

habitat regulations assessment -
screening report (issues and options)
September 2010

development plan document
development management

southend on sea borough council
local development framework

delivering regeneration and growth



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Section 1. Introduction

Purpose of the Report

- 1.1 Southend-on-Sea is currently developing the Development Management Development Plan Document and is undertaking Habitats Regulations Assessment (HRA) in line with the requirements set by the Conservation (Natural Habitats) Regulations 1994 as amended by the Conservation of Habitats and Species Regulations 2010.
- 1.2 This HRA Screening report addresses the likely significant effect(s) on designated European Site(s) of implementing the policies of the Development Management Development Plan Issues and Options Consultation Document.
- 1.3 Habitats Regulations Assessment is also commonly referred to as Appropriate Assessment (AA) although the requirement for an AA is first determined by an initial 'screening' stage undertaken as part of the full HRA. This report addresses the Screening Phase of the HRA; it outlines the screening tasks and the key findings emerging from the assessment.

Local Development Framework

- 1.4 The Core Strategy DPD, adopted 2007, is the overarching document within the Southend-on-Sea LDF. It sets out the strategic spatial planning framework for the borough through its vision, strategic objectives and policies, including the scale and distribution of key types of development such as housing, employment and infrastructure. The role of this Development Management DPD is to assist delivery of the spatial planning framework by providing greater detail as to how development and investment proposals will be managed 'on the ground'.
- 1.5 The Council considered the representations received on the Town Centre AAP and Seafront AAP Issues and Options Reports in 2007 and concluded that the Central Seafront area should be included in a broader Southend Central AAP where regeneration and change can be encouraged and integrated. Management of development along the remaining seafront area where major change is not envisaged will now be specifically included within the Development Management DPD.
- 1.6 The Core Strategy is being followed by seven further DPDs, including the SCAAP. These DPDs are listed below:
 - London Southend Airport & Environs Area Action Plan & Proposals Map;
 - Southend Central Area Action Plan (SCAPP) & Proposals Map;
 - Development Management DPD & Proposals Map;
 - Development Delivery DPD;
 - Shoebury Area Action Plan & Proposal Map;

- Essex and Southend Joint Waste Core Strategy, Development Management Policies and Strategic Sites DPD;
- Essex and Southend Joint Waste Site Non-Strategic Allocations DPD; and
- Site Allocation DPD & Proposals Map.

1.7 The following table sets out the production timetable and future consultation periods for the Development Management DPD.

Table 1: Development Management DPD - Timetable

Production Stage	Key Dates
Issues and Options Consultation (regulation 25)	June - August 2010
Publication / Consultation on Development Plan Document	December 2010 / January 2011
Submission of Document to Secretary of State for Independent Examination	June 2011
Pre-examination Meeting	August 2011
Independent Examination Hearing Sessions	October 2011
Inspector's Final Report	December 2011
Adoption	February 2012

Background to Habitats Regulations Assessment

1.8 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The main aim of the Habitats Directive is to promote the maintenance of biodiversity. An HRA is also required by Regulation 48 of the Conservation (Natural Habitats & c.) Regulations 1994 as amended (the Regulations) for all plans and projects which may have adverse effects on European sites.

1.9 The requirement for the Habitats Regulations Assessment (HRA) of plans or projects is outlined in Article(3) and (4) of the Habitats Directive as set out below:

Article 6(3) – “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public”.

Article 6(4) – *“If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the member states shall take all compensatory measures necessary to ensure that overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or priority species, the only considerations which may be raised are those relating to human health or public safety, of beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest”*

- 1.10 The purpose of HRA is to assess the impacts of a land-use plan, in combination with the effects of other plans and projects, against the conservation objectives of a European Site and to ascertain whether it would adversely affect the integrity of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects. The scope of the HRA is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European sites under consideration.

Consultation

- 1.11 It is a requirement of the Habitat Regulations to consult with the appropriate nature conservation statutory body (Natural England). Consultation on the approach to this HRA screening and the information on European sites has considered advice provided by Natural England to previous Southend-on-Sea LDF consultations, including comments made to the Core Strategy’s Appropriate Assessment. Consultation with other bodies and the public is at the discretion of the plan making authority and following good practice guidance the HRA information will be made available.

Structure of Report

- 1.12 Following this introductory section the document is organised into a further five sections:

- Section 2 outlines the method used for the Screening process.
- Section 3 sets out the relevant comments made by Natural England, the RSBP and Essex Wildlife Trust to the previous LDF consultations.
- Section 4 sets out the relevant comments made in the Sustainability Appraisal that considers the Development Management Issues and Options Consultation document.
- Section 5 details the results of the HRA screening;
- Section 6 outlines the conclusions and how the plan should proceed with reference to the Habitats Regulations.

Section 2: Methodology

The Plan

- 2.1 The first step of the HRA process is to gather all available information regarding the Development Plan Document (DPD). This information is pivotal for the analysis of whether the DPD impacts on the European sites. A summary of the Plan and its contents is given in Section 5 as part of this report.

European Sites

- 2.2 The European Sites to be included within this assessment were established during previous LDF consultations and correspondence between the Council and Natural England. These include Benfleet and Southend Marshes SPA/Ramsar site, Thames Estuary & Marshes SPA/Ramsar site and Essex Estuaries SAC (including Foulness SPA / Ramsar site and Crouch and Roach Estuaries SPA/Ramsar site). Parts of each of these sites are also designated as European Marine Sites. Maps of these sites are contained in Appendix 2.
- 2.3 All these European sites were considered to have the potential to be influenced by the policies of the Core Strategy DPD. These sites will form the basis for HRA assessment in respect to the Development Management Issues and Options Consultation as this document is linked to the Core Strategy.
- 2.4 Specific information regarding the interest features, sensitivities, vulnerabilities, condition, and conservation objectives of the identified European sites have been acquired¹. This baseline data has been interpreted in order to identify specific vulnerabilities and areas of concern for each of the European Sites that could be assessed directly against each policy issue in the Development Management Issues and Options consultation document.
- 2.5 The objective of the screening process is to initially identify those plans or policies that clearly or self-evidently would have no significant effects upon European Sites so that they could be screened out of the assessment at an early stage.

Policy Screening

- 2.6 The methods and approach used for this screening are based on currently available and emerging practice, including *'Appropriate Assessment of Plans'* (Levett-Therivel, Treweek Environmental Consultants, Land Use Consultants, 2006), *'The Appropriate Assessment of Spatial Plans in England'* (Dodd A. M., Cleary B. E., Dawkins J.S., Byron H.J., Palframan L.J., and Williams G.M. (2007) and *'The Habitats Regulations Assessment of Local Development Documents'* (David Tyldesley & Associates for Natural England, February 2009). The Habitats Directive and Regulations do not specify how the assessment should be undertaken. The screening stage therefore also takes consideration of the DCLG guidance *'Planning for the Protection of European*

¹ Joint Nature Conservation Committee - <http://www.jncc.gov.uk/default.aspx?page=4>
Southend-on-Sea Local Development Framework
Development Management Issues and Options
Habitats Regulations Assessment: Screening Report – September 2010

Sites: Appropriate Assessment' (2006) and the European Commission document '*Assessment of plans and projects significantly affecting Natura 2000 sites*' (2001).

2.7 Screening has to be approached on a precautionary basis and a recent European court judgement² helps interpret the concept of significant effect and has confirmed that a significant effect is triggered when:

- There is a probability or a risk of a plan or project having a significant effect on a European site.
- The plan is likely to undermine the site's conservation objectives.
- A significant effect cannot be excluded on the basis of objective information.

2.8 In accordance with the official guidance and current practice, the screening stage of the HRA for the Southend-on-Sea Development Management Issues and Options consultation document followed the method outlined in the table below:

Table 2: HRA Screening

HRA Screening - Key Tasks	
Task 1: Identification of Natura 2000 sites & characterisation	Identification of European sites both within Southend-on-Sea and within a close proximity to the borough. Information was obtained for each European site, based on publicly available information and previous LDF consultations with Natural England. This included information relating to the sites' description, qualifying features; conservation objectives, conditions and vulnerabilities/ area of concern.
Task 2: Strategy review, policy screening and identification of likely impacts	Screening of the suggested policy approaches and the identification of likely impacts.
Task 3: Consideration of other plans and programmes	In accordance with the Habitat Regulations there is a need to consider the potential for likely significant effects of the Plan 'in combination' with other projects and plans. This includes considering plans and projects of neighbouring local authorities to determine if there is a cumulative impact on these European Sites.
Task 4: Screening Assessment	Summary of screening

² In line with the European Court Waddenzee judgment, which states that *"The competent national authorities, taking account of the appropriate assessment ... are to authorise such an activity only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects."*

Section 3: Recent LDF Consultations

Details of Recent LDF Consultations

- 3.1 Since 2004 Southend-on-Sea has been engaged in various stages of consultation associated with the production of its LDF documents. This historical engagement with stakeholders and the public provides good quality qualitative evidence of the issues facing the borough and has been used to inform the Development Management Issues and options consultation document.
- 3.2 The Council began work on its Core Strategy DPD document in 2004 with this document being adopted in December 2007. At the beginning of the process and in line with para 12(5) of the Environmental Assessment of Plans and Programmes Regulation 2004, the Borough Council contacted the four 'consultation bodies' on the 8th November 2004 using a draft 'Scoping Report', prepared by Baker Associates, as a tool for inviting views and comments on the environmental issues that each agency was concerned with, how significant these issues are in Southend-on-Sea and how they might be affected by matters dealt with in the Local Development Framework. The comments received were used to decide the scope and level of the information that should be included in the Environmental Report and informed the various stages of production of the Core Strategy. At each stage of production of the Core Strategy an independent Sustainability Appraisals (SAs) and Strategic Environmental Assessments (SEAs) was produced that was also subject to consultation with stakeholders and the public.
- 3.3 In early 2007 the Council undertook a 'Pre-Submission Issues and Options Consultation' for both the Seafront Area Action Plan and Town Centre Area Action Plan. Various issues identified within both these documents have been incorporated into the Development Management Issues and Options consultation document and the SCAAP Issues and Options document. The comments received in respect to these consultation documents were vital for informing the production of the SCAAP Issues and Options document. Comments made by Natural England, the RSBP and the Essex Wildlife Trust in respect to biodiversity, habitats and the protected International and European sites are summarised below.

Summary of Comments made by Natural England

- 3.4 On the 20th March 2007 Natural England submitted comments to the Seafront AAP and Town Centre AAP issues and options consultation. These comments are summarised below:

Comments to SA

- Clarification that DPDs need to be considered either along with or 'in-combination' with other plans and projects and that the Habitats Regulations refer to 'effects' rather than impacts which means both positive and negative effects should be considered.

- The Council should aspire to 'enhance' nature conservation along the seafront to reduce impact of regeneration initiatives in the town centre and along the Seafront.
- There is a need to manage recreational pressure.
- An appropriate framework and timescales is required to avoid unsustainable flood defences.
- Proposals that reduce recreational pressure on Benfleet and Southend Marshes SPA/Ramsar site are supported by natural England.
- A 'conserve and enhance' approach and sustainable development that respects environmental limits is suggested by Natural England.
- All new development should require an appropriate flood risk assessment.
- The Council should ensure that the capacity of Benfleet and Southend Marshes SPA, Ramsar site, SSSI are conserved and enhanced.
- The Council should monitor recreational pressures and ensure regeneration enables the significant nature conservation assets to be conserved and enhanced.
- Options and solutions for movement across the Chalkwell should be worked up in consultation with the Environment Agency and Natural England.

Seafront Area Action Plan

- A detailed masterplan should be required for the Seafront.
- Natural England supports character zones but these areas should not constrain cross-cutting policies.
- In regard to flood risk 'holding the line' perpetuates coastal squeeze and this adversely affects the interest features of Natura 2000 and SSSI sites.
- Stabilising works to the cliffs can involve significant engineering operations which have the potential to effect nature conservation in the area.
- The Council should consider adding biodiversity features within engineering solutions. There is a need to consult Natural England in respect to any stabilising works.
- The interconnected nature of the coastline means that development outside the character zones has the potential to affect the integrity of the Natura 2000 sites.
- Recreational pressures need to be regulated within environmental limits.
- Visitor accommodation should respect environmental limits.
- Increasing dwelling provision along the Seafront increases recreational pressures on designated sites (Natura 2000).
- Any development should demonstrate how likely significant adverse effects can be avoided or mitigated etc.
- Natural England does not object to the regeneration of Leigh Port. However improvements to the access channels would require a thorough and detailed consideration of likely environmental impacts and should consider options for habitat creation.
- Any proposals in regard to the proposed Sustrans route along the Cinder Path should involve consultation with Natural England and the Environment Agency. More options should be listed beyond those set out e.g. directing the route north or through the Network Rail corridor.

- Piecemeal development over recent years has resulted in the loss of habitat quality and extent at Benfleet and Southend Marshes SPA, Ramsar site. Given the 'holding the line' policy in regard to rising sea levels, there is little capacity to offset habitat loss.
- Design codes are important to conserve character and landscape and also assist with constraining residential occupancy to acceptable levels. Increasing residential uses increases recreational pressure on sites.
- Strategic guidance is needed for the whole Seafront to demonstrate how it contributes to non-designated accessible greenspace.
- Need to safeguard sufficient greenspace within Seafront area.

Summary of Comments made by RSPB

3.5 On the 22nd March 2007 the RSPB submitted comments to the Seafront AAP and Town Centre AAP issues and options consultation. The key points raised within their comments are summarised below:

- The RSPB seeks the protection of sites designated for their national and international conservation value, specifically Benfleet and Southend Marshes SSSI, SPA and Ramsar site and Foulness SSSI, SPA and Ramsar site and would like their conservation value mapped within the AAPs.
- Benfleet and Southend Marshes SSSI, SPA and Ramsar - The site qualifies under Article 4.2 of the birds Directive as a wetland of international importance with over 30,000 wintering waterfowl.
- Foulness SSSI, SPA and Ramsar Site – The site qualifies as an SPA under Article 4.1 of the Birds Directive by supporting nationally important breeding populations and nationally important wintering populations.
- Supports in principle improvements to walking and sustainable facilities and should encourage people to engage with and enjoy the natural environment. However the provision of these facilities should not compromise the European and designated sites. Sensitive parts of Southend are not appropriate for associated lighting.
- Supports the presumption against the loss of existing open space. Support is also given to the improving of these spaces and associated facilities, provided that they do not impact upon the SPA through, for example, increases in disturbance, light or noise pollution.
- Infrastructure capacity should be consider in phasing of new housing. Infrastructure should include green infrastructure, open space, water supply and sewage treatment capacity.
- Design principles in the Design SPD are supported but further policy needed on: use of energy efficient materials; reducing energy consumption; commitment to Eco Homes and BREEAM standards; reducing water consumption and wastage; use of SUDS; incorporation of vegetation into built structures.
- Southend should seek to promote 'quiet' activities such as walking and wildlife watching. Eco tourism should be promoted.
- Two Tree Island, Leigh Marshes and Belton Hills – RSPB support proposed improvements and maintenance of Two Tree Island provided that there is no

impact upon the Benfleet and Southend Marshes SSSI, SPA and Ramsar Site or bird populations. The proposed facilities should provide information regarding the wildlife conservation value of the area and need for protection and conservation habitats, wildlife and biodiversity.

- The Cinder Path – The RSPB would not support any structures, such as width increases to the cycle path that would protrude into the SPA without an assessment of the ecological assessment of its potential impacts. Consideration will need to take account of: land take; overshadowing; disturbance through noise, lighting and/or movement.
- Central Seafront Area – The RSPB objects to the inclusion of a proposed hovercraft route and associated landing facilities as it would have a significant impact upon Benfleet and Southend Marshes through disturbance to feeding, roosting waterfowl and disturbances to the water column and sediment beneath.
- RSPB support the consideration of nature conservation and biodiversity as a key issue for the Seafront.
- RSPB seeks the promotion of sustainable and appropriate flood risk management options.
- Sea defences can perpetuate the impacts of coastal squeeze upon the interests of Benfleet and Southend Marshes SSSI, SPA, Ramsar and Foulness SSSI, SPA and Ramsar Site. Sea defences should be termed as 'flood management'.
- RSPB seek an amendment to current policies G6 and G7 which seek to protect and conserve the status of nationally and international sites. The amendment is to add 'enhance' the status of nationally and international sites.
- RSPB believes that the overall public realm strategy should include the principle to ensure the protection of the European designated sites and the associated landscape.
- The overall approach should retain 'protection and enhancement of the natural environment'.
- Any development of the pier should seek to enhance the quality of and integrate both the human and natural environments by promoting opportunities for bird watching and providing wildlife information.

Summary of Comments made by Environment Agency (EA)

3.6 On the 22nd March 2007 the EA submitted comments to the Seafront AAP and Town Centre AAP issues and options consultation. The key points raised within their comments are summarised below:

- Nature conservation and biodiversity should be classed as having great importance on the control of development along the Seafront.
- Flood risk is an influencing factor for the seafront and could pose a significant constraint on development.
- Redevelopment must not rely on the presence of existing defences and their ongoing maintenance. The standard of defences varies in quality and adequacy and it cannot be guaranteed that development will be protected over the lifetime of the development. Adequate mitigation measures must be provided by new development.

- Continuing to maintain the sea defences in a way that brings about social and economic benefits now and in the future may be an appropriate way forward, subject habitats regulations.
- The Sequential approach should be undertaken in areas of flood risk.
- The key principles of policies G6 and G7 (Borough Local Plan saved Policies) should be amalgamated into criteria based policies for proposals likely to impact on biodiversity and designated sites.
- The EA support the creation of a green corridor.
- Any proposed engineering intervention at the Cinder Path will need to take account of predicted sea level rises and will need to consider impacts on Benfleet and Southend Marshes SPA. Concern is expressed in regard to the widening of the path.
- The Seafront approach is to protect and enhance the natural environment.
- Additional beach huts and recreational facilities should not be encouraged south of the sea wall.
- Concerns over the tidal defences at Shoeburyness.
- Climate change considerations should be integrated into all spatial planning concerns.
- The Seafront AAP with the TE2100 project should be aligned.
- Water supply and water and energy efficient designs of new developments and land contamination are key environmental issues.
- All developments should be required to manage the surface water produced on site by the inclusion of SUDS.
- Flexibility required within policy to state 'appropriate flood risk management measures' rather than flood defences.
- The plan provides an opportunity to incorporate new open and green space along the seafront. Green spaces should be interlinked.
- Drought resistant plants/shrubs etc should be used to avoid overburden on water resources.
- Protection of undeveloped parts of the coastline is essential to protect diversity and abundance of species.

Summary of Comments made by Essex Wildlife Trust

3.7 On the 21st March 2007 the EA submitted comments to the Seafront AAP and Town Centre AAP issues and options consultation. These key points raised within their comments are summarised below:

- County Wildlife Sites (which includes SINC)s should be referenced as part of the evidence base. The SINC)s should be included as part of the mapping. Essex Wildlife Trust request that further work is commissioned that re-evaluates these sites.
- Supports the promotion of green corridors for non-motorised users.

Section 4: Sustainability Appraisal of the Development Management Policies Issues and Options Consultation Document

- 4.1 Sustainability Appraisal (SA) and Strategic Environmental Assessment of plans (SEA) are iterative processes and must be carried out at each stage of the plan preparation process. The HRA should run in parallel with these processes, utilising common stages such as environmental information gathering. The sustainability appraisal (SA) of the Development Management Policies Development Plan Document (DPD) Issues and Options consultation document was published in June 2010 and is subject to public and stakeholder consultation. The following paragraphs consider the key issues and comments raised within this document.
- 4.2 The Sustainability Appraisal of the Development Management Policies Issues and Options consultation document (the SA) notes that the borough has a range of habitats and protected areas. The SA specifically refers to the Southend and Benfleet Marshes noting that this area has a number of designations including, SSSI, Ramsar and Special Protection Areas (SPA). It also notes that at Shoeburyness the nature conservation designations are the Foulness SPA as well as the Essex Estuaries Special Area of Conservation (SAC), all of which are also internationally designated Ramsar sites. The SA suggests the consideration also needs to be taken of the likely effects of the DPD on the interest of the Crouch and Roach Estuaries SPA and the Thames Estuary and Marshes SPA.
- 4.3 The SA states that all development in locations that may impact on the European sites will need to ensure it does not harm the integrity of these sites by primarily by avoiding any impact, although it may also be possible for development to proceed where impacts can be fully mitigated against.
- 4.4 The SA references previous stages of consultation and consequent sustainability assessments associated with the Southend Central AAP and Seafront AAP. The additional scoping material gathered for the Seafront AAP identifies several matters that may need to be addressed by the SA. These matters are as follows:
- Biodiversity and nature conservation is a key matter that needs to be considered and it will need to be ensured that new development does not cause harm to European sites. New development should also help enhance the biodiversity quality of the Seafront area where appropriate.
 - The built environment quality of the Seafront should be enhanced to provide a cohesive Seafront style, this will include regeneration of redundant sites but this must take into account impacts on biodiversity and take into account community views.
 - Every attempt should be made to bring biodiversity enhancements to the Town Centre, and also to ensure development in this area does not harm the nearby Natura 2000 sites.
- 4.5 Figure 5.1 of the SA sets out the sustainability appraisal framework for the SA. A key

issue identified is biodiversity and the objective given is to maintain and enhance the diversity and abundance of species, and safeguard these areas of significant nature conservation value. It is stated that the priorities are to:

- protect undeveloped parts of the coastline.
- protect key habitats directly or indirectly from developments which may harm them.
- ensure new development brings enhancements to the built environment where appropriate.
- ensure an 'appropriate assessment' is carried out for all development where appropriate.

- 4.6 The SA cited recommendations that were made to the Core Strategy. It states that planning policy should demonstrate recognition of the high biodiversity quality of parts of the borough and the need to protect and enhance biodiversity wherever it is found.
- 4.7 It is also stated that development management policies have a role in tailoring national and regional policies to respond to specific circumstances in the local area. These circumstances may include protecting and enhancing features of local importance, or controlling development to help address known environmental/social/economic problems in the area.
- 4.8 There are several fundamental issues that development management policies will cover relating to achieving more sustainable development. These include the need to protect the natural environment, and in particular, avoid the impact to the internationally designated nature conservation sites on the Southend-on-Sea foreshore.
- 4.9 In appraising the suggested policy issues in the Development Management Issues and Options consultation document it was noted that the majority of the policies are compatible with sustainable development. It was however noted that the protection of landscape and biodiversity are less thoroughly covered in this planning document, but are covered in Core Strategy (Policy CP7 'Green Space and Green Grid Strategy'). The SA states that the plan-makers will need to be satisfied there are no gaps. However, it will be important to ensure the topics are covered in sufficient detail so as to respond to local needs and concerns. The SA suggests that a topic based biodiversity policy may be required to reinforce the importance of this issue in Southend-on-Sea and reflect findings of a Habitats Regulations Assessment.
- 4.10 The SA also states that to encourage the development of large scale grid or district renewable energy schemes the Development Management policies could contain criteria for delivering this type of scheme. It is suggested that Southend-on-Sea may have the potential for tidal or wind energy generation due to the coastal position. In addition, district heat and power schemes are likely to have a greater role in future in supplying lower carbon energy to homes, businesses and public buildings.
- 4.11 A table that sets out the SA's comments and recommendations to the suggested

options in Development Management Issues and Options consultation document is contained in Appendix 3.

Section 5: HRA Screening

Task 1: Identification of Natura 2000 Sites and their Characteristics

- 5.1 The identification of impacts upon Natura 2000 sites requires the characterisation of the sites that will be potentially affected. This involves outlining the reasons for which a site has been designated, its conservation objectives and its potential vulnerabilities.
- 5.2 The Natura 2000 sites were selected following the HRA consultation with Natural England during the Core Strategy DPD production. The Natura 2000 Sites are listed below and their characteristics and conservation objectives are set out in Appendix 4.
- Benfleet and Southend Marshes (SPA and Ramsar Site);
 - Foulness (SPA and Ramsar Site);
 - Essex Estuaries (SAC and Ramsar Site);
 - Crouch and Roach Estuaries (SPA);
 - Essex Estuaries (SAC and Ramsar Site); and
 - Thames Estuary and Marshes SPA.
- 5.3 In the HRA Assessment to the Core Strategy the Council has also had regard to the vulnerability of a feature or sub feature, where a feature or sub-feature is considered vulnerable if it is both sensitive to, and likely to be exposed to, one or more of the human activities which may cause damage or disturbance. These vulnerabilities have been summarised below and set out in Appendix 4:
- (i) Direct physical loss - Sea-level rise exacerbated by coastal squeeze/coastal erosion and Smothering by sediments driven by storm tides and siltation.
 - (ii) Physical damage to habitats and prey species – caused by coastal squeeze, water abstraction and increased water and land recreational pressures.
 - (iii) Non-physical disturbance – caused by increases in noise, car movement and recreation.
 - (iv) Water quality deterioration – caused by toxic and non-toxic contamination.
 - (v) Biological disturbance – through the introduction of non-native species and selective fishing activities.
- 5.4 These identified areas of concern/vulnerabilities have been used as criteria against each policy and proposal, taking account of spatial considerations, in order to identify those policies and proposals that could result in an adverse effect on a European Site.
- 5.5 If additional significant impacts are identified as result of consultation responses which may affect sites not already identified, these additional sites may be added in for consideration at the next stage.

Task 2: Policy Screening and Identification of Likely Impacts

Management of the Natura 2000 Sites

- 5.6 The Southend-on-Sea Development Management DPD will support the Core Strategy DPD. It will set out the Council's detailed policies for positively managing development in the borough. The policies in the Development Management DPD will replace all of the remaining policies in the Southend-on-Sea Borough Local Plan Saved Policies.
- 5.7 The Southend-on-Sea Development Management DPD is not directly connected to or necessary for the management of any Natura 2000 sites and has not been solely conceived for the conservation management of any site. The screening stage will examine the likely effect the Southend-on-Sea Development Management DPD upon the Natura 2000 sites.

Description of the Development Management Issues and Options Consultation document

- 5.8 This document is the Southend-on-Sea Development Management Issues and Options document. The Development Management Development Plan Document, when adopted, will form part of the Southend-on-Sea Local Development Framework (LDF). The Development Management DPD will support the Core Strategy DPD. It will set out the Council's detailed policies for positively managing development in the borough. The policies in the Development Management DPD will replace all of the remaining policies in the Southend-on-Sea Borough Local Plan Saved Policies. The issues and options are presented within the following key themes.
- Design and Townscape;
 - The Seafront;
 - Housing;
 - Economic Development;
 - Environmental Management; and
 - Transport and Accessibility.
- 5.9 The final development management document has not been finalised and so the suggested policy options will form the basis for assessing any likely significant effects that the Southend-on-Sea Development Management DPD may have upon the Natura 2000 sites. The suggested policy options are summarised below:

Table 3: Proposed Development Management Policy Summary

Policy Issue	Design and Townscape
DM1	Design of developments – promoting high quality development that; responds positively to the character and context of a site; respects the relationship with its neighbours; is of a density compatible with the surrounding area; meets secure by design standards; and encourages high quality materials.
DM2	Tall buildings – sets out the standards to which tall buildings must comply. This policy option does not set out locations for tall buildings.
DM3	Intensification of existing residential sites and areas – sets out the policy requirements in respect to: backland and infill development; the conversion existing dwellings; and protection of bungalows.
DM4	Low carbon development and efficient use of resources – requires new development to incorporate measures that will minimise carbon emissions.
DM5	Southend-on-Sea’s Historic Environment – seeks to protect and enhance conservation areas, listed buildings, locally listed buildings and areas of archaeological interest.
DM6	Alterations and Additions to Existing Buildings – seeks to ensure that alterations and additions make a positive contribution to the character of the existing building.
	The Seafront
DM7	Flood risk and water management – to minimise the risks of flooding along the Seafront.
DM8	Seafront Public Realm and open Space – seek to improve the quality of the environment along the Seafront and improve links to the Green Grid.
DM9	Seafront Character Zones – sets out the proposed outcome sought at each character zone.
DM10	Water recreation – to support water based recreation subject specific requirements
	Residential Accommodation
DM11	Dwelling mix – sets out a requirement for a mix of dwellings.
DM12	Affordable housing tenure – an indicative mix of social rented and intermediate affordable housing is sought.
DM13	Retention of residential house types – prevents the loss of bungalows and family dwellings.
DM14	Residential space standards – sets out minimum space requirements.
DM15	Student accommodation space requirements – sets out minimum space requirements for students.
DM16	Houses in Multiple Occupation – sets out requirements in respect to HMOs.
DM17	Specialist residential accommodation – sets out location requirements in respect to residential accommodation.
	Economic Development
DM18	Network of centres – sets out the acceptable land uses in each centre.
DM19	Shop front management – sets out the requirements for the design of shop fronts.
DM20	Employment sectors – sets out the emerging economic sectors and preferred locations.

DM21	Industrial estates and employment areas – sets out a managed approach to the development of existing industrial estates.
DM22	Employment uses – management of buildings within an existing employment use.
DM23	Visitor accommodation - supports proposals for new visitor accommodation at the Seafront and the areas that form the Southend-on-Sea Central AAP and London Southend Airport JAAP.
Environmental Management	
DM24	Contaminated land – to manage development on or near a site believed to be contaminated.
DM25	Land instability – to ensure that no new development will be at risk from land instability.
Transport and Accessibility	
DM26	Sustainable transport management – seeks to maximise opportunities for the use of sustainable travel modes.
DM27	Vehicle Parking Standards – sets out the parking standards.

Policy Screening

5.10 Stage 1 - 'No effect' policies: Each of the Suggest Options within the Development Management Issues and Options Consultation Document has been screened and those policies identified to have no effect on any European Site were screened out of the assessment and the reasons are specified within this document. The results of the screening process are set out in Appendix 5. Table 3 below sets out the criteria used to identify these 'no effect' policies³:

Table 4: Policy Screening Criteria

Effects on European Site	Comments
<p>Non-development policies</p> <p>1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy)</p>	'No Effect'
<p>Unknown location of development policies</p> <p>2. The policy makes provision for a quantum / type of development (and may or may not indicate one or more broad locations e.g. a county, or district, or sub-region) but the location of the development is to be selected following consideration of options in lower-tier plans (development plan documents).</p>	'No Effect'
<p>Over-arching development policies</p> <p>3. No development could occur through this policy alone, because it is implemented through sub-ordinate policies which</p>	'No Effect'

³ SOURCE: Natural England (English Nature), January 2001

are more detailed and therefore more appropriate to assess for their effects on European Site and associated sensitive areas.	
Urban development policies 4. Concentration of development in urban areas will not affect European Site and will help to steer development and land use change away from European Site and associated sensitive areas.	'No Effect'
Protective policies 5. The policy will help to steer development away from European Site and associated sensitive areas, e.g. not developing in areas of flood risk or areas otherwise likely to be affected by climate change.	'No Effect'
Biodiversity policies 6. The policy is intended to protect the natural environment, including biodiversity.	'No Effect'
Enhancement policies 7. The policy is intended to conserve or enhance the natural, built or historic environment, and enhancement measures will not be likely to have any effect on a European Site.	'No Effect'
8. The LDD steers a quantum or type of development towards, or encourages development in, an area that includes a European Site or an area where development may indirectly affect a European Site.	Does the policy or explanatory text include a caveat or criterion that eliminates effects on the European site? Yes – transfer to 'no effects' No – transfer to policies 'likely to have significant effect' – and assess
9. The policy makes provision for a quantum, or kind of development that in the location(s) proposed would be likely to have a significant effect on a European Site. The proposal must be subject to appropriate assessment to establish, in light of the site's conservation objectives, whether it can be ascertained that the proposal would not adversely affect the integrity of the site.	'likely to have significant effect'

5.11 Stage 2 - 'Potential effect' policies - Screening stage 2 took into account the following broad, judgement – based criteria:

- Proximity of policy area to a European Site;
- Scale of proposals;
- Likely associated adverse direct and indirect impacts, considering duration and magnitude and identified areas of concern/vulnerabilities

5.12 At this stage, if the policy or supporting text includes a caveat or criterion that excludes support for potentially damaging proposals on a European Site then this policy was also screened out.

Task 3: Other Plans and Programmes

5.13 Article 6(3) of the Habitats Directive requires that the effects of development plan documents be considered 'either individually or in combination with other plans or projects'. The Development Management Issues and Options consultation document provides interpretation, explanation and further detail to the policies in the Core Strategy DPD. Specifically it will provide locally specific, criteria based policy guidance for the determination of planning applications and will assist in implementing the aims and objectives of the Core Strategy DPD.

5.14 The policies contained in the Core Strategy have already been judged to have no significant impacts on Natura 2000 sites through an 'Appropriate Assessment'. All policies have also been subject to a Sustainability Appraisal to help identify the policies for use in making decisions on planning applications. The requirement to ensure that the European and International sites for nature conservation are not adversely affected by development is embedded into the Southend-on-Sea Core Strategy. Paragraph 2.5 of the Core Strategy which provides the supporting text for Policy KP1 states that biodiversity and other natural resources should be safeguarded and enhanced. It is also stated that European and international sites for nature conservation on the Southend foreshore should not be adversely affected by development. Regard will be given to interest features and particular sensitivities of a site in relation to:

- Direct physical loss;
- Physical damage to habitats and prey species;
- Non- physical disturbance;
- Water quality deterioration; and
- Biological disturbance.

5.15 It is reiterated in the Core Strategy DPD that the Seafront AAP (which has now been incorporated into the Development Management Issues and Options Consultation Document) will seek to safeguard, conserve and enhance the significant biodiversity, green space and other environmental resources of the area, particularly ensuring the European and international sites for nature conservation on the extensive foreshore are not adversely affected by any new development.

5.16 It is also noted that 'Appropriate Assessments' will be undertaken as an integral part of the Seafront AAP and the Criteria – Based Policies DPD to ensure that regard to the location of European and international sites for nature conservation covering much of

the Southend Foreshore is considered.

- 5.17 Policy KP1 of the Core Strategy which sets out the Spatial Strategy references the Seafront. It is stated that the Seafront's role as a successful leisure and tourist attraction and place to live will be enhanced, subject to the safeguarding of the biodiversity importance of the foreshore and in particular ensuring that European and international sites for nature conservation are not adversely affected by any new development.
- 5.18 Policy KP2 of the Core Strategy sets out the development principles. Part 4 of this policy states that development must respect, conserve and enhance and where necessary adequately mitigate effects on the natural environment, including the borough's biodiversity and green space resources and ensure that European and international sites for nature conservation are not adversely affected and contribute positively towards the 'Green Grid' in Southend.
- 5.19 Policy KP3 of the Core Strategy considers implementation and resources. Part 8 of the policy states that an 'Appropriate Assessment' will be required where development may adversely affect national, European and international nature conservation designations.
- 5.20 Policy CP7 of the Core Strategy considers sport, recreation and green space. This policy sets out a quantum of recreational space that is required to meet the demand that will be generated by the additional dwelling provision over the period to 2021 whilst minimising recreational pressures on European and international sites for nature conservation.
- 5.21 It is however still necessary to consider the Development Management Issues and Options consultation document 'in-combination' with the Core Strategy DPD.
- 5.22 It is also essential to consider the various other pressures to which the site is exposed during the plan's lifetime. A list of each Other Plan and Programme (including the Core Strategy) is listed below. A summary of each of the Other Plans and Programmes and their respective HRAs are set out in Appendix 6.

Table 5: Other Plans and Programs

Other Plans and Programs Considered
1. Southend-on-Sea Core Strategy DPD (2007)
2. Southend-on-Sea Local Transport Plan 2006 – 2011
3. London Southend Airport and Environs Joint Area Action Plan
4. Rochford Core Strategy: Submission (2010)
5. Caste Point Core Strategy: Submission (2010)
6. Essex County Council Local Transport 2006 – 2011
7. Essex County Council Minerals Development Document: Site Allocations Issues and Options Paper 2009
8. The Essex and Southend-on-Sea Waste Local Plan adopted September 2001

5.23 The following paragraphs summarises those plans that are considered to have an 'in-

combination effect'. In addition, the Thames Estuary 2100 Project, Essex and South Suffolk Shoreline Management Plan consultation and Essex Catchment Flood Management Plan are considered.

Southend-on-Sea Core Strategy DPD (2007)

- 5.24 The policies contained in the Core Strategy have already been judged to have no significant impacts on Natura 2000 sites through an 'Appropriate Assessment'. All policies have also been subject to a Sustainability Appraisal to help identify the policies for use in making decisions on planning applications. The requirement to ensure that the European and International sites for nature conservation are not adversely affected by development is embedded into the Southend-on-Sea Core Strategy. Paragraph 2.5 of the Core Strategy which provides the supporting text for Policy KP1 which sets out the Spatial Strategy references the Seafront states that biodiversity and other natural resources should be safeguarded and enhanced. It is also stated that European and international sites for nature conservation on the Southend foreshore should not be adversely affected by development. Regard will be given to interest features and particular sensitivities of a site in relation to:
- Direct physical loss;
 - Physical damage to habitats and prey species;
 - Non- physical disturbance;
 - Water quality deterioration; and
 - Biological disturbance.
- 5.25 It is reiterated in the Core Strategy DPD that the Seafront AAP (which has now been incorporated into the Development Management Issues and Options Consultation Document and SCAAP) will seek to safeguard, conserve and enhance the significant biodiversity, green space and other environmental resources of the area, particularly ensuring the European and international sites for nature conservation on the extensive foreshore are not adversely affected by any new development.
- 5.26 It is also noted that 'Appropriate Assessments' will be undertaken as an integral part of the Seafront AAP and the Criteria – Based Policies DPD to ensure that regard to the location of European and international sites for nature conservation covering much of the Southend Foreshore is considered.
- 5.27 Policy KP1 states that the Seafront's role as a successful leisure and tourist attraction and place to live will be enhanced, subject to the safeguarding of the biodiversity importance of the foreshore and in particular ensuring that European and international sites for nature conservation are not adversely affected by any new development.
- 5.28 Policy KP2 of the Core Strategy sets out the development principles. Part 4 of this policy states that development must respect, conserve and enhance and where necessary adequately mitigate effects on the natural environment, including the borough's biodiversity and green space resources and ensure that European and international sites for nature conservation are not adversely affected and contribute

positively towards the 'Green Grid' in Southend.

- 5.29 Policy KP3 of the Core Strategy considers implementation and resources. Part 8 of the policy states that an 'Appropriate Assessment' will be required where development may adversely affect national, European and international nature conservation designations.
- 5.30 Policy CP7 of the Core Strategy considers sport, recreation and green space. This policy sets out a quantum of recreational space that is required to meet the demand that will be generated by the additional dwelling provision over the period to 2021 whilst minimising recreational pressures on European and international sites for nature conservation.
- 5.31 When considered in combination with the proposed growth targets of the adjacent Boroughs (Castle Point Borough Council, Basildon District Council and Rochford District Council), the Core Strategy was found to be adequate. The policy suite within the Core Strategy provides a suitable strategic framework to ensure that significant risks of adverse effects to the interest features of European sites can be effectively minimised, designed-out and/or addressed. It is noted in the Appropriate Assessment to the Core Strategy that more detailed strategic direction within lower tier local development documents will need to be set within this strategic framework.

Castle Point Core Strategy: Submission

- 5.32 A number of amendments were made at the Preferred Options Stage of the Core Strategy with the aim of improving the submission version of this document in respect to its impact on the European Sites. These recommendations included the removal of locations that were more likely to have an impact on European Sites, the inclusion of policies on water efficiency and the inclusion of a policy on protecting environmental amenity.
- 5.33 The HRA to the Castle Point Core Strategy: Submission document identified a potential impact upon the Benfleet and Southend Marshes. In particular Policy SS1 which sets out the spatial strategy allows housing growth around Hadleigh and around South Benfleet. This may result in the Discharge Consents for the Benfleet Sewage works being exceeded. Benfleet Sewage works feeds into Benfleet Creek, which in turn flows into Benfleet and Southend Marshes SPA. This has the potential to affect the Benfleet and Southend Marshes and the Thames Estuary through a deterioration in water quality. It is also suggested in the HRA that growth of business activities to the South West of Canvey Island may have an impact on the Canvey Wick SSSI. As part of the wildlife network locally, this may ultimately impact on the Thames Estuary SPA and Benfleet and Southend Marshes SPA. Leisure and recreation growth associated with the TGSE Green Grid Strategy may also place additional pressures on the Benfleet and Southend Marshes SPA. The spatial strategy will also result in an increased number of residents that may result in increased use of Hadleigh Castle Country Park, Canvey Heights Country Park and Canvey Seafront. These uses may result in direct and indirect biological disturbance resulting in direct and indirect impacts on the Benfleet and Southend Marshes SPA particularly and less so the

Thames Estuary and Marshes SPA. The Core Strategy states that the impacts identified by future development can be mitigated against by requiring an ecological assessment as proposals come forward.

- 5.34 With regard to Policy CP2 which relates to green infrastructure it was considered in the HRA that the Olympic Mountain Biking Event has the potential to cause harm to the Benfleet and Southend Marshes SPA. As with the Spatial Strategy it is considered that this can be prevented by requiring an ecological assessment of the Olympic proposals as they are developed.
- 5.35 Objective 16 considers flood defences. The objective related to the maintenance of sea defences in Castle Point has implications for the Benfleet and Southend Marshes SPA and could result in coastal squeeze. The objective can be made more appropriate with regard to its potential effects on European Sites by including reference to other sustainable flood management measures as well as sea defences in order to limit impact.
- 5.36 The in-combination effects can be summarised as:
- Disturbance - as a result of development near/ adjacent to European sites that could include increased: recreation; light pollution; and noise pollution
 - Atmospheric Pollution - generated as a result of housing, employment and transport growth.
 - Water Pollution - increased pressure on sewerage capacity and an increase in non-permeable surfaces.
 - Water Abstraction - potential for reduced water levels.
 - Modified Drainage - as a result of proposed development altering surface and groundwater flow.
 - Land Take / Coastal Squeeze - as a result of proposed development.

Rochford Core Strategy: Submission

- 5.37 The HRA of the Rochford Core Strategy: Submission document found that this document had the potential for likely significant effects both alone and in-combination on European sites through; increased disturbance, increased atmospheric pollution and reduced water levels and quality. However it was considered that the Core Strategy contained sufficient policy mitigation and monitoring measures to avoid likely significant effects on European sites either alone or in-combination through increased atmospheric pollution.
- 5.38 The assessment could not conclude with certainty that the level of development proposed in the Core Strategy and surrounding areas will not have likely significant in-combination effects on European sites via reduced water quality and increased water resource demand.
- 5.39 The assessment makes a number of recommendations to address these uncertainties and mitigate the potential likely significant effects. The recommendations include the addition of two water quality indicators into the Monitoring Framework, which will

allow the Council to determine if developments being implemented through the plan are having adverse effects on the biological and chemical water quality of the European sites. To address the issues identified in relation reduced water levels, the assessment recommends additional supporting text for Policy H1 to ensure that the water supply necessary for developments can be supplied sustainably, with no adverse effects on European sites.

5.40 The in-combination effects can be summarised as:

- Disturbance - as a result of development near/ adjacent to European sites that could include increased: recreation; light pollution; and noise pollution.
- Atmospheric Pollution - generated as a result of housing, employment and transport growth.
- Water Pollution - increased pressure on sewerage capacity and an increase in non-permeable surfaces.
- Water Abstraction - as a result of proposed development, potential for reduced water levels.
- Modified Drainage - as a result of proposed development altering surface and groundwater flow.

TE2100 Project

5.41 The Thames Estuary 2100 project (TE2100) was established in 2002 with the aim of developing a long-term tidal flood risk management plan for London and the Thames estuary. The project, lead by the Environment Agency, covers the Tidal Thames from West London through to Sheerness and Shoeburyness in Kent and Essex. This project seeks to develop an adaptable long term plan in the context of a changing estuary. It was acknowledged that the Thames was changing in relation to its climate, people and property in the floodplain and an underlying essential but ageing flood defence system.

5.42 The TE2100 project recognises the interconnectivity and dynamics within the Thames Estuary and acknowledges that the measures employed to manage coastal flood risk at a specific location have the capacity to affect upriver and downriver designated areas within the riparian districts of the Thames estuary. The TE2100 vision seeks improvements to the flood risk management system to provide amenity, recreation and environmental enhancement and be designed to minimise any adverse impacts on the frontage whilst supporting and enhancing the fishing industry activities.

5.43 The TE2100 Project highlights that the main sources of flooding in Southend-on-Sea come from: tidal flooding associated with the River Thames; fluvial flooding from Prittle Brook; and local drainage. The TE2100 Projects states that the recommended flood risk management policy for Leigh-on-Sea & Southend-on-Sea is to take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).

5.44 It is recognised by the TE2100 Project that is likely that the Southend-on-Sea frontage

will continue to be developed and improved as it is an important leisure and recreation area. The intention of the TE2100 Plan would be to minimise visual impacts of flood defences on Leigh-on-Sea as much as possible by implementing further floodplain management measures. The TE2100 Project suggests that any new development in Southend-on-Sea should also be designed so that the potential flood impacts are minimised and a programme of public information is required to ensure that residents are aware of these floodplain management arrangements.

- 5.45 The TE2100 project requires LDFs to be more flexible to take account of the environmental trends of rising sea levels and the adverse effects of coastal squeeze. The TE2100 project recommends the use of the term 'appropriate coastal flood risk management options' rather than 'coastal flood defences', to ensure there is adequate flexibility at this strategic level to provide lower tier plans with sufficient scope to fully consider options that can avoid adverse affects on the integrity of the European Sites, either alone and/or in combination with other plans or projects.
- 5.46 The Project has split the Thames Estuary into 23 separate Policy Management Units (PMU) based upon the character of the local area and where the floodwaters would flow during a flood event. Each PMU offers different opportunities for managing flood risk, both at a local level and on an estuary-wide scale and has therefore been subject to a number of detailed studies and appraisals to assist TE2100 in identifying a flood risk management policy specific to the area. Table 5 summarises the preferred policy options for PMUs present within Southend-on-Sea BC.

Table 5: Policy Management Options from TE2100 for Southend-on-Sea BC

Policy Management Unit PMU	Recommended Preferred Option
<p>Leigh-on-Sea and Southend-on-Sea (Action Zone 8)</p>	<p>This PMU has a continuous sea frontage with beaches and very extensive (designated) intertidal areas and a pier. Whilst most of Southend-on-Sea is on high ground and not at risk from tidal flooding, much of the sea front is at risk of flooding and there is a flood defence along the entire frontage. There are five schools, six care homes and 21 electricity sub stations within the flood risk area. This is an important amenity and recreation area, with a parallel road and footpaths along much of the frontage. The two main areas of floodplain are to the east of the city centre.</p> <p>Policy P4 to take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).</p> <p>The number of properties at risk is relatively small but, as the standard of protection is lower than elsewhere on the estuary, the flood risk is relatively high at 0.5% (or 1:200) per annum or greater compared to the general standard of 0.1% (or 1:1,000) elsewhere in the estuary. Leigh-on-Sea has a narrow but historic frontage bounded by the railway line to the north. It has close links with the estuary with a strong fishing tradition, and floodplain management is practised to avoid creating a barrier between the village and the Estuary. This means that the defence level is low and properties have been built with raised thresholds and other resilience measures to protect against tidal flooding. There is evidence that more recent riverside users are unaware of this and stock for shops is stored in the floodable area.</p> <p>Raised and new defences on the Southend-on-Sea frontage should be designed so that:</p> <ul style="list-style-type: none"> ▪ They do not encroach into the Estuary. ▪ The raised part of the defences could consist of a new defence on a new alignment behind the sea front where space permits (for example, park areas) so that the heights of walls on the sea front are limited. ▪ Walkways are raised to provide sea views, and access points are improved. ▪ Demountable defences and gated access points may be included in the designs in some areas providing that satisfactory arrangements can be made for security of closure. <p>The Southend-on-Sea frontage is subject to wave attack and overtopping. Beach recharge has been implemented both to improve the beach and reduce the impacts of waves. Improvements to this approach would reduce the need for defence raising.</p>

Policy Management Unit PMU	Recommended Preferred Option
<p>Lower Estuary Marshes- Hadleigh Marshes and Two Tree Island (Action Zone 6)</p>	<p>The Hadleigh Marshes is identified in this unit as being an area of marshes open to grazing crossed by a railway line. It is identified in the TE2100 plan as policy P2. Two Tree Island is also included in this policy unit, part of the Island lies outside the borough boundary but it is owned by Southend-on-Sea BC.</p> <p>Policy P2 to reduce existing flood risk management actions (accepting that flood risk will increase over time).</p> <p>As part of the TE2100 consultation stage concerns were raised over the reduction of flood risk management for both Hadleigh Marshes and Two Tree Island with respect to contamination. The policy unit goes on to state:</p> <p>'Local issues and choices</p> <ul style="list-style-type: none"> ▪ There are flood defences on Two Tree Island adjacent to Hadleigh Marshes. Our Plan assumes that these will be abandoned. However further study is needed because there is a potential contamination issue on the island. ▪ Measures will be needed to manage fluvial flood risk from the marsh drainage system and watercourses that drain into the marshes. This would consist of improvements to channels and outfalls as the needs arise. <p>Floodplain management</p> <p>The need for floodplain management responses will be limited because the policy unit is largely undeveloped. There are no communities apart from visitors to the marshes and Two Tree Island. However flood warning will be needed for the railway line (which continues through Leigh-on-Sea & Southend-on-Sea policy unit to the east and Bowers Marshes policy unit to the west). Choices for local flood risk management have not been designed or assessed in detail, and are included in our action plan for investigation, consultation and subsequent appraisal.'</p> <p>The assignment of Policy Unit P2 to this action zone suggests the risk of flooding in this area is likely to increase over time unless considerations of the contamination issues associated with the area are strong enough to justify a maintained defence line.</p>

Essex and South Suffolk Shoreline Management Plan Consultation

5.47 Shoreline Management Plans identify the best ways to manage coastal flood and erosion risk to people and the developed, historical and natural environment. The objective of the Essex and South Suffolk Shoreline Management Plan (ES SMP) is to

outline the intent of management for the coast and estuaries of Essex and South Suffolk. The plan aims to achieve the best possible balance for all the features that have been identified as valuable by partners and stakeholders around the coast. Another implication of focusing growth within coastal floodplains is the necessity to maintain adequate protection through suitable flood risk management options.

5.48 The current Shoreline Management Plan (Mouchel 1997) proposes maintenance of the 'hold the line' option within the Southend seafront and Shoeburyness area, which in practice requires maintaining hard coastal flood defences.

5.49 The following list sets out some of the key coastal and estuary processes and pressures in the Essex and South Suffolk SMP area. These have played an important role in developing the plan.

- Intertidal areas – are typically wide, flat areas consisting of mud and silt that are sometimes dry, and sometimes under water. The intertidal area is important because it stops waves reaching flood and erosion defences and it is also a habitat for many rare plants and animals.
- Coastal squeeze – The natural response of intertidal areas is to gradually move inland. The estuaries and coastline in the Essex and South Suffolk SMP area are constrained by high ground and by man-made flood defences. This means that the saltmarshes and mudflats cannot move in a landward direction: they do lose area from their seaward edge, but they don't gain area on their landward edge. This is called 'coastal squeeze'. It puts pressure on the flood defences, which become more difficult to maintain, and it leads to loss of important habitats.
- Open coast processes – these frontages experience the full force of waves from the North Sea with the strongest waves coming from the north-east. The wave energy moves sediment around the coast. Sediment tends to build up in certain areas where the wave and current energy is less. There can also be a loss of sediment where this energy is greater. This loss of sediment causes a loss of beaches, saltmarshes and mudflats and can result in undermining of coastal and flood defences.

5.50 The following sets out the management units identified by the ES SMP that relate specifically to Southend-on-Sea.

- Management Unit I (Foulness, Potton and Rushley Islands) - This Management Unit is an open coast frontage with tidal channels that form a group of islands, part of the Foulness area. These tidal channels are connected to the River Roach and to the open coast. The islands are all low-lying and are defended against flooding by earth embankments. On the south-east coast of Foulness Island, which is exposed to and under pressure from the sea, there is an extensive intertidal area known as Foulness Sands and Maplin Sands, the largest intertidal area in Britain. The overall intention for the islands is to sustain and support the viability of communities, tourism and commercial activities while creating new intertidal habitats and focusing flood risk management on frontages where it is most needed. The policy to achieve this intent is to maintain flood defence to Foulness and Potton Islands, including all dwellings and

key infrastructure at risk of flooding, combined with a gradual increase of natural processes by realigning the defences of Rushley Island.

- Management Unit J (Southend-on-Sea) – This management unit covers the area from Shoeburyness to Leigh-on-Sea. The frontage is an open coast frontage with sea cliffs along half of the frontage and substantial low-lying sections in between. Mud and fine sand beaches characterise the entire frontage. The Southend-on-Sea frontage is eroding and is defended by concrete seawalls, promenades, wave return walls and beach control structures. These beach control structures tend to trap coarse sand between them. The overall intention for Southend-on-Sea is to sustain and support its viability as a seaside town and its communities, tourism and commercial activities. This means a continuation of the current management approach: holding the current alignment where there are defences. Although the defences are under pressure, holding the line is necessary to sustain the seafront which is essential to the viability of Southend-on-Sea as a seaside resort. All dwellings and infrastructure would remain protected. The footpaths on top of the existing sea banks will be maintained. Heritage assets and landscape will remain protected and largely unchanged. The SMP's policies are compatible with the policy proposed by the Thames Estuary 2100 strategy. This includes an intent to maintain the standard of protection, including compensation for climate change.

Essex Catchment Flood Management Plan (CFMP) December 2008

- 5.51 Catchment Flood Management Plans are high-level strategic planning documents that provide an overview of the main sources of flood risk and how these can be managed in a sustainable framework for the next 50 to 100 years. The Environment Agency engages stakeholders within the catchment to produce policies in terms of sustainable flood management solutions whilst also considering the land use changes and effects of climate change.
- 5.52 The South Essex CFMP provides information relating to the fluvial flood risk, as well as risk from surface water drainage systems and sewers across South Essex. The Plan highlights the main sources of flood risk to people, property and infrastructure in South Essex and recommends broad policies for the management of the present and future flood risk in the South Essex CFMP area.
- 5.53 This CFMP covers Southend-on-Sea BC and provides valuable records of historical flooding from fluvial systems, as well as surface, sewer and ground water flooding in the area. This information has been used to inform this Level 1 SFRA. The South Essex CFMP also presents preferred policy options for several Policy Units within Southend-on-Sea BC. These have been summarised in Table 6 below.

Table 6: Summary of Preferred Policies for Policy Units in Southend-on-Sea BC, South Essex CFMP, 2008

Policy Unity	Problem/ Risk	Recommended Preferred Option
<p>2 Southend-on-Sea and Rayleigh</p>	<p>This policy unit currently has a fluvial source of flooding from Prittle and Eastwood Brook. It also has a fluvial/tidal source of flooding in the downstream Prittle Brook from Pembroke House. Surface water flooding also occurs in localised areas of Rayleigh, Eastwood and Southend-on-Sea, due to impermeable surfaces.</p> <p>Channel improvements (including the deepening and straightening of the watercourse with a concrete bed) exist along 7.6km of Eastwood Brook and have a standard of protection that ranges along the reach from a 1 –20% AEP SoP. A natural earth flood embankment exists at the downstream end of Prittle Brook and protects to a 1% AEP SoP. The Prittle flood relief tunnel also exists on Eastwood Brook and protects to a 1% AEP SoP. This diverts flood flow into the River Thames.</p> <p>The main areas at risk from the 1% AEP flood event are Southend-on-Sea and Eastwood, with a total of 950 people and 503 properties at risk respectively. In the future, this will increase by 142% and 130% for the 1% AEP flood event, with a total of 2,305 people and 1,157 properties at risk respectively.</p>	<p>Policy Option 5: Take further action to reduce flood risk now and in the future</p> <ul style="list-style-type: none"> ▪ Develop a Flood Risk Study for Southend-on-Sea to investigate the feasibility of building new defences along Prittle and Eastwood Brook. ▪ Develop a System Asset Management Plan (SAMP) to investigate how we can continue with the current level of flood risk management throughout all systems in this policy unit. ▪ Develop an Emergency Response Plans for the A roads and railway. ▪ Develop an Emergency Response Plan to mitigate flood risk in Southend, Rayleigh and Eastwood from the risk of the defences failing. ▪ Flood Forecasting and Warning delivery plan to maintain the current level of flood forecasting/warning service. ▪ Develop an Integrated Urban Drainage Plan for Southend-on-Sea, and Eastwood. ▪ CFMP/SMP Compliance project to ensure that the policies selected in both plans are complementary; any issues of conflict need to be addressed.

Policy Unity	Problem/ Risk	Recommended Preferred Option
12 Thames Urban Tidal (Hadleigh Marshes)	<p>This PU is low lying, generally below 5m AOD, covering the south western coastal areas of the CFMP area from Tilbury to Purfleet and Canvey Island and also includes the area of Hadleigh Marshes and Two Tree Island. The catchment is highly urbanised, responding quickly to rainfall.</p> <p>The PU is predominantly tidal but is protected by sea defence up to a 0.1% AEP SoP. Current flood risk management includes flood warning with our flood warnings direct as the main dissemination method. There are no raised defences within this policy unit, although an extensive array of arterial drains. There may be some informal/private defences.</p>	<p>Policy Option 4: to take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).</p> <p>Although the policy relates to the largely urban areas that make up this policy unit.</p>

Task 4: Screening Summary

- 5.54 It is not considered that the Development Management Policies will have an impact on any European site 'in-combination' with the plans and strategies of other local authorities.
- 5.55 Twenty-four of the twenty-seven policies will not lead directly to development as they relate to design and other qualitative criteria.
- 5.56 Three of the twenty-seven policies will not lead directly to development however these policies address the Seafront directly and do not provide sufficient protection to the protected International, European and National sites and as a result may allow for increases in disturbance to these areas in terms of increased activity, noise and light. Whilst the adopted Core Strategy DPD provides high-level protection to the International, European and National sites, it is considered that additional wording within the Development Management DPD will be necessary to provide lower-tier protection. The additional wording will be sufficient to prevent any increases in disturbance.

Section 6: Conclusions and Recommendations

- 6.1 The Southend-on-Sea Development Management Issues and Options Consultation Document does not include specific plans or proposals that would result in growth that would have an impact on European sites. Many of the policies are intended to promote the conservation of resources or would lead to reductions in pollution, which could benefit European sites.
- 6.2 It is considered that, at this stage, it cannot be demonstrated that the plan will have any adverse effects on the integrity of any of the European sites included in the scope of this screening report, either alone or in combination with other plans or projects. Following consultation with Natural England and other consultees this report will be updated in light of any comments received and as the policies within the Development Management DPD develop.

Recommendations

- 6.3 The most precautionary course of action for a local planning authority is to remove potentially harmful policies and proposals at the earliest stages of plan preparation or to adjust those policies and proposals so as to ensure that development flowing from or controlled by the development plan is not likely to have a significant effect on any internationally designated sites to which this procedure applies, either alone or in combination with other plans or projects. On the basis of the Screening assessment set out in this document, the following recommendations are made for consideration in the Pre-submission draft of the Development Management DPD.
- 6.4 Issue DM1 which sets out the design and other qualitative criteria for development will not in itself lead directly to development. As this policy provides the overarching design approach to development, it could be strengthened by incorporating an additional criterion that states *'development that adversely impacts upon the protected International, European, National sites and local sites of biodiversity importance will not be allowed'*.
- 6.5 Issue DM7 considers flood risk and water management. Within this policy there is reference to the need to consider sea defences. This requirement is in line with the Shoreline Management Plan however as the policy is worded there is potential for increased disturbance from engineering works adjacent to European sites and potential for coastal squeeze. Consequently it is recommended that the policy include an additional criterion that states *'any flood risk and water management measures will need to ensure that there is no adverse impact upon the protected International, European, National sites and local sites of biodiversity importance'*.
- 6.6 Issue DM9 sets out the Seafront Character Zones and specific policy requirements for each area. The screening process has identified the potential for increased disturbance to the European sites from: recreation, light pollution, and noise pollution. It is therefore recommended that the policy include a criterion that states *'any development within the Seafront Character Zones will need to ensure that there is no adverse impact upon the protected International, European, National sites and local sites of biodiversity importance'*.

local sites of biodiversity importance'.

- 6.7 Issue DM10 considers water recreation. The screening process has identified the potential for increased disturbance from water recreation adjacent to European sites. The suggested policy should include a criterion that states '*water recreation will be managed to ensure that there is no adverse impact upon the protected International, European and National sites and local sites of biodiversity importance*'.
- 6.8 If the recommended policy amendments are taken on board within the Pre-Submission Development Management document, then it is considered that the policies will not have any significant impact on European sites, either alone or 'in-combination' with other plans and strategies. Therefore it will not be necessary to carry out a full 'Appropriate Assessment' of the Development Management Issues and Options consultation document at this stage.

Appendix 1 – Glossary

Appropriate Assessment - the assessment that is required to be undertaken by a competent authority in respect of plans or projects which are likely to have a significant effect on a 'European site'.

Biodiversity - is the term applied to the variety of life on earth and is short for biological diversity. It includes all plants, animals and micro-organisms (species diversity), the places where they live (habitat diversity) and the genetic differences that drives adaptability and evolution (genetic diversity). It includes habitats influenced by human-kind.

EC Habitats Directive – European Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora. The main aim is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species. Member States are required to take account of economic, social and cultural requirements and regional and local characteristics.

Habitat - the place in which a particular plant or animal lives. Often used in the wider sense referring to major assemblages of plants and animals together or the place or type of site where an organism or population naturally occurs.

Mitigation - measures taken to avoid, cancel or reduce negative impacts.

Natura 2000 - A network of protected areas across the EU comprising of SPAs and SACs, designed to protect the most seriously threatened habitats and species across Europe.

Nature conservation - the preservation, protection, wise use, sustainable management, restoration and enhancement of flora, fauna and geological and physiographical features.

Precautionary principle - the application of the precautionary principle requires the taking of cost-effective measures to prevent a threat of serious or irreversible environmental damage, even though there is lack of full scientific certainty about the degree of harm or probability of risk. In the context of the Habitats Directive, it means ensuring that the effects of a plan or project are fully assessed, if there is doubt about their significance and not undertaking or permitting a plan or project unless it can be ascertained that there would be no adverse effects on the integrity of the site, unless there are no alternative solutions and there are imperative reasons of overriding public interest for proceeding with the plan or project

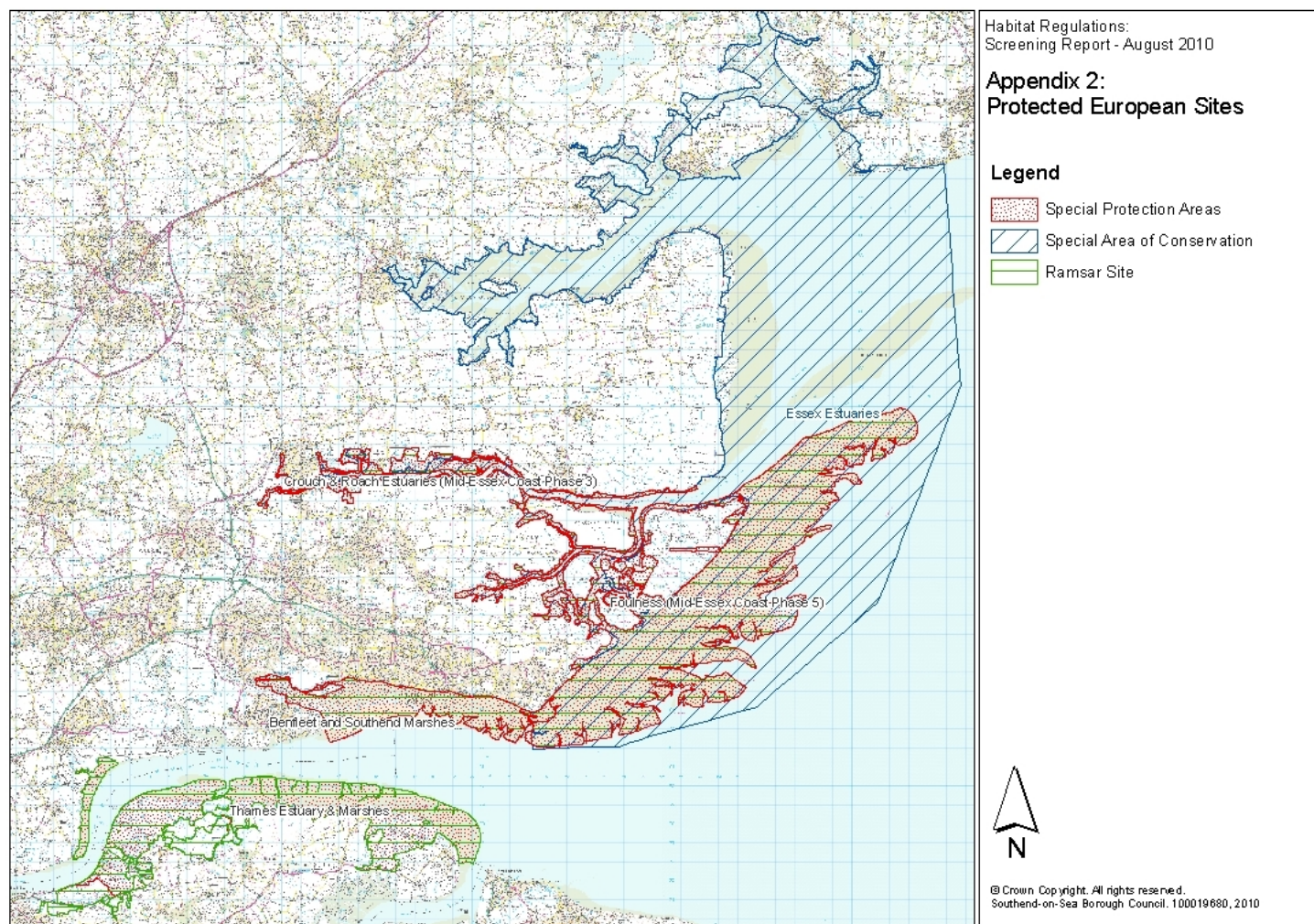
Ramsar - Wetland sites designated for conservation under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (the Ramsar Convention). Planning Policy Statement 9: Biodiversity and Geological Conservation requires the same policy protection for Ramsar sites as designated SPAs and SACs.

Special Areas of Conservation (SAC) - Sites which have been designated under the European Union's Habitats Directive (Council Directive 92/43/EEC) for wildlife protection. The aim of the designation is to conserve important or threatened species and habitats.

Special Protection Area (SPA) - These are sites which have been established to protect wild birds under the European Commission Directive on the Conservation of Wild Birds (79/409/EEC).

Screening - the process of identifying whether a project, plan or programme should be subject to strategic environmental assessment, environmental impact assessment, appropriate assessment or a Habitats Regulations Appraisal.

Appendix 2 - Protected European and National Site Maps



Appendix 3: Sustainability Assessment

Table sets out the comments within the Sustainability Appraisal that are made in respect to biodiversity and habitats.

Development Management: Suggested Options	Sustainability Appraisal Biodiversity comment	Sustainability objectives	Biodiversity Recommendations
Issue DM1 – Design of Developments	n/a	n/a	n/a
Issue DM2 – Tall Buildings	n/a	n/a	n/a
Issue DM3 Intensification of Existing Residential Sites and Areas	This policy should help in reducing the adverse impacts of intensification of development. This will include making new development fit with the existing character of the area and also recognise the biodiversity potential of some backland sites.	Biodiversity (+): This policy could help to protect against the adverse impacts on biodiversity from infill development.	n/a

Issue DM4 – Low Carbon Development and Efficient Use of Resources	The aim of this policy is supported in the sustainability appraisal. The policy usefully sets out the range of criteria needed to ensure new development is built to reduce resource dependency and lower the overall increase in resource use that would result from new development. The policy also includes details on the potential for greening of development sites and to ensure these are appropriately phased into construction timetables.	Biodiversity (+): The policy includes greening of development sites with potential positive impacts in relation to this objective.	n/a
Issue DM5 – Southend-on-Sea’s Historic Environment	n/a	n/a	n/a
Issue DM6 – Alterations and Additions to Existing Buildings	n/a	n/a	n/a

Issue DM7 – Flood Risk and Water Management	Where these defences include beach replenishment it will be important to consider the wider sustainability implications of this, including the source of the replenishment material and the suitability of this type of coastal protection. The AAP may need to give consideration to more innovative coastal management schemes where hard sea defences are no longer the best option for coastal management. For instance to alleviate issues of coastal squeeze, where sea level rise and hard sea defences are causing the area of foreshore to narrow, resulting in a loss of areas of high environmental quality, it may be suitable to consider new options.	Biodiversity (?): Coastal defences may put the designated nature conservation sites at risk in the long-term due to coastal squeeze reducing the area of habitat available.	Development should be built to be resistant and resilient to flooding. The impact of sea defences on biodiversity could be recognised in the policy.
Issue DM8 – Seafront Public Realm and Open Space	The policy is compatible with achieving sustainable development. The policy includes important components of sustainability: Protection of biodiversity	Biodiversity (+): The policy recognises the need to protect the biodiversity value of the seafront and foreshore.	n/a

Issue DM9 – Seafront Character Zones	n/a	Biodiversity (?) Proposals have the potential to have an impact on biodiversity, such as beach replenishment. The importance of protecting biodiversity assets should be reflected in policy.	Design Brief(s) should be prepared for the zones and the Seafront as a whole. This could include specific design guidance for each area, details of improving the Sustrans cycle route, identify notable leisure locations along the Seafront, biodiversity issues and guidance on street furniture and seafront structures. Together they should provide a unified plan for a cohesive Seafront. The policy could contain more detail about the location of new development on the Seafront. The policy should acknowledge the biodiversity importance of the Seafront and those locations where it needs to be protected.
Issue DM10 – Water Recreation	The policy should recognise the potential impact of this use on the designated nature conservation sites and beach, it is essential to protect these sites and meet Habitats Directive expectations.	Biodiversity (-) The potential for adverse impacts on biodiversity should be recognised in the policy.	The policy should recognise the potential for this type of development to have adverse impacts on biodiversity. Impacts could be through direct disturbance, increased visitors pressure or through changes in the beach characteristics.

Issue DM11 – Dwelling Mix	n/a	n/a	n/a
Issue DM12 – Affordable Housing Tenure	n/a	n/a	n/a
Issue DM13 – Retention of Residential House Types	n/a	n/a	n/a
Issue DM14 – Residential Space Standards	n/a	n/a	n/a
Issue DM15 – Student Accommodation Space Requirements	n/a	n/a	n/a
Issue DM16 – Houses in Multiple Occupation	n/a	n/a	n/a
Issue DM17 – Specialist Residential Accommodation	n/a	n/a	n/a
Issue DM18 – Network of Centres	n/a	n/a	n/a
Issue DM19 – Shop Frontage Management	n/a	n/a	n/a
Issue DM20 – Employment Sectors	n/a	n/a	n/a
Issue DM21 – Industrial Estates and Employment Areas	n/a	n/a	n/a
Issue DM22 – Employment Uses	n/a	n/a	n/a
Issue DM23 – Visitor Accommodation	n/a	n/a	n/a

Issue DM24 – Contaminated Land	n/a	Biodiversity (+) During construction contamination in the soil can leach into ground, surface and sea water. This policy aims to identify contamination and deal with it appropriately, therefore reducing this risk and the risk to wildlife.	n/a
Issue DM26 – Sustainable Transport Management	n/a	n/a	n/a
Issue DM27 – Vehicle Parking Standards	n/a	n/a	n/a

Appendix 4 – Natura 2000 Sites: Characteristics and Conservation Objectives

Site	Benfleet and Southend Marshes (SPA and Ramsar Site) - Benfleet and Southend Marshes SSSI; Southend-on-Sea Foreshore Local Nature Reserve; Leigh National Nature Reserve
Features of Interest	<p>Benfleet and Southend Marshes SPA site comprises the intertidal part of the Thames Estuary from Benfleet to Shoeburyness, which is predominantly occupied by mudflats, with small areas of saltmarsh and sandy beach.</p> <p>Benfleet and Southend Marshes qualifies under article 4.2 of the EU Birds Directive by supporting:</p> <ul style="list-style-type: none"> ▪ Internationally important populations of regularly occurring migratory species; and ▪ An internationally important assemblage of waterfowl
Conservation Objectives	<p>Southend Marshes SPA internationally important populations of regularly occurring migratory bird species:</p> <p>i). Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> • Shell banks • Saltmarsh • Intertidal Mudflats and Sandflat communities • Eelgrass beds <p>The conservation objective for the internationally important assemblage of waterfowl:</p> <p>ii). Subject to natural change, maintain in favourable condition the habitats for the internationally important assemblage of waterfowl under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> • Shell banks • Saltmarsh • Intertidal Mudflats and Sandflat communities • Eelgrass beds

Condition	Benfleet and Southend Marshes SSSI condition - 0% of the site is in a favourable condition. 5.26% is unfavourable recovering and 94.74% is unfavourable declining. These were compiled 01 May 2007 and indicate no change from November 2006.
Vulnerabilities / areas of concern	Benfleet and Southend Marshes comprises extensive areas of foreshore with a tidal creek system and an area of grazing marsh. The vulnerability of the intertidal habitats is linked to changes in the physical environment, especially to 'coastal squeeze'. In principal, recreational activities are not currently perceived as a problem, subject to appropriate management and regulation. Infrastructure works to facilitate visitor attractions, although dealt with under the planning control provisions of the Habitat Regulations, have the potential either alone or in combination to adversely affect the interest features of this SPA and Ramsar site. Both wildfowling and cockle fishing are also potential threats which currently are well regulated by agreement. The sea fisheries are regulated by Kent and Essex Sea Fisheries using bye-law power granted by a sea Fisheries regulatory order. Dredging of the Thames and inputs of herbicides to the mudflats may be having indirect effects on the loss of intertidal habitat and viability of the eelgrass <i>Zostera</i> beds. Research is underway to determine the effect of herbicides on the eelgrass. The marsh is suffering from the lack of freshwater inputs due to low rainfall. The Environment Agency has agreed a Water Level Management Plan for the grazing marshes part of the site which will maintain appropriate water levels. Although sewage outfalls have recently been upgraded to comply with the EC Directives, it is understood that sediment within the intertidal contains elevated levels of copper and TBT. Consequently, development within the intertidal areas and activities such as dredging, have the capacity to disturb and mobilise these pollutants thus posing a threat to the interest features of this site. To secure protection of the site, most of the foreshore is a Local Nature Reserve and covered by the Thames Estuary Management Plan.

Site	Foulness (SPA and Ramsar site) - Foulness SSSI; Partly Southend-on-Sea Foreshore Local Nature Reserve
Features of Interest	<p>This site comprises a large area of mudflats and sandflats known as Maplin Sands, running from Shoeburyness Point to Foulness Point, and smaller areas of saltmarsh and marshland around and on Foulness Island itself.</p> <p>Foulness SPA qualifies under article 4.1 of the EU Birds Directive by supporting:</p> <ul style="list-style-type: none"> ▪ Internationally important breeding populations of regularly occurring Annex 1 species: sandwich tern (<i>Sterna sandvicensis</i>), common tern (<i>Sterna hirundo</i>), little tern (<i>Sterna albifrons</i>) and avocet (<i>Recurvirostra avosetta</i>); and ▪ For supporting an internationally important wintering population of the Annex 1 species: hen harrier (<i>Circus cyaneus</i>). <p>Foulness SPA also qualifies under article 4.2 of the EU Birds Directive in that it supports:</p> <ul style="list-style-type: none"> ▪ An internationally important assemblage of waterfowl (wildfowl and waders); and ▪ Internationally important populations of regularly occurring migratory species; and ▪ Nationally important breeding populations of a regularly occurring migratory species: ringed plover (<i>Charadrius hiaticula</i>)

<p>Conservation Objectives</p>	<p>The conservation objective for the Foulness SPA internationally important populations of the regularly occurring Annex 1 Bird species:</p> <p>i). Subject to natural change, maintain the habitats for the internationally important populations of the regularly occurring Annex 1 Bird species in favourable condition, in particular:</p> <ul style="list-style-type: none"> ▪ Shell, sand and gravel shores banks ▪ Intertidal Mudflats and sandflats ▪ Saltmarsh ▪ Shallow coastal waters <p>The conservation objective for the internationally important populations of regularly occurring migratory bird species:</p> <p>ii). Subject to natural change, maintain the habitats for the internationally important populations of regularly occurring migratory bird species in favourable condition, in particular:</p> <ul style="list-style-type: none"> ▪ Saltmarsh ▪ Intertidal Mudflats and sandflats ▪ Boulder and cobble shores <p>The conservation objective for the internationally important assemblage of waterfowl:</p> <p>iii). Subject to natural change, maintain the habitats for the internationally important assemblage of waterfowl in favourable condition, in particular:</p> <ul style="list-style-type: none"> ▪ Saltmarsh ▪ Intertidal Mudflats and sandflats
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Condition	Foulness SSSI condition - 77.94% of the site is in a favourable condition. Of the remaining 22.06%, 0.98% is unfavourable no change and 21.08% is unfavourable declining. These were compiled 01 May 2007 and indicate no change from November 2006
Vulnerabilities / areas of concern	<p>At the time of citation of the Foulness SPA much of the area was owned by the Ministry of Defence and is not, therefore, subject to development pressures or public disturbance. This position has started to change with the release of Shoebury Garrison (Old Ranges) for approved (and partially completed) mixed development scheme. The New Ranges is subject to investigations for potential development. Offshore aggregate dredging and seismic surveys, which could possibly adversely affect the Maplin sands, will be addressed through the Essex Estuaries marine Special Area of Conservation (SAC) management scheme, of which Foulness is part. Natural processes are adversely affecting the south-east coastline and saltmarshes are being eroded. Maintenance of the integrity of the intertidal and saltmarsh habitats of the Mid-Essex Coast Ramsar sites as a whole is being addressed by soft sea defence measures, managed retreat and foreshore recharge. The cockle beds on the Maplin Sands support internationally important numbers of wading birds: the Kent and Essex Sea Fisheries Committee control the cockle fishery through regulatory orders.</p> <p>The site includes areas of grazing marsh and ditches. These areas are low lying, protected by sea walls and surrounded by areas of arable land. The main ditches that run through these marshes are saline and are fed from sea water which floods through sluices. The combination of lower rainfall and improved drainage to facilitate arable production means that the grazing marshes are becoming too dry. The rainfall has been too low in recent years to enable maintenance of the water levels by selecting damming ditches. To offset this, the main ditch is deliberately fed with sea water to keep it topped up. This operation has increased in frequency in the past 8- 10 years.</p>

Site	Essex Estuaries (SAC and Ramsar Site) - Foulness SSSI
Features of Interest	<p>The Essex Estuaries SAC has been created as a result of the Habitats Directive that required the establishment of a network of protected wildlife sites across the European Union.</p> <p>The Essex Estuaries SAC is one of the best examples of a coastal plain estuary system on the British North Sea coast and comprises the estuaries of the Rivers Colne, Blackwater, Crouch and Roach, as well as extensive open coastal flats at Foulness, Maplin and Dengie. In addition to intertidal mudflats and sandflats there are rich marine communities supporting internationally important numbers of over-wintering waders and wildfowl. Saltmarsh and other marine vegetation communities may be found on areas that are subject to tidal flooding. In summer the site hosts breeding populations of Annex 1 listed birds on the sand and gravel beaches.</p> <p>Foulness SPA qualifies under the EU Habitat Directive in that it supports the following Annex 1 habitat features:</p> <ul style="list-style-type: none"> ▪ <i>Salicornia</i> and other annuals colonising mud and sand (pioneer saltmarsh) ▪ <i>Spartina</i> swards (<i>Spartinion</i>) (cordgrass swards) ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia</i>) ▪ Mediterranean and therm-Atlantic halophilous scrubs (<i>Arthrocnemetalia fruticosae</i>) (Mediterranean saltmarsh scrubs) ▪ Estuaries Mudflats and sandflats not covered by seawater at low tide (intertidal mudflats and sandflats)

Conservation Objectives

- The conservation objectives for Essex Estuaries SAC interest features:
- i). Subject to natural change, maintain the following in favourable condition:
 - *Salicornia* and other annuals colonising mud and sand, in particular:
 - Glasswort/annual sea-blite community
 - Sea aster community

 - *Spartina* swards (*Spartinion*), in particular:
 - Small cordgrass community
 - Smooth cordgrass community

 - Atlantic salt meadows (*Glauco-Puccinellietalia*), in particular:
 - Low/mid-marsh communities
 - Upper marsh communities
 - Upper marsh transitional communities
 - Drift-line community

 - Mediterranean and thermo-Atlantic halophilous scrubs (*Arthrocnemetalia fruticosae*), in particular:
 - Shrubby sea-blite community
 - Rock sea lavender/sea heath community

 - Estuaries, in particular:
 - Saltmarsh communities
 - Intertidal mudflat and sandflat communities
 - Rock communities
 - Subtidal mud communities
 - Subtidal muddy sand communities
 - Subtidal mixed sediment communities

 - Mudflats and sandflats not covered by seawater at low tide, in particular:
 - Mud communities
 - Muddy sand communities
 - Sand and gravel communities

Condition	<p>Sandbanks which are slightly covered by sea water all the time - for which the area is considered to support a significant presence.</p> <p>The estuaries are considered to be one of the best areas in the United Kingdom.</p> <p>The mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom.</p> <p><i>Salicornia</i> and other annuals colonising mud and sand for which this is considered to be one of the best areas in the United Kingdom.</p> <p><i>Spartina</i> swards (<i>Spartinion maritima</i>) for which this is one of only two known outstanding localities in the United Kingdom and is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares.</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) for which this is considered to be one of the best areas in the United Kingdom.</p> <p>and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>) for which this is one of only four known outstanding United Kingdom and is considered to be rare as its total extent in the United Kingdom is estimated to be less than</p>
Vulnerabilities / areas of concern	<p>At the time of citation of the Essex Estuaries SAC the saltmarshes and mudflats were under threat from 'coastal squeeze' - man-made sea defences prevent landward migration of these habitats in response to sea-level rise. These habitats are also vulnerable to plans or projects (onshore and offshore) which have impacts on sediment transport. English Nature's Regulation 33 advice was issued June 2000. A scheme of management is being established with the aim of addressing such problems</p>

Site	Crouch and Roach Estuaries SPA - Crouch and Roach Estuaries SSSI
Features of Interest	<p>The Crouch and Roach Estuaries SPA qualifies under Article 4.2 of the EU Birds Directive in that it supports:</p> <ul style="list-style-type: none"> ▪ an internationally important assemblage of waterfowl (wildfowl and waders); and ▪ internationally important populations of regularly occurring migratory species

Conservation Objectives	<p>The conservation objective for the Crouch and Roach Estuaries SPA internationally important populations of regularly occurring migratory bird species</p> <p>i). Subject to natural change, maintain the habitats for the internationally important populations of regularly occurring migratory bird species in favourable condition, in particular:</p> <ul style="list-style-type: none"> ▪ Saltmarsh ▪ Intertidal mudflats and sandflats ▪ Boulder and cobble shores <p>The conservation objective for the internationally important assemblage of waterfowl</p> <p>ii). Subject to natural change, maintain the habitats for the internationally important assemblage of waterfowl in favourable condition, in particular:</p> <ul style="list-style-type: none"> ▪ Saltmarsh ▪ Intertidal mudflats and sandflats ▪ Boulder and cobble shores
Condition	<p>Crouch and Roach Estuaries SSSI Condition – 23.5% of the site is in favourable condition. 0.67 is unfavourable no change and 75.83% is unfavourable declining. These were compiled 01 May 2007 and indicate no change from 01 December 2006</p>

Vulnerabilities / areas of concern	<p>The Crouch and Roach Estuaries SPA is vulnerable to coastal squeeze and changes to the sediment budget. <i>A hydraulic numerical model study of the Crouch and Roach Estuaries is being initiated to explore the various options, including managed retreat.</i> Furthermore, it is understood that sediment within the intertidal contains elevated levels of metals and TBT. Consequently, development within the intertidal areas and activities such as dredging, have the capacity to disturb and mobilise these pollutants thus posing a threat to the interest features of this site. Some disturbance of feeding and roosting waterfowl is likely through recreational use of sea wall footpaths by dog walkers, bird watchers etc. Water-skiing is largely controlled by the Crouch Harbour Authority. Most grazing marshes are managed under ESA/Countryside Stewardship Agreements and/or management agreements with English Nature.</p> <p>Low water levels caused by abstraction will be tackled through the Environment Agency's Review of Consents process (in accordance with regulation 50 of the Habitats Regulations). Many borrow dykes and drainage ditches remain vulnerable to run off and seepage of chemicals from adjacent farm land. Wherever possible arable farmers are being encouraged into Countryside Stewardship schemes to control the application of these chemicals, whilst on most of the adjacent grassland it is controlled by ESA or Stewardship agreements.</p> <p>Sea wall management by mowing may be potentially damaging and this is being addressed through consultation with the Environment Agency and individual owners. To secure protection of the site, the Marine Scheme of Management is in preparation, which will work alongside the Essex Shoreline Management Plan and various management plans and Site Management Statements for parts of the site.</p>
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Site	Thames Estuary & Marshes SPA - South Thames Estuary and Marshes and Mucking Flats and Marshes SSSI
Features of Interest	<p>The Thames Estuary European marine site encompasses the extensive mudflats and small areas of saltmarsh on the south bank of the Thames between Shorne Marshes and Grain, together with Mucking Flats on the north shore. Thames Estuary and Marshes SPA qualifies under Article 4.1 of the EU Birds Directive by supporting:</p> <ul style="list-style-type: none"> ▪ Internationally important populations of regularly occurring Annex 1 species. It also qualifies under Article 4.2 of the EU Birds Directive in that it supports: ▪ Internationally important populations of regularly occurring migratory species; and ▪ An internationally important assemblage of waterfowl.

<p>Conservation Objectives</p>	<p>The conservation objective for the internationally important population of the regularly occurring Annex 1 bird species</p> <p>i). Subject to natural change, maintain in favourable condition the habitats for the internationally important population of the regularly occurring Annex 1 bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> ▪ Intertidal mudflats ▪ Intertidal saltmarsh <p>The conservation objective for the internationally important populations of regularly occurring migratory bird species</p> <p>ii). Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> ▪ Intertidal mudflats ▪ Saltmarsh ▪ Intertidal shingle <p>The conservation objective for the internationally important assemblage of waterfowl</p> <p>iii). Subject to natural change, maintain in favourable condition the habitats for the internationally important assemblage of waterfowl, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> ▪ Intertidal mudflats ▪ Saltmarsh ▪ Intertidal shingle
<p>Condition</p>	<p>South Thames Estuary and Marshes SSSI condition – 86.74% of site is in favourable condition. 9.61 is unfavourable recovering, 1.87% is unfavourable no change and 1.79% is unfavourable declining. These were compiled 01 May 2007 and indicate no change from 01 December 2006 Mucking Flats and Marshes SSSI condition – 94.13% of site is in favourable condition and 5.87% is unfavourable condition no change. These were compiled 01 May 2007 and indicate no change from 01 December 2006</p>

<p>Vulnerabilities / areas of concern</p>	<p>There is evidence of coastal squeeze and erosion of intertidal habitat within the site. English Nature (now Natural England) is in discussion with the port authority on the role of port dredging in intertidal habitat loss. The intertidal area is also vulnerable to disturbance from water-based recreation. This is being addressed by information dissemination as part of an estuary management plan. It is understood that sediment within the intertidal contains elevated levels of metals and TBT. Consequently, development within the intertidal areas and activities such as dredging, have the capacity to disturb and mobilise these pollutants thus posing a threat to the interest features of this site. The terrestrial part of the site depends on appropriate grazing and management of water. The availability of livestock may be affected by changes in agricultural markets. Evidence suggests that the water supply to grazing marsh has decreased. A water level management plan may address this.</p> <p>There has been great development pressure in recent years. Current implications of development include both direct land take from the site and indirect disturbance and hydrological effects. These effects will be addressed through the Habitats Regulations 1994.</p>
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Appendix 5: Policy Screening

Development Management: Suggested Options	European Site(s)	Potential Effect - either alone or in combination	Justification	Can the element be changed at screening stage to avoid likely significant effect?	Is an Appropriate Assessment Required?
Issue DM1 – Design of Developments	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	To strengthen the policy it could be amended to state <i>'development that adversely impacts upon the protected International, European, National and local importance will not be allowed'</i> .	no
Issue DM2 – Tall Buildings	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM3 Intensification of Existing Residential Sites and Areas	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM4 – Low Carbon Development and Efficient Use of Resources	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no

Issue DM5 – Southend-on-Sea’s Historic Environment	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM6 – Alterations and Additions to Existing Buildings	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM7 – Flood Risk and Water Management		Not Clear	8. The LDD steers a quantum or type of development towards, or encourages development in, an area that includes a European Site or an area where development may indirectly affect a European Site.	Yes – the suggested policy should include a criterion that states ‘ <i>any flood risk and water management measures will need to ensure that there is no adverse impact upon the protected International, European, National and local importance</i> ’.	no
Issue DM8 – Seafront Public Realm and Open Space	n/a	No Effect	8. The LDD steers a quantum or type of development towards, or encourages development in, an area that includes a European Site or an area where development may indirectly affect a European Site.	n/a - the suggested policy references the need to limit any adverse impacts on the coastal and marine environment and areas of International, European, National and local importance.	no

Issue DM9 – Seafront Character Zones		Not Clear	8. The LDD steers a quantum or type of development towards, or encourages development in, an area that includes a European Site or an area where development may indirectly affect a European Site.	Yes – the suggested policy should include a criterion that states <i>'any development within the Seafront Character Zones will need to ensure that there is no adverse impact upon the protected International, European, National and local importance'</i> .	no
Issue DM10 – Water Recreation		Not Clear	8. The LDD steers a quantum or type of development towards, or encourages development in, an area that includes a European Site or an area where development may indirectly affect a European Site.	Yes – the suggested policy should include a criterion that states <i>'water recreation will be managed to ensure that there is no adverse impact upon the protected International, European, National and local importance'</i> .	no
Issue DM11 – Dwelling Mix	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM12 – Affordable Housing Tenure	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no

Issue DM13 – Retention of Residential House Types	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy)	n/a	no
Issue DM14 – Residential Space Standards	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM15 – Student Accommodation Space Requirements	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM16 – Houses in Multiple Occupation	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development	n/a	no
Issue DM17 – Specialist Residential Accommodation	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM18 – Network of Centres	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no

Issue DM19 – Shop Frontage Management	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	no
Issue DM20 – Employment Sectors	n/a	No Effect	2. The policy makes provision for a quantum / type of development (and may or may not indicate one or more broad locations e.g. a county, or district, or sub-region) but the location of the development is to be selected following consideration of options in other lower-tier plans (Southend Central Area Action Plan and Site Allocations DPD).	n/a	no
Issue DM21 – Industrial Estates and Employment Areas	n/a	No Effect	2. The policy makes provision for a quantum / type of development (and may or may not indicate one or more broad locations e.g. a county, or district, or sub-region) but the location of the development is to be selected following consideration of options in other lower-tier plans (Southend Central Area Action Plan and Site Allocations DPD).	n/a	No
Issue DM22 – Employment Uses	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).	n/a	No

Issue DM23 – Visitor Accommodation	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy) and 2. The policy makes provision for a quantum / type of development (and may or may not indicate one or more broad locations e.g. a county, or district, or sub-region) but the location of the development is to be selected following consideration of options in other lower-tier plans (Southend Central Area Action Plan and Site Allocations DPD).	n/a	no
Issue DM24 – Contaminated Land	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy)	n/a	No
Issue DM26 – Sustainable Transport Management	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy)	n/a	No
Issue DM27 – Vehicle Parking Standards	n/a	No Effect	1. The policy will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy)	n/a	No

Appendix 6 - Other Plans and Programmes and HRA Summaries

1. Southend-on-Sea Core Strategy (2007)

The Core Strategy forms part of the Southend-on-Sea Local Development Framework and provides the vision, objectives and planning strategy for the spatial development of the whole Borough of Southend-on-Sea until 2021, including the distribution of growth and the policy context for a 10-year housing supply.

Housing and Employment Growth

The primary focus of regeneration and growth will be in Southend Town Centre and Central Area - to provide for 6,500 new jobs and providing for at least 2,000 additional homes in conjunction with the upgrading of strategic and local passenger transport accessibility, including development of Southend Central and Southend Victoria Stations as strategic transport interchanges and related travel centres.

In addition, appropriate regeneration and growth will be focussed in the following locations:

- Seafront - to enhance the Seafront's role as a successful leisure and tourist attraction and place to live, and make the best use of the River Thames, subject to the safeguarding of the biodiversity importance of the foreshore.
- Shoeburyness - to provide an additional 1,500 jobs and 1,400 additional dwellings.
- Priority Urban Areas – these comprise:
 - a. The District Centres of Westcliff (Hamlet Court Road) and Leigh (Leigh Broadway, Elm Road and Rectory Grove), the Southchurch Road shopping area, and the West Road/Ness
 - b. Road shopping area of Shoebury;
 - c. The main Industrial/employment areas as identified on the
 - d. Key Diagram, and
 - e. c. The Cluny Square Renewal Area.

Provision is made for 3,350 net additional dwellings between 2001 2021. Provision is made for not less than 6,500 net additional jobs by 2011, and not less than 13,000 net additional jobs by 2021, distributed as follows:

Town Centre and Central Area 6,500

Shoeburyness 1,500

Seafront 750

Priority Urban Areas 2,750

Intensification 1,500

TOTAL 13,000

Transport

- Improvements to the A127/A1159 east-west strategic transport and freight corridor including junction improvements at Progress Road, Kent Elms, The Bell, Cuckoo Corner, Sutton Road, Fairfax Drive, East/West Street and Victoria Circus;
- Improving accessibility to key development opportunity sites, including improved access to Shoeburyness and London Southend Airport to support the potential of the Airport to function as a catalyst for economic growth;
- Providing for the development of high quality transport interchanges at Southend and the key urban interchanges at Leigh Railway Station, Shoeburyness Railway Station, Southend
- Hospital and London Southend Airport.

HRA Summary

- Disturbance - as a result of development near/ adjacent to European sites, including:
 - Recreation
 - Light Pollution
 - Noise Pollution
- Atmospheric Pollution - generated as a result of housing, employment and transport growth.
- Water Pollution - increased pressure on sewerage capacity and an increase in non-permeable surfaces.
- Water Abstraction - as a result of proposed development, potential for reduced water levels.

- Land Take - as a result of proposed development. Coastal Squeeze
- Modified Drainage - as a result of proposed development altering surface and groundwater flow.

The HRA found that two Core Strategy Policies have the potential for likely significant effects and would benefit from strengthening. Amendments to policy wording were proposed and considered to be sufficient to address the identified likely significant effects. These revised policies have been reassessed and it is considered that if the recommendations were incorporated then the Core Strategy will not have adverse effects on the integrity of the following European sites either alone or in-combination:

- Benfleet and Southend Marshes SPA
- Foulness SPA and
- Essex Estuaries SAC
- Crouch and Roach Estuaries SPA
- Thames Estuary & Marshes SPA

2. Southend-on-Sea Local Transport Plan 2006 – 2011

Shared Objectives

- Tackling congestion by the more efficient use of road capacity; providing for quality public transport; placing greater emphasis on travel plans and 'smarter choices' of travel; and improving conditions for motorists, cyclists, pedestrians and motorists. Both in the Borough and cross boundary with Essex.
- Delivering Accessibility by working with local groups to improve and encourage access to places of work, learning, health care, shopping and leisure services; and encourage sustainable modes of transport, especially for people from disadvantaged groups and areas in the town.
- Providing for Safer Roads by taking forward the Southend Road Safety Strategy in partnership, improving road and bridge maintenance; slower speeds within Environmental Rooms and near schools; road safety measures; improved safety for cyclists and pedestrians; and safety awareness, particularly amongst children.
- Achieving Better Air Quality by reducing congestion, driver distances travelled and number of vehicle trips made.

- Achieving a Better Quality of Life by addressing wider quality of life issues including a quality public realm, landscaping, safer communities, health and reduction in traffic noise

Local Objectives

- Regeneration of Southend by Improving the Economy by promoting and supporting sustainable economic growth in appropriate locations
- Achieving an Efficient Transport System by ensuring that land use and transport (all modes) planning are integrated.
- Raising Community Awareness by publicising the effects of continuing traffic growth and the benefits and availability of alternative transport modes.
- Improving the Highway by pursuing effective maintenance procedures that achieve value for money solutions whilst keeping the quality of life and urban renaissance objectives by improving the street scene.

HRA Summary

n/a

3. London Southend Airport and Environs Joint Area Action Plan

The planning application seeks permission for the following:

- Runway extension (approx 300m plus 80m starter strip) and repositioning of landing lights;
- Diversion of Eastwoodbury Lane as this currently crosses the site of the proposed runway extension;
- Alterations to the pedestrian and vehicular access to St Laurence and
- All Saints Church, and removal and reinstatement of part of the churchyard wall
- Drainage facilities for the extended runway and road diversion;
- Demolition of four cottages on the south side of the runway extension area, and an additional two on the north side.

HRA Summary

The HRA Screening identified that the project has the potential to increase disturbance of the qualifying bird species and assemblages of the Crouch and Roach Estuaries SPA/ Ramsar. It concluded that this impact however, is likely to be temporary as typical altitude of flights would remain unchanged from that currently employed, and taking into account the ability of most birds to become habituated to regularly-occurring noise disturbance the increased frequency of these flights would pose little disturbance to the bird species and assemblages. This conclusion was supported by Natural England in their consultation response to the JAAP.

4. Rochford Core Strategy: Submission (2010)

- The Rochford Core Strategy proposes 4,750 additional dwellings between 2006 and 2025 at locations dispersed across the district. The Core Strategy sets out the infrastructure and services required to accompany residential development in individual settlements.
- The Core Strategy makes provision for an additional 3,000 jobs across the District by 2021.

HRA Summary

The assessment found that the Core Strategy had the potential for likely significant effects both alone and in-combination on European sites through; increased disturbance, increased atmospheric pollution and reduced water levels and quality.

The assessment considered that the mitigation provided by the Core Strategy through the provision for new open space and alternative recreational opportunities - in the west of the District away from the European sites - would be sufficient to avoid likely significant effects as a result of increased disturbance. Similarly, it was considered that the Core Strategy contained sufficient policy mitigation and monitoring measures to avoid likely significant effects on European sites either alone or in-combination through increased atmospheric pollution. However the assessment could not conclude with certainty that the level of development proposed in the Core Strategy and surrounding areas will not have likely significant in-combination effects on European sites via reduced water quality and increased water resource demand. This is due to a number of uncertainties, including data limitations and the implementation uncertainty of the proposed development.

5. Castle Point Core Strategy: Submission (2010)

Housing

- 5,000 new homes in Castle Point between 2001 and 2026 that are well integrated with community service locations.
- At least 70% of new homes on previously developed land

Employment

- At least 2,500 additional jobs in Castle Point between 2001 and 2026.

Transport

Improvements to public transport provision in Castle Point including:

- Delivery of the A13 Passenger Transport corridor through Castle Point by 2011;
- Extension of similar Passenger Transport corridor features from the A13 to Canvey Island by 2016;
- The delivery of the South Essex Rapid Transit project with connections to the Borough by 2021. Improvements to opportunities for walking and cycling in Castle Point including:
- Delivery National Cycle Network Routes, and Greenways identified in the Green Grid Strategy; and
- Work with ECC to identify and deliver, or improve existing footpaths and cycle routes, and make roads safer for pedestrians and cyclists.

HRA Summary

- Disturbance - as a result of development near/ adjacent to European sites, including:
 - Recreation
 - Light Pollution
 - Noise Pollution
- Atmospheric Pollution - generated as a result of housing, employment and transport growth.

- Water Pollution - increased pressure on sewerage capacity and an increase in non-permeable surfaces.
- Water Abstraction - as a result of proposed development, potential for reduced water levels.
- Modified Drainage - as a result of proposed development altering surface and groundwater flow.
- Land Take - as a result of proposed development.
- Coastal Squeeze

6. Essex County Council Local Transport 2006 – 2011

The Essex LTP is meant to provide a roadmap for, and integrate approaches to, sustainable transport policy across the county. This will cascade downwards national and regional policy and set a framework for Local Development Frameworks. Some of its key objectives are the following:

- Ensure consistency with national policies for transport, aviation and ports
- Achieve a sustainable approach for all modes of transport
- Support the initiatives for both the Thames Gateway and M11/Stansted Growth Areas
- Minimise the environmental impact of travel
- Deliver more integrated patterns of land-use, movement and development
- Improve social inclusion and accessibility
- Increase the regeneration of town centres ensuring that current deficiencies are resolved and development requirements met

Rural Road Hierarchy Development

Within rural areas, lower categories of road hierarchy will be maintained to serve as the main access points to substantial rural populations and to act as distributors between borough/district areas leading to towns and higher categories of road. Other than in exceptional circumstances, it is not proposed to undertake major improvements to these roads or to plan for village bypasses.

Inter Urban

The County Council's highest priority for improvements to the inter urban infrastructure is the corridors of A120 (M11-A12), the A12

(M25-A120 Marks Tey) and A130 (A12 to A127 and A130/A13 Sadlers Farm Junction). Planned improvements being promoted by the County Council are:

- A130 (A12 to A127)
- A131 Great Leighs Bypass
- A136 Parkeston Bypass (Harwich)
- A130/A13 Sadlers Farm Junction
- A120 (M11 Stansted Airport to Braintree)
- A120 (M11-Stansted Airport slip roads)
- A12 Hatfield Peverel to Witham Link Road

HRA Summary

- Disturbance - as a result of development near/ adjacent to European sites, including:
 - Recreation
 - Light Pollution
 - Noise Pollution
- Atmospheric Pollution - generated as a result of increased traffic.
- Water Pollution - through increased atmospheric pollution.
- Land Take - as a result of proposed development.
- Coastal Squeeze
- Modified Drainage - as a result of proposed development altering surface and groundwater flow.

7. Essex County Council Minerals Development Document: Site Allocations Issues and Options Paper 2009

Essex County Council is required to produce a Development Plan Document for minerals, which plans for the future provision of minerals setting out how the demand for minerals will be met between now and 2026. The 'Minerals Development Document' (MDD) will set out the vision, objectives, strategy to meet the mineral supply hierarchy and thematic and development control policies as well as the preferred sites to meet the future requirements. All of these issues and the options available were raised in the most recent

consultation on the Plan held in January 2009 the “Minerals Development Document Further Issues and Options Paper”. This Site Allocations Issues and Options Paper, sets out 9 new suggested extraction sites and 7 revised sites boundaries.

HRA Summary

The HRA identified the following potential impacts for each Option:

- Aggregate Recycling
 - Habitat Loss
 - Emissions
 - Human Disturbance
- Option 1 - Predominantly Extensions to Existing Extraction Sites
 - Habitat Loss
 - Emissions
 - Flooding and Water Use
 - Human Disturbance
- Option 2 - Dispersed Spread of Sites Across the County
 - Habitat Loss
 - Emissions
 - Flooding and Water Use
 - Human Disturbance
- Option 3 - Concentrated Supply of Sites with Some Dispersed Sites

Flooding and Water Use

- The screening report concluded that due to the large number of European sites and the potential impact of minerals and waste sites, the screening stage of the Appropriate Assessment should be carried out again, with greater site-specific detail, as the Preferred Options for site allocations are determined.

8. The Essex and Southend-on-Sea Waste Local Plan adopted September 2001

The Essex and Southend Waste Local Plan sets out waste planning policies and proposals in accordance with the governments principles of sustainability. Six key waste management sites are identified and the plan outlines how planning applications for waste management facilities are considered. Preferred locations for waste management

District/ Borough Location

Braintree Rivenhall Airfield, Silver End
Colchester Land East Of Warren Lane, Stanway
Whitehall Road, Colchester
Epping Forest North Weald Airfield, North Weald Bassett
Basildon Courtauld Road, Basildon
Chelmsford Sandon, Chelmsford

The Waste Local Plan policies have been saved until the adoption of the WDD, which is likely to be in 2013.

HRA Summary

Overarching Development Pressures Recycling

Air Pollution/ Disturbance

- Transport and energy emissions generated by collection, sorting and processing
- Dust, noise and odour associated with industrial process

Composting

Air/ Water Pollution, Introduced/Invasive Species

- Odour, litter, possible vermin generation
- Release of spores [non-native], requirement for buffer zones (at least 250 metres between composting operations and sensitive receptors)
- Production of liquid pollutant

- Potential for combustion

Mechanical Biological Treatment (MBT)

Air Pollution, Land Take, Hydrology

- Emissions, traffic impacts, land take and wider environmental impacts analogous with industrial process
- Processes produce residue

Refuse Derived Fuel (energy from waste)

Air Pollution

- Emission concerns, particulates and potentially dioxins

Anaerobic Digestion (energy from Waste)

Air/Water Pollution

- Emissions to air – odour (during collection, transport and pre-treatment)
- Wastewater – potential for high concentrations of metals, dissolved nitrogen and organic material

Incineration with Energy Recovery

Air/ Water Pollution

- Noise, dust, traffic, visual amenity, potential to impact fauna and flora
- Deposition of substances on surface water
- Solid, liquid emissions
- Gaseous emissions include odour, acid gas, heavy metals, particulates, organic compounds
- Ash residues comprising fine particles, [need to landfill ash/ scrap] dioxins, heavy metals salts, unreacted lime and carbon
- Contamination, accumulation of toxic substance (food chain)]

Landfill & Landraise

Air/ Water Pollution, Invasive Species, Land Take

- Methane and carbon monoxide emissions
- Leachate, salts, heavy metals, biodegradable and persistent organics
- Accumulation of hazardous substances in soil
- Topography alteration, visual intrusion
- Soil occupancy, prevention of other land uses
- Attraction of vermin
- Contamination, accumulation of toxic substances
- Potential exposure to hazardous substances
- Impact on surface water runoff, flood risk