



West Bergholt Neighbourhood Plan

Appropriate Assessment Report

January 2019

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Introduction

The Habitats Regulations Assessment of land use plans relates to Special Protection Areas (SPAs), Special Areas of Conservation (SAC) and Ramsar Sites. SPAs are sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), more commonly known as the Birds Directive. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species. SACs are classified in accordance with EC Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Article 3 of this Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive. These sites are known as the Natura 2000 network. The NPPF defines them as Habitats sites. Ramsar Sites are designated under the International Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention, Iran 1971 and amended by the Paris Protocol 1992). Although Ramsar Sites are not protected in law by the Birds and Habitats Directives as a matter of policy government has decreed that unless otherwise specified procedures relating to SPAs and SACs will also apply to Ramsar Sites.

An appropriate assessment is a decision by the competent authority, in this case Colchester Borough Council, as to whether a proposed plan or project can be determined as not having a significant adverse effect on the integrity of a Habitats site. The integrity of a site is defined as the *“coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified”* (Circular 06/05 paragraph 20). A fundamental element of the appropriate assessment is that the precautionary principle must be applied. In the Waddenzee judgment (ECJ Case C-127/02) the Habitats Court of Justice ruled that a plan or project may be authorised only if a competent authority has made certain that the plan or project will not adversely affect the integrity of the site.

The following Habitats sites are within Colchester Borough, or in the case of the Stour and Orwell Estuaries, adjacent to the borough:

Sites Designated under the Birds Directive:

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

- Stour and Orwell Estuaries SPA.

Sites designated under the Habitats Directive:

- Essex Estuaries SAC.

Sites designated under the Ramsar Convention:

- Colne Estuary;
- Abberton Reservoir;
- Blackwater Estuary; and
- Stour and Orwell Estuaries.

Pathways of impact and likely significant effects

Recreational disturbance (physical site disturbance and disturbance to birds)

Physical site disturbance

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

Disturbance to birds

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

The primary source of non-physical disturbance relates to an increase in the number of visitors to Habitats sites due to increases in housing, an associated increase in demand for recreation and tourism facilities near to these sites.

The appropriate assessment of Colchester Borough's Section 2 Local Plan concluded that there are no likely significant effects arising from recreational disturbance at Abberton Reservoir and so Abberton Reservoir can be screened out of further assessment in terms of recreational disturbance.

Zones of Influence (ZoI) have been set as part of the Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS). These are based on the best available evidence and have been endorsed by Natural England. The whole of Colchester Borough lies within the ZoI for various Essex Coast Habitats sites. This means that all residential development in Colchester is likely to significantly affect the integrity of Habitats sites in-combination.

Air quality

Air pollution is most likely to affect Habitats sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected,

either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels that can then affect plant health, productivity and species composition.

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

Central government has developed a plan to improve air quality by reducing nitrogen dioxide levels in the UK (July 2017). The plan includes a range of measures that could be taken to mitigate the impact of action to improve air quality.

Colchester's Section 2 Local Plan includes a policy, which states that proposals will be supported that will not result in an unacceptable risk to public health, the environment or general amenity due to the potential of air pollution. Proposals for developments within designated Air Quality Management Areas (AQMAs) or where development within a nearby locality may impact on an AQMA are required, first, to be located in such a way as to reduce emissions overall, and secondly to reduce the direct impacts of those developments. Applicants will be required to prepare and submit a relevant assessment and permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable significant impact on air quality, health and well - being.

Appropriate safeguards exist in a higher tier plan and air quality can therefore be screened out of further assessment.

Water quality

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

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

Water quality can therefore be screened out of further assessment.

Water resources

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

The Water Cycle Study concluded that, allowing for the planned resource management of Anglia Water Services Essex Resource Zone, Colchester Borough will have adequate water supply to cater for growth over the plan period.

Water resources can therefore be screened out of further assessment.

Urbanisation (fly tipping and predation)

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

Predation of ground nesting birds by cats is potentially a significant issue for Habitats sites. This is particularly relevant where new housing allocations are provided within 0.5 - 1km of a Habitats site, which is the distance recommended by the RSPB as being the typical range of influence for domestic cats. This issue in Colchester Borough relates to the predation of ground nesting species such as Little Tern and Ringed Plover.

Urbanisation can be screened out of further assessment as West Bergholt is approximately 11km from the Colne Estuary SPA/ Ramsar, 12km from the Blackwater Estuary SPA/ Ramsar and 12km from the Stour and Orwell Estuaries SPA/ Ramsar. Fly tipping is an issue 400 metres from a Habitats site and predation is an issue up to 1km from a site.

Loss of offsite functional habitat

Fields in close proximity to Habitats sites often provide offsite functional habitat. The loss of these sites, whilst not part of the Habitats site, can significantly affect the qualifying species of the SPA by reducing the extent of their habitat.

Whilst habitats located further from Habitats sites may be used by qualifying species these sites are unlikely to support numbers that would lead to a likely significant effect. Owing to the location of West Bergholt, 11km from the Colne Estuary SPA/ Ramsar,

12km from the Blackwater Estuary SPA/ Ramsar and 12km from the Stour and Orwell Estuaries SPA/ Ramsar, loss of offsite functional habitat can be screened out of further assessment.

Summary

Recreational disturbance with other plans is the only issue that has not been screened out of further assessment in the consideration of pathways of impact and likely significant effects. The next sections (the appropriate assessment) consider likely significant effects from recreational disturbance alone and in-combination.

In reality the Neighbourhood Plan policies will combine to deliver the overall scale, location and form of development in West Bergholt. However, to be thorough, Appendix 1 includes a screening matrix of all planning policies within the West Bergholt Neighbourhood Plan.

Appropriate assessment: likely significant effects alone

West Bergholt has three main areas of open space: the Lorkin-Daniell Field in Lexden Road with the Orpen Village Hall on site, the area of Heath land in Lexden Road, where the primary school is sited and Poors Land in Colchester Road. All areas are available for sport or recreation. There is an area of 140 allotments in New Church Road and a cricket pitch in Manor Road. With the exception of the cricket pitch, which is privately owned, all of these open spaces are held in trust and managed by the Parish Council.

The rural landscape provides some accessible green space such as Hillhouse Wood and many PROW, including long distance paths such as the Essex Way. Also within the settlement boundary are the open spaces listed in the preceding paragraph and pockets of smaller green space generally within housing areas (amenity greens), the churchyards, allotments and three ponds.

Policy PP4 of the neighbourhood plan states: “All development proposals should ensure new open spaces are intrinsic to their proposals and not designated as single purpose use but deliver multiple functions and benefits, which link to the green infrastructure network, through green corridors, cycle or footpaths and demonstrate environmental gains. Development that results in the loss of open spaces or that results in any harm to their character, setting, accessibility or appearance, general quality or to amenity value will only be supported if the community would gain equivalent benefit from provision of a suitable replacement space.”

The LPA has concluded that due to the provision of open space within West Bergholt, together with the requirement for new areas of open space, and there being no Habitats sites within a reasonable walking distance of West Bergholt, the West Bergholt Neighbourhood Plan alone will not adversely affect the integrity of any Habitats sites.

Appropriate assessment: likely significant effects in-combination

The screening matrix of all planning policies within the West Bergholt Neighbourhood Plan (appendix 1) shows that only three policies were screened in for further assessment in-combination: policy PP13 The number of dwellings to be constructed in the NP period, PP16 Infill and Redevelopment Sites and policy PP21 Rural Exception sites.

Colchester Borough Council has carried out an appropriate assessment of the Section 2 Local Plan. This includes a detailed in-combination assessment, which considers the in-combination effects of the Section 2 Local Plan with other neighbourhood plans and other Local Plan's across Essex, on Habitats sites. A Statement of Common Ground signed by Colchester Borough Council and Natural England, confirms that Natural England agrees with the conclusion that Section 2 will not lead to adverse effects on the integrity of Habitats sites either alone or in-combination.

Policy SS15 of the Local Plan provides for the development of 120 dwellings in West Bergholt and the policies map indicates the broad area of search, which includes the neighbourhood plan allocations for 120 dwellings. Policy SS15 was screened out of further assessment owing to the location of West Bergholt in relation to Habitats sites.

The appropriate assessment of the Section 2 Local Plan recommended the implementation of an Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS), including the Colne and Blackwater Estuaries. Reference to the RAMS is included in the Section 2 Local Plan. The RAMS Strategy, which includes a Technical Report and Mitigation Report, has now been finalised. A draft SPD has been prepared, with consultation on the RAMS SPD likely to take place in May 2019.

The neighbourhood plan includes the LPAs standard RAMS policy for neighbourhood plans (policy PP10), which has been agreed by Natural England. This policy requires development within the zones of influence of a Habitats site to make financial contributions towards the mitigation measures set out in the RAMS and refers to interim measures in the absence of a RAMS.

Mitigation measures to address recreational disturbance in-combination, i.e. the implementation of the RAMS, have been written into the Local Plan and West Bergholt neighbourhood plan. Good progress is being made on the Essex Coast RAMS. In the interim period Colchester Borough Council is using the draft RAMS to seek contributions towards the identified avoidance and mitigation measures to ensure that residential development in Colchester does not affect the integrity of Habitats sites and planning decisions are having regard to the requirements of the Habitats Regulations.

It can therefore be concluded that the West Bergholt neighbourhood plan will not adversely affect the integrity of Habitats sites alone or in-combination. The basic

condition set out in Schedule 2 of The Neighbourhood Planning (General) Regulations 2012 that the making of the neighbourhood development plan does not breach the requirements of Chapter 8 of Part 6 of the Conservation of Habitats and Species Regulations 2017 is therefore met.

Appendix 1. Screening Matrix of West Bergholt Neighbourhood Plan policies

Policy	Likely significant effects?	Screened out?
PP1: Sustainable Development	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP2: Protection of Community Facilities	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites. The retention of community facilities will not result in any significant effects on Habitats sites as they already exist.	Yes
PP3: New Community Facilities	Where new facilities are to be delivered these will be within West Bergholt at accessible locations to maximise benefits for the local community.	Yes
PP4: Open Spaces	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites. Protecting open spaces will lead to positive effects through the provision of accessible alternative open spaces.	Yes
PP5: Local Green Spaces	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites. Protecting open spaces will lead to positive effects through the provision of accessible alternative open spaces.	Yes
PP6: Character Area	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP7: Heritage Assets	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP8: Trees and hedgerows	As a policy it will not lead directly to the physical development of land and	Yes

	therefore will not adversely affect any Habitats sites.	
PP9: Natural Environment	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP10: Recreational disturbance Avoidance and Mitigation Strategy (RAMS)	This policy will mitigate likely significant effects from recreational disturbance and complies with the Section 2 Local Plan.	Yes
PP11: Area of Separation	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP12: Key Views	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP13: Housing Sites	The policy sets out the overall housing requirement for West Bergholt over the Local Plan period. As a policy it will lead to the physical development of land in accordance with the Local Plan spatial strategy (policy SG1). There is potential for likely significant effects in-combination with the Local Plan.	No
PP14: Design	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP15: Energy Hierarchy	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP16: Infill and Redevelopment Sites	This policy may lead to the development of small scale housing in the village. There is potential for likely significant effects in-combination with the Local Plan.	No
PP17: Dormers	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP18: New agricultural buildings	As a policy it will not lead directly to the physical development of land and	Yes

	therefore will not adversely affect any Habitats sites.	
PP19: Change of Use of agricultural buildings	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP20: Essex Parking Standards	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP21: Rural Exception sites	As this policy could lead to the development of land, as rural exception sites, there is potential for likely significant effects in-combination with the Local Plan.	No
PP22: Coalescence	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP23: Sustainable Transport	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP24: Highways Network	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP25: Infrastructure	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP26: Expansion of business parks	Whilst this policy may lead to the development of land it relates to existing businesses and will not directly lead to new residential development and population growth.	Yes
PP27: Protection of Employment Sites	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP28: Farm diversification	Whilst this policy may lead to the development of land it relates to farm diversification and promotes increased local employment. It will not directly lead to significant population growth.	Yes

PP29: Rural Businesses	Whilst this policy may lead to the development of land it relates to farm diversification and promotes increased local employment. It will not directly lead to significant population growth.	Yes
PP30: New Sports Facilities	Whilst this policy may lead to the development of land it relates to new sports facilities. It will not directly lead to significant population growth.	Yes
PP31: Designing out Crime	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP32: New Road Layouts	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP33: Communications Network	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP34: Access	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP35: Traffic Congestion	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP36: Cycle Storage	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
PP37: Sustainable Transport Connections	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes

Appendix 2: Information about Habitats sites

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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Sandbanks which are slightly covered by seawater all the time	<p>The structure and function of the habitats of the qualifying features;</p> <p>The supporting processes on which the habitats of the qualifying features rely;</p> <p>The populations of the qualifying features;</p> <p>The distribution of the qualifying features within the site.</p>	<p>Bottom towed fishing gear has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds <i>Zostera</i> spp, a sub-feature of the SAC.</p> <p>Planning Permission: general – Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development.</p> <p>Invasive species – Non-native invasive species such as the American whelk tingle <i>Urosalpinx cinerea</i> and Slipper limpet <i>Crepidula fornicata</i> are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation. Invasive common cord grass may adversely affect plant species for which the Essex Estuaries SAC is designated.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>Fisheries: Recreational marine and estuarine – Recreational bait digging may damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition - Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.</p>
<p>The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border in eastern England. The estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The mud-flats hold</p>				

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
<i>Enteromorpha</i> , <i>Zostera</i> and <i>Salicornia</i> spp. The site also includes an area of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell. In summer, the site supports important numbers of breeding Avocet <i>Recurvirostra avosetta</i> , while in				
Stour and Orwell Estuaries SPA	3676.92	<p>Annex I species: Over winter: Hen Harrier <i>Circus cyaneus</i> This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of Habitats importance of the following migratory species: Over winter: Black-tailed Godwit <i>Limosa limosa islandica</i> Dunlin <i>Calidris alpina alpina</i> Grey Plover <i>Pluvialis squatarola</i> Pintail <i>Anas acuta</i> Redshank <i>Tringa totanus</i> Ringed Plover <i>Charadrius hiaticula</i> Shelduck <i>Tadorna tadorna</i> Turnstone <i>Arenaria interpres</i></p>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified (“the Qualifying Features” listed below); Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore: The extent and distribution of the habitats of the qualifying features; The structure and function of the habitats of the qualifying features;</p>	<p>Coastal squeeze – Coastal defences are present along most of the Orwell coastline to mitigate for impacts from climate change, such as rising sea level. Unless changes are made to the management of the coastline, habitats supporting qualifying SPA birds will be lost or degraded through coastal squeeze, sedimentation and reduced exposure. Public access/disturbance – Stour and Orwell Estuaries is subject to land- and water-based activities, including boating and water sports; walking; bait-digging; fishing; wildfowling; and military overflight training. These activities are likely to impact habitats supporting breeding and overwintering water birds. A better understanding of which species and habitats are most susceptible; which types of activity are most disturbing; and which locations and</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including:</p> <p>Cormorant <i>Phalacrocorax carbo</i>; Pintail <i>Anas acuta</i>; Ringed Plover <i>Charadrius hiaticula</i>; Grey Plover <i>Pluvialis squatarola</i>; Dunlin <i>Calidris alpina alpina</i>; Black-tailed Godwit <i>Limosa limosa islandica</i>; Redshank <i>Tringa tetanus</i>; Shelduck <i>Tadorna tadorna</i>; Great Crested Grebe <i>Podiceps cristatus</i>; Curlew <i>Numenius arquata</i>; Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>; Wigeon <i>Anas penelope</i>; Goldeneye <i>Bucephala clangula</i>;</p>	<p>The supporting processes on which the habitats of the qualifying features rely; The populations of the qualifying features; The distribution of the qualifying features within the site.</p>	<p>times of year are most sensitive is required to ensure the Estuaries are appropriately managed.</p> <p>Changes in species distribution – Declines in the number of bird species present at Orwell coastline have occurred. This is likely to be the result of changes in population and distribution on an international scale, due to climate change.</p> <p>Invasive species – An increase in <i>Spartina anglica</i> may be affecting the growth of <i>Spartina maritima</i>, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.</p> <p>Planning permission: General – The issue of development in combination with other factors is not fully understood. To ensure management is appropriate to the SPA a better understanding of the sensitivities relating to each habitat, species and location to different types of development is required. Difficult issues highlighted by the SIP include; a)</p>

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		<p>Oystercatcher <i>Haematopus ostralegus</i>; Lapwing <i>Vanellus vanellus</i>; Knot <i>Calidris canutus</i>; Turnstone <i>Arenaria interpres</i>.</p>		<p>Assessing the cumulative effects of numerous, small and often 'non-standard' developments. b) Development outside the SPA boundary can have negative impacts, particularly on the estuaries' birds. c) Assessing the indirect, 'knock-on' effects of proposals. d) Pressure to relax planning conditions on existing developments.</p> <p>Air pollution: impact from atmospheric nitrogen deposition – Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects.</p> <p>Inappropriate coastal management – Due to the presence of existing hard sea defences, such as sea walls there is little scope for adaptation to rising sea levels. Any freshwater habitats behind failing seawalls are likely to be inundated by seawater, which would</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>result in the loss of this habitat within the SPA.</p> <p>Fisheries: Commercial and estuarine – Commercial fishing activities can be very damaging to inshore marine habitats and the bird species dependent on the communities they support. Any ‘amber or green’ categorised commercial fishing activities in Habitats Marine Sites are assessed by Kent and Essex Inshore Fisheries Conservation Authority (IFCA). This assessment takes into account any in-combination effects of amber activities and/or appropriate plans or projects.</p>
Stour and Orwell Estuaries Ramsar site	3676.92	Ramsar criterion 2 Contains seven nationally scarce plants: Stiff saltmarsh-grass Puccinellia rupestris Small cord-grass Spartina maritime Perennial glasswort Sarcocornia perennis	None available.	Similar to Stour and Orwell Estuaries SPA (See above). A key threat identified by RIS was erosion. Erosion – Natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Lax-flowered sea lavender <i>Limonium humile</i> Eelgrasses <i>Zostera angustifolia</i>, <i>Z. marina</i> and <i>Z. noltei</i>. Ramsar criterion 5 Assemblages of international importance; species with peak counts in winter; 63,017 waterfowl. Ramsar criterion 6 species/populations occurring at levels of international importance: Species with peak counts in spring/autumn: Common redshank, <i>Tringa totanus tetanus</i>. Species with peak counts in winter: Dark-bellied brent goose, <i>Branta bernicla bernicla</i>; Northern pintail, <i>Anas acuta</i>; Grey plover, <i>Pluvialis squatarola</i>;</p>		<p>to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to capital dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is being produced.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Red knot, <i>Calidris canutus islandica</i> ; Dunlin, <i>Calidris alpina alpina</i> Black-tailed godwit, <i>Limosa limosa islandica</i> ; Common redshank, <i>Tringa totanus tetanus</i> .		
<p>The Colne Estuary is located on the coast of Essex in eastern England. It is a comparatively short and branching estuary, with five tidal arms that flow into the main channel of the River Colne. The estuary has a narrow intertidal zone predominantly composed of flats of fine silt with mud-flat communities typical of south-eastern English estuaries. The estuary is of importance for a range of wintering wildfowl and waders, in addition to breeding Little Tern <i>Sterna albifrons</i> which nest on shell, sand and shingle spits. There is a wide variety of coastal habitats which include mud-flat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel pits and reedbeds which provide feeding and roosting opportunities for the large numbers of waterbirds that use the site.</p> <p>The Colne Estuary is an integral component of the phased Mid-Essex Coast SPA</p>				
Colne Estuary (Mid-Essex Coast Phase 2) SPA	2701.43	Annex I populations of the following species: During the breeding season - <ul style="list-style-type: none"> • Little Tern <i>Sterna albifrons</i> Over winter - <ul style="list-style-type: none"> • Avocet <i>Recurvirostra avosetta</i> • Golden Plover <i>Pluvialis apricaria</i> 	Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore:	Coastal Squeeze – Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-on effects on the waterbirds and other species they support. ‘Managed realignment’ schemes and additional intervention measures to create new areas of

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		<ul style="list-style-type: none"> • Hen Harrier <i>Circus cyaneus</i> • This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of Habitats importance of the following migratory species: Over winter - <ul style="list-style-type: none"> • Dark-bellied Brent Goose <i>Branta bernicla bernicla</i> • Redshank <i>Tringa totanus</i> • The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl 	<p>The extent and distribution of the habitats of the qualifying features;</p> <p>The structure and function of the habitats of the qualifying features;</p> <p>The supporting processes on which the habitats of the qualifying features rely;</p> <p>The populations of the qualifying features;</p> <p>The distribution of the qualifying features within the site.</p>	<p>intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the area of the Mid Essex Coast SPAs are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.</p> <p>Public access /disturbance – Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities - including boating and watersports, walking, bait-digging, fishing and wildfowling - as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats.</p> <p>Planning permission: general – Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>overview of the relative sensitivities of different habitats, species and locations to different types of development.</p> <p>Changes in species distributions – Declines have occurred in the numbers of some of the waterbird species using the Essex Estuaries SIP area but these may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.</p> <p>Invasive species – An increase in Pacific oyster <i>Crassostrea gigas</i> settlement and colonisation within the Habitats Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. Invasive common cord grass may adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.</p> <p>Fishing – Recreational bait digging may impact waterbirds e.g. by reducing prey</p>

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				<p>availability, or damaging the intertidal mudflats and sandflats and associated communities. The extent of the activity and potential impacts on site features are not currently well understood. Certain forms of commercial fishing, e.g. bottom towed fishing gear; can be very damaging to inshore marine habitats and the bird species dependent on the communities they support.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition – Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.</p>

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

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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Species/populations identified subsequent to designation for possible future consideration under criterion 6.		
Abberton Reservoir is a large water storage reservoir close to the Essex coast. It is one of the most important reservoirs in the country for overwintering waterfowl and also supports substantial aggregations of moulting birds in early autumn and a large colony of tree-nesting cormorants. Causeways divide the reservoir into three sections.				
Abberton Reservoir SPA	726.2	<p>Supports the following internationally important waterbird assemblage:</p> <p><i>Podiceps cristatus</i>; Great crested grebe (Non-breeding)</p> <p><i>Phalacrocorax carbo</i>; Great cormorant (Breeding)</p> <p><i>Cygnus olor</i>; Mute swan (Non-breeding)</p> <p><i>Anas penelope</i>; Eurasian wigeon (Non-breeding)</p> <p><i>Anas strepera</i>; Gadwall (Non-breeding)</p>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <p>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p>	<p>Siltation – high sediment load in reservoir inflow due to agricultural practices within catchment.</p> <p>Public access / disturbance – designated waterbirds are vulnerable to human disturbance but well controlled by Essex & Suffolk Water; occasional trespassing and disturbance by low flying aircraft.</p> <p>Planning permission: general – potential future threat to designated waterbirds if farmland providing supporting habitat close to the SPA were lost to development; requires further study.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p><i>Anas crecca</i>; Eurasian teal (Non-breeding) <i>Anas clypeata</i>; Northern shoveler (Non-breeding) <i>Aythya ferina</i>; Common pochard (Non-breeding) <i>Aythya fuligula</i>; Tufted duck (Non-breeding) <i>Bucephala clangula</i>; Common goldeneye (Non-breeding) <i>Fulica atra</i>; Common coot (Non-breeding) <i>Pluvialis apricaria</i>; Habitats golden plover (Non-breeding)</p>	<p>The extent and distribution of the habitats of the qualifying features; The structure and function of the habitats of the qualifying features; The supporting processes on which the habitats of the qualifying features rely; The populations of the qualifying features; The distribution of the qualifying features within the site.</p>	<p>Changes in species distributions – unexplained decline in designated population of cormorant. Bird strike – death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir. Water pollution – Water stored in the reservoir is high in nutrients (eutrophic) as it comes from intensively farmed catchment areas. Resulting algal blooms may include toxic blue-green algae that can kill wildfowl, though no significant mortality has been recorded. Historically, increased water from the reservoir led to low water levels although no decrease in wildfowl was attributed to this. Currently the water level of the main, eastern section is being raised by 3 metres to increase storage capacity. As part of the level-raising scheme, the original concrete banks have been removed and the shoreline re-profiled, creating extensive</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				<p>new areas of shallow wetland habitat for the site's waterfowl.</p> <p>The Water Company has a consultative committee which addresses conservation issues at all its sites, and the Abberton Reserve Committee (involving Essex Wildlife Trust and EN) addresses local issues.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition – The site is identified as at risk from air pollution as Nitrogen deposition levels exceed the site- relevant critical load for ecosystem protection. However the site's Nitrogen load is likely to be dominated by levels in the water entering the reservoir (mainly from the distant Ouse catchment) rather than direct deposition.</p>
Abberton Reservoir Ramsar site	726.2	Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage:	None available.	Similar to Abberton Reservoir SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Gadwall, <i>Anas strepera strepera</i>; Northern shoveler, <i>Anas clypeata</i>; Eurasian wigeon, <i>Anas Penelope</i>; Mute swan, <i>Cygnus olor</i> Common pochard, <i>Aythya farina</i>; Great cormorant, <i>Phalacrocorax carbo carbo</i>; Eurasian teal, <i>Anas crecca</i>; Tufted duck, <i>Aythya fuligula</i>; Common coot, <i>Fulica atra atra</i>; Pied avocet, <i>Recurvirostra avosetta</i>; Ruff, <i>Philomachus pugnax</i>, Black-tailed godwit, <i>Limosa limosa islandica</i>; Spotted redshank, <i>Tringa erythropus</i>, Common greenshank, <i>Tringa nebularia</i>,</p>		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Common goldeneye , Bucephala clangula		
The Blackwater Estuary is a large estuary between the Dengie peninsula and Mersea Island on the Essex coast. It stretches from immediately adjacent to Maldon and about 8 km south of Colchester.				
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	4395.15	Qualifying Features (Waterbird assemblage): Branta bernicla bernicla; Dark-bellied brent goose (Non-breeding) Aythya ferina; Common pochard (Breeding) Circus cyaneus; Hen harrier (Non-breeding) Charadrius hiaticula; Ringed plover (Breeding) Pluvialis squatarola; Grey plover (Non-breeding) Calidris alpina alpina; Dunlin (Non-breeding) Limosa limosa islandica; Black-tailed godwit (Non-breeding) • Sterna albifrons; Little tern (Breeding)	With regard to the individual species and/or assemblage of species for which the site has been classified: <ul style="list-style-type: none"> Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore: <ul style="list-style-type: none"> The extent and distribution of the habitats of the qualifying features; 	Similar to Colne Estuary SPA (above)

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Additional Qualifying Features Identified by the 2001 UK SPA Review: Tadorna tadorna; Common shelduck (Non-breeding) Recurvirostra avosetta; Pied avocet (Non-breeding) Charadrius hiaticula; Ringed plover (Non-breeding) Pluvialis apricaria; Habitats golden plover (Non-breeding) Philomachus pugnax; Ruff (Non-breeding) Tringa totanus; Common redshank (Non-breeding)	<ul style="list-style-type: none"> • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The populations of the qualifying features; • The distribution of the qualifying features within the site. 	
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar site	4395.15	Represents 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain. Invertebrate fauna includes at least 16 British Red Data Book species: <ul style="list-style-type: none"> • water beetle Paracymus aeneus; 	None available.	Similar to Colne Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> • damselfly <i>Lestes dryas</i>; • flies <i>Aedes flavescens</i>, <i>Erioptera bivittata</i>, <i>Hybomitra expollicata</i> ; • spiders <i>Heliophanus auratus</i> and <i>Trichopterna cito</i>; • beetles <i>Baris scolopacea</i>, <i>Philonthus punctus</i>, <i>Graptodytes bilineatus</i> and <i>Malachius vulneratus</i>; • flies <i>Campsicemus magius</i>, <i>Myopites eximia</i>; • moths <i>Idaea ochrata</i> and <i>Malacosoma castrensis</i>; • spider <i>Euophrys</i>. <p>Supports a full and representative sequences of</p>		

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

