Eight Ash Green Neighbourhood Plan

Appropriate Assessment Report

January 2019

Contents

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 with 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 (NOx, i.e. NO and NO_2) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx 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 Eight Ash Green 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 Eight Ash Green, 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 Eight Ash Green. However, to be thorough, Appendix 1 includes a screening matrix of all planning policies within the Eight Ash Green Neighbourhood Plan.

Appropriate assessment: likely significant effects alone

Eight Ash Green is an open, rural village with plenty of open spaces and views, containing a habitat rich in biodiversity. One of the neighbourhood plan objectives is 'to protect and where possible, enhance green/ open spaces and biodiversity in the whole of the village'. The village has good links to PROW and the Parish Council website details a number of walks within and around Eight Ash Green.

Environment Policy 2 (EP 2) of the neighbourhood plan states: "The areas of green space in the village are to be protected from development, including change of use, unless it can be demonstrated that:-

- the chosen site represents the only available location for the given development proposal;
- the proposal would not result in the loss of an area important for its amenity including its contribution to biodiversity, recreation and landscape character with Eight Ash Green; and

Alternative and improved provision is provided in a location well related to the functional requirements of the relocated use and its existing and future users."

Environment Policy 4 (EP 4) states: "Existing footpaths, cycleways and bridleways provide a high level of amenity value and will be protected. New developments should integrate with the current green infrastructure network, seeking to improve the connectivity between wildlife area and green spaces through measures such as improving and extending the existing footpath and cycle path network, allowing greater access to housing and retail facilities, green spaces, public open spaces and the countryside."

The LPA has concluded that due to the provision of open space within Eight Ash Green, together with the requirement for new areas of open space, and there being no Habitats sites within a reasonable walking distance of Eight Ash Green, the Eight Ash Green 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 Eight Ash Green Neighbourhood Plan (appendix 1) shows that only policies VSB 1 and FF 1, which extends the settlement boundary to include a site for the development of 150 dwellings cannot be screened out. These policies 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 from increased levels of recreational disturbance.

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 SS5 of the Local Plan provides for the development of 150 dwellings in Eight Ash Green. Policy SS5 was screened out of further assessment owing to the location of Eight Ash Green 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 RAMS 1), 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 Eight Ash Green 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 Eight Ash Green 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 Eight Ash Green Neighbourhood Plan policies

Policy	Likely significant effects?	Screened out?
VSB 1	The policy extends the settlement boundary to include a site for the development of housing. 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
FF1	The policy sets out the overall housing requirement for Eight Ash Green 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
FF2 – FF14	These policies setting out requirements for new housing will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
DH1	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
EP1	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
EP2	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
EP3	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
EP4	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
EP5	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
Her 1	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	Yes
RE 1	This policy will not lead to an increased in population and therefore will not adversely affect any Habitats sites.	Yes

RE 2	This policy will not lead to an increased in population and therefore will not adversely affect any Habitats sites.	Yes
BP 1	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
BP 2	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
CA 1	As a policy it will not lead directly to the physical development of land and therefore will not adversely affect any Habitats sites.	No
CS 1	Whilst this policy may lead to the development of land it relates to community facilities and will not directly lead to new residential development and population growth.	Yes
RAMS 1	This policy will have a positive impact by requiring contributions to avoid and mitigate likely significant effects.	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	Annex 1 habitats that are a primary reason for selection of this site: Estuaries Mudfalts and sandflats not covered by seawater at low tide Salicornia and other animals colonising mud and sand Spartina swards (*Spartinion maritimae*) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Mediterranean and thermo-Atlantic halophilous scrubs Annex 1 habitats present as a qualifying feature:	With regard to the individual species and/or assemblage of species for which the site has been classified: Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore: The extent and distribution of the habitats of the qualifying features;	**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. **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.

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	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.	Bottom towed fishing gear has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds *Zostera* spp, a sub-feature of the SAC. **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. **Invasive species** – Non-native invasive species such as the American whelk tingle *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* 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.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				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. **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.
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				

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Enteromorpha, Zostera and *Salicornia* 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 *Recurvirostra avosetta*, while in				
Stour and Orwell Estuaries SPA	3676.92	Annex I species: Over winter: Hen Harrier Circus cyaneus 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 Limosa limosa islandica Dunlin Calidris alpina alpina Grey Plover Pluvialis squatarola Pintail Anas acuta Redshank Tringa totanus Ringed Plover Charadrius hiaticula Shelduck Tadorna tadorna Turnstone Arenaria interpres	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;	**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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000waterfowl including: Cormorant Phalacrocorax carbo; Pintail Anas acuta; Ringed Plover Charadrius hiaticula; Grey Plover Pluvialis squatarola; Dunlin Calidris alpina alpine; Black-tailed Godwit Limosa limosa islandica; Redshank Tringa tetanus; Shelduck Tadorna tadorna; Great Crested Grebe Podiceps cristatus; Curlew Numenius arquata; Dark-bellied Brent Goose Branta bernicla bernicla; Wigeon Anas Penelope; Goldeneye Bucephala clangula;	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.	times of year are most sensitive is required to ensure the Estuaries are appropriately managed. **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. **Invasive species** – An increase in Spartina anglica may be affecting the growth of Spartina maritime, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat. **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)

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Oystercatcher Haematopus ostralegus; Lapwing Vanellus vanellus; Knot Calidris canutus; Turnstone Arenaria interpres.		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. **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. **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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				result in the loss of this habitat within the SPA. **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.
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
		Lax-flowered sea lavender Limonium humile Eelgrasses Zostera angustifolia, Z. marina and Z. noltei. 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, Tringa totanus tetanus. Species with peak counts in winter: Dark-bellied brent goose, Branta bernicla bernicla; Northern pintail, Anas acuta; Grey plover, Pluvialis squatarola;		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.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Red knot, Calidris canutus islandica; Dunlin , Calidris alpina alpina Black-tailed godwit, Limosa limosa islandica; Common redshank, Tringa totanus tetanus.		
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 Sterna albifrons 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. The Colne Estuary is an integral component of the phased Mid-Essex Coast SPA				
Colne Estuary (Mid-Essex Coast Phase 2) SPA	2701.43	Annex I populations of the following species: During the breeding season - • Little Tern *Sterna albifrons* Over winter - • Avocet *Recurvirostra avosetta* • Golden Plover *Pluvialis apricaria*	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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		• Hen Harrier *Circus cyaneus* • 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 - • Dark-bellied Brent Goose *Branta bernicla bernicla* • Redshank *Tringa totanus* • The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl	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.	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. **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. **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

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				overview of the relative sensitivities of different habitats, species and locations to different types of development. **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. **Invasive species** – An increase in Pacific oyster *Crassostrea gigas* 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. **Fishing** – Recreational bait digging may impact waterbirds e.g. by reducing prey

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				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. **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.

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	Ramsar criterion 1 The site is important due to the extent and diversity of saltmarsh present. Ramsar criterion 2 The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species. Ramsar criterion 3 This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain. Ramsar criterion 5	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
		Assemblages of international importance: Species with peak counts in winter: 32041 waterfowl (5 year peak mean 1998/99-2002/2003) Ramsar criterion 6 Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter: Dark-bellied brent goose, Branta bernicla bernicla; Common redshank, Tringa totanus tetanus.		

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	Supports the following internationally important waterbird assemblage: *Podiceps cristatus*; Great crested grebe (Non-breeding) *Phalacrocorax carbo*; Great cormorant (Breeding) *Cygnus olor*; Mute swan (Non-breeding) *Anas penelope*; Eurasian wigeon (Non-breeding) *Anas strepera*; Gadwall (Non-breeding)	With regard to the individual species and/or assemblage of species for which the site has been classified: Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore:	**Siltation** – high sediment load in reservoir inflow due to agricultural practices within catchment. **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. **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.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Anas crecca; Eurasian teal (Non-breeding) *Anas clypeata*; Northern shoveler (Non-breeding) *Aythya ferina*; Common pochard (Non-breeding) *Aythya fuligula*; Tufted duck (Non-breeding) *Bucephala clangula*; Common goldeneye (Non-breeding) *Fulica atra*; Common coot (Non-breeding) *Pluvialis apricaria*; Habitats golden plover (Non-breeding)	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.	**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

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

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: • 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;	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)	• 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: • 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
		• damselfly Lestes dryas; • flies Aedes flavescens, Erioptera bivittata, Hybomitra expollicata ; • spiders Heliophanus auratus and Trichopterna cito; • beetles Baris scolopacea, Philonthus punctus, Graptodytes bilineatus and Malachius vulneratus; • flies Campsicemus magius, Myopites eximia; • moths Idaea ochrata and Malacosoma castrensis; • spider Euophrys. Supports a full and representative sequences of		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		saltmarsh plant communities covering the range of variation in Britain. Supports the following internationally important wildfowl assemblage: • Dark-bellied brent goose, Branta bernicla bernicla; • Grey plover , Pluvialis squatarola; • Dunlin , Calidris alpina alpine; • Black-tailed godwit, Limosa limosa islandica; • Habitats golden plover , Pluvialis apricaria apricaria; • Common redshank , Tringa totanus tetanus.		