

Habitats Regulations Assessment Appropriate Assessment



Tendring District

local development framework

Habitats Regulations Assessment of
Tendring District Council's draft Core Strategy
Final Report (Regulation 27 Consultation)

November 2010

Tendring
District Council



SUMMARY

This report presents the conclusions of a Habitats Regulations Assessment (HRA) for Tendring District Council draft Core Strategy and Development Policies within the Proposed Submission Document. This 'Regulation 27' document is due for public consultation in autumn 2010.

The need for this assessment arises from the *EC Habitats Directive (92/43/EEC)* and its implementation in the UK under the *Conservation of Habitat and Species Regulations 2010* (previously the *Conservation (Natural Habitats &c.) Regulations 1994*, as amended)). HRA is required where a plan or project not directly connected with the management of an International site has the potential to affect the integrity of that site, either alone or in combination with other plans or projects.

The first stage of the assessment concluded that 8 of the 50 policies could have a significant effect on the condition of interest features of a number of international sites, namely the Stour and Orwell Estuaries SPA and Ramsar site, Hamford Water SPA and Ramsar site, the Colne Estuary SPA and Ramsar site, the Essex Estuaries SAC, the Outer Thames Estuary SPA and Abberton Reservoir SPA and Ramsar site.

Through consultation with Natural England and based on the sensitivities of the interest features of the international sites, there are 6 potential mechanisms by which the Tendring District Council Core Strategy could impact these sites. These impacts form the focus of the more detailed 'Appropriate Assessment' to determine whether it could be concluded that the policies identified as having a likely significant effect would have 'no adverse effect on the integrity' (NAEOI) of the international sites. The impacts are:

- Changes to water quality;
- Disturbance to bird species through increased recreational use of the international sites;
- Disturbance to the habitats of the international sites through increased recreational use;
- Direct habitat loss;
- Disturbance to habitat outside the international sites, which supports the designated bird species; and
- Disturbance to flight lines and bird movements through renewable energy development.

An Appropriate Assessment of these impacts and the 8 draft Core Strategy policies concluded that 4 of them did have at least the potential to affect the integrity of 1 or more international sites. These policies are:

- Spatial Strategy Policy 3 Improving the Strategic Transport Network;
- Core Policy 6 Tackling Climate Change;
- Core Policy 19 Gypsies and Travellers; and

- Core Policy 21 Playing Pitches and Outdoor Sports Facilities.

A series of reduction and mitigation measures are proposed. If the council commits to adopt these measures we believe a conclusion of no adverse effect on the integrity of the international sites can be drawn for the policies and the strategy as a whole, and in combination with other plans and programmes.

This report represents the final HRA of the draft policy suite being submitted for public consultation in October 2010 (the 'Regulation 27' document).

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1 INTRODUCTION

1.1 The Need for a Habitats Regulations Assessment

The need for this assessment arises from the *EC Habitats Directive (92/43/EEC)* and its implementation in the UK under the *Conservation of Habitat and Species Regulations 2010* (previously the *Conservation (Natural Habitats &c.) Regulations 1994*, as amended)). Habitats Regulations Assessment (HRA) are required where a plan or project not directly connected with the management of an international site is likely to have a significant effect on the integrity of that site, either alone or in combination with other plans or projects.

This HRA is the assessment of the policies detailed within Tendring District Council's Core Strategy and Development Policies Proposed Submission Document. It identifies whether any of the policies outlined in the document, either alone or in-combination with other plans or policies, are likely to have a significant effect on international sites¹. Where such an effect is identified, the 'Appropriate Assessment' (**Section 6**) considers whether the effect will have or lead to an adverse effect on the integrity of those sites designated as internationally important for wildlife.

The final Appropriate Assessment is a decision by the 'competent authority', in this case Tendring District Council, as to whether the proposed plans or projects laid out within their core strategy document can be determined as not having an adverse effect on the integrity of any international sites. Planning Policy Guidance Note 9 (PPG9, the precursor to PPS9) (Department of the Environment, 1994) defined a site's integrity as the "coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or population of the species for which the site is classified". This document provides an evidence base to support that decision.

1.2 Previous Assessment

A HRA of the Tendring Replacement Local Plan was undertaken in 2006. It concluded that, given the number of international sites within the District and the levels of development proposed, there would be a likely significant effect as a result of the implementation of the plan. The Appropriate Assessment stage determined that 12 policies would have the potential to adversely effect on the integrity of the international sites. Preventative measures were recommended and through the adoption of these a conclusion of no adverse effect on site integrity was drawn.

¹ Special Areas of Conservation (SAC, or Candidate Special Area of Conservation (cSAC)), designated under the Habitats Directive, and Special Protection Areas (SPA) designated under the *Birds Directive (79/409/EEC)*, form part of the EU-wide Natura 2000 network. UK Government policy (PPS9 and Circular 06/05) requires that 'Ramsar sites', designated under the Ramsar Convention (*The Convention on Wetlands of International Importance, especially as Waterfowl Habitat*) are subject to the same provisions. This definition encompasses those European sites below the high tide mark (whether SPA or SAC) which, following the updated nomenclature used in the Marine and Coastal Access Act 2009, are referred to as European Marine Sites. The term international sites will be used throughout this report when referring to these designated sites.

This new report presents the conclusions of a Habitats Regulations Assessment (HRA) for Tendring District Council draft Core Strategy and Development Policies within the Proposed Submission Document. This 'Regulation 27' document is provided for public consultation between October and December 2010.

1.3 Structure of the Report

The rest of this report is set out as detailed below:

- Section 2 Methodology
- Section 3 Sites and features
- Section 4 Policy development and assessment
- Section 5 Impacts associated with policies
- Section 6 The alone assessment
- Section 7 Mitigation and avoidance measures
- Section 8 In-combination assessment
- Section 9 Conclusion and next steps
- Section 10 References
- Appendix 1 Detailed assessment tables

2 METHODOLOGY

This section outlines the general HRA methodology and the process that was undertaken for this assessment.

2.1 Requirement for Habitats Regulations Assessment

Under Regulation 61 (1) of *The Conservation of Habitat and Species Regulations 2010*, a HRA is required for a plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on the integrity of an international site and which is not directly connected with the management of the site.

2.2 Application of Habitats Regulations Assessment to Land Use Plans

Following a European Court of Justice ruling in 2005, which determined that the United Kingdom had not previously transposed the Habitats Directive into law in the correct manner, land use plans have been subject to HRA to determine impacts on sites designated under the Habitats and Birds Directives. The 2010 Habitats Regulations revision now includes provisions for such plans.

HRA is considered to be a risk-based assessment, drawing on available information. The Department for Communities and Local Government (DCLG) has produced draft guidance on carrying out Appropriate Assessment for the protection of international sites for Regional Planning Bodies and Local Planning Authorities (DCLG, 2006). It addresses determining the need for an Appropriate Assessment for a given plan and the provision of an assessment if one is required. The documents: *“Planning for the Protection of European Sites: Appropriate Assessment”* (DCLG, 2006) and *“The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations – Draft Guidance”* (English Nature, 2006), provide a cohesive source of guidance for assessments. Further documents which have provided scope to this work are the Royal Society for the Protection of Birds (RSPB) publication *“The Appropriate Assessment of Land Use Plans in England”* (2007), and the more recent guidance for competent authorities (Tyldesley and Hoskin 2008).

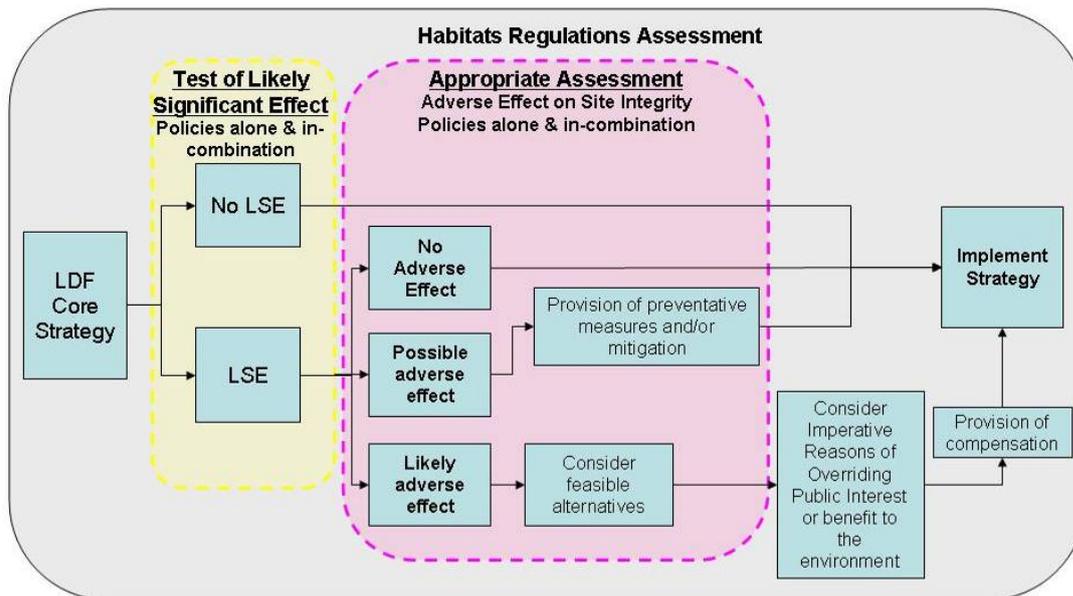
2.3 Habitats Regulations Assessment Methodology

The general process of a HRA is shown in **Figure 2.1**. Firstly, the sites which may potentially be affected and the documents (e.g. other plans and policies) which could have an in-combination effect are identified. Then an assessment is undertaken of whether the policies and land allocations from a core strategy have the potential to have a potential or Likely Significant Effect (LSE), either alone or in-combination, upon the relevant international sites. Those policies that can be scoped out of the further assessment stages are deemed suitable for inclusion in the core strategy.

Policies which are determined to have a potential or likely significant effect are taken through to the ‘Appropriate Assessment’ stage. This involves a more detailed review of the policies or land allocations, and assessing their potential impacts on the integrity of the international sites against information gathered on the condition of the site, and any further details concerning the likely impact.

If it can not be concluded at this stage that the policies will not have an adverse impact on the international sites then mitigation or avoidance measures must be developed and specified which can be used to prevent any declines in the condition of the site or sites in question. This may include mitigatory habitat elsewhere but within the same designated site.

Figure 2.1 The Habitats Regulations Assessment process



Any policies for which mitigation or preventative measures can not be established should be reconsidered and alternatives proposed. If the policy lacks a viable alternative it will be necessary to consider whether the policy is required. Guidance issued by the Department of Central and Local Government (DCLG) in 2006 states:

“After mitigation measures have been exhausted on an emerging option and it is shown to still have a potentially negative effect on the integrity of a European site, and in absence of any other alternative solution, as a rule the option should be dropped.

In the exceptional circumstance and as an exception to that rule, if the pursuit of the option is justified by ‘imperative reasons of overriding public importance (IROPI)’ consideration can be given to proceeding in the absence of alternative solutions. In these cases compensatory measures must be put in place to offset negative impacts”.

In circumstances where IROPI prevails, the relevant Government department has to be shown that there were no possible mitigation measures or alternatives solutions that would negate the adverse effects on the site, along with either of the following:

- That the plan is being undertaken for reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; and /or

- That the plan is being undertaken for imperative reasons of overriding public interest.

Consultation is required with the appropriate Government department throughout this IROPI process to ensure the overall integrity of the international site network is not detrimentally impacted.

2.4 Our Methodology

The draft policies contained within the Tendring District Council Core Strategy and Development Policies Proposed Submission (Regulation 27) Document were assessed with regard to potential or likely significant effects upon those international sites considered to be within a zone of influence of the strategy. Distances vary depending upon the nature and scale of the potential impact (see **Section 3** for more details on these sites), but the sites identified were confirmed as appropriate with Natural England. Policies deemed to have at least the potential for an affect were carried forward to the Appropriate Assessment stage.

Where it cannot be determined that the implementation of the strategy, as a whole or due to individual policies, will not have an adverse effect on the integrity of international sites, we propose feasible measures, supported by available guidance and best practice, by which Tendring District Council can mitigate and/or avoid adverse impacts.

2.5 In-combination Assessment

As well as considering the direct and in-direct impacts of policies, they must also be considered cumulatively alongside other policies, in an 'in-combination' assessment. Policies which, in isolation, could be assessed as having no LSE could have a significant effect when considered collectively. The collective impact of more than 1 policy could also be significant despite these policies, when considered alone, having no significant impact.

An in-combination assessment of the policies provided by Tendring District Council is detailed in **Section 7** of this report.

2.6 Consultation

Natural England and the RSPB were consulted during the HRA of the Tendring District Replacement Local Plan, undertaken in 2006 (Tendring District Council, 2006). Natural England felt that the impacts of recreation were a key issue and that potential impacts to water supply and pollutant levels should also be considered. The RSPB supported Natural England's view of the importance of the potential impact of secondary disturbance from housing growth on bird species.

Consultation was undertaken during the development of this HRA with Natural England and Tendring District Council. A summary of the responses received is provided in **Table 2.1** below.

Table 2.1 Summary of consultation responses

Consultee	Response/Key Comments
Natural England	<ul style="list-style-type: none"> • Natural England supports the general precautionary approach taken in assessing potential effects (positive, neutral and negative) on European designated sites. • Natural England agrees with the (preliminary) LSE assessment regarding potential for adverse effects. • Natural England agrees with the (preliminary) assessment that some policies are likely to have a beneficial effect although feels that the effect of Core Policy 3 (Securing Facilities and Infrastructure) will be neutral, rather than potential beneficial as initially considered. • The list of plans for in-combination effects should include the saved Essex & Southend Waste Local Plan (2001) and emerging Essex Waste Plan (current consultation on the Waste Development Document Issues & Options stage runs until 2nd December). • Natural England also provided more detailed information about a joint monitoring programme focussed on gathering data regarding visitor numbers at coastal hotspots which is currently under development, and provided details of several people with whom to pursue more detailed information.
Tendring District Council Nature Warden	<ul style="list-style-type: none"> • Hamford water does have a lot of water-based recreation, mainly yachts and motor cruisers, some speed boats, the occasional jet ski, canoes and kite surfers are increasing in number. Unfortunately there are no up to date records of visitor numbers only observations made during the summer season. • The increase in canoes is causing a disturbance problem as they can access all areas. Also the kite surfers whilst on the beaches disturb birds in the immediate area. • There is some disturbance from yachts/ boats when they take dinghies ashore. • The only measure in place to manage visitor impacts is the warden service that tries to educate users when they are seen to be causing a problem.

Early findings of this draft report were provided to Natural England to ensure that the proposed conclusions and mitigation are appropriate. A draft report was also discussed with Natural England. The final report is provided for information alongside the draft Core Strategy during the (Regulation 27) public consultation period.

3 SITES AND FEATURES

This section provides brief descriptions of the international sites within the district and also those which may be impacted by policies selected for the district. The key features for which these sites are designated will be highlighted.

Sites designated under the Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds):

- The Stour and Orwell Estuaries Special Protection Area (SPA);
- Hamford Water SPA;
- The Colne Estuary SPA;
- Abberton Reservoir SPA; and
- Outer Thames Estuary SPA.

Sites designated under the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora):

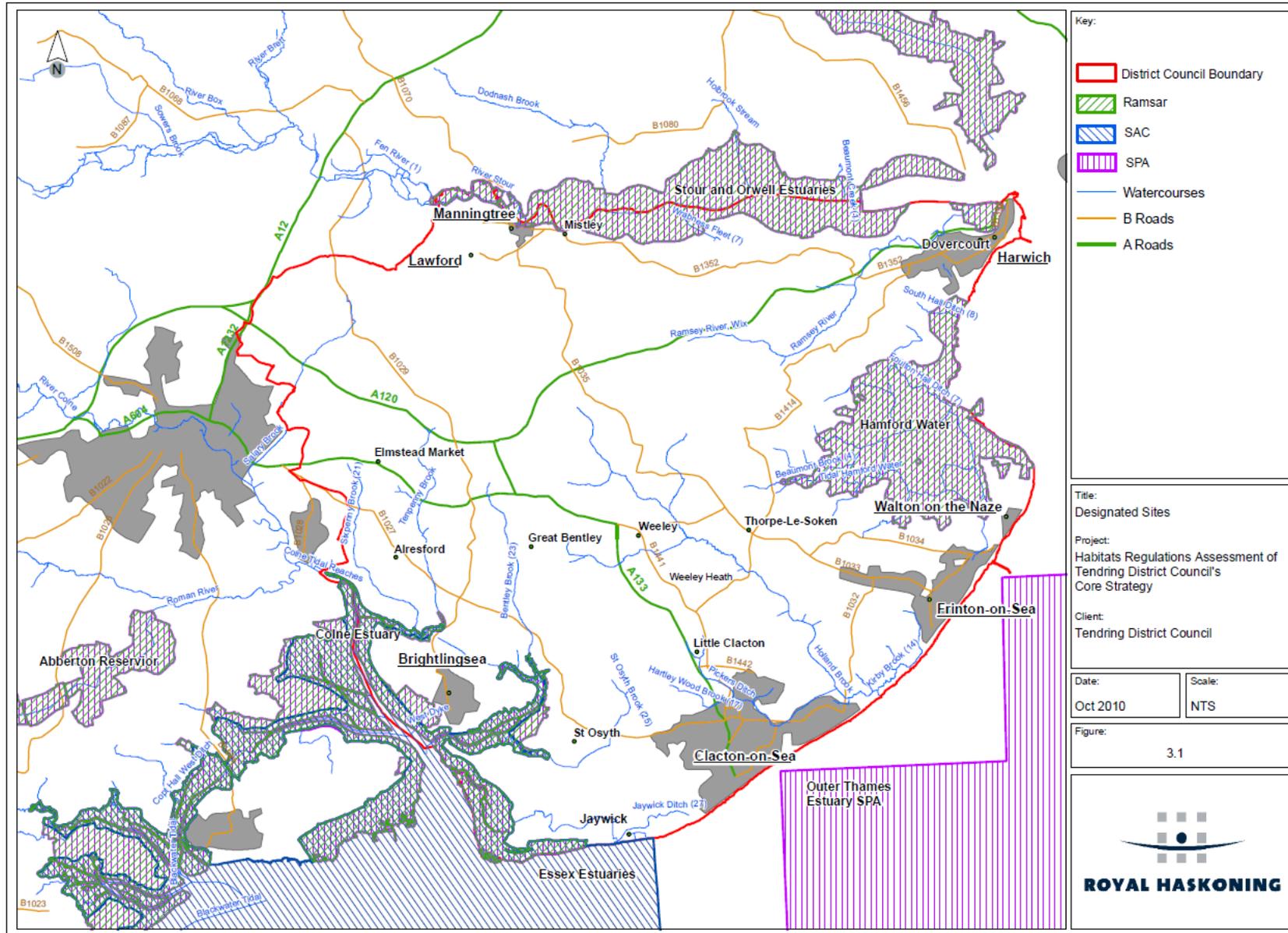
- The Essex Estuaries Special Area of Conservation (SAC).

Sites designated under the Ramsar Convention (The Convention on wetlands of International Importance especially as Waterfowl Habitat):

- Hamford Water;
- Stour and Orwell Estuaries; and
- Colne Estuary.

The location of these sites is presented in **Figure 3.1**.

No additional sites designated or in the process of being designated under any of these international agreements have been identified as potentially affected by policies within the Tendring District Council draft Core Strategy.



3.1 The Stour and Orwell Estuaries SPA

The Stour and Orwell estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The site also includes an area of low-lying grazing marsh on the south side of the Orwell. In summer, the site supports important numbers of breeding avocet (*Recurvirostra avosetta*); while in winter they hold major concentrations of waterbirds, especially geese, ducks and waders.

The site is designated for its over-wintering populations of hen harrier (*Circus cyaneus*), black tailed godwit (*Limosa limosa islandica*), dunlin (*Calidris alpina alpina*), grey plover (*Pluvialis squatarola*), pintail (*Anas acuta*), redshank (*Tringa totanus*), ringed plover (*Charadrius hiaticula*), Shelduck (*Tadorna tadorna*) and turnstone (*Arenaria interpres*). The site also supports assemblages of international importance with the area regularly supporting 64,768 individual waterfowl (JNCC, 2001a).

3.2 Hamford Water SPA

Hamford Water is a large, shallow estuarine basin comprising tidal creeks and islands, intertidal mud- and sand-flats, and saltmarsh. The rich invertebrate fauna present and the sheltered nature of the site results in its importance for international numbers of waterbirds during the passage and winter periods, as well as for breeding little terns (*Sterna albifrons*).

The site is designated for its over-wintering populations of avocet, golden plover (*Pluvialis apricaria*), ruff (*Philomachus pugnax*), black tailed godwit, dark-bellied Brent goose (*Branta bernicla bernicla*), grey plover, ringed plover and teal (*Anas crecca*). The site also supports an on-passage population of ringed plover. The area is estimated as regularly supporting 44,461 individual waterfowl (JNCC, 2001b).

3.3 The Colne Estuary SPA

The Colne Estuary is a comparatively short and branching estuary, with 5 tidal arms that flow into the main channel of the River Colne. The estuary is of importance for a range of wintering wildfowl and waders, in addition to breeding little tern. 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.

Over winter the site supports avocet, golden plover, hen harrier, dark bellied Brent goose and redshank. Over winter, the area regularly supports 38,548 individual waterfowl (JNCC, 2001c).

3.4 Abberton Reservoir SPA

Abberton Reservoir is a large, shallow, freshwater storage reservoir. It is one of the most important reservoirs in Britain for wintering wildfowl, with a key role as a roost for wildfowl and waders feeding in adjacent estuarine areas. The site is also important for winter feeding and autumn moulting of waterbirds. The margins of parts of the reservoir have well-developed plant communities that provide important opportunities for feeding,

nesting and shelter. Abberton Reservoir is important especially as an autumn arrival area for waterbirds that subsequently spend the winter elsewhere.

The reservoir supports a breeding population of cormorant (*Phalacrocorax carbo*) and, over winter, golden plover, gadwall (*Anas strepera*), shoveler (*Anas clypeata*) and teal (JNCC, 2001d).

3.5 Outer Thames Estuary SPA

The large Outer Thames Estuary area has recently been designated as a marine SPA, due to wintering population of red throated diver (*Gavia stellata*).

The Outer Thames Estuary SPA consists of areas of shallow and deeper water, high tidal current streams and a range of mobile sediments. Large areas of mud, silt and gravelly sediments form the deeper water channels. Sand in the form of sandbanks separated by troughs predominates in the remaining areas and the crests of some of the banks are exposed at mean low water.

3.6 The Essex Estuaries SAC

The Essex Estuaries SAC designation covers 5 SSSIs: Colne Estuary; Dengie; Blackwater Estuary; Foulness; and the Crouch and Roach Estuaries. Additionally, the SAC comprises an area of water below the mean low water mark which is not covered by a SSSI designation. The percentage of the SAC comprised of certain broad habitat types is as follows:

- Tidal rivers, estuaries, mud flats, sand flats and lagoons (including saltwork basins) (56.5%);
- Marine areas and Sea inlets (30%);
- Salt marshes, salt pastures, salt steppes (11%); and
- Improved grassland (2%).

The Essex Estuaries SAC is designated for the presence of estuarine habitats. It contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates. Sublittoral areas have a very rich invertebrate fauna, including the reef-building worm (*Sabellaria spinulosa*), the brittlestar (*Ophiothrix fragilis*), crustaceans and ascidians.

In this complex of estuarine marshes the occurrence of Mediterranean and thermo-Atlantic halophilous scrubs is currently restricted by sea-walls. It occurs principally as a strandline community. The local variant of this vegetation, which features sea-lavenders (*Limonium* spp.) and sea-heath (*Frankenia laevis*), occurs at one location, Colne Point. Also, small stands of native small cord-grass (*Spartina maritima*) are found in the Colne estuary, where it forms a major component of the upper marsh areas.

3.7 Stour and Orwell Estuaries Ramsar

The Stour and Orwell Estuaries is also designated as a Ramsar site due to an important assemblage of wetland birds in the non-breeding season and supports internationally important numbers of wintering and passage wildfowl and waders (more detail of these species can be found in **Section 3.1**). The site also holds several nationally scarce plants and British Red Data Book invertebrates, including stiff saltmarsh-grass (*Puccinellia rupestris*); lax-flowered sea lavender (*Limonium humile*); the muscid fly (*Phaonia fusca*); the horsefly (*Haematopota grandis*); and the endangered swollen spire snail (*Mercuria confuse*) (JNCC, 2008a).

3.8 Hamford Water Ramsar

Hamford Water is a large, shallow estuarine basin comprising tidal creeks and islands, intertidal mud and sand flats, and saltmarsh supporting rare plants and internationally important species/populations of migratory waterfowl (JNCC, 2008b). It is designated under criteria 6 of Ramsar for the internationally-significant populations of bird species it supports, including ringed plover, dark-bellied Brent geese, redshank and black-tailed godwit.

3.9 Colne Estuary Ramsar

The site is important due to the extent and diversity of saltmarsh present. This site, and the 4 other sites in the Mid-Essex Coast complex (Dengie; Blackwater Estuary; Foulness; and the Crouch and Roach Estuaries), includes a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total saltmarsh in Britain (JNCC, 2008c). Also, the Colne Estuary supports 12 species of nationally scarce plants, at least 38 British Red Data Book invertebrate species and supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.

The estuary is also designated under Ramsar criteria 5 and 6 for the number of birds the site receives and the presence of internationally important species. These include little terns during the breeding season and hen harrier, pochard, ringed plover, dark-bellied Brent geese and redshank over winter.

4 TEST OF LIKELY SIGNIFICANT EFFECT

This section undertakes an assessment of the current policy suite and performs an assessment of whether these policies have the potential for Significant Effect on the international sites. Whilst HRA assesses at the 'plan level', each policy is initially considered individually.

4.1 Appraisal of Draft Core Strategy Policies

The following table outlines the key findings of the LSE test undertaken for the 50 policies within the Proposed Submission Document. Of these policies, 8 have been concluded as having potential for a significant effect on one or more of the international sites described in the section above.

Key	
Potential for adverse effect (requires detailed 'appropriate' assessment)	-
No adverse effect	o
Potential positive effect, at the plan level	+

<p>Spatial Strategy Policy 1 – New Jobs</p> <p>This policy is proposing the creation of 7,000 jobs within the district over the 2011 to 2031 period. It recommends the promotion of tourism in coastal areas as a way to achieve economic growth. Although such a policy is likely to include close management, this increase in people visiting the coast has the potential through increased visitation rates to cause disturbance to the bird species for which the sites are designated. This increased visitation may also impact the habitats within the Essex Estuaries SAC through increased trampling etc.</p> <p><i>This policy requires more detailed consideration, and could be strengthened to avoid this potential impact with reference to the promotion of tourism without resulting in an adverse effect on the condition of the internationally designated sites within the district, or their interest features.</i></p>	-
<p>Spatial Strategy Policy 2 – New Homes</p> <p>The Council is proposing the creation of 6,300 houses between 2011 and 2031. Both Brownfield and Greenfield development is proposed. This new housing will bring new people into the district, causing a population increase of approximately 15,000 people. Due to the popularity of the coast as a place to visit and the proximity of major settlements to the coast there is the potential that this policy could result in increased visitation to the international sites which could cause disturbance to bird species and habitats.</p> <p>This increase in the population and residential property may also have an impact on the water resources in the district, impacting abstraction and water quality. As the international sites are largely estuarine, they have the potential to be affected</p>	-

<p>by changes in the connecting fluvial watercourses. Although tidal effects in the estuaries are generally considered to be greater and will dilute any pollutants entering from the rivers, this HRA takes a precautionary approach and therefore this potential impact can not be ruled out until further investigation is undertaken.</p> <p><i>Therefore a conclusion of Potential for Significant Effect is made for this policy, and more detailed consideration is required.</i></p>	
<p>Spatial Strategy Policy 3 – Improving the Strategic Transport Network</p> <p>This policy outlines the key projects for the district to improve transport links. The majority of the proposed improvements concern road networks within the centre of the district, to provide better access to coastal towns (Clacton-on-Sea) and to ports (Bathside Bay). The proposed improvements to the railway network (in particular the line running from Manningtree to Harwich) runs close to the coastline and at certain points adjacent to or through international sites.</p> <p>Any improvement or upgrade to the line in these areas has the potential to cause disturbance to the bird species in the surrounding habitats. Although these impacts are likely to be short term in nature, dependent on the works, they may be significant enough to impact the birds in the area.</p> <p><i>An amendment to the policy wording to ensure that impacts to the Stour and Orwell Estuaries SPA site are avoided is recommended. This would enable a conclusion of No Likely Significant Effect on the international sites. However a conclusion of Potential for Significant Effect is currently made for this policy, and more detailed consideration is required.</i></p>	-
<p>Spatial Strategy Policy 4 – Settlement Hierarchy</p> <p>This policy sets out where provision for new housing in the District is going to be made. It is an over-arching policy but refers to specific projects in different areas. These projects are considered to be inherently linked to the policy and therefore more detailed consideration of their possible impacts is required. <i>Therefore a conclusion of Potential for Significant Effect is made.</i></p>	-
<p>Spatial Strategy Policy 5 – Essential Infrastructure Improvements</p> <p>This policy outlines the key infrastructure proposed to ensure that residential and commercial growth is supported. It includes proposals previously discussed in Spatial Strategy Policy 3 (above) and new proposals including schools, medical centres, sub-stations and expansion to sewer works.</p> <p>The expansion of sewerage works at Jaywick could lead to an increase in flow being discharged into the Colne Estuary SPA/ Essex Estuaries SAC site. However, this increase will have to be in line with discharge consent and meet limits of loads required to support both the Habitats Regulations and the Water Framework Directive.</p> <p>The majority of the proposals are located within Clacton and will therefore have a localised impact. Due to the distance of Clacton from any international site except the Outer Thames SPA, and the size and nature of these improvements, <i>it can</i></p>	o

<p><i>be concluded that this policy is unlikely to have a significant effect on the international sites' features.</i></p>	
<p>Core Policy 1 – Containing Urban Growth</p> <p>As a way of controlling urban growth, boundaries have been defined for each of the settlements identified within Spatial Strategy Policy 4. Development within these boundaries will be subjected to detailed consideration under the other policies in the Core Strategy, which includes the Nature Conservation Policy, CP8. Development outside these boundaries will only be allowed if it is specified in Core Policy 2 (see below). <i>Therefore it can be concluded that this policy is not likely to have a Significant Effect on the international sites' features.</i></p>	○
<p>Core Policy 2 – Development within the Countryside</p> <p>Renewable energy installations are proposed within this policy. Depending on their location there is potential for disturbance, collision risks and impacts to flight lines of bird species for which the international sites are designated. Many bird species avoid wind farm areas, with a maximum avoidance distance of 800m being shown by some species. Whilst this distance is dependent on a wide range of conditions and the species of birds, it is recommended that a precautionary approach be taken and that the policy or supporting text should include a specific recommendation that wind farm developments are likely to be considered unacceptable within 800m of the international sites.</p> <p>However, this policy does state that development will be acceptable, subject to detailed consideration against other relevant core policies, which will include the Nature Conservation policy. <i>As this policy prevents the harm of the international sites, it can be considered that this caveat is strong enough to ensure that this policy will not have a significant effect on the international sites' features.</i></p>	○
<p>Core Policy 3 – Securing Facilities and Infrastructure</p> <p>This policy sets out the Council's requirements on developers to ensure that new growth is supported by community facilities and the appropriate infrastructure. It sets out demands on developers and as such will be limited to areas of development, which are predominantly within the key urban settlements in the district.</p> <p><i>In ensuring that suitable infrastructure is in place to support development, this policy could limit potential effects arising from other policies. As such there is no likely significant effect which will impact negatively on the international sites' features.</i></p>	○
<p>Core Policy 4 – Transport and Accessibility</p> <p>The improvement of accessibility, with a focus on sustainable transport methods, will be a feature of the assessment, by the council, of development proposals. The aim is to reduce dependence on cars and increase people walking, cycling and using public transport. <i>This policy will have wider environmental benefits and is unlikely to have a significant effect on international sites' features.</i></p>	○
<p>Core Policy 5 – Achieving a Sense of Place</p>	○

<p>This policy sets out the design requirements of developments and the need to be integrated with the environment and providing a positive sense of place. It specifies the Council's role in this process and the partnerships which will be undertaken. <i>As such it is not proposing anything tangible which could potentially have a Significant Effect on the features of the international sites considered.</i></p>	
<p>Core Policy 6 – Tackling Climate Change</p> <p>The Council will be promoting renewable energy within the district as a method for tackling climate change and reducing carbon emissions. At the commercial scale, wind farms can have significant impacts on bird species, with a maximum avoidance distance of 800m being shown by some species. We recommend that a precautionary approach be taken and that the policy or supporting text should include a specific recommendation that wind farm developments are likely to be considered unacceptable within 800m of the international sites. Also there can be further strengthening with the inclusion of a requirement on the developer to show that there is no disturbance or barrier impact on the migration/movement of bird species. This process should also include consultation with Natural England.</p> <p><i>As currently worded this policy retains the potential for Significant Effects on features of several international sites. However, additions to the policy could enable a conclusion of no adverse impact on the integrity of the designated sites (or their features) could be drawn.</i></p>	-
<p>Core Policy 7 – Flood Risk, Coastal Change and Water Conservation</p> <p>This policy sets out the requirements of the council to manage flood risk and water management within the district. Assisting the Environment Agency with the Shoreline Management Plan is a priority of the council. The SMP2 is likely to have some impacts on the international sites within the district; however these impacts are not part of this policy and will be considered by the SMP and within the in-combination assessment section of this HRA.</p> <p>The policy also states that all development must demonstrate that the increase in waste water can be dealt with within the confines of the existing sewerage discharge consents. This measure will ensure that discharge flows and pollutant limits are not exceeded and that the water quality in the rivers associated with the international sites are not affected. <i>As such, it can be considered that this policy will bring some beneficial effects, and is not expected to result in any Significant Effects which will impact negatively on features of international sites.</i></p>	+
<p>Core Policy 8 – Nature Conservation and Geo-diversity</p> <p>The supporting text of this policy states that all developments affect international sites must be subject to an HRA and planning permission will only be granted where no adverse effect will result, or where no alternative sites are available and if there is an imperative reason of overriding public interest. It also states that in this case, compensatory habitat will be required.</p>	+

<p>The actual policy states that international sites will be protected from harmful developments.</p> <p><i>This ensures that the sites within the district will be protected from adverse effects. However, this policy could be strengthened to include mention of harm including indirect impacts, such as disturbance from increased visitation.</i></p>	
<p>Core Policy 9 – The Historic Environment</p> <p>This policy concerns the historic features within the district and protecting and enhancing these features. <i>Therefore it is not applicable to the international sites and will not have a Likely Significant Effect.</i></p>	○
<p>Core Policy 10 – The Countryside Landscape</p> <p>This policy concerns the protection of the Dedham Vale AONB and the extension of the Suffolk Coast and Heaths AONB at the Stour. <i>As such, the proposed measures are not relevant to the international sites within the district and therefore this policy will not have a Likely Significant Effect.</i></p>	○
<p>Core Policy 11 – Green Infrastructure</p> <p>By ensuring that developments contribute to the districts green infrastructure and by aiming to provide more parks, greenspace etc this policy is providing areas for use by the public. This has the potential to decrease the number of visitors at the international sites, who may use the area for general day to day recreation (dog walking etc). As such this policy could potentially have a positive impact on the international site by reducing visitor pressures.</p>	+
<p>Core Policy 12 – Regeneration Areas</p> <p>The policy identifies key towns which will be the focus for regeneration areas, seeking to improve the social, economic and environmental quality of these places. As these developments will be limited to towns their impact on the environment is likely to be minimal. The regeneration is likely to attract more people to these areas; however <i>this increase is unlikely to be significant and any potential impact on the international sites is considered to be covered by the detailed assessment of Spatial Strategy Policy 4 Settlement Hierarchy.</i></p>	○
<p>Core Policy 13 – Employment Sites</p> <p>The Council are proposing to identify and protect sites for a range of employment use (industrial, storage and distribution sectors). Part of the policy text states that changes to this use will only be allowed if it does not conflict with any other policies within the Core Strategy. This includes CP8, the Nature Conservation policy which protects the international sites. <i>Therefore this policy is unlikely to have a significant effect on the international sites within the district.</i></p>	○
<p>Core Policy 14 – Freight Transport</p> <p>This policy states that development which generates significant freight movement will be located where there is good access to the rail network, without having an adverse effect on environmentally sensitive areas. <i>We consider that this</i></p>	○

<p><i>wording is sufficiently robust to ensure that the international sites within the district will be protected and that a conclusion of No Likely Significant Effect can be drawn.</i></p>	
<p>Core Policy 15 – Tourism</p> <p>This policy is aiming to improve tourism within the district to create new jobs and benefit existing businesses. The policy supports new tourist attractions, educational visitor centres, leisure activities as part of farm diversification and the expansion/development of accommodation. This policy could therefore have the same impacts as outlined in Spatial Strategy Policy 1; however, the policy wording explicitly requires that proposals will only be progressed if they do not conflict with other policies in the Core Strategy. This therefore means that the Nature Conservation policy will have to be taken into account and therefore impacts on the international sites will be prevented. <i>A conclusion of No Likely Significant Effect can be drawn.</i></p>	○
<p>Core Policy 16 – Town, District, Village and Neighbourhood Centres</p> <p>This policy seeks to protect and enhance town and village centres. Development will be related to the scale and nature of the settlement. The policy sets out the key areas for development, which includes larger towns, such as Clacton and smaller villages, such as St Osyth. Due to the localised nature of the development and the fact that it will be in keeping with the scale of the settlement and will be judged against other policies in the strategy, <i>it is considered unlikely that there will be a significant effect on the international sites within the district.</i></p> <p><i>This policy could, however, benefit from being strengthened to ensure that exceptional development does not result in an adverse effect on features of the international sites.</i></p>	○
<p>Core Policy 17 – Improving Health</p> <p>By improving the quality of health care and opportunities for healthy lifestyles, this policy is seeking to improve the health of Tendring residents. This policy is mainly focusing on public relations and encouraging healthier lifestyles with the use of active travel and physical activity. The provision of health care facilities and recreational facilities will be only of small scale and associated with towns and other populated areas. <i>As a result it can be considered that the developments associated with this policy will be minor and it is not considered that they will have a Likely Significant Effect on the international sites.</i></p>	○
<p>Core Policy 18 – Delivering a Mix of Housing</p> <p>This policy sets out the Councils aim for developments to be of a mix of housing, with various styles, sizes and tenures included. As this policy is not proposing any development but setting on the requirements of the development to ensure that all members of the community are catered for, <i>it is not likely that a significant effect on the international sites will occur.</i></p>	○
<p>Core Policy 19 – Gypsies and Travellers</p>	-

<p>This policy sets out the key features which need to be taken into account when selecting sites for gypsy and traveller pitches. It includes the avoidance of nationally or locally designated protected areas. Although these underlie sites designated at international level the policy does not specifically refer to them. As such, and with specific reference to the Habitats Regulations, <i>the policy would benefit from the addition of specific reference for internationally designated sites. This would enable a conclusion of No Likely Significant Effect on the international sites.</i></p>	
<p>Core Policy 20 – Community Facilities</p> <p>The Council aims to secure new community facilities within proposed developments and improve existing community facilities, across the district. These facilities are likely to be limited in size and scale, for the use of local communities rather than the district wide population. <i>Therefore an effect/impact on the international sites is considered unlikely.</i></p>	○
<p>Core Policy 21 – Playing Pitches and Outdoor Sports Facilities</p> <p>New sports pitches and facilities are proposed within key areas of the district and within residential developments. This policy sets out the standards for each sports facility, such as the number depending on the distance travelled to the site and the size of the facility depending on the population size. These facilities are predominantly pitches and are therefore limited in size and scale. However, golf courses are included in this policy and can be large sites taking up a significant portion of the countryside. It is unclear whether a new course would be required but if so, dependent on location, there is potential for this policy to have a Likely Significant Effect on the international sites, indirectly through disturbance to bird species and possibly through direct habitat loss.</p> <p><i>This policy could be strengthened, and the impact avoided, by inclusion of a sentence stating that this policy will take into account other policies within the Core Strategy, which would include the Nature Conservation policy.</i></p>	-
<p>Core Policy 22 – Children’s Play Areas</p> <p>This policy sets out the aims for the Council to provide children’s playing areas dependent on the number of people within a residential development. Due to the small scale of these areas and the fact that they will be located within developments, <i>it is unlikely that there will be a significant effect on the international sites.</i> Their provision may also have some slight positive effect by reducing recreational pressure in other areas, which could include designated areas.</p>	○
<p>Core Policy 23 – Residential Densities</p> <p>To ensure that residential development is built appropriately, the Council is specifying densities for specific sites within the Site Allocation Document. They have also provided a recommendation of housing density for other developments. This policy will not affect the number of houses built within the district or the increase in population which will occur; it is merely specify the number of houses per hectare which should be built. <i>As such it is felt that this policy will not</i></p>	○

<p><i>have a Likely Significant Effect on the international sites.</i></p>	
<p>Policy DP1 – Design of New Development</p> <p>This policy outlines the design requirements which new developments should follow. These include, incorporating or enhancing site features of ecological value, providing private amenity space and minimising environmental impacts. It is aiming to create safe, attractive and practical residential developments. As this policy is setting out style requirements for residential areas and not proposing developments or large scale facilities, <i>it can be considered that this policy is unlikely to have a significant effect on the international sites.</i></p>	○
<p>Policy DP2 – Backland Residential Development</p> <p>This policy sets out the criteria which backland development must comply with, including keeping in character with the surrounding area. These developments are likely to small scale associated with small areas of land behind other developments. It can therefore be considered to have minimal impacts on the environment, especially in comparison to the surrounding existing development. <i>Therefore this policy is no considered likely to have a significant effect on the international sites.</i></p>	○
<p>Policy DP3 – Garden Extensions into the Countryside</p> <p>The extension of domestic gardens will be permitted should it meet criteria outline in this policy, such as no visual harm to the countryside and no loss of habitats of nature conservation value. This can be considered as including the international sites and therefore any encroachment into these areas is prevented. <i>Also, this policy is concerning small scale projects and is unlikely to have any other impacts on the international sites.</i></p>	○
<p>Policy DP4 – Private Amenity Space for Residential Development</p> <p>New developments are expected to provide private amenity space of various sizes, dependent on dwelling size. This provision may impact the size of a development, in terms of more space being required for the construction of houses and the gardens, but is unlikely to have an impact on any other feature of the development. <i>Therefore this policy is unlikely to have a significant effect on the international sites.</i></p>	○
<p>Policy DP5 – Landscape Impacts</p> <p>This policy protects the districts landscape and aims to conserve such features as the estuaries and undeveloped coast. These landscape features also form part of the international sites and as such <i>this policy offers them some protection, so any effect of this policy would be positive.</i></p>	+
<p>Policy DP6 – Development Affecting Protected Trees and Hedges</p> <p>This policy applies to preventing harm to protected woodland, trees and hedges within the district and as such is not applicable to the international sites, which are almost all coastal/estuarine sites. <i>Therefore this policy is not likely to have a Significant Effect on the international sites.</i></p>	○
<p>Policy DP7 – Development in Conservation Areas</p>	○

<p>This policy applies to the protection of Conservation Areas within the district and what requirements a proposal must fulfil to ensure no harm. <i>Therefore this policy is not applicable to the international sites and will not have a significant effect upon them.</i></p>	
<p>Policy DP8 – Development Affecting Listed Buildings</p> <p>This policy is setting out the specifications for developments affecting listed buildings and as such is not applicable to the international sites within the district. <i>Therefore no significant effect is anticipated from this policy.</i></p>	○
<p>Policy DP9 – Development in Defined Centres</p> <p>This policy sets out the Councils requirements on town centres to provide a mix of uses. Residential development within these centres is discouraged unless it lies to the rear of the town centre use or involves the replacement of an already residential development. This is a localised policy which will have a limited impact on settlements. <i>Improving the quality of town centres will attract people into the towns but due to the location of the international sites this unlikely to have a significant effect on their condition or the interest features.</i></p>	○
<p>Policy DP10 – Conversion and Re-use of Redundant Buildings in the Countryside</p> <p>This policy outlines the requirements of developments of redundant buildings within the countryside for business use or tourist accommodation. Depending on the number of these buildings within the district the provision of extra tourism accommodation could have an impact on the international sites by the associated increase in visitors and the knock on impacts. However, this policy includes wording that development is only permitted if it meets the requirements of other relevant policies within the Core Strategy. This would include the Nature Conservation policy.</p>	○
<p>Policy DP11 – Occupancy Timescales for Tourist Accommodation</p> <p>This policy limits the occupancy of tourist accommodation to 1st March to 31st October when located in the vicinity of a site designated for nature conservation. This stipulation protects the over-wintering bird populations of the international sites within the district, from disturbance caused by tourists. However, no protection is afforded to breeding bird species, which includes little tern, a bird which nests on shingle beaches, and avocets. Further research is required into the location of these accommodation sites and the potential for impacts on breeding birds to arise. <i>As such there remains potential for this policy to result in a significant effect on features of the designated sites.</i></p>	-
<p>Policy DP12 – Agricultural / Forestry Buildings and Structures</p> <p>The development of new agricultural and forestry buildings has to meet criteria outlined in this policy, including its well related to existing buildings or located adjacent to an existing settlement and that other relevant policies within the Core Strategy are satisfied in the proposal. Dependent on the location of the development, relevant policies may also include the Nature Conservation policy and therefore the international sites would be protected from harm. Also, the</p>	○

<p>scale of these developments is likely to be minor. No significant effect is envisaged.</p>	
<p>Policy DP13 – Equestrian Development</p> <p>This policy states that equestrian related development must either use existing buildings or be appropriate in scale and level to its surroundings. These stipulations limit the size of these developments and reduce the possibility for any potential impacts on international sites. Also, the policy states that these proposals must satisfy the criteria set out in other relevant policies, which will include the Nature Conservation policy. Therefore the international sites are protected from any impacts arising from these schemes and No significant effect is envisaged.</p>	○
<p>Policy DP14 – Health Impact Assessments</p> <p>Health Impact Assessments are required for any residential developments over 50 units. As this policy concerns the health of the Tendring residents and the appropriate provision of relevant services and feasibilities, it can be considered as having no effect on the international sites.</p>	○
<p>Policy DP15 – Protection of Existing Community Facilities</p> <p>The redevelopment of existing community facilities will be limited to those places which are considered to be redundant or allowed only where new facilities are provided close by. Due to the limited scale of this development and the town focused location of these facilities, it is unlikely that this policy will have a significant effect on the international sites.</p>	○
<p>Policy DP16 – Green Infrastructure in New Residential Development</p> <p>This policy states that residential developments on a site of 15 hectares or more must provide public open space. This provision of open space will provide alternative sites for recreation, including dog walking and other outdoor activities. By providing this space for local residents the visitor numbers on the international sites may be reduced (although the effect of this mitigation is very hard to define), resulting in a positive impact on the condition of the sites. No negative significant effect is therefore envisaged.</p>	+
<p>Policy DP17 – Affordable Housing in New Developments</p> <p>This policy sets out the requirements on developers to provide 30% of new dwellings to be made available as affordable housing, with various amounts of rented accommodation dependent on the settlement hierarchy level. As this policy is not suggesting more housing and is merely ensuring that a range of housing is provided to meet community needs then it can be concluded as unlikely to have a significant effect on international sites.</p>	○
<p>Policy DP18 – Rural Exception Sites</p> <p>This policy allows for the development of affordable housing on sites adjoining existing settlements to ensure that local people can afford accommodation in the villages where they live, work or have family. The policy includes a range of criteria which must be met, including '<i>no material adverse impact on the landscape, residential amenity, highway safety, or the form of character of the</i></p>	○

<p>settlement to which it adjoins'. It can be concluded that the policy is unlikely to have a significant effect on international sites. Although such development is by its nature small, and its potential impacts therefore limited, this policy could benefit from further strengthening to add 'nearby sites designated for their international conservation value' to these criteria.</p>	
<p>Policy DP19 – Aspirational Housing</p> <p>This policy allows for larger, more spacious residential properties to be developed, providing a mix of housing types on every development. As this policy is not suggesting more housing and is merely ensuring that a range of housing is provided to meet community needs then it can be concluded as unlikely to have a significant effect on international sites.</p>	○
<p>Policy DP20 – Residential Institution and Care</p> <p>Small scale residential institutions will be permitted within settlement development boundaries and at specific locations within Clacton and Frinton. These developments will be limited in size and due to their specific function and location are unlikely to have a significant effect on the international sites.</p>	○

In summary, the following policies have been assessed as having the potential to have a likely significant effect on the international sites:

- Spatial Strategy Policy 1 – New Jobs;
- Spatial Strategy Policy 2 – New Homes;
- Spatial Strategy Policy 3 – Improving the Strategic Transport Network;
- Spatial Strategy Policy 4 – Settlement Hierarchy;
- Core Policy 6 – Tackling Climate Change;
- Core Policy 19 – Gypsies and Travellers;
- Core Policy 21 – Playing Pitches and Outdoor Sports Facilities; and
- Policy DP11 – Occupancy Timescales for Tourist Accommodation.

Table 4.1 below identifies the international sites which might be potentially affected by the policies identified above.

Table 4.1 International Sites with Features Potentially Affected by Core Strategy Policies.

Policy	International Sites									
	Stour and Orwell Estuaries SPA	Stour and Orwell Estuaries Ramsar	Hamford Water SPA	Hamford Water Ramsar	Colne Estuary SPA	Colne Estuary Ramsar	Essex Estuaries SAC	Outer Thames Estuary SPA	Abberton Reservoir SPA	Abberton Reservoir Ramsar
Spatial Strategy Policy 1 – New Jobs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spatial Strategy Policy 2 – New Homes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spatial Strategy Policy 3 – Improving the Strategic Transport Network	✓	✓								
Spatial Strategy Policy 4 – Settlement Hierarchy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Core Policy 6 – Tackling Climate Change	✓	✓	✓	✓	✓	✓			✓	✓
Core Policy 19 – Gypsies and Travellers	✓	✓	✓	✓	✓	✓	✓			
Core Policy 21 – Playing Pitches and Outdoor Sports Facilities	✓	✓	✓	✓	✓	✓	✓			
Policy DP11 – Occupancy Timescales for Tourist Accommodation	✓		✓		✓					

5 IMPACTS ASSOCIATED WITH POLICIES

This section outlines the process of identifying potential impacts resulting from the Core Strategy policies, the development of these impacts and current issues already of relevance to the international sites.

5.1 Identification of Impacts

The previous assessment undertaken in 2006 concluded that the following impacts could arise from policies within the replacement Local Plan:

- Water quality (effects of increased discharge of treatment water and subsequent nutrient enrichment of international sites);
- Water resources (effects of increased demand for water and increased abstraction from aquifers with resultant decrease in freshwater flows in estuaries);
- Non-physical disturbance (disturbance to birds from pedestrian access etc);
- Physical disturbance (actual trampling of habitat from pedestrian access etc);
- Residential disturbance (the impacts associated with residential properties lying adjacent to international sites);
- Habitat loss due to development within international sites;
- Long term habitat loss due to coastal squeeze; and
- Predation from the introduction of domestic pets.

Through the LSE assessment, outlined in **Section 4**, a smaller number of likely or potential impacts have become apparent. Primarily the impacts relate to disturbance of the international sites, either through disturbance to bird species and habitat or through direct habitat loss. The development proposed within the district also has the potential to impact water quality, which could affect the condition of the international sites. In summary, the impacts arising from the policies, and which will be discussed in the following sections are:

- Water quality;
- Disturbance to bird species (designated features) through increased recreational use of the international sites;
- Disturbance to the designated or supporting habitats of the international sites through increased recreational use;
- Direct habitat loss (designated or supporting habitats);
- Disturbance to habitat outside the international sites, which supports the designated bird species; and
- Disturbance to flight lines and bird movements through renewable energy development.

5.2 Water Quality

A Water Cycle Study for Haven Gateway has identified that a number of sewage treatment works (STWs) within the district, namely Brightlingsea, Harwich and Dovercourt and Jaywick, will need to increase their discharge consents to meet the future residential and employment development increases. All of these STWs discharge close to an international site, Brightlingsea STW into the Colne Estuary, Harwich and Dovercourt into the Stour and Orwell Estuaries and Jaywick into the Essex Estuaries. An increase in discharge flows could result in an increase in total pollutant loads. This may negatively impact the plant and invertebrate species and ultimately lead to a change in condition and a decline in food sources for bird species.

Given the requirements of the Water Framework Directive (WFD) and the associated River Basin Management Plans, water bodies are now being monitored and targets implemented to maintain certain standards of water quality (both chemical and biological). It is therefore considered that any potential impacts arising from policies within the Core Strategy will be managed under the WFD, and further limited by the additional need for water infrastructure upgrades to be Habitats Regulations compliant themselves. This impact is therefore not considered further.

5.3 Recreational Disturbance of Bird Species

5.3.1 Effect of disturbance

The effect of disturbance on waterfowl varies greatly between different species and also depends upon the size and characteristics of the water body and the availability of alternative sites. For example, redshank is a species known to respond quickly to disturbance. The habits of birds also make them more vulnerable to disturbance. Studies have shown that birds which flock together are highly sensitive, while those that are water-based are less prone to reacting to disturbance (Burger, 1981; Gill et al, 1996).

Sensitivity to disturbance also varies throughout the year, depending on the birds' specific activity at each location. Breeding and over-wintering waterfowl are particularly sensitive to disturbance. However, although, some wintering waterfowl may begin returning as early as August, the over-wintering period usually coincides with reduced intensity of recreational activities.

Impacts of activity during high tide are thought to be higher, due to the proximity of the birds to recreational areas. Roosting sites are selected on the basis of shelter, proximity to feeding grounds and the risk of predation (Rehfishch et al, 2003). Frequent disturbance has been shown to cause the abandonment of roosting sites, causing relocation (Rehfishch et al, 2003).

Depending on the magnitude of the disturbance, some birds may take flight temporarily, but return shortly after the disturbance ends. Other birds may modify their feeding habits. When a bird is forced to take flight, energy expenditure increases. At times of limited food supply and/or cold weather this could be potentially life threatening. More sensitive species may suffer reduced breeding success or, ultimately, abandon the site. Where disturbance causes a bird to desert a particular site, the availability of suitable

alternative sites is critical. Furthermore, the site in which it settles may already be populated or may be of lower quality, impacting the rates of energy intake. However, some studies have indicated that birds may respond to disturbance because alternative sites are available and studies on turnstones have shown that well-fed birds are disturbed more easily because they are in better condition and able to avoid risk (Beale and Monaghan, 2004).

In summary, disturbance may result in:

- Disturbance effects - which can be temporary but may have impacts on feeding, resting and energy intake of the bird;
- Significant population impacts - which can impact on local and national populations of particular species; and
- Disturbance which results in permanent long term impacts on bird populations is generally of greater national importance than short term localised disturbance.

5.3.2 Local impacts on over-wintering species of the sites potentially affected by Tendring District Council Core Strategy

A number of studies have been undertaken on the Stour and Orwell estuaries into the impacts of recreation on bird species.

A study in 2005 identified that walking was the most frequent recreational activity on the estuaries and it accounted for the largest percentage of disturbance, particularly when walkers were accompanied by a dog (Era, 2005). However, these activities had a lower response rate than aircraft, wildfowling or bait digging. Also, the impact of dogs off lead showed variation between the sites surveyed, with only one site showing a significant association between dogs off lead and bird disturbance (Era, 2005).

A follow up survey in 2006, again found that, walkers accounted for the largest number of disturbances, but that the presence of dogs had no further impact on birds. Also, the response of birds were greatest to wildfowling, bait diggers and power boat usage, although these events were rare. Other boats did not have any disturbance impacts on bird species. The study also found that the presence of joggers and cyclists did not cause any significant disturbance. Both studies found that bird species appeared less sensitive in areas where the rates of activity are higher.

Within the international site, the Orwell Estuary appears to be the busier site, with more activities taking place. More birds are present on the Stour and they responded more frequently to disturbance, indicating a lack of habituation to less frequent activity (Ravenscroft et al, 2007). Birds appear to move to alternative areas of the site, making use of the expansive areas of mudflat at low tide (Ravenscroft et al, 2007).

Recreational disturbance has been highlighted as one of the factors for the unfavourable declining condition of the Stour Estuary SSSI, which comprises part of the Stour and Orwell Estuaries international sites. However, coastal squeeze and maintenance dredging are considered to be the principal factors affecting the site's condition.

The Stour and Orwell Estuaries Management Group, which is comprised of a range of organisations such as Natural England and local Councils, produced the Stour and Orwell Management Strategy 2010 to address issues affecting the site.

Within the document a number of action plans have been outlined which include measures for dealing with the potential impact arising from recreational activity. These included implementing a responsible dog ownership campaign, establishing a warden scheme, creating management programmes for raising public awareness and promoting sensitive access of the estuaries (The Stour and Orwell Estuaries Management Group, 2010). These plans will reduce the impact of recreational activity on the estuary and the associated bird interest features.

5.3.3 Local impacts on breeding species of the sites potentially affected by Tendring District Council Core Strategy

Although the international sites within the district are predominately known for their overwintering populations of waterfowl, several of the sites also support breeding birds. Avocets breed on the Stour and Orwell Estuary SPA (approximately 21 pairs) and the Colne Estuary and Hamford Water SPAs provide breeding habitat for little terns (approximately 38 and 55 pairs, respectively).

Avocets breed in flat open areas on saline or brackish wetlands, with islands, ridges, spits or margins of bare sand, clay or mud and sparse short vegetation. The most important characteristics of breeding habitats appear to be water levels which gradually decline over the summer to expose additional feeding areas, and high salt concentrations that prevent the development of excessive shoreline vegetation (BLI, 2009a). The nest is a scrape that may be positioned in a variety of sites and the species nests in large colonies, with neighbouring nests as close as 20–30cm. They start laying eggs from mid April to late June.

Little terns breed on barren or sparsely vegetated beaches, islands and spits of sand, shingle, or pebbles on seashores or in estuaries, saltmarshes, salt pans, rivers, lakes and reservoirs (BLI, 2009b). Shingle habitat suitable for little terns is located at 2 places within Hamford Water, from Dovercourt to Crabknowe Spit and from Walton-on-Naze up to Stone Point (Natural England, 2010a). However, due to disturbance issues at Little Oakley from boating activity, the majority of little terns at Hamford Water nest on the north-east corner of Horsey Island (Wood, 2007). Little terns are also found on shingle habitat throughout the Colne Estuary, with a larger colony at Colne Point (Natural England, 2010b) and in lower numbers at Jaywick, Fringringhoe Wick and Langenhoe Spit (Wood, 2007).

5.4 Habitat Loss and Disturbance

Examples in the context of this assessment relate to damage to habitat from walking (trampling of vegetation etc) and the abrasion of intertidal habitat from boat use/anchoring etc. This issue is pertinent to the habitats for which international sites are designated (e.g. damage to saltmarsh and mudflat communities on the Essex Estuaries SAC) or habitat which supports designated species (e.g. sand and gravel shores on the Colne Estuary SPA).

5.4.1 Essex Estuaries SAC

A variety of estuarine and tidal habitats are present within the Essex Estuaries SAC (see **Section 3.6** for more information on the habitats present). Access to the site is available along much of the coastline in this area, particularly around Brightlingsea, and paths are predominantly located along the coastal defences. These areas run predominantly through mudflat habitat, with some areas of sand dune around Jaywick.

The most relevant section of the Essex Estuaries SAC to the District is within the Colne Estuary area. The corresponding SSSI is predominantly in an unfavourable recovering condition due to habitat recreation schemes implemented within the Essex Estuaries complex to counteract coastal squeeze (Natural England, 2010). It is anticipated that after December 2010, further habitat re-creation due to the Shoreline Management Plan or other programmes will be required and the recovering condition could change. No recreation related disturbance to habitats has been identified as being an issue on the site.

5.4.2 Habitat supporting bird species

The bird species for which the sites are designated as an SPA rely on 'supporting habitats' for feeding and roosting. Bird communities are highly mobile and alter their activity in relation to tidal water movements and many other factors. Also, different bird species utilise different areas of the estuary and therefore changes in habitat affect different species differently. The most important factors related to this are:

- current extent and distribution of suitable feeding and roosting habitat;
- sufficient prey availability;
- levels of disturbance maintained at or below levels necessary to provide favourable conditions for birds' feeding and roosting areas;
- water quality necessary to maintain intertidal plant and animal communities; and
- fresh water quantity, tidal flows, salinity gradients and grazing necessary to maintain saltmarsh conditions suitable for bird feeding and roosting.

The traditional wintering habitat of dark-bellied Brent geese is mostly shallow coasts and estuaries with extensive mudflats and intertidal areas, as they rarely occur far from the sea and feed on intertidal plants such as *Zostera*, *Enteromorpha* and a small range of littoral plants (JNCC, 2009a). The species is predominantly coastal, inhabiting estuaries, tidal mudflats, sandy shores, coastal saltmarshes (especially in the spring) and shallow muddy bays. They also graze on coastal cultivated grasslands, and winter cereal fields, but rarely occur on freshwater wetlands.

Grey plover distribution is strongly localised to areas holding suitable habitats, principally the larger, muddier, estuaries and other soft-sediment coastlines (JNCC, 2009d). The species frequents intertidal mudflats, saltmarshes, sandflats and beaches of oceanic coastlines, bays and estuaries. During migration it may also be found inland on lakes, pools or grasslands (BLI, 2009c).

Dunlin feed principally in extensive muddy areas of estuaries on a wide range of invertebrate prey, including polychaete worms, gastropod snails, bivalves, crustaceans and occasionally small fish.

Black-tailed godwits often winter in brackish habitats such as sheltered estuaries and lagoons with large intertidal mudflats, sandy beaches, salt-marshes and salt-flats. They rely on these sites for its diet of annelid and polychaete worms, molluscs, ragworms and crustaceans.

On the Stour Estuary, dark-bellied Brent geese feed mainly in Copperas Bay (English Nature, 2001). Ringed plover also feed in good numbers in Copperas Bay on the sea defence bank. Dunlin, shelduck and grey plover feed throughout the estuary and black-tailed godwit are found in increasing concentrations in the inner estuary at Mistley which is also an important area for redshank, although the species is fairly widely disturbed on the Stour (English Nature, 2001). Turnstone have a scattered distribution but feed in areas where the substrate is stony, especially on the gravel shoals. There are very strong links with Hamford Water and much interchange of birds between the 2 sites (possibly as result of increasing disturbance on the Stour roosts).

5.5 Disturbance to Habitat Outside the International Sites, which Support Bird Species

Over-wintering water fowl species, in particular geese and waders, use agricultural land and other habitats for roosting and feeding. These areas are not designated under the international sites but none the less provide an important resource for the bird species for which those sites are designated. For example, dark-bellied Brent geese are known to feed on arable fields next to Jaques Bay, outside of the Stour and Orwell Estuaries (English Nature, 2001).

Waders at Hamford Water are known to use the arable fields surrounding the site, when tide levels get high enough to completely immerse the main roosting site, the saltings (English Nature, 2001). However, they return to the site as soon as tide levels fall.

The district is predominantly comprised of arable land, surrounding the key towns and smaller settlements, and there are significant areas of alternative habitat for bird species to feed or roost on if pressure is exerted in areas used currently.

5.6 Disturbance to Birds from Renewable Energy Developments

Due to the proximity of some of the international sites to each other there is the potential for interchange to occur, which may be impacted by renewable energy projects within the District. For example, bird species are known to fly between the Stour and Orwell Estuaries and Hamford Water and Abberton Reservoir is known to provide a roosting site for birds using the surrounding estuarine areas. Developments between international sites could act as a barrier to this movement, causing birds to take diversions or stopping movement completely..

Wind farms are the most common renewable energy development and a lot of research has been undertaken into the potential effects on bird species. However, other renewable energy developments, such as solar farms, are becoming more common

practice and are likely to become more widespread in the future. Due to the wide range of research available regarding wind farm developments, and the current lack of information about the potential for other types of renewable development to have a significant effect, the rest of the section will focus on their potential impacts to bird species. However we intend that mitigation measures discussed later are applicable to a wider range of developments.

There are 2 primary impacts upon birds arising from wind farm or wind turbine developments. The first links to direct disturbance from the placing of a wind turbine in proximity to habitat used by birds. The second arises when the wind farms form a physical barrier to a route that would otherwise be taken by a bird. The effect of birds altering their migration flyways or local flight paths to avoid a renewable energy development is a form of displacement. This effect is an issue due to the possibility of increased energy expenditure when birds have to fly further and the potential disruption of linkages between distant feeding, roosting, moulting and breeding areas.

The effect that displacement has on birds depends on species, type of bird movement, flight height, distance to turbines, the layout and operational status of turbines, time of day and wind force and direction, and can be highly variable, ranging from a slight 'check' in flight direction, height or speed, through to significant diversions which may reduce the numbers of birds using areas beyond the wind farm.

Studies of bird movements in response to onshore developments have recorded disturbance distances of up to 800m have been recorded for wintering waterfowl (Pedersen and Poulsen 1991). However, there is again variability in this distance as studies have shown white-fronted geese (*Anser albifrons*) within 600m of the turbines at a wind farm and displacement of pink-footed geese (*Anser brachyrhynchus*) up to only 100m–200m from turbines at a wind farm in Denmark (Drewit and Langston, 2006).

Large birds with poor manoeuvrability (such as swans and geese) are generally at greater risk of collision with structures (Brown et al. 1992) and species that habitually fly at dawn and dusk or at night are perhaps less likely to detect and avoid turbines (Larsen and Clausen 2002). Swans, geese, ducks and waders are all considered to be species sensitive to wind farms. Also, ducks and waders are sensitive to wind turbines as a barrier to movement (Langston and Pullan, 2003).

A review of relevant disturbance literature by Drewit and Langston (2006) suggests that none of the barrier effects identified so far have significant impacts on populations. However, there are circumstances where the barrier effect might lead indirectly to population level impacts; for example where a wind farm effectively blocks a regularly used flight line between nesting and foraging areas, or where several wind farms interact cumulatively to create an extensive barrier which could lead to diversions of many tens of kilometres, thereby incurring increased energy costs.

Also, displacement may occur during both the construction and operational phases of wind farms, and may be caused by the presence of the turbines themselves through visual, noise and vibration impacts, or as a result of vehicle and personnel movements related to site maintenance.

Drewit and Langston (2006) recommend that where at all possible, developers should avoid areas supporting the following:

- a high density of wintering or migratory waterfowl and waders where important habitats might be affected by disturbance or where there is potential for significant collision mortality; and
- breeding, wintering or migrating populations of less abundant species, particularly those of conservation concern, which may be sensitive to increased mortality as a result of collision.

6 THE APPROPRIATE ASSESSMENT

In this section, those policies that were identified in **Section 4** as having a potential or Likely Significant Effect on the international sites are assessed in greater detail. This assessment is undertaken for the impact of the policy on its own; disregarding the impact other policies may have on outcomes arising from them. The assessment builds upon the information presented in **Section 5** to conclude whether a particular policy will have an adverse effect on site integrity.

Tables providing more detail on the Appropriate Assessment process can be found in **Appendix A**.

6.1 Spatial Strategy Policy 1 – New Jobs

This policy sets out the key areas for economic growth and job development within the district, including producing materials for the renewable energy sector, encouraging farm diversification projects and other measure to widen the skills base of the district. Majority of the sectors identified within this policy, for economic growth, will not have any impact on the international sites. It is the promotion of tourism in coastal towns and rural areas, which has been identified as having potential to impact the sites.

Due to the estuarine nature of the sites, increases in people visiting the district, in particular the coast towns adjacent to the international sites, has the potential to cause disturbance to the sites. This disturbance could occur to the habitat or to the bird species using the sites. However, increase in tourism is not expected to result in adverse impacts, as large areas of the international sites are relatively inaccessible, and that there are clearly defined paths and routes for people to follow. Also, the tourist season is during the summer months when bird numbers are lower. The bird species for which the sites are designated are primarily over-wintering birds and therefore will arrive the tourist season.

Natural England feel that recreational pressure is generally low for the international sites within and adjacent to Tendring District, with the exception of the Stour and Orwell Estuaries which cites recreational disturbance as a contributing factor to declining condition. However, coastal squeeze is considered to be the larger factor.

Water-based recreational disturbance has been highlighted by Natural England as a pressure on the Hamford Water site and is partly responsible for its unfavourable condition. Moorings in the site, near Walton are causing some damage to the intertidal habitat. Abberton Reservoir is also a popular water recreation site.

As discussed in **Section 5.2.1** boat activities, other than power boats, do not have a significant impact on bird behaviour or cause disturbance events. An increase in boat related activity is not considered likely to have an adverse effect on birds.

We consider that this analysis enables the conclusion to be drawn that Spatial Strategy Policy 1 will not result in an adverse impact on the integrity of the international sites.

6.2 Spatial Strategy Policy 2 – New Homes

Spatial Strategy Policy 2 sets the overall provision for all new housing developments across Tendring District within the current plan period 2011-2031. This provision of new homes will be made through the re-use of brownfield sites, however it is estimated that 80% of housing required will be in the form of new neighbourhood developments and extensions on greenfield land. The total allocation of new homes for the District stands at 6,300.

The increase in residents in Tendring District is not expected to result in adverse impacts through increased recreational disturbance, as large areas of the international sites are relatively inaccessible, due to their estuarine nature, and that the majority of users stick to defined paths and walking routes. Additionally, bird species are not concentrated in areas where visitors tend to be due to a lack of suitable habitat. Also, many recreational activities are likely to be reduced during the winter months when most bird species are present on the international sites.

Therefore this analysis enables a conclusion that Spatial Strategy Policy 2 will not result in an adverse impact on the integrity of the international sites.

6.3 Spatial Strategy Policy 3 – Improving the Strategic Transport Network

Spatial Strategy Policy 3 promotes the improvement of road networks, bus services and bridleway/footpath networks within the district. It is also seeking to improve the rail network, including the route from Manningtree to Harwich, which could impact the Stour and Orwell Estuary.

In several sections the railway line from Manningtree to Harwich abuts or crosses into the SPA and Ramsar boundary. The Stour Estuary SSSI, which comprises the Stour section of the international site, is currently in an unfavourable declining condition. This is primarily due to coastal squeeze but other factors such as maintenance dredging, water quality and recreational disturbance are also identified as contributory factors. This habitat deterioration could be compounded by any loss due to any railway line improvements required along this stretch.

Due to the potential impact to habitats and associated bird species from potential improvements to the rail network from Manningtree to Harwich, it can not be concluded that Spatial Strategy Policy 3 will not have a significant adverse impact on the integrity of the Stour and Orwell Estuaries SPA and Ramsar site. This policy is therefore further considered in Section 7 where appropriate mitigation measures are proposed.

6.4 Spatial Strategy Policy 4 – Settlement Hierarchy

Spatial Strategy Policy 4 sets out the classification of the settlements within the district, ranking them by size and proposed development. This policy is considered to be a high level, overarching policy which would normally not have any adverse effects on international sites. However, as this policy also refers to projects which will be used for growth within the settlements, then these projects are also included in this Appropriate Assessment at the strategic level.

The majority of the projects are focused with the development of town centres, such as Clacton, to create towns which can support the future population growth. Dovercourt, Manningtree, Frinton and Lawford are also the focus of projects related to development and improvement of town centres.

The proposed regeneration at Jaywick (Project 3) is primarily focused on beach and encouraging tourism to support the businesses within the town. Although this development is focused within the town, due to the proximity of the site to the Colne Estuary and Essex Estuaries international sites, there is the potential for disturbance from increased recreation. This also applies to the enhancement of Brightlingsea town centre, which will promote leisure and tourism activities on the waterfront, an area adjacent to the international sites. However, as discussed in **Sections 6.1** and **6.2**, recreational impacts on birds are likely to be minimal due to the lack of accessibility to areas of the sites and the tolerance of birds to boating activity.

The proposed regeneration of Harwich Old Town (Project 13) includes the development of a water sport activities and improving tourist attractions. These improvements will bring more people into the area and although this will have a town focus, there is the potential for an associated impact to the Stour and Orwell Estuaries. Due to the proximity of the site, water sport activities could disturb bird species if not managed appropriately.

The reinstatement of Walton Mere as a boating lake (Project 19) will improve tourist attractions within Walton-on-Naze. Although the site is outside of the Hamford Water international site it is in proximity to the area and bird species may use the site for feeding and roosting. Embankments will be re-instated to create a self contained lake and therefore no access to Hamford Water will be available. Due to the size of the scheme and the seasonality of the activity, any adverse effects on bird species are unlikely.

One of the projects outlined is the port expansion at Bathside Bay (Project 12). The project is proposing to develop a deep water quayside within Bathside Bay, which is part of the Stour and Orwell Estuaries international site. Compensatory habitat is proposed at Hamford Water. Although consented by organisations including Tendring District Council, the Core Strategy is supporting and not implementing this scheme. The port expansion is considered in the in-combination assessment in **Section 8**. Also, the implementation of projects is also subject to HRA, and their delivery will need to ensure compliance with the Habitats Regulations.

Therefore this analysis concludes that Spatial Strategy Policy 4 will not result in an adverse impact on the integrity of the international sites.

6.5 Core Policy 6 – Tackling Climate Change

Core Policy 6 seeks to reduce carbon emissions in the district, through the use of the Code for Sustainable Homes in all residential developments and the promotion of recycling. However, through encouraging the development of renewable energy, a problem arises concerning the potential impacts of wind turbines or other developments upon birds.

As outlined in **Section 5.6**, the impact to bird species from wind farms is variable and dependent on a wide range of factors. It is apparent from studies that wind farms can pose a barrier to bird movement and migration. In particular duck and wader species, for which the Stour and Orwell Estuaries, Colne Estuary, and Hamford Water are designated, have been identified as being sensitive to the barrier effect created by wind turbines.

Studies have shown that smaller wind farms will have less of an impact on bird species, but there is the potential for an in-combination effect if several wind farms are in close proximity to each other.

All of the international sites identified within **Section 3** are highly important sites for wintering bird populations. There is the potential that any wind farms located close to the site may impact on the movement of bird species, increasing their energy expenditure and reducing their overall condition.

Due to potential for disturbance and barrier effects arising from renewable energy developments, and adopting a precautionary approach, it can not be concluded that Core Policy 6 will not have a significant adverse impact on the bird species which comprise the interest features of the international sites. This policy is therefore further considered in Section 7 where appropriate mitigation measures are proposed.

6.6 Core Policy 19 – Gypsies and Travellers

The district is proposing to develop pitches for the use of gypsies and travellers. Core Policy 19 sets out the factors to be taken into account when selecting site and assessing planning applications. These factors include the appropriate siting of the pitches to ensure access to facilities, the maximum size limit and the need to avoid nationally or locally designated sites. However, this policy does not specifically offer international sites the same protection and although national sites usually underlie them the potential for impacts to arise remains.

Although the sites are limited in size, there is no guideline which prevents them from being located either within an international site or close enough that it could impact the wintering or breeding bird species.

Due to potential for disturbance arising from gypsy and traveller site development, and adopting a precautionary approach, it can not be concluded that Core Policy 19 will not have a significant adverse impact on the bird species or habitats which comprise the interest features of the international sites. This policy is therefore further considered in Section 7 where appropriate mitigation measures are proposed.

6.7 Core Policy 21 – Playing Pitches and Outdoor Sports Facilities

Core Policy 21 aims to maintain and improve outdoor sports facilities across the district. New facilities will be developed to meet the needs of the districts growing population. Golf courses are listed as an outdoor sports facility, for which one should be present

with 20 minutes travel of the whole population and one course is needed for every 30,000 people.

The proposed population increase is 14,868 people, based on average household occupancy and the housing growth identified in Spatial Strategy Policy 2. The current total district population is considered to be approximately 147,000 (ONS mid year population) and there are currently 5 golf courses, including a driving range, in the district. To meet the criteria set out in the policy of a course for every 30,000 people, it is therefore anticipated that a new golf course may be needed at some point in the future.

The average size of a golf course is between 35 and 45 hectares. This area of land could have a significant impact on bird species is located adjacent to the international sites. It could also result in a loss of important supporting habitat, such as arable field, for dark-bellied Brent geese.

Due to potential for disturbance arising from golf course development, and adopting a precautionary approach, it can not be concluded that Core Policy 21 will not have a significant adverse impact on the bird species or habitats which comprise the interest features of the international sites. This policy is therefore further considered in Section 7 where appropriate mitigation measures are proposed.

6.8 Policy DP11 – Occupancy Timescales for Tourist Accommodation

Policy DP11 seeks to limit the occupancy of holiday units, such as chalets and caravans, when located in the vicinity of a designated site, to between March and October. This offers protection from disturbance by people to over-wintering bird species, for which 3 of the SPA sites are designated. However, the Colne Estuary and Hamford Water also support breeding populations of little tern, and the Stour and Orwell Estuaries SPA support breeding avocets.

However, as **Section 5.2.2** indicates the breeding locations for little terns and avocets are located on areas predominantly away from holiday accommodation parks, it is unlikely that use through the breeding season will impact these birds. It can therefore be concluded that this policy will not have an adverse impact on the Stour and Orwell Estuaries, Hamford Water and Colne Estuary SPA and Ramsar sites.

Therefore this analysis concludes that Policy DP11 will not result in an adverse impact on the integrity of the international sites.

6.9 Conclusions of the Alone Assessment

It can not be concluded that all the policies proposed within the draft Core Strategy will not have an adverse impact on the internationally designated sites. Therefore the next section recommends measures which will need to be implemented to ensure that these impacts do not arise.

The following policies have been assessed as having a potential adverse impact on the condition of the international sites:

- Spatial Strategy Policy 3 Improving the Strategic Transport Network;
- Core Policy 6 Tackling Climate Change;
- Core Policy 19 Gypsies and Travellers; and
- Core Policy 21 Playing Pitches and Outdoor Sports Facilities.

6.10 The draft Core Strategy and Development Policies – Assessment at the Plan Level

As identified above, 4 policies were identified as having an alone potential adverse impact on the international sites within the District and carried through to the alone assessment stage. When considered with other policies their impact could increase.

Several policies have the potential to increase pressure on the interest features of the international sites and could have a cumulative effect on the bird species. However, the Core Strategy has a policy on nature conservation which ensures that the Core Strategy as a whole ('at the plan level') will not have any adverse impacts on the international sites. The policy (CP8) makes specific reference to international sites being protected from harmful development and that individual HRAs should be undertaken for all developments which may be seen as potentially affecting the international sites. This should include an assessment of the indirect impact of disturbance during construction and by people.

Many of the policies make recommendations for green infrastructure and open spaces to be included in developments, for example Core Policy 11 Green Infrastructure and DP 16 Green Infrastructure in New Residential Development. Open space associated with new development is assumed to have some effect on limiting additional pressure on the international sites (particularly with regard to day-to-day use for dog walking and other activities). Such open space should be provided early in the development of a site to establish its use among residents and ensure this limiting effect on designated sites is realised.

However, whilst these policies afford greater protection to the international sites we adopt a precautionary approach through these assessment and consider that these may not be significant themselves to enable a conclusion of No Adverse Effect on Integrity for the Core Strategy as a whole.

Therefore, several avoidance and mitigation measures are considered to ensure the potential adverse impacts of the plan (and the 4 identified policies in particular) will not be realised or any residual impacts do not have an adverse effect on the integrity of the international sites. These are considered in the next section.

7 MITIGATION MEASURES

“A project may include a range of measures to counteract possible effects on European sites (*counteracting measures*). Some will be designed to avoid any, or specific types of, effects on a European site (*avoidance measures*). Some will be designed to minimise or reduce adverse effects (*reduction measures*). Together, avoidance and reduction measures are referred to a *mitigation measures*”.

(Tyldesley and Hoskin, 2008)

As the assessment concluded that 4 policies had the potential to adversely impact the condition and interest features of the international sites, measures have been recommended below to prevent this impact or mitigate it in the future.

7.1 Avoidance measures

At this stage the most suitable, straightforward, method of avoiding the potential for an adverse effect is to strengthen the wording of the policies. Strengthening or refinement of the wording contained within a policy is considered to be sufficient to ensure no adverse impacts arise as a result of some policies. This is considered the case for policies; Spatial Strategy Policy 3, Core Policy 6, 19, and 21.

- The impacts associated with any rail network improvements, undertaken as part of Spatial Strategy Policy 3 are likely to be short term in nature with regards to the disturbance of bird species. However, should any works be undertaken on the small stretches of line within the international site then the impact could be larger. The supporting text or the policy should therefore be strengthened to include reference to the Stour and Orwell Estuaries SPA and Ramsar sites and how impacts to the habitat or interest features of the site should be avoided when undertaking improvement works.
- As identified in **Section 5.6** bird species are known to avoid wind farm areas, with a maximum avoidance distance of 800m being shown by some wintering species. Whilst this distance is dependent on a wide range of conditions, it is recommended that a precautionary approach be taken for Core Policy 6 (Tackling Climate Change) and the text should be amended to ensure that renewable energy generation does not impact upon the integrity of international sites. The policy or supporting text should include a specific statement that wind farm developments are likely to be considered unacceptable within 800m of the international sites. Additionally a requirement should be placed upon developers, through discussion with Natural England, to demonstrate that proposed wind developments will not pose a barrier risk to migratory bird species, in particular to birds moving to and from key sites such as the Stour and Orwell Estuaries, Hamford Water and the Colne Estuary. Similar requirements should also apply to all other larger-scale renewable energy projects.
- Core Policy 19 (Gypsies and Travellers) has the potential to impact any of the international sites within the district. However, through an amendment of the policy text this can easily be avoided. The policy already has a statement that nationally or locally designated protected areas should be avoided. The specific

inclusion of internationally nature designated sites to this list would be enough to avoid any adverse effects from developments.

- Core Policy 21 (Playing Pitches and Outdoor Sports Facilities) can also be amended in a similar way. The potential development of golf courses within the district could potentially result in habitat loss or disturbance impact to the international sites. By amending the policy or supporting text to include specific reference to international sites and avoiding adverse effects on their condition and interest features when developing courses, this policy will cease to have a potential impact on the international sites.

Should these changes to these policies be made then we suggest that Tendring District Council, as competent authority under the Habitats Regulations, could draw a conclusion that no adverse impact on the integrity of any international sites will result from the implementation of the core strategy.

7.2 Reduction measures

If it is not possible to implement the policy changes recommended in the section above then further measures will have to be developed to ensure that no adverse impact occurs. These measures will need to be implemented following the core strategy and will require careful monitoring to ensure that they are successful.

For instance, in the case of Core Policy 6, best practice or reduction measures for renewable energy developments could include requirements for:

- ensuring that key areas of conservation importance and sensitivity are avoided;
- implementing an agreed post-development monitoring programme through planning or licence conditions;
- siting turbines close together to minimise the development footprint (subject to technical constraints);
- grouping turbines to avoid alignment perpendicular to main flight paths and to provide corridors between clusters, aligned with main flight trajectories; and
- implementing habitat enhancement for species using the sites.

The other policies which could not be concluded as having no adverse effect on the international sites related to the development of small scale sites for travellers and as golf courses. The small size of these sites means that impacts are likely to be minimal, but no locations have been allocated and therefore they could be close to the sites. Screening of these sites will provide a visual and noise barrier for the bird species. Also, restrictions on the siting of these developments should be restricted from directly adjacent to the international sites.

8 IN-COMBINATION ASSESSMENT

As well as assessing the individual (alone) impacts of the Core Strategy's policies, as addressed in **Section 6**, it is important to consider the combined effects of the strategy with other plans and projects which could also affect the sites. "*Where an in-combination is necessary ... it is the plans and projects, which are likely to contribute to an increased likelihood or significance of the effects of the subject project that need to be combined*" (Tyldesley and Hoskin 2008: B.2.5). In the context of this assessment this includes relevant plans from neighbouring authorities.

The sections below provide the results of an assessment of other plans, and identify which areas have the potential to act in combination with the Tendring District Core Strategy.

8.1 Other Plans and Strategies

East of England Plan - Regional Spatial Strategy

In May 2010, the new Coalition Government announced and implemented a number of changes that affect the way local authorities plan for future growth, particularly the revocation of Regional Spatial Strategies. The East of England Plan was revoked on the 6th July 2010, although this position is currently subject to legal challenge. However, as an alternative mechanism for strategic planning has not yet been decided upon, this plan is considered under this HRA.

This is the higher-level statutory development plan for the whole region. It sets out the strategic scale and location of development to 2021. It has policies for new housing, economic development, the environment, transport, waste management, culture, sport and recreation, and mineral extraction. The Regional Spatial Strategy (RSS) outlines that Tendring District as part the Haven Gateway Sub-Region has substantial potential for further development as a major focus for economic development and growth.

There is no scope for the RSS to have an in-combination impact with the Tendring District Core Strategy as the strategy is the means by which the aims and objectives of the RSS are delivered. Other councils' core strategies will outline the development expected in their areas and these are therefore the documents which may have an in combination effect with the Tendring Core Strategy.

Climate Change Strategy 2010-2016: Reducing Tendring's Impact on the environment

This document details how Tendring will tackle the causes and effects of climate change. This document focuses on actions the district can take with its partners to both mitigate against and adapt to climate change. Climate change must be taken into account when implementing the core strategies.

No in-combination impacts have been identified as a result of the implementation of this policy. This is primarily because the strategy details how Tendring will respond to the challenges of climate change, and does not set out any policies that could have an impact upon the designated sites, either alone or in-combination with those set out in the Tendring Core Strategy document.

Climate Change Strategy Delivery Plan 2010-2013: Reducing Tendring's Impact on the environment

This Strategy details how Tendring will meet deliver its climate change strategy through meeting the 3 key objectives of reducing carbon emission, planning for a changing climate and reducing reliance on fossil fuels. Climate change must be taken into account when implementing the core strategies.

No in-combination impacts have been identified as a result of the implementation of this policy. This is primarily because the plan details how Tendring will respond to the challenges of climate change, and how the Strategy will be met. It does not set out any policies that could have an impact upon the designated sites, either alone or in-combination with those set out in the Tendring core strategy document.

Core Strategies

Core Strategies provide an overarching policy framework for the Local Development Framework. They establish the vision, objectives and policies for how a district sees itself progressing by 2026.

Colchester's Core Strategy: Preferred Options 2007

The Colchester Core strategy proposes considerable development activity in Colchester and the surrounding area. The Borough as a whole needs to deliver 17,100 new homes by 2021 and many will be located around the Colne Estuary. These substantial numbers of new residents mean that there is potential for in-combination impacts to the Colne Estuary sites.

Maldon

The Maldon Core Strategy is currently being developed and is due to be adopted in January 2011. The current draft version states that an additional 3000 new homes are required in the district by 2026. About 60% of these houses will be located in the main centres of Maldon, Heybridge and Burnham-on-Crouch, in close proximity to the Essex Estuaries SAC. This increase in new residents living in proximity to the designated sites mean has potential for in-combination impacts arising from development.

Rochford

The Rochford Core Strategy has been submitted to the Secretary of State for independent examination. The HRA for the core strategy identified that the policies has the potential for significant in-combination effects on international sites through increased disturbance, increased atmospheric pollution, reduced water levels and

quality. Therefore it is likely that the Tendring Core Strategy could have in-combination effects with this plan through its impact upon the Essex Estuaries SAC.

Southend-on-Sea Core Strategy 2007

The Core Strategy was adopted by the Borough Council on 13th December 2007. This sets out the need to provide 6000 new homes and 13,000 new jobs by 2021. In addition development is likely to be focused on Shoeburyness where new flood defences may be required to reduce the risk from tidal flooding. The employment and residential development and the new sea defences both have the potential for in-combination impacts upon the Essex Estuaries SAC.

Babergh Core Strategy: Growth Options Consultation 2010

Babergh District completed work on the 'Issues and Options' document in mid 2009 and since then have reviewed the residential and employment growth targets and produced a Growth Options document which is currently out for consultation (Until 26/11/10). The main area where the proposed development could have an impact upon the Stour and Orwell Estuaries SPA and Ramsar sites is the southern fringe of Ipswich. The substantial numbers of new residents living in proximity to this site mean that there is potential for in-combination impacts to arise.

Ipswich Core Strategy: Core Strategy and Policies 2010

Ipswich District submitted the Core Strategy and Policies to the Government on 26th March 2010 for independent examination by a Planning Inspector. The current core strategy sets out plans for development around Ipswich. The impact of the current proposal would be an increase in the number of people living in proximity to the Stour and Orwell Estuaries designated sites. This means that there is potential for in-combination impacts arising from development.

Suffolk Coastal Core Strategy: Interim Planning Policy 2010

Suffolk Coastal District Council have adopted their draft Core Strategy as 'interim planning policy' while it receives final approval. Housing growth along the eastern side of the Orwell Estuary at Walton, Trimley and Felixstowe is proposed within the Core Strategy. This increase in residents means that there is potential for in-combination impacts to the Sour and Orwell Estuaries international sites.

Essex and South Suffolk Shoreline Management Plan (SMP2)

A Shoreline Management Plan (SMP) is a high-level policy document in which the organisations that manage the shoreline set out their long-term plan. The SMP aims to identify the best ways to manage flood and erosion risk to people and the developed, historic and natural environment and to identify opportunities where shoreline managers can work with others to make improvements. The SMP does not set policy for anything other than coastal defence management.

The SMP2 is currently being finalised following public consultation on the draft document during 2010. The majority of the international sites are located on the

seaward of defences and there are several locations where policies to hold the existing line of defence are likely to lead to a loss of habitat due to coastal squeeze. This could potentially occur in the Stour and Orwell Estuaries, Hamford Water and the Colne Estuary. The issue of habitat loss and necessary mitigation will be considered once the data from a recently completed Saltmarsh Monitoring Programme (led by Natural England) is published. However, the SMP will only be progressed if its impacts can be mitigated/compensated for (which will be subject to IROPI) and no further in-combination impacts are envisaged.

Therefore it can be concluded that there will not be an in-combination impact between the SMP and the Tendring District Core Strategy. The additional habitat will provide more feeding and roosting areas for bird species, which may otherwise have been restricted to areas near popular walking routes.

Catchment Flood Management Plans (CFMP)

Catchment Flood Management Plans (CFMPs) provide an overview of the flood risk across river catchments. They recommend methods for managing those risks now and over the next 50-100 years. CFMPs consider all types of inland flooding, from rivers, ground water, surface water and tidal flooding. CFMPs that have the potential to have in-combination impacts with the Tendring District Core Strategy are North Essex, South Essex and

The following sub areas and their selected management policies lie within the Tendring District boundaries:

North Essex

- Coastal Streams, Policy 2 - Areas of low to moderate flood risk where we can generally reduce existing flood risk management actions;
- Harwich, Clacton-on-Sea and Mid Colne and Stour, Policy 3 - Areas of low to moderate flood risk where we are generally managing existing flood risk effectively; and
- Heybridge, Policy 5 – Take further action to reduce flood risk (now or in the future).

South Essex

- Rural Dengie, Tidal and Northern Crouch catchment, Policy 2 - Areas of low to moderate flood risk where we can generally reduce existing flood risk management actions;
- Rochford and Harkwell, Policy 4 - Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we may need to take further actions to keep pace with climate change; and
- Southend-on-Sea and Rayleigh. Policy 5 – Take further action to reduce flood risk (now or in the future).

East Suffolk

- Suffolk Coast and Heaths, Policy 2 - Areas of low to moderate flood risk where we can generally reduce existing flood risk management actions; and
- Ipswich, Policy 5 - Take further action to reduce flood risk (now or in the future).

Due to the estuarine nature of the international sites and the fact that the majority of the policies from the CFMPs are to reduce flood risk management, which will create a more natural riverine system, it is unlikely to be any in-combination impacts with the Tendring Core Strategy.

Anglian River Basin Management Plan

River Basin Management Plans (RBMPs) are plans for protecting and improving the water environment. They contain the main issues for the water environment and the actions required to deal with them. It sets out what improvements are possible by 2015 and how the actions will make a difference to the local environment. The RBMP relevant to the Tendring District Core Strategy is the Anglian RBMP.

In November 2009 a HRA was undertaken of the RBMP. The HRA included the international sites which are also the focus of this report. The report concluded that the RBMP is not likely to have any significant negative effects on any international site, alone or in combination with other plans or projects (Environment Agency, 2009a).

Essex Minerals Local Plan 1996

The Minerals Local Plan sets out the broad land use framework for future mineral development in Essex. It will be replaced by the Essex Minerals Development Document after 2011. The plan sets out the detailed environmental and other criteria against which the county judges all applications for mineral extraction or quarrying.

The Port of Harwich proposed extension at Bathside Bay is highlighted as an area that is likely to be suitable for the development of a large aggregate import facility. This has the potential to impact upon the Stour and Orwell Estuaries SPA and Ramsar sites. This has now been developed into a scheme that has sign off from the secretary of state to reclaim land in Bathside Bay and compensate for this loss of habitat through managed realignment in Hamford Water.

However MLP13 states that planning applications for mineral extraction would be refused if there is an unacceptable effect on nature conservation and therefore no in-combination impacts are anticipated.

Suffolk Minerals Core Strategy 2008

The Suffolk Minerals Core Strategy 2008 establishes the framework for all other Mineral Development Plan Documents (DPDs), which must conform to its principles. It is intended to cover the period up to the end of 2021. The Habitats Regulations Assessment for the Minerals Core Strategy concluded that there would be no impacts

upon the international sites. Therefore it can be concluded that there will be no in-combination impacts with the Tendring District Core Strategy.

Haven Gateway Green Infrastructure Strategy

Haven Gateway Green Infrastructure Strategy looks at the scope for the provision of accessible natural greenspace in the Haven Gateway Growth Point over the next twenty years. The Strategy was prepared on behalf of the Haven Gateway Partnership by a Steering Group representing local authorities, government agencies, Suffolk and Essex Wildlife Trusts and the Suffolk Coast and Heaths Unit. It was adopted in July 2008.

Potential green corridor development is planned for around the eastern and northern edged of Clacton-on-Sea. Also, linking corridors to Brightlingsea are proposed and a new country park to the north of the town. Similar greenspace development is also proposed for Mistley, Harwich and Dovercourt.

The increase in greenspace within the District will provide alternative sites for recreational activities and has the potential to alleviate some of visitor pressure on the international sites. No negative in-combination effects are anticipated from the proposals outlined within the Haven Gateway Green Infrastructure Strategy.

Essex Rights of Way Improvement Plan 2009

The Essex Rights of Way Improvement Plan, prepared by Essex County Council, sets out the context of the existing public rights of way network in the county and the results of a consultation to determine the best ways of improving the networks to meet the current and future needs of users.

The plan seeks to maintain the existing network of rights of way, whilst aiming to improve access throughout the county by adding to the network. Improved public access particularly close to or through the designated sites has the potential for in-combination impacts with the core strategies, particularly in relation to disturbance to bird species.

Future iterations of this plan offer the opportunity for Essex County Council to limit the impact of visitors on international sites in the area and it is recommended that Tendring District Council encourage this.

Suffolk Rights of Way Improvement Plan 2006 – 2016

The Suffolk Rights of Way Improvement Plan, prepared by Essex County Council, sets out the context of the existing public rights of way network in the county and the results of a consultation to determine the best ways of improving the networks to meet the current and future needs of users

The plan seeks to maintain the existing network of rights of way, whilst aiming to improve access throughout the county by adding to the network. Improved public

access particularly close to or through the designated sites has the potential for in-combination impacts with the core strategies, particularly in relation to disturbance to bird species.

Future iterations of this plan offer the opportunity for Suffolk County Council to limit the impact of visitors on international sites in the area and it is recommended that Tendring District Council encourage this.

Essex Local Transport Plan 2006 -2011

Local Transport Plans (LTPs) are aimed at tackling congestion and pollution, improving accessibility and safety, and are used by central government to determine borrowing approvals for funding transport schemes for the next 5 years. The second Essex Local Transport Plan 2006-2011 (LTP 2) was submitted to central government in March 2006.

This plan includes provision for improved transport infrastructure, specifically in relation to the expansion of Harwich Port at Bathside Bay and the redevelopment of Jaywick. Due to the proximity of these sites to international sites, namely the Stour and Orwell Estuaries, Colne Estuary and the Essex Estuaries, there is the potential for in-combination impacts to occur.

Suffolk Local Transport Plan 2006 to 2011

Suffolk County Council's local transport plan sets out a proposed programme of transport improvements for the period 2006 to 2011. The plan looks to improve access to jobs and services, achieve development and regeneration, as well as improve the quality of urban and rural environments. The county council are currently in the process of developing the third Local transport Plan which will supersede the current plan from 2011.

The plan proposes improved infrastructure within Ipswich, including the freight line to the port. Although Ipswich is close to the Stour and Orwell Estuaries site, due to the localised nature of the activities to be undertaken, possible impacts on the Stour and Orwell Estuaries are considered unlikely.

Essex Waste Plan

Essex County Council and Southend-on-Sea Borough Council have agreed to work together to produce a Joint Waste Development Document (WDD) that will replace the existing adopted and saved Essex and Southend Waste Local Plan. The Joint Waste Development Document is currently in an Issues & Options Consultation, running from 7 October 2010 until 2 December 2010. The document sets out the key planning issues for waste management from now until 2031.

A number of waste management facilities are proposed within Essex, including composting sites and recycling facilities. Although these facilities are proposed within the Tendring District they are associated with settlements and not in the vicinity of any of

the international sites. Therefore no in-combination effects are anticipated with the Core Strategy.

Catchment Abstraction Management Strategies (CAMS)

Catchment Abstraction Management Strategies (CAMS) are produced by the Environment Agency to indicate the balance of abstraction and river health on a catchment basis. They set out how water abstraction will be managed until 2014. It outlines where water is available, and also, if relevant, where it is necessary to reduce current rates of abstraction. These plans consider abstraction in terms of surface water in Water Management Units (WMU) and ground water in terms of groundwater management units (GWMU). There are 2 CAMS which have the potential to have in-combination impacts with the Tendring District Core Strategy; the Combined Essex CAMS 2007 and the East Suffolk CAMS. The relevant units within these CAMS are as follows:

North Essex CAMS

- WMUs
 - WMU3 Stutton and Sixpenny Brooks
 - WMU4 Tenpenny Brook
 - WMU5 Holland Brook
- GWMUs:
 - Confined Chalk GWMU 7

South Essex CAMS

- WMUs:
 - Ashheldham Brook

East Suffolk CAMS

- GWMUs
 - GWMU 14 Coastal Crag associated with the Felixstowe Peninsula
 - GWMU 16 Confined Chalk

In North Essex, Stutton and Sixpenny Brooks (WMU3) are currently over licensed and the aim of the CAMS is to reduce the amount of abstraction over the course of the plan. This may have a positive effect on the Colne Estuary SPA and Ramsar sites and Essex Estuaries SAC. The Tenpenny Brook (WMU 4) currently has water available and as such, has been identified as a location where further abstraction licenses can be issued. Increased abstraction may negatively affect the Colne Estuary SPA and Ramsar sites and Essex Estuaries SAC. However, this process will be monitored under the CAMS.

In South Essex the Ashheldham Brook WMU is currently classified as having no water available for abstraction and the intent is to maintain this status. Therefore it is considered that there will not be any significant change in the level of abstraction and that the Essex Estuaries SAC would be unaffected.

In East Suffolk the Coastal Crag associated with the Felixstowe Peninsula (GWMU 14) is currently over licensed. The target for this unit is to remain at the same status but to seek to improve the situation on an opportunistic basis. This may lead to reduced abstraction that would benefit the Stour and Orwell Estuaries SPA and Ramsar sites.

Therefore it can be concluded that there will not be an in-combination effect of the CAMS with the Tendring District Core Strategy.

Harwich International Container Terminal

Harwich International Container Terminal (HICT) will be one of the UK's largest and most modern container terminals. This will involve the reclamation of land at Bathside Bay on the southern bank of the Stour Estuary. This will potentially have a significant impact upon the Stour and Orwell Estuaries SPA and Ramsar site. The scheme has identified and purchased land for compensatory habitat at Hamford Water, which has been approved by the Secretary of State. In addition to the loss of habitat through reclamation, the increased road and maritime traffic, will also potentially negatively impact upon the international sites. However, the HRA and IROPI for the port expansion assessed all necessary impacts and proposed appropriate compensatory (and mitigatory, measures at Little Oakley (Hamford Water).

Devereux Farm Managed Realignment Scheme

At Devereux Farm in Hamford Water there is currently an ongoing scheme to implement managed realignment as part of the Regional Habitat Creation Programme. This will benefit the Hamford Water SPA and Ramsar sites by providing additional intertidal habitat to replace that which is currently being lost through coastal squeeze.

8.2 Conclusion

The majority of the plans, strategies and projects detailed above will not have an in-combination effect with the Tendring District Council's Core Strategy. However it is felt that there is the potential that there will be some in-combination impacts with neighbouring council's Core Strategies, which due to the size of the international sites are many.

The development of a container terminal at Bathside Bay will result in the loss of part of the Stour and Orwell Estuaries international site. Although compensatory habitat is proposed within Hamford Water, the project is still having an adverse effect on the international site which could act in-combination with the Core Strategy.

Primarily, the in-combination effect with the Core Strategy and these plans is one of increased recreational disturbance upon bird species and the habitats which they require. The Core Strategies are proposing population growths which could add to the tourism and recreational pressures on the sites. Also the proposed improvements to rights of ways will encourage people to the coastline and in proximity tot the bird species.

In summary, the following plans and strategies have the potential to cause in-combination impacts with the Core Strategy:

- Colchester, Maldon, Rochford, Southend-on-Sea, Babergh, Ipswich, Suffolk Coastal Strategies;
- Essex Minerals Local Plan;
- Suffolk and Essex Rights of Way Improvement Plans
- Essex Local Transport Plan;
- Harwich International Container Terminal; and
- Devereux Farm Managed Realignment Scheme.

However, due to the nature of the impacts and the associated interactions, providing that the measures described within this report (**Section 7**) and the recommendations in **Section 9** are implemented, it is considered that the policies in the Tendring District, alone and in combination with other plans and projects can be determined as having no adverse effect on site integrity.

9 CONCLUSIONS AND NEXT STEPS

It is the overall conclusion of this assessment that, both alone and in combination with other plans and policies, there will be no adverse effect on the integrity of international sites from the implementation of Tendring District Council's Core Strategy and Development Policies (based on the Proposed Submission Document). However, this is dependent on a commitment by Tendring District to undertake either policy strengthening through the consultation and final policy development cycles (as outlined in **Section 7.1**) or the avoidance and reduction measures as outlined in **Section 7.2**.

9.1 Further Activities and Recommendations

Following rigorous assessment we consider that Tendring District Council, as the competent authority under the Habitats Regulations, can conclude that any effects of the draft Core Strategy and Development Policies within the Proposed Submission Document will not have an adverse effect upon the integrity of the international sites identified within this report.

However, in pursuing a precautionary approach, and to assist in an approach which will ensure the preservation and improvement of Tendring District Council's (and surrounding authorities') natural assets, we recommend that the Council joins with Colchester Borough Council and Braintree District Council in a joint monitoring programme focussed on gathering data including visitor numbers at coastal hotspots. Natural England is currently developing this scheme with the councils.

Early implementation of this programme will enable pre-development baseline information to be collated. Over time it will be possible to assess the impact, if any, of future development on visitation and behaviour or provide further evidence that disturbance from visitors is low. Further consultation should be sought with interested parties, and in particular advice from Natural England, to ensure appropriate design of the monitoring strategy and to ensure the programme's ambitions are met.

Also, Essex County Council will be producing further revisions of the Essex Rights of Way Improvement Plan, to limit the impact of visitors on international sites in the area. We recommend that Tendring District Council encourage this development to the plan.

If the proposed wording amendment to Core Policy 6 is not incorporated, further actions are recommended. These could include monitoring programmes for any renewable energy developments. Drewitt and Langston (2006) recommend that this should include a minimum 12-month field survey to determine the baseline numbers of birds present during an annual cycle. This survey should provide data on bird distribution and movements, including observations of bird numbers, intensity of movements, altitude and orientation of flight during different weather conditions and tidal cycles. For species that show significant annual variation in numbers and distribution it may be necessary to undertake at least two years' baseline survey. Studies for wind farm developments should also include an area around the wind farm which might be subject to displacement (up to at least 800m from the outer turbines) and the potential for and barrier effects.

Post-construction monitoring is essential in order to test the effectiveness of such mitigation measures and research is needed to provide more information on specific impacts and novel mitigation measures that might reduce impacts.

9.2 Next Steps

This document represents the assessment of policies contained within the Tendring District Council draft Core Strategy and Development Policies within the Proposed Submission Document that is being offered for public consultation in October 2010.

Early in the consultation period the findings of a draft HRA were discussed with Tendring District Council and Natural England, and measures to address the recommendations above were discussed and agreed. We anticipate that if the changes recommended are incorporated then the findings of the HRA will remain robust unless material changes are made as a result of the public consultation, and subsequent Examination in Public. Where material changes are required, we recommend that a re-assessment of the findings of this report is carried out to confirm that its conclusions remain valid and that the final Core Strategy adopted is compliant with the Habitats Regulations.

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APPENDIX A

Detailed ‘Appropriate’ Assessment Tables

The following tables summarise the interest features of the sites and the potential impacts arising from the 8 policies identified as having a potential or likely significant effect. The assessment tables of policies which will have similar potential impacts (e.g. recreational disturbance) have been combined to avoid unnecessary repetition. Therefore the following policies and impacts are considered.

- Spatial Strategy Policy 1 – New Jobs, Spatial Strategy Policy 2 – New Homes and Spatial Strategy Policy 4 – Settlement Hierarchy (potential for increased disturbance of birds and habitats from increased recreation)
- Spatial Strategy Policy 3 – Improving the Strategic Transport Network (potential for disturbance to bird species through habitat loss/disturbance)
- Core Policy 6 – Tackling Climate Change (potential disturbance to birds’ flight lines resulting from renewable energy development)
- Core Policy 19 – Gypsies and Travellers and Core Policy 21 – Playing Pitches and Outdoor Sports Facilities (potential for increased disturbance of birds and habitats due to proximity of site)
- Development Policy 11 – Occupancy Timescales for Tourist Accommodation (potential for disturbance to breeding bird species)

Detailed 'Appropriate Assessment' Tables assessing Tendring District Council's draft Core Strategy and Development Policies, Proposed Submission Document, October 2010

**Spatial Strategy Policy 1 – New Jobs;
Spatial Strategy Policy 2 – New Homes; and
Spatial Strategy Policy 4 – Settlement Hierarchy**

Designated sites		
Site	Designation	Key features
Abberton Reservoir	Ramsar	<p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p> <p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Abberton Reservoir	SPA	<p>Annex I birds and regularly occurring migratory birds: shoveler <i>Anas clypeata</i>, teal <i>Anas crecca</i>, wigeon <i>Anas penelope</i>, gadwall <i>Anas strepera</i>, pochard <i>Aythya ferina</i>, tufted duck <i>Aythya fuligula</i>, goldeneye <i>Bucephala clangula</i>, mute swan <i>Cygnus olor</i>, coot <i>Fulica atra</i>, cormorant <i>Phalacrocorax carbo</i> and great crested grebe <i>Podiceps cristatus</i>.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: great cormorant.</p> <p>Over winter the area regularly supports: shoveler, teal, wigeon, gadwall, pochard, tufted duck, goldeneye, mute swan, coot and great crested grebe.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds Over winter the area regularly supports 39,763 wildfowl.</p>
Colne Estuary	Ramsar	<p>Ramsar Criterion 1 The site forms an extensive extent and diversity of saltmarsh.</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 This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p>
Colne Estuary	SPA	<p>Annex I birds and regularly occurring migratory birds: pochard, dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, ringed plover <i>Charadrius hiaticula</i>, hen harrier <i>Circus cyaneus</i>, little tern <i>Sterna albrifrons</i> and redshank <i>Tringa totanus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern. Over winter the area regularly supports: hen harrier.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: pochard and ringed plover. Over winter the area regularly supports: dark-bellied Brent goose and redshank.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds Over winter the area regularly supports 38,600 wildfowl.</p>
Essex Estuaries	SAC	<p>Annex I habitats present include: sandbanks which are slightly covered by seawater all the time, estuaries, mudflats and sandflats not covered by seawater at low tide, and perennial vegetation of stony banks.</p>
Hamford Water	Ramsar	<p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Hamford Water	SPA	<p>Annex I birds and regularly occurring migratory birds: teal, dark-bellied Brent Goose, ringed plover, black-tailed godwit <i>Limosa limosa islandica</i>, grey plover <i>Pluvialis squatarola</i>, avocet <i>Recurvirostra avosetta</i>, little tern, shelduck <i>Tadorna</i></p>

		<p><i>tadorna</i> and redshank.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern</p> <p>Over winter the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: common teal, dark-bellied Brent goose, ringed plover, black-tailed godwit, grey plover, shelduck and redshank.</p>
Outer Thames Estuary	SPA	<p>Annex I birds and regularly occurring migratory birds: red-throated diver <i>Gavia stellata</i></p> <p>Article 4.1 Qualification. Over winter the area regularly supports: red-throated diver</p>
Stour & Orwell Estuaries	Ramsar	<p>Ramsar criterion 2 Contains seven nationally scarce plants and five British Red Data Book invertebrates</p> <p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p> <p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Stour & Orwell Estuaries	SPA	<p>Annex I birds and regularly occurring migratory birds: pintail <i>Anas acuta</i>, wigeon, gadwall <i>Anas strepera</i>, ruddy turnstone <i>Arenaria interpres</i>, dark-bellied Brent goose, goldeneye <i>Bucephala clangula</i>, dunlin <i>Calidris alpina alpina</i>, knot <i>Calidris canutus</i>, ringed plover, black-tailed godwit, curlew <i>Numenius arquata</i>, cormorant, grey plover, great crested grebe, avocet, shelduck, redshank and lapwing <i>Vanellus vanellus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: avocet</p>

		<p>Article 4.2 Qualification. Over winter the area regularly supports: pintail dark-bellied Brent goose, red knot, dunlin, black-tailed godwit, grey plover and redshank.</p> <p>An internationally important assemblage of birds Over winter the area regularly supports 63,017 wildfowl.</p>
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Ramsar Site Feature	Abberton Reservoir							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	23787 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Gadwall	550 individuals, representing an average of 3.2% of the GB population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Shoveler	377 individuals, representing an average of 2.5% of the GB population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Wigeon	2888 individuals, representing an average of 1.6% of the population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Mute swan	387 individuals, representing an average of 1% of the population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity

Pochard	4373 individuals, representing an average of 1.2% of the population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:	Preventative measures:	Mitigation:			Compensation			
Abberton Reservoir is outside of the district but a popular visitor destination. Improving tourism within the district will attract people to the coast and not an inland site. Also, although the increase in population will potentially lead to an increase in visitor numbers, people are unlikely to travel outside of the district when they are coastal recreational areas closer. An adverse effect on bird species is not anticipated.								

SPA Site Feature	Abberton Reservoir							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Cormorant	7% of the population in Great Britain 5 year mean, 1993-1997	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Shoveler	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Teal	2.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Wigeon	0.2% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Gadwall	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Pochard	4.4% of the population in Great Britain 5 year peak mean	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity

	1991/92-1995/96							
Tufted duck	3.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Goldeneye	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Mute swan	1.9% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Coot	11% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Great crested grebe	1.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
An internationally important assemblage of birds	39,763 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting bird's condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Abberton Reservoir is outside of the district but a popular visitor destination. Improving tourism within the district will attract people to the coast and not an inland site. Also, although the increase in population will potentially lead to an increase in visitor numbers, people are unlikely to travel outside of the district when they are coastal recreational areas closer. An adverse effect on bird species is not anticipated.								

Ramsar Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site forms an extensive extent and diversity of saltmarsh	This site, and the four other sites in the Mid-Essex Coast complex, includes a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total saltmarsh in Britain.	Maintain diversity and size of saltmarsh habitat	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species		Maintain populations of scarce plants and Red Data Book invertebrate species	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.		Maintain range of saltmarsh communities	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
The site supports assemblages of waterfowl of international importance	32041 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	3165 individuals, representing an average of 1.4% of the population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	1624 individuals, representing an average of 1.3% of the GB population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	402 individuals, representing an average of 1.1% of the population	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of habitats and bird species, leading to a decline in the quality of the site.							

Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
The Colne Estuary is bordered by coastal defences, along which footpaths along the coast and to Brightlingsea run. Visitors are unlikely to leave these areas and enter the saltmarsh or mudflat areas. Also, the bird species present are overwintering species, when tourism is lower and people go out less.			

SPA Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	38,600 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Little tern	at least 1.6% of the GB breeding population 5 year mean, 1992-1996	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Hen harrier	up to 2.5% of the GB population No count period specified.	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Pochard	up to 6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Ringed plover	up to 1.6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	1.2% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds' condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:	Preventative measures:		Mitigation:		Compensation			

The Colne Estuary is bordered by coastal defences, along which footpaths along the coast and to Brightlingsea run. Visitors are unlikely to leave these areas and enter the saltmarsh or mudflat areas. Also, the bird species present are overwintering species, when tourism is lower and people go out less. Little terns nest on areas which are inaccessible to walkers etc.			
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SAC Site Feature	Essex Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Sandbanks which are slightly covered by sea water all the time		No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Estuaries	This is a large estuarine site in south-east England, and is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Essex Estuaries contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates. Sublittoral areas have a very rich invertebrate fauna, including the reef-building worm <i>Sabellaria spinulosa</i> , the brittlestar <i>Ophiothrix fragilis</i> , crustaceans and ascidians.	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Mudflats and sandflats not covered by seawater at low tide	Essex Estuaries represents the range of variation of this habitat type found in south-east England and includes the extensive intertidal mudflats and sandflats of the Colne, Blackwater, Roach and Crouch estuaries, Dengie Flats and Maplin Sands. The area includes a wide range of sediment	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity

	flat communities, from estuarine muds, sands and muddy sands to fully saline, sandy mudflats with extensive growths of eelgrass <i>Zostera</i> spp. on the open coast.							
<i>Salicornia</i> and other annuals colonising mud and sand	Glasswort <i>Salicornia</i> spp. saltmarsh in the Essex estuaries on the east coast of England forms an integral part of the transition from the extensive and varied intertidal mud and sandflats through to upper saltmeadows. Although the saltmarshes in this area are generally eroding, secondary pioneer communities appear as a precursor to erosion on the seaward edge of degraded mid-marsh communities.	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
<i>Spartina</i> swards (<i>Spartinion maritimae</i>)	Small stands are found in the Colne estuary, where it forms a major component of the upper marsh areas.	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	Although the saltmarshes in this area are generally eroding, extensive salt meadows remain and Essex Estuaries represents Atlantic salt meadows in south-east England, with floristic features typical of this part of the UK. Golden samphire <i>Inula crithmoides</i> is a characteristic species of these marshes, occurring both on the lower marsh and on the drift-line.	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)	In this complex of estuarine marshes on the east coast of England the occurrence of Mediterranean and thermo-Atlantic halophilous scrubs is currently artificially restricted by sea-walls. It now occurs principally as a strandline community or at the foot of sea-walls. Recent managed retreat schemes offer the prospect of future expansion of the habitat type. The local variant of this vegetation, which features sea-lavenders <i>Limonium</i> spp. and sea-heath <i>Frankenia laevis</i> , occurs at one location, Colne Point.	No change in extent	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreation (walkers and water based activities) causes damage to habitats.							

Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Walkers in the area use the footpaths along the sea defences and are unlikely to cross the defences into the saltmarsh and mudflat areas. The area is already a popular tourism area, with a large caravan park and sailing club. However, there is unlikely to be a significant increase in these activities to impact the habitats present.			

Ramsar Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Ringed plover	1169 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	3629 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	2099 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	377 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds' condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:	Preventative measures:			Mitigation:		Compensation		

Hamford Water is largely inaccessible to walkers and therefore areas of undisturbed land are available to bird species. Boats use Hamford Water to get to the marina at Walton-on-Naze. However, the bird species for which the site is designated are overwintering, and therefore use the site outside the tourist season.			
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SPA Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Little tern	2.3% of the GB breeding population 4 year mean 1992-1995	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Avocet	25% of the GB population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Teal	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Ringed plover	1.1% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	2.3% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Grey plover	7.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Shelduck	2.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	0.8% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity

Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds' condition and ultimately causing the abandonment of the site.		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Hamford Water is largely inaccessible to walkers and therefore areas of undisturbed land are available to bird species. Boats use Hamford Water to get to the marina at Walton-on-Naze. However, the bird species for which the site is designated are overwintering, and therefore use the site outside the tourist season.			

SPA Site Feature	Outer Thames Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Red throated diver	38% of the population in Great Britain peak mean over the period 1989-2006/07	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds' condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation					
Red throated divers are predominantly located further out to sea, and numbers along the coast are lower. It is unlikely that policies proposed will have a significant impact on water based recreation which could disturb these birds.								

Ramsar Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Contains seven nationally scarce plants: stiff saltmarsh-grass <i>Puccinellia rupestris</i> ; small cord-		Maintain populations of nationally scarce	Disturbance to habitats through	N/A	N/A	N/A	N/A	No impact on integrity

grass <i>Spartina maritima</i> ; perennial glasswort <i>Sarcocornia perennis</i> ; lax-flowered sea lavender <i>Limonium humile</i> ; and the eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z. noltei</i> .		plants	increased recreation					
Contains five British Red Data Book invertebrates: the muscid fly <i>Phaonia fusca</i> ; the horsefly <i>Haematopota grandis</i> ; two spiders, <i>Arctosa fulvilineata</i> and <i>Baryphema duffeyi</i> ; and the endangered swollen spire snail <i>Mercuria confusa</i> .		Maintain populations of Red Data Book invertebrate species	Disturbance to habitats through increased recreation	N/A	N/A	N/A	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	2588 individuals, representing an average of 2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	2627 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Pintail	741 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Grey plover	3261 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Knot	5970 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity

Dunlin	19114 individuals, representing an average of 1.4% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	2559 individuals, representing an average of 7.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	3687 individuals, representing an average of 2.8% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of habitats and bird species, leading to a decline in the quality of the site.							
Implications for the integrity of the site:			Preventative measures:	Mitigation:		Compensation		
Recreational disturbance is highlighted as a reason for declining condition in the Stour Estuary SSSI. However, the predicted population growth within the district is unlikely to have an increased impact on this. Development is predominantly located within Clacton, away from the international site. Also, although tourism is likely to increase within Harwich and Dovercourt this is focused on the town centre and unlikely to extend to the estuary. The site is known for overwintering bird species, when the tourist season is low.								

SPA Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Avocet	3.6% of the population in Great Britain 5-year peak mean 1996-2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Pintail	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity

Dunlin	1.4% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Red knot	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	7.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Grey plover	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	2.8% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Recreational disturbance to bird species.	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased recreational activity on the site leads to increased disturbance of bird species, impacting birds' condition and ultimately causing the abandonment of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Recreational disturbance is highlighted as a reason for declining condition in the Stour Estuary SSSI. However, the predicted population growth within the district is unlikely to have an increased impact on this. Development is predominantly located within Clacton, away from the international site. Also, although tourism is likely to increase within Harwich and Dovercourt this is focused on the town centre and unlikely to extend to the estuary. The site is known for overwintering bird species, when the tourist season is low.								

Overall Summary			
Potential / likely effect of policy	Recreational disturbance to habitat, and associated invertebrate species and bird species.		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation

No adverse impact on integrity of any of the international sites.			
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Spatial Strategy Policy 3 – Improving the Strategic Transport Network

Designated sites		
Site	Designation	Key features
Stour & Orwell Estuaries	Ramsar	<p>Ramsar criterion 2 Contains seven nationally scarce plants and five British Red Data Book invertebrates</p> <p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p> <p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Stour & Orwell Estuaries	SPA	<p>Annex I birds and regularly occurring migratory birds: pintail <i>Anas acuta</i>, wigeon, gadwall <i>Anas strepera</i>, ruddy turnstone <i>Arenaria interpres</i>, dark-bellied Brent goose, goldeneye <i>Bucephala clangula</i>, dunlin <i>Calidris alpina alpina</i>, knot <i>Calidris canutus</i>, ringed plover, black-tailed godwit, curlew <i>Numenius arquata</i>, cormorant, grey plover, great crested grebe, avocet, shelduck, redshank and lapwing <i>Vanellus vanellus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: pintail dark-bellied Brent goose, red knot, dunlin, black-tailed godwit, grey plover and redshank.</p> <p>An internationally important assemblage of birds Over winter the area regularly supports 63,017 wildfowl.</p>

Ramsar Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Contains seven nationally scarce plants: stiff saltmarsh-grass <i>Puccinellia rupestris</i> ; small cord-grass <i>Spartina maritima</i> ; perennial glasswort <i>Sarcocornia perennis</i> ; lax-flowered sea lavender <i>Limonium humile</i> ; and the eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z. noltei</i> .		Maintain populations of nationally scarce plants	Disturbance to or loss of habitats through improvements to rail network.	Damage or loss of habitat resulting from works which leads to a decline in the sites condition.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete.	N/A	No impact on integrity
Contains five British Red Data Book invertebrates: the muscid fly <i>Phaonia fusca</i> ; the horsefly <i>Haematopota grandis</i> ; two spiders, <i>Arctosa fulvolineata</i> and <i>Baryphema duffeyi</i> ; and the endangered swollen spire snail <i>Mercuria confusa</i> .		Maintain populations of Red Data Book invertebrate species	Disturbance to or loss of habitats through improvements to rail network.	Damage or loss of habitat resulting from works which leads to a decline in the sites condition and impacts the invertebrate species which the habitats support.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete.	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Redshank	2588 individuals, representing an average of 2% of the population	Maintain population limits	Disturbance to bird species during works and through any	Disturbance to overwintering birds, which will have impacts to birds'	Policy should reflect the potential for impacts upon international sites	Avoid working within the international site. Reinstate	N/A	No impact on integrity

	(5-year peak mean 1995/96-1999/2000)		loss of habitat.	energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	and the associated species, and ensure that measures are introduced which result in no adverse impacts.	habitat once works are complete. Appropriate timing of works.		
Dark-bellied Brent goose	2627 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Pintail	741 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Grey plover	3261 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Knot	5970 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity

Dunlin	19114 individuals, representing an average of 1.4% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Black-tailed godwit	2559 individuals, representing an average of 7.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Redshank	3687 individuals, representing an average of 2.8% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Potential effect of policy on the site	Disturbance to or loss of habitat due to rail network improvements and associated bird disturbance							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Any improvement works to the rail network, located close to or within the international site, will result in short term disturbance issues, which are unlikely to significantly affect bird populations. However, these works (dependent on their extent) may damage or result in the loss of habitat, which also supports the birds.								

SPA Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Avocet	3.6% of the population in Great Britain 5-year peak mean 1996-2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Pintail	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Dunlin	1.4% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Red knot	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure	Avoid working within the international site. Reinstate habitat once works are complete.	N/A	No impact on integrity

				population impacts, resulting in localised detrimental impacts upon species.	that measures are introduced which result in no adverse impacts.	Appropriate timing of works.		
Black-tailed godwit	7.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Dark-bellied Brent goose	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Grey plover	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Redshank	2.8% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species during works and through any loss of habitat.	Disturbance to overwintering birds, which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstate habitat once works are complete. Appropriate timing of works.	N/A	No impact on integrity
Assemblage of international	63017 waterfowl (5 year peak mean	Maintain assemblage	Disturbance to bird species	Disturbance to overwintering birds,	Policy should reflect the potential for	Avoid working within the	N/A	No impact

importance	1998/99-2002/2003)	size	during works and through any loss of habitat.	which will have impacts to birds' energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	international site. Reinstatement habitat once works are complete. Appropriate timing of works.	on integrity
Potential effect of policy on the site	Disturbance to bird species through improvement works and any associated habitat loss/disturbance						
Implications for the integrity of the site:	Preventative measures:		Mitigation:		Compensation		
Any improvement works to the rail network, located close to or within the international site, will result in short term disturbance issues, which are unlikely to significantly affect bird populations. However, these works (dependent on their extent) may damage or result in the loss of habitat, which also supports the birds.							

Overall Summary			
Potential / likely effect of policy	Disturbance to or loss of habitat due to rail network improvements and associated bird disturbance		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Potential adverse impact on integrity of site through habitat disturbance/loss.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Avoid working within the international site. Reinstatement habitat once works are complete.	

Core Policy 6 – Tackling Climate Change

Designated sites		
Site	Designation	Key features
Abberton Reservoir	Ramsar	<p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p> <p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Abberton Reservoir	SPA	<p>Annex I birds and regularly occurring migratory birds: shoveler <i>Anas clypeata</i>, teal <i>Anas crecca</i>, wigeon <i>Anas penelope</i>, gadwall <i>Anas strepera</i>, pochard <i>Aythya ferina</i>, tufted duck <i>Aythya fuligula</i>, goldeneye <i>Bucephala clangula</i>, mute swan <i>Cygnus olor</i>, coot <i>Fulica atra</i>, cormorant <i>Phalacrocorax carbo</i> and great crested grebe <i>Podiceps cristatus</i>.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: great cormorant.</p> <p>Over winter the area regularly supports: shoveler, teal, wigeon, gadwall, pochard, tufted duck, goldeneye, mute swan, coot and great crested grebe.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds Over winter the area regularly supports 39,763 wildfowl.</p>
Colne Estuary	Ramsar	<p>Ramsar Criterion 1 The site forms an extensive extent and diversity of saltmarsh.</p> <p>Ramsar Criterion 2 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 The site supports assemblages of waterfowl of international importance.</p>
Colne Estuary	SPA	<p>Annex I birds and regularly occurring migratory birds: pochard, dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, ringed plover <i>Charadrius hiaticula</i>, hen harrier <i>Circus cyaneus</i>, little tern <i>Sterna albrifrons</i> and redshank <i>Tringa totanus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern. Over winter the area regularly supports: hen harrier.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: pochard and ringed plover. Over winter the area regularly supports: dark-bellied Brent goose and redshank.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds Over winter the area regularly supports 38,600 wildfowl.</p>
Hamford Water	Ramsar	<p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Hamford Water	SPA	<p>Annex I birds and regularly occurring migratory birds: teal, dark-bellied Brent Goose, ringed plover, black-tailed godwit <i>Limosa limosa islandica</i>, grey plover <i>Pluvialis squatarola</i>, avocet <i>Recurvirostra avosetta</i>, little tern, shelduck <i>Tadorna tadorna</i> and redshank.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern Over winter the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: common</p>

		teal, dark-bellied Brent goose, ringed plover, black-tailed godwit, grey plover, shelduck and redshank.
Stour & Orwell Estuaries	Ramsar	<p>Ramsar criterion 2 Contains seven nationally scarce plants and five British Red Data Book invertebrates</p> <p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p> <p>Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.</p>
Stour & Orwell Estuaries	SPA	<p>Annex I birds and regularly occurring migratory birds: pintail <i>Anas acuta</i>, wigeon, gadwall <i>Anas strepera</i>, ruddy turnstone <i>Arenaria interpres</i>, dark-bellied Brent goose, goldeneye <i>Bucephala clangula</i>, dunlin <i>Calidris alpina alpina</i>, knot <i>Calidris canutus</i>, ringed plover, black-tailed godwit, curlew <i>Numenius arquata</i>, cormorant, grey plover, great crested grebe, avocet, shelduck, redshank and lapwing <i>Vanellus vanellus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: pintail dark-bellied Brent goose, red knot, dunlin, black-tailed godwit, grey plover and redshank.</p> <p>An internationally important assemblage of birds Over winter the area regularly supports 63,017 wildfowl.</p>

Ramsar Site Feature	Abberton Reservoir							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	23787 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Gadwall	550 individuals, representing an average of 3.2% of the GB population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Shoveler	377 individuals, representing an average of 2.5% of the GB population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

Wigeon	2888 individuals, representing an average of 1.6% of the population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Mute swan	387 individuals, representing an average of 1% of the population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Pochard	4373 individuals, representing an average of 1.2% of the population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:			Mitigation:		Compensation	

Abberton Reservoir is outside of the district but an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to this site, causing diversions and an increase in energy expenditure, ultimately impacting the population.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	
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SPA Site Feature	Abberton Reservoir							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Cormorant	7% of the population in Great Britain 5 year mean, 1993-1997	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Shoveler	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Teal	2.5% of the population in Great Britain 5 year peak mean 1991/92-	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to	Disturbance to overwintering birds from renewable energy projects affecting their flight	Policy should reflect the potential for impacts upon international sites and the associated	Suitable placement of renewable energy developments,	N/A	No impact on integrity

	1995/96		movement.	lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	species, and ensure that measures are introduced which result in no adverse impacts.	surveys, monitoring		
Wigeon	0.2% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Gadwall	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Pochard	4.4% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Tufted duck	3.1% of the population in Great Britain	Maintain population limits	Renewable energy developments cause a disruption	Disturbance to overwintering birds from renewable	Policy should reflect the potential for impacts upon	Suitable placement of renewable	N/A	No impact on

	5 year peak mean 1991/92-1995/96		to birds or create a barrier to movement.	energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	energy developments, surveys, monitoring		integrity
goldeneye	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Mute swan	1.9% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Coot	11% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

Great crested grebe	1.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
An internationally important assemblage of birds	39,763 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Abberton Reservoir is outside of the district but an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to this site, causing diversions and an increase in energy expenditure, ultimately impacting the population.		Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.		Suitable placement of renewable energy developments, surveys, monitoring				

Ramsar Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site forms an extensive extent and diversity of saltmarsh	This site, and the four other sites in the Mid-Essex Coast complex, includes a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total saltmarsh in Britain.	Maintain diversity and size of saltmarsh habitat	No effect	N/A	N/A	N/A	N/A	No impact on integrity
The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species		Maintain populations of scarce plants and Red Data Book invertebrate species	No effect	N/A	N/A	N/A	N/A	No impact on integrity
This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.		Maintain range of saltmarsh communities	No effect	N/A	N/A	N/A	N/A	No impact on integrity
The site supports assemblages of waterfowl of international importance	32041 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

				localised detrimental impacts upon species.	impacts.			
Dark-bellied Brent goose	3165 individuals, representing an average of 1.4% of the population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Redshank	1624 individuals, representing an average of 1.3% of the GB population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Black-tailed godwit	402 individuals, representing an average of 1.1% of the population	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							

Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Colne Estuary is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to this site, causing diversions and an increase in energy expenditure, ultimately impacting the population.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	

SPA Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	38,600 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Little tern	at least 1.6% of the GB breeding population 5 year mean, 1992-1996	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Hen harrier	up to 2.5% of the GB population No count	Maintain population limits	Renewable energy developments cause a disruption to birds or create a	Disturbance to overwintering birds from renewable energy projects affecting their	Policy should reflect the potential for impacts upon international sites	Suitable placement of renewable energy	N/A	No impact on integrity

	period specified.		barrier to movement.	flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	and the associated species, and ensure that measures are introduced which result in no adverse impacts.	developments, surveys, monitoring		
Pochard	up to 6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Ringed plover	up to 1.6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dark-bellied Brent goose	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Redshank	1.2% of the population	Maintain population	Renewable energy developments	Disturbance to overwintering birds	Policy should reflect the potential for	Suitable placement of	N/A	No impact

	5 year peak mean 1991/92-1995/96	limits	cause a disruption to birds or create a barrier to movement.	from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	renewable energy developments, surveys, monitoring		on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:	Preventative measures:		Mitigation:			Compensation		
Colne Estuary is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to this site, causing diversions and an increase in energy expenditure, ultimately impacting the population.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.		Suitable placement of renewable energy developments, surveys, monitoring					

Ramsar Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Ringed plover	1169 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dark-bellied Brent goose	3629 individuals, representing an	Maintain population	Renewable energy developments cause	Disturbance to overwintering birds	Policy should reflect the potential for	Suitable placement of	N/A	No impact

	average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	limits	a disruption to birds or create a barrier to movement.	from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	renewable energy developments, surveys, monitoring		on integrity
Redshank	2099 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Black-tailed godwit	377 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Hamford Water is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds inland to the site, causing diversions and an increase in energy expenditure, ultimately impacting the population.		Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.		Suitable placement of renewable energy developments, surveys, monitoring				

SPA Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Little tern	2.3% of the GB breeding population 4 year mean 1992-1995	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Avocet	25% of the GB population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	N/A	N/A	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Teal	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Black-tailed godwit	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

				localised detrimental impacts upon species.	impacts.			
Ringed plover	1.1% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dark-bellied Brent goose	2.3% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Grey plover	7.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Shelduck	2.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

Redshank	0.8% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Hamford Water is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds inland to the site, causing diversions and an increase in energy expenditure, ultimately impacting the population.		Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.		Suitable placement of renewable energy developments, surveys, monitoring				

Ramsar Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Contains seven nationally scarce plants: stiff saltmarsh-grass <i>Puccinellia rupestris</i> ; small cord-grass <i>Spartina maritima</i> ; perennial glasswort <i>Sarcocornia perennis</i> ; lax-flowered sea lavender <i>Limonium humile</i> ; and the		Maintain populations of nationally scarce plants	No effect	N/A	N/A	N/A	N/A	No impact on integrity

eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z. noltei</i> .								
Contains five British Red Data Book invertebrates: the muscid fly <i>Phaonia fusca</i> ; the horsefly <i>Haematopota grandis</i> ; two spiders, <i>Arctosa fulvolineata</i> and <i>Baryphema duffeyi</i> ; and the endangered swollen spire snail <i>Mercuria confusa</i> .		Maintain populations of Red Data Book invertebrate species	No effect	N/A	N/A	N/A	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Redshank	2588 individuals, representing an average of 2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dark-bellied Brent goose	2627 individuals, representing an average of 1.2% of the	Maintain population limits	Renewable energy developments cause a disruption to birds or create	Disturbance to overwintering birds from renewable energy projects affecting their flight	Policy should reflect the potential for impacts upon international sites and the associated	Suitable placement of renewable energy developments,	N/A	No impact on integrity

	population (5-year peak mean 1995/96-1999/2000)		a barrier to movement.	lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	species, and ensure that measures are introduced which result in no adverse impacts.	surveys, monitoring		
Pintail	741 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Grey plover	3261 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Knot	5970 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity

				species.				
Dunlin	19114 individuals, representing an average of 1.4% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Black-tailed godwit	2559 individuals, representing an average of 7.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Redshank	3687 individuals, representing an average of 2.8% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		

The Stour and Orwell Estuaries is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to the site, causing diversions and an increase in energy expenditure, ultimately impacting the population.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	
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SPA Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Avocet	3.6% of the population in Great Britain 5-year peak mean 1996-2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Pintail	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dunlin	1.4% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will	Policy should reflect the potential for impacts upon international sites and the associated	Suitable placement of renewable energy developments,	N/A	No impact on integrity

			movement.	have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	species, and ensure that measures are introduced which result in no adverse impacts.	surveys, monitoring		
Red knot	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Black-tailed godwit	7.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Dark-bellied Brent goose	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Grey plover	1.3% of the population 5-year peak mean	Maintain population limits	Renewable energy developments cause a disruption	Disturbance to overwintering birds from renewable energy	Policy should reflect the potential for impacts upon	Suitable placement of renewable	N/A	No impact on

	1995/96-1999/2000		to birds or create a barrier to movement.	projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	energy developments, surveys, monitoring		integrity
Redshank	2.8% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Renewable energy developments cause a disruption to birds or create a barrier to movement.	Disturbance to overwintering birds from renewable energy projects affecting their flight lines. This will have impacts on energy expenditure and potential population impacts, resulting in localised detrimental impacts upon species.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	N/A	No impact on integrity
Potential effect of policy on the site	Renewable energy developments causing disturbance of bird species or creating barriers to movement from, which could have a long term impact on the birds' condition.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
The Stour and Orwell Estuaries is an important site for overwintering bird species. A renewable energy development located within the district could impact flight lines of birds to the site, causing diversions and an increase in energy expenditure, ultimately impacting the population.		Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.		Suitable placement of renewable energy developments, surveys, monitoring				

Overall Summary			
Potential / likely effect of policy	Recreational disturbance to habitat, and associated invertebrate species and bird species.		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Renewable energy developments located within the district could impact flight lines of birds to the international sites, causing diversions and an increase in energy expenditure, ultimately impacting the population.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Suitable placement of renewable energy developments, surveys, monitoring	

Core Policy 19 – Gypsies and Travellers and Core Policy 21 – Playing Pitches and Outdoor Sports Facilities

Designated sites		
Site	Designation	Key features
Colne Estuary	Ramsar	<p>Ramsar Criterion 1 The site forms an extensive extent and diversity of saltmarsh.</p> <p>Ramsar Criterion 2 The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species.</p> <p>Ramsar Criterion 3 This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance.</p>
Colne Estuary	SPA	<p>Annex I birds and regularly occurring migratory birds: pochard, dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, ringed plover <i>Charadrius hiaticula</i>, hen harrier <i>Circus cyaneus</i>, little tern <i>Sterna albrifrons</i> and redshank <i>Tringa totanus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern. Over winter the area regularly supports: hen harrier.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: pochard and ringed plover. Over winter the area regularly supports: dark-bellied Brent goose and redshank.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds</p>

		Over winter the area regularly supports 38,600 wildfowl.
Essex Estuaries	SAC	Annex I habitats present include: sandbanks which are slightly covered by seawater all the time, estuaries, mudflats and sandflats not covered by seawater at low tide, and perennial vegetation of stony banks.
Hamford Water	Ramsar	Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.
Hamford Water	SPA	Annex I birds and regularly occurring migratory birds: teal, dark-bellied Brent Goose, ringed plover, black-tailed godwit <i>Limosa limosa islandica</i> , grey plover <i>Pluvialis squatarola</i> , avocet <i>Recurvirostra avosetta</i> , little tern, shelduck <i>Tadorna tadorna</i> and redshank. Article 4.1 Qualification. During the breeding season the area regularly supports: little tern Over winter the area regularly supports: avocet Article 4.2 Qualification. Over winter the area regularly supports: common teal, dark-bellied Brent goose, ringed plover, black-tailed godwit, grey plover, shelduck and redshank.
Stour & Orwell Estuaries	Ramsar	Ramsar criterion 2 Contains seven nationally scarce plants and five British Red Data Book invertebrates Ramsar Criterion 5 The site supports assemblages of waterfowl of international importance. Ramsar Criterion 6 The site supports species/populations occurring at levels of international importance.
Stour & Orwell Estuaries	SPA	Annex I birds and regularly occurring migratory birds: pintail <i>Anas acuta</i> , wigeon, gadwall <i>Anas strepera</i> , ruddy turnstone <i>Arenaria interpres</i> , dark-bellied Brent goose, goldeneye <i>Bucephala clangula</i> , dunlin <i>Calidris alpina alpina</i> , knot

	<p><i>Calidris canutus</i>, ringed plover, black-tailed godwit, curlew <i>Numenius arquata</i>, cormorant, grey plover, great crested grebe, avocet, shelduck, redshank and lapwing <i>Vanellus vanellus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: pintail dark-bellied Brent goose, red knot, dunlin, black-tailed godwit, grey plover and redshank.</p> <p>An internationally important assemblage of birds Over winter the area regularly supports 63,017 wildfowl.</p>
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Ramsar Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site forms an extensive extent and diversity of saltmarsh	This site, and the four other sites in the Mid-Essex Coast complex, includes a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total saltmarsh in Britain.	Maintain diversity and size of saltmarsh habitat	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species		Maintain populations of scarce plants and Red Data Book invertebrate species	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse	N/A	N/A	No impact on integrity

					impacts.			
This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.		Maintain range of saltmarsh communities	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
The site supports assemblages of waterfowl of international importance	32041 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	3165 individuals, representing an average of 1.4% of the population	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	1624 individuals, representing an average of 1.3% of the GB population	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Black-tailed godwit	402 individuals, representing an average of 1.1% of the population	Maintain population limits	Disturbance to bird species through proximity of development to site and increased	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated	Screening around site to provide a barrier.	N/A	No impact on integrity

			activity.		species, and ensure that measures are introduced which result in no adverse impacts.			
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:	Preventative measures:	Mitigation:			Compensation			
Any developments located adjacent to the Colne Estuary could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.						

SPA Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	38,600 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Little tern	at least 1.6% of the GB breeding population 5 year mean, 1992-1996	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Hen harrier	up to 2.5% of the GB population	Maintain population limits	Disturbance to bird species through	Disturbance to bird species	Policy should reflect the potential for impacts	Screening around site	N/A	No impact on

	No count period specified.		proximity of development to site and increased activity.	through proximity of site	upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	to provide a barrier.		integrity
Pochard	up to 6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Ringed plover	up to 1.6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	1.2% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		

Any developments located adjacent to the Colne Estuary could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	
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SAC Site Feature	Essex Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Sandbanks which are slightly covered by sea water all the time		No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
Estuaries	This is a large estuarine site in south-east England, and is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Essex Estuaries contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates. Sublittoral areas have a very rich invertebrate fauna, including the reef-building worm <i>Sabellaria spinulosa</i> , the brittlestar <i>Ophiothrix fragilis</i> , crustaceans	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity

	and ascidians.							
Mudflats and sandflats not covered by seawater at low tide	Essex Estuaries represents the range of variation of this habitat type found in south-east England and includes the extensive intertidal mudflats and sandflats of the Colne, Blackwater, Roach and Crouch estuaries, Dengie Flats and Maplin Sands. The area includes a wide range of sediment flat communities, from estuarine muds, sands and muddy sands to fully saline, sandy mudflats with extensive growths of eelgrass <i>Zostera</i> spp. on the open coast.	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
<i>Salicornia</i> and other annuals colonising mud and sand	Glasswort <i>Salicornia</i> spp. saltmarsh in the Essex estuaries on the east coast of England forms an integral part of the transition from the extensive and varied intertidal mud and sandflats through to upper saltmeadows. Although the saltmarshes in this area are generally eroding, secondary pioneer communities appear as a precursor to erosion on the seaward edge of degraded mid-marsh communities.	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
<i>Spartina</i> swards (<i>Spartinion maritimae</i>)	Small stands are found in the Colne estuary, where it forms a major component of the upper marsh areas.	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	Although the saltmarshes in this area are generally eroding, extensive salt meadows remain and Essex Estuaries represents Atlantic salt meadows in south-east England, with floristic	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure	N/A	N/A	No impact on integrity

	features typical of this part of the UK. Golden samphire <i>Inula crithmoides</i> is a characteristic species of these marshes, occurring both on the lower marsh and on the drift-line.			damage may arise.	that measures are introduced which result in no adverse impacts.			
Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)	In this complex of estuarine marshes on the east coast of England the occurrence of Mediterranean and thermo-Atlantic halophilous scrubs is currently artificially restricted by sea-walls. It now occurs principally as a strandline community or at the foot of sea-walls. Recent managed retreat schemes offer the prospect of future expansion of the habitat type. The local variant of this vegetation, which features sea-lavenders <i>Limonium</i> spp. and sea-heath <i>Frankenia laevis</i> , occurs at one location, Colne Point.	No change in extent	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Any developments located adjacent to the Essex Estuaries could cause habitat disturbance either through direct impacts or the associated increase in use of the area.		Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.						

Ramsar Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Ringed plover	1169 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	3629 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	2099 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Black-tailed godwit	377 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		

Any developments located adjacent to Hamford Water could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	
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SPA Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Little tern	2.3% of the GB breeding population 4 year mean 1992-1995	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Avocet	25% of the GB population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Teal	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Black-tailed godwit	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity

Ringed plover	1.1% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	2.3% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Grey plover	7.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Shelduck	2.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	0.8% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:			Compensation	

Any developments located adjacent to Hamford Water could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	
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Ramsar Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Contains seven nationally scarce plants: stiff saltmarsh-grass <i>Puccinellia rupestris</i> ; small cord-grass <i>Spartina maritima</i> ; perennial glasswort <i>Sarcocornia perennis</i> ; lax-flowered sea lavender <i>Limonium humile</i> ; and the eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z. noltei</i> .		Maintain populations of nationally scarce plants	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
Contains five British Red Data Book invertebrates: the muscid fly <i>Phaonia fusca</i> ; the horsefly <i>Haematopota grandis</i> ; two spiders, <i>Arctosa fulvolineata</i> and <i>Baryphema duffeyi</i> ; and the endangered swollen spire snail <i>Mercuria confusa</i> .		Maintain populations of Red Data Book invertebrate species	Disturbance to habitats through site development.	If sites are located within or close to the international site, habitat disturbance and damage may arise.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	N/A	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Disturbance to bird species through proximity of development to site and increased	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated	Screening around site to provide a barrier.	N/A	No impact on integrity

			activity.		species, and ensure that measures are introduced which result in no adverse impacts.			
Redshank	2588 individuals, representing an average of 2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	2627 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Pintail	741 individuals, representing an average of 1.2% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Grey plover	3261 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity

Knot	5970 individuals, representing an average of 1.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dunlin	19114 individuals, representing an average of 1.4% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Black-tailed godwit	2559 individuals, representing an average of 7.3% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	3687 individuals, representing an average of 2.8% of the population (5-year peak mean 1995/96-1999/2000)	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Potential effect of policy on the site	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		

Any developments located adjacent to the Stour and Orwell Estuaries could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	
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SPA Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Avocet	3.6% of the population in Great Britain 5-year peak mean 1996-2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Pintail	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dunlin	1.4% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Red knot	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated	Screening around site to provide a barrier.	N/A	No impact on integrity

			and increased activity.		species, and ensure that measures are introduced which result in no adverse impacts.			
Black-tailed godwit	7.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Dark-bellied Brent goose	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Grey plover	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Redshank	2.8% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	Disturbance to bird species through proximity of development to site and increased activity.	Disturbance to bird species through proximity of site	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier.	N/A	No impact on integrity
Potential effect	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.							

of policy on the site			
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Any developments located adjacent to the Stour and Orwell Estuaries could have implications for the habitats and bird species. Recreational disturbance could occur, depending on the location of the golf courses or the gypsy/traveller pitches.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	

Overall Summary			
Potential / likely effect of policy	Increased activity in proximity to the site leads to increased disturbance of habitats and bird species, causing a decline in the quality of the site.		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
Disturbance to bird species and habitats through development of gypsy/traveller pitches or golf courses in proximity to the international sites.	Policy should reflect the potential for impacts upon international sites and the associated species, and ensure that measures are introduced which result in no adverse impacts.	Screening around site to provide a barrier for bird species.	

Development Policy 11 – Occupancy Timescales for Tourist Accommodation

Designated sites		
Site	Designation	Key features
Colne Estuary	SPA	<p>Annex I birds and regularly occurring migratory birds: pochard, dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, ringed plover <i>Charadrius hiaticula</i>, hen harrier <i>Circus cyaneus</i>, little tern <i>Sterna albrifrons</i> and redshank <i>Tringa totanus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern. Over winter the area regularly supports: hen harrier.</p> <p>Article 4.2 Qualification. During the breeding season the area regularly supports: pochard and ringed plover. Over winter the area regularly supports: dark-bellied Brent goose and redshank.</p> <p>Article 4.2 Qualification. An internationally important assemblage of birds Over winter the area regularly supports 38,600 wildfowl.</p>
Hamford Water	SPA	<p>Annex I birds and regularly occurring migratory birds: teal, dark-bellied Brent Goose, ringed plover, black-tailed godwit <i>Limosa limosa islandica</i>, grey plover <i>Pluvialis squatarola</i>, avocet <i>Recurvirostra avosetta</i>, little tern, shelduck <i>Tadorna tadorna</i> and redshank.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: little tern Over winter the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: common teal, dark-bellied Brent goose, ringed plover, black-tailed godwit, grey plover, shelduck and redshank.</p>

Stour & Orwell Estuaries	SPA	<p>Annex I birds and regularly occurring migratory birds: pintail <i>Anas acuta</i>, wigeon, gadwall <i>Anas strepera</i>, ruddy turnstone <i>Arenaria interpres</i>, dark-bellied Brent goose, goldeneye <i>Bucephala clangula</i>, dunlin <i>Calidris alpina alpina</i>, knot <i>Calidris canutus</i>, ringed plover, black-tailed godwit, curlew <i>Numenius arquata</i>, cormorant, grey plover, great crested grebe, avocet, shelduck, redshank and lapwing <i>Vanellus vanellus</i>.</p> <p>Article 4.1 Qualification. During the breeding season the area regularly supports: avocet</p> <p>Article 4.2 Qualification. Over winter the area regularly supports: pintail dark-bellied Brent goose, red knot, dunlin, black-tailed godwit, grey plover and redshank.</p> <p>An internationally important assemblage of birds Over winter the area regularly supports 63,017 wildfowl.</p>
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SPA Site Feature	Colne Estuary							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
The site supports assemblages of waterfowl of international importance	38,600 waterfowl (5 year peak mean 01/04/1998)	Maintain assemblage size	None	N/A	N/A	N/A	N/A	No impact on integrity
Little tern	at least 1.6% of the GB breeding population 5 year mean, 1992-1996	Maintain population limits	Recreational disturbance to bird species.	Disturbance to nesting birds	N/A	N/A	N/A	No impact on integrity
Hen harrier	up to 2.5% of the GB population No count period specified.	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Pochard	up to 6% of the population in Great Britain 5 year mean, 1987-1991	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Ringed plover	up to 1.6% of the population in Great Britain	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity

	5 year mean, 1987-1991							
Dark-bellied Brent goose	1.6% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	1.2% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Disturbance to breeding bird species							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Due to the location of nesting sites and caravan/holiday accommodation an impact to breeding birds is unlikely.								

SPA Site Feature	Hamford Water							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Little tern	2.3% of the GB breeding population 4 year mean 1992-1995	Maintain population limits	Recreational disturbance to bird species.	Disturbance to nesting birds	N/A	N/A	N/A	No impact on integrity
Avocet	25% of the GB population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Teal	2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	1.7% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Ringed plover	1.1% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	2.3% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Grey plover	7.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity

Shelduck	2.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Redshank	0.8% of the population 5 year peak mean 1991/92-1995/96	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Disturbance to breeding bird species							
Implications for the integrity of the site:			Preventative measures:		Mitigation:		Compensation	
Due to the location of nesting sites and caravan/holiday accommodation an impact to breeding birds is unlikely.								

SPA Site Feature	Stour and Orwell Estuaries							
Sub Feature(s)	Sensitivity	Conservation Target	Potential effect of policy	Implications for integrity (without action)	Preventative measures	Mitigation	Compensation	Impact on integrity
Avocet	3.6% of the population in Great Britain 5-year peak mean 1996-2000	Maintain population limits	Recreational disturbance to bird species.	Disturbance to nesting birds	N/A	N/A	N/A	No impact on integrity
Pintail	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Dunlin	1.4% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Red knot	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Black-tailed godwit	7.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Dark-bellied Brent goose	1.2% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Grey plover	1.3% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity

Redshank	2.8% of the population 5-year peak mean 1995/96-1999/2000	Maintain population limits	None	N/A	N/A	N/A	N/A	No impact on integrity
Assemblage of international importance	63017 waterfowl (5 year peak mean 1998/99-2002/2003)	Maintain assemblage size	None	N/A	N/A	N/A	N/A	No impact on integrity
Potential effect of policy on the site	Disturbance to breeding bird species							
Implications for the integrity of the site:		Preventative measures:		Mitigation:		Compensation		
Due to the location of nesting sites and caravan/holiday accommodation an impact to breeding birds is unlikely.								

Overall Summary			
Potential / likely effect of policy	Disturbance to breeding bird species		
Implications for the integrity of the site:	Preventative measures:	Mitigation:	Compensation
No adverse impact on integrity of any of the international sites.			