, which was previously agreed with Natural England.

The Stour Estuary and The Walls, Manningtree were the two survey sites selected in discussion with Natural England for the Stour and Orwell Estuaries. The 3-year survey work found that 48% of visitors interviewed who gave their home town at the Stour Estuary lived in the Harwich urban area and 41% at The Walls lived in the Manningtree urban area. For both survey sites, the majority of visitors said that they had travelled less than 5 miles (67% of groups at Stour Estuary and 53% of groups at The Walls). Further analysis looking at visitors from Colchester Borough showed that over the 3-year survey period, only 37 out of 480 visitors to both survey sites lived in Colchester Borough. This equates to just 7% of total visitors. These findings support the conclusion that population growth in Colchester Borough will have no appreciable effect on the issue of recreational disturbance to the Stour and Orwell Estuaries SPA. Any effects, alone or in-combination, will be insignificant and therefore can be screened out of the HRA. However, this conclusion is at odds with the conclusion reached in the Section 1 Local Plan HRA and so the issue of recreational disturbance

at the Stour and Orwell Estuaries is discussed further in the in-combination effects section of this report.

HRA screening for Section 2 of the Colchester Local Plan has however identified that there may be likely significant effects due to water quality issues associated with proposed dwellings in Langham and so for water quality the Stour and Orwell Estuaries is screened in and discussed in the appropriate assessment part of this report.

Policies that were screened in

The following policies were screened in for further assessment on the basis that they present potential impact pathways by which a likely significant effect on a European site may occur.

Section 2 Colchester Local Plan policies screened in

Policy	Reason screened in
SG2: Housing Delivery	Housing Delivery due to recreational disturbance on the Colne Estuary, Blackwater Estuary and Essex Estuaries SAC as a result of the Colchester/ Tendring Borders garden community.
SS11: Langham	Langham for water quality issues only.
SS12a: Mersea	Mersea due to recreational disturbance on the Colne and Blackwater estuaries.
SS12b: Coast Road	Mersea due to recreational disturbance on the Colne and Blackwater estuaries.
SS12c: Caravan Parks	Mersea due to recreational disturbance on the Colne and Blackwater estuaries.
SS16: Wivenhoe	Wivenhoe due to recreational disturbance on the Colne and Blackwater estuaries in-combination with the Colchester/ Tendring borders garden community.
OV1: Other Villages	Other Villages as the policy could lead to development of land close to European sites.
OV2: Countryside	Policy could lead to development of land close to European sites.
DM6: Economic development in rural areas and the countryside	Economic development in rural areas and the countryside due to potential effects on the quality of receiving water bodies.
DM25: Renewable Energy, Water, Waste and Recycling	Renewable Energy, Water, Waste and Recycling due to potential effects on the Colne Estuary from district heating networks.

SS13 Rowhedge (Battleswick Farm) was also screened in but this allocation has now been removed.

Seven new polices have been added into Section 2 of the Colchester Local Plan since the publication of the Preferred Options consultation and the allocation in Rowhedge has changed. The polices have been screened and are included as an addendum to the original screening opinion in appendix E of this report. None of these policies will lead to likely significant effects to European sites.

PP1 - Generic infrastructure and mitigation requirements
ENV 5 - Pollution and Contaminated Land
TC4: Transport in Colchester Town Centre
NC4: Transport in North Colchester
SC4: Transport in South Colchester
EC4: Transport in East Colchester
WC5: Transport in West Colchester
SS13: Rowhedge (new residential allocation)

DRAFT

5. The Appropriate Assessment stage

Colne Estuary SPA

The conservation objectives for the Colne Estuary (Mid-Essex Coast Phase 2) SPA are as follows:

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), 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.

Qualifying features of the Colne Estuary SPA

Dark-bellied brent goose (non-breeding) (<i>Branta bernicla bernicla</i>) Common pochard (breeding) (<i>Aythya farina</i>) Hen harrier (non-breeding) (<i>Circus cyaneus</i>) Ringed plover (breeding) (<i>Charadrius hiaticula</i>) Common redshank (non-breeding) (<i>Tringa totanus</i>) Little tern (breeding) (<i>Sterna albifrons</i>) Waterbird assemblage

Disturbance of birds by human activity

Direct disturbance from building activity

No sites are allocated adjacent to any European sites. However, non-strategic sites could come forward during the plan period. Policies OV1, OV2 and DM6 were screened in as these policies support small scale development in rural areas. To ensure that these policies will not lead to likely significant effects the following wording should be added to the supporting text:

“Proposals in close proximity to a European site must demonstrate through HRA screening that the scheme will not lead to likely significant effects to the integrity of the European site. Where this cannot be ruled out, a full appropriate assessment will be required to be undertaken.”

Recreational disturbance

The Colne Estuary SPA and Ramsar site is located along the southwest of Tendring District and southeast of Colchester Borough. The key threat to this site relates primarily to disturbance of water birds from people and dogs, in addition to water sports such as use of jet skis and motorboats.

The Section 1 Local Plan screening report states that each European site susceptible to the effect of recreation will typically have a zone of influence within which increases in population would be expected to result in likely significant effects. Zones of influences are usually established following targeted visitor surveys and findings are typically specific to each European site and often to specific areas within a European site (paragraph 4.18).

The survey and monitoring work undertaken by the LPA on behalf of the North Essex Authorities can be used as evidence to help define zones of influences for the Colne Estuary SPA. Survey work at Cudmore Grove found that 70% of groups interviewed travelled less than 15 miles (24km). This site has a wide draw, with people prepared to travel far to visit. It is not restricted to local walkers/ dog walkers, like many of the sites surveyed. However, the vast majority of visitors to Cudmore Grove visited the grassy country park area and beach. The most sensitive parts of the site were not frequently visited. Cudmore Grove is a country park managed by Essex County Council, visitors are actively encouraged and a warden maintains a presence on the site, ensuring its day to day management and protection. Evidence from the warden confirms that very few visitors to Cudmore Grove venture out onto the mudflats. Disturbance to mudflats tends to occur on hot and busy weekends when there is a low tide. This disturbance thus avoids the sensitive over-wintering and spring breeding periods.

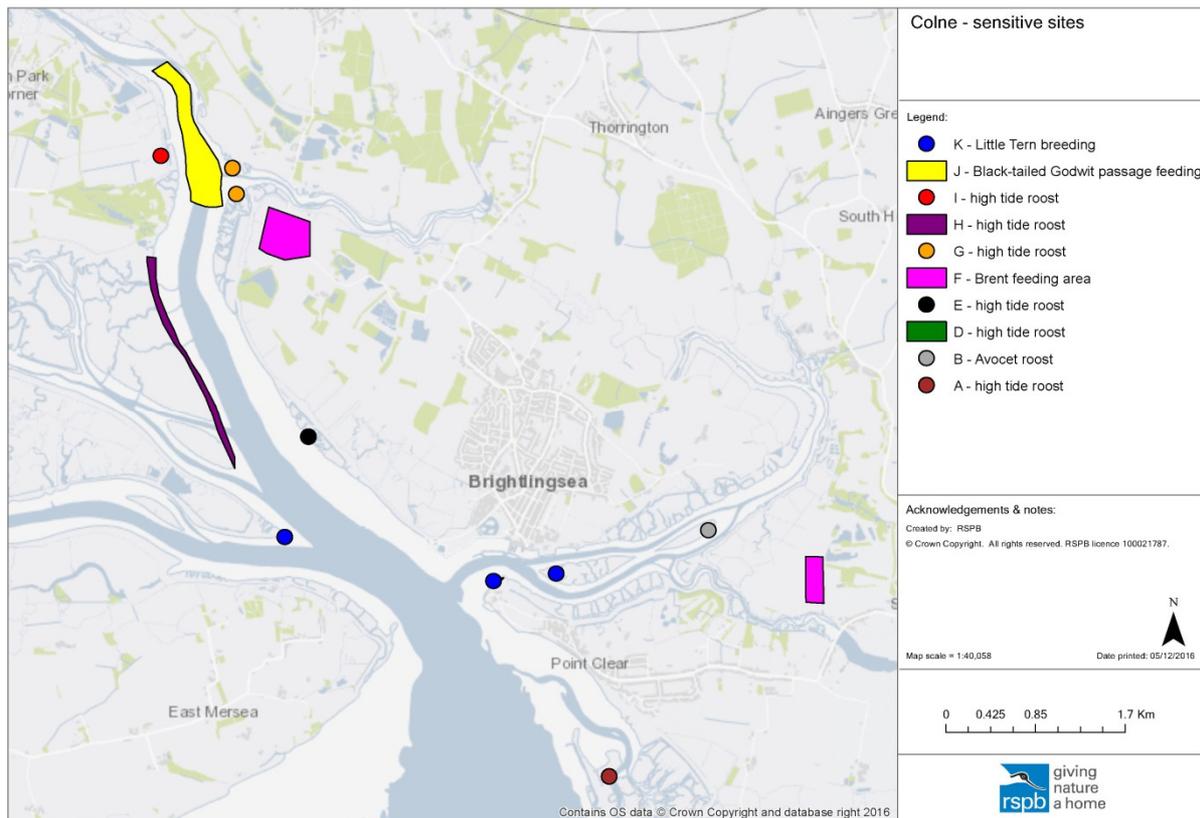
There are also alternative green spaces in Colchester, which provide alternative recreational opportunities. Survey and monitoring found that 76% of those surveyed at Cudmore Grove said that they visit alternative sites regularly. The beach and Friday Woods in Colchester were the most common alternatives referred to.

Brightlingsea Marshes was also surveyed, but as this site is located within Tendring District the findings are not directly relevant to the Section 2 appropriate assessment. The Section 1 appropriate assessment outlines the findings of the Brightlingsea Marshes survey.

Natural England and Essex Wildlife Trust manage the Colne Estuary National Nature Reserve and Colne Point Nature Reserve, which lie within the SPA. Access at Brightlingsea Marshes and Colne Point is restricted to permit holders only. Dog walking is also prohibited at Colne Point as the nature reserve supports an important breeding site for Little Terns.

Figure 1, below, was produced by the RSPB and identifies the most sensitive areas of the Colne Estuary for qualifying bird species. This figure demonstrates that the sensitive sites are not located close to proposed housing sites or to sites that are easily accessible, such as Cudmore Grove and Brightlingsea Marshes. Consequently the LPA is confident that Section 2 of the Colchester Local Plan will not adversely affect the integrity of the Colne Estuary SPA.

Figure 1: Colne Estuary sensitive bird sites identified by RSPB



Water based recreational activities including sailing, motorboats, and jet skis have also been identified as resulting in disturbance to SPA/Ramsar bird species. Within the Colne Estuary, the primary marina's and launch sites are located in Wivenhoe and Brightlingsea (which is in Tendring District) but impacts are likely to occur at locations where such activities occur in proximity to areas of sand and mudflats where birds are feeding, and high tide roosts associated with salt marshes. Jet skis often launch from The Strood, this is uncontrolled and is a potential threat to the Colne Estuary.

The Section 1 appropriate assessment (paragraphs 6.29-6.30) concluded that the effect of water based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK suggest that people will travel relatively far to partake in such activities and that they are more prevalent in the summer months. Given the specialist nature of these activities and that their prevalence is greater in the summer months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Local Plans is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan do not result in adverse effects on the Colne Estuary SPA/Ramsar, appropriate mitigation will be required. The most effective means of control is likely to be through the promotion of a code of conduct targeted to marinas and leisure operators. The marine police and harbour masters have recently been active on the water and have issued fines for speeding. This increased presence will help to reduce likely effects from water based recreation.

The warden at Cudmore Grove has reported that jet skiing activity has increased over the last year from the increase in visitors at Mersea's caravan sites. This takes place at high tide and increased usage throughout the year will impact on the great crested

glebe flock of 700+ birds offshore from Coopers Beach (although this is not a key feature of the Colne Estuary SPA). Section 2 of the Colchester Local Plan does not allocate land for the extension of any of the caravan sites. The issue of increased jet skiing will need to be considered if a proposal to extend any of the caravan sites is submitted to the LPA.

Alone Section 2 of the Colchester Local Plan will not lead to likely significant effects to the Colne Estuary in terms of recreational disturbance as access to the most sensitive sites is either restricted or, in the case of Cudmore Grove, the sensitive sites are not accessed by the vast majority of visitors. However, there is the potential for likely significant effects in-combination with Section 1. These in-combination effects are explored in the in-combination section of this appropriate assessment.

Air quality

A new policy, below, has been added to Section 2 of the Colchester Local Plan to address pollution, including air pollution.

“Policy ENV5: Pollution and Contaminated Land

Proposals will be supported that will not result in an unacceptable risk to public health or safety, the environment, general amenity or existing uses due to the potential of air pollution, noise nuisance, surface / ground water sources or land pollution.

Proposals for developments within designated Air Quality Management Areas (AQMAs) or where development within a nearby locality may impact on an AQMA are required, first, to be located in such a way as to reduce emissions overall, and secondly to reduce the direct impacts of those developments. Applicants shall, prepare and submit with their application a relevant assessment, taking into account guidance current at the time of the application, which must be to the satisfaction of the Local Planning Authority. Permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable significant impact on air quality, health and well - being.

Development proposals on contaminated land, or where there is reason to suspect contamination, must include an assessment of the extent of contamination and any possible risks. The onus is on the applicant to demonstrate that there is no likely risk to health or the environment due to contamination. Where planning permission is granted, conditions may be imposed requiring the execution of any necessary remedial works. Where a site is affected by land contamination, responsibility for securing a safe development rests with the developer and/or landowner, who will be required to carry out the above. After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990.”

Policy ENV5, through the requirement for the LPA to be satisfied that development will not have an unacceptable significant impact on air quality, will ensure that Section 2 of the Local Plan will not lead to likely significant effects to the Colne Estuary SPA in terms of air quality alone or in-combination.

Water quality

The Water Cycle Study (December 2016), which is a key evidence base document for the Colchester Local Plan and the HRA, found that only the Langham (East) Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accommodate additional wastewater from the proposed increase in development within the WRC catchment. All other WRCs serving the Borough have sufficient capacity to accommodate additional wastewater/sewage from the proposed increase in development.

On a precautionary basis, to help prevent deterioration in water quality, Section 2 of the Colchester Local Plan includes requirements for the use of sustainable urban drainage systems (SuDS). SuDS will help manage pollution and enhance aquatic biodiversity. Policy PP1 (Generic infrastructure and mitigation requirements) includes a criteria requiring “appropriate SuDS for managing surface water runoff within the overall design and layout of the site”. Policy DM24 (Sustainable urban drainage systems) requires all new residential and commercial development, car parks and hard standings to incorporate SuDS. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Colne Estuary SPA in terms of water quality alone or in-combination.

Water resources

The Water Cycle Study concluded that, allowing for the planned resource management of Anglia Water Services Essex Resource Zone, Colchester Borough will have adequate water supply to cater for growth over the plan period. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Colne Estuary SPA in terms of water resources alone or in-combination.

The Water Cycle Study has identified that there are long term limitations on further abstraction from the raw water resources supplying the Borough, but this is beyond the plan period. However, in order to recognise the importance of managing water demand and move towards achieving water neutrality, policy DM25 of Section 2 of the Local Plan requires new residential development to meet the optional tighter water requirement included in Part G of Building Regulations and non-residential development to achieve BREEAM very good.

Urbanisation (fly tipping, vandalism and predation)

Fly tipping is a growing issue that needs further consideration through the appropriate assessment for Section 2 of the Local Plan. Any development within 400 metres of the Colne Estuary SPA has the potential to lead to an increase in fly tipping and vandalism. 400 metres was defined by Natural England to prevent likely significant effects on the Thames Basin Heaths SPA. This distance has also been used to prevent likely significant effects on the Upper Nene Valley Gravel Pits SPA. Whilst the Colne Estuary is different to these two SPAs it is appropriate to use this figure as it has been approved by Natural England.

There are no residential or employment allocations within 400 metres of the Colne Estuary. However, it is possible that rural employment sites could come forward

through the development management process. To prevent any negative likely significant effects wording is recommended to policy DM6 (Economic development in rural areas and the countryside) stating that any planning application within 400 metres of a European site must provide mechanisms to prevent fly tipping, the introduction of invasive species and vandalism.

Section 2 of the Local Plan will not lead to likely significant effects to the Colne Estuary in terms of urbanisation alone or in-combination.

Loss of offsite functional habitat

The Section 1 screening report found that loss of offsite habitat has the potential to indirectly affect European sites where the habitats provide functionally supporting habitat upon which the qualifying species depend. The report states that sites with increased likelihood of representing important offsite resources for qualifying species tend to include those that are larger, located close to the SPA, are prone to flooding, have a high degree of openness and an absence of negative factors such as edge features and human disturbance. Habitats located further from European sites may be used by qualifying species but are unlikely to support numbers than would lead to a likely significant effect.

All of the site allocations in Section 2 of the Colchester Local Plan were assessed against the criteria set out in the Part 1 screening report and it was found that none of the sites represent an important offsite resource. Appendix B includes the findings of the offsite functional habitat assessment.

Dawes Lane, West Mersea meets three of the five criteria. It is a large site, it is prone to surface water flooding and it has a high degree of openness. However, this site is not offsite functional habitat as it has edge features and human disturbance. The Glebe football ground is also located directly to the north. This is a busy, well used site and the high degree of human disturbance rules out the likelihood of Dawes Lane being used as offsite functional habitat.

The Section 1 appropriate assessment concludes that whilst the Tendring/ Colchester Borders Garden Community provides suitable offsite foraging habitat for golden plover and lapwing in the form of arable fields and short grazed pasture, in isolation the importance of such sites for these species is likely to be low when compared with the extensive areas of habitat of increased suitability both within the North Essex Authorities and the wider land areas surrounding these European sites. As a result, the potential for the loss of offsite habitat to adversely affect these species related primarily to the cumulative effect of reducing the extent of feeding areas. The likelihood of this occurring was considered low given the quality of the habitat affected and the small amount of habitat affected as a proportion of that available around each of the European sites. Nevertheless uncertainty remains under the precautionary principle as to whether the loss of the Tendring/ Colchester Borders Garden Community will, cumulatively with the loss of smaller non-strategic allocations adversely affect the integrity of the SPA/Ramsar sites in relation to golden plover and lapwing. On a precautionary basis and for consistency with the Section 1 appropriate assessment, the following mitigation measures, which are identified in the Section 1 appropriate assessment, are set out below:

- Wintering bird surveys will be required for Tendring/ Colchester Borders Garden Community as part of any project level development proposals and masterplanning, to determine the sites individual importance for golden plover and lapwing and inform mitigation proposals.
- A commitment to mitigation and phasing of the Tendring/ Colchester Borders Garden Community is required within the Section 1 Local Plan dependent on the findings of bird surveys. This will need to take into account the cumulative numbers of SPA birds affected as parcels of land come forward for development. In the unlikely but possible event that cumulative numbers of SPA birds affected are likely to exceed thresholds of significance (i.e. >1% of the associated European Site), appropriate mitigation in the form of habitat creation and management in perpetuity, either on-site or through provision of strategic sites for these species elsewhere, will be required. If required, mitigation will need to create and manage suitably located habitat which maximises feeding productivity for these SPA species, and such mitigatory habitat would need to be provided and fully functional prior to development which would affect significant numbers of SPA birds.

Providing that the mitigation measures, above, are incorporated into Section 1 of the Local Plan, the Colchester Local Plan Section 2 will not lead to likely significant effects to European sites in terms of loss of offsite functional habitat either alone or in combination.

Other

Policy DM25 promotes District Heating projects in the garden communities. Funding has recently been secured to deliver a District Heating Network as part of Northern Gateway proposals. Feasibility work is also continuing to deliver a similar District Heating Network in East Colchester.

The District Heating Network in the Northern Gateway will use water drawn from underground aquifers via boreholes. The heat will be extracted from the water using a pump with the cooled water then recirculated back to the ground water supplies.

The Northern Gateway is located approximately 12km to the western boundary of the Stour Estuary SPA, 8.5km from the northern extent of the Colne Estuary SPA, and 10.5km to Abberton Reservoir.

Feasibility work on the delivery of a proposed District Heating Network in East Colchester is currently focused on opportunities to deliver such a scheme at the University of Essex. The University is located 12km from the western boundary of the Stour Estuary SPA, 7km from Abberton and 3km for the northern boundary of the Colne Estuary SPA. Both District Heating Networks fall within the zones of influence for the Stour and Orwell Estuaries, Colne Estuary and Abberton Reservoir. In principle the District Heating Networks should not result in a net loss of available ground water and therefore in principle should not result in any likely significant effects with regards to water quantity or water quality within the identified European Sites.

As a precaution however, as these are new innovative projects that have not yet been delivered, it is recommended that the proposals are subject to a separate project level

HRA and if necessary, appropriate assessment, with any identified mitigation paid for by the applicant. This approach accords with proposed revised wording in policy ENV1 as set out below:

“Plans or projects, which may have a likely significant effect on a European site which have not been screened or considered in the Borough’s Habitat Regulations Assessment or Appropriate Assessment, will be required to prepare a separate HRA screening and if necessary to complete a separate appropriate assessment to ensure compliance with the Habitat Regulations 2010.”

Blackwater Estuary SPA

The conservation objectives for the Blackwater Estuary (Mid-Essex Coast Phase 4) SPA are as follows:

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the ‘Qualifying Features’ listed below), 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.

Qualifying features of Blackwater Estuary SPA

Dark-bellied brent goose (non-breeding) (<i>Branta bernicla bernicla</i>)
Common pochard (breeding) (<i>Aythya farina</i>)
Hen harrier (non-breeding) (<i>Circus cyaneus</i>)
Ringed plover (breeding) (<i>Charadrius hiaticula</i>)
Grey plover (non-breeding) (<i>Pluvialis squatarola</i>)
Dunlin (non-breeding) (<i>Calidris alpina alpina</i>)
Black-tailed godwit (non-breeding) (<i>Limosa limosa islandica</i>)
Little tern (breeding) (<i>Sterna albifrons</i>)
Waterbird assemblage

Disturbance of birds by human activity

Direct disturbance from building activity

No sites are allocated adjacent to any European sites. However, non-strategic sites could come forward during the plan period. Policies OV1, OV2 and DM6 were screened in as these policies support small scale development in rural areas. To ensure that these policies will not lead to likely significant effects the following wording should be added to the supporting text:

“Proposals in close proximity to a European site must demonstrate through HRA screening that the scheme will not lead to likely significant effects to the integrity of the

European site. Where this cannot be ruled out, a full appropriate assessment will be required to be undertaken.”

Recreational disturbance

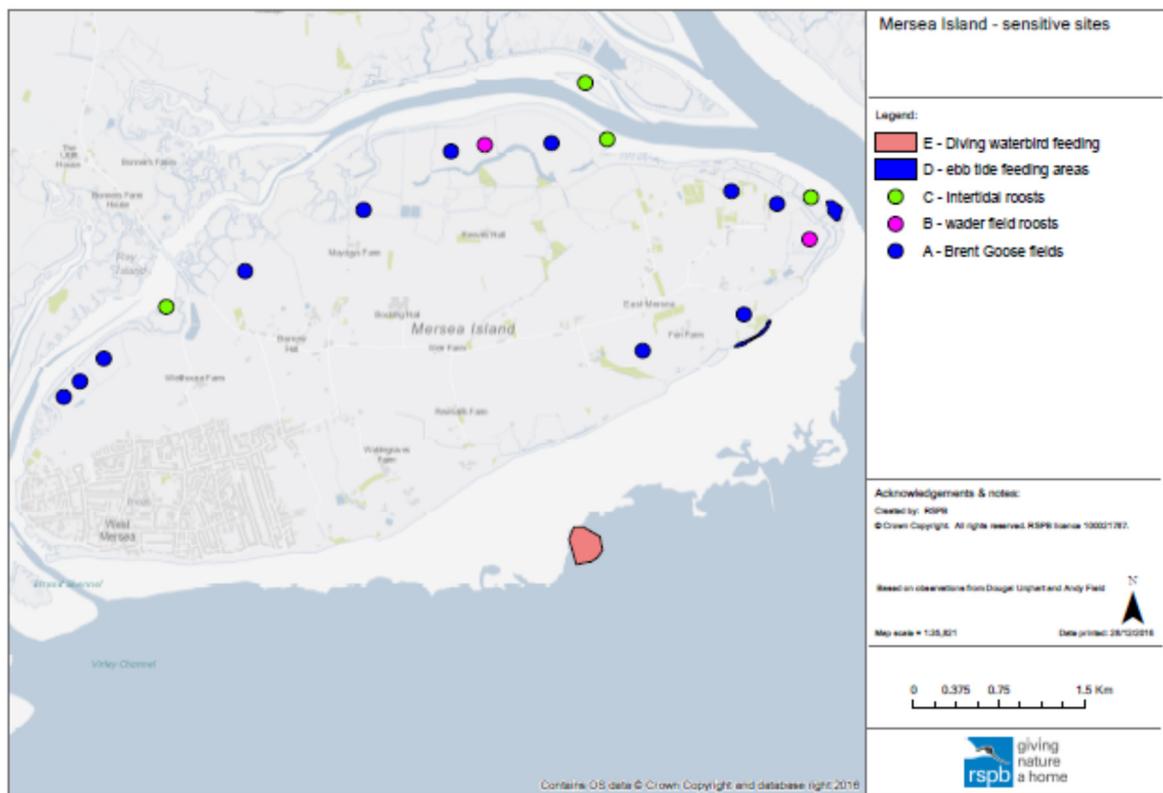
The Section 1 screening report states that each European site susceptible to the effect of recreation will typically have a zone of influence within which increases in population would be expected to result in likely significant effects. Zones of influences are usually established following targeted visitor surveys and findings are typically specific to each European site and often to specific areas within a European site (paragraph 4.18).

The survey and monitoring work undertaken by the LPA on behalf of the North Essex LPAs can be used as evidence to help define zones of influences for the Blackwater Estuary. Strood Channel and Old Hall Marshes (which is just outside of Colchester Borough, in Maldon District) were surveyed. 70% of groups interviewed at Strood Channel lived on Mersea Island and had travelled less than 5 miles (8 km). 64% of groups interviewed at Old Hall Marshes had travelled less than 5 miles (8km). A zone of influence of 5 miles (8km) is therefore appropriate for the Blackwater Estuary and reflects the evidence.

Policies SS12a, SS12b and SS12c, which relate to Mersea Island, and sites in Abberton and Langenhoe (Policy SS1), Layer de la Haye (Policy SS10) and Rowhedge (Policy SS13) fall within the zone of influence for the Blackwater Estuary. Figure 2, below shows the sensitive sites for qualifying features, this shows that the sensitive sites are not located close to housing allocations. Owing to the low numbers of new homes promoted in Abberton and Langenhoe, Layer de la Haye and Rowhedge, and also the findings of the survey which showed that most visitors to the Blackwater Estuary at Strood Channel lived on Mersea Island, these sites have been screened out in terms of recreational disturbance as they are unlikely to lead to significant increases in visitors. Regarding new housing on Mersea Island (Policy SS12a), the survey findings show that visitor numbers to the Strood Channel (and also Old Hall Marshes) were consistently low over the 3 year survey period. Whilst the proposed housing could increase the number of visitors to Strood Channel a new area of open space will be provided as part of the Dawes Lane housing site, which will help to alleviate pressure on the SPA. Furthermore, figure 2 shows that the most sensitive sites for qualifying features are not located close to the Mersea housing sites.

It is therefore concluded that any increase in visitors will not be significant and so alone proposals in Section 2 of the Colchester Local Plan will not lead to likely significant effects to the Blackwater Estuary in terms of recreational disturbance. There is however the potential for likely significant effects in-combination with Section 1. These in-combination effects are explored in the in-combination section of this appropriate assessment.

Figure 2: Blackwater Estuary sensitive bird sites identified by RSPB



There are six caravan/holiday sites on Mersea Island: Firs Chase, Waldegraves, Seaview, Coopers Beach, Mersea Island and Fen Farm. All are located immediately adjacent to the Blackwater and Colne SPA/ Ramsar and Essex Estuaries SAC. Since the adoption of the current Local Plan pressure to extend both the size of the caravan parks and the length of time that they are open over the year has increased. Until recently the caravan sites were required to close over the winter months, however most now operate 11 months of the year.

The warden at Cudmore Grove has reported that jet skiing activity has increased over the last year from the increase in visitors at Mersea's caravan sites. This takes place at high tide and increased usage throughout the year will impact on the great crested gleebe flock of 700+ birds offshore from Coopers Beach (although this is not a key feature of the Blackwater Estuary SPA).

The Local Plan does not allocate land for extension to the caravan parks. Policy SS12c provides criteria to use to assess any future planning applications for extensions to caravan parks. The policy requires caravan park extension proposals to minimise disturbance to migratory and overwintering birds to help protect the integrity of the Blackwater Estuary SPA. Extension to the caravan parks potentially has implications in terms of impacts on overwintering birds and migratory birds using the European sites. Mersea Island has a year round tourism industry. The numbers of visitors and hence disturbance levels from recreational disturbance on the beaches is already quite high around the caravan sites. Whilst effects may be significant on a small area of the SPA or a specific species overall impacts on site integrity are not likely to be significant.

The visitor surveys completed for the Colne and Blackwater Estuaries were carried out at The Strood (Blackwater Estuary) and at Cudmore Grove County Park (Colne Estuaries). No visitor data was collected from the vicinity of the caravan parks.

The level of understanding about the range of impacts arising from the caravan parks, including the issue of increased jet skiing, and the impacts on the Blackwater Estuary SPA and whether the effects are significant given the existing level of disturbance needs to be improved. The LPA will prepare a Recreation Avoidance and Mitigation Strategy (RAMS) for the Colne and Blackwater Estuaries to address in-combination effects relating to recreational disturbance, and further evidence about these issues can be gathered as part of this strategy and mitigation measures identified.

As a precaution, if caravan site owners do not wish to participate in the RAMS process then any future extension of caravan parks in the future will be required to complete their own HRA screening to assess the likely significant effects and if necessary complete a separate appropriate assessment and identify appropriate measures needed to mitigate such impacts. This approach is consistent with policy ENV1 in Colchester's Local Plan and the Habitat Regulations.

Water based recreational activities including sailing, motorboats, and jet skis have also been identified as resulting in disturbance to SPA/Ramsar bird species. Within the Blackwater Estuary, the primary marina's and launch sites are located in West Mersea and Maldon, Heybridge and Tollesbury (which are in Maldon District) but impacts are likely to occur at locations where such activities occur in proximity to areas of sand and mudflats where birds are feeding, and high tide roosts associated with salt marshes. It is known that jet skis launch unofficially from The Strood.

The Section 1 appropriate assessment (paragraph 6.29-6.30) concluded that the effect of water based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK suggest that people will travel relatively far to partake in such activities and that they are more prevalent in the summer months. Given the specialist nature of these activities and that their prevalence is greater in the summer month when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Local Plans is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan do not result in adverse effects on the Colne Estuary SPA/Ramsar, appropriate mitigation will be required. The most effective means of control is likely to be through the promotion of a code of conduct targeted to marinas and leisure operators. The marine police and harbour masters have recently been active on the water and have issued fines for speeding. This increased presence will help to reduce likely effects from water based recreation.

Air quality

A new policy, below, has been added to Section 2 of the Local Plan to address pollution, including air pollution.

“Policy ENV5: Pollution and Contaminated Land

Proposals will be supported that will not result in an unacceptable risk to public health or safety, the environment, general amenity or existing uses due to the potential of air pollution, noise nuisance, surface / ground water sources or land pollution.

Proposals for developments within designated Air Quality Management Areas (AQMAs) or where development within a nearby locality may impact on an AQMA are required, first, to be located in such a way as to reduce emissions overall, and secondly to reduce the direct impacts of those developments. Applicants shall, prepare and submit with their application a relevant assessment, taking into account guidance current at the time of the application, which must be to the satisfaction of the Local Planning Authority. Permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable significant impact on air quality, health and well - being.

Development proposals on contaminated land, or where there is reason to suspect contamination, must include an assessment of the extent of contamination and any possible risks. The onus is on the applicant to demonstrate that there is no likely risk to health or the environment due to contamination. Where planning permission is granted, conditions may be imposed requiring the execution of any necessary remedial works. Where a site is affected by land contamination, responsibility for securing a safe development rests with the developer and/or landowner, who will be required to carry out the above. After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990.”

Policy ENV5, through the requirement for the LPA to be satisfied that development will not have an unacceptable significant impact on air quality, will ensure that Section 2 of the Local Plan will not lead to likely significant effects to the Blackwater Estuary SPA in terms of air quality alone or in-combination.

Water Quality

Last year the quality of the bathing waters around Mersea Island was assessed and in response the water classification was downgraded in status from Excellent to Good. The Borough Council is working in partnership to improve the status back to Excellent as soon as possible. Clearly any reduction in water quality has the potential to impact on the Blackwater Estuary SPA and the species dependant on it. To help ensure that the bathing water quality will not be made worse by any proposals in the Local Plan Policy PP1 (Generic infrastructure and mitigation requirements) has been added to the Local Plan. This policy includes criteria requiring adequate wastewater treatment and sewage infrastructure enhancements for the relevant catchment area; and appropriate SuDS for managing surface water runoff within the overall design and layout of the site. Policy SS12c also requires adequate sewage treatment capacity on site to serve any expansion to caravan parks.

The Water Cycle Study (December 2016), which is a key evidence base document for the Local Plan and the HRA, found that only the Langham (East) Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accommodate additional wastewater from the proposed increase in development within the WRC catchment. All other WRCs serving the Borough have sufficient

capacity to accommodate additional wastewater from the proposed increase in development.

On a precautionary basis, to help prevent deterioration in water quality, Section 2 of the Local Plan includes requirements for the use of sustainable urban drainage systems (SuDS). SuDS will help manage pollution and enhance aquatic biodiversity. Policy PP1 (Generic infrastructure and mitigation requirements) includes a criteria requiring “appropriate SuDS for managing surface water runoff within the overall design and layout of the site”. Policy DM24 (Sustainable urban drainage systems) requires all new residential and commercial development, car parks and hard standings to incorporate SuDS. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Blackwater Estuary SPA in terms of water quality alone or in-combination.

Water resources

The Water Cycle Study concluded that, allowing for the planned resource management of Anglia Water Services Essex Resource Zone, Colchester Borough will have adequate water supply to cater for growth over the plan period. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Blackwater Estuary SPA in terms of water resources alone or in-combination.

The Water Cycle Study has identified that there are long term limitations on further abstraction from the raw water resources supplying the Borough, but this is beyond the plan period. However, in order to recognise the importance of managing water demand and move towards achieving water neutrality, policy DM25 of Section 2 of the Local Plan requires new residential development to meet the optional tighter water requirement included in Part G of Building Regulations and non-residential development to achieve BREEAM very good.

Urbanisation (fly tipping, vandalism and predation)

Fly tipping is a growing issue that needs further consideration through the appropriate assessment for Section 2 of the Local Plan. Any development within 400 metres of the Blackwater Estuary SPA has the potential to lead to an increase in fly tipping and vandalism. 400 metres was defined by Natural England to prevent likely significant effects on the Thames Basin Heaths SPA. This distance has also been used to prevent likely significant effects on the Upper Nene Valley Gravel Pits SPA. Whilst the Blackwater Estuary is different to these two SPAs it is appropriate to use this figure as it has been approved by Natural England.

There are no residential or employment allocations within 400 metres of the Colne Estuary. However, it is possible that rural employment sites could come forward through the development management process. To prevent any negative likely significant effect wording is recommended to policy DM6 (Economic development in rural areas and the countryside) stating that any planning application within 400 metres of a European site must provide mechanisms to prevent fly tipping, the introduction of invasive species and vandalism.

Section 2 of the Local Plan will not lead to likely significant effects to the Blackwater Estuary in terms of urbanisation alone or in-combination.

Loss of offsite functional habitat

The Section 1 screening report found that loss of offsite habitat has the potential to indirectly affect European sites where the habitats provide functionally supporting habitat upon which the qualifying species depend. The report states that sites with increased likelihood of representing important offsite resources for qualifying species tend to include those that are larger, located close to the SPA, are prone to flooding, have a high degree of openness and an absence of negative factors such as edge features and human disturbance. Habitats located further from European sites may be used by qualifying species but are unlikely to support numbers than would lead to a likely significant effect.

All of the site allocations in Section 2 of the Local Plan were assessed against the criteria set out in the Part 1 screening report and it was found that none of the sites represent an important offsite resource. Appendix B includes the findings of the offsite functional habitat assessment.

Dawes Lane, West Mersea meets three of the five criteria. It is a large site, it is prone to surface water flooding and it has a high degree of openness. However, this site is not offsite functional habitat as it has edge features and human disturbance. The Glebe football ground is located directly to the north. This is a busy, well used site and the high degree of human disturbance rules out the likelihood of Dawes Lane being used as offsite functional habitat.

Section 2 of the Local Plan will not lead to likely significant effects to European sites in terms of loss of offsite functional habitat either alone or in-combination.

Essex Estuaries SAC

The conservation objectives for the Essex Estuaries SAC are as follows:

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), 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 Condition Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats
- The structure and function (including typical species) of qualifying natural habitats, and
- The supporting processes on which qualifying natural habitats rely.

Qualifying features:

Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks Estuaries Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats <i>Salicornia</i> and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand <i>Spartina</i> swards (<i>Spartinion maritimae</i>); Cord-grass swards Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Mediterranean and thermos-Atlantic halophilous scrubs (<i>Sarcocornetea fruticose</i>); Mediterranean saltmarsh scrub

Essex Estuaries SAC is designated for the presence of coastal and inter-tidal habitats and the area of coverage in North Essex is largely shared with the Colne Estuary SPA and Ramsar. The habitats for which the SAC is designated are vulnerable to physical damage which can be caused by trampling and erosion associated with terrestrial recreation and wave damage caused by water based recreation.

Disturbance of birds by human activity

Direct disturbance from building activity

No sites are allocated adjacent to any European sites. However, non-strategic sites could come forward during the plan period. Policies OV1, OV2 and DM6 were screened in as these policies support small scale development in rural areas. To ensure that these policies will not lead to likely significant effects the following wording should be added to the supporting text:

“Proposals in close proximity to a European site must demonstrate that the scheme will not lead to likely significant effects to the integrity of the European site.”

Recreational disturbance

The key threat to this site relates primarily to disturbance of water birds from people and dogs, in addition to water sports such as use of jet skis and motorboats.

The Section 1 Local Plan screening report states that each European site susceptible to the effect of recreation will typically have a zone of influence within which increases in population would be expected to result in likely significant effects. Zones of influences are usually established following targeted visitor surveys and findings are typically specific to each European site and often to specific areas within a European site (paragraph 4.18).

The survey and monitoring work undertaken by the LPA on behalf of the North Essex Authorities can be used as evidence to help define zones of influences for the Essex Estuaries SAC. Survey work at Cudmore Grove found that 70% of groups interviewed travelled less than 15 miles (24km). This site has a wide draw, with people prepared to travel far to visit. It is not restricted to local walkers/ dog walkers, like many of the sites surveyed. However, the vast majority of visitors to Cudmore Grove visited the grassy country park area and beach. The most sensitive parts of the site were not frequently visited. Cudmore Grove is a country park managed by Essex County

Council, visitors are actively encouraged and a warden maintains a presence on the site, ensuring its day to day management and protection. Evidence from the warden confirms that very few visitors to Cudmore Grove venture out onto the mudflats. Disturbance to mudflats tends to occur on hot and busy weekends when there is a low tide. This disturbance thus avoids the sensitive over-wintering and spring breeding periods.

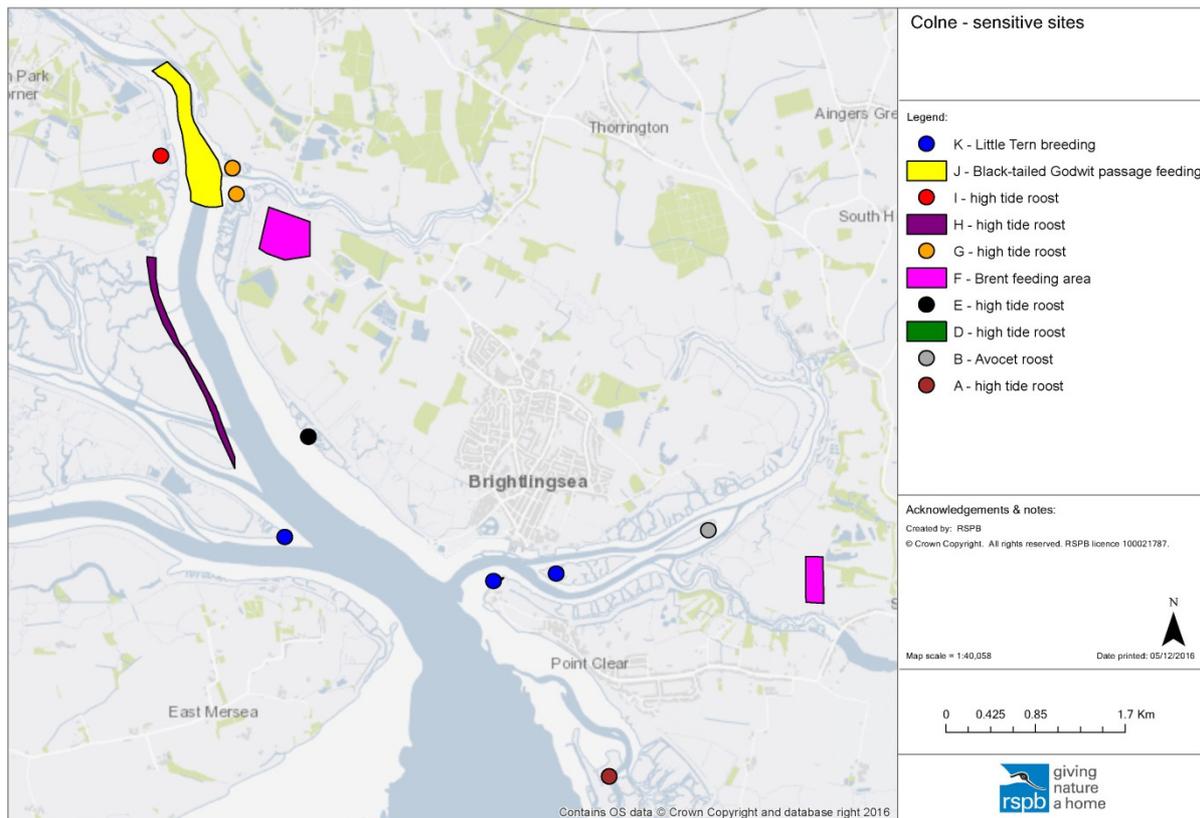
There are also alternative green spaces in Colchester, which provide alternative recreational opportunities. Survey and monitoring found that 76% of those surveyed at Cudmore Grove said that they visit alternative sites regularly. The four most popular alternative sites regularly visited were Suffolk coastal sites, other sites on Mersea Island, inland sites in Colchester and RSPB and Essex Wildlife Site Reserves in Essex and Suffolk.

Brightlingsea Marshes was also surveyed, but as this site is located within Tendring District the findings are not directly relevant to the Section 2 appropriate assessment. The Section 1 appropriate assessment outlines the findings of the Brightlingsea Marshes survey.

Natural England and Essex Wildlife Trust manage the Colne Estuary National Nature Reserve and Colne Point Nature Reserve, which lie within the SPA. Access at Brightlingsea Marshes and Colne Point is restricted to permit holders only. Dog walking is also prohibited at Colne Point as the nature reserve supports an important breeding site for Little Terns.

Figure 1, below, was produced by the RSPB and identifies the most sensitive areas of the Colne Estuary for qualifying bird species. This figure demonstrates that the sensitive sites are not located close to proposed housing sites or to sites that are easily accessible, such as Cudmore Grove and Brightlingsea Marshes. Consequently the LPA is confident that Section 2 of the Local Plan will not adversely affect the integrity of the Essex Estuaries SAC.

Figure 1: Colne Estuary sensitive bird sites identified by RSPB



Water based recreational activities including sailing, motorboats, and jet skis have also been identified as resulting in disturbance to SPA/Ramsar bird species. Within the Colne Estuary, the primary marina's and launch sites are located at Wivenhoe and Brightlingsea (which is in Tendring District) but impacts are likely to occur at locations where such activities occur in proximity to areas of sand and mudflats where birds are feeding, and high tide roosts associated with salt marshes.

The Section 1 appropriate assessment (paragraphs 6.29-6.30) concluded that the effect of water based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK suggest that people will travel relatively far to partake in such activities and that they are more prevalent in the summer months. Given the specialist nature of these activities and that their prevalence is greater in the summer months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Local Plans is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan do not result in adverse effects on the Essex Estuaries SAC, appropriate mitigation will be required. The most effective means of control is likely to be through the promotion of a code of conduct targeted to marinas and leisure operators.

The warden at Cudmore Grove has reported that jet skiing activity has increased over the last year from the increase in visitors at Mersea's caravan sites. This takes place at high tide and increased usage throughout the year will impact on the great crested grebe flock of 700+ birds offshore from Coopers Beach (although this is not a key feature of the Essex Estuaries SAC). The Local Plan does not allocate land for the

extension of any of the caravan sites. The issue of increased jet skiing will need to be considered if a proposal to extend any of the caravan sites is submitted to the LPA.

Alone the Colchester Local Plan Section 2 will not lead to likely significant effects to the Essex Estuaries SAC in terms of recreational disturbance as access to the most sensitive sites is either restricted or, in the case of Cudmore Grove, the sensitive sites are not accessed by the vast majority of visitors. However, there is the potential for likely significant effects in-combination with Section 1. These in-combination effects are explored in the in-combination section of this appropriate assessment.

Air quality

A new policy, below, has been added to Section 2 of the Local Plan to address pollution, including air pollution.

“Policy ENV5: Pollution and Contaminated Land

Proposals will be supported that will not result in an unacceptable risk to public health or safety, the environment, general amenity or existing uses due to the potential of air pollution, noise nuisance, surface / ground water sources or land pollution.

Proposals for developments within designated Air Quality Management Areas (AQMAs) or where development within a nearby locality may impact on an AQMA are required, first, to be located in such a way as to reduce emissions overall, and secondly to reduce the direct impacts of those developments. Applicants shall, prepare and submit with their application a relevant assessment, taking into account guidance current at the time of the application, which must be to the satisfaction of the Local Planning Authority. Permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable significant impact on air quality, health and well - being.

Development proposals on contaminated land, or where there is reason to suspect contamination, must include an assessment of the extent of contamination and any possible risks. The onus is on the applicant to demonstrate that there is no likely risk to health or the environment due to contamination. Where planning permission is granted, conditions may be imposed requiring the execution of any necessary remedial works. Where a site is affected by land contamination, responsibility for securing a safe development rests with the developer and/or landowner, who will be required to carry out the above. After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990.”

Policy ENV5, through the requirement for the LPA to be satisfied that development will not have an unacceptable significant impact on air quality, will ensure that Section 2 of the Local Plan will not lead to likely significant effects to the Essex Estuaries SAC in terms of air quality alone or in-combination.

Water quality

The Water Cycle Study, which is a key evidence base document for the Local Plan and the HRA, found that only the Langham (East) Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accommodate additional wastewater from the proposed increase in development within the WRC catchment. All other WRCs serving the Borough have sufficient capacity to accommodate additional wastewater from the proposed increase in development.

On a precautionary basis, to help prevent deterioration in water quality, Section 2 of the Local Plan includes requirements for sustainable urban drainage systems (SuDS), which will enhance aquatic biodiversity. Policy PP1 (Generic infrastructure and mitigation requirements) includes a criteria requiring “appropriate SuDS for managing surface water runoff within the overall design and layout of the site”. Policy DM24 (Sustainable urban drainage systems) requires all new residential and commercial development, car parks and hard standings to incorporate SuDS. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Essex Estuaries SAC in terms of water quality alone or in-combination.

Water resources

The Water Cycle Study concluded that, allowing for the planned resource management of Anglia Water Services Essex Resource Zone, Colchester Borough will have adequate water supply to cater for growth over the plan period. Therefore, Section 2 of the Local Plan will not lead to likely significant effects on the Essex Estuaries SAC in terms of water resources alone or in-combination.

The Water Cycle Study has identified that there are long term limitations on further abstraction from the raw water resources supplying the Borough, but this is beyond the plan period. However, in order to recognise the importance of managing water demand and move towards achieving water neutrality, policy DM25 of Section 2 of the Local Plan requires new residential development to meet the optional tighter water requirement included in Part G of Building Regulations and non-residential development to achieve BREEAM very good.

Urbanisation (fly tipping, vandalism and predation)

Fly tipping is a growing issue that needs further consideration through the appropriate assessment for Section 2 of the Local Plan. Any development within 400 metres of the Essex Estuaries SAC has the potential to lead to an increase in fly tipping and vandalism. 400 metres was defined by Natural England to prevent likely significant effects on the Thames Basin Heaths SPA. This distance has also been used to prevent likely significant effects on the Upper Nene Valley Gravel Pits SPA. Whilst the Essex Estuaries is different to these two SPAs it is appropriate to use this figure as it has been approved by Natural England.

There are no residential or employment allocations within 400 metres of the Essex Estuaries SAC. However, it is possible that rural employment sites could come forward through the development management process. To prevent any negative

likely significant effect wording is recommended to policy DM6 (Economic development in rural areas and the countryside) stating that any planning application within 400 metres of a European site must provide mechanisms to prevent fly tipping, the introduction of invasive species and vandalism.

Section 2 of the Local Plan will not lead to likely significant effects to the Essex Estuaries SAC in terms of urbanisation alone or in-combination.

Loss of offsite functional habitat

The Section 1 screening report found that loss of offsite habitat has the potential to indirectly affect European sites where the habitats provide functionally supporting habitat upon which the qualifying species depend. The report states that sites with increased likelihood of representing important offsite resources for qualifying species tend to include those that are larger, located close to the SPA, are prone to flooding, have a high degree of openness and an absence of negative factors such as edge features and human disturbance. Habitats located further from European sites may be used by qualifying species but are unlikely to support numbers than would lead to a likely significant effect.

All of the site allocations in Section 2 of the Local Plan were assessed against the criteria set out in the Part 1 screening report and it was found that none of the sites represent an important offsite resource. Appendix B includes the findings of the offsite functional habitat assessment.

The Section 1 appropriate assessment concludes that whilst the Tendring/ Colchester Borders Garden Community provides suitable offsite foraging habitat for golden plover and lapwing in the form of arable fields and short grazed pasture, in isolation the importance of such sites for these species is likely to be low when compared with the extensive areas of habitat of increased suitability both within the North Essex Authorities and the wider land areas surrounding these European sites. As a result, the potential for the loss of offsite habitat to adversely affect these species related primarily to the cumulative effect of reducing the extent of feeding areas. The likelihood of this occurring was considered low given the quality of the habitat affected and the small amount of habitat affected as a proportion of that available around each of the European sites. Nevertheless uncertainty remains under the precautionary principle as to whether the loss of the Tendring/ Colchester Borders Garden Community will, cumulatively with the loss of smaller non-strategic allocations adversely affect the integrity of the SPA/Ramsar sites in relation to golden plover and lapwing. On a precautionary basis and for consistency with the Section 1 appropriate assessment, the following mitigation measures, which are identified in the Section 1 appropriate assessment, are set out below:

- Wintering bird surveys will be required for Tendring/ Colchester Borders Garden Community as part of any project level development proposals and masterplanning, to determine the sites individual importance for golden plover and lapwing and inform mitigation proposals.
- A commitment to mitigation and phasing of the Tendring/ Colchester Borders Garden Community is required within the Section 1 Local Plan dependent on the findings of bird surveys. This will need to take into account the cumulative numbers of SPA birds affected as parcels of land come forward

for development. In the unlikely but possible event that cumulative numbers of SPA birds affected are likely to exceed thresholds of significance (i.e. >1% of the associated European Site), appropriate mitigation in the form of habitat creation and management in perpetuity, either on-site or through provision of strategic sites for these species elsewhere, will be required. If required, mitigation will need to create and manage suitably located habitat which maximises feeding productivity for these SPA species, and such mitigatory habitat would need to be provided and fully functional prior to development which would affect significant numbers of SPA birds.

Dawes Lane, West Mersea meets three of the five criteria. It is a large site, it is prone to surface water flooding and it has a high degree of openness. However, this site is not offsite functional habitat as it has edge features and human disturbance. The Glebe football ground is located directly to the north. This is a busy, well used site and the high degree of human disturbance rules out the likelihood of Dawes Lane being used as offsite functional habitat.

Providing that the mitigation measures, above, are incorporated into Section 1 of the Local Plan, the Colchester Local Plan Section 2 will not lead to likely significant effects to European sites in terms of loss of offsite functional habitat either alone or in combination.

Other

Policy DM25 promotes District Heating projects in the garden communities. Funding has recently been secured to deliver a District Heating Network as part of Northern Gateway proposals. Feasibility work is also continuing to deliver a similar District Heating Network in East Colchester.

The District Heating Network in the Northern Gateway will use water drawn from underground aquifers via boreholes. The heat will be extracted from the water using a pump with the cooled water then recirculated back to the ground water supplies.

The Northern Gateway is located approximately 12km to the western boundary of the Stour Estuary SPA, 8.5km from the northern extent of the Colne Estuary SPA, and 10.5km to Abberton Reservoir.

Feasibility work on the delivery of a proposed District Heating Network in East Colchester is currently focused on opportunities to deliver such a scheme at the University of Essex. The University is located 12km the western boundary of the Stour Estuary SPA, 7km from Abberton and 3km for the northern boundary of The Colne Estuary SPA. Both District Heating Networks fall within the zones of influence for the Stour and Orwell Estuaries, Colne Estuary and Abberton Reservoir. In principle the District Heating Networks should not result in a net loss of available ground water and therefore in principle should not result in any likely significant effects with regards to water quantity or water quality within the identified European Sites.

As a precaution however, as these are new innovative projects that have not yet been delivered, it is recommended that the proposals are subject to a separate project level HRA and if necessary, appropriate assessment, with any identified mitigation paid for

by the applicant. This approach accords with proposed revised wording in policy ENV1 as set out below:

“Plans or projects, which may have a likely significant effect on a European site which have not been screened or considered in the Borough’s Habitat Regulations Assessment or Appropriate Assessment, will be required to prepare a separate HRA screening and if necessary to complete a separate appropriate assessment to ensure compliance with the Habitat Regulations 2010.”

Stour and Orwell Estuaries SPA

Water quality

The 2016 Water Cycle Study for Colchester has identified both headroom capacity issues at the Langham (East) Water Recycling Centre (WRC) and water quality issues in the receiving water bodies feeding into the Stour estuary. Consequently, it was not possible to screen out Policy SS6: Langham at the HRA screening stage.

Anglian Water Services, the Environment Agency and the LPA are currently working on the production of a joint Position Statement which will set out the current position regarding capacity, the effect of the proposed development on water and sewage infrastructure capacity, local plan policy recommendations needed to deal with capacity shortfalls, recommendations regarding the need to review licenses and permits and the identification of any infrastructure upgrades needed at the Langham (East) WRC.

One of the key mitigation measures being proposed in Section 2 of the Local Plan is the inclusion of the following wording in the explanatory text to policy (SS6):

“It will be necessary to delay the commencement of development in Langham until there is adequate capacity in the waste water and sewage infrastructure to serve the development. The infrastructure upgrades and permit review is necessary to ensure that the quality of the receiving water bodies feeding into the Stour estuary is not made worse by the proposed development in Langham.”

Discussions will also continue with Anglian Water Services and the Environment Agency to identify upgrades at Langham (East) WRC and permit reviews. Additionally, the following is included in policy PP1 (Generic infrastructure and mitigation requirements) in Section 2 of the Colchester Local Plan, which applies to all residential development:

“In addition to site specific requirements identified, all proposals will be required to make contributions to the cost in infrastructure improvements and/or community facilities as required supported by up-to-date evidence from appropriate sources including the Infrastructure Delivery Plan (IDP), Parish Council, or specially commissioned work. Contributions will be secured to an appropriate level by way of legal agreement or through CIL as required. In addition proposals must, as relevant, address all of the following Borough wide requirements:

Adequate wastewater treatment and sewage infrastructure enhancements for the relevant catchment area;...”

Section 2 of the Colchester Local Plan will not lead to likely significant effects to the Stour and Orwell Estuaries SPA/Ramsar in terms of water quality alone or in combination.

DRAFT

6. In-combination assessment

The first stage in identifying potential in-combination effects involves identifying other plans and projects that, in-combination with Section 2 of the Colchester Local Plan, may affect European sites.

There are a large number of plans and projects in the Borough of Colchester and the county of Essex. Those plans and projects considered likely to have the potential for in-combination effects are limited to those that will directly lead to an increase in population or involve the use of land.

The plans and projects which are considered for their potential in-combination effects are as follows:

- Section 1 of the Colchester Borough, Braintree District and Tendring District Local Plans
- Section 2 of Braintree District Local Plan
- Section 2 of Tendring District Local Plan
- Maldon District Local Plan 2014-2029
- Wivenhoe Neighbourhood Plan
- Ipswich Borough Local Plan
- Suffolk Coastal Preferred Options Site Allocations and Area Specific Policies
- Babergh District Core Strategy and Policies Local Plan 2011-2031
- Chelmsford City Local Plan
- Essex and Southend on Sea Waste Local Plan
- Essex Minerals Local Plan
- Dedham Vale AONB Management plan (– positive impacts of policies in MP – Green Infrastructure access alternative sites
<http://www.dedhamvalestourvalley.org/about-us/aonb-management-plan/2016-2021-management-plan/>)
- Shoreline Management Plan
- Marine Local Plans
- Colchester Orbital Project (increasing public access or infrastructure within or in close proximity to N2K sites)
- Coastal path

Appendix C includes a review of plans and projects from the HRA Part 1 screening report.

When considering in-combination effects Policy ENV1 (Environment) should be considered in the first instance. This policy seeks to conserve and enhance the Borough's natural and historic environment, countryside and coastline, and will lead to positive effects on European sites. All proposals in the Borough will be expected to comply with this policy.

Recreational disturbance

Colne and Blackwater Estuaries

Policy SG2 sets out the overall housing numbers that need to be delivered over the Local Plan period between 2017-2033. As a policy it will lead to the physical development of land in accordance with the spatial strategy set out in policy SG1. The sequential approach directs development to urban Colchester as a priority, then to the new garden communities, sustainable settlements, other villages and countryside. The Colchester/ Tendring Borders Garden Community has the potential to adversely affect European sites in-combination with Section 2 owing to the scale of development proposed and proximity to the Colne Estuary SPA and Blackwater Estuary SPA.

Section 1 of the Local Plan includes a policy for the Tendring/ Colchester Borders Garden Community. This states that the broad area of search is identified for housing of around 2,500 dwellings within the plan period as part of an overall total of 7,000-9,000. The policy also states that a high proportion of the garden community will comprise green infrastructure including a new country park of a minimum of 70 hectares around Salary Brook. The commitment to providing such a high level of green infrastructure has many benefits and in the context of this assessment, will provide suitable accessible natural greenspace (SANG) to contribute towards mitigating in-combination effects. Green infrastructure provision is a key principle of garden communities, which provides a high degree of certainty that if the garden community is delivered it will include high levels of green infrastructure (i.e. well in excess of the 10% the LPA generally requires).

As part of the appropriate assessments of the Core Strategy and Site Allocations the LPA carried out visitor surveys of European sites in Colchester Borough and Tendring District. Surveys were carried out over a three year period and were undertaken during the sensitive periods of spring and winter. This survey and monitoring programme showed that the majority of visitors to European sites travelled short distances, with the exception of the honeypot sites of Cudmore Grove in Mersea and Walton-on-the-Naze in Tendring, where visitors are actively encouraged. Overall, close to home was the most popular reason given for visiting a site and the most common purpose given for visiting was to walk and dog walk. In terms of alternative sites visited the majority of people said that they generally visit sites close to home. These findings help to provide confidence that the high quality and amount of green infrastructure proposed for the Tendring/ Colchester Borders Garden Community will form an appropriate mitigation measure.

Section 2 of the Local Plan includes a requirement in policy DM18 (Provision of Public Open Space) for new development to provide for the recreational needs of new communities. The policy recognises that open space provision can alleviate pressure on sites of high nature conservation value from the growing population. European sites are specifically referred to in the policy. The policy requires at least 10% of the gross site area to be provided as open space and for sites over 5 hectares to provide a strategic area of open space. These requirements, which the LPA has a strong history of securing, will provide open space for every new dwelling, helping to mitigate the impacts on European sites.

It is clear that mechanisms are in place in the Colchester Local Plan to ensure that high levels of open space will be delivered as part of new housing across the Borough. Where necessary this will be specifically designed and delivered as SANG to alleviate pressure on European sites. However, the Habitat Regulations require a

precautionary approach to be taken. SANG is generally recognised by Natural England as an effective mitigation measure. However, the Colne Estuary SPA and Blackwater Estuary SPA (and Essex Estuaries SAC, which includes the Colne and Blackwater Estuaries) are estuaries and it is not easy to re-create estuarine habitats. Whilst the Colchester Borough Local Plan will ensure that SANG is provided it will not be easy to create an alternative for all users as some users will visit the European sites in the Borough specifically because of the sites special coastal features. There is therefore a need to consider additional mitigation.

The LPA, through discussions with Natural England as part of the HRA of the Colchester Borough Local Plan (Sections 1 and 2), has agreed, along with Braintree District Council and Tendring District Council, to undertake and then implement a Recreation Avoidance and Mitigation Strategy (RAMS) for the Colne and Blackwater Estuaries. These estuaries are within close proximity of one another and the same issues arising as a result of the Local Plan have been identified. Mitigation for these European sites will be most effectively implemented as part of one strategic solution. Nationally there is an emerging body of research and examples of mitigating and avoiding adverse recreational impacts via the delivery of mitigation strategies. This approach has received a growing consensus of support by Natural England and other key stakeholders such as the RSPB and the Wildlife Trusts.

As part of the RAMS evidence will be gathered to identify current recreational impacts and site sensitivities. The types of measures needed to prevent further impacts from occurring will then be identified. A mitigation strategy will be produced, which will include an appropriate but representative proportion of the total measures required. Development likely to lead to likely significant effects on European sites will be required to either financially contribute towards the implementation of the RAMS or implement bespoke mitigation measures.

The Section 1 Local Plan appropriate assessment includes the following key principles upon which the RAMS should be based: consideration of the Suffolk RAMS; requirements for updated monitoring; and specific measures required in terms of provision of open space and green infrastructure and on-site management of European Sites.

Natural England has advised that the RAMS should be drafted by the time of adoption. To provide confidence that a strategy will be prepared the following is included in the supporting text to policy ENV1:

“ 5.4 Following completion of a Habitats Regulation Screening Assessment it was concluded that proposals in the Wivenhoe Neighbourhood Plan when considered in combination with development proposals in Section 1 and some development proposals in Section 2 of Colchester’s Local Plan, (development proposals on Mersea Island) had the potential to result in a significant increase in recreational disturbance on the Colne and Blackwater Estuaries, The Habitats Regulations Screening also concluded that proposed growth in Langham could significantly affect water quality in the Stour Estuary. These issues were further considered in an Appropriate Assessment. The Appropriate Assessment identified the need to prepare a Recreational Avoidance and Mitigation Strategy covering the Colne and Blackwater Estuaries Special Protection Areas and Ramsar sites and the Essex Estuaries Special Area of

Conservation and a separate Recreational Avoidance and Mitigation Strategy for The Stour Estuary, with a view to their subsequent adoption as Supplementary Planning Documents.

- 5.5 Work on the Recreational Avoidance and Mitigation Strategies will begin in the summer of 2017. The strategies will identify where recreational disturbance is happening and the main recreational uses causing the disturbance. The strategies, where necessary, will require new residential development, that is likely to affect the integrity of the Colne, Blackwater and Stour European Sites, to pay for the implementation of the mitigation. The appropriate mechanism will be identified in the strategies.”

Implementation of a RAMS for the Colne and Blackwater estuaries enables the LPA to conclude that Section 2 of the Local Plan will not adversely affect the integrity of the Colne or Blackwater estuaries in terms of recreational disturbance either alone or in-combination.

Stour and Orwell Estuaries

The Section 1 Local Plan appropriate assessment concludes that in-combination Section 1 is likely to result in significant effects on the Stour and Orwell Estuaries SPA/Ramsar as a result of increases in recreational disturbance. The survey and monitoring work previously referred to in this report clearly demonstrates historic visitor numbers from Colchester Borough have been very low. 93% of groups who gave their home town lived outside of Colchester Borough. It is thus questioned whether any effects will be significant (see the screening section of this report). Contributions towards a mitigation strategy for the Stour and Orwell Estuaries SPA, if required, from development in Colchester Borough should be proportionate and accordingly any tariff required should be small.

Ipswich Borough Council, Babergh District Council and Suffolk Coastal District Council are jointly preparing a RAMS to move to a more strategic approach to address likely significant effects on the north shore of the Stour and Orwell Estuaries SPA/ Ramsar. It is understood that the draft RAMS strategy will be completed in 2017. Mitigation schemes have been identified and costed at £2.7 million. The LPAs have managed to work out separate tariffs for Ipswich, Babergh and Suffolk Coastal, which has two tariff zones.

A Planning Officer from the LPA attended a workshop as part of the Suffolk RAMS and the LPA has been involved in discussions with the Suffolk group about the possibility of extending the RAMS to include the south shore. Following the production of the RAMS an SPD will be produced, which will set out how the tariffs have been set, how developers will pay, what stage they will pay and who holds the money. A Delivery Officer will shortly be appointed and one of their roles will be to work out how to extend the strategy to the south shore and include Colchester and Tendring. The Suffolk RAMS will be reviewed after 18 months, which may be the earliest stage that Colchester and Tendring could be brought into the process for the Stour and Orwell Estuaries. The LPA will continue dialogue with the Suffolk authorities in the interim.

Water based recreation

As explained in the Section 1 Local Plan appropriate assessment in relation to the in-combination effects of water based recreation, “water-based recreational activities are likely to be more prevalent during summer months when disturbance to bird populations for which the European sites are designated is less likely. The nesting sites of little terns are located on shallow sandy areas above the high tide mark and are therefore not especially vulnerable to such activities. Nevertheless, water based recreation does occur during the winter and passage months, and where such activities occur in close proximity to bird areas, there is a high probability of disturbance to birds while feeding or roosting in otherwise undisturbed locations.

It is difficult to manage and monitor the location and frequency of water activities because they are less predictable and take place in inaccessible locations. As a result, it is recommended that the most appropriate means of reducing the frequency and severity of such activities is by promoting a code of conduct and encouraging increased self-regulation from participants. This could be achieved via an education and awareness campaign targeted at the leisure operators, marina’s, sailing clubs and holiday parks, in addition to quaysides, jetties and other launch sites. Such an approach could be undertaken via promotional leaflets, posters and signage.” The marine police and harbour masters have recently been active on the water and have issued fines for speeding. This increased presence will help to reduce likely effects from water based recreation.

This approach enables the LPA to conclude that Section 2 of the Colchester Local Plan will not adversely affect the integrity of European sites in terms of water based recreation either alone or in-combination.

Water resources and water quality

An integrated water management plan is being prepared for the garden communities. This will include measures to ensure that there is both adequate water supply and that integrity of European sites will not be impacted on.

This enables the LPA to conclude that Section 2 of the Colchester Local Plan will not adversely affect the integrity of European sites in terms of water based recreation either alone or in-combination.

7. Conclusion and summary of recommendations

Spatial plans may not have all the answers about the detailed effects upon European sites and this appropriate assessment is appropriate considering the strategic level of the Local Plan. Whilst it is vitally important for the LPA, as competent authority under the Habitat Regulations, to be certain that the Local Plan will not adversely affect the integrity of European sites this issue will also be considered as part of other development plan documents and through the development management process. The LPA has focussed on the key strategic issues and has demonstrated that none of them will result in likely significant effects either alone or in-combination. Development plan documents are proposed for the Colchester/ Tendring Borders and Colchester/ Braintree Borders Garden Communities, which will have detail about site allocations, numbers, green infrastructure, etc. These development plan documents will be screened under the Habitat Regulations and if likely significant effects are identified an appropriate assessment will be required.

Throughout the HRA process the LPA has addressed the strategic issues and has highlighted relevant issues for the development management stage. Adverse effects on the integrity of European sites can be avoided or mitigated through the proper application of policy safeguards within and outside the planning process.

Mitigation measures must be effective, reliable, timely, guaranteed to be delivered and as long term as they need to be. Incorporated mitigation measures are those measures that are incorporated into the plan so that they are inseparable parts of it and guaranteed to be delivered. All of the proposed mitigation measures, which are set out below, are integrated into Section 2 of the Local Plan, and enable the LPA to conclude that Section 2 of the Local Plan will not adversely affect the integrity of European sites either alone or in-combination.

- Implement a Recreation Avoidance Mitigation Strategy for the Colne and Blackwater estuaries. The following is included in the supporting text to policy ENV1:

“5.4 Following completion of a Habitats Regulation Screening Assessment it was concluded that proposals in the Wivenhoe Neighbourhood Plan when considered in combination with development proposals in Section 1 and some development proposals in Section 2 of Colchester’s Local Plan, (development proposals on Mersea Island) had the potential to result in a significant increase in recreational disturbance on the Colne and Blackwater Estuaries. The Habitats Regulations Screening also concluded that proposed growth in Langham could significantly affect water quality in the Stour Estuary. These issues were further considered in an Appropriate Assessment. The Appropriate Assessment identified the need to prepare a Recreational Avoidance and Mitigation Strategy covering the Colne and Blackwater Estuaries Special Protection Areas and Ramsar sites and the Essex Estuaries Special Area of Conservation and a separate Recreational Avoidance and Mitigation Strategy for The Stour Estuary, with a view to their subsequent adoption as Supplementary Planning Documents.

5.5 Work on the Recreational Avoidance and Mitigation Strategies will begin in the summer of 2017. The strategies will identify where recreational disturbance

is happening and the main recreational uses causing the disturbance. The strategies, where necessary, will require new residential development, that is likely to affect the integrity of the Colne, Blackwater and Stour European Sites, to pay for the implementation of the mitigation. The appropriate mechanism will be identified in the strategies.”

- Add the following to the supporting text to policies OV1, OV2 and DM6:
“Proposals in close proximity to a European site must demonstrate that the scheme will not lead to likely significant effects to the integrity of the European site.”
- To prevent any negative likely significant effect wording is recommended to policy DM6 (Economic development in rural areas and the countryside) stating that any planning application within 400 metres of a European site must provide mechanisms to prevent fly tipping, the introduction of invasive species and vandalism.
- Wintering bird surveys will be required for Tendring Colchester Borders Garden Community as part of any project level development proposals and masterplanning, to determine the sites individual importance for golden plover and lapwing and inform mitigation proposals.
- A commitment to mitigation and phasing of the Tendring Colchester Borders Garden Community is required within the Section 1 Strategic Plan dependent on the findings of bird surveys. This will need to take into account the cumulative numbers of SPA birds affected as parcels of land come forward for development. In the unlikely but possible event that cumulative numbers of SPA birds affected are likely to exceed thresholds of significance (i.e. >1% of the associated European Site), appropriate mitigation in the form of habitat creation and management in perpetuity, either on-site or through provision of strategic sites for these species elsewhere, will be required. If required, mitigation will need to create and manage suitably located habitat which maximises feeding productivity for these SPA species, and such mitigatory habitat would need to be provided and fully functional prior to development which would affect significant numbers of SPA birds.
- The following wording should be added to policy ENV1:
“Plans or projects, which may have a likely significant effect on a European site which have not been screened or considered in the Borough’s Habitat Regulations Assessment or Appropriate Assessment, will be required to prepare a separate HRA screening and if necessary to complete a separate appropriate assessment to ensure compliance with the Habitat Regulations 2010.”
- Include the following wording in the explanatory text to policy SS6 (Langham):
“It will be necessary to delay the commencement of development in Langham until there is adequate capacity in the waste water and sewage infrastructure to serve the development. The infrastructure upgrades and permit review is necessary to ensure that the quality of the receiving water bodies feeding into the Stour estuary is not made worse by the proposed development in Langham.”
- Include the following criteria in policy PP1 (Generic infrastructure and mitigation requirements):
“Adequate wastewater treatment and sewage infrastructure enhancements for the relevant catchment area;”
- Include the following in the supporting text to policy ENV1:

“A Mitigation Strategy covering the Colne and Blackwater Estuaries Special Protection Areas and Ramsar sites and Essex Estuaries Special Area of Conservation will be produced, with a view to its subsequent adoption as a Supplementary Planning Document. Where necessary, this will require new residential development that is likely to significantly affect the integrity of these sites contributing towards implementation of this Mitigation Strategy.”

- Add new policy ENV5 addressing pollution and contaminated land.

Having considered likely significant effects and the inclusion of these measures enables the LPA as competent authority under the Habitat Regulations to conclude that Section 2 of the Local Plan will not adversely affect the integrity of European sites either alone or in-combination.

Appendices

- A. Information about European Sites scoped into Section 2 of the Local Plan
- B. Loss of offsite functional habitat
- C. Summary of other plans and projects for in-combination assessment
- D. Screening Matrix for Section 2 of the Colchester Local Plan
- E. New policies screening

Please note that appendices D and E are included in a separate Excel document.

Appendix A: Information about European Sites scoped into Section 2 of the Colchester Local Plan

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Large estuarine site in south-east England. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach river.				
Essex Estuaries SAC	46140.82	<p>Annex 1 habitats that are a primary reason for selection of this site:</p> <p>Estuaries Mudflats and sandflats not covered by seawater at low tide Salicornia and other animals colonising mud and sand Spartina swards (<i>Spartinion maritimae</i>) Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Mediterranean and thermo-Atlantic halophilous scrubs</p> <p>Annex 1 habitats present as a qualifying feature: Sandbanks which are slightly covered by seawater all the time</p>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified: Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore: 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;</p>	<p>Coastal squeeze – Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses.</p> <p>Fisheries: Commercial marine and estuarine – Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site. Bottom towed fishing gear has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds <i>Zostera</i> spp, a sub-feature of the SAC.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			<p>The populations of the qualifying features; The distribution of the qualifying features within the site.</p>	<p>Planning Permission: general – Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development.</p> <p>Invasive species – Non-native invasive species such as the American whelk tingle <i>Urosalpinx cinerea</i> and Slipper limpet <i>Crepidula fornicata</i> are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation. Invasive common cord grass may adversely affect plant species for which the Essex Estuaries SAC is designated.</p> <p>Fisheries: Recreational marine and estuarine – Recreational bait digging may damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>potential impacts on site features are not currently well understood.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition - Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.</p>
<p>The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border in eastern England. The estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The mud-flats hold <i>Enteromorpha</i>, <i>Zostera</i> and <i>Salicornia</i> spp. The site also includes an area of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell. In summer, the site supports important numbers of breeding Avocet <i>Recurvirostra avosetta</i>, while in</p>				
Stour and Orwell Estuaries SPA	3676.92	Annex I species: Over winter: Hen Harrier <i>Circus cyaneus</i> This site also qualifies under Article 4.2 of the Directive	With regard to the individual species and/or assemblage of species for which the site has been classified ("the Qualifying Features" listed below);	Coastal squeeze – Coastal defences are present along most of the Orwell coastline to mitigate for impacts from climate change, such as rising sea level. Unless changes are made to the

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>(79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p>Over winter:</p> <p>Black-tailed Godwit <i>Limosa limosa islandica</i></p> <p>Dunlin <i>Calidris alpina alpina</i></p> <p>Grey Plover <i>Pluvialis squatarola</i></p> <p>Pintail <i>Anas acuta</i></p> <p>Redshank <i>Tringa totanus</i></p> <p>Ringed Plover <i>Charadrius hiaticula</i></p> <p>Shelduck <i>Tadorna tadorna</i></p> <p>Turnstone <i>Arenaria interpres</i></p> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including:</p> <p>Cormorant <i>Phalacrocorax carbo</i>;</p> <p>Pintail <i>Anas acuta</i>;</p> <p>Ringed Plover <i>Charadrius hiaticula</i>;</p>	<p>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <p>The extent and distribution of the habitats of the qualifying features;</p> <p>The structure and function of the habitats of the qualifying features;</p> <p>The supporting processes on which the habitats of the qualifying features rely;</p> <p>The populations of the qualifying features;</p> <p>The distribution of the qualifying features within the site.</p>	<p>management of the coastline, habitats supporting qualifying SPA birds will be lost or degraded through coastal squeeze, sedimentation and reduced exposure.</p> <p>Public access/disturbance – Stour and Orwell Estuaries is subject to land- and water-based activities, including boating and water sports; walking; bait-digging; fishing; wildfowling; and military overflight training. These activities are likely to impact habitats supporting breeding and overwintering water birds. A better understanding of which species and habitats are most susceptible; which types of activity are most disturbing; and which locations and times of year are most sensitive is required to ensure the Estuaries are appropriately managed.</p> <p>Changes in species distribution – Declines in the number of bird species present at Orwell coastline have occurred. This is likely to be the result of changes in population and distribution on an international scale, due to climate change.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Grey Plover <i>Pluvialis squatarola</i>; Dunlin <i>Calidris alpina alpina</i>; Black-tailed Godwit <i>Limosa limosa islandica</i>; Redshank <i>Tringa tetanus</i>; Shelduck <i>Tadorna tadorna</i>; Great Crested Grebe <i>Podiceps cristatus</i>; Curlew <i>Numenius arquata</i>; Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>; Wigeon <i>Anas Penelope</i>; Goldeneye <i>Bucephala clangula</i>; Oystercatcher <i>Haematopus ostralegus</i>; Lapwing <i>Vanellus vanellus</i>; Knot <i>Calidris canutus</i>; Turnstone <i>Arenaria interpres</i>.</p>		<p>Invasive species – An increase in <i>Spartina anglica</i> may be affecting the growth of <i>Spartina maritima</i>, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.</p> <p>Planning permission: General – The issue of development in combination with other factors is not fully understood. To ensure management is appropriate to the SPA a better understanding of the sensitivities relating to each habitat, species and location to different types of development is required. Difficult issues highlighted by the SIP include; a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments. b) Development outside the SPA boundary can have negative impacts, particularly on the estuaries' birds. c) Assessing the indirect, 'knock-on' effects of proposals. d) Pressure to relax planning conditions on existing developments.</p> <p>Air pollution: impact from atmospheric nitrogen deposition –</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects.</p> <p>Inappropriate coastal management – Due to the presence of existing hard sea defences, such as sea walls there is little scope for adaptation to rising sea levels. Any freshwater habitats behind failing seawalls are likely to be inundated by seawater, which would result in the loss of this habitat within the SPA.</p> <p>Fisheries: Commercial and estuarine – Commercial fishing activities can be very damaging to inshore marine habitats and the bird species dependent on the communities they support. Any ‘amber or green’ categorised commercial fishing activities in European Marine Sites are assessed by Kent and Essex Inshore Fisheries Conservation Authority (IFCA). This assessment takes into account any in-combination effects of amber activities and/or appropriate plans or projects.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Stour and Orwell Estuaries Ramsar site	3676.92	<p>Ramsar criterion 2 Contains seven nationally scarce plants: Stiff saltmarsh-grass <i>Puccinellia rupestris</i> Small cord-grass <i>Spartina maritime</i> Perennial glasswort <i>Sarcocornia perennis</i> Lax-flowered sea lavender <i>Limonium humile</i> Eelgrasses <i>Zostera angustifolia</i>, <i>Z. marina</i> and <i>Z. noltei</i>.</p> <p>Ramsar criterion 5 Assemblages of international importance; species with peak counts in winter; 63,017 waterfowl.</p> <p>Ramsar criterion 6 species/populations occurring at levels of international importance: Species with peak counts in spring/autumn: Common redshank, <i>Tringa totanus tetanus</i>.</p>	None available.	<p>Similar to Stour and Orwell Estuaries SPA (See above). A key threat identified by RIS was erosion. Erosion – Natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to capital dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is being produced.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Species with peak counts in winter: Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ; Northern pintail, <i>Anas acuta</i> ; Grey plover, <i>Pluvialis squatarola</i> ; Red knot, <i>Calidris canutus islandica</i> ; Dunlin, <i>Calidris alpina alpina</i> Black-tailed godwit, <i>Limosa limosa islandica</i> ; Common redshank, <i>Tringa totanus tetanus</i> .		
<p>The Colne Estuary is located on the coast of Essex in eastern England. It is a comparatively short and branching estuary, with five tidal arms that flow into the main channel of the River Colne. The estuary has a narrow intertidal zone predominantly composed of flats of fine silt with mud-flat communities typical of south-eastern English estuaries. The estuary is of importance for a range of wintering wildfowl and waders, in addition to breeding Little Tern <i>Sterna albifrons</i> which nest on shell, sand and shingle spits. There is a wide variety of coastal habitats which include mud-flat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel pits and reedbeds which provide feeding and roosting opportunities for the large numbers of waterbirds that use the site.</p> <p>The Colne Estuary is an integral component of the phased Mid-Essex Coast SPA</p>				
Colne Estuary (Mid-Essex Coast)	2701.43	Annex I populations of the following species: During the breeding season - <ul style="list-style-type: none"> • Little Tern <i>Sterna albifrons</i> 	Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the	Coastal Squeeze – Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Phase 2) SPA		<p>Over winter -</p> <ul style="list-style-type: none"> • Avocet <i>Recurvirostra avosetta</i> • Golden Plover <i>Pluvialis apricaria</i> • Hen Harrier <i>Circus cyaneus</i> • This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species: <p>Over winter -</p> <ul style="list-style-type: none"> • Dark-bellied Brent Goose <i>Branta bernicla bernicla</i> • Redshank <i>Tringa totanus</i> • The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting 	<p>site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <p>The extent and distribution of the habitats of the qualifying features;</p> <p>The structure and function of the habitats of the qualifying features;</p> <p>The supporting processes on which the habitats of the qualifying features rely;</p> <p>The populations of the qualifying features;</p> <p>The distribution of the qualifying features within the site.</p>	<p>in extent, with knock-on effects on the waterbirds and other species they support. 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the area of the Mid Essex Coast SPAs are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.</p> <p>Public access /disturbance – Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities - including boating and watersports, walking, bait-digging, fishing and wildfowling - as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats.</p> <p>Planning permission: general – Several of the issues affecting the Essex Estuaries and the management</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		at least 20,000 waterfowl		<p>of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development.</p> <p>Changes in species distributions – Declines have occurred in the numbers of some of the waterbird species using the Essex Estuaries SIP area but these may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.</p> <p>Invasive species – An increase in Pacific oyster <i>Crassostrea gigas</i> settlement and colonisation within the European Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. Invasive common cord grass may adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>Fishing – Recreational bait digging may impact waterbirds e.g. by reducing prey availability, or damaging the intertidal mudflats and sandflats and associated communities. The extent of the activity and potential impacts on site features are not currently well understood. Certain forms of commercial fishing, e.g. bottom towed fishing gear; can be very damaging to inshore marine habitats and the bird species dependent on the communities they support.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition – Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Colne Estuary (Mid-Essex Coast Phase 2) Ramsar site	2701.43	<p>Ramsar criterion 1</p> <p>The site is important due to the extent and diversity of saltmarsh present.</p> <p>Ramsar criterion 2</p> <p>The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species.</p> <p>Ramsar criterion 3</p> <p>This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar criterion 5</p> <p>Assemblages of international importance:</p>	None available.	Similar to Colne Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Species with peak counts in winter: 32041 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Ramsar criterion 6</p> <p>Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):</p> <p>Species with peak counts in winter: Dark-bellied brent goose, Branta bernicla bernicla; Common redshank, Tringa totanus tetanus. Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p>		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
<p>Abberton Reservoir is a large water storage reservoir close to the Essex coast. It is one of the most important reservoirs in the country for overwintering waterfowl and also supports substantial aggregations of moulting birds in early autumn and a large colony of tree-nesting cormorants. Causeways divide the reservoir into three sections.</p>				
<p>Abberton Reservoir SPA</p>	<p>726.2</p>	<p>Supports the following internationally important waterbird assemblage:</p> <p><i>Podiceps cristatus</i>; Great crested grebe (Non-breeding)</p> <p><i>Phalacrocorax carbo</i>; Great cormorant (Breeding)</p> <p><i>Cygnus olor</i>; Mute swan (Non-breeding)</p> <p><i>Anas penelope</i>; Eurasian wigeon (Non-breeding)</p> <p><i>Anas strepera</i>; Gadwall (Non-breeding)</p> <p><i>Anas crecca</i>; Eurasian teal (Non-breeding)</p> <p><i>Anas clypeata</i>; Northern shoveler (Non-breeding)</p> <p><i>Aythya ferina</i>; Common pochard (Non-breeding)</p> <p><i>Aythya fuligula</i>; Tufted duck (Non-breeding)</p>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <p>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <p>The extent and distribution of the habitats of the qualifying features;</p> <p>The structure and function of the habitats of the qualifying features;</p>	<p>Siltation – high sediment load in reservoir inflow due to agricultural practices within catchment.</p> <p>Public access / disturbance – designated waterbirds are vulnerable to human disturbance but well controlled by Essex & Suffolk Water; occasional trespassing and disturbance by low flying aircraft.</p> <p>Planning permission: general – potential future threat to designated waterbirds if farmland providing supporting habitat close to the SPA were lost to development; requires further study.</p> <p>Changes in species distributions – unexplained decline in designated population of cormorant.</p> <p>Bird strike – death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p><i>Bucephala clangula</i>; Common goldeneye (Non-breeding) <i>Fulica atra</i>; Common coot (Non-breeding) <i>Pluvialis apricaria</i>; European golden plover (Non-breeding)</p>	<p>The supporting processes on which the habitats of the qualifying features rely; The populations of the qualifying features; The distribution of the qualifying features within the site.</p>	<p>Water pollution – Water stored in the reservoir is high in nutrients (eutrophic) as it comes from intensively farmed catchment areas. Resulting algal blooms may include toxic blue-green algae that can kill wildfowl, though no significant mortality has been recorded. Historically, increased water from the reservoir led to low water levels although no decrease in wildfowl was attributed to this. Currently the water level of the main, eastern section is being raised by 3 metres to increase storage capacity. As part of the level-raising scheme, 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.</p> <p>The Water Company has a consultative committee which addresses conservation issues at all its sites, and the Abberton Reserve Committee (involving Essex Wildlife Trust and EN) addresses local issues.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition – The site is</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				identified as at risk from air pollution as Nitrogen deposition levels exceed the site- relevant critical load for ecosystem protection. However the site's Nitrogen load is likely to be dominated by levels in the water entering the reservoir (mainly from the distant Ouse catchment) rather than direct deposition.
Abberton Reservoir Ramsar site	726.2	Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage: Gadwall, <i>Anas strepera strepera</i> ; Northern shoveler, <i>Anas clypeata</i> ; Eurasian wigeon, <i>Anas Penelope</i> ; Mute swan, <i>Cygnus olor</i> Common pochard, <i>Aythya farina</i> ; Great cormorant, <i>Phalacrocorax carbo carbo</i> ; Eurasian teal, <i>Anas crecca</i> ;	None available.	Similar to Abberton Reservoir SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Tufted duck, <i>Aythya fuligula</i>; Common coot, <i>Fulica atra atra</i>; Pied avocet, <i>Recurvirostra avosetta</i>; Ruff, <i>Philomachus pugnax</i>, Black-tailed godwit, <i>Limosa limosa islandica</i>; Spotted redshank, <i>Tringa erythropus</i>, Common greenshank, <i>Tringa nebularia</i>, Common goldeneye, <i>Bucephala clangula</i></p>		
<p>The Blackwater Estuary is a large estuary between the Dengie peninsula and Mersea Island on the Essex coast. It stretches from immediately adjacent to Maldon and about 8 km south of Colchester.</p>				
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	4395.15	<p>Qualifying Features (Waterbird assemblage): <i>Branta bernicla bernicla</i>; Dark-bellied brent goose (Non-breeding) <i>Aythya ferina</i>; Common pochard (Breeding) <i>Circus cyaneus</i>; Hen harrier (Non-breeding) <i>Charadrius hiaticula</i>; Ringed plover (Breeding)</p>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <ul style="list-style-type: none"> Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of 	Similar to Colne Estuary SPA (above)

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Pluvialis squatarola; Grey plover (Non-breeding) Calidris alpina alpina; Dunlin (Non-breeding) Limosa limosa islandica; Black-tailed godwit (Non-breeding)</p> <ul style="list-style-type: none"> • Sterna albifrons; Little tern (Breeding) <p>Additional Qualifying Features Identified by the 2001 UK SPA Review: Tadorna tadorna; Common shelduck (Non-breeding) Recurvirostra avosetta; Pied avocet (Non-breeding) Charadrius hiaticula; Ringed plover (Non-breeding) Pluvialis apricaria; European golden plover (Non-breeding) Philomachus pugnax; Ruff (Non-breeding) Tringa totanus; Common redshank (Non-breeding)</p>	<p>the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> • 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 populations of the qualifying features; • The distribution of the qualifying features within the site. 	
Blackwater Estuary	4395.15	Represents 70% of the saltmarsh habitat in Essex	None available.	Similar to Colne Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
(Mid-Essex Coast Phase 4) Ramsar site		<p>and 7% of the total area of saltmarsh in Britain. Invertebrate fauna includes at least 16 British Red Data Book species:</p> <ul style="list-style-type: none"> • water beetle <i>Paracymus aeneus</i>; • damselfly <i>Lestes dryas</i>; • flies <i>Aedes flavescens</i>, <i>Erioptera bivittata</i>, <i>Hybomitra expollicata</i> ; • spiders <i>Heliophanus auratus</i> and <i>Trichopterna cito</i>; • beetles <i>Baris scolopacea</i>, <i>Philonthus punctus</i>, <i>Graptodytes bilineatus</i> and <i>Malachius vulneratus</i>; • flies <i>Campsicemus magius</i>, <i>Myopites eximia</i>; 		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> • moths <i>Idea ochrata</i> and <i>Malacosoma castrensis</i>; • spider <i>Euophrys</i>. <p>Supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Supports the following internationally important wildfowl assemblage:</p> <ul style="list-style-type: none"> • Dark-bellied brent goose, <i>Branta bernicla bernicla</i>; • Grey plover , <i>Pluvialis squatarola</i>; • Dunlin , <i>Calidris alpina alpina</i>; • Black-tailed godwit, <i>Limosa limosa islandica</i>; • European golden plover , <i>Pluvialis apricaria apricaria</i>; 		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> Common redshank , Tringa totanus. titanus. 		

DRAFT

Appendix B: Loss of offsite functional habitat

Colne Estuary SPA, Blackwater Estuary SPA, Essex Estuaries SAC, Abberton Reservoir, Stour and Orwell Estuaries SPA

Rather than apply criteria to assess which sites are close enough to European sites to then assess which sites have potential as offsite functional habitat all site allocations have been assessed. For a site to potentially be suitable as offsite functional habitat all five of the criteria should be met, i.e. sites should be large, prone to flooding, have a high degree of openness, an absence of negative factors such as edge features and an absence of human disturbance.

None of the sites meet all five criteria. The two garden communities meet three of the criteria: both are large sites, with a high degree of openness and an absence of human disturbance. In isolation the importance of such sites for these species is likely to be low when compared with the extensive areas of habitat of increased suitability surrounding these European sites. However, as a precautionary basis mitigation measures are proposed in relation to the Colchester/ Tendring Borders Garden Community.

Dawes Lane, West Mersea also meets three of the five criteria. It is a large site, it is prone to surface water flooding and it has a high degree of openness. However, this site is not offsite functional habitat as it has edge features and human disturbance. The Glebe football ground is located directly to the north. This is a busy, well used site and the high degree of human disturbance rules out the likelihood of Dawes Lane being used as offsite functional habitat.

	Large site?	Prone to flooding?	High degree of openness?	Absence of negative factors such as edge features?	Absence of human disturbance?
WEST COLCHESTER/EAST BRAINTREE GARDEN COMMUNITY	Yes	No	Yes	No	Yes
EAST COLCHESTER/WEST TENDRING GARDEN COMMUNITY	Yes	No	Yes	No	Yes
ST RUNWALDS STREET, COLCHESTER	No	No	No	No	No
MILL ROAD, COLCHESTER (EXTRA CARE)	Yes	No	No	No	No
OXLEY PARKER DRIVE, MILL ROAD, COLCHESTER	No	No	No	No	No
RUGBY CLUB, MILL ROAD, COLCHESTER	Yes	No	No	No	No
LAND NORTH OF BRAISWICK, COLCHESTER	No	No	No	No	No
DEFENCE SUPPORT GROUP (DSG), FLAGSTAFF ROAD, COLCH	No	No	No	No	No
IRVINE ROAD, COLCHESTER					
MIDDLEWICK RANGES, COLCHESTER	Yes	No	No	No	No
PORT LANE, COLCHESTER	No	No	No	No	No
BARRINGTON ROAD/ BOURNE LANE, COLCHESTER	No	No	No	No	No

MAGDALEN STREET SITES, COLCHESTER	No	No	No	No	No
EAST COLCHESTER, HYTHE SPECIAL POLICY AREA	No	Yes	No	No	No
EAST BAY MILL, COLCHESTER	No	Yes	No	No	No
BRITANIA CAR PARK, COLCHESTER	No	No	No	No	No
PLACE FARM, OLD HEATH ROAD, COLCHESTER	No	No	No	No	No
LAND SOUTH OF BERECHURCH HALL ROAD, COLCHESTER	Yes	No	No	No	No
GOSBECKS PHASE TWO, COLCHESTER	Yes	No	No	No	No
ROSEMARY ALMSHOUSES, LONDON RD, STANWAY	No	No	No	No	No
FORMER SAINSBURY'S SITE, TOLLGATE, STANWAY	Yes	No	No	No	No
LAND OFF DYERS ROAD, FIVEWAYS FRUIT FARM, STANWAY	No	No	No	No	No
ESSEX COUNTY HOSPITAL SITE, COLCHESTER	No	No	No	No	No
CHITTS HILL, COLCHESTER	Yes	No	No	No	No
LAND EAST OF QUEENSBERRY AVENUE, COPFORD	No	No	No	No	No
HALL ROAD, COPFORD	No	No	No	No	No
LAND ADJACENT THE FOLLEY, LAYER DE LA HAYE	No	No	No	No	No
LAND EAST OF PELDON ROAD, ABBERTON	No	No	No	No	No
LAND WEST OF PELDON ROAD, ABBERTON	No	No	No	No	No
HILL FARM, BOXTED	No	No	No	No	No
DAWES LANE, WEST MERSEA	Yes	Yes	Yes	No	No
BRIERLEY PADDOCKS, WEST MERSEA	Yes	No	No	No	No
ROWHEDGE BUSINESS CENTRE, ROWHEDGE	No	No	No	No	No
SWAN GROVE, CHAPPEL	No	No	No	No	No
PLUMMERS ROAD, FORDHAM	No	No	No	No	No
SCHOOL LANE, GREAT HORKESLEY	No	No	No	No	No
GREAT HORKESLEY MANOR, GREAT HORKESLEY	Yes	No	No	No	No
GREENFIELD DRIVE, GREAT TEY	Yes	No	No	No	No
BROOK ROAD, GREAT TEY	No	No	No	No	No
WICK ROAD, LANGHAM	No	No	No	No	No
SCHOOL ROAD (EAST), LANGHAM	No	No	No	No	No
SCHOOL ROAD (WEST), LANGHAM	No	No	No	No	No
LAND NORTH OF ELMSTEAD ROAD, WIVENHOE	No	No	No	No	No
BROADFIELDS, WIVENHOE	Yes	No	No	No	No
CROQUET GARDENS, WIVENHOE	No	No	No	No	No
COLCHESTER ROAD, WIVENHOE	Yes	No	No	No	No

DRAFT

Appendix C: Summary of other plans and projects for in-combination assessment

Babergh Core Strategy & Policies (2011-2031) Local Plan¹	
	Babergh District Council
	Core Strategy Submission Draft HRA Screening Report September 2011 ²
	Local Plan was adopted in February 2014. Provision for 5,975 new dwellings and employment space to accommodate 9,700 new jobs during 2011-2031. Employment and housing growth will be accommodated within Babergh's existing settlement pattern and in new mixed and balanced communities on the edges of the towns and the Babergh Ipswich Fringe.
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</p> <p>The HRA screening suggests that Babergh will primarily need to ensure the impacts on the Stour and Orwell estuaries are monitored, as other European sites which could potentially be affected will be monitored by other councils</p> <p>The following types of potential likely significant effect were identified:</p> <p>Water resources and quality: Provided the recommendations of the Water Cycle Study are incorporated into the Core Strategy, likely significant effects as a result of changes in water resources or quality are not predicted.</p> <p>Wind turbines: Provided the recommendations are followed to make it clear that development supported by Policy CS9 must still meet other requirements for sustainability, including protection of European sites, likely significant effects are not predicted.</p> <p>Coastal processes: Coastal squeeze has been identified as an issue at some locations along the Stour and Orwell Estuaries SPA / Ramsar site in Natural England monitoring records; however development close to the coast is not suggested outside existing built up areas. Therefore indirect effects through increased coastal squeeze are not predicted as a result of the Core Strategy.</p> <p>Recreational pressure: Recreational use of the estuaries can result in disturbance of wintering birds. Babergh District Council is contributing to the wider mitigation strategy under the Haven Gateway Green Infrastructure Strategy and has made provision for new public open space at key sites close to the estuaries. As a precautionary approach is proposed this provides Babergh Council with the opportunity to take additional action if unexpected increases in disturbance occur. Therefore, subject to the mitigation strategy likely significant effects would not be predicted.</p>	

Suffolk Coastal District Preferred Options Site Allocations and Area Specific Policies	
	Suffolk Coastal District Council
	Habitat Regulation Screening Assessment of Suffolk Coastal District Preferred Options Site Allocations and Area Specific Policies ³
	Preferred Options Site Allocations and Area Specific Policies document was submitted for examination in June 2016. The document is designed to implement the Core Strategy. Development provided for includes up to 7900 new houses between 2010 and 2027 and 8000 new jobs between 2001 and 2027.

¹ <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/>

² <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/core-strategy-consultations/>

³ <http://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Site-Allocations-and-Area-Specific-Policies/Preferred-Options-Consultation/Site-Allocations-Plan-HRA-issue-13-Oct-15.pdf>

Suffolk Coastal District Preferred Options Site Allocations and Area Specific Policies	
	In addition to this, Suffolk Coast District Council is undertaking a Local Plan Review, with the Ipswich Policy Area local planning authorities (Ipswich Borough, Mid Suffolk, Babergh and Suffolk Coastal).
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan	
The HRA of the Site Allocations document identified potential likely significant effects in relation to Alde-Ore Estuary SPA and Ramsar, with Preferred Policies SSP3 (land to the rear of Rose Hill, Saxmundham Road, Aldeburgh) and SSP31 (Snape Malting's) likely to have a significant effect by causing an increase in disturbance to SPA/Ramsar qualifying birds using the estuary. For both policies, further information and / or study might be able to inform a subsequent conclusion of no adverse effect upon the integrity of the European site. No Likely significant effects were identified in relation to other plans and projects.	

Maldon District Local Development Plan	
	Maldon District Council
	Maldon District Council Pre-Submission Local Development Plan 2014 - 2029 Sustainability Appraisal Report incorporating Strategic Environmental Assessment and Habitats Regulations Assessment
	The Maldon District Local Development Plan was submitted to the Secretary of State for Examination-in-Public on 25 April 2014. Development provided for in the Draft Plan includes at least 4,410 dwellings during 2014-2029.
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan	
A number of individual policies were identified as having potential likely significant effects:	
<ul style="list-style-type: none"> • <i>S2 Strategic Growth</i>: Potential pressure from housing growth on water resources and water quality could affect condition of Blackwater Estuary SPA and Ramsar site and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site but adequate protection judged to exist from the Environment Agency's abstraction and effluent discharge consenting regimes. Potential recreational pressure from additional housing to the south of Maldon town and north of Heybridge but unlikely to significantly increase existing recreational pressure from these settlements and mitigation provided in the form of additional open space. • <i>Policy H7 Agricultural and Essential Workers' Accommodation</i>: The provision of accommodation for agricultural workers has the potential to have a likely significant effect on the international sites depending on the location of these developments. The creation of new development could cause damage to habitats if located within the international sites, or noise and visual disturbance from the proximity of the buildings to the international sites. Whilst locations are not known at this time it is considered that the predominantly estuarine nature of the international sites means they are not suitable for development due to access, risk of flooding and lack of suitable land. In addition, this development is intended to accommodate small numbers of people, therefore the associated noise and visual disturbance on the international sites would be minimal. It is therefore considered that this policy is not likely to have a significant effect on the sites. • <i>Policy N1 Green Infrastructure Network</i>: Through the creation of a green infrastructure network across the District there is the potential that this policy could result in increased numbers of people along the estuaries, causing a visual and noise disturbance. 	
Concluded that there will not be any significant adverse effects on the integrity of European sites alone or in-combination from the Maldon District LDP.	

South Cambridgeshire Local Plan	
	South Cambridgeshire District Council
	South Cambridgeshire Local Plan Submission Habitats Regulations Assessment ⁴

⁴ https://www.scambs.gov.uk/sites/default/files/documents/HRA%20Screening_0.pdf

Supporting documents were submitted for independent examination to the Secretary of State for Communities and Local Government via the Council on 17 March 2014.

For information, the Draft Plan includes 19,000 new homes and 22,000 additional jobs between 2011 to 2031.

Effects to European sites within scope of HRA of Braintree Local Plan

Effects were identified:

For water supply, sewage discharge and surface run-off was identified as potential impacts to European sites including Ouse Washes SPA, Portholme SAC. Negotiations between Anglian Water and Environment Agency, along with investigations by the Environment Agency and existing policies, are likely to result in no likely significant effects to these European sites. In addition to this, the promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites.

The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites.

The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites.

The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites. The promotion of Northstowe greenfield site as an Eco-town is likely to result in no likely significant effects to these European sites.

n⁵

il

Assessment Of Pre Submission Draft Local Plan

was approved and subsequently withdrawn in 2014.

The Development Scheme was approved by the Cabinet on 16 February 2016 with the draft Plan, including allocation of sites and supporting policies, on 16 October 2016.

For information, the Plan includes 11,500 new homes and 1,900 new jobs between 2011 and 2031.

Effects to European sites within scope of HRA of Braintree Local Plan

The assessment assessed the likely significant effects of five proposed sites. The screening concluded that none of the strategic policies, site allocations and

site allocations are likely to have any adverse effect on the identified European Sites either alone or in-combination with other plans and policies. Overall, it was considered that there are no likely significant effects, due to the distance of the European sites from the District.

Joint development management policies⁷

Council

Assessment of St Edmundsbury Core Strategy⁸

and Joint development management policies⁷

Assessment of Development Management Policies Document⁹

in December 2010. Following this, a Joint Development Management Policies Document was produced with Forest Heath District Council in

the Core Strategy and Policies document includes

to European sites within scope of HRA of Braintree Local Plan

with potential to impact European sites. This included CS1: St Edmundsbury Spatial Strategy, CS9: Employment and the Local Economy, CS11: Haverhill Strategic Growth. These policies were found to have potential to affect Breckland SAC/SPA and Waveney and Little Ouse Valley Fens pollution.

Detail with exact details on location, design and/or when (or if) these sites will be constructed upon was not known. Follow on lower tier Development Management Policies Document CS11 and CS12 including Bury St Edmunds Area Action Plan (AAP), Haverhill AAP and Site Allocations DPDs (including Rural Allocation Sites) provide more detail. The plan commits to an HRA being carried out at the development control stage/lower tier development plan stage for any

potential for development. Overall, it concluded no likely significant effects on the Breckland SAC or the Breckland SPA, Waveney and Little Ouse Valley Fens SAC alone or in-combination with other plans and policies.

and Development Control Policies DPD

City Council

Assessment of the Chelmsford Core Strategy and Development Control Policies Submission Document DPD November 2006
and Development Control Policies Focused Review Sustainability Appraisal Report and HRA Screening Final Report February 2013

Chelmsford Core Strategy and Development Control Policies Document plus 2013 'Focused Review' which made changes to the DPD to improve
compliance with the NPPF.

Development provided for includes 16,170 new houses during 2001-2021.

to European sites within scope of HRA of Braintree Local Plan

Identified likely significant effects from four development control policies:

Residential locations, due to the proximity of housing development provided for at South Woodham Ferrers to Crouch and Roach Estuaries SPA and
potential for water pollution, direct habitat loss and recreational disturbance.

due to the proximity of employment development provided for at South Woodham Ferrers to Essex Estuaries SAC and Crouch and Roach
potential for water pollution, direct habitat loss and recreational disturbance.

due to the proximity of employment development provided for at Battlesbridge and South Woodham Ferrers to Essex Estuaries SAC and Crouch
and consequent potential for water pollution, direct habitat loss and recreational disturbance.

Chelmsford City Council Core Strategy and Development Control Policies DPD

- *DC56: Industrial and warehouse development*, due to the proximity of employment development provided for at South Woodham Ferrers to Essex Estuaries SAC and Crouch and Roach Estuaries SPA and Ramsar site and consequent potential for water pollution, direct habitat loss and recreational disturbance.

Recommended policy changes requiring protection of internationally designated nature conservation sites were deemed sufficient to address these potential effects.

The HRA Screening of the 2013 'Focused Review' of the Core Strategy did not identify any likely significant effects on European sites from the policy changes alone. The contribution of the policy changes to potential in-combination effects with other plans and projects was considered not significant.

Ipswich Local Plan 2011-2031¹⁰

	Ipswich District Council
	Habitat Regulation Assessment of Pre-Submission modifications to the Ipswich Borough Council Core Strategy and Policies DPD Review (Proposed Submission stage) ¹¹ Habitats Regulations Assessment of Pre-Submission modifications to the Ipswich Borough Council Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD – (Proposed Submission) ¹²
	The Ipswich Local Plan, which comprises Core Strategy and Policies Development Plan Document (DPD) Review and Site Allocations and Policies was submitted to the Secretary of State for examination. Development provided for includes 13,550 new houses and 12,500 new jobs by 2031.

Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

HRA of Pre-Submission modifications to the Ipswich Borough Council Core Strategy and Policies DPD Review

Policy CS7: The Amount of Housing Required was identified with potential to result in likely significant effects as a result of an amendment to the policy, which could potentially change the amount and location of housing required and therefore change the impact of housing growth on European sites. The policy however was amended and found to have no likely significant effect on European sites.

No plans with exception to Ipswich Borough Site Allocations and Policies were found to have likely significant effect, which was submitted for consultation alongside the Proposed Submission Core Strategy and Policies Development Plan Document Review consultation.

Habitats Regulations Assessment of Pre-Submission modifications to the Ipswich Borough Council Site Allocations and Policies DPD

Policy SP2: Land allocated for housing and policies map was identified with potential for likely significant effects, due to planning permission, which have lapsed and, which were at the time of consultation of the Proposed Submission DPD included in policy SP3 have been moved to policy SP2. A review of all sites moved to policy SP2 as a Pre-Submission Main Modification were identified outside the area within which residents of housing walk to Orwell Country Park, which could affect the Stour and Orwell SPA/Ramsar and was therefore found to have no likely significant effect and remained in line with conclusions of the December 2014 Appropriate Assessment.

All Pre-Submission Main Modifications and Pre-Submission Additional Modifications to the Ipswich Borough Council Site Allocations and Policies DPD were found not likely to have a significant effect on any European site and it was concluded that there is no change to the conclusions of the Appropriate Assessment (December 2014) submitted for consultation alongside the Development Plan Document consultation.

¹⁰ <https://www.ipswich.gov.uk/content/new-ipswich-local-plan-2011-2031>

¹¹ https://www.ipswich.gov.uk/sites/default/files/sucd12_-_core_strategy_hra_addendum_sept_2015.pdf

¹² https://www.ipswich.gov.uk/sites/default/files/sucd14_-_site_allocations_hra_addendum_sept_2015.pdf